

Crew can agree on one thing: Success

Unhappiness amid

By **BRUCE BENSON**
Advertiser Staff Writer

PAPEETE, Tahiti — The elements of the Hokule'a's trip to Tahiti that probably will be construed as successful were the navigation and the design of the voyaging canoe, according to many in the 17-man crew.

Just what to make, however, of the rancor and the bickering among the men is something that the crew cannot agree upon.

There was unhappiness amidst the elation of the sailors as they stepped ashore Friday morning to a jubilant welcome on their arrival from Hawaii.

THE HOKULE'A crew had sailed 3,000 miles in 35 days using Polynesian navigation and a vessel of an ancient design.

The canoe showed that while William the Conqueror was crossing the English Channel in the 13th century, Polynesians were capable of sailing at will across an entire ocean — just as their legends recount.

One of the biggest incidents to cast a cloud over the crew's spirit occurred on the last day out after Hokule'a had left her first landfall of Mataiva Atoll and before making her final stop at Tetiaroa Atoll en route to Papeete.

Initial reports say that champagne was brought to Hokule'a's crew by a boat that came out to greet her before she arrived at Tetiaroa.

After receiving champagne, one

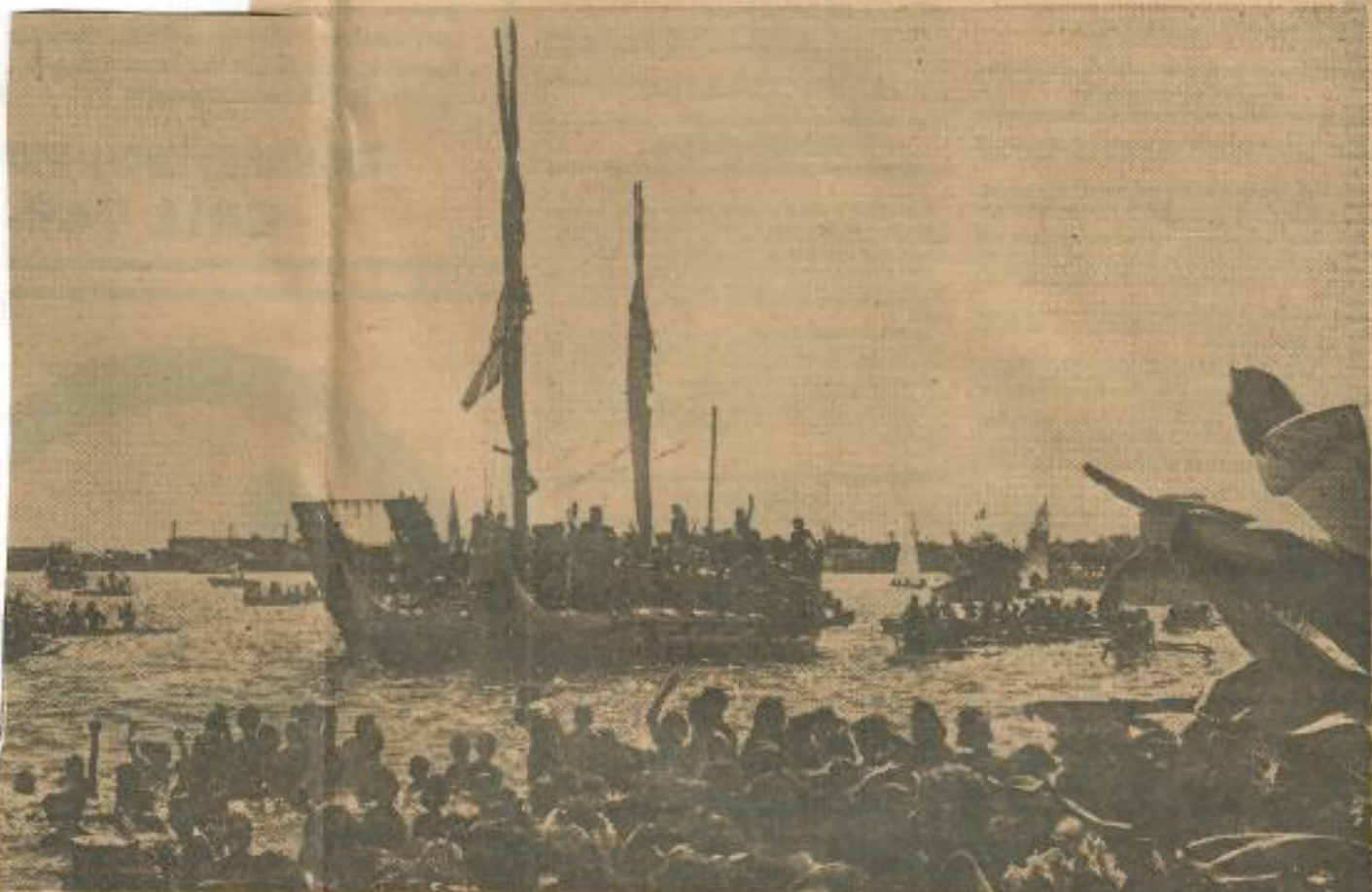


Hawaiian threw punches at three or four of the crew—most of them haoles.

Egos were badly bruised in the

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joy aboard Hokule'a



Advertiser photo by Bruce Benson, through courtesy of Don Baker of KOMO

Hokule'a's arrival in Papeete: A festive occasion, despite some bad feelings among crew.

fight, but there were no signs that anyone had suffered serious physical injury.

One Papeete newspaper put this

headline on a story. "Hand-to-hand combat aboard Hokule'a."

THE CREW scattered yesterday,

resting and relaxing before taking up the problems of a return voyage to Hawaii.

Most of those who sailed down will fly back.

They also must await confirmation from Micronesian navigator Mau Piailug that he will navigate Hokule'a back to Hawaii.

It was Piailug's seamanship that directed the vessel without instruments in what certainly will be regarded as one of the great voyages of modern times.

Piailug is not a talkative man, and

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Hokule'a: Tro

Advertiser reporter Bruce Benson returned from Tahiti yesterday after covering the arrival of Hokule'a and the controversy that followed. Here is his account of the trip, its significance and its problems.

By **BRUCE BENSON**
Advertiser Science Writer

The voyaging canoe Hokule'a has become a story of frustration born of success.

It's a tale of an idea that worked, of a few who acquitted themselves with honor and dignity and of others who failed to lesser or greater degrees.

All in the crew lauded Mau Piaiug, the Micronesian navigator

from Satawal atoll, without equivocation. He took the 60-foot double-hulled sailing vessel from Maui to Tahiti without modern instruments.

He navigated in the way that Polynesians must have used when they first started such voyages between southern and northern Polynes-

commentary

sia more than a thousand years ago.

But he did it with crewmen who, despite pledging to leave their differences on shore and follow Piaiug's lead at sea, were unable in some measure to work together.

JUST HOW LARGE A measure?

The only one who seems able to speak with authority is Piaiug himself and he flatly pronounced it a "bad crew." He said it seemed likely that those chosen to sail Hokule'a back to Hawaii also would turn into a bad crew.

Piaiug singled out three aboard for honor. They are Shorty Bertelman of the Big Island, Sam Kalalau of Maui and Rodo Williams of Tahiti. Bertelman and Williams are part-Polynesian. Kalalau is a full-blooded Hawaiian from Hana.

The Micronesian made a tape recording of his feelings and had it delivered to the crew Monday evening. Although he was supposed to navigate Hokule'a back to Hawaii, he instead boarded a plane to return

The Honolulu A

Hawaii's Prizewinning Newspaper

abled triumph

to his home and family on Satawal.

AS FOR WHAT exactly unfolded on the long voyage to cause the canoe to lose her navigator, no one else is in a position to say with certainty — including those who made the trip.

Different people associated with the Polynesian Voyaging Society give startlingly different accounts of what occurred during 35 days of primitive living at sea.

Some say that antagonisms can be traced directly to the hardship of 17 men facing difficult conditions on a platform no larger than the small living room of a small apartment.

Other shortcomings are harder to understand. Reports that Hokule'a

inadvertently received information at sea indicating its position are true, according to the relief captain David Lyman and a crew member Dr. Ben Finney, an anthropologist.

BUT EACH ALSO denied that any of the information ever reached the ears of Pailug, or of Williams or Dr. David Lewis, who also were serving as navigators.

Pailug, Williams and Lewis also denied ever hearing any information telling them where Hokule'a stood as she attempted to navigate the trip using only the kind of knowledge that ancient Polynesians could have possessed.

Pailug is a man of great stature in his homeland. He is respected as

one of a handful of people who still can navigate great distances in the old manner. Since he was 6 years old, he was trained to become a navigator for what is still a profession in Satawal.

WILLIAMS WAS aboard the canoe actually to pilot the vessel through the Tuamotos and Society Islands once she reached those latitudes. He enjoys broad respect in Tahiti as a captain who has worked the South Seas in the copra trade.

Lewis, a medical doctor, has circumnavigated in small boats. He wrote the book, "We the Navigators," based on personal experiences of sailing with Micronesians and

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Hokule'a crew agrees on success but unhappy incident is recalled

From Page 1

yesterday he had not committed himself about the return trip. He is the only one who could direct the ship back home without instruments.

ANOTHER navigator aboard is Dr. David Lewis, a New Zealand seaman who has sailed with Micronesians and Polynesians in the last 10 years to document what has turned out to be a highly sophisticated navigational ability previously unknown to the Western world.

Lewis has other sailing commitments and definitely will not make the return trip. Nor will Rodo Williams, the Tahitian navigator who came down to orient Hokule'a when she arrived in these latitudes.

Lewis said those aboard were most concerned about unexpected windshifts from the south in the last days of the trip.

The effect of the shift coupled with swells from unexpected directions carried Hokule'a a good distance westward as she ran south.

Lewis said the canoe was about 30 miles off the estimated latitude and appropriately 100 miles off the estimated longitude.

But even if Hokule'a had sailed past Tahiti and other islands of the Society group, the sailors still would have known their position well enough to move back up north, he said.

Lewis said there are no appropriate stars directly overhead at Tahiti to determine one's north-south position in the old manner.



Advertiser photo by Bruce Benson, through courtesy of Don Baker of KGBS

Hokule'a crew member, bedecked in leis, returns greeting from welcoming crowd.

The strategy of navigator Paialug, he said, was to continue south another four days if necessary and fall beneath the clearly known Venus.

Then, Paialug would have tacked the vessel in back to Tahiti.

Such a strategy would have added 10 days or more to the voyage, per-

haps, said Lewis, but would have been quite feasible since Hokule'a is able to sail into the wind, overcoming both wind and current.

In Wire Service Interview

Hokule'a Crew Admits Getting Accidental Aid

By Keith Haugen
Star-Bulletin Writer

Hokule'a crew members in Papeete, Tahiti, told United Press International they did accidentally learn they were off course during the 34-day voyage from Hawaii.

They said they overheard the information in a radio message.

Capt. Bob Birk, skipper of the escort vessel Meotai, told newsmen it was possible but he wasn't aware of it.

"We can't confirm it. We can't deny it," he said in answer to repeated questions about the apparent slip-up.

NAVY CHIEF Petty Officer William P. Myerson, who maintained

daily contact with the Meotai through the Navy-Marine Corps MARS (Military Affiliate Radio System) here, said he had had no communications directly with the Hokule'a.

"The only way I could see Hokule'a got the information is that the Meotai was talking with Honolulu (with Myerson) and simultaneously talking with the Hokule'a.

"There were no restrictions on my conversations with Meotai," Myerson said.

"I'm not denying that Hokule'a received information. If somebody (on the Meotai) left their transmitter open it is very possible they got information, but not through me.

"They may have overheard my voice, but not through any fault of mine."

THERE WERE contingency plans that called for alerting the Hokule'a in the event the canoe was too far off course and it was certain the canoe would miss Tahiti completely. But to the best of his knowledge the plan was never put to use, Myerson said.

Birk, interviewed in Tahiti by Al Prince, editor of Otahiti magazine, called the venture a "real success." When the canoe began to drift too far west, he told Prince, "I wasn't worried about it, and I told Honolulu so."

Birk told Prince, however, that several attempts were made from Honolulu through Myerson to tell the canoe where it was, but that he (Birk) resisted all such attempts.

COULD TAPES of the Honolulu-Meotai conversations have been passed to the Hokule'a in a slip-up?

Birk told Prince he wasn't aware of it, but that it could have happened.

Members of the crew also acknowledged earlier reports of dissension during the voyage. Even the successful conclusion did not lessen tension, and a fist fight reportedly broke out on the canoe the day before it landed in Papeete.

Asked if the problems were between the Hawaiian crew and the Caucasian photographers, a crew member smiled and said, "Problems? What problems? There was a fist fight, that's all."

THERE HAD been reports earlier that some of the part-Hawaiian crew members objected to having persons on board who did not have Hawaiian blood.

Although the crew was captained by a pure Hawaiian, Kawika Kapahulehua, most of the crew members were part-Hawaiian.

The Hawaiian or part-Hawaiian crew members were: Kapahulehua, relief captain David Lyman, Sam Kalalau, John Kruse, Duke Kuahulu, William Richards, Shortie Bertleman, George Kalama, Buffalo Keulana and Clifford Amau.

The non-Hawaiians were Ben Finney, president of the Polynesian Voyaging Society, and Tommy Holmes, both of Hawaii; David Lewis of New Zealand; Pius "Mau" Pialiug of Micronesia; Rodo Williams of Tahiti; Nicholas DeVore, a National Geographic Society photographer; and WQED-TV cameraman Norris Brock of Pittsburgh.

KAPAHULEHUA, in a televised report aired on KGMB here last night, acknowledged there had been dissension.

He said he attempted to mediate the differences because the crew's safety and the success of the voyage were uppermost in his mind.

The television news team, in Tahiti to cover the arrival and festivities that followed, said the dissension remained even after the arrival.

The report said Hawaiian and non-Hawaiian crew members sat apart during an awards ceremony and one non-Hawaiian crew member was booed when he received his award.

Meanwhile, the replacement crew — including two women — are already in Tahiti and preparing for the return voyage to Hawaii.

But they may make that voyage without Piailug, the Micronesian navigator on the trip to Tahiti. And they may use modern navigational instruments for the return trip.

Society directors Rudy Choy and Herb Kane were to fly to Tahiti today to help make arrangements for the return voyage — scheduled to begin in about a month.

One of the principal objectives of the voyage, made by a 15-man crew and two photographers, was to prove the accuracy of ancient navigational systems. The canoe carried no modern navigational equipment.

Crew members said the Hokule'a was off course, but corrected the course after inadvertently overhearing a report on its position given by the Navy-Marine MARS to the Meotai, according to UPI reports. The crew heard its position over a citizens band radio that allowed communication between the Hokule'a and the escort vessel.

A SPOKESMAN for the voyage, interviewed in Papeete by the UPI, said the information overheard enabled the canoe to alter its course to the east and arrive Friday at the island of Mataiva, about 170 miles north of Papeete.

However, both the spokesman and members of the escort vessel said the Hokule'a's previous heading indicated the canoe would not have veered far enough off course to miss the Society Islands altogether.

They said the craft would have reached Bora Bora, 250 miles west of Tahiti, and from there could have made its way to Papeete easily.

BIRK SAID the canoe led its escort vessel all the way.

"All we did was follow it," he told Prince. "We never gave them any information. We never gave them encouragement, but we never discouraged them."

No More Fighting on Hokule'a, Kane Vows

By Keith Haugen
Star-Bulletin Writer

Herb Kane, who conceived the Hokule'a voyage and designed the canoe, left for Tahiti last night with a pledge that he would replace the entire crew, if necessary, to ensure the return voyage is not disrupted by disagreements and fights among the crew.

The 34-day voyage from Honolulu, Maui, to Papeete was heralded as a success, but was marred by disagreements between part-Hawaiian and non-Hawaiian members of the crew.

The dispute reportedly led to a fistfight one day before the arrival in Tahiti.

Kane, a vice president of the sponsoring Polynesian Voyaging Society, said he is "prepared to keep the boat in harbor" and delay the return voyage rather than chance any further fighting.

"The canoe will not leave port if there is any hint or smell of trouble on the new crew," Kane said before leaving Honolulu.

He said he would take each crew member aside, both those who were

on the crew going down to Tahiti and those who have been picked to sail the Hokule'a back to Hawaii around the end of this month.

Kane said he would remind each of the importance of the project — a Hawaii U.S. Bicentennial project — and that the whole world is watching them.

Meanwhile, in Tahiti, Capt. Kawika Kapahulehua, who skippered the canoe on its 3,000-mile voyage to Tahiti, said he would take a smaller crew on the homeward journey.

"Seventeen persons is too many," Kapahulehua told a United Press International reporter. "On the return there will be 15 of us."

The replacement crew — including two women — is already in Tahiti, preparing for the return voyage.

Pius "Mau" Pisilug, the Micronesian navigator whose knowledge of the stars, winds and currents enabled the Hokule'a to sail to Tahiti without modern navigational equipment, already has left Papeete and will not be on the return voyage.

He left yesterday for his home island, reported to have been hard-hit by Typhoon Pamela.

Kapahulehua also told UPI the

double-hulled canoe was too big and too heavy. He would have preferred a wider canoe, he said.

"The crew, especially the Europeans, suffered at first from the Polynesian food," Kapahulehua said. "Luckily we caught a lot of fish. We also suffered a lot from being tired and wet."

"It was difficult to sleep, even on the bridge, when water kept splashing on us, so much so that after 10 days of travel nobody felt very playful."

Kapahulehua said the canoe left Hawaii carrying 272 gallons of water, gathered 42 gallons of rain-water during the voyage and arrived in Tahiti with 22 gallons remaining.

And in Tahiti, plans are going ahead for a trip in a similar double-hulled canoe to Honolulu in two years to commemorate the 200th anniversary of the discovery of Hawaii by Capt. James Cook on Jan. 18, 1778.

The Tahitian canoe will be made entirely of the natural materials used by the ancient Polynesians, however, unlike the Hokule'a, which has a fiberglass hull, nylon lines and sails of a nonnative material.

Hawaii Rep

Hawaii



Unres ' . .

By MARY COOKE
Advertiser Staff Writer

It was a low-key homecoming yesterday for the first four Hokule'a crew members to return to Hawaii after their voyage to Tahiti.

Sam Kalalau, Buffalo Keaulana, Dukie Kuahulu and George "Boogie" Kalama were met at the airport by a handful of friends and relatives and Polynesian Voyaging Society directors Ben Young and Paige Barbour. There were a few leis for them, but no music, no official greeting and no speeches.

While reporters and photographers waited at the customs gate, the returning voyagers were whisked out of the customs area through a rear door and taken to the Governor's Lounge for a private reunion with their families.

Robert Duncan, the governor's press secretary, said it would be up to the crew members to decide whether they would talk to reporters.

WHEN REPORTERS, were finally admitted to the Lounge, it was obvious that crew members had been briefed — or had decided among themselves — to "keep in the family" details of reported dissension on the canoe.

"No comment" was the answer to most direct questions about reported trouble between Hawaiian crew members and the scientists and photographers aboard.

Asked what the scientists and photographers did that "bugged" the sailors, Keaulana said: "Maybe a

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HOKULE'A



VOIR PAGE

L'ACCUEIL DE TAHITI UN EXPLOIT AUSSI



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★★ Thursday, June 10, 1976 A-3

st on Hokule'a . was no big war'

guy gets in the way when you're pulling ropes, and if he doesn't move he's going to get hurt. Like when you're steering, too, you can't see when somebody's blocking the way. That's all. There was no big war."

"We made it," Kalama said. "That's the good part. We did it for all Hawaii and Hawaiians and all Polynesians. Too bad Captain Cook wasn't there."

OF REPORTS that haole and Hawaiian crew members did not sit together at an official reception in Tahiti, and that one Hokule'a voyager was booed, Kalama said, "It was so big, there were so many people there, we couldn't all get to one place at first. Half the crew wasn't even there. Some of them were sick."

Keaulana said there was so much noise "you couldn't hear who was booing who."

Said Kalama: "People have got to look at it this way. We're all Hawaiian at heart. The haoles on board, hopefully they felt they were part of Hawaii, too. There was dissension only in what people wrote."

What about reports that Hokule'a received information she was off course, enabling her to correct her

position to make her first landfall at Mataiva?

"NO, WE DIDN'T hear our position," said Kuahulu. "The captain received all messages for the canoe. We never heard that."

"We came all the way with Mau (Pialug, the Micronesian navigator who guided the canoe by means of stars, winds and currents). Mau made all the decisions," said Kalama, who added that he was never aware that the course of the canoe was corrected by other means.

Asked about the night they were reported to have sighted bonfires lighted by Mataiva islanders to guide the canoe to shore, Buffalo said, "There were no bonfires. We're lucky we never went aground."

"Dukie and I were on the starboard side, looking on the horizon. We saw a dark spot, like the wind was blowing up the water. It kept getting bigger and bigger."

"We woke up Mau. Mau rubbed his eyes and looked. We asked him, 'What's that thing?' That was Mataiva."

"WE ALL LOVE that man, Mau. He taught us so much, like all the ways to use coconuts—make fire, use the shell to scrub the side of the canoe. We even used the husk for toilet paper."

Mau Pialug left Tahiti this week to return to his home in Micronesia. Asked if he may return and join Hokule'a for the return voyage to Hawaii, Buffalo said "Mau is a straight man. When he says pau, it's pau."

Why was Mau "pau"?

"No comment."

TIGER ESPERE, who had flown to Tahiti to join the Hokule'a return voyage crew, arrived with the four crew members. The explanation: "Tiger had to come back because he lost his job."

Keaulana's left foot was bandaged and he walked on crutches, the result of an accident when he was chopping wood with a machete.

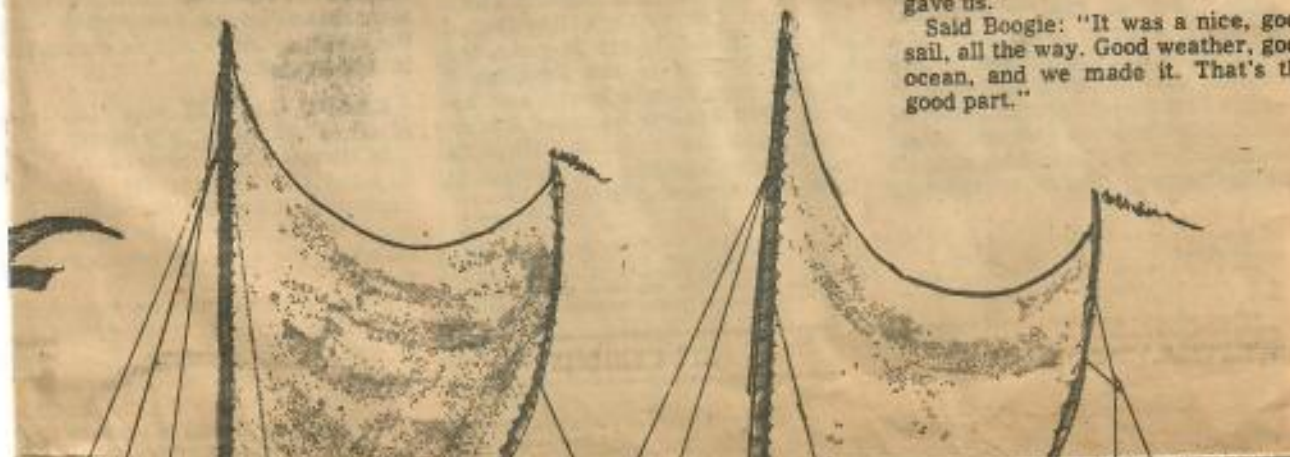
None of the men appeared to have lost much weight. Keaulana's face showed some strain, possibly because of pain from his foot injury.

THE MEN SAID that besides sailing the canoe they spent their days and nights "talk story, sing, laugh, catch fish."

"We were not worried too much," said Buffalo. "We watched Mau. If he slept, we slept. Mau watched the sky. If he put on the raincoat, we put on raincoats."

"When we got to Mataiva it was so wonderful. The people were poor but they gave us plenty of good food. Whatever they had to share, they gave us."

Said Boogie: "It was a nice, good sail, all the way. Good weather, good ocean, and we made it. That's the good part."





Hokule'a's arrival in Tahiti was heralded by the island's French language daily newspaper, *Le Journal de Tahiti*, with an edition Saturday that devoted nearly all of its space to the story of the canoe.

Front page photographs showed Hokule'a being escorted

by dozens of canoes and being greeted by thousands of Tahitians. The islanders were proud of their reception. The headline proclaims: "The welcome of Tahiti (is) also an achievement."

The coverage even included a whimsical "interview" with Hoku the dog.

Voyage: Frustration

From Page 1

Polynesians using non-Western techniques. Most recently he attempted to circumnavigate Antarctica in a single-handed voyage that almost cost him his life.

Given the trio's background, there isn't any reason to believe that they would lie about hearing position reports on the trip. Yet it was the playing of a radio by some crew members that put the navigators in the position of denying an incident instead of receiving unequivocal praise for what undoubtedly must stand as a striking navigational feat.

KIMO HUGHO, who wasn't aboard the canoe but who along with crewman Billy Richards is a leader in demanding that Hokule'a remain a strongly Hawaiian project carried out by Hawaiians, said the radio was

a small transistor model, operated on batteries that had been aboard the canoe for months before ever leaving Hawaii.

Relief captain Lyman said that one or more newscasts heard at sea indicated to those listening to the radio where the canoe was and her general progress.

Lyman, also part-Hawaiian, said that a part of the crew played the radio often at low volume inside the hale, or thatched shelter on the deck.

HE SAID HE realized that the presence of the radio could reduce the prestige of the canoe's navigation but said he didn't attempt to get it turned off or thrown into the sea because he believed he might be personally threatened if he did so.

Lyman said he believed that the half dozen or so crew members who played the radio did so simply be-

cause they were non-sailors in a strange environment who enjoyed listening to music while at sea.

Several crewmen, both haole and Hawaiian, complained that some in the crew refused to pull their share of sailing duties. There was unanimity in reports that a handful smoked marijuana heavily and often declined to get up and stand their watches.

THUS IT SEEMS that not all those aboard Hokule'a can say they sailed the vessel to Tahiti. Instead, some were simply aboard a canoe as non-sailors on a voyage that basically was a success, losing the respect of the Micronesian they had vowed to follow.

It was an irony of the trip that many of the crew felt unable to stand behind Capt. Kawika Kapahulehua, who, along with Kalalau, was the only other full-blooded Hawaiian aboard.

When the crew heard Pialug's tape Monday, telling of his disappointment and bidding them good-bye, Hughho said that he and Richards lunged at the captain. Kapahulehua was unharmed but he had been one of four who were slugged in a brief flare of violence on the canoe its last day out of Papeete.

THE OTHER THREE were Finney, who also is president of the sponsoring Polynesian Voyaging Society, Lewis and National Geographic Society photographer Nicholas de Vore. Only Finney was hit hard.

Kapahulehua said he was disappointed that some on the canoe failed to understand why he didn't take their side in a racial split between Hawaiians and haoles. But he said his uppermost concern was to bring the crew and vessel to the destination in safe condition.

Other influences on the voyage included the presence of the escort yacht Meo Tai and its ability to com-



Advertiser photo by Roy Ito

Hokule'a crewman "Boogy" Kalama gives the shaka sign as "Auntie Becky" Kalama hugs him on arrival in Honolulu.

born of success

municate by powerful radio with Honolulu.

KALALAU, ONE of the few whom Piailug praised, said he saw some hard feelings arise as leaders aboard the canoe communicated by short-distance radio to Meo Tai, forwarding messages to Honolulu and receiving messages back.

Perhaps inadvertently, those on the canoe's little two-way radio seemed to be secretive in their talks with Meo Tai, causing those in non-leadership positions to become suspicious of what was going on at times, according to Kalalau.

It turned out that extensive message sending and receiving became the order of the day as the trip continued, in itself causing needless complications.

The same message sending was pointed to in some reports as a source of receiving position reports from Honolulu, although all such reports were supposedly screened out before leaving Meo Tai for the canoe.

STILL OTHER agitating edges to Hokule'a's journey included the presence of the National Geographic Society journalists who are writing and filming the venture.

They ordinarily kept a low profile, but two photographers were on the canoe, a bevy were aboard Meo Tai

and others were on shore at both Maui and Tahiti.

They agreed that Hokule'a and her sailors would have enjoyed a simpler time of it without film crews, the continuous presence of expensive equipment and frequent excitement generated by buzzing airplanes, helicopters and chase boats.

But the Polynesian Voyaging Society needed a financial contribution from National Geographic toward the trip and also wanted the coverage it ultimately will provide.

MONEY WAS AND remains a major hangup in the entire effort, which has cost more than \$100,000 to date. Although seemingly a lot, the money has come in at a nickel-dime-quarter trickle, sometimes straining personal relationships both among crew and PVS leaders as well.

Even at this time, people are boarding airplanes for Tahiti without knowing until literally the last day whether there is enough money in the society's till to pay for the tickets. Getting crew back from Tahiti by plane, if necessary, probably is going to be a problem.

Finally, trying to put an honest design of an ancient canoe to sea by committee has led to sometimes amazing changes in direction and to contradictory instructions.

MANY IN THE CREW think a

faceless committee system has helped set off an "us against them" feeling. The "us" has come to mean Hawaiians and the "them" a well-educated, science-oriented cadre from the upper middle-class who can't understand why Hawaiian people can't appreciate their experiments.

The canoe was built to give Hawaiians an object on which to focus racial pride in the way the Polynesians spread their culture across an ocean at a time when Western sailors were timid in comparison.

PERHAPS THE pride has led to a point where it becomes misplaced. Or maybe the canoe stands as a parable for contemporary Hawaii.

The Tahitians of Tahiti remain largely unaware of the problems of getting Hokule'a to their islands. Instead, they see the vessel as a reminder of their Polynesian selves.

They are remembering simply by singing. Trinket sellers by the public wharf last week closed up shop for lunch, got out their guitars and began singing countless Hokule'a songs.

They were singing for themselves. They were having a genuinely good time. The Tahitians are delighted with the canoe and maybe are telling everyone something — if only we can stop and understand.

Tahiti



equipped to the lounge, it was obvious that crew members had been briefed — or had decided among themselves — to "keep in the family" details of reported dissension on the canoe.

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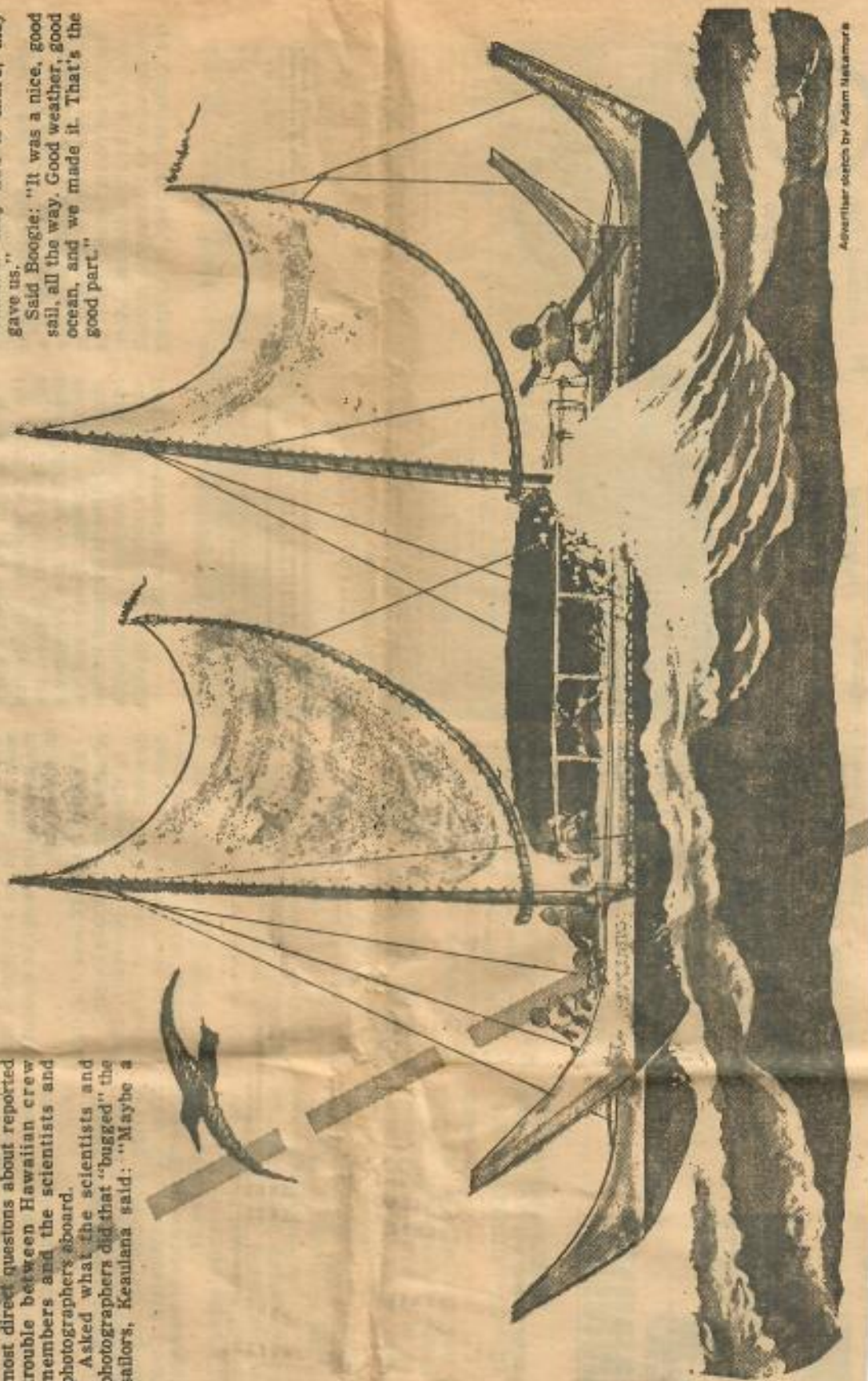
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Advertiser sketch by Adam Hakamure

Star-Bulletin

PAGE 2

Repeat of Hostilities Feared

Hokule'a Return Voyage

By Keith Haugen
Star-Bulletin Writer

What started out to be one of the most ambitious Bicentennial projects undertaken in Hawaii has turned out to be a public relations nightmare.

In spite of the success of the Hokule'a voyage to Tahiti, most of the people involved with the project have had to be very careful what they say about the voyage. And there still is a question about whether or not the canoe will be sailed back to Hawaii.

And if it is sailed back, it may well be with the use of modern navigational equipment and not the stars, winds and ocean currents as originally planned.

EVEN THE RETURN yesterday of four of the 17 crewmen who made the 34-day voyage from Honolulu, Maui, to Papeete, Tahiti, was marked with qualified answers to news-men's questions and occasional "no comments" as reporters sought facts regarding a fight that reportedly broke out on board the canoe.

The crewmen also were reluctant to discuss the dissension among the crew and photographers on board the vessel. And all four denied hearing a radio report of their position, a fact already attested to by other crew members in Tahiti.

"their (crew members) own wishes."
"We're not manipulating this at all," he said of the operation.

"If they want to talk to you, it's up to them and entirely okay with us.

"We're only involved because they're using the Governor's lounge."

WHILE THE RETURNING crewmen wanted privacy and did not want to talk with newsmen, they consented to a brief news conference, then refused to comment on several of the more touchy issues.

And in Tahiti, Al Prince, editor of Otahiti magazine, reported the "whole thing is coming apart at the seams."

Ben Finney, president of the Polynesian Voyaging Society and a member of the crew, depressed by word that his mother had died, left Tahiti without comment.

Police said he had requested police protection for himself and his wife, saying his life had been threatened by a fellow crew member. A policeman accompanied them throughout the day until they left, according to United Press International.

Finney was one of the men struck during a fight on board the canoe a day out of Papeete.

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Is in Doubt

Rodo Williams, the part-Tahitian navigator who helped navigate from the equator to Tahiti, said that while he had not personally heard the canoe's position, he knew the information had gotten to some of the crew members.

HE SAID INFORMATION about the canoe's location was supposed to have been erased before cassettes were passed on to the Hokule'a crew. But one day this information was inadvertently left on the tape, he said.

However, Williams said only one of the three ethnic groups aboard listened to the tape and did not pass the information on to the others.

Yesterday's return to Hawaii also was cloaked in secrecy, with newsmen left standing outside the foreign arrivals area at Honolulu Airport while the crewmen were secreted out a back door and to the Governor's lounge for a private meeting with family, friends and State officials — all under police guards who kept newsmen away by lying about their presence in the lounge.

ONLY AFTER MUCH insistence by newsmen did Gov. George R. Ariyoshi's press aide, Robert Duncan, come out of the lounge to talk with reporters.

Duncan said the secrecy and attempt to avoid being interviewed and photographed on arrival was at

UPI ALSO REPORTED that Kenneth Emory, Herb Kane and Rudy Choy, three officers of the society who flew to Tahiti to resolve the differences, reportedly have decided to fly back to Honolulu three alleged "black sheep" accused of causing much of the dissension during the voyage.

Prince, who has been covering the event in Tahiti for the Star-Bulletin, said there is a lot of animosity built up among crew members.

AND MICRONESIAN navigator Pius "Mau" Piallug, who guided the canoe to Tahiti and who earlier had committed himself to help them on the return trip left saying he did not want anything to do with the second half of the voyage.

Piallug, who has been praised for his skills by nearly all of the crew members, left Tahiti for his home island Friday and left a taped message in which he called the others "not really seamen," according to Prince.

"It's fruitless to look for me in Honolulu," Piallug reportedly said in his taped farewell to the crew. "You won't find me there."

According to UPI, Piallug denounced the project of a return trip in his tape recording and said he would never again set foot in Hawaii.

Prince said the story of dissension is coming out piece by piece in Tahiti newspapers.

THERE IS CONCERN, he said, over whether the canoe will ever make the trip back and, if it does, what precautions will be taken to lessen the possibility of a repeat of earlier hostilities among the crew and between the crew and photographers who are documenting the voyage for the National Geographic Society.

For 34 days on the voyage to Tahiti, the 17 men—many of whom did not know each other before the trip began—worked, lived, ate and slept together in the two narrow hulls and a deck 10 feet wide and only about 40 feet long.

Even the best of friends could find total confinement in so small a space trying after a few days together.

Capt. Kawika Kapahulehua, who skippered the Hokule'a to Tahiti, already has said he favors a smaller crew. Seventeen men on that small a canoe are too many, he said.

And Herb Kane, who conceived of the voyage and who designed the canoe, is in Tahiti to try to iron out difficulties. Kane said the canoe will not leave Papeete until all problems are resolved.

THE FOUR CREWMEN who returned yesterday were Buffalo Keaulana, Boogie Kalama, Sam Kalalau and Dukie Kushulu.

Arriving with them was Tiger Espere, a relief crew member who had

flown to Tahiti to help bring the canoe back but who was forced to return to Hawaii because of personal reasons. He said he had lost his job here.

All four men said that, as far as they were concerned, they made the voyage without the benefit of any modern navigational aids. They used only the stars, winds and ocean currents to guide them.

All four repeatedly praised Piallug.

KEAULANA, HIS foot bandaged from an accident during the voyage, said the crew all watched Piallug and did whatever he did.

"If he sleeps, you sleep," Keaulana said. "You know there is nothing to worry about."

"If he puts on his raincoat, you put on a raincoat. You know a squall is coming."

Keaulana repeatedly stressed how much all the crew members had learned from Piallug.

THE MEN DECLINED to comment on reports of a fist fight on board Hokule'a just before it reached Tahiti and on reports that the trouble stemmed from arguments between the part-Hawaiians and non-Hawaiians on board.

Asked about reports that a Tahiti newspaper headlined the incident as "hand-to-hand combat," they all laughed.

"Wow," said Kalama. "They made it sound like we were at war." He declined to comment on whether any crew member struck another crew member.

Kalama said they were all proud to have been a part of the voyage. He said everyone did something for all of Hawaii.

"WE MADE IT and that's the really good part of it," he said. "We did it for Hawaii, and for everyone in Hawaii and for all Polynesians."

The men also denied the Hawaiians and non-Hawaiians sat separately during the awards ceremony. They said they knew nothing about reports that one of the non-Hawaiians was booed when he received his award from the mayor of Papeete.

"There were so many people, you couldn't hear who was booing who," Keaulana said. He said half of the crew was not present for the ceremonies — some were sick in their hotel rooms and others missed it because the bus was late.

Keaulana said the National Geographic Society photographers on board "never bugged us," but he said they were in the way at times when the crewmen were pulling on ropes and steering the canoe.

ASKED IF THAT is what caused the trouble on board, Keaulana and Kalama responded — almost simultaneously — with a question:

"What trouble?"

"We knew we all have to be one, Hawaiian and haole," Keaulana said.

He said the men were all sad when they sailed from Hawaii, but spent the first days getting used to each other, "talking story."

HE DESCRIBED being in the doldrums as "kinda spooky," and said they sang songs and laughed and joked to pass the time.

It was Keaulana and Kuahulu who first sighted land when the canoe arrived at Mataiva, some 170 miles north of Tahiti.

Asked again and again about the dissension on board the canoe, Keaulana replied:

"NEXT TIME WE should take all the reporters with us. Then they'll know what it's like to work with someone in the way."

Also returning on yesterday's flight from Pago Pago were four Hawaiian Airlines dancers and Na Keonimana, a Hawaiian quartet that flew to Tahiti to be on hand for the arrival ceremonies.

Several family members and newsmen also were among those returning yesterday.

It was not immediately known when other crewmen were to come back, or when the Hokule'a would leave Tahiti for the return voyage — IF such a voyage is to be made.



Sam Kalalou



Dukie Kuahulu



Boogie Kalama



Buffalo Keaulana

Hokule'a Fight Wasn't Racist, Kane Declares

By Keith Haugen
Star-Bulletin Writer

The fist fight aboard the Hokule'a during its history-repeating voyage to Tahiti was not racially instigated, Herb Kane said yesterday, but was simply the release of tensions built up during 34 days of what he called "voluntary imprisonment."

Kane, a vice president of the sponsoring Polynesian Voyaging Society, returned Wednesday from Tahiti after smoothing over any differences that may have resulted as a result of the fight.

He declined to name the crew member who threw the punches because he believed it might endanger that crewman's regular employment, but said the fight had nothing to do with the race of the crewman or those struck during the brief incident.

"WHEN THE MEN finally saw Tahiti there was a great need for release of tension," he said. "Unfortunately, this came at a time when a boat came out to greet them. It was loaded with champagne and against our wishes it was put on board the canoe.

"We had asked that no welcome be made at sea."

This uncorked the tensions the men had been trying to contain, Kane said.

"He (the crewman) went down the line and hit the first three guys who were in his way," Kane said. "It was not that he had anything against them, but simply because they were there."

KANE SAID THE man who threw the blows said Capt. Kawika Kapahulehua (one of the four struck during the fight) is a "nice man, in his words, a nice man" and that hitting him was just a release of tension.

"The people of Tahiti feel this is just a very, very minor thing," Kane said. "They were surprised that, given the ordeal the men went through, there was only one fist fight.

"I can take you to bars in Kalihi where there are fist fights every night."



Herb Kane

And he said Kapahulehua knew of the radio on board but allowed it in the interest of the morale of the men — most of whom had never spent so long at sea in such confined quarters.

"He felt that, for those not on the navigation team, it was a morale factor. He felt they needed it. At no time did any reports, any specific reports, come over that radio giving coordinates."

KANE SAID NONE of the navigators ever listened to the radio and that from a navigational standpoint the trip was a total success.

Adding much to the feeling of success, he said, was the attitude of the Tahitian people.

"They feel it belongs to them as well as to Hawaii," he said. There is a great feeling of the people of Tahiti toward the canoe and the people involved. They treat the crewmen as heroes — even the return crew."

Kane said the small living space on the canoe was much like a prison and contributed to this mounting tension. But it was voluntary, he said, and at any time during the voyage, any one of the crew members could have asked for transfer to the escort boat.

"BUT THEY ALL hung in there," he said.

Kane also took issue with a United Press International report that officers of the society sent three men back from Tahiti who were believed to be troublemakers among the crew.

"We did not send anyone home," he said. "We did not ask anyone to go home."

He said some of the reporting in Tahiti was subjective rather than objective and suggested that Hawaii newspapers had been used as an instrument of anti-American propaganda.

"THE DISTURBANCES that took place on the canoe were not the result of any racial differences," they were the result of physical and mental ordeals, the sailing to windward — 3,000 miles without ever letting up," he said.

"People need to understand what it is like to sail against the wind and the sea without a jib. It is the slowest kind of sailing and the most uncomfortable.

"It was incessant pounding into the swells and the constant sprays of salt water . . . getting blisters wherever clothes rubbed against the skin.

"It was a psychological as well as a physical effort. Modern sailors who have made such long voyages will tell you that six people in a 60-foot boat often is too many. Marriages can even go on the rocks before the boat gets to its destination."

KANE SAID HE felt the man showed "tremendous self-discipline" and that the crewmen were "really blown out" over the reports of the fighting on board.

"During the week I was in Tahiti there was not one incident of bad behaviour among the crew," he said. "All are making a conscious effort to pull together and make this a happy trip back."

Kane said the 12 crew members selected for the return voyage are all in training as they sail from island to island this week and we all "still in candidate status."

"The desire of all of us to have a happy voyage back to Hawaii and any crewman who feels he (or she) cannot serve with complete loyalty to the objectives of the trip may drop out (before the July 1 departure date). Or the ship's officers also could replace anybody if there is any smell of dissension among the crew. They can drop any crew member."

KANE SAID THAT the trouble itself also was "not without value."

"We now know better what the earlier Polynesians went through," he said.

Kane confirmed there had been marijuana on board the canoe during the voyage "but no hard drugs."

Kane said there was a "steady line" of people going to view the canoe each day.

"They (the Tahitians) said that even if the biggest French warship and the supersonic Concorde landed in Tahiti at the same time as the Hokule'a, there is no question about what the Tahitians would go to see. The canoe."

They're Due to Leave July 1

Hokule'a Men Hope for Smoother Sailing Home

By Al Prince

Special to the Star-Bulletin

PAPEETE, Tahiti — The Polynesian double canoe Hokule'a will leave here July 1 for its return trip to Hawaii with a shorter voyage ahead, all modern food, a smaller crew and, hopefully, fewer hassles aboard.

But in Hokule'a's wake and waiting for it in Hawaii is a growing controversy over the "purity" of the historic voyage — a 3,000-nautical-mile journey along the longest of ancient Polynesian sea lanes, sailing as nearly as possible under the ancient conditions.

The critics, or skeptics, call the entire voyage a hoax, claiming it has been encumbered by 20th century technology and knowhow, such as the construction of the hulls, the use of an escort yacht and communication between the trailing yacht and the canoe.

TO ALL OF THESE critics, Herb Kane, Polynesian Voyaging Society vice president, says that some people would not be satisfied with the purity of the Hokule'a voyage unless the bodies of the ancient Polynesian sailors were exhumed, brought back to life and placed on the canoe for the voyage.

Meanwhile, the biggest problem in preparing for the return voyage will be for the Polynesian Voyaging Society of Honolulu to politely as possible cut down on all the scheduled Tahitian hospitality here so that the Hokule'a can leave French Polynesia by July 1.

trip under the same restrictions as the voyage to Tahiti, Kane said. That means no modern navigation will be used, the crew relying on the sun, stars, wind and currents the way their ancestors did. The modern yacht Meotal will make the escort trip back, hopefully with repaired radar and RDF (radio direction finder), so that the canoe will always be out of sight.

Kane described the navigation and sailing aspects of the trip back in one sentence: "Sail hard to the wind, close hauled or up wind, however you want to call it, until the stars Hokule'a (star of gladness), or Arcturus, Sheratan or Pleiades (Makali, or little eyes in Hawaiian) pass directly overhead in their nightly arch east to west, then head down wind and you'll hit the Hawaiian chain."

THE VOYAGE FROM Hawaii to Tahiti was a lot more difficult, he said. "This canoe's been pounded for 3,000 miles into the wind, and the crew's been pounded also."

That pounding, the 10 days instead of the expected five spent in the doldrums and the varying social and economic backgrounds of the 17 persons on board contributed in a large measure to the tensions and personality clashes that occurred on the trip to Tahiti, Kane indicated. "There were a lot of tigers with diverse backgrounds. We did expect that there might be some problems because of the diverse backgrounds of the people on board."

learn to crawl before you learn to walk. We don't claim to be the experts like the ancient Polynesians. They had skills we don't have today. Varsdy doesn't understand the process of cultural retrieval. It can't be done all at once. We're taking it a step at a time instead of trying to do it all at once," Kane said.

As for the construction of the Hokule'a's hulls, he said, "I don't think our hulls were any stronger than the old (ancient) hulls." And contrary to some critics' thinking, he said, the Hokule'a's hulls were not made entirely out of fiberglass. They were made out of laminated marine plywood and given a protective fiberglass coating. This is similar, he said, to the ancient method of coating wooden hulls with candlenut oil. The major difference is that the Hokule'a's hulls will last longer than the ancient hulls, Kane said.

THE "PURITY" CRITICS often refer to the Kon Tiki raft voyage of Thor Heyerdahl as a better example of a "pure" voyage. Kane does not agree. He said the Kon Tiki "was a raft with a European sail designed for sailing down wind. There was nothing authentic about the Kon Tiki." The Hokule'a was 10 times more authentic than the Kon Tiki because there was no precedent for the Kon Tiki sail plan.

Another "purity" criticism involves the use of the 64-foot escort yacht Meotal. "The crew is all willing to sail the Hokule'a back without the Meotal," Kane said.

When the Meotal's radar and RDF

Some of the crew members are getting anxious to get back to their jobs in Hawaii, and there is the more important consideration of weather conditions. Kane said shortly before departing for Honolulu Tuesday night, "All our advice from meteorologists has been to leave here as soon as possible. We're literally endangering the return voyage by staying here too long. The good winds for sailing are not going to last much longer, and we operate on wind and weather.

"IT'S SOMETIMES very hard," Kane said, "in the 20th century to convince people that we can't operate on a rigid schedule. We would like to pare a week off that (proposed schedule of activities here), but not because we don't like the hospitality."

But if the Tainui Association, the Polynesian Voyaging Society's sister society here, had its way, the Hokule'a would be here for at least another four weeks. A firewalking ceremony will be performed here tonight for the return crew. The Hokule'a came out of dry dock today after some minor repairs and will sail to the district of Mataiea Friday night. Plants that were brought from Hawaii on the canoe will be planted in Mataiea, and a party will follow.

The Hokule'a is scheduled to depart Mataiea Sunday for the district of Tautira on the peninsula of Tahiti-Iti, where Tahiti's best outrigger canoe racers live. Another party will be held there. But before the Hokule'a leaves Tautira a new fare (the Tahitian word for house), designed by a Tahitian architect working with Kane and built by Tautira carpenters, will be placed aboard the canoe.

ON SUNDAY, THE Hokule'a is scheduled to leave for the island of Raiatea, where another big welcome and more celebrations are planned. This will be one of the most important visits for the Hokule'a. According to legend, it was from Raiatea that the ancient Tahitian priest Pao sailed to Hawaii and eventually took over the Island, bringing the religion from Raiatea with him.

The canoe is scheduled to sail back to Tahiti on June 26, probably under tow because the trip for any sailing craft is usually a hard beat into the wind.

Twelve persons, including two women, are to make the return trip to Hawaii, which is expected to take about 25 days, a bit shorter than the 34½-day voyage to Tahiti. All the returning crew members are new, except skipper Kawika Kapahulehua. Kane said it is possible that John Kruse, who made the trip to Tahiti, may be the 13th member of the returning crew because of his skills as a sailor and carpenter.

Among the Hawaiians, scientists and photographers on board, "there were different points of view about the objective of the trip. It became a problem primarily toward the end of the voyage," Kane said.

AS ONE CREW member who will be making the return trip put it, "There was too much power on that canoe." He said the crew taking the Hokule'a back is younger and has more Indians and fewer chiefs.

But for better or worse, the problems of the first leg of the historic voyage are part of history, and the attention is now focused on the return trip as well as the accomplishments of the first leg.

Kane said the trip to Tahiti proved that "the Polynesian hull design and sail plan are capable of making enough easting to hit Tahiti from Hawaii without using instruments." How important is that? "To the anthropologist, this is goddamn exciting news."

It is also important, he said, "to the Hawaiian or Tahitian student of history who wants to confirm that his legends are based on probability."

Although the experiment of eating only traditional Polynesian foods lasted only two weeks, a lot was learned from that and will be reported later by Dr. David Lewis, who made the trip to Tahiti, Kane said.

ONLY MODERN FOODS will be used on the return voyage, including 400 pounds of dried fish. Some plants will be taken from Tahiti to Hawaii to be planted in the Botanical Garden there. Kenneth Emory of the Bishop Museum is selecting the plants.

Kane said there is a lot to learn on the return voyage, "depending on how much we crank into it. The main objective is to get the canoe back to Hawaii in as comfortable and dry a trip as possible."

But regardless of the Hokule'a's objectives, the critics continue to attack the so-called "purity" of the voyage. Shortly after the canoe went into dry dock on Monday, Ralph Varady, a German author who has written several books about Polynesians during his many years of living in Tahiti, telephoned the Tahiti Bulletin, the English language newspaper. "I was more than shocked. It's a hoax. You should see the fiberglass. You should see the nails. You should see the nylon. I'm shocked. It's a sham. It's a hoax. Herb Kane is trying to pull the wool over people's eyes. There's tons of resin on board."

THERE ARE OTHERS here who share Varady's criticism, although the vast majority of people here have been impressed with the trip. To all the critics Kane says, "You

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broke down, the original plan of keeping the Hokule'a out of visual sight at all times had to be abandoned, he said.

Finally, there is the cassette tape that reportedly told the Hokule'a crew that they were too far west about midway through the voyage to Tahiti.

MESSAGES FROM the canoe crew's families was passed through Bill Myerson, director of the Navy-Marine MARS radio network for the Pacific in Honolulu, to the skipper of the Meotai, to the skipper of the Hokule'a.

"This was a morale thing for the guys and just as important a morale thing for the families," Kane said. "The crew was more confident of hitting Tahiti than their families."

When the Hokule'a arrived here on June 4, it was reported that the information on one of these cassettes had told the crew its position accidentally, making them realize they were too far west.

Kane said a position was never given to the crew under any circumstances. He said that each tape went through three censor checks, with any information about positions or weather conditions erased. However, he said one tape apparently was not erased completely, and there was a shadow of a message left on the tape telling the crew they were too far west.

"They already knew that themselves and they disregarded it," Kane said. "The navigation was 100 per cent successful."



UNDER REPAIR — The Hokule'a, in dry dock in Papeete, in preparation for the return voyage to Hawaii.—Photo by Dave Irvine.

Arsenic contamination at Lao? That's only one of the problems

By EDWIN TANJI

Advertiser Maui County Bureau

WAILUKU — For some students at Lao School, about to undergo testing through the University of Hawaii, the concern appears to be NOT that their school campus is contaminated with relatively high levels of arsenic.

Rather, the major fear expressed by parents attending a meeting Wednesday night was over the embarrassment of students who will need to provide urine samples.

Two parents indicated they thought their children would feel better about the testing if the parents brought in the samples. The feeling was that there would be a stigma attached when a child carried to school the small brown bag holding a plastic container. Everybody would know what was in it.

The meeting Wednesday night was called by school officials to explain to parents the testing program that was devised since the discovery of the arsenic contamination.

The problem is the result of the use of two weed killers, Ansar-528 and Mesamate-600, at the school. Both herbicides contain arsenic.

Charles Yasuda, Department of Agriculture division chief, explained that a teacher at Lao School had questioned the use of the two weed killers.

Soil testing found relatively high levels of arsenic in the soil at the school, leading to a ban on the use of the two

neighbor island

NEWS

herbicides on school campuses throughout the state.

Dr. Lyle Wong, head of a university epidemiological study, said areas where the weed killer had been used showed between 170 and 180 parts-per-million arsenic contamination. By comparison, he said, the normal level of arsenic in soil in Hawaii averages 3 parts-per-million.

Wong conducted the soil tests and is now preparing to test levels of arsenic in Lao students to compare with levels found in students in another "control" school.

Wong said the program is strictly voluntary and requires parental consent. The program provides for 36 children to be tested each week. So far, about 70 parents have given their consent.

Wong, Yasuda, Dr. Jeremy Lam of the Department of Health, Lao Principal Masao Okasako and Maui school superintendent Darrell Iahi were at the meeting to explain the testing program. Wong and Lam downplayed concerns over the possible contamination hazard to students and teachers.

But if they did not see any cause for alarm, other persons at the meeting did.

Those suggesting there is a real hazard in the contamination included Dr. Janet Sherman, adviser to the Environmental Protection Agency's Toxic Substances Control Advisory Committee.

When Wong said there was a "uniform feeling that the health hazard at Lao School is very small or non-existent," Sherman said there is significant cause for fearing cancer or other ailments resulting from exposure to arsenic compounds.

Sherman said the potential hazards included cancer as well as ailments involving the skin, throat, lymph glands, nasal passages and internal organs.

"All arsenic compounds are under high suspicion" as cancer-causing agents, she said. "Nobody knows whether there is such a thing as a safe level of a cancer-causing agent."

But Lay broke in to suggest that Sherman was attempting to start "a panic."

"It doesn't sound as bad as Dr. Sherman makes it out to be," he said. He then proceeded to read a series of letters that supported his view, from a variety of doctors and scientists who reportedly had been involved in handling situations of arsenic contamination.

One parent hearing Lam, however, suggested the reassuring letters may be less than valid, noting, "That one doctor sounds like he works for the chemical company."

The terrible penalty

Editor's Note: Columnist *Samy Amalu* has been in Queen's Medical Center since July 3 recovering from surgery for an embolism near his heart. This is his first column since he was hospitalized.

By **Samuel Crowningburg-Amalu**
Advertiser Columnist

When you have walked more than twice into the dismal and shadowed courtyards of the Spectre and have each time found that you were not an expected guest, that no table had been set for you, no silver plates laid for your feasting—when this comes to you, wisdom should caution you and discretion dictate that you halt in your tracks and turn back to look upon the days and nights that you have lived.

Few men ever know the good fortune to be met at Death's door as an uninvited guest, unasked and unwanted. Providence may be giving someone a second chance; neither spurn nor despise the gentle offer. Be deeply grateful for the good luck of a wrongly sent invitation.

The Lord of Israel is a mighty God, terrible in His wrath, fierce and burning in His anger. Yet He can as easily be gentle, happy and living and kind.

I have looked high upon the heights of Gilboa, and I have seen the Eagle fallen in death, his fledgling upon his son, Jonathan. Were these two not the Lord's beloved? Did He not raise them out of Benjamin and favor them with garlands? Did He not pour his love upon them and raise them high, giving them legions to follow them and a kingdom for their own.

YET THE LORD turned upon

them and slew them in the highlands of Gilboa and left their carrion on the battlefields for the vultures to feed upon and for maggots to crawl over for feasting. Still Saul had never once ceased to love God. Saul had only forgotten once to obey the command of his Lord and, for this, the Lord cast Saul out and destroyed him.

Ever since my infant hours, I have known how the Lord moves within me. He steals into me in the dark-



The World of
samy
amalu

ness of the night and tells me what he wants. When I have followed his commands, I have not failed. When I have failed to follow them, I have never succeeded.

Yet these are only the small favors that He asks, and he is not really too displeased when you hesitate or refuse to comply. But when the Lord has charted for you some great purpose or has channeled your life and days to certain ends of His own, woe be unto you should you seek to oppose him. He will rain down upon you the full fury of his wrath, scorch you with brimstone and pierce your flesh with javelins.

I HAVE KNOWN the full judgment of His anger even as I have known the sweet quality of His love. I have lived in His palaces; I have lived in His prisons. I have slept in the golden chamber halls of His princes; I

have slept in the grimy cells and dungeons of His prisoners. With whatever the Lord provided me, was content. Not happy with it at sometimes, but at least content.

O, the Lord has punished me from time to time. He has sent me from prison yard to prison yard, year after dark year — year after endless year. And though severe in His judgment, He was still gentle in his compassion and warm in His love. He reached down into the darkest pit of all and brought me forth into the sunlight. And then He returned me to my own homeland and among my own townsmen.

Nor did He bring me home as a slave, cowering in fear and abject with shame. He brought me home in the full panoply of my principality. He brought me home not only to the respect but also to the love of my own people. Has God in His own good judgment ever done like for another man in all time? The love of my God for me and the grant of His full mercy, He expressed in a way that was unique in the chronicles of humankind.

Then when the Lord had set me securely upon the shoulders of my fellow citizens, He whispered to me what He wanted of me: Go and tell the world about your people so that the world can know whence came your people and out of what ancient nights were they born. And then after years of tranquility had passed during all of which I followed faithfully in His commands, He came to me again in the night.

AND IN THE darkness of that night, He said to me—Go to the world and sing of the queen who last ruled your people. Tell the truth of

for disobeying God

her, the good and the bad of her, the right and the wrong of her. Tell the world of the pride that consumed her, of the pride that was her own. Tell the world of the greed that destroyed her, of the greed that was not her own. Tell the world the story of Liliu that she may not be forgotten nor her people with her.

Yes, and I promised that I would do this. But as the months passed, there came temptations to detract me from this single purpose. Offers to do this and to do that. Offers more lucrative than I would afford to refuse. Then on the morning of July 3, I finally accepted a contract that would have brought great security to me for the rest of my life, a contract that would have delayed by many months the completion of the Opera Liliu.

I signed my contract at 1 in the afternoon. An hour later, I turned in surprise when I heard a voice quietly say to me—My Son, why have you chosen to disobey me?

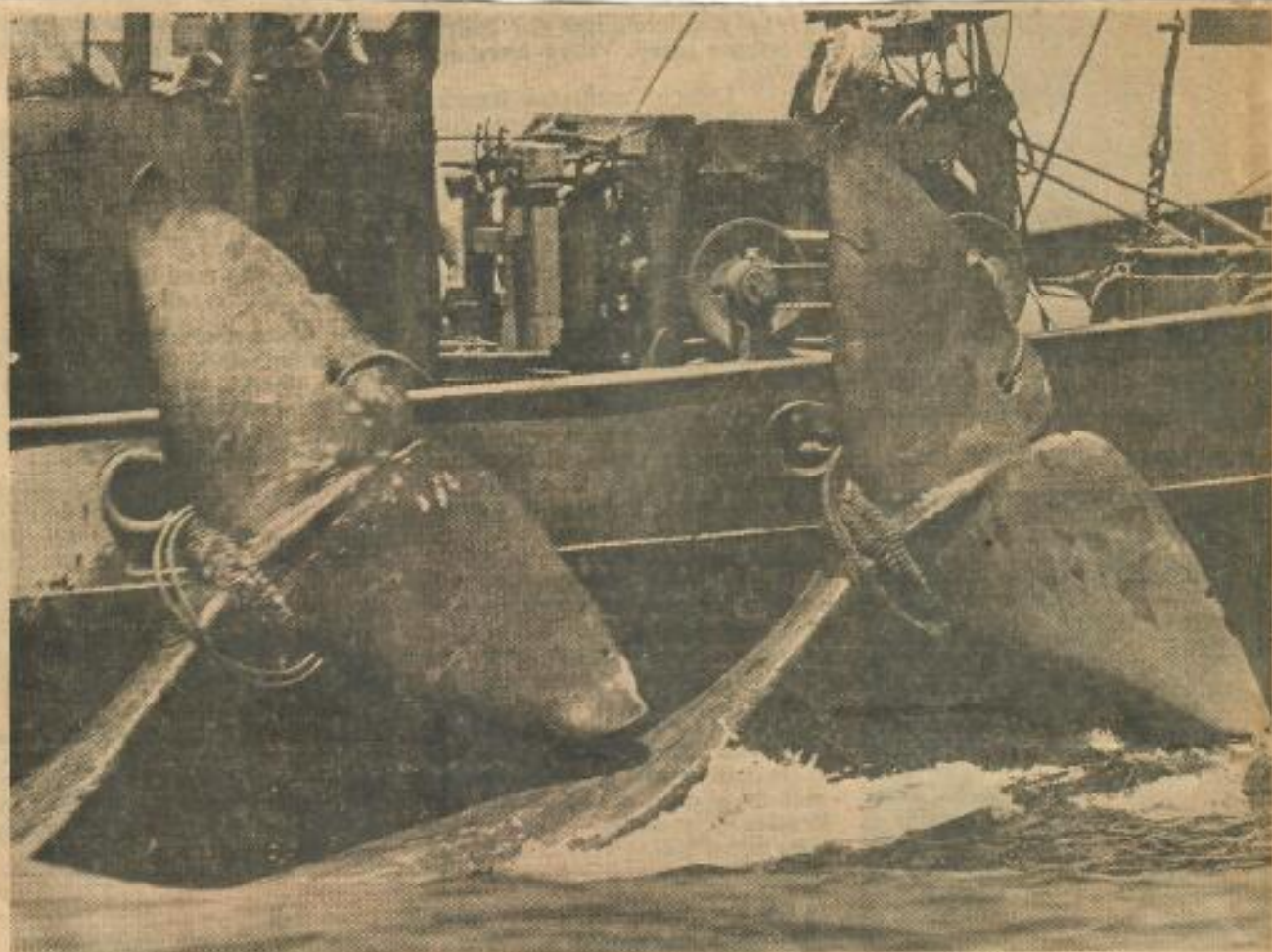
And then the Lord my God smote me.

O MY GOD, He beat me to the ground. Fallen to the floor, my body was wracked by pain—by such pain as I have never known before. He pierced my flesh with a thousand spears. He rained the blows of his fury again and again upon me. He spared me not even a single breath from the agony that he showered upon me. He jumped upon me with His heels time and time again and gave me not one short moment's respite. He took each cell in my body

and lit them all—each with a bonfire of its own. And when this was finally done, He cast over me a pall of oblivion. Then He left me there upon the floor, walked away, and left me alone.

Then when the doctors had raised the pall of night that had been cast over me, I woke to find that my God had taken everything from me and had left behind only those few elements utterly imperative to the completion of one job—The Grand Opera Liliu. Just those and nothing else—nothing else.

Lungs to breathe, a heart to course blood through what is left of my body, a brain which to think, and fingers that can still type. Only those. Nothing more.



SLAUGHTERED—Russian whaler drags off sperm whales in waters northeast of Hawaii. The Greenpeace environmental expedition harassed the Russians for 40 hours this week.—Photo by Rex Weyler.

Whales' Friends Find

By Jerry Tune
Star-Bulletin Writer

The Greenpeace band of environmental policemen on the high seas is well known in Canada, France and New Zealand, and comes fresh from a publicity coup in the June issue of *Playboy*.

The crew of 30 arrived yesterday at Pier 9 on the James Bay, a reconditioned Canadian minesweeper that had been dragged out of mothballs and enticed away from a Seattle man who had planned to cut it up for scrap.

"We ran circles around the Russians," said Ron Marling, 26, one of the crew who also likes to philosophize about the impending "Green War" between the multinational corporations out to exploit the ocean and the nations supporting the environmental movement.

"WE WERE FASTER than the Russians (whaling ships) and just before we came back here we went by

them at full speed just to show them how fast we could really go."

The James Bay arrived after an encounter this week with Russian whalers about 800 miles northeast of Hawaii were the environmentalists were successful in harassing the whalers for about 40 hours.

The Greenpeace crew of men and women were able to make the Russian harpooner decide not to fire on the whales, and also disrupted the hauling of dead whales to the factory ship which cuts up the catch.

INCREDIBLE AS IT seems, crew members can spin stories about encounters not only with the Russians, but also the French Navy, Canadian police, and various other government representatives.

The Greenpeace Foundation was formed in Vancouver in 1970 to give focus to public concern about nuclear tests being conducted by the U.S. Atomic Energy Commission at Amchitka test site.

The voyages of the original Green-

peace and the Greenpeace II led, within a year, to the closing of the Amchitka test site.

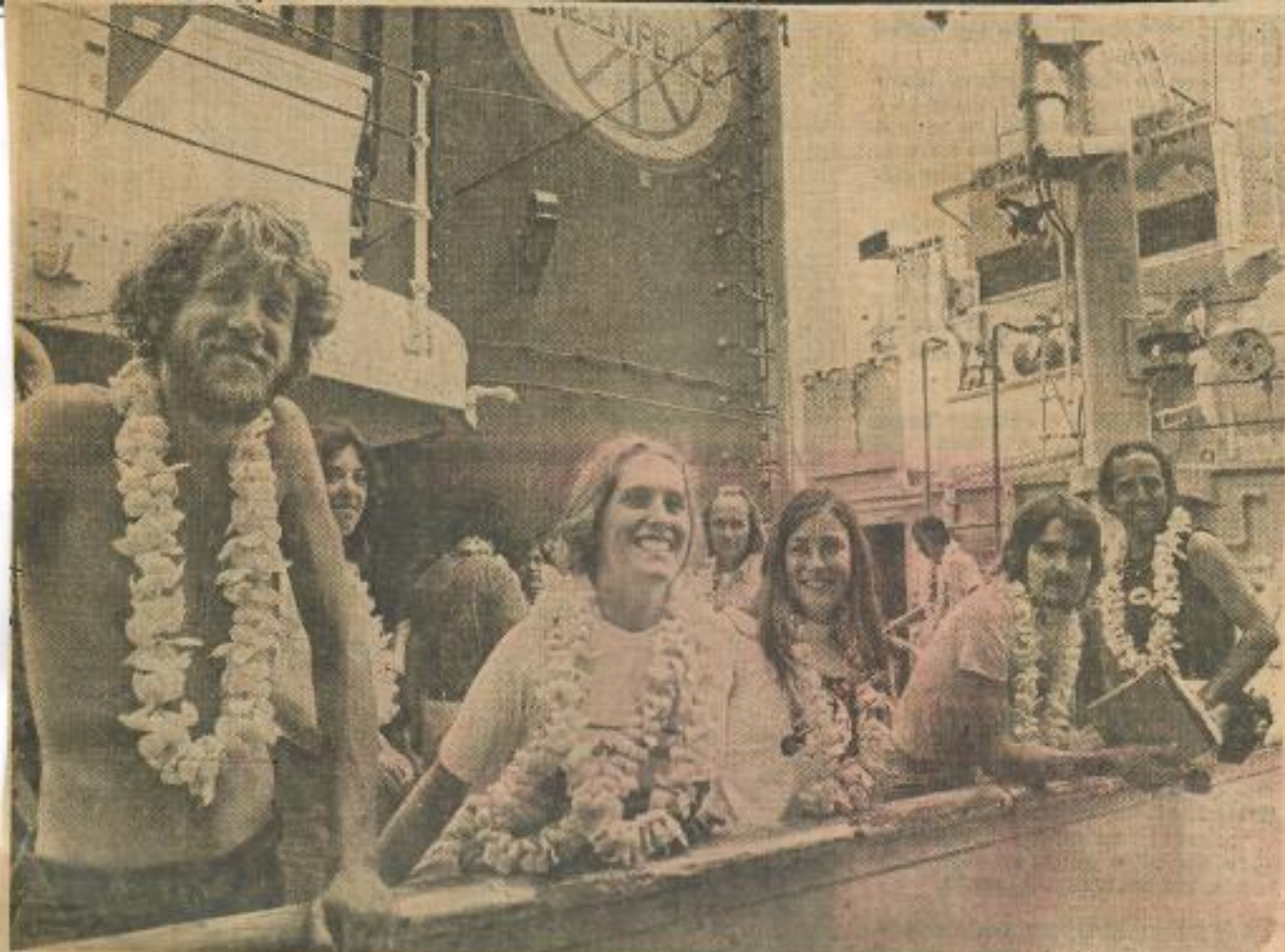
In 1972, the Greenpeace III sailed to the French nuclear test zone at Mururoa Atoll in the South Pacific. The Greenpeace III returned to Mururoa again the next year.

AFTER GREENPEACE IV set out in 1974, France announced it would cancel its atmospheric test program and go underground.

Last year there were two anti-whaling expeditions as volunteers succeeded, in the course of an 84-day voyage, in placing themselves in high-speed boats as "human shields."

The Russians chose to fire a 250-pound explosive harpoon directly over the heads of the crew members, but Greenpeace says it nevertheless succeeded in saving eight sperm whales.

THIS YEAR THERE was the anti-seal hunt expedition in the spring



THE CREW—Decked in leis, the crew of the Greenpeace VII expedition greeted visitors yesterday. The ship, the James Bay, is a reconditioned minesweeper.

Foes in Many Places

which brought on a confrontation on the ice in Newfoundland, and the latest run-in with the Russians.

What can be gained by all this environmental activism?

"No Greenpeace expedition has ever succeeded in achieving its goal by a single mission," says Bob Hunter, the foundation president.

"Amchitka took two voyages, Muroroa took three. With continued international support, Greenpeace hopes to affect a 10-year moratorium on whaling by 1977, but believes that in order for this to be accomplished, public attention must again be drawn to the whale slaughter in 1976."

HUNTER ALSO cites the 1972 United Nations Conference on Human Environment in Stockholm where 76 countries voted unanimously to impose an immediate 10-year moratorium on commercial whaling activities.

The Greenpeace Foundation sees itself as "a prototype United Nations

peace force that would eventually devote itself to preservation of a habitable world."

It calls itself a nonviolent, nongovernmental force acting "imaginatively in defense of the environment where governments will not or cannot at the moment intervene."

THE GREENPEACE Foundation is a nonprofit organization incorporated under the British Columbia Societies Act with affiliates in Australia, New Zealand, England, France, United States, Iceland, Norway and Sweden.

Support comes in dribbles. Rock musical groups hold benefits. Sometimes Greenpeace sells T-shirts and buttons. Memberships also are sold.

The group claims 3,000 members actively involved in the cause.

According to Marining, bankers, too, find they can make loans to the foundation.

HE SAYS CANADIAN banks have loaned the foundation \$95,000 so

Greenpeace VII can have operational funds to find the Russian whalers.

The crew members say funds are getting low but they do have enough for fuel.

"We desperately need food," said Marining, sipping one of the last Labatt's beers on the ship.

"IN PORTLAND, they gave us some jams and preserves and boxes of homemade cookies. In San Francisco, we were able to raise some money . . ."

The crew of 30, most of them in their 20s, includes six women. Some of the female sailors work in the engine room, one of the more dirty jobs.

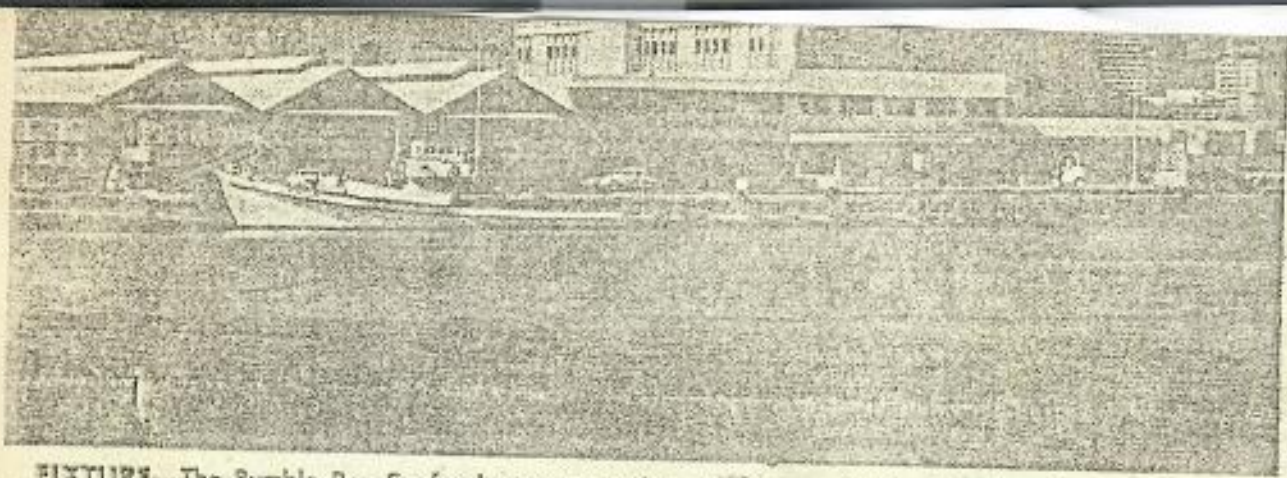
"One nurse finds it's just like her old job," said Marining. "Except that instead of checking hospital charts now she just checks the temperature gauges."

WHEN IN MILITARY use, the minesweeper had a crew of 42. Somehow the James Bay now gets by with 30, including some who have been known to get seasick.

The James Bay is old, it has a wooden hull, but it can do 20 knots.

Electricians and carpenters have volunteered their time to keep it operating.

Hunter says the crew will be in Honolulu probably for a few days, but it's not a holiday. "As soon as we refuel we will be going back again after the whalers."



FIXTURES—The Bumble Bee Seafoods cannery makai of Fisherman's Wharf in Kewalo Basin has been operating for more than 50 years.—Photo by Terry Luke.

Bumble Bee Cannery Ready to Hum if Tuna Is Plentiful

By Jerry Tuna
Star-Bulletin Writer

Despite a short supply of fish that reduced the canning season to six months last year, the familiar Bumble Bee tuna cannery at the Kewalo Basin pier will remain as it is for some time to come.

Bumble Bee, operated by Castle & Cooke's seafoods unit, is one of the few maritime businesses on the waterfront that isn't hard pressed to find more space.

About three years ago, the plant was expanded from the capacity for processing 50 tons of tuna in an eight-hour shift to 80 tons.

But then came a combination of circumstances that caused Bumble Bee to shorten its canning season.

"IT WAS due to the rising cost of fuel (for the ships), buyer resistance, and a drop in the catch-rate in the Pacific," said Jay Puffinburger, plant manager.

"But it's not a permanent situation and we will be coming back (with longer canning seasons) again. . ."

Bumble Bee, with more than 50 years at Kewalo, normally runs its canning season from February to Nov. 1, and will use up to 13,000 tons of fish in a

good year.

Last year, production dropped off to 9,000 tons "because the fish just weren't there," Puffinburger said.

One of the big problems, apparently, was the lack of success in even finding tuna.

WITH SUPPLY low, the old economic law of supply and demand took over and it became a question of how much the canneries would be willing to pay for the available tuna.

Bumble-Bee, part of a major tuna operation that includes other canneries in Astoria, Ore. and Cambridge, Md., does most of its tuna purchasing through a Japan procurement office.

Tuna is subject to all of the fluctuating prices of the more familiar grain commodity market.

The price per ton can range from \$400 to \$1,150, according to Puffinburger, and the situation is getting more unstable.

"Prices use to be stable, but about two years ago the stability went out," he explained. "Prices had been climbing for about four or five years but during the last two years they really started climbing."

WHEN THAT happens, the cannery can choose not to buy. Puffinburger

said this has happened in the past when retail demand slacked off.

"We quit buying and the price dropped," he added.

"The price just depends on how bad someone wants the fish."

For the past two years, the catch-rate has not been the best. Large ships from Japan, Korea and Taiwan that normally caught a ton of fish a day saw that rate cut in half.

Bumble Bee buys most of its fish from these large ships, and only about 20 to 25 per cent from local sampans. But getting the ships (and fish) to the cannery still remains a major headache.

THE LARGE purse seiners (modern tuna fishing ships that use giant nets to catch the fish) have drafts as deep as 23 feet and can't come into Kewalo Basin it's too shallow. To improve the situation would require

dredging of the harbor.

Large ships coming to Honolulu with tuna are routed to one of the other piers in the harbor which results in double-handling and trucking.

Puffinburger says another problem is the time required to get the tuna from the ship, onto the trucks, and to the cannery.

"The fish can get soft during this time (as the ice melts), especially the smaller fish," explained Puffinburger.

Despite the logistical problems, it appears Bumble Bee will be staying at Kewalo — at least for the next few years.

THE STATE lease for the Kewalo site runs through 1983, and negotiation for the next phase of the arrangement is still two years away.

Early in 1974, Castle & Cook announced plans to build a \$7.6 million tuna cannery in American Samoa, but that move was suspended in December of the same year because of a critical shortage of water.

Samoa, a territory, is allowed to take fish from foreign ships and the direct off-loading would open up economic advantages.

For now, the Kewalo plant is operating under capacity but it has space to handle 120 tons of processed tuna in an eight-hour shift.

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To move the plant, or build a new one, would be very expensive.

Puffinburger said the replacement cost for a 120-ton cannery could be about \$20 million. In San Diego, where a 500-ton cannery is being constructed, costs are soaring.

"The rumor now is that it's up to \$40 million," Puffinburger said.

Death of Horses

July 26, 76 S-B

Stirs New Probe

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WASHINGTON — The Humane Society of Utah, questioning a government explanation for the deaths of 50 wild horses on the Army's Dugway proving ground in Utah, has begun its own investigation into the incident.

The horses were found over the July 4 weekend. The government said they had died from "some sort of stress and subsequent shock."

Lonnie Johnson, the Humane Society's director, said in a telephone interview that the society's investigation found that previously undisclosed activities that reportedly took place around the time the horses died could have been related to the deaths.

THE HORSES were found near a spring on the Dugway installations, which is the site of chemical and biological warfare experimentation.

In 1968, more than 6,000 sheep died near the area where the horses were found. An investigation in which

the Humane Society took part found that the sheep had died of nerve-gas poisoning. The Army has said that outdoor testing of toxic chemicals has since ceased.

JOHNSON SAID that he had been told by military and government sources that the Dugway facility was placed on a full military alert over the July 4 weekend as the result of a sabotage threat. He said he thought that the helicopter reconnaissance could have run the horses to exhaustion.

The American Horse Protection Association said that pictures showing a bloody froth on the nostrils indicated the horses died from a rare African horse disease.

State's Hopes Are High for Isle Tuna Industry

By Jerry Tune
Star-Bulletin Writer

Hawaii's lone tuna cannery now imports more than half of its fish, and runs only a one-shift operation at Kewalo Basin.

But for the past few years, State officials in cooperation with the tuna industry and other Pacific governments, have been patiently putting together a development program that may just pay off in boatloads of fish for the future.

The spin-off benefits of bigger tuna catches could run into the millions of dollars for the State, in increased activity at the cannery, refueling and ship repair business, and rest and relaxation money spent by the fishermen.

The State Department of Planning and Economic Development is still very cautious about making any rosy statements, but the potential is there.

"I HAVE learned from 20 years in the economic development business that it is dangerous to make predictions," said Andrew Gerakas, head of the economic development division at DPED. "But now we have things moving and everything seems to be happening at once."

The State is participating in the development program as one of the governments in the Pacific Islands Development Commission. The commission consists of the chief executives of Hawaii, American Samoa, Guam and the Trust Territories. Gerakas is the commission's executive director.

The basic idea is to find new fishing grounds in the Central and Western Pacific.

The commission, contracting with private ships, is gathering valuable information through the only real way possible — going out and just fishing.

kas do show some promise, although the catches have not been as high as some expected. In the 45 days or so out fishing, the trawlers have caught 26,410 pounds or about 13 tons. To fully load both ships, the fishermen must catch about 50 to 60 tons.

PROBABLY the most dramatic part of the development program is the three-ship contingent coming to the Pacific from waters off Africa, under contract to the PIDC.

The large purse seiners, part of the United States tuna fleet which Gerakas calls the most efficient in the world, are bringing their large nets to the Pacific to find the latent skipjack tuna fishing sites.

The three ships passed through the Panama Canal July 5 and will go to the Western Pacific to work with the research vessel Cromwell.

The 2,000-ton Apollo carries a helicopter on board to help search out the fisheries; the 1,700-ton Pathfinder is bringing a seaplane to aid in the search; and the 1,500-ton Mary Elizabeth is the third vessel.

EACH SHIP is being paid \$366,000 for the 90-day charter.

Planes, in advance of the ships' arrival, already have been sent out from the Guam and the Trust Territories to get some preliminary ideas of where the fish may be congregating.

The stimulation of the skipjack catches is equally important to the tuna industry, which operates under strict seasonal limitations in the rest of the world, as it is to the Pacific governments.

"We are in a partnership with the tuna industry," explained Gerakas. "We are interested in development, and they are interested in a supply of fish."

Skipjack in the Pacific are smaller tuna, and they swim deeper in the ocean because of the position of the thermocline (temperature layers, which affect oxygen supply).

This means the tuna fishermen in the Pacific must use larger nets to go deeper and trap most or all of the school. Fifteen fathom nets don't work in the Pacific, says Gerakas, and 20 fathom nets should be used.

THE TUNA development program also is moving to a possible solution of another nagging problem for local fishermen — the relatively short life of the baitfish, the nehu.

Nehu, caught in Hawaii waters, lasts only about 48 hours and consequently local fishermen spend about 60 per cent of their time baiting. The poor life span of the nehu also means the range of the ships is severely limited.

To solve this problem, officials are bringing in a boat load of Northern Californian anchovies to use as bait. The Trojan bait boat, with an estimated time of arrival July 20, will be carrying about 1,000 to 1,200 scoops of anchovies.

"We really need enough for a proper test," said Gerakas. "We have brought in anchovies before in containers but the mortality was too high."

THERE WILL be more attempts to bringing in the anchovies by containers. Bait must be "aged" in the containers, submerged in the San Francisco-Oakland harbor to reduce the shock of a changing environment.

The containers do let sea water in and there is a suction system to take out dead fish.

The bait from the Trojan will be passed out to local fishermen in

TWO SMALL trawlers from the West Coast have been fishing in the North Central Pacific trying to find out the migratory habits of albacore, a very high-priced fish that now is going for about \$190 a ton.

"That's almost an unbelievable figure," Gerakas said. "It's like gold."

Albacore tagged off Japan has been found in the mid-Pacific, so the fishermen do know the fish are there at various times during the year. The trick is to be in the right place at the right time.

If successful, the trawlers could add months to the albacore season by opening up new commercially viable fishing grounds. A possibility for the future, says Gerakas, is something on the order of 150 and 200 trawlers operating between May and June.

So far, the weekly reports to Gera-

SKIPJACK, called aku in Hawaii, now brings about \$600 a ton, or double what it did in 1971 when PIDC published a report titled, "An American Fisheries Opportunity in the Central and Western Pacific."

"Of the potential increase in production of tuna from world oceans of about 1.38 million short tons, some 880,000 short tons (all skipjacks) can come from the Pacific Ocean," the report said.

"At \$250 a ton, 800,000 tons of skipjack tuna would be worth about \$200 million to the fishermen, \$500 million to the processor and some \$800 million at the retail level.

"Even if only half of this resource is developed in the next decade, it would be a significant contribution."

GERAKAS now says it would be valid to double all those revenue estimates in the 1971 report.

Fishing in the Pacific, however, is somewhat different from fishing off South America or Africa.



FAST ACTION—Tuna boats traditionally have been hectic places to work when they're on to a school. Purse seiners, the new-generation trawlers may bring dramatic changes to the fishing style.—Photo by Warren R. Roll.

about 10 days and then the experiment begins. Officials believe that if the Northern California anchovie can match those used by Japanese fishermen, then the bait may last 45 to 60 days.

"The ultimate answer is not to transport the bait, but to cultivate it," Gerakas said, "but that will be

sometime off in the future."

There is a program now to develop the so-called "Golden Mollie" in Samoa. It is a hearty, easily reproduced bait fish.

THE OCEANIC Institute also is experimenting with mullet fingerlings for use as bait.

If local fisherman can adapt, and make the change to a new successful bait, the range of the ships will be greatly expanded.

For the fishermen in the Pacific, there are only three places to drop the fish — Hawaii, Samoa and the West Coast. Hawaii figures to get its share of tuna.

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THE FIGHT — As the Greenpeace rubber boat comes near the Russians, the whalers are unloading a dead whale from the harpoon ship, at right, to the factory ship, at left. Minutes later, the Greenpeace crew in the rubber boat maneuvered on to the back of the whale while the Russians were dragging it on to the mother ship. The rubber boat came out of the water about four feet and almost capsized.—Photo by Rex Weyler.

Russians Raise Deadly Harpoon in Whale Battle

By Jerry Tune
Star-Bulletin Writer

Four days ago they were sitting in small rubber boats, 800 miles northeast of Hawaii, eyeball-to-eyeball with a Russian whale harpooner, in an ocean poker game to find out who would back down.

It was a face-off between environmentalists and whale killers.

On one side were the whales; in the middle, the Greenpeace band of men and women which had doggedly pursued the whalers trying to break up the hunt; and there was the Russian harpooner.

"He was poised like a gunner," said Bob Hunter, the 34-year-old former environmental journalist who a few years ago chose an action role as a member of the Greenpeace Foundation.

"Suddenly he stepped back, flipped the bolts and the harpoon came down in position . . . We had four boats in between and we stayed in place. The whole thing must have lasted about a half hour.

"THE SKIPPER OF the fleet then ordered the (whaling) boats to scatter in all directions."

Inside the first Zodiac rubber boat were Hunter, his wife, Bobbie, and Dr. Paul Spong, one of the expeditions' experts on whales.

"I felt pretty serious," as the boat came into place, said Mrs. Hunter, 28. "I spent my time eye-balling the harpooner and wondering what was going through his mind."

The Greenpeace band not only had to watch the Russians, but also the ocean because there was no telling where the whales might come up out of the water.

The year before, the same Russian fleet had fired one harpoon over the heads of the men in the rubber boat. The harpoon, with a 250-pound charge, struck a female sperm whale and a bull whale swam by the rubber boat to go after the harpoon boat. It was killed by another harpoon.

THIS YEAR THE Greenpeace expedition used women and men in the rubber boats and successfully harassed the Russians for about 40 hours.

"We stayed with the Russians as long as we could," he explained. "And we eventually realized that the order had obviously come down not to fire the deadly harpoon over our heads. Instead, they split their fleet into various directions, making it

difficult for us to stop all of the harpoon boats."

"Because we could not tackle all of the harpooners at the same time," said Hunter, "we maneuvered behind the factory ship where the killer boats were returning to load the whales.

"We deployed several of our small boats, and some of our people actually drove one of the inflatable craft right onto a dead whale's back to try to prevent it from being loaded. The Russians just kept pulling the whale up onto the factory ship, and dumped our craft back into the water, nearly dumping three Greenpeace crew members."

The Greenpeace VII ship, a former Canadian minesweeper now called the James Bay, came into Pier 9 at Honolulu Harbor this morning to refuel.

HUNTER SAYS THE ship and its crew of 30 will be in Honolulu for a few days. "As soon as we can refuel, we will be ready to go again," he added.

The James Bay will be chasing the four Japanese and Russian whaling fleets operating in the same waters.

The expedition so far has proved exciting and successful.

"Following our harassment of the loading operations," Spong said, "the Russians decided to call off their loading. The factory ship Vostok headed north, taking the whole fleet with it at top speed."

THE JAMES BAY pursued and was more than fast enough, but this caused the rapid use of fuel. Finally, the James Bay had to return to port for fuel.

"We completely disrupted their operations for a few days," Hunter said. "We figure if we can cut into their profit even as little as 5 per cent we can discourage them from coming out. Whaling is a marginal business right now."

The whalers get \$20,000 to \$25,000 per whale, but the search takes time and expensive fuel.

The Greenpeace VII is flying the flag of the United Nations, and has called on the whale hunters to cease

the slaughter in accordance "with the will of the 1972 United Nations Conference on Human Environment in Stockholm where the 76 participating nations voted unanimously to impose an immediate 10-year moratorium on all commercial whaling."

The ecology ship sailed from Vancouver June 13 and made refueling and supply stops in Portland, Oregon and San Francisco.

Both states presented Greenpeace with their state flag and offered support for the mission.

Greenpeace ecologist Dr. Patrick Moore added: "If whaling is not stopped now, within a few years there will be no more whales to kill anyway."

"Whales are intelligent, aware animals who live in extended families called pods. Just as we are beginning to glimpse the wonder of the great sea mammals, they are being hunted to extinction. We vow to continue our protest until the senseless slaughter is stopped," he said.

To Prevent Its Sale to Japanese

July 21, 1976 S-B

By Doug Boswell
Star-Bulletin Writer

State authorities are studying the possibility of buying Palmyra Island to prevent it from falling into the hands of a private corporation in Japan.

State Sen. John T. Ushijima, president of the Senate, said he has advised Gov. George R. Ariyoshi of the "impending" sale to a Japanese firm and has suggested that the State might buy the island to avert foreign ownership and development.

The atoll, 990 miles south of Hawaii, once was part of the Territory of Hawaii but was excluded from the boundaries of the State when the Statehood Act was hammered out in Congress.

IT IS OWNED BY Leslie Fullard-Leo of Honolulu, and his brothers Dudley and Ainsley.

Developed by Pan American Airways more than 25 years ago as a way station on the route of the "China Clippers," the island has an airstrip and a deep-water harbor.

Susumo Ono, Ariyoshi's administrative director, said yesterday a staff report on the possible sale of the 1,300-acre island is under preparation and will be presented to the Governor later this week.

USHIJIMA INDICATED weeks of research may be required to settle jurisdictional and legal questions.

For example, the State might be legally authorized to buy the island but it could not become part of the State unless the Statehood Act is amended by Congress.

Ushijima said the island possibly could become the focal point of a new fishing industry.

"FROM THE INFORMATION we have, it is believed to be an area of the ocean rich in fish resources," Ushijima said.

Ushijima released a copy of a letter from Robert A. Retherford, president of Oceans 2000 Inc., a subsidiary of Pacific Analysis Corp., with headquarters in Honolulu.

Retherford and Ushijima had discussed the impending sale of the island to Japanese interests on July 10.

RETFERFORD subsequently met with Leslie Fullard-Leo, and at Ushijima's request, asked the island's owners to give the State, or the United States, first right of refusal before consummating the sale to foreign interests.

Retherford said Fullard-Leo agreed to the request and offered to accept a \$220,000 deposit in an escrow account for eight months to allow time for arranging details.

Retherford said the total purchase price of the island is \$11 million, including 1,300 acres of land area and the atoll's valuable submerged lagoon and reef areas.

"THIS PRICE COULD be negotiated down only if the purchaser could arrange for a tax savings to the three concerned owners," Retherford advised Ushijima in the letter.

Ushijima indicated the Fullard-Leo family has acknowledged that it has been negotiating with a firm in Japan, but he said the firm is not identified.

Nor is the State aware of what uses the Japanese buyers would have for the island.

"THEY MIGHT WANT to establish a central Pacific fishing station, a hotel resort area or even a gambling center," Ushijima said.

"We just don't know, but I think we should be concerned about it because the island is a valuable resource," Ushijima said.



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New Status Backed for Marshallese

By Jim McCoy
Star-Bulletin Writer

Marshall Islanders unanimously favor a separate status negotiation similar to one obtained earlier this year by the people of the Marianas, Rep. Patsy T. Mink said yesterday.

Mink, who had an opportunity to hear their views first hand when she attended House investigative hearings in the Marshall Islands last week, said she definitely favors such a status when U.S. administration of the United Nations trusteeship ends in 1981.

MINK, A MEMBER OF THE HOUSE Interior Committee subcommittee on territorial affairs and a candidate for the U.S. Senate, made her comments in an interview after a political rally held inside Gibson's store at Moanalua.

"The people there want separate status negotiation similar to the Marianas and they want to be treated as an autonomous district," she said.

"Implicit in this is their desire to continue their relationship with the United States."

The Marshall Islands, an archipelago about 2,500 miles south of Hawaii that has a total land area of about 70 square miles, has been under the administration of the United States since 1947. The United Nations then had assigned the Marshalls along with the Caroline and Mariana Islands. The United States as the Trust Territory of the Pacific Islands.

However, the Northern Mariana Islands in March became the first new United States territory in 51 years when Congress and President Ford approved the Marianas covenant.

THE MARIANAS WILL become a U.S. commonwealth with a status similar to that of Puerto Rico. This will occur in 1981, which is the year the United States wants to end the trust status for Micronesia.

BUT JUST BECAUSE the Marianas will be allowed commonwealth status doesn't mean the same will hold for the other districts in Micronesia.

Mink's visit was prompted by Marshallese protests to the United Nations of the U.S. proposal to end the trusteeship in 1981 with the formation of a Federated States of Micronesia.

Similar protests were heard from Palau, another district of the Trust Territory. Those islands, like the Marshalls, have threatened to seek status similar to the Marianas.

THE MARSHALLESE AND Palauans claimed the federation would interfere with the rights of self-determination.

Mink said the Marshallese voiced opposition to the American plan because "they do not want their destiny to be depended upon by the other four districts."

"The people there want an opportunity to negotiate for themselves with the United States for their own interests," Mink said.

She said the hearings, held on Ebeye Island of Kwajalein Atoll and Majuro Atoll, the Marshall Islands administrative headquarters, were well attended and "very illuminating."

Mink, who left for Washington D.C. last night, plans to give the subcommittee a report on the hearings.

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The beached dolphins.

Florida Dolphin Beaching Told

CASEY KEY, Fla. (AP)—“We couldn't get to them all. There were so many, we couldn't keep up with them,” says one beach resident, among dozens who tried to rescue a school of dolphins from the mammals' own instincts.

By the dozens, the spinner dolphins have been beaching themselves here, near Sarasota on the Gulf Coast, since Tuesday. Scientists say they don't know why, but it may be because some of the animals have an epidemic disease. Such beachings are rare among spinner dolphins.

By late yesterday at least 22 had died on the beach.

A similar incident occurred in Hawaii last month when 17 rough-tooth dolphins beached themselves on Maui. Eight died, one was taken to Sea Life Park on Oahu, where it recovered and the rest were returned to deep water by concerned Maui residents.

“It was sad,” said the beach resident, Peter Darling, after a day of hectic effort yesterday. “The dolphins were just laying there in the surf. We'd take them out about 50 feet and when we'd let them go, they'd turn right around and come back in.”

“The ones we had time for we'd scratch their stomachs and that seemed to calm them.”

“They were squeaking. Talking to each other, especially the little ones; fretting. We quit when there weren't any live ones left.”

Friday, June 11, 1976 Honolulu Star-Bulletin A-9

U.S. Adds 159 Animals to Endangered List

Washington Star

WASHINGTON — The Interior Department, in its most sweeping such action to date, is adding 159 animals to the official U.S. list of endangered species, assuring protection to animals of the world from virtually every continent.

The move follows attacks on the department by environmentalists who have accused the department of dragging its heels on preserving animals from man's activities.

The new list was mailed to the Federal Register Wednesday.

The Interior Department's action is the first time it has moved to enforce the Convention of International Trade in Endangered Species of Wild Fauna and Flora, which the United States initiated in 1973.

THE INTERNATIONAL convention lists 216 species, but the Interior Department chose to take action on

159. Those species no longer can be traded in interstate commerce when the new list takes effect June 14.

The 159 species to be protected include the Asian elephant, the clouded leopard, the marbled cat and all species of gibbons.

Significant omissions from the list — from the environmentalists' viewpoint — are the California sea otter, the Mexican beaver and the glacier bear. Those animals are included on the international convention list.

In the case of the beaver and the sea otter, whose listing has been opposed by California abalone fishermen, the department says it must study both species further before determining whether they are really endangered or not.

The department turned thumbs down on the glacier bear, saying that it is “only an uncommon color variety of the black bear.”

Please return

South Pacific Nation Shows Independence

Western Samoa Looks

By Roy Maneki

Star-Bulletin Business Editor

Russian officials are in Western Samoa this week to talk about the help they're prepared to give to the tiny nation.

The aid is being offered for long-needed projects that would encourage Western Samoa's economy, according to Asi Aitken Fruean, its minister of economic affairs.

The Russians are believed to be

interested in using Western Samoa as a base where their fishing boats could take on supplies and change crews, Fruean said during a visit here last week.

They have offered assistance with the dredging and blasting needed so that large ships can call at Western Samoa's piers.

POTLATCH CORP., an American firm, has an \$8 million sawmill and a veneer plant there, and about seven million board feet of wood is ready for shipping, Fruean said.

The Russians also have offered to help build a fish cannery, to chart the fishing grounds in the area, and to widen the channels in the reefs to make fishing easier and safer for the villagers.

This also would aid the economy, because the people spend about \$1.3 million annually on canned fish, he said.

Canned fish is in great demand for its convenience, he explained, and when a wedding is held, the generous Samoans may present the new-lyweds with more than 100 cases of fish.

"WE COULD supply the Hawaiian market with fresh fish, if we had better airline connections," Fruean added. "We believe there is a big market here for fresh fish."

The country badly needs the kind of expertise possessed by the U.S. Army Corps of Engineers, he commented, and the Russians were the first to offer the aid now being discussed.

When asked about the Russian navy, he said that it has not been mentioned, and only the needs of its fishing boats have been discussed.

Another reason for the interest in the Russian offers is that they would not harm the Samoans' way of life.

"WESTERN SAMOA is in the unique position of having the purest Polynesian race in the Pacific, and a culture thousands of years old which is still viable in this jet age," Fruean said proudly.

But the young people want jobs, and foreign exchange is needed "to purchase the commodities we cannot manufacture," he said.

So Western Samoa, which has only

to G. Bulu 75

to Soviet Aid

a few hundred visitors annually, must find a way to encourage visitors without harming the island way of life, without despoiling its quiet villages and beautiful beaches.

"We are now considering how many visitors we can look after properly, so that they can be treated as honored guests and enjoy an experience they can long remember," Fruean said.

THEY WOULD have to be "willing to pay a little more," but could witness weddings, bestowals of titles, and other ceremonies unique to Samoa, he said.

By emphasizing quality rather than quantity, Western Samoa can be particular about its visitors, he added.

"For example, bikinis are not allowed, and short shorts are frowned upon. If that means some people don't want to visit us, that's all right," Fruean said.

"We have what we believe Hawaii had 40 to 50 years ago, so we can say what we want and what we don't want that Hawaii has today," he added.

"A GREAT deterrent" to the visitor industry is the fact that Pan American World Airways' flights to nearby American Samoa are made only at night, the economic affairs minister said.

"We have asked Pan American for at least one daylight flight per week," he said. Visitors would then be able to make good connections via government-owned Polynesian Airlines to travel to Western Samoa.

Fruean, a member of his country's Parliament, was here last week at



Asi Aitken Fruean

the invitation of Gov. George R. Ariyoshi and the Polynesian Cultural Center.

He also talked to potential investors and people who might be interested in Western Samoa's products, he said.

Fruean, 38, owns the Samoa Printing and Publishing Co.

He was a major stockholder and a director of the Samoa Times, and managing director of the Isa Ice Cream Ltd., until he became minister of economic affairs.

"Now my wife Mary runs the two companies," he said.

JUNE 26, 76 S-B

\$53 Million in Construction

The U.S. Senate today approved \$53,521,000 for military construction and improvements in Hawaii, including \$12,836,000 for pollution abatement at the Barbers Point Naval Air Station.

Key projects included in the Hawaii appropriations were \$7.4 million for modernization of the electric shop at the Pearl Harbor Naval Shipyard and \$2 million for planning and design for modernization of Tripler Hospital.

Other items included were: \$4,585,000 for replacement of obsolete quality assurance facilities at Pearl Harbor; \$4,300,000 for the Intelligence Center at Pearl Harbor; \$1,900,000 for electrical improvements at the Marine Corps Air Station, Kaneohe; \$1,046,000 for electrical power improvements at the Fleet Marine headquarters, Camp Smith; \$975,000 for a torpedo retriever facility at Pearl Harbor Submarine Base, and \$283,000 for building additional facilities at the Navy Environmental and Preventative Medicine Unit at Pearl Harbor.

Another \$3,945,000 was approved for an aircraft apron and \$300,000 for air pollution abatement at Hickam Air Force Base.

JUNE 26, 76 S-B

Endangered Plants

Your recent article (June 18) concerning how 900 or half the endangered species of plant life in the U.S. are located in Hawaii points to the gravity of the situation.

If further deterioration of indigenous plants continue, we will have lost an irreplaceable natural resource, not to mention changes in the Hawaiian environment that will occur.

The outcome is perhaps based on several controversies, the building of TH-3, the eviction of farmers in Waiahole-Waikane, the bombing of Kahoolawe and Makua Valley. These decisions are critical in determining the future of endemic endangered plants.

In Makua Valley, University of Hawaii botanist Dr. Lamoureux indicated after taking several hikes into the valley that despite the bombings and fires that have ravaged a great deal of the lower portions of the valley, the upper regions "are a virtual

treasure house."

Where are our values when we allow things that have developed uniquely over thousands of years to be replaced by sand, steel, and mortar structures that serve an increasingly expensive, polluting, and outmoded machine?

The Hawaiians of old called themselves "keiki o ka aina" — (children of the land) because they sensed that it is the land that gives them their life energy. To abuse the land in the way that it has been would be totally foreign.

Bill Hambaro

Future of Land Use in Balance

Endangered Plants Hearing Set

By Gregg K. Kokesoko
Star-Bulletin Writer

Federal wildlife officials are examining regulations which some State officials believe could determine the future development of land throughout Hawaii.

The U.S. Fish and Wildlife Service will hold a public hearing at 9 a.m. Wednesday at the Surf-rider Hotel's Kamehameha Ballroom on proposed regulations aimed at protecting some 1,700 endangered plants in the United States, of which nearly 900 are found in Hawaii.

Tom Tagawa, head of the State forestry division, yesterday said that as yet no one really knows the full impact of the new regulations.

HOWEVER, HE acknowledged that placing all of the proposed plants on the federal endangered species list could possibly determine future land use in the State of Hawaii.

"This is because we don't have an exact list of where these plants are," Tagawa said.

"All we have is a plant list, but no one seems to have considered the habitat (where they are growing)."

The enactment of regulations designed to protect Hawaiian plants thought to be near extinction could have an even greater impact.

JOHN MCGUIRE, director of the U.S. Forest Service at the Department of Agriculture, wrote to Sen. Daniel K. Inouye last month that one of the possible problems is that "any citizen can sue in his behalf to stop any action alleged to be detrimental to endangered species."

Some State officials believe environmentalists could use this language to stall projects that do not fit their fancy.

Gov. George R. Ariyoshi in a June 25 letter to Curtis Behlan, deputy assistant secretary for Fish and Wildlife and Parks of the U.S. Interior Department, expressed his confusion over the way the federal government prepared the list.

HE TOLD BEHLAN that the State requested information from the Interior Department and the Smithsonian Institution before the list was published in the Federal Register June 16, but the State's request went unheeded.

The initial Smithsonian report, from which the list was drawn up, was lacking in detail. State officials maintain.

Ariyoshi also pointed out that the proposed regulations would have "a far-reaching effect in carrying out some of our programs in the State," especially in the creation of new jobs.

"As long as there are youngsters graduating from our schools and colleges, we must continue to seek new and relevant employment sources," the Governor said.

"TOWARD THIS end, we have researched the potentialities of commercial timber production and found it to have a very high potentiality.

"Herein lies our dilemma. How would your list of endangered or threatened plant species affect our program in the area of commercial timber production?"

Tagawa said that as yet he doesn't know what

position the State will take at Wednesday's hearing.

CORNELIUS DOWNES, information specialist with the State Department of Planning and Economic Development, said his boss, Hideto Kono, also will testify at the hearing.

"But as yet the testimony hasn't been written and we haven't taken a position," Downes added.

The Ariyoshi administration in the past has suggested that it is up to the federal wildlife service to help the State research and document if all the plants proposed for the list are indeed endangered.

THE STATE HAS maintained that preservation of plants is only one use of Hawaii's "very limited" forest area and "must be kept in perspective."

However, federal wildlife officials in the June 7 Federal Register said the burden lies on the 46 states involved.

Wednesday's hearing is one of four regional meetings with others planned for El Segundo, Calif.; Kansas City, Mo.; and Washington, D.C.



Tom Tagawa

July 9, 76 SB

July 9, 1976 S-B

At Molokai's Ilio Point

Copter Trespassing Is Probed

By Robert McCabe
Maui Bureau Chief

WAILUKU, Maui — Use of restricted Ilio Point on Molokai by trespassers who fly by helicopter to the area for fishing and other purposes is being investigated by the Department of Land and Natural Resources.

James Shaw, the department's land agent for Maui County, said yesterday reports of illegal helicopter landings at the site are being checked out and that necessary action will be taken to prevent future unlawful use of the place.

The apparent unlawful helicopter landings at Ilio Point, once used by the military as a bombing range, was brought to the attention of officials by Hawaiian activist Walter Ritte.

IN A STATEMENT, Ritte said that he witnessed a helicopter landing at the point on Monday during an authorized march to the area by members of his Hui Alaloa Association.

"Thinking it was the Navy coming to clean up their mess, several of us went to investigate," Ritte said.

But, he said the helicopter was not a military vehicle, but a private machine that had brought "several men" who Ritte said, had gone to the spot on a fishing outing.

HE SAID THE helicopter had parked in a well used, well marked site bordered with white stones, indicating the area had been used frequently as a landing pad.

Ritte said he suspects the site has been turned

into a "private hunting and fishing area for the elite rich" who can afford to helicopter to the spot.

"Did the State of Hawaii use taxpayer money to provide a private fishing ground for the rich while keeping out the poor?" he asked.

HOWEVER, STATE land agent Shaw said he is not aware that private helicopters have landed at

the area, and that if they did, it was in violation of State rules.

Shaw said that the point, obtained by the State when the area was declared surplus by the military, is off-limits to the public until the site is cleared of all unexploded ordnance.

He said the military has been requested to clear the area but that to date no work has started on the cleanup operation.

SUNDAY 7/11/76 EDITORIAL

Sea law saga

The United Nations Law of the Sea Conference seems to be headed toward the conclusion of an international agreement at meetings to be held in New York this summer on many issues related to use of the oceans.

As we have said in the past, the interests of Hawaii as the only island state in the nation may be different on some sea law questions from those of the country as a whole as they are seen by Federal policy makers and negotiators.

IT IS IMPORTANT that Hawaii's unique position as a mid-ocean state be recognized and that Hawaii's right to control the use of its ocean environment be protected.

It seems almost certain that the "State of Hawaii" will expand to include some 600,000 square miles of ocean in a 400-mile wide swath stretching from northwest of Kure Island to southeast of the Big Island. The area contains billions of dollars worth of minerals, plus other resources.

But the question still remains as to whether the activities on top, within and beneath this great expanse of ocean will be controlled mainly by the State of Hawaii or by the Feder-

al government. Some of the complicated decisions to be made at the sea law conference will determine whether national or regional control will prevail.

The decisions will affect relations between the State and Federal governments rather than between us and foreign governments, at least as far as Hawaii is concerned.

INTER-ISLAND AIR and sea transportation, the control of sea pollution, the harvesting of marine life, deep sea mining and operation of floating factories are some of the areas that might come under State jurisdiction.

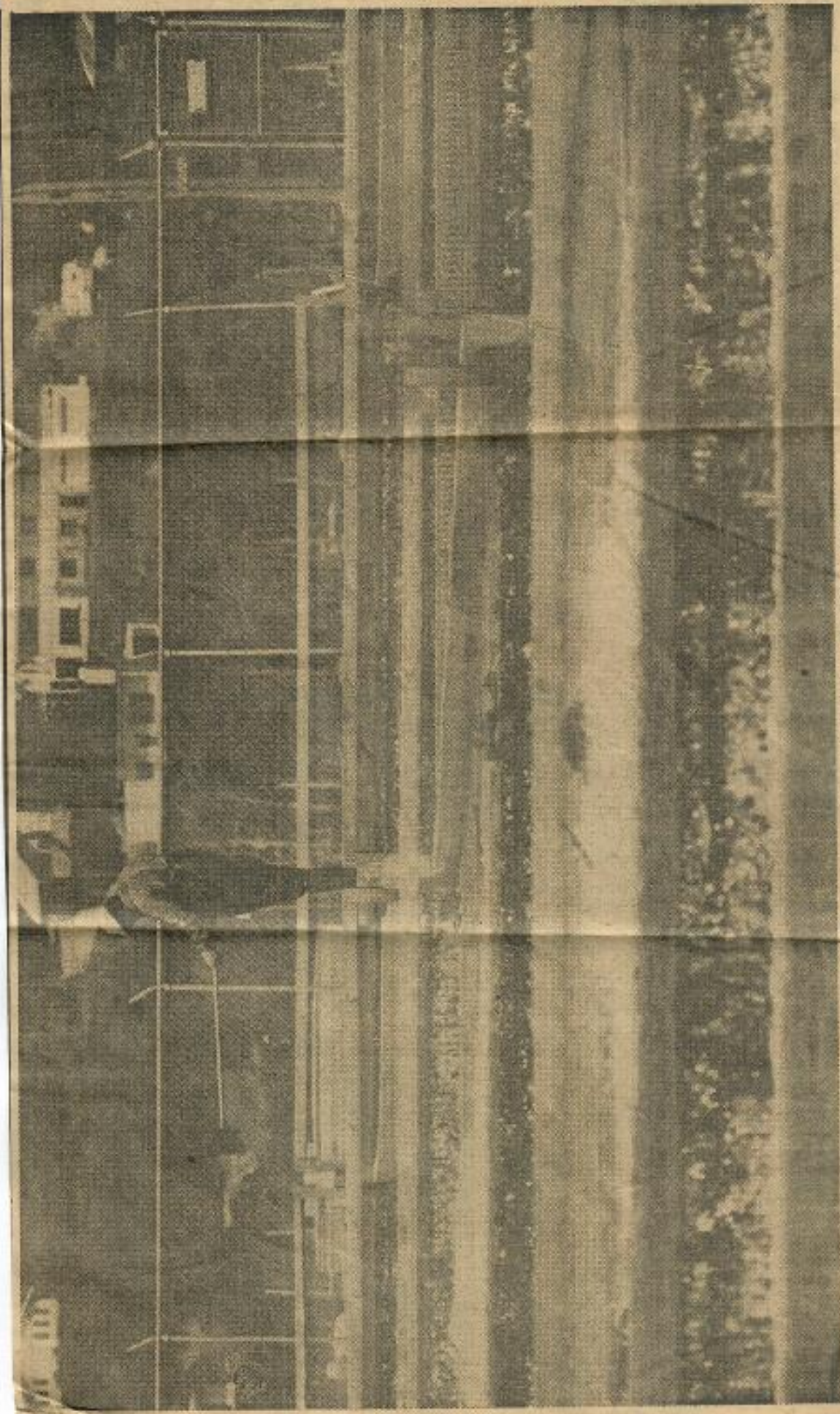
Since supervision of these matters will have a powerful economic and environmental effect on the future of this state it is essential that Hawaii's point of view be impressed upon the members of the U.S. delegation to the sea law conference in New York.

IT WILL BE UP to State officials, our congressional delegates and Hawaii's representatives on controlling councils and committees to see that Hawaii's place in the future of ocean development in the Pacific is clearly enunciated and well protected.

June 23 76 5-B
Porpoises

Answer to Allison Yoon: About the porpoises being killed by the fishermen; Yes, this is very bad, because these people only think about filling their pocket with money. I saw porpoises save the life of a boy, 15 years old. This boy jumped overboard from my ship in the Red Sea, and the sharks were there. These good porpoises killed one shark, and we got the boy back in our life boat. I like tuna, but I can do without tuna. I just don't buy it anymore. I hope more people will do the same, as long as these people kill porpoises. There is just one easy way to deal with the fishermen—boycott them.

A. Pedersen



A fish farmer inspects salmon tanks at Oregon Aqua Foods in Newport, Ore., where aquaculture, a trend for the future, is already part of the present-day scene.

SEA FARMING—A WAVE OF THE FUTURE

NEWPORT, Ore. (AP) — In April last year, 10,000 coho salmon the size of your finger slithered down a spillway at Oregon Aqua Foods to uncertain futures in the Pacific Ocean. They were seedlings, so to speak, in a fish farming operation, a form of farming that is gaining popularity in the United States.

Most of these seedlings were never seen again. Some died of starvation, and disease got some. So did bigger fish and fishermen.

But that November, 160 salmon from the experimental release returned to the spillway as immature but harvestable fish, driven by a mysterious force that brings salmon and a few other species back to spawn where they were raised.

A one per cent return. Your banker would have a stroke. But Jack Donaldson, a former fisheries professor who ran the sea-ranching operation until recently, was encouraged.

"They were all males," he said of the returnees. "We call them 'jack' or 'precocious' salmon that return ahead of schedule to spawn."

Next November, he estimates, another four or five per cent of the coho will be back as mature, marketable 10-pound fish.

He spoke of releases of up to 40 million salmon, with a return of two million a year, within 10 years. He said Oregon Aqua Foods and similar commercial operations could re-establish the salmon runs that have been all but wiped out by hydroelectric dams, pollution, and other man-made factors.

The practice of fish farming is more than 2,000 years old in Asia, where populations are dense and farmland critically short. Only in the past decade has it expanded to any extent in the United States, where it is called aquaculture, mariculture, sea ranching or fish farming.

While a constant protein shortage has been a factor in aquaculture expansion abroad, the domestic focus so far has been on filling an increasing demand for diminishing supplies of luxury items, such as shrimp and salmon.

U.S. fish and shellfish production now is 70,000 tons a more annually out of a worldwide total of seven million tons. The Japanese are the leaders in aquaculture with 500,000 tons.

Besides shrimp and salmon, 16,000 commercial catfish farms dot the South. They'll produce 50,000 tons of fish on 75,000 acres of landlocked ponds this year. In 1960, about 150 tons of catfish were raised on 400 acres.

In fields that have been diked and flooded, catfish growers have raised up to 10 tons of fish per acre in 28 days, far more protein than the land could have produced in conventional agriculture.

Biologists in Maine, Massachusetts and California are experimenting with warm-water rearing ponds for lobsters. They are using water from power plants to boost the growth rate of lobsters and to cut in half the five to seven years it takes nature to make one lobster market-ready. At present there is no commercial lobster aquaculture.

Purina and Raiston have experimental shrimp farms in Latin America and Marifarm, Inc., has the largest shrimp farm in the world — 3,100 acres in Panama City, Fla. There also are a number of small commercial shrimp farms in the country.

Frost and Sullivan, a New York business research firm,

did an exhaustive study of the business aspects of aquaculture recently and concluded that it's possible to raise more than one ton of shrimp per acre per year under ideal conditions. Shrimp farms now produce less than 500 pounds per acre annually.

Trout farming is enjoying a growth in parts of the Northwest, and the California Institute of Technology has experimented with kelp plantations on the open sea. Kelp, a common seaweed capable of growing two feet a day, can be mixed with bacteria and converted to methane gas.

In the Cal Tech experiment off the California coast, water from beneath the ocean surface was pumped to the surface for the kelp.

"The surface of the ocean is a desert as far as kelp nutrients are concerned," said Dr. Wheeler North, who found that deep water contains 30 times the nitrates of surface water.

From their experiment, North and his colleagues concluded that kelp farms at sea can produce great quantities of kelp quickly and efficiently.

The aquaculture industry is developing as the American appetite for fish increases well beyond what the domestic fishing industry supplies. About two-thirds of the fish eaten by Americans is imported; the rest is caught by U.S. fishermen.

And there's the energy problem, especially as it relates to fuel for fishing vessels.

"The world is running out of petroleum faster than most people think," says Hal Goodwin, recently retired as deputy director of the federal Sea Grant program, a nine-year-old program that promotes aquaculture research at several universities.

"You not only have to consider the cost of the protein, but how you are going to get it."

For example, he said, krill, a shrimp-like organism, exists by the millions of tons in Antarctic waters, and is harvested to some extent by the Soviets and Japanese.

"But the cost of sending a fleet after it is high in terms of energy. Krill is a good source of protein, but it's a poor source in terms of energy costs."

Now, Goodwin says, the University of Hawaii is trying to establish salmon runs off the coast of Chile where the krill are plentiful.

The salmon would feed on the krill and return to their spawning areas for harvest, much as the coho salmon do at Oregon Aqua Foods in Newport.

"If it works in Chile, it'll work any place there are krill," said Goodwin. "There will come a time when we'll have to go to aquaculture. It's going to be a protein-short world, and aquatic resources are good, cheap animal protein."

Like many who know the field well, Goodwin is enthusiastic, but also cautious. "It's not going to feed the whole world," he said. Optimists say it might provide 20 per cent of the world's protein when fully developed, he added.

For now, it's a capital-intensive industry, and many of the experimental operations are owned by large companies. Oregon Aqua Foods, for example, is owned by Weyerhaeuser Timber Co., one of the world's largest wood products firms.

To the north, in Washington's Puget Sound, Domesea, owned by Union Carbide, raises salmon to pan size in huge net pens in the sound. It hopes to sell a million pounds of fish this year.

L.A. HERALD-EXAMINER. SUN. JUNE 13, 1976

Historic Places Board

By Helen Altom
Star-Bulletin Writer

The Hawaii Historic Places Review Board, which went without a secretary for 1½ years, now has two secretaries but both are temporary. The board still is waiting for a permanent secretary.

The 10-member board is responsible by law for reviewing historic and archaeological sites for possible designation to the Hawaii Register of Historic Places and recommendation to the National Register of Historic Places.

The board must notify property owners that their parcels have been placed on the Hawaii Register.

HOWEVER, THE board's work has been severely handicapped by the lack of a secretary.

About 900 sites have been placed on the register and most of the property owners haven't been notified, said Ralston Nagata, board chairman.

Last July the board members voluntarily gave up honoraria for attending meetings to build up savings to hire a secretary. Earlier this year they hired Maggie Pai on a temporary part-time basis.

BERNHARD HORMANN, previous board chairman, said Pai start-

ed to tackle the five-year backlog of property owner notifications but "found the files, quite understandably, in great disarray."

He said, "We had no secretary and none of us was able to work at the problem of liaison between the preservation staff (in the land department) which prepares the material . . . and our files."

Hormann said he is concerned about the possible loss of significant historic and archaeological sites because of the problems in getting them on the register.

"I'M DISMAYED because every

Mired in Paper Work

one of the old elementary schools of earlier vintage has been torn down . . ." he commented. He noted that an old building at Kaahumanu School was razed about two months ago and we were not even presented material on it."

The review board stopped holding meetings last fall because it had no secretary and because the preservation staff was tied up producing the State Historic Preservation Plan.

Nagata said the board has been trying since December to fill the civil service position for the board secretary and has been through three civil service lists.

IT HAS BEEN difficult filling the job because of its nature, involving night meetings and occasional Neighbor Island trips.

The Land Board recently approved the temporary emergency hire of Mona F. Lee to serve as secretary for the review board.

Parks Administrator Joseph Souza Jr. told the Land Board, in asking approval of the temporary appointment, that the failure to notify property owners of sites on the register "creates a potential for legal actions against the State . . ."

Nagata said with the two temporary secretaries he hopes notification of property owners can

begin in about two weeks.

HE SAID THE review board also hopes within several months to schedule a public hearing on revised rules and regulations and notification procedures.

He said the legislative auditor during the last legislative session said the board's rules and regulations were not adequate.

Coincidentally, he said, the federal government asked that all states present notification procedures for federal approval before recommending any more sites for the federal register.

Kohala Ditch Funds Freed

By Helen Altom
Star-Bulletin Writer

Gov. George R. Ariyoshi has released \$50,000 for an appraisal of the Big Island's historic Kohala Ditch System which the State proposes to acquire to guarantee water for the State's future agricultural development.

State Land Chairman Christopher Cobb said the State is concerned that Castle & Cooke, which owns the system, will cut back maintenance and let the water works deteriorate.

"We want to insure that the system will be continued and try to get more customers and increase the saleable flow," he said.

"Cheap water is the key to agriculture . . . And the administration is determined to have diversified agriculture succeed. We think it is going to be essential to the future of the State."

The State Board of Land and Natu-

ral Resources has authorized Cobb to acquire the ditch system by condemnation or negotiation.

FUNDS FOR THE appraisal and title search on the system were available in a 1972 appropriation for development of an irrigation system in North Kohala.

Cobb noted the complexities of performing an appraisal on such a unique feature and said the price could vary from \$1.6 million to \$7.5 million, depending on how it is valued.

Facilities to be acquired include the Kohala Ditch, with the collection, storage and distribution works, two deep wells, a permit for use of waters originating on Bishop Estate property, and easements over some lands.

Robert Y. Tsuyemura, vice president of Kohala Ditch Co. and Kohala Corp., said the company is not actively selling the ditch system "but we're not resisting it."

"WE FEEL THE WATER is necessary to irrigate the lands that we've been irrigating for years. Sugar may be out of the business but other crops are being planted and water certainly is necessary."

He said maintenance has been cut back on the system. In the past he had perhaps a dozen persons working on it, he said, but "today I only have two individuals going up to the mountains cleaning the ditch and part of the trail, and one more person who watches the ditch system."

"Admittedly this is low, but we are still providing water to users and, in the event great use is seen or experienced and we sell more water we can afford to send more people out to do better cleaning," he said.

Tsuyemura said the Kehena portion of the system isn't in use, "but we haven't abandoned the system. It is a tremendous asset to the mountain. Without it, we'd be lost too."

HE SAID HAWAII Biogenics, a Kohala Task Force project, is the major user of the water since sugarcane production has ceased in North Kohala. Biogenics is using about one million gallons a day, he said.

He said Pacific Hay, a new Task Force project, plans to start taking water in a few weeks and may use more than three million gallons daily.

Kohala Nursery is drawing about a half-million gallons of water daily.

Asked about maintenance costs for the system, Tsuyemura said Hawaii Biogenics isn't paying for water. "If they had been paying, I think we could break even on operating costs."

"I am still maintaining the ditch system, whether we get paid or not," he added. "We're going through a transition now, being out of sugar and with other crops coming in."

THE KOHALA Ditch System, christened on Kamehameha Day 1906, cost \$500,000 to build and was acclaimed as a "great engineering feat."

Six men and many mules were killed during the work, which included 17 miles of tunnel and five miles of open ditch leading water from the mountain rain forest to the dry coastal plain.

The system consists of three parts: the Kohala Ditch, developing water in the windward valleys of Kohala Mountain; the Kehena Ditch, providing additional surface waters from a higher level on the mountain, and several coastal wells that develop supplemental basal ground water.

The source waters originate on lands owned by the State and Bishop Estate. Withdrawal of the waters is covered by water licenses that expire in 1991.

JUNE 17, 1978
5-8

Friday June 11, 1976

159 Animals Added to List Of Endangered

WASHINGTON (AP) — The official U.S. list of endangered animals will be expanded by 159 species — to a total of 585 — on Monday.

Significant omissions, from the environmentalist point of view, are the California sea otter and the glacier bear.

"We're glad they've partially done what needed to be done, but can't understand why the two animals we felt most in need of protection — the otter and glacier bear — weren't included," said Lewis Regenstein, vice president of the Fund For Animals. "It's a real shame and baffling."

The additions, from throughout the world, include 61 mammals, 38 birds, two fish, 24 molluscs, 28 reptiles and six amphibians. Among them are the Asian elephant, crocodiles, pythons, various parrots and macaws, numerous monkeys, spotted cats and giant salamanders. The molluscs, which are small-like creatures, are the only U.S. species being added.

All 159 were rated as being threatened with extinction by countries signing the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which became effective in 1975. The international convention listed 216 species.

Final action on the others, said an Interior Department announcement Thursday, "is being deferred pending thorough analysis of biological data." It listed the California sea otter in the group "on which a considerable amount of data has been received."

But, for the glacier bear, the department said "this is only an uncommon color variety of the Black bear

(*Ursus americanus emmonsii*) and consequently does not qualify for Endangered or Threatened Status under the Endangered Species Act of 1973."

Regenstein said there probably are only 100 glacier bears left, and the department itself lists them as a species in some recent reference books.

As for the California otter, Regenstein said: "They are in very serious trouble, with only 1,000 or 1,500 remaining."

Fund for Animals describes itself as a nonprofit, national organization devoted to conservation and animal protection. A few weeks ago it threatened the government with a lawsuit if it did not carry out the convention agreement, which was ratified by Congress three years ago.

The department said the major impact of the new listing would be on persons who wish to utilize the animals for purposes not related to scientific research, propagation or enhancement of the survival of the species. These are the only purposes allowable under U.S. law. A permit for one of the accepted reasons can be obtained from the Fish and Wildlife Service.

The new list becomes effective with its publication in the Federal Register.

High-flying Birds

By Dr. Leonard Reiffel

S-B June 19, 76

HOW HIGH would you guess a bird can fly?

As it turns out, birds have pretty remarkable capabilities when it comes to setting high altitude records. For example, back in 1963, an aircraft was flying along peacefully at 23,000 feet and suddenly struck an object. Later that object was identified from its feathery remains as a mallard duck!

This is not the only occasion on which birds have been found at surprising altitudes. The 1953 Mt. Everest expedition spotted birds flying up as high as 28,000 feet and present radar techniques are sufficiently sensitive that one can regularly detect birds flying around at 20,000 feet.

Such performance is truly remarkable because, at 20,000 feet, the amount of oxygen in the air is less than half that of sea level. You must remember that those birds are not just sitting up there — they are flying and that means they are consuming oxygen at perhaps eight times their normal resting rate.

Clearly, something really quite miraculous is going on. Evidently, birds can fly at great altitudes for appreciable times. Yet a man, even when he is fully acclimated to an altitude of 20,000 feet or so, can only sustain an effort eight times his resting energy output for perhaps five minutes without collapsing completely.

HOW DO BIRDS perform these prodigious feats? The answers are not completely known but certain experiments do shed some light on the question. In one experiment, birds and mice were both put into a chamber which was evacuated until it reached the equivalent of 20,000 feet.

The birds, at 20,000 feet equivalent altitude, flitted around very actively and alertly. The mice, on the other hand, became lethargic at 12,000 feet and, at 20,000 feet, the poor creatures just flopped on their bellies in a semi-comatose state.

Compared to the birds, the mice had very little capability of compensating for the high altitude. Their oxygen consumption increased only 46 per cent, whereas the birds were able to get about two and a half times as much oxygen into their system at 20,000 feet as they did at sea level. The birds apparently increased the ventilation rate to their lungs by a huge factor. Thus, more oxygen reached their blood and could be transported around to vital organs.

The power output of a bird's heart can be very high and they can also tolerate lower levels of oxygen in the blood without passing out. These factors all contribute to their superb high altitude flight capabilities. Just why it is good for a bird to be able to fly at very great heights is not exactly obvious. Perhaps they do this to save travel time by finding strong winds that are blowing in the right direction.

Half of Isles' Plants Nearly Extinct

June 18, 76 5B

By Ariene Lum
Gannett News Service

WASHINGTON —

More than 900 of Hawaii's native plants, about one-half of all the plant life found in the State, were named yesterday as endangered species on the brink of extinction by the U.S. Fish and Wildlife Service (FWS).

The Hawaii plants were also one-half of all the plants — 1,700 — named yesterday as near extinction in the United States by the

FWS which last week proposed a set of regulations to protect such plants.

Under provisions of the Endangered Species Act of 1973, the Smithsonian Institution issued a January 1975 report, listing 3,187 plants endangered (critical) or threatened with extinction (serious) in the United States. In this report, 1,100 Hawaii species were named in the two categories.

WHILE LAST

WEEK'S proposed FWS rules deal mainly with prohibitions against interstate or international commercial dealings in endangered plants such as cacti found in the Southwest, they did not prohibit "taking" by collectors, intrastate sale of such plants or noncommercial interstate movement of such plants.

The rules also don't deal with a more serious question concerning Hawaii State offi-

cials — that of a balanced approach to preservation as well as land use planning and development.

An Interior Department news release yesterday said that "most of the plants concerned have extremely limited ranges and are often confined to specialized habitats such as bosks (small wooded areas), marshes, river banks, mountain tops, canyon rims and similar inaccessible areas."

WITH MORE THAN half of the State's plants involved, however, every time a citizen turns around he could destroy yet another specimen, causing potentially serious problems in agricultural and forest activities, housing and commercial development and even in stringing telephone lines on mountain ranges.

In an exchange of correspondence with members of the Hawaii's congressional delegation as well as Smithsonian and FWS officials over a period of months, Gov. George R. Ariyoshi and Christopher Cobb, chairman of the Hawaii Board of Land and Natural Resources, expressed concern that regulated protection of such plants — if they are indeed endangered — must come as a result of detailed scientific research and evidence, missing, they said, from the initial Smithsonian report.

Ariyoshi and Cobb maintain that the State needs financial assistance in such research activities, and they have said that preservation of the plants is only one use of Hawaii's "very limited," forest area and "must be kept in perspective."

THEY BOTH suggest that the burden of proof lies on FWS, but in its announcement in the June 7 Federal Register, the service places the burden on the 46 states involved. The states must provide seven categories of detailed information either in writing by Aug. 16 or at one of several public hearings on the matter this summer. An FWS spokesman said that although the hearings have not yet been scheduled, Hawaii is certain to be one state where hearings will be conducted.

John McGuire, director of the U.S. Forest Service at the Department of Agriculture, estimated that research activities in Hawaii would cost \$300,000 annually, but President Ford's 1977 fiscal year budget only asks for \$110,000 for the State.

Sen. Hiram L. Fong, wrote Sen. Robert C. Byrd, D-W. Va., chairman of a Senate Appropriations Committee, on Wednesday, asking that \$750,000 be appropriated for the 1977 fiscal year, including \$450,000 for research on Hawaii's endangered animals.

FONG SAID THAT although Hawaii's endangered plants represent more than 50 per cent of such plants in the nation, the administration budget calls for only 18 per cent of the budget request for research activities in the nation as a whole.

Sen. Daniel K. Inouye, had written to Sen. Gale McGee, D-Wyo., chairman of another Senate appropriations subcommittee, on the matter in April and received assurances that additional funding would be considered.

But a more disturbing prospect was voiced by the Forest Service's McGuire in a letter to Inouye. McGuire notes that the law "has the potential of significantly impacting," states involved. One of the possible problems, he said, is that "any citizen can sue in his own behalf to stop any action alleged to be detrimental to endangered species."

Police remove hang-glider's body; members of the Source arrested



ons peacefully. The group was taken to Honolulu Police Department's Kailua Substation.

Lee told two news reporters, "Come and see the body."

Mercury's body was found lying naked on the floor of a small room next to the kitchen. There were numerous cuts and bruises on the body.

The body was then taken to the City morgue.

Berman questioned other sect members about Mercury's next of kin, but they refused to give any information.

THE RELIGIOUS sect has been in Hawaii since January 1975. The group has also been known as the Brotherhood of the Source, Aquarians, Eternal Now, and the Source.

Dr. William A. Harris, emergency room physician at Kaiser Hospital and a hang-glider enthusiast, was at the Makapuu launching pad at 10:45 Monday night readying his kite for an evening ride when he heard Mercury had crashed.

"He (Mercury) flew to his left on takeoff, which was not the thing to do on an easterly night. There was turbulence. He was not qualified to fly on a night like that. He flew for a minute — then he crashed," Harris said yesterday.

Mercury and his wrecked kite were about 100 feet down.

"I CLIMBED to him and found he

was hanging in an inverted jackknife position from his harness. He was bleeding and unconscious when I got there but he woke up for a short period.

"He shouted, 'Get me out of here!' I reassured him we'd try to help him. Ten minutes later he died," Harris said.

Harris' friend, an off-duty policeman who asked not to be identified, hurried down with Harris' emergency medical kit — but it wasn't needed.

"He was on a precipitous cliff. Because of the position of the kite and its precarious location, we took a half hour to get him (Mercury) out of the kite and onto a ledge to examine him. The time of death was about 11 p.m.," Harris said.

Meanwhile, Harris and his friend repeatedly told Mercury's fellow sect members to call the police.

It took Harris, his two friends and Jupiter, another Source member, two hours to bring the body up. At the top of the hill, Harris learned the sect members had notified their friends — but not the police.

HARRIS THEN strapped on his hang-glider and sailed down the cliffs. He spotted a police car cruising near Makapuu Beach and flagged it down. After Harris landed and explained the situation, other police officers, including an investigator from the City Medical Examiner's Office were summoned.

In the meantime, the off-duty po-

liceman remained at the launching site, watching Mercury's body.

Several carloads of Source members appeared. Some 15 to 20 members stood around the body and chanted, the policeman said.

"Acting as an officer, I said the body had to stay here. I showed them my badge and identification," he said.

But the "family" ignored the policeman and began loading the body into a van.

"They said, 'Look, just stay out of it. We know what we're doing. We have our lawyer and official documents,'" he said.

THE POLICEMAN said he was outnumbered and there was nothing he could do to stop them. He did get the van's license number.

When other police officers arrived on the scene — some 20 minutes after Harris took off on his kite — the Source members and the body were gone.

With the van's license number, police were able to trace the body to a Lanikai address. The investigator with the medical examiner's office went to the home but was not allowed to remove the body.

"We did not press the issue and we did not want to create any situation which would cause an unpleasant situation at the time. The body was left at the scene to await legal opinion from the proper authority," said Maurice Lee, senior investigator with the medical examiner's office.

Mercury last August was one of

the Eternal Now sect members who helped launch their spiritual father, Yahowha (also known as Jim Baker), on his first hang-glider ride.

Yahowha's flight off Makapuu cliffs proved to be fatal. He was airborne for 10 minutes when he flew toward shore and crashed into a group of campers.

The group refused to seek medical attention for Yahowha, saying it was against their religious beliefs.

HIS "FAMILY" took him home and watched him slowly die from injuries suffered in the accident. At various times, he tried to reset his broken back and attempted to assume the lotus position, family members told reporters at the time.

Three and a half days after Yahowha died, the sect notified police of the death.

Mercury was subsequently expelled from the Pacific Tradewind Sky-sailors Club, a hang-glider organization which regulates use of the launching pad at Makapuu.

The club said Mercury violated the club's safety regulations by allowing Yahowha to jump off Makapuu without any prior hang-glider experience.

With the expulsion, Mercury was forbidden to use Makapuu jump site.

In early August 1975, a few weeks before Yahowha's fatal accident, Mercury hang-glidered for 13 hours — setting what he claimed was a world's record. It was only his fourth jump at Makapuu.

June 14, 76 S-B



A FIRST—This sea lion pup started quite a chain of events at Sea Life Oceanic Center yesterday when it became the first born in captivity in Hawaii. A short while later, a second pup was born, making it the first time two pups were born in the same day at the same location. Center officials say only about 15 have ever been born in captivity in the United States and two more of the center's females are believed to be pregnant.—Photo by John Titchen.

June 13, 76 S-B and Adv

State funds for all: Animal,

By **JERRY BURRIS**
Advertiser Politics Writer

What do the movie industry, aerial fish-spotters, avocados and lava rock all have in common?

Each stands to be the recipient of government largesse under the supplementary State budget approved by the Legislature this year and signed by Gov. George Ariyoshi last week.

THE BUDGET EXPANDS upon and adds to the existing two-year budget approved in 1975. While the new supplement contains such large

and well-publicized items as \$18.7 million for salary increases and \$12 million for continuation of a State jobs program, the document also carries hundreds of smaller items.

These smaller items offer a fascinating glimpse at the important and trivial matters deemed worthy of legislative attention and public money.

The breakdown of the supplementary budget was prepared by Rep. Jack Suwa's House Finance Committee staff.

The breakdown shows the State may spend \$50,000 this coming fiscal

year for research and development of a TV and movie industry here. It's not clear whether the funds would go toward training Islanders to be movie extras, finding a permanent home for Hawaii Five-O or for fact-finding missions to Hollywood.

Another \$11,791 would be spent on "aerial spotting of aku". That apparently means looking for fish, not finding the morning disc jockey from a helicopter.

Avocados weigh in with a \$30,000 research project designed to find out how to convert the fresh fruit into processed food.

vegetable and mineral

THE LEGISLATURE obviously believes lava rock is good for some-

thing besides walls, fish ponds and false fronts on hotels and restaur-

rants. It set aside \$100,000 to find alternate uses for the stuff.

Organized Madness

CHICAGO — A friend once told me that when I write about bureaucratic foulups, he never reads to the end. He can't, because his scalp tightens, his teeth grind, his knuckles get white and his stomach churns.

"Reading about bureaucracies is like trying to untangle a huge knot in a fishing reel," he said. "I can't take that kind of frustration. Why should I? To hell with it."

I know what he means, because writing about it is even worse. Sometimes I find myself biting madly at the typewriter keys.

But it has to be done, because this frustration is the most powerful weapon bureaucracies have. They know that by making themselves confusing to everyone else, and even to themselves, they will become impenetrable. Then they will be able to live forever, and do whatever they wish.

And so, with scalp tightening, teeth grinding, etc., here is another bout with organized madness.

Two months ago, I wrote about a Catch-22 situation that had arisen concerning people in private institutions for the mentally retarded.

Many of these people spend occasional weekends at home with their families. They also go home for holidays, when there are deaths in the family, and so on. The visits, in many cases, are encouraged. They are beneficial. Besides, on weekends and holidays, the institutions don't have any treatment programs going anyway.

But an order came down from somewhere above in the bureaucratic morass that nobody could make home visits totaling more than 18 days a year.

The state said it would withdraw its financial help for all days above 18. Since most people in such institutions receive some form of state aid, they obviously couldn't afford the visits.

Eighteen days isn't much. Nine weekends a year. Or the Christmas holidays

plus five weekends. Anyway you slice it, it is thin.

I tried to find out why this order was issued. The private treatment centers said it came from Illinois Department of Public Aid. But this agency said it came from Washington — the Department of Health, Education and Welfare, an agency that is bigger than the entire governments of some respectable countries.

The state agency said the federal agency said it would not provide funds for visits beyond 18 days. Therefore, the state could not afford to lose the federal money, so it went along with the ruling.

But why the ruling? Nobody seemed to know.

So I wrote about it, and a congressman from California called to say he

Mike
Royko

was angry and would investigate, and a bureaucrat from HEW called to say he would investigate, too. Then several weeks passed.

And a few days ago, I received this letter from a real big man in HEW — Donald Wortman, the acting administrator. Wortman wrote:

I have received several letters enclosing a copy of your column . . .

The difficulties stem from a misinterpretation of the federal regulation governing federal financial participation in the cost of reserving beds in long-term care facilities. This regulation provides that:

"Federal financial participation in the cost of reserving a bed . . . is available . . . for leaves of absence not to exceed 18 days in total during any 12-month period. The limitations do not apply in the case of patients in institutions for the mentally retarded or persons with related conditions . . ."

"The Illinois Department of Public Aid, which is the agency responsible for administering the Medicaid program in Illinois, mistakenly applied these limitations to mentally retarded persons in long-term care facilities.

"Social and Rehabilitation Service staff in the Department's Chicago Regional Office contacted the director of the Illinois Department of Public Aid to correct this misinterpretation of the policy . . .

"The erroneous interpretation has been corrected.

"We regret the unfortunate error that occurred. We are concerned about the frustration and anguish it caused, and apologize for any resulting distress. I am glad that this matter was resolved quickly."

I will save some postage and reply to Mr. Wortman right here:

"Dear Mr. Wortman:

"Don't kid yourself, pal. Nothing has been resolved. The only thing that's happened is that you have a carbon copy of your nice letter to put in your files.

"Two weeks after you wrote your letter, I checked with the treatment center. They say the situation is unchanged. Same old 'frustration and anguish.'

"I also checked with the state agency, which you say has corrected the misinterpretation of your policy. Ho ho. They don't even know where your letter is. Two days after I asked them to check on it, they still don't know what I'm asking about. The state agency's public relations person says:

"We're still trying to track that down. It appears that we haven't received any word from them on that, but we don't know for sure. We have sent several requests for clarification into HEW, and we don't know for sure which answers we have."

"So I'm glad you're glad this matter was resolved so quickly. Except it ain't."

This time I think I'll bite the space bar and the reverse key.



PERCHED ON PERCY—Percy, a baby alligator, keeps a stiff upper lip while transporting two turtle toddlers at Windsor Safari Park, near London.—AP Photo.

JUNE 14, 76 5-B
**Zoo to Import Live
Louisiana Crickets**

The Honolulu Zoo plans to ship in live crickets from Louisiana to solve a food shortage for some of its animals.

"The zoo is having a hard time, due to a lack of live insects, to keep its population of animals healthy," Charles Yasuda, chief of plant quarantine, told the State Agriculture Board.

Crickets are used as live food for certain reptiles, amphibians and insect-eating mammals.

The agriculture board approved introduction of the crickets in the State on the recommendation of its advisory committees on entomology, plants and animals.

The board also approved the introduction of two other organisms—anemone shrimps and a certain species of snail wanted by local scientists for experimentation from the Mid-Pacific Marine Laboratory at Eniwetok in the Marshall Islands.

Isle Aquaculture

By Helen Altom
Star-Bulletin Writer

Ronald B. Linsky would like to see every tourist leave Hawaii with a fresh-frozen six-pack of Hawaiian prawns, which he points out is a lot of prawns considering the annual influx of 2.8 million visitors.

The idea may seem farfetched but it's one of his long-range goals as director of the \$2.1 million Sea Grant Program at the University of Hawaii.

He's determined to initiate aquacultural industries and says, "We have to promote exports to develop a broader economic base."

Linsky came here last fall from the University of Southern California, where he directed the Sea Grant Program for five years.

HIS MAJOR CONCERN as the Hawaii program director, he said, is to develop a plan for the 1980s that "will intimately tie us into the State's desire for marine resource development and the national objectives for oceanic development.

"On a grand scale, we want to pick up one or two national needs for which we could become a center of excellence."

He thinks of the Hawaiian Islands as "eight fixed oceanography platforms, each with a major mission,"

which he would like to pursue in the Sea Grant program.

For instance, he mentioned energy for the Big Island, ocean transportation for Oahu, polyculture or aquaculture development on Kauai, and a commercial fishing center for Maui.

AS THE ONLY oceanic state, he emphasized, "We should become the oceanographic capital of the United States." Linsky said one of the problems with the Sea Grant Program has been up-and-down funding which he wants to flatten out by developing what he calls "core programs with stable economic support."

He said he is reorganizing the aquaculture program, working with the State Department of Planning and Economic Development "to bring together all interests in aquaculture and initiate true industry in aquaculture."

He said efforts already are under way to assemble the State's aquaculture experts in a statewide planning effort.

PRAWNS ARE AN obvious industrial potential because of international leadership in prawn-farming by the State Fish and Game Division at Sand Island, he said.

He also sees great possibilities for moi, mullet, seaweed and shrimp

developments, pulling together components of the University, Ocean Institute and State agencies at work in those areas.

He said another goal for the next year is an "aqua-agri-industry"—dry farming associated with an aquaculture system. "We would take a culture system that has effluent and use it as a nutrient flow for land crops," he said.

Linsky believes its time "to make the bridge between research and development."

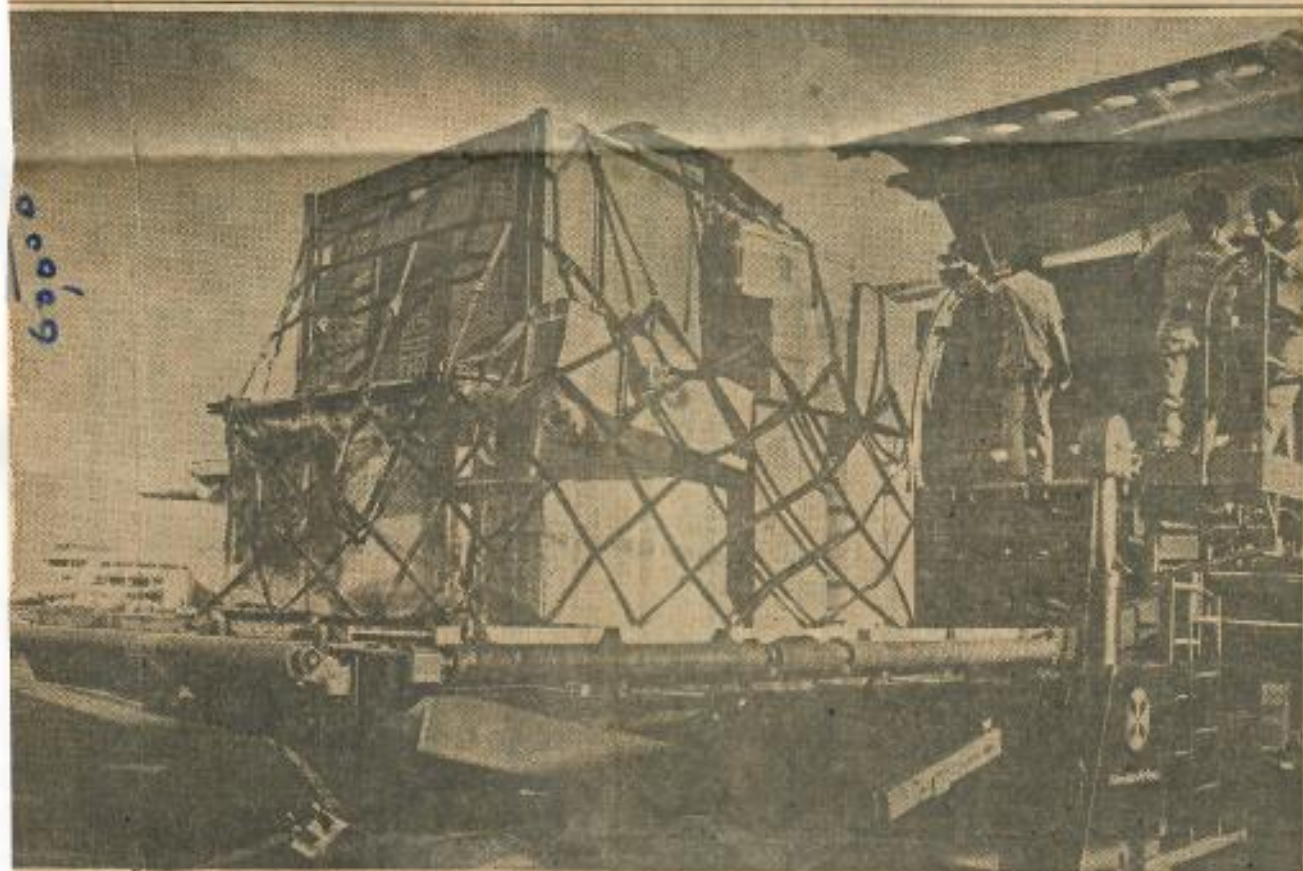
"WE HAVE SPENT an awful lot of money and time on research in aquaculture. If we determine it is not feasible in the next year we should get out of the business," he said.

He said his program planning is in three-to-five-year increments. And he has a new rule: "No project will last more than three years unless it is enormously successful, with spin-off effects."

He is meeting with State officials to respond to State needs in tourism and other areas.

He said one of the "hairy" problems facing the State is its extended jurisdiction over the ocean with the new 200-mile limit.

"A BIG HUNK OF watery real estate, 800,000 square miles of ocean,



READY TO GO—Outgoing freight waits to be loaded for a night flight from Honolulu to the Neighbor Islands.—Photos by Craig Kajima.

Potential Seen

is defined as territorial seas ... How does the State prepare to cope with 600,000 miles of ocean?" he asked.

Although Hawaii has one of the largest Sea Grant budgets in the nation, Linsky said federal funding has been level the past three years. "This causes a real problem because of the lack of growth potential, and the cost-of-living increase must be absorbed."

Because of this, he said, "We must look at our limited resources and make them work a lot harder."

The program received \$1.3 million in federal funds this fiscal year and \$800,000 from the State. Linsky said 34 projects were funded and he hopes to obtain federal funds to support an equal number in the next fiscal year.

THE SEA GRANT Program has a staff of about 20 persons, including teams involved in educational, outreach and advisory services, and about 94 scientists and associates are involved in research projects.

Linsky is a biologist who calls himself a "bio-politican," explaining: "It is important that science and technology be in the decision-making process ... This is one way to achieve the goal of resolution of many ocean issues."

To accomplish this, he said, science and technology must be translated into language understood by the public and one of Sea Grant's objectives is "to put information into the hands of the users."

Another vital goal, he said "is to develop an ocean constituency ... to get people to think wet."



NEW EXPORT—High hopes are seen for prawns as an export product and tourists alone could take millions.—Cartoon by Corky Trinidad.

DPED Has Money to Plan

The State hopes to accomplish three tasks to spur aquaculture development in the Islands with \$150,000 provided in the next fiscal year budget by the last Legislature.

They include:

—An assessment of the economic potential of aquaculture with a study detailing costs and benefits and including social, economic and environmental considerations.

—A survey of all Islands to determine possible aquaculture sites and to take steps to preserve them for future use.

—Preparation of a long-range aquaculture plan incorporating all existing studies and setting State goals and levels of funding.

EUGENE M. GRABBE of the Department of Planning and Economic Development said his agency will coordinate the work and hopes to have it completed by the next legislative session.

He said the study plans follow recommendations in the report "Aquaculture in Hawaii 1976" pre-

pared by John S. Corbin for the DPED for presentation to the last Legislature. Corbin is a marine biologist and graduate student at the University.

The report reviewed the status of aquaculture in the Islands, pointing to "high" progress by the State in prawn farming, by the Hawaii Institute of Marine Biology in top minnow research and by the Oceanic Institute in mullet culture.

Other species offering good potential are moi and milkfish, the report said.

AMONG OTHER appropriations in the aquaculture field, Grabbe noted that \$300,000 was allocated to the State Department of Land and Natural Resources to assist the Oceanic Institute in setting up a mullet hatchery.

"The two things we are far ahead of in Hawaii are the fresh water prawn — maybe it should be called the Royal Hawaiian prawn — and the mullet," he said.

Star-Bulletin

Business
and
Finance

Section

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Thursday,

June 10, 1976

Sea Grant Director Predicts New Industries

Isle Aquaculture

By Helen Altom
Star-Bulletin Writer

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"A BIG HUNK OF watery real estate, 600,000 square miles of ocean,

The Honolulu Advertiser

Hawaii's Prizewinning Newspaper

**Cops arrest
glider victim**

Advertiser



**8, take
n's body**

Aloha!

Today is Wednesday,
June 16, 1976



Advertiser photo by Allan Miller

Meet the press

Source "family" members, Isis, Odin and Harvest Moon, meet with the press outside their Lanikai home an hour before the police arrested Mercury's body, saying only, "Everything is perfect."

By VICKIE ONG
and DAVID TONG
Advertiser Staff Writers

Some 30 Honolulu policemen last night forcibly arrested members of a religious sect at their Lanikai home before the body of a hang-glider could be removed from the house and taken to the City morgue.

The police were armed with a temporary restraining order obtained late yesterday afternoon which allowed them to remove the body and barred interference by the group, known as the Source.

EIGHT MEMBERS of the Source were arrested for "hindering government operations," a misdemeanor, when they refused to turn over the body of Mercury Geiger, 22, of Kailua.

He was killed in a hang-gliding accident about 11 p.m. Monday at Makapuu but police were not notified until some three hours later. By that time, the Source "family" had taken the body to its Lanikai home at 1534 Mokolua Dr.

The group wanted to keep the body at the house and untouched for three and a half days for religious reasons—"to allow the soul to leave the body," said one sect member.

Arrested were Isis Peters, 34; Golden Marshall, 23; Makushla Ulleny, 24; Ra Jensen, 24; Homer Phurman, 36; Paul Demian, 25; Damascus Aquarian, 46 and Odin Aquarian, 29.

They all posted bail of \$25 and were expected to be released late last night.

This is the second time a member of that group has been killed in a hang-gliding accident and the body taken to a private home. Last August, the sect's spiritual head, Yahowha, died from injuries sustained after his hang-glider crashed off Makapuu.

The family kept his body for three days after his death before notifying officials.

The City got a temporary restraining order from Circuit Court Judge Norito Kawakami yesterday which cited the possible health hazards of keeping a body in a private home.

THE COURT order was obtained at 5:15 p.m. but the police did not enter the Lanikai house until 8:05 p.m. Police Lt. Gordon Lee, Bernie Berman, an investigator with the City Medical Examiner's office, and two other policemen met with Source members and asked them to return the body.

The group refused.

"We have to sing and chant over his body. We don't want to stop. The whole vibration will be destroyed if the body is removed," a sect member said.

A woman member told police the group was "totally within our rights as U.S. citizens" to follow their own religious practices and keep the body for three and a half days.

Lee said the decision to take the body had been made. Sect members who resisted would be arrested, he said.

Lee asked the members to open the door to the room where Mercury's body was being kept. The sect members refused.

"If you don't open the door, I'll kick it in," he said.

Several in the room continued to chant, ignoring Lee's request. The door was kicked in.

SEVERAL MEMBERS had to be forcibly subdued and handcuffed while others entered the paddywag-

See **POLICE** on Page A-4

May 5, 1976

STAR-Bulletin

Sea Grant College Extension Voted

By Arlene Lum
Gannett News Service

WASHINGTON — The House has passed legislation extending the Sea Grant College program another year and authorizing a \$50 million budget for the 1977 fiscal year, the same amount authorized for the current year.

The program, which calls for research, education and public service under federal-state-university cooperation, is directed toward the understanding, utilization, management and protection of the resources of the oceans and the Great Lakes.

There was no opposition to the bill, which was passed by unanimous voice vote and sent to the Senate.

Academic institutions, after at least three years of satisfactory progress and development of a research, practical education and training program and a functioning marine advisory service, may be designated Sea Grant Colleges.

AT PRESENT there are eight: Oregon State University, University of Washington, University of Wisconsin, University of California, University of Rhode Island, University of Hawaii, Texas A. & M. and a cooperative venture of the State University of New York and Cornell University.

As of early 1976, however, there were 124 additional institutions participating and 412 government agencies and private companies providing support in 26 states, Washington, D.C., the Trust Territory, American Samoa and Guam.

The program provides that states and local sources must provide one-third of the cost in matching funds.

REP. SPARK M. Matsunaga call-

ed the program "one of the most successful the federal government has ever launched."

He noted that the University of Hawaii has been a Sea Grant College since 1972 and there have been two programs achieving "outstanding success."

Within five years, he said, Hawaii developed a prawn industry which has exports worth up to \$7 million annually on a federal investment of only \$408,000. Within the same period of time, he said, the "sea jewel industry" — coral harvesting — has become a \$11.5 million industry on a \$148,000 federal Sea Grant investment.

"We have paid back in taxes . . . over three times the funds that were expended" in the program, he noted.

THE BILL WHICH passed in the House was a consolidation of three proposals, including one made by Matsunaga.

The House Merchant Marine and Fisheries Committee had recommended the program be extended for just one year, rather than for three years as recommended by the administration, because it wants to conduct a "thorough review and examination of the nation's marine science and technology policy and the role that Sea Grant may best play in helping to implement such a policy."

The committee added a \$5 million authorization for Sea Grant studies addressed specifically to "ocean issues of major national importance." Another \$3 million authorization would provide for the training and education of foreign nationals and for advisory services.

The Paradoxical Hungarian Economy

By Janos Gereben
Star-Bulletin Writer

BUDAPEST, Hungary — A friend of mine, a college professor, has a salary of 3,000 forints a month.

At the official rate of exchange of 20 forints to the dollar, my friend is earning \$150.

At the real exchange value of 40 forints to the dollar, he is living on \$75 a month.

SO HOW COME he eats more than is good for him, spends his evenings in concert halls, theaters and opera houses, lives comfortably in a well-furnished apartment?

The answer is difficult to understand for those who live in economic settings different from what one finds in Hungary. And that means the rest of the world, capitalists, socialists, communists, third-world developing economies, you name it. There is no stranger, more peculiar economy in the world than this one.

To begin with, my friend with his measly 3,000 forints doesn't pay taxes. He is not evading his tax obligations — he doesn't have any.

There is no income tax of any kind here.

TO HELP those 3,000 forints go further, the benevolent state also provides my friend with all medical care, including medicine and hospitalization, free education from kindergarten to Ph.D., subsidized housing and about 90 per cent of his retirement savings account.

A ride on the superb new subway costs him 5 cents, the top-priced opera ticket is \$2 and he gets a fifth of the world's best apricot brandy for \$3.

BEFORE APPLYING for economic asylum in Hungary, consider the following.

—What good is a fine apartment if you cannot open the windows? Industrialization and the private-car boom of East Europe's highest standard of living have turned the

air over Budapest into garbage, worse than Los Angeles at its worst.

Even in May, without the individual wood and coal heating that blacks the winter sky, factories and cars are pouring cinder, carbon

Hungary's economy is strange and unique, a Star-Bulletin writer finds on a visit to his former home.

monoxide and soot into the air. While the government denounces the "environmental vandalism of capitalists," it looks the other way when Hungarian factories budget annual penalties for air and water pollution instead of correcting the situation.

—**BECAUSE OF** Hungary's effort (a successful one so far) to isolate itself from the world-wide inflation, two years ago Western imports were curtailed strictly. If my friend had ten times his salary, he still couldn't

get a better washing machine than the only one available: the current Soviet version of the 1912 Maytag.

—That free medical care gets rather costly unless one is willing to sit in waiting rooms for days. Unlike the democratic sharing of interminable waiting such as prevails at Kaiser Ala Moana, the Budapest solution to this problem is to tip nurses — and doctors! I witnessed myself the handshakes at clinics with the passing of large bills as patients entered the door. Those without large bills to shake hands with sat on the wooden pews when I stopped by again that evening, eight hours later.

—**THE COMMON** ownership of buildings means that nobody is responsible for them. While a gleaming Hilton is rising on top of Buda Castle (which the Turks had to besiege for decades, but Hilton could buy easily in spite of a nationwide protest against "desecration of a historic monument"), plaster is falling from decade-old and centuries-old buildings alike.

At times, it's hard to tell apart the garbage-laden air from the gray,

dirty streets — here, in the former "Paris of Central Europe."

—There is a trick even about those dirt-cheap theater and opera tickets, running between 20 cents and \$2 vs. the \$40 tickets at the neighboring Vienna Staatsoper where some performances are inferior to the "cheap" Budapest Opera.

The trick is that tickets are not available. They are sold and distributed months in advance through a system of personal favoritism and allotments to factories and offices. When the curtain goes up on the sold-out performance, often the house is half empty because those workers who "win" tickets at the factory lottery refuse to go. So much for spreading culture forcefully.

—**FINALLY**, salary here practically never means actual income. There is even an official system to provide unofficial extras. Badly-needed workers in certain jobs are offered a \$500 annual bonus on top of their salary. While this fact is publicly advertised, it is not part of the wage report or statistical systems.

Additionally, the forbidden "private sector" business (employing others illegally, rather than working by oneself, which is allowed) is booming, with thousands of state-employed workers reporting sick and earning a great deal at home in "private sector" jobs. My professor friend often earns 6,000 forints in a week to supplement his 3,000-forint monthly salary.

It is a strange, jungle-like economy of paradoxes here, an economy of practically no inflation and low food prices (but no fruit or vegetables anywhere in the spring), an economy of shabby affluence, of tips and baksheesh, of lip service to cooperation with Moscow and heavy deals with the West, a strange, wondrous and very Hungarian system.

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A-12

Tuesday, June 8, 1976

The Paiko Case

The Paiko Lagoon dispute is full of gray areas.

There is a dispute regarding the importance of the lagoon and peninsula as a sanctuary for the Hawaiian stilt and other birds.

There is a dispute about the effect the construction of a house on Paiko Peninsula would have on the birds.

There is a dispute over whether Rodney Inaba should have been required to file an environmental impact statement for his house.

There is criticism of the way legislators from the East Oahu area obtained funds for the purchase of the tip of the peninsula for the sanctuary with Inaba's house lot exempted.

Yet the same "pork-barrel" technique was used in the last legislative session to provide funds to purchase the Inaba lot, bypassing the standing committees that had refused to authorize the purchase.

Gov. George Ariyoshi said last October that he would go along with purchase of the house lot provided that the Legislature authorized and funded the acquisition. But now he has refused to release the funds because Inaba has since constructed a house on the property, thereby making the purchase too expensive in his opinion in view of other demands on State funds.

Meanwhile Mayor Frank Fasi has proposed that the City buy the lot. The City Council says it isn't opposed to the idea but wants the Mayor to submit an appropriation with an appraisal and an indication of how the purchase would be financed.

By proceeding with the house construction Inaba has presented the government with a fait accompli. Although his opponents claim that the property has been overvalued, certainly it would cost the State far more to acquire it with a house on the site than without improvements.

It was a mistake to permit a house lot in the middle of a wildlife sanctuary, but we aren't convinced that letting the Inaba house remain would have serious adverse effects on the birds. The respected University of Hawaii zoologist Andrew Berger stated in this newspaper, "It is my considered opinion that anyone who uses birds as a reason for opposing the construction of one more house at Paiko Lagoon is either uninformed or intellectually dishonest."

The City may yet go ahead with the Inaba purchase, which would leave the Governor looking like a cheap skate or an opponent of environmental protection. Precisely because he must have been aware of this possibility, it took courage for Ariyoshi to say no.

When politicians decide to spend money, we have to remind ourselves that they aren't Santa Claus. It's our money they're spending. If the Governor thinks the price at Paiko Lagoon is too high, that is not an unreasonable or irresponsible position to take.

JUNE 7, 1976 Honolulu Star-Bulletin

Soviets Wooing Tonga

By Lyle Nelson
Star-Bulletin Writer

Russia is establishing a foothold in the South Pacific. The Soviet target is Tonga, in the strategic Friendly Islands east of Fiji. The Moscow offer is to build an international airport and fishing port.

Oleg Selyaninov, Russian ambassador to New Zealand, last April presented his credentials to King Taufa'ahau Tupou IV at the palace in Nuku'alofa.

The London Daily Telegraph said the Soviet diplomatic move immediately raised speculation that Tonga might become a base for the Soviet Pacific naval fleet based in Vladivostok.

WHEN SELYANINOV presented his credentials, he said the establishment of diplomatic relations will benefit both countries.

The Tonga Chronicle reported Selyaninov said the arrangement could

effect trade and scientific research exchanges as well as sport competition.

Selyaninov said Russia was not establishing relations for purposes of self-interest but rather to help develop Tonga.

"We can help you in the development of many branches of industry such as fisheries, oceanic research, civil aviation and building factories for canned foodstuff," he said.

The cooperation would be on the basis of peaceful co-existence, Selyaninov said.

THE LONDON PAPER quoted sources in Auckland saying Tonga is eager for foreign investment.

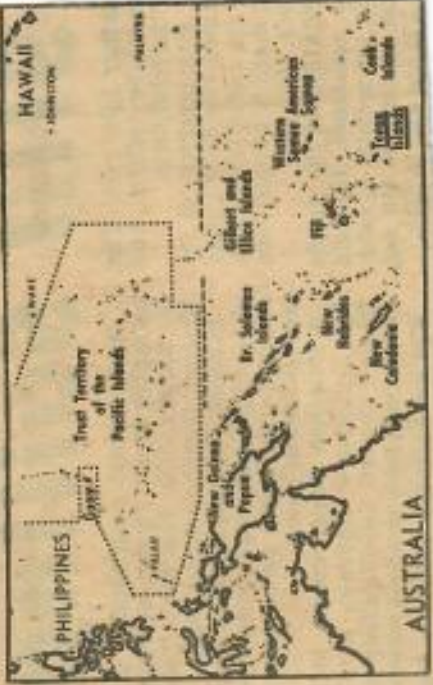
To build an airport the tiny kingdom of 150 islands would bring in dozens of Soviet "technicians" and "advisers," the Daily Telegraph said.

The Soviets had never shown an

interest before in the South Pacific.

If it can establish a naval port in the South Pacific it would successfully bridge its Indian Ocean force with its North Pacific fleet of surface ships and nuclear submarines.

The sealanes between the Indian Ocean and Japan, via Singapore and Jakarta, are considered the most heavily used and strategic in the world.



Jury Probe Asked in Sand Mining

JUNE 8, 76 5-B

WAILUKU, Maui — An investigation by the Maui Grand Jury is being sought by Life of the Land in its three-year-old effort to prosecute HC&D for its alleged theft of public sand from Molokai's Papohaku Beach.

The group said yesterday it has requested Judge S. George Fukuoka of the 2nd Circuit Court to order the investigation because of alleged attempts by State and County prosecutors to "whitewash" the case.

In a news release, Scott Nakagawa, the group's vice president, said Fukuoka has "already indicated verbally that he would forward this matter to the grand jury."

BUT FUKUOKA said yesterday he does not recall making such a promise, or speaking to any Life of the Land representative.

He acknowledged receiving a letter from the group requesting his intervention in the case, but said he does not know whether he will comply.

"I have not read their letter yet and I do not know what steps to take at this point," Fukuoka said.

Academic Data Ruled Confidential

By Robert Pear
Washington Star

WASHINGTON — In what is believed to be the first case of its kind, a federal judge in California has ruled that a Harvard professor need not disclose information obtained confidentially in the course of academic research.

The opinion, issued May 20 by U.S. District Judge Charles B. Renfrew in San Francisco and received last week at Harvard, is considered to have far-reaching implications in academic circles.

Daniel Steiner, general counsel to Harvard University, said, "as far as we know, this is the first case involving a university scholar where a court has provided protection for research data."

IN A TELEPHONE interview Steiner said the case was important because "a fair amount of academic research, especially in the social sciences, involves confidential relations between a researcher and his sources."

University administrators said that forced disclosure of privileged information could cripple the case-study method used by most graduate schools of business. Companies involved in the development of nearly all such cases grant access to researchers only if the companies are allowed to remain anonymous.

In the California case, Marc J. Roberts, professor of political economy in the Harvard School of Public Health, cited the First Amendment in refusing to produce his research notes or identify his sources.

The plaintiff was Richards of Rockford Inc., an Illinois-based supplier of environmental equipment, which sought details of Roberts's interviews at Pacific Gas and Electric Co. in California.

RENFREW SAID: "Society has a profound interest in the research of its scholars, work which has the unique potential to facilitate change through knowledge. . . ."

"Compelled disclosure of confidential information would without question severely stifle research into questions of public policy, the very subjects in which the public interest is greatest."

Steiner said that supporting affidavits from professors at Harvard, Stanford University and the University of California at Berkeley helped win the case.

The statements "expressed the tremendous impact an adverse decision would have on teaching and scholarship in certain areas of the social sciences," Steiner added.

THE JUDGE SAID he did not have to decide whether academic researchers had a constitutional privilege to protect their sources.

However, he said, First Amendment cases involving news reporters provide useful guidelines for striking a balance between discovery of evidence and nondisclosure.

The ruling, Steiner said, may not affect criminal cases. He recalled that several years ago an assistant professor of government at Harvard went to jail for two days after he refused to testify before a grand jury looking into release of the Pentagon Papers.

ROBERTS HAD INTERVIEWED employees of Pacific Gas and Electric in 1974 as part of a research project investigating the manner in which utility companies make environmental decisions. At the time, he made a written pledge of confidentiality to the California utility.

One subject of his research was the power company's plant at Pittsburg, Calif.

Meanwhile, Richards of Rockford Inc. filed a breach-of-contract suit against PG&E seeking final payment for the design, manufacture and delivery of equipment to the power company for use in its plant.

Leadership

By LEWIS M. SIMONS
Washington Post Service



NE WIN

RANGOON — Before President Ne Win returned to Burma from a trip to Europe last month, bookmakers in Rangoon's shabby Chinatown were offering 2-to-1 odds against his return.

Now that he's here, the betting is sure to be that he is about to hand over power to his second-in-command, Gen. San Yu, and step down after 14 years of iron-fisted rule.

The bettors in Chinatown, and a lot of nongambling Burmese as well, are convinced that Ne Win is sick, in body and spirit, and that he no longer has the will to govern.

WHILE THESE OPINIONS are based largely on rumor — mainly because under Ne Win's authoritarian rule almost nothing of significance about the mercurial leader is made public — some informed observers are fairly convinced that there's about to be a major shift in Burma's leadership.

With San Yu as heir apparent, Burmese and resident foreign observers are concerned that "The Burmese Way to Socialism," as the nation's xenophobic political philosophy is known, will make a sharp turn, possibly into the Soviet camp, and almost certainly deeper into economic ruin.

San Yu, 58, a career military officer, is said to be a dour, scrupulously honest, but naive man. His three chief advisers, members of the 150-member Central

change in Burma foreseen

Committee, are former Communists who lean distinctly toward Moscow.

Ne Win, 65, has painstakingly woven a narrow, twisting course among the Soviet Union, China and the major Western powers. While this has cost Burma foreign economic assistance, it has also established for the nation unquestioned nonaligned credentials.

THEN IN NOVEMBER, Ne Win traveled to Peking and joined his Chinese hosts in condemning Soviet "hegemony" in Southeast Asia. His intention seemed to be to convince China to resume the Burma-China friendship and nonaggression pact which he had terminated in 1969.

China refused to restore the treaty and has continued to supply arms and training to the insurgents of the Burma Communist party, the principal rebel group among the two dozen organizations that maintain a running guerrilla battle with Ne Win's army.

Although the Chinese did not respond to Ne Win's slap at the Soviets, the pro-Soviet Communists in the Central Committee became alarmed and convinced Ne Win that he was tilting toward China and must steer Burma back toward a more doctrinaire course.

THIS RESULTED in the ouster on March 7 of Gen. Tin U, a relatively liberal, pragmatic officer who as defense minister and armed forces chief of staff had been a personal favorite of Ne Win and of the 150,000-man army.

Tin U's removal caused grumbling among a number

of officers and men who had looked to him to succeed Ne Win. Some 200 of these soldiers were summoned to Rangoon where the situation was "explained" to them. According to one unconfirmed report, about a dozen of these men were detained.

Later in March, about 4,000 university students rioted in Rangoon, shouting, among other things, "Long live General Tin U. Down with the San Yu-Ne Win clique."

The government quickly crushed the students and, as it has done frequently in the past, closed down all universities. In April, Ne Win left for Switzerland, ostensibly for treatment of heart and stomach ailments, and San Yu began a tour of military units.

GIVEN THE advantages it held when it won independence from Britain in 1948, Burma should have been at least as economically viable as such prospering Southeast Asian states as Malaysia, Singapore and Thailand.

Instead, it can only be compared favorably with its impoverished neighbor to the west, Bangladesh, and with the poorer parts of India. The one basic advantage Burma has over Bangladesh is that it still produces enough rice to meet its own needs. Thus, the 31 million people of Burma have been lulled to sleep while the world passes them by.

"Fourteen years of the 'Burmese Way to Socialism' have proven beyond doubt that the state is not capable of making this country run," one East European diplomat told a visitor.

If, indeed, Burma under San Yu is headed down a tougher, pro-Soviet road, this raises serious questions about how China will react.

Aquaculture Hopes

By Edward Flattau

June 2, 76
S-B

FISH FARMING is being touted by some as a technology that possesses the potential to alleviate world hunger.

But don't raise your expectations too high, even though Japan already obtains about 10 per cent of its catch from aquaculture and Congress is contemplating this country's entry into the field in a big way.

The simple truth is that aquaculture cannot save man from exhausting the resources of the sea. Only an effective international curb on overfishing could do that. And such a restriction could not be expected to endure unless global population growth and the destructive pressures it fosters are brought under control.

MANKIND DOES not have the means to duplicate the enormous

Fish farming may make an important supplement to the food supply, but it won't solve the world hunger problem.

yields produced by ocean creatures' natural reproductive cycles. Nevertheless, evidence does suggest that aquaculture—if handled correctly—can make an important contribution as a supplement to the indigenous bounty of the sea.

In this country, aquaculture is not being explored with the objective of feeding the destitute foremost in mind. The House Merchant Marine and Fisheries Committee is approaching the issue from the perspective of making fish farming profitable enough to attract private investors.

There is more talk about providing new jobs and tax revenues than about generating a massive new food source. It is felt that if aquaculture can't initially make money, it will never get off the ground to make a utilitarian contribution.

Thus, the committee's discussion in developing a bill has revolved around how to improve methods of raising fish that are essentially delicacies beyond the daily budget of the average American. What little American fish farming that has occurred has centered around salmon, shrimp, oysters, lobster, trout and catfish.

AT THE HEARINGS, not even a single witness testified on aquaculture's most promising big food crop.

Seaweed is cheaper than fish to cultivate and process but it's not likely to spark a stampede at the supermarket, at least when first

introduced. Most of the abundant edible species that are best suited for aquaculture and have been farmed successfully in other parts of the world unfortunately have little or no appeal for American diets.

While Japan does raise shrimp, oysters and trout, it and other Asian countries have cultivated such species as carp, eels, milkfish and yellowtail flounder for mass consumption.

IF AQUACULTURE'S ultimate existence depends on its profitability, the biggest obstacle is its enormous initial outlay for facilities and feed.

A House committee staff member points out that a number of smaller fish-farming ventures in the United States conducted prosperous operations until they tried to expand, whereupon they failed. The committee is searching for the reasons why.

If aquaculture, even at its peak efficiency, cannot rescue us from the menace of overfishing, what can?

The National Marine Fisheries Service is optimistic that the extension of U.S. territorial waters to 200 miles from the coast (which takes effect next March) will result in better resource management on our part and inspire international cooperation in respecting catch quotas and forgoing fishing entirely in areas designed off-limits to induce a recovery.

PROVIDED THE water is not overly polluted, recovery of fish stocks is certainly within the realm of possibility. During World War I, for example, fishing ceased in the North Sea for four or five years and a rich fishery was restored.

Marine biologists don't know yet if overfished areas in the Pacific and North Atlantic will respond the same way. In cold waters, it takes 5 to 10 years of protected existence for depleted stocks to stage a comeback, if a comeback is possible.

Furthermore, political scientists are not sure that there will be a sufficient degree of international cooperation to reverse the suicidal trend of some nations to get as much as they can from the sea as quickly as they can, regardless of the consequences.

As for aquaculture, the prospect of profitability may have to be forfeited if the enterprise is to feed large numbers of people in all economic brackets. Fish farming might conceivably have to be treated as Amtrak, Social Security or other public service programs whose perpetual deficits are offset by federal subsidies because of their vital importance to society.

Gannett News Service

The Bureaucrats Will Get You...

By Mike Royko, Chicago Daily News

CHICAGO—I like stories like these two. They confirm my theory that for every honest, inoffensive, harmless citizen, there is a bureaucrat waiting for a chance to goof him up.

Or, as Joe Louis once said about his opponents, "They can run, but they can't hide."

* * *

JANET NOBLE was in the supermarket. She walked away from her food cart to talk to the butcher. I took only a moment.

When she walked back to her cart, she yelled: "My purse is gone!"

The store's employes ran around looking for the thief, but it was too late. The police came and filled out their reports.

Over dinner that night, Janet and her husband, Dick, a car salesman, were glum. They are young and loss of \$100 hurt. And replacing charge cards, keys, licenses, and worrying about bouncing checks is a bother.

A few days later, the store manager called Mrs. Noble. Somebody had written a bum \$75 check, forging her name.

And one of her credit cards had been used at another store.

TWO POLICEMEN came to her apartment to get more information about the contents of the stolen purse.

They sat down in the living room and talked. Then one of the policemen noticed something on the living room bar.

"Say, is that a slot machine?"

"Yes," said Mrs. Noble. "We got it as a wedding gift."

She explained that some friends had given it to them. It was quite old and her husband liked to tinker with it.

"It's a conversation piece," she said.

"Does it work?" the policeman asked.

"I'm not sure," Mrs. Noble said. "Sometimes it does, sometimes it doesn't. I keep quarters in it for the laundry room washers and driers. The back of it is open."

The policeman reached in and got a quarter, put it in the slot, and pulled the lever. Two cherries and a lemon came up, and the machine paid out five quarters.

"This is an illegal gambling device," said the policeman, "and we have to confiscate it."

SO THEY PICKED it up and hauled it away.

Then they got a warrant and Mrs. Noble was arrested on a charge of possessing an illegal gambling device.

She went to the police station and was fingerprinted, photographed, and her picture was put in the files with forgers, purse thieves and people of that sort.

When she went to court, the case was dropped. But the police said they wanted to destroy the slot machine. Her lawyer won, and the machine was returned. But now Mrs. Noble has hidden it away with friends in case the police come after it again.

As for her stolen purse—remember her stolen purse?—the police haven't found it yet. Mrs. Noble has a new purse now. But she is careful not to put it down in stores. She might be pinched for littering.

* * *

THE FARRIS brothers are in the heating and air-conditioning business in Springfield, Ill. The business has been in their family since 1899.

They advertise on the radio. The manufacturer of some of their products provides them with commercials.

They recently used a commercial that said: "You may have to live with outdoor air pollution for awhile yet, but you don't have to live with indoor air pollution." The commercial suggested the purchase of some kind of air-filtered air-conditioning unit.

Not long after that the Farris brothers received a letter from the Illinois Environmental Protection Agency.

It was a very official letter, since this is a very official state agency. It said:

"Recently it was brought to the attention of the Illinois Environmental Protection Agency that WFMB-FM radio in Springfield, Illinois, was airing a Farris Bros. commercial, which, in describing an air conditioner, started that although we can't do anything about the dirty air outside, we can make the inside air clean.

"Illinois EPA is concerned with the quality of Illinois 'outside air' and is concerned with all reference to such air, even those included in private advertisements."

THE LETTER went on to ask who had developed the ads, and whether there were plans to use such ads in the future.

And it asked for an answer "by the end of the month."

It was signed by Ernest K. Nielsen, attorney for the "Enforcement Section of the Division of Air Pollution Control."

The letter made the Farris brothers nervous. Like any small businessmen, they are sensitive to official letters from governmental agencies.

They wondered what kind of regulation they might have violated by "referring" in a commercial to the air we all breathe.

As it turned out, they hadn't done anything wrong. It appears that the pollution agency was just trying to intimidate them. The bureaucrats don't like people talking about pollution.

THE ATTORNEY who wrote the letter admits that his supervisor told him to do so. But he won't say who the supervisor is.

Over two days, we placed about a dozen calls to officials in the Environmental Protection Agency, trying to learn who ordered the letter written and why the antipollution bureaucrats are harassing businessmen about advertising. All of them, from Director Richard H. Brice-land down, refused to accept the calls or answer questions.

I know an old lady who, when surprised, says: "As I live and breathe!"

I'm going to tell her to be careful about that.

3 Controversies

By Edward Flattau

WHAT ARE WE to believe these days?

Tuna fishermen say the supermarket price of their product could double, and they may be forced out of business if they are banned from any incidental killing of porpoises.

Environmentalists dismiss industry's hardship claims and say that the yellow fin tuna caught through the process of tracking and netting companion schools of porpoise comprise only 10 to 15 per cent of the tuna eaten in this country.

The utilities warn that an affirmative outcome in California's referendum Tuesday on nuclear safeguards will shoot down nuclear power in the future and lead to severe energy shortages and adverse economic impacts.

SUPPORTERS OF the California initiative say voter approval would bolster the safety, and not necessarily the demise of nuclear power

The truth in a number of environmental controversies probably lies somewhere in between divergent stands of industry and environmentalists.

plants. Furthermore, they cite various federal government and private studies that they say indicate that a nuclear phase-out would not have a disastrous effect on California's economy, fuel supplies or work force.

The lumber industry and the U.S. Forest Service maintain that passage of an environmentalist-backed timber management bill in Congress would result in a 50 per cent cutback in wood production from our national forests and a subsequent serious building materials shortage.

Conservation groups counter that the bill would not require a cutback but is essential to protect our national forests against commercial decimation.

THE TRUTH in these three environmental controversies and countless others obviously lies somewhere in between the divergent stands. Where exactly?

The industry contentions in the above cases are exaggerations.

Most of the tuna we eat and American fishermen catch are not taken by fishing "on porpoise," so there is a little likelihood the industry or an abundant supply of the fish will vanish.

A special Federal Energy Administration (FEA) study conducted by the University of Texas has concluded that passage of the California nuclear initiative would probably

have minor economic and social impact upon the state. While the effect of imposing strict safeguards on nuclear power still is fraught with uncertainties, it is apparent that California would not return to the Stone Age and the energy conglomerates would not disintegrate into bankruptcy.

Tough energy conservation measures and the mass utilization of solar power, which many consider to have been undervalued in the FEA study, afford some of the most promising alternatives for picking up any slack left by the closing of nuclear power facilities that failed to meet safety requirements.

IN REGARD to alleged timber shortages resulting from stricter protection of our national forests, we should keep in mind that one-third of the wood presently harvested in the United States is wasted; more than 50 per cent of the nation's commercially attractive woodlands are located on private property that has been relatively untapped; and 20 billion board feet already sold to industry from our national forests have yet to be cut.

The environmentalists' rebuttals of industry's assertions in the three aforementioned controversies are accurate as far as they go. But in order to appear as positive as possible, environmentalists tend to omit a discussion of the full picture.

Conservation has its costs and sacrifices just like everything else. Tuna, energy, and timber could easily cost the consumer more, and companies would probably earn less.

Yet it might be a tactical error for environmentalists not to admit to the drawbacks and contrast them with the probable benefits people would receive—a healthier, safer, more diverse and aesthetically pleasing environment.

Gannett News Service

Hawaii's Whale

The State House of Representatives has decided Hawaii needs an official marine mammal and has adopted a resolution giving the honor to the humpback whale, a long-time visitor.

Thus the whale would join the nene, the State bird, the kukui, State tree, and the hibiscus, State flower.

The custom of states adopting certain fauna and flora as their very own has been around for some time and seems to be expanding. A recent Time magazine article told about the dispute in Virginia over the state insect, with the State Senate favoring the butterfly and the House of Delegates favoring the praying mantis.

Recently Massachusetts designated the ladybug as its state insect. Legislators were persuaded to do this by lobbyists from elementary school second grades who descended on the State Capitol, attired in red ladybug costumes.

The ladybug is an obvious good choice, since it serves mankind by preying on less desirable insects.

What would be a good State insect for Hawaii? What insects are typical of this State? The cockroach? The termite?

With such possibilities, perhaps the Legislature might as well forget about finding a State insect. Laboring and bringing forth a whale is accomplishment enough along this line.

APR 3, 76 58

Oil-Soaked Harbor a Pollution Problem

By Jerry Tune
Star-Bulletin Writer

Land around Honolulu Harbor, a honeycombed porous stretch of coral fill surrounding Nimitz Highway, is so filled with spilled oil and diesel fuel that some officials are thinking about pumping it out of the ground.

Not because of the oil shortage, but to eliminate a possible pollution problem.

The Coast Guard has sent a letter to the Governor, and the State Harbors Division has asked the State Health Department to find out if there really is an environmental problem.

The answers will be difficult to get because the harbor area is a maze of pipelines — some State, some owned by the oil companies, and some controlled by the military — which run under streets, down in trenches and out to the piers. Through the years the oil lines have deposited vast quantities of oil into the ground.

THE STATE HARBORS Division has come to the conclusion that the lines can't be repaired economically and the best solution would be just to close its lines.

Then the lines could be sealed by pumping in foam. The oil would be just left alone.

To get the oil out of the ground is a chancy proposition, say harbor officials, because it is difficult to find the coral pockets where it is resting.

The Navy is pumping out some oil at Pearl Harbor but the quality is poor. It can be used as bunker fuel under certain conditions.

Sometimes there is an unexpected find of oil or diesel fuel when builders poke around in the ground. One developer near the intersection of the Kapalama Canal and Nimitz Highway started to put in a sewer line but struck diesel fuel.

THE PROBLEM IS not easy to isolate. And it varies from time to time. Officials can only scratch their heads when the oil shifts to another spot in the ground, or crops up in a storm drain.

The situation becomes more complex when questions of responsibility surface.

Oil has been moving in pipelines under the highway since 1919 and some are the original lines. Even some of the later lines go back to the 1940s and 1950s, and can only be considered old and outdated.

However, to replace these lines would cost the State and oil companies millions of dollars. So everyone tries to make do with what they have at the harbor.

A March 4 incident, when one company found oil in the storm drains, has now blossomed into a

full-fledged investigation.

DR. JAMES KUMAGAI, the State Department of Health's deputy director for environmental health, said the reports so far are too sketchy to make any firm conclusions but his office is working with the Coast Guard to find out just what is happening.

"There is a possibility that the oil is coming up from the ground during the periods of heavy rain," he said.

Lt. Mike Mastenbrook, chief of the marine environmental protection branch of the 14th Coast Guard District, raises the same possibility.

Because the old oil in the ground sits atop the water, it can rise with the water when the ground is saturated. This old oil can be years and years in the ground before something happens. Or the oil rising in certain places may be due to a small break in the pipeline.

THE BLACK OIL pipelines are more vulnerable to breaks, officials say, because the oil is heated during movement. The pipelines expand and contract, which contributes to wear. Diesel fuel is not heated in the pipelines.

The State already has informed everyone that it will be abandoning its oil pipelines in the harbor by July 1. But this may come even sooner because of a break discovered under the highway at the Pier 4 area.

Cost to repair one break is \$50,000 to \$60,000. It would cost \$300 a lineal foot to construct a bypass route.

The environmental problem, according to Kumagai, is not high priority. There are no direct health issues involved.

The Coast Guard says the main problem now is that during certain times of the year (especially during heavy rains) the water table rises and can send some oil into the harbor. Officials call this "oil sheens."

Minor oil spills are a continuing situation in the harbor, a fact of life anywhere when dealing with large volume of petroleum products.

The Coast Guard says the oil companies in Hawaii are very cooperative, and they do not wait for the results of an investigation to clean up any problems.

It is the area especially between Piers 18 and 35 where the most oil can be expected in the ground. The last time around, in March, the oil started coming up in the low-lying vacant land around the Lindal Cedar home on Nimitz Highway.

During March oil also was found in the storm drains, at the junction valve boxes where four oil companies share facilities, and in the drainage ditches in the waterfront area.



OILY GLOB — Leakage can be unsightly and expensive to clean up.

ditor

Explanation of Green Flash

SIR: Your staff writer, Murry Engle, in her March 16 article on Hawaii writes of seeing the fabled green flash, saying that "it is perhaps an optical illusion." She further states that "is peculiar to the Pacific region."

It is really amusing that the controversy over the reality of a green flash following the sinking of the sun into the ocean should continue to crop up in news articles from time to time. This, after published scientific explanation 15 years ago!

Thorough research was done in this area in the 1950s by D.J.K. O'Connell, S.J. His findings were published in Scientific American, January, 1960, as well as in his book, "The Green Flash and Other Low-sun Phenomena." A copy of the Scientific American is on file at the Hawaii State Library.

The green flash sometimes seen just when the sun's disk is disappearing at sunset or appearing at sunrise is caused by "dispersion, scattering and absorption of sunlight by the earth's atmosphere." Using special cameras, film and techniques, beautiful color photos were made which accompany the published reports. Ordinary cameras are useless because the focal lengths of the lens is too short.

As for being "peculiar to the Pacific region," absolutely wrong! The green flash is frequently seen in Egypt, the Alps and is particularly brilliant in the Caribbean. As one goes toward the poles from the equator, it is seen for longer periods.

Adm. Byrd saw it in Little America for 35 minutes . . . off and on. Sightings from airplanes flying into the sunset have exceeded three minutes.

If you really want to see the flash, low-powered binoculars will help. Turn them on the sun only when the disk has almost disappeared to avoid eye damage. Your best chances are in the high mountains, the desert or tropical seas.

Of course you won't see it every time you look . . . too many variables . . . but knowing it is real, adds to the thrill of viewing this beautiful expression of our colorful world.

Betty Bowyer

L.A. EXAMINER MAY 5, 1976

What are the penalties for violating Federal laws protecting eagles and migratory birds?

H.S., Azusa
The Migratory Bird Treaty Act provides for penalties of up to \$2,000 and two years imprisonment for persons convicted of selling protected birds, or their feathers or parts. For first offenses, the Bald Eagle Protection Act carries a maximum criminal penalty of \$5,000 fine and one year in prison for persons convicted of selling eagles, or their parts or feathers. The penalty for second offenses is a \$10,000 fine and two years imprisonment.

The Endangered Species Act of 1973 carries a maximum penalty of \$20,000 and one year imprisonment for criminal offenses.



Joseph Griffith and parrot.

Fine Feathered Fugitives

LONG BEACH, Calif. (AP) — What do you say to a naked Mexican swimming across the Rio Grande while pulling a raft full of parrots?

Customs agents told him he was under arrest — one more in a recent rash of parrot smugglers.

"Pound for pound there's more money in parrots than marijuana," says Senior Special Agent Duke Reeves of U.S. Customs.

Federal customs inspectors on the Mexican border are finding drunken parakeets concealed in car doors, under dashboards and even between the springs of rear seat back rests. Ingenious bird runners always have new hiding places.

Reeves says the birds are usually fed eye droppers full of whiskey, to keep them quiet (unlike humans, birds apparently aren't prone to singing while drunk), and carefully wrapped in stockings or other soft material to prevent feather damage during transportation.

"I DEAL IN LOTS of 4,000 to 6,000 birds, an investment of \$20,000 to \$30,000. If one bird is diseased the entire lot is destroyed, and I go broke. For that reason I won't touch a bird that I haven't imported myself, unless some buyer wants to buy my station for a month." Parrot smugglers who get caught face a maximum penalty of five years in jail and a \$10,000 fine. Their birds are always destroyed.

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The Otter Spotters

By Robert Lindsey, © N.Y. Times Service

MONTEREY, Calif. — Terry Fabry, a slender brunette who earns her living as a figure-skating instructor, rises before dawn these days to spend eight hours peering through a telescope at sea otters foraging off the spectacularly beautiful rocky coast here.

For her chance to work as an otter spotter for three weeks, often shrouded in dense fog or cold winds, Fabry paid \$590. She also paid about \$400 for her airline ticket to and from her home at Sault Ste. Marie, Mich.

"Look, the pup's grooming the mother; he's rubbing her down," Harriett Husemann, a blonde, 25-year-old commercial greenhouse technician from Denver said with a laugh to Fabry, who is 21, as they watched the offshore otters one morning. "She's so lazy," said a third member of the group, Jane Stauduhar, 28, a teacher from Colorado Springs, who dutifully logs the pups' behavior on a clipboard.

THE YOUNG women are chronicling the living pattern of the otter, a mammal once considered virtually extinct here that has made a comeback in recent years, and as a result, has become the subject of an angry battle between conservationists and fishermen.

The fishermen say the otters' appe-

tite for shellfish is threatening their livelihood. The State of California, agreeing, wants federal permission to limit the otter herd, but conservationists are fighting to protect them.

Fabry and the other otter spotters are working as assistants to Judson E. Vandevere, a marine biologist who is studying the otters' eating habits for the United States Marine Mammal Commission, which ultimately will decide if the herds are to be limited. But, instead of getting paid for the work, they are doing the paying.

THE WOMEN ARE among some 600 Americans who are scheduled to join scientific expeditions in 13 states and 15 foreign countries this year. The expeditions are conducted under the auspices of "Earthwatch," a Belmont, Mass., nonprofit organization that coordinates an expanding, five-year collaboration between professional scientists and nonscientists who participate in research and help underwrite it.

While five women have been working here, living together and cooking their own meals to study otters, James and Jane Egan of Jersey City, N.J., have been getting ready to join an archeological dig in Scotland.

Ann Brinckerhoff, a Charlottesville,

Va., nurse, and Walter Hansel, a Santa Rosa, Calif., auto dealer, have been packing for an expedition to Western Samoa, where they will help study the aging process of Samoans.

Others are preparing to go to Athens and Teheran to study the historical significance of cats in Asian civilization; to South Dakota to hunt for the remains of prehistoric mammoths; to Virginia, to study the ruins of colonial buildings; and to Brazil, to study the Amazon River.

"THE PEOPLE come from a fairly broad demographic spread," said Brian A. Rosborough, the president of Earthwatch. "You have a lot of students and teachers, more than a third are from all sorts of business and professional fields.

Usually, five to ten volunteers are assigned to each project, generally lasting two to three weeks.

"We talk a lot about endangered species, and there's not much a middle-aged schoolteacher can do about it," said Mary Coffeen, a widow and teacher who lives in Claremont, Calif., during a break in her scrutiny of the otters here. "I would spend this month on a vacation, and so I decided: here's my chance to help."



UPI photo

Seal of approval

Jean Emenev holds Clarence, a seal pup, who has found a new home in Seattle after being abandoned by his mother on the beach near La Push, Wash. Clarence is thriving on a diet of high caloric nutrients and ground up fish. He's being fed through a tube until his teeth

Face Complex Problems

Nov 13, 75 5-B

'New' Game Wardens

By Helen Altonn
Star-Bulletin Writer

The old-style game warden has disappeared from Hawaii—replaced with 33 fish and wildlife enforcement officers who face complex environmental problems and sticky regulations.

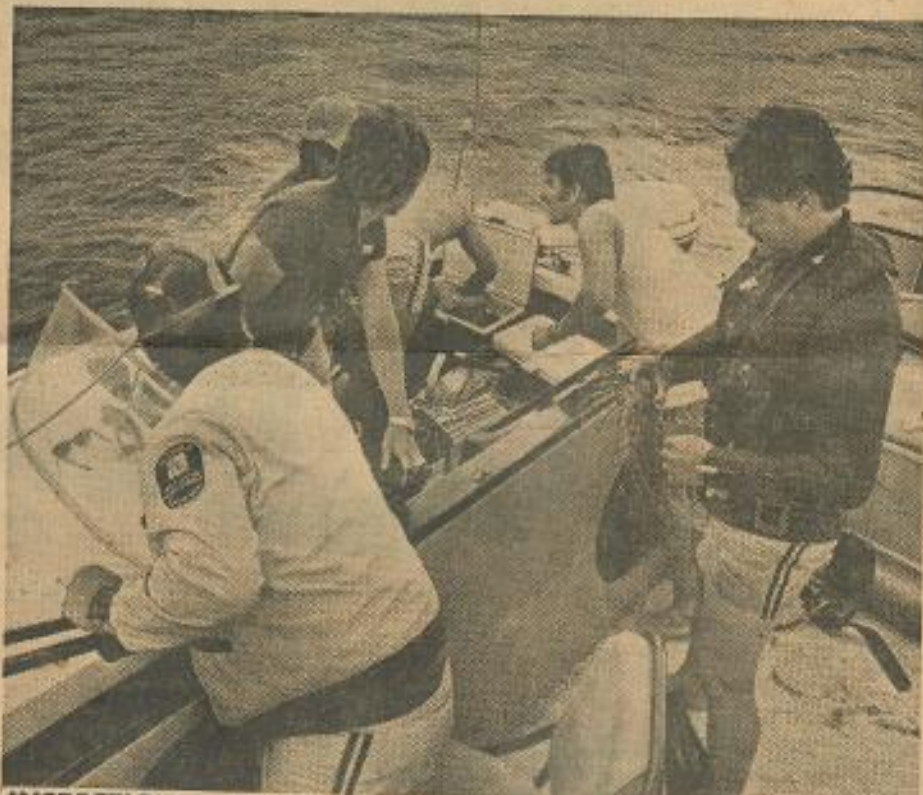
They must match skill and wits with professional violators of fish and game laws who often are better equipped than the officers.

"With the old game warden concept you went out, found a violator, cited him and took him to court," Eugene K. Burke, chief of the enforcement branch of the State Fish and Game Division, said in an interview.

But today, he said, the job of the enforcement officer is far ranging, including not only enforcement of fish and game laws and regulations but regulations of conservation districts—on land and offshore—and natural area reserves.

"REGULATIONS differ; even the language differs, much of it having to do with making a judgment in the field to effect enforcement of that regulation," he said.

He also pointed out that each island has a unique situation and what may be considered a major problem in one area may not be a problem elsewhere.



INSPECTION — Three fish and game wardens inspect catch on a boat two miles offshore from Barbers Point. — Photo by John Titchen

ing along the Hanauma Bay area, they will conduct operations elsewhere.

"During closed periods of lobster fishing they recognize the marine enforcement unit is concentrating on an area and word gets around so the violator moves from one area to another.

members of the division give talks to children, civic and conservation organizations, hunting and fishing clubs but "this type of piecemeal effort is inadequate."

He said even if the division had twice as many enforcement officers it

wouldn't be enough for adequate coverage. "We need the cooperation of the public, there is no question about that.

"With environmental awareness the information and education program becomes more important than ever," Takata said.

The Big Island, for example, predominantly has hunting problems because of the larger hunting areas while marine and fishing activities are more active on Oahu, he said.

"On Molokai, of course, unlawful hunting of deer is a major problem, as well as on Lanai but in a lesser degree. And on Kauai, inaccessible areas make it difficult for enforcement..."

Burke said the deer poachers on Molokai are well equipped with communications systems. "Our boys are equipped with it, too, but the communications are such that the violator is in constant communication and is aware of the presence of our officers."

HE SAID successful violators, particularly in the hunting areas, also have better vehicles than the officers. "They've got vehicles that can maneuver around in areas and keep ahead of our people."

"The deer poacher who excels in this unlawful activity on Molokai is really a professional. He knows the Island very well—the roads and trails—and he knows our limitations."

"We have one officer, (and we hope to have another one) on Molokai so his presence at home is recognized by the poacher. He drives by the house and sees the officer's car in the garage, which means the officer is off for the day, so the poacher plans his activities accordingly."

On Oahu, Burke said, individuals are on the alert to see where the marine enforcement unit is working. "If we're operat-

"IT'S A game they play and we recognize this," Burke said. "It's a most trying thing. The percentage of our success is quite low if one is to use this kind of analysis."

Burke estimated that about 10 per cent of the violators are "real pros." He said most of the others are persons who may take a chance—thinking no one will be around to spot them.

"Of course there's also a percentage of people who are not aware... They do recognize there is some control but they are not really up on the regulations or the law. We find some of these individuals, upon being informed of the regulations, feel quite badly about it—that they should have known better."

"We recognize the need to reach them through education. It could prevent or perhaps eliminate this kind of problem with the individual who is perhaps unaware. And the great majority of people taking chances, if they are made to become more aware of the need to conserve, probably they would follow the law."

Michio Takata, Fish and Game Division director, also stressed the need for an organized information and education program. "We have to enlist the support and understanding of the public before we can effectively enforce the regulations..."

"WE DON'T HAVE any information program and this is a weakness... We have tried many times in the past to get money and authorization for a program but have been unsuccessful."

Takata said biological and enforcement staff

MAY 24, 76 5-B
Drive Backfires

COLOMBO, Sri Lanka (AP) — A campaign to kill wild boars, which damage sugar crops, increased the number of rats, which wild boars kill, prompting an official decision to ease up on wild boars.



Robert Oshiro



John Craven

Congressional Race Burns Supporters Backing Craven

By Gregg K. Kakesako
Star-Bulletin Writer

The Democratic congressional primary for the 1st District (urban Oahu) picked up momentum today with the surprise announcement that Dr. John Craven is enlisting the support of establishment Democrats.

Attorney Robert C. Oshiro, longtime supporter of the late Gov. John A. Burns and Gov. George R. Ariyoshi, said he will join Craven's campaign as a political adviser and "able shooter."

Oshiro said he describes his job as "a pivot man" for Craven, who is now marine affairs coordinator for the State.

Oshiro said he is joining Craven's campaign because of the man's commitment to oceanography and marine sciences — which is "the future of Hawaii's economic development."

"I AM JUST AS concerned about Hawaii's future as the 'Old Man' (Burns) was in 1965. It was the 'Old Man' who planted the seeds for oceanographic study here," Oshiro explained.

"We must get a national commitment to develop marine sciences.

"We will be starting from ground zero in the campaign," Oshiro conceded, "and one of my main functions will be to put together the entire operation."

Oshiro acknowledged that the going for Craven, a political un-

known, will be tough since much of the money and manpower has been committed to other candidates.

As yet, Craven has scheduled no fund-raiser and has not filed his nomination papers. Those matters will be attended to soon, Oshiro said.

Republican Fred Rohlfing, Democrats Hal Jones and Cecil Heftel are vying with Craven for the congressional seat vacated by Rep. Spark Matsunaga.

Reportedly, Ariyoshi will endorse Craven's candidacy and will ask his supporters to join Oshiro in his efforts.

Craven-Heftel Contest Splits Burns Alliance

By Gregg K. Kakesako
Star-Bulletin Writer

Gov. George R. Ariyoshi talks like a man who wouldn't mind seeing political neophyte John Craven win the Democratic primary for the 1st Congressional District (Urban Oahu).

Officially, the Governor said yesterday that as "titular head of the Democratic party, I have to take a neutral position for all of the Democratic races in the primary."

But during the interview, it appeared that Ariyoshi is leaning towards endorsing Craven, State marine affairs coordinator, over Democrats Cecil Heftel and Hal Jones.

Heftel, Jones and Craven are the only announced Democratic candidates.

ARIYOSHI'S support of Craven could send shock waves through the Democratic party and lead to the eventual demise of the establishment wing once led by the late Gov. John A. Burns.

This is because those once aligned with Burns are backing different Democratic candidates.

Don Horio, Burns' former press secretary, is now aligned with Heftel. Also backing Heftel is Sen. Daniel K. Inouye, Burns' protegee.

Besides Ariyoshi, Craven can count on the support of attorney Robert C. Oshiro, Burns' political strategist; Dan Aoki, the first sergeant of Burns' political army, and Ariyoshi's cabinet.

THE ANNOUNCED Republican candidate is former Sen. Fred Rohlfing.

Despite his expressed intent "to generally stay away from endorsing one Democrat over another," Ariyoshi said:

"I wholeheartedly embrace the expertise and the ideas Dr. Craven represents.

"I'm clearly on the record and have been for years strong in my belief in the ocean and what it stands for."

He added: "I am impressed by Dr. Craven's credentials and I concur in his belief in the utilization of the sea.

"We are the only State in the nation — in which our resources for

jobs, research and science lies in the ocean.

"AND DR. CRAVEN has this same strong commitment to those ideas."

Oshiro, a political workhorse, ended up in the hospital physically exhausted after working around-the-clock for Burns six years ago.

In 1974 Oshiro also spearheaded the grassroots drive that most political observers acknowledge won Ariyoshi the governorship.

Ariyoshi was visited by Heftel yesterday afternoon.

After the hour-long meeting Heftel told newsmen that it was "mainly a private discussion" concerning the welfare of the Democratic party once the primary was over.

HEFTEL, WHO BEGAN running his campaign television commercials last night, has already filed his nomination papers with federal and State election's officials.

In his one-minute commercial Heftel said he will make his formal announcement "as soon as I complete the rearrangement of responsibility for my broadcast interests in Hawaii."

However, Rohlfing said: "No matter how he twists words or rearranges titles of KGMB personnel, Heftel hasn't given up any of his influential ownership or control of this powerful medium."

ROHLFING ALSO charged that Heftel was a Mainlander trying to buy the election "with his money and media power."

"I am amazed that he would try to discredit me because I have been successful," Heftel said, "or that he would try to disqualify me because I wasn't born here."

Heftel came here 11 years ago.

"John Burns used to talk about an open society and the idea that because someone was not born here disqualifies him, or the opposite, because a person was born here makes him more valuable just amazes me," Heftel explained.

"It seems an unfair liability to criticize me because I have done well, especially coming from an affluent attorney in the Republican party."

MAY 21, 1976 5-B

Oil and Alaska's Eskimos

By Jack Anderson with Les Whitten

WASHINGTON — There is a poignant story behind the oil boom in Alaska. It's the story of the proud Eskimo people who, for centuries, had been left alone in their frigid, forbidding homeland. Now their way of life, harsh though it was, has been cruelly disrupted.

We sent our roving reporter, Hal Bernton, into Eskimo country to get the story. He spent a week with the Eskimos, hunting with them on the Arctic ice pack and relaxing with them afterward in their shanties.

The discovery of oil in Prudhoe Bay has brought prosperity to the Eskimos. But it has also brought great anguish.

With the millions in taxes they have collected from the oil companies, the Eskimos have built a fancy hotel for the white businessmen and bureaucrats who get as far north as Barrow.

"It's a honky hotel," groused a young Eskimo woman. "Our people need a place for the old folks to stay, an alcoholic treatment center, a recreation center for the young."

The Eskimos themselves live in clapboard shacks alongside the multimillion-dollar hotel. They used to dwell in sod huts, which were extremely cramped but easy to keep warm. Their new clapboard houses, built of giant wooden packing crates and junked lumber, are more spacious, more cluttered and considerably more drafty.

BERNTON WAS INVITED into the two-room home of a family of six. The living room, kitchen and bathroom were crammed into one minuscule room; the other room was jammed full of beds.

As evidence of the Eskimos' new prosperity, their yards are littered with broken-down automobiles, abandoned snowmobiles, empty Coke cans and other debris of the

encroaching modern civilization. This is mingled with the debris of the old civilization — caribou hooves, walrus heads, dead seals on parked sleds and caribou skins flapping in the Arctic wind.

The oil millions have also gone to build a luxurious office building, with flush toilets and running water,

Alaska's oil bonanza has had some unfavorable effects on Eskimo life.

for the town officials. But the townspeople still haul their water in the form of huge ice chunks from a frozen fresh-water lagoon.

The water from these ice blocks, which should be but usually isn't boiled before it is used, is jealously rationed in each household. For toilets, most Eskimos use "honey buckets" which are dumped outside. The raw sewage remains frozen in the winter. But in the summer, the snow and sewage melt, giving off an awful stench. This creates a serious health problem for the children who play near the thawing sewage.

Just a few miles from the center of town, the Navy has established an Arctic Research Laboratory. For the 300 people stationed here, the Navy pipes in water through a filtering plant from its own private lagoon. There are saunas, a recreation hall and a movie theater for their relaxation.

THE BASE IS off limits to the Eskimos who inhabit this frozen wilderness. Only on rare occasions, such as the showing of the movie "Jaws," are the townspeople invited inside the base.

For years, the Eskimos in Barrow had heated their homes with whale

and seal oil. The Navy tapped a natural gas field, however, to heat the base. The Eskimos were eager to share in this valuable find. It took them 14 years of delicate negotiations before the Navy finally agreed to sell some of the gas to the people of Barrow.

But the curse of Barrow is alcohol, which white men have introduced to the Eskimos. Unhappily, most Eskimos are unable to cope with the booze, which has had a devastating effect upon their culture.

In their sober moments, they have voted to ban the sale of liquor from Barrow. But several flourishing bootleg operations continue to peddle all they will buy.

Drunken Eskimos routinely are routed out of the hotel. Yet the town has no treatment center, not even a town jail, where they can sleep it off. So they wind up often in the cold street. Last year, three people froze to death in the streets. One was a 14-year-old girl who had failed to make it home from a drinking party. Medics report that children as young as 10 years old have been treated for alcoholism.

THE NEXT FAVORITE beverage is Coca Cola. Many youngsters, thanks to their new affluence, can afford as many as 12 cans a day. The cokes and candies, introduced by the white man, have taken a terrible toll of the Eskimo children's teeth. The only dentist in town is kept constantly busy installing dentures in the mouths of elementary school children.

The Eskimos still hunt the caribou in the winter, the humpbacked whale in the spring, the walrus and seal in the summer. But it is no longer the same since the white man came to drill for oil.

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Tuna Bill Moves

Gannett News Service

WASHINGTON — The House has passed by voice vote and sent to the Senate a bill extending the Central, Western and South Pacific Fisheries Development Act through the 1979 fiscal year. If not extended by Congress, the Pacific tuna fisheries development program will expire on June 30.

The bill provides an appropriation of \$3 million for the three-year period.

Rep. Robert L. Leggett, D-Calif., floor manager of the bill, told colleagues: "We believe that an extension of this act would result in an increase in the harvest of tuna and would give the islanders of Guam, American Samoa, Hawaii and the Trust Territory of the Pacific a sound, viable industry."

When the legislation originally was enacted in 1972, Hawaii's skipjack tuna fishing industry had declined to 12 vessels, from a peak of 28 in 1958, said Rep. Spark M. Matsunaga, D-Hawaii.

Despite the research progress under the original act, he said, the "effort is incomplete and must be extended" to achieve the initial goals. "The economies of Guam,

American Samoa and the Trust Territory, overly dependent on very few industries, remain extremely fragile," Matsunaga said.

Although Hawaii's tuna catch in 1972 was valued at \$5.5 million, Matsunaga said "experts had agreed that, with adequate private and governmental assistance, an efficient, modernized fleet could easily harvest \$300 million in tuna annually. That statement remains as true today as it was then."

He said the same potential is available in the other islands.

Rep. Edwin B. Forsythe, R-N.J., said: "In American Samoa, tuna fishing is the only important private enterprise."

End of Porpoise Protection Eyed

MAY 29 76 S-B

WASHINGTON (AP) — An effort is being mounted to push a bill through Congress to overturn a recent court decision protecting porpoises from tuna fishermen, an environmental group says.

A hearing scheduled for today by Rep. Robert L. Leggett, D-Calif., is only for the sake of appearances, claimed Toby Cooper of the Defenders of Wildlife organization.

"He's already said he will try to get the tuna industry out from under this decision," Cooper charged.

Leggett, chairman of the House subcommittee on fisheries and wildlife conservation and the environment, introduced the bill Tuesday with the co-sponsorship of Edwin B. Forsythe of New Jersey, the ranking Republican on the panel.

THE LEGISLATION IS designed to nullify U.S. District Judge Charles R. Richey's May 11 ruling here that the purse seine method of tuna fishing violates the Marine Mammal Protection Act of 1972.

This method produces about a third of the U.S. tuna catch. It is widely used by Pacific Coast fishermen. Porpoises are caught in the nets along with the fish by the method, which Richey ordered ended by May 31.

The case was brought by the Defenders of Wildlife and 13 other environmental organizations.

Leggett said in introducing the bill, "The survival of the porpoise does not require the destruction of the American tuna industry."

The bill would allow continued purse seine fishing for tuna under current regulations. A research effort would be undertaken to "reduce to the fullest extent possible the incidental taking of marine mammals in the course of commercial fishing operations," Leggett said.

BUT THE CONGRESSMAN added that eliminating porpoise killings while fishing for tuna is "unattainable in the near future."

Leggett said the Richey decision probably would increase the cost of tuna to American consumers.

Cooper disagreed, saying, "There are plenty of tuna that can be caught without harming the porpoise stocks."

He called Leggett's bill "a frenetic approach." Referring to efforts to obtain a stay of Richey's order, Cooper said it is "inappropriate for Congress to amend a law that is under judicial review. Congress is pulling the rug out from under the judicial process."

Isle Researchers Aid Salmon Project

By Helen Altonn
Star-Bulletin Writer

A team of 10 Americans, Britishers and Chileans, including three members of the Oceanic Institute on Oahu, has completed a survey of waters around the Strait of Magellan, at the foot of South America, to select a site for a salmon hatchery.

The project is one of the preliminary steps in a far-reaching 10-year program to seed the Southern Ocean with salmon and create a new fishery under an international management system.

The Oceanic Institute, directed by Colin Nash, is coordinating the salmon program. Nash participated in the hatchery site survey. Also from the institute were Guy Rothwell, engineer, and Paul Bienfang, biologist.

Nash and Timothy Joyner, international aquaculture consultant with

headquarters in Seattle, Wash., initiated the salmon fishery program with funding from the Rockefeller Foundation.

THE PROGRAM WILL be developed in four phases with the second one, involving hatchery site selection and design, to be finished by the end of this year.

"The limiting factor now is funding. We are looking for funds for phase three," Nash said in an interview after returning from Chile.

However, he doesn't anticipate any trouble obtaining the funds. He said approaches have been made to major funding and development agencies "and everyone is very receptive to the whole program."

The third phase will cost about \$3.5 million and take about five years, involving hatchery construction and operation, selection and importation of salmon stock and

salmon feed development, Nash said.

THE CHILEAN government has provided personnel and assistance for the program, including the Chilean navy for the hatchery site survey, he said.

The task force spent several weeks cruising the waterways around the remote, uninhabited islands at the southern tip of South America. The program base is at Punta Arenas, the most southerly town in the world.

Nash and Joyner will make select the hatchery site during the next few months. Nash said it probably will be in the mountains with satellite feeding sites below.

He said the hatchery will have a capacity for 10 million salmon fry, which will be imported initially from Alaska and Washington. The scientists hope within five years to be rearing their own fry from returning adults.

THEY PLAN TO use the coastal currents of Chile to transport salmon stocks into southern waters from carefully selected sites. After a few years, salmon return to the stream where they were spawned.

"It's a good animal to work with," Nash said. "There is no need to be fishing them at all. They come back home and drop in a trap."

He said, "Our overall goal, if everything really falls into place, is to have a 10-million-fish fishery by the end of the decade — getting at least 10 million fish back which you can can or do anything you want with."

A major objective is to develop an international management system for the salmon fishery which could be applied to fisheries in other

waters where nations are haggling over the resources.

NASH SAID SEVERAL management concepts will be tested to develop a model program.

For example, he said, one idea is for the coastal nations involved in the salmon releases and recaptures to share the fishery catch and offer a portion of it to other nations through open bidding on an international exchange.

Nash and Joyner met with Vice President Jose Merino of Chile to brief him on the program developments and Nash said Merino "is very excited about it."

Nash pointed out that the fishery will have profound economic effects. "It will make a significant contribution to the food budget of the continent and also to the world."

He said the program could be extended with bases in New Zealand, Argentina, and the Falkland and Kerguelen Islands. "We may get a consortium of fisheries taking advantage of the Antarctic region.



OUT FISHING — Guy Rothwell during a cruise around the Strait of Magellan looking for salmon hatchery sites.

Sanctuary in

WHEN UMI, the great predecessor of Kamehameha the Great, ruled the Big Island around 1530, there may have been as many as 2,000 people living in Waimanu, the big Kohala Mountains valley immediately north of Waipio.

Today there are no permanent inhabitants, which in one way is a good thing. The valley is so undeveloped that it was found to be the best place in Hawaii to establish an estuarine sanctuary.

The estuarine sanctuary program has been set up by the federal Coastal Zone Management Act which provides grants to states on a matching basis to acquire and operate estuarine areas as sanctuaries where scientists and students may examine ecological relationships.

An estuary is an area where stream water from the land meets and mixes with water from the sea. The lower part of Waimanu Stream is salty and affected by the tides. A Hawaiian estuary is a breeding area for o'opu, mullet, a'hole'hole and many other fish.

ESTABLISHING the sanctuary will have the effect of preventing development or preventing some

Establishment of an estuarine sanctuary has been proposed for Waimanu Valley on the Big Island. This would prevent development or purchase for a private retreat.

rich man from buying the valley for a resort or private retreat. Camping, hunting and possibly swimming would still be permitted, under control, and fishing, research and hiking would be allowed.

Of the 11 sanctuaries envisioned by Congress in the estuary program, only one grant was available for the category called "insular." Hawaii's request for Waimanu was accepted.

An environmental impact statement on the proposal has been prepared by the Federal Office of Coastal Zone Management and public hearings on it have been scheduled.

They will be held at 10 a.m. Saturday in the Hawaii County Council Chambers, Hilo; and at 7 p.m. May 24 on the Honokaa High and Elementary School cafeterium.

THE PROPOSED sanctuary would include 3,680 acres (about 5.7 square miles), consisting of the trail corridor from Waipio Valley, the embayment, submerged lands, wetlands, and about 60 per cent of the upland watershed of Waimanu Stream and its tributaries. Approximately 720 acres are valley bottom lands.

Approximately 347 acres of the proposed sanctuary are privately owned while the remainder is under State ownership. Hawaii's application requests a federal grant of \$191,250 to buy the private lands but this may be increased a little if property values are higher than estimated.

Two Oahu men, Walter K. and Eugene K. Burke, were among the last Hawaiians who grew taro in Waimanu; they remember hiking into the valley in the 1930s to tend the family taro fields and to clean the fishpond and auwai (water channels).

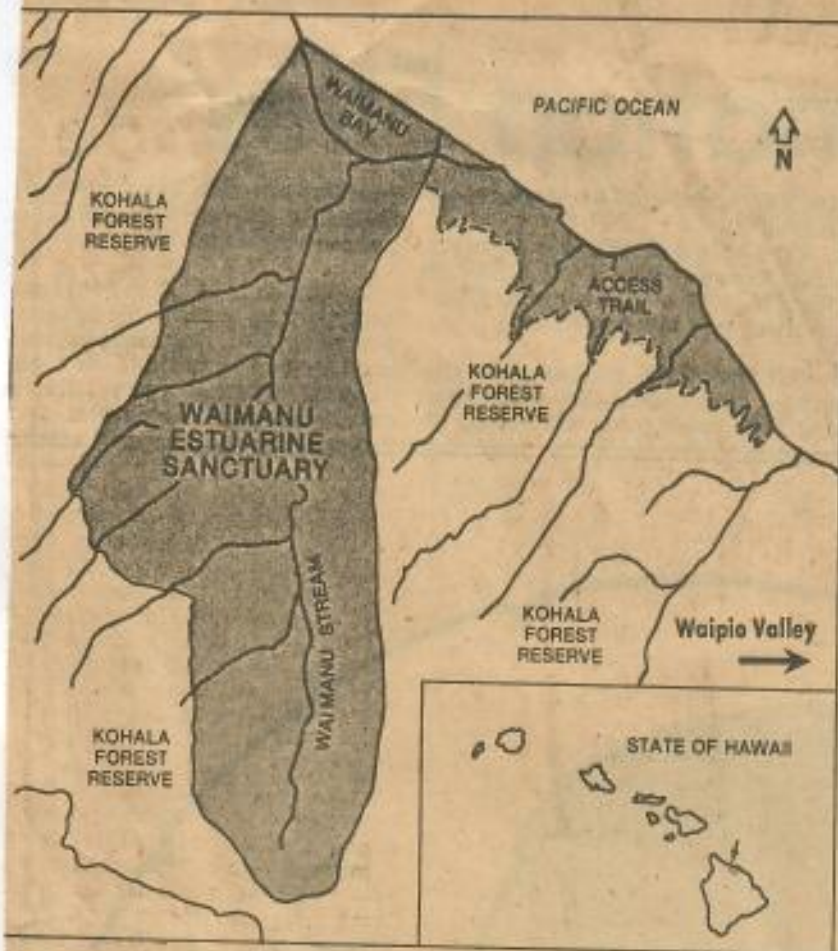
Even then, permanent inhabitants had departed from Waimanu, although a few abandoned houses remained.

THE GIANT tsunami of 1946 cleared the remaining signs of human habitation from Waimanu, thus ending a continuous period of human use or habitation of perhaps 800 years.

Isabella Bird, author of "Six Months in the Sandwich Islands", wrote that there were 117 inhabitants in Waimanu when she visited it in 1873. R. S. Smith, who described his visit to Waimanu in 1901, said that rice had largely supplanted taro in the bottomlands.

WHAT IS WAIMANU like today? Richard H. Davis, veteran Islander hiker who has visited Waimanu many times, says it is a place of great beauty, a valley surrounded by cliffs from which waterfalls, some as high as 3,000 feet, tumble.

The valley's center, where taro and rice once grew, is now a big swamp. Old house sites remain. Much of the vegetation in the lower part of the valley consists of exotics,



Map of proposed estuarine sanctuary, Waimanu Valley.

Waimanu Valley



Our Environment

By
Harry Whitten

such as ironwood, mango, guava, and java plum, although much native vegetation remains, especially back in the valley.

There is a trail around the back of the valley, from which the waterfalls can be seen, near which big pools can be found and which lead to mountain apple groves. Some taro grows in the back of the valley. There are many birds.

THE BEACH is of black sand. Davis warns swimmers about the danger posed by riptides in the bays of both Waipio and Waimanu.

There are wild pigs in the valley, too many of them. The impact statement says pig hunting should be encouraged because the pigs destroy vegetation and pose a threat to visitors. Davis says he's heard pigs helped to ruin the valley for farming. The Waimanu pigs look as if they's descended from domestic breeds, mixed somewhat with the wild Hawaiian pig.

The impact statements says that the io, Hawaii's only native hawk, an endangered species, has been seen in Waimanu. It says other endangered species may occur in Waimanu but no listing can be given until studies are carried out.

THE TRAIL to Waimanu zigzags up a 1,200-foot cliff out of Waipio and

traverses 13 water-cut valleys before descending into Waimanu. The Forestry Division has proposed a trail system that would link Waimanu with Polulu Valley to the north, a project that would offer spectacular scenery for wilderness hikers.

The impact statement says a resident manager, probably from the Forestry Division, should be stationed in Waimanu to protect scientific equipment and enforce regulations. The resident manager could also help prevent littering, which is said to be occurring now.

The valley is visited now by fishermen, hunters, opihi pickers, Boy Scouts and occasional transients.

Coastal Zone

PROBLEM AREAS within the Oahu coastal zone will be discussed by the Honolulu Citizens Advisory Committee to the Hawaii Coastal Zone Management Program at its meeting at 3 p.m. Wednesday at the Nuuanu YMCA, 1441 Pali Hwy. The public is invited.

The committee was appointed by Gov. George R. Ariyoshi to advise the State Department of Planning and Economic Development in preparing the State's Coastal Zone Management Plan.

Pollution

PROBLEMS caused by pollution, noise water and air are worldwide according to a New Zealand visitor who has traveled extensively in Australia and elsewhere in the world.

He is Neill Gillespie, deputy chairman of the National Water Soil Conservation Authority of Lower Hutt, near Wellington, N.Z.

In a meeting last week with Joan Hayes, president of Citizens Against Noise, he said that Hawaii's noise code was "very capably drafted" and that he will take a copy of it back to New Zealand.

He said antinoise laws have been adopted by several cities near Wellington and that New Zealand has a Clean Air Act.

He said the campaign to ban fireworks is gaining strength because of injuries caused by them in the period leading up to Guy Fawkes Day in November.

Taape, the Forgotten Fish

Hawaii's waters are full of surprises.

One surprise to most people is taape—a plentiful and economical fish protein source that is "underutilized."

Taape is "blue-line snapper" that was first introduced to Hawaii from Tahiti in 1955. It enjoyed a less than enthusiastic reception among Hawaii's consumers because most people have never heard of it.

Taape is the Tahitian name for *Lutjanus kasmira*, a snapper that grows to 12 or 13 inches in length. It is bright yellow in color with distinctive blue stripes.

"Because of its yellow color, taape and other snappers often

get mislabeled as 'perch' in the grocery stores," said Alvin Katekaru, aquatic biologist for State Fish and Game Division. "But true perch doesn't occur in Hawaii. You can always tell by the blue stripes if it's taape."

Once upon a time there were no snappers or groupers in Hawaii's waters, although they flourished in other shallow reefs throughout the tropic seas. Snappers constitute an important commercial fishery in other parts of the Pacific.

To give Hawaii's sport and commercial fishermen more variety in their catch, and to obtain a better balance in the carnivore-herbivore population in Hawaii's reefs, the fish and game division in 1955 began introducing new species of carnivorous snappers and groupers from Tahiti and Moorea to Hawaii's waters.

The main shipment was 2,435 taape, released in Kaneohe Bay in 1958 along with 13 other snapper and 15 grouper species. The taape adapted readily to Hawaii waters. Less than three weeks later, a taape was found 50 miles away. Ocean currents carried taape larvae to all the islands in the State. Many other introduced species failed to adapt to Hawaii, but taape population increased so rapidly that in 1966 the State Fish and Game Division declared open season for fishermen.

Most taape is caught by handline, although traps, nets and trotline also are used by Hawaii's fishermen. Last year they caught 5,289 pounds of taape, for which they received an average 56 cents a pound. Taape sells for about 99

Star-Bulletin

Food



Honolulu

Wednesday, May 19, 1976



The Taape: a plentiful and economical protein source that is underutilized.

cents to \$1.79 a pound in the market, scaled and cleaned. Price depends on size.

Taape may prove to be a boon to health-minded consumers, but it is somewhat of a nuisance to fishermen, who catch plenty of it while fishing for other species.

"Not much research has been done on the feeding habits of taape," said Charles Yamamoto, fisherman and owner of C&E Radio in Kewalo Basin. "But we're pretty sure that taape eats bait for other fish, and the same food as opakapaka, menpache,

squirrelfish and weke. Those fish populations seem to be declining.

"We'd like to see more taape harvested and sold. It would replenish our other fisheries," Yamamoto said.

Some fishermen say taape does more than compete with other fish for the same food. Taape favors those other favorite fish.

"I know taape eats our fish," said Ed Hayashi, sport diver and spear fisherman. "In the last few years, all my favorite kumu holes have been invaded by taape.

"Examining the stomach con-

tents, we find tako (octopus), crab, shrimp—just about all the Hawaiian reef fish life," Hayashi said.

A demand for taape would benefit consumers by giving them a plentiful and economical protein source and more variety in their menus. It also would benefit fishermen by giving them a new commercial market—and replenishing declining fisheries.

Here are some of these recipes, created by home economists at Gasco. Use them to stimulate your imagination. Then make up

your own way to prepare and serve this snapper. Taape has light oil content and moderately soft texture.

BROILED SALTED FISH (Sakama No Shioyaki)

4 taape, scaled and cleaned
1 - 2 tablespoons salt

Rinse, drain and pat fish dry. Score diagonal slits at 1-inch intervals on each side. Sprinkle with salt and let stand 10-15 minutes. Broil 3-4 inches from flame. Time: 5 minutes on each

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Merchants of Death' Revisited

Lockheed Has History of Controversy

By John M. Lee
© N. Y. Times Service

NEW YORK — For two decades the Lockheed Aircraft Corp. has been at the center of assorted corporate dramas.

There were the failures with the Electra turboprop in the 1950's, the Central Intelligence Agency links with the U-2 spy plane, the huge cost overruns on the C-5A military transport, the crash-prone F-104s in West Germany, the cliffhanger on marketing the wide-bodied L-1011 jetliner with Rolls-Royce engines, the extraordinary government guaranteed loan in 1971 to avert bankruptcy and the continuing battle to achieve financial viability, given a grotesque burden of debt.

Few corporations have so preoccupied public attention. But then Lockheed is something special — a key link in the military-industrial com-

plex, with close ties to the Pentagon and CIA; a provider of advanced technology; arms-seller to the Western Alliance and instrument of national policy in the confrontation with communism.

Clearly, Lockheed's survival and even its prosperity have been deemed vital to the national interest.

NOW, LOCKHEED finds itself at the center of the most far-reaching controversy of its crisis-prone history — namely, the payment of some \$24 million in bribes and kickbacks over a number of years to promote the sale of both military and commercial aircraft abroad.

In its zeal for selling, Lockheed overstepped the bounds of what many consider proper corporate conduct.

Of course, Lockheed is but one of some 100 major American corpora-

tions that have admitted, under pressure from the Securities and Exchange Commission, improper payments.

But here again, Lockheed is something special. Although the machinations of the Gulf Oil Corp., the Northrop Corp. and United Brands Inc. are startling enough, Lockheed has admitted payments to pro-Western government figures in Italy and Japan, as well as to Prince Bernhard of the Netherlands. It has thereby provided devastating political ammunition to opposition elements in those countries.

THE EFFORTS OF the International Telephone and Telegraph Corp. pale beside what Lockheed may unwittingly accomplish. The disclosure of improper dealings with Lockheed helped undermine confidence in the Christian Democratic government in Italy, which resigned on Friday.

If the new elections bring Communists into the government, will Lockheed share the blame? Will the stigmas of Lockheed associations also undermine the government of Japan and the royal family of the Netherlands as well?

Arms and bribery have long been linked. The notoriety of Sir Basil Zaharoff and his wheeling and dealing for Vickers of Britain before World War I encouraged the phrase,

"merchants of death." Cynics have always assumed a certain amount of bribery in arms sales, and in this view, the current disclosures simply confirm the obvious. It's nothing new. "Everybody" does it.

The arguments are that, "if we don't sell them arms, someone else will," and that the spread of American arms and aircraft abroad is an instrument of national prestige and influence, making the buyer beholden to the technological largesse of the United States.

The arms salesman is thus unleashed and encouraged by the Pentagon. Besides, it's good for the balance of payments and for unemployment in California.

LOCKHEED THUS undertook such activity, along with others, on a worldwide basis. But what Lockheed apparently failed to realize was that while the world might wink indulgently at payoffs to the Hottentots — after all, bribery was thought to be a

way of life in Asia, Latin America and the Middle East — it was quite another matter to make payoffs in Western societies where standards of ethical behavior are avowed to be stricter. An outcry at public disclosure was inevitable.

Another matter that apparently confuses the arms seller, and in this case Lockheed, is the identity of the enemy. In Japan, the enemy seemed to be the Grumman Aircraft Corp. even more than the Russians.

Testimony has shown that Lockheed bribery in Japan took an order away from Grumman. In effect, Burbank, Calif., (Lockheed) cheated at the expense of Bethpage, N. Y. (Grumman.)

Foreign countries have expressed astonishment not so much at the bribery as at the American obsession for exposing it, and European sophisticates lament the trouble Americans have caused by their post-Watergate zeal for harsh disclo-

STAR-Bulletin 5/13/76

Palau 'Superport' Concept Proposed

Micronesian News Service

PALAU — The Palau District Legislature has voted 21-4 to approve a resolution endorsing a "superport" concept for Palau.

Since "the trusteeship agreement has been scheduled tentatively to terminate in 1981," the resolution said, "it becomes most imperative that Palau and the U.S. administration consider the economic development of Palau District as a matter of first priority.

"Considering all known economic-development proposals for the Palau District," it continued, "it appears that the energy-industry-complex proposal based upon a petroleum-transshipment project for Palau, popularly known as the Port Pacific at Palau, holds the most promising prospect for economic self-sufficiency and advancement of the people of Palau in particular and Micronesia in general."

Recognizing that the international and technical nature of the proposed operation is beyond the political,

technical and financial capability of the people of Palau, the resolution said "it is the consensus of the house of elected members that the best interest of the people of the Palau District would be best served if the United States, pursuant to the mandate of the trusteeship agreement, actively seeks to represent the interests of the people of Palau in all phases of the development of the Port Pacific . . . by comprehensively reviewing, considering and, if desirable, promoting and executing the Port Pacific (project)."

The resolution also requested the U.S. government " . . . to provide the people of Palau the professional services, advice, counsel to structure, and financial support to form and develop the Palau port in such a fashion that it can insure the participation of all citizens of Palau in the decision-making and evolution of the project and in the distribution of its benefits and those of ancillary projects resulting from or made possible by the project."

2 Killer Whales to Be Released

SEATTLE (AP) — Two killer whales fitted with radios will be sent back into Puget Sound, more than six weeks after their capture touched off a public controversy that eventually won their freedom.

The two whales were among six captured by Sea World Inc., under a federal permit for display at several aquariums across the country. The public and political outcry that followed the capture led to a court fight and the whales' release.

While the matter was before the court, three whales escaped their enclosure and another was freed because it was over the specified size limit.

Sea World eventually agreed to give the two remaining whales to Dr. Al Erickson of the University of Washington and further agreed to hunt the five whales allowed by the permit outside Puget Sound. That made the sound a virtual sanctuary for the whales.

The two remaining whales have been fitted with radios bolted to their dorsal fins. Erickson says the radios will have a range of up to 25 miles and are designed to help scientists study the whales' migration and other behavior patterns, about which little is known.

Erickson and other researchers plan to make periodic checks on the two whales, male and female, for about a year. The radios will stop working and fall off the whales after that.

An effort is under way to take a killer whale census in the sound. Estimates of the population range from 65 to 300.

APR 29, 1976 5-8

Star Bulletin
Mon. 5/10/78

6 Japanese Whaling Firms Merge

TOKYO (AP) — Under international criticism and restricted to smaller quotas, six Japanese fishing companies have closed their whaling departments and set up one joint company to do all their whaling.

The new Nippon Kyodo Hogei Co. has jobs for only about half the 3,000 persons who formerly worked in the industry. But management and labor agreed in late April on a plan to take care of the rest by voluntary retirements and transfers to other types of fishing.

The new company has purchased three mother ships that can butcher the catch and freeze it. It has bought 20 of the 41 catcher boats owned by the six companies.

AN OFFICIAL OF the government fishery agency estimates at least nine more catcher boats will be converted to tug or patrol boats.

Due to shrinking quotas assigned by the international body that regulates whaling, Japanese fishermen harvested 16,419 whales in 1971 and

only 13,427 last year.

Merger negotiations began in 1972 and were spurred by the government's lack of interest in forming a semipublic company to help overcome the industry's decline.

"We could not strongly oppose closing the whaling department if we took reality into consideration," said a spokesman for one of the labor unions involved.

ISAO AOYAGI, managing director of the new company, predicted it would be making a profit in five years if the present quota is not reduced.

"We have few problems at home today," he said. "What we are worried about is the antiwhaling campaign abroad. We listen to serious demands based on scientific figures but not emotional campaigns."

"The present campaign comes from either religious or sentimental

belief. We make a living by catching whales and there is no reason for us to . . . drain our sources of income."

"Many studies show the number of whales is increasing. I cannot find any differences between the killing of whales and killing cows and pigs."

AN EMPLOYEE OF the new company said, "We do not catch whales for fun but for eating. The antiwhaling people should realize that some 300,000 dolphins are killed annually and dumped back in the sea by American tuna boats."

Since strict controls on catches were imposed in 1972, the price of whale meat has climbed from \$2 cents to \$1.87 a pound. But whale meat still is a popular item on Japanese dinner tables, and the oil, bones, skin and teeth are widely used.

L.A. HERALD-EXAMINER
TUES. APRIL 27, 1976.



AP photo

seal noses up to trainer Harry Goodridge after the mammal returned to his pen in Rockport, Me., following a two-week, 180-mile swim from Marblehead, Mass.

3 Pounds Thinner

Andre Ends Sea (1) Swim

ROCKPORT, Maine (AP) — Andre the seal's two-week swim along the New England coast ended Monday when he entered his underwater pen and established summer residency in this coastal village.

"He's beautiful," said an elated Harry Goodridge, who rushed to the harbor after receiving word that Andre had come home.

Goodridge said the 15-year-old harbor seal was considerably thinner after his swim from Marblehead, Mass., and bore a few neck scars from fights with wild seals.

"He doesn't seem to be the big blob he was when he left

the New England Aquarium," said Goodridge, who found Andre in 1961 when he was a 2-day-old pup who had become separated from his mother.

Goodridge said Andre appeared to have lost about 30 pounds during the 180-mile swim to Rockport, which was lengthened when the seal elected to take a roundabout route circling Penobscot Bay.

Andre, who lives in the Boston aquarium during the winter, set out on his annual swim on April 13. His previous trips were completed in as little as three days, and there were some expressions of concern when Andre ap-

peared to be in no hurry to come home.

Mrs. Goodridge said the seal was spotted at 5 a.m., relaxing on a floating dock at a Rockport marina.

Mrs. Goodridge said it was easy to tell when Andre showed up in a harbor because no other seals were in the habit of clambering aboard boats.

Andre used to remain in his pen during the summer but was allowed to roam free in winter. He was penned up after fishermen complained that their boats were nearly swamped by an overly friendly seal who tried to hop aboard.

5/11/76
San Antonio
Tues

Tuna Seining Ban Issued

WASHINGTON (AP)—A federal judge today ordered fishermen to stop a method of tuna fishing which kills hundreds of thousands of porpoises each year, a decision which he acknowledged may increase the cost of tuna.

Tuna fishermen commonly follow porpoises which swim above large schools of tuna. They lay nets around the porpoises to trap the tuna and porpoises frequently are killed when the nets are hauled in.

The decision "could kill the tuna industry," a spokesman for the

American Tunaboat Association said in San Diego.

THE BAN BY U.S. District Judge Charles R. Richey becomes effective May 31.

Environmentalists contend the killing of porpoises poses a threat to porpoises' survival, although they are not officially an endangered species. Estimates are that between one-third and one-half of the domestic tuna catch is taken by following porpoises to find large schools of tuna.

"If we can't fish on porpoises, we're in trouble," said August Felando, general manager of the fishing boat association. He said as much as 80 per cent of the tuna taken by boats out of San Diego is caught by following porpoises.

But suit was brought by 14 environmental groups. Richey said he realized the per-ton cost of catching tuna in some ocean areas may rise once purse seiners are prevented from laying nets around the porpoises.

"BUT STEPS WHICH ensure the protection and conservation of our natural environment must, almost inevitably, impose temporary hardships on those commercial interests which have long benefitted by exploiting that environment," Richey said.

The judge found that the Commerce Department acted unlawfully and contrary to its duties under the Marine Mammal Protection Act in issuing licenses to tuna fishermen without knowing what the impact would be on porpoises.

BEFORE 1960, yellowfin tuna were caught primarily by fishing with poles and live bait. But then a more efficient means was developed. It is based on the fact that such tuna in the eastern tropical Pacific frequently swim with certain species of dolphins called porpoises.

2 Lahaina Harbor Studies Contracted

WAILUKU, Maui — The Corps of Engineers has awarded two contracts for studies in connection with the search for a new small-boat harbor for the Lahaina area.

In a newsletter mailed to Maui residents, the corps reported that the studies are being conducted by Environment Capital Managers Inc. and Environmental Consultants Inc. of Honolulu.

The studies involve the taking of a land use inventory in the area that stretches from Launiupoko Point to Mala and a marine environmental reconnaissance study.

Both studies are sched-

uled to be completed next month and are in addition to "in-house" studies by the corps.

DESCRIBING the studies, the corps said they will be used to determine the feasibility and suitability of alternate sites and harbor plans.

"All of the studies, as well as the public involvement program, are part of our effort to obtain information to assist us in planning a harbor to meet the boating needs and to be compatible with other activities and developments within the Lahaina community," the corps said.

Whale Gets Senate Nod

The State Senate, after some light-hearted discussion, yesterday asked Gov. George R. Ariyoshi

to designate the humpback whale as Hawaii's official marine mammal.

Sen. Jean King, who opposed the resolution, said the whale is not a native of Hawaii, a relative newcomer (arriving within the past century), and is actually a tourist, visiting here only in summer months.

Ways and Means Committee Chairman Richard Wong should impose a tax on the touring creature, suggested Republican Floor Leader D. G. Anderson.

Sen. W. Buddy Soares said he preferred the Portuguese man-of-war for its stinging defensive talents.

The concurrent resolution had previously been adopted by the House.

April 21, 1965 - B Hunting

At last the Legislature has risen to the civilized level of making illegal the nocturnal mischief of those blood-loving gun-slingers we euphemistically call "hunters."

Perhaps next session the lawmakers will become truly civilized and ban the day-time carnage as well.

While hunting was certainly necessary for our ancestors, in today's overcrowded and technology-dominated planet, the activity amounts to wanton slaughter. The State of Hawaii actually stocks goats and pigs on the Big Island, at taxpayers' expense, so that these latter-day Wild Bill Hickoks can wound and kill to their heart's delight!

Further, these State-promoted animals, when they're not used for target practice, munch on rare, indigenous plant species, thus depriving rare, indigenous birds of nesting sites. So, in addition to pandering to the baser needs of compulsive bloodletters, the State is further endangering rare native flora and fauna!

Perhaps the State should put all hunters on Kahoolawe and let them shoot at each other until they become a rare and endangered species.

Gordon Tanoura

5/2/76 -SB

Shellfish Probe Swells as More Reported Ill

By Tomi Knoefler
Star-Bulletin Writer

A State Health Department investigation of an outbreak of gastrointestinal problems among a tour group at the Kuilima Hotel earlier this month has now ballooned into a sizeable shellfish probe involving the federal Food and Drug Administration.

According to Dr. Ned Wiebenga, State epidemiologist, the FDA's shellfish authorities got interested when preliminary investigation indicated that bacterial contamination of shellfish was a possible cause of gastrointestinal problems experienced by an estimated 50 to 60 members of the

Kuilima tour group on or about April 9.

Just as federal inspector Edward J. Cassidy got here, Wiebenga said, the Health Department got reports of three more private Honolulu parties in which apparently contaminated shellfish resulted in gastrointestinal illnesses among participants.

ON APRIL 16, two of 36 persons attending a party at which shellfish was served came down with gastrointestinal problems.

At another shellfish-serving party on the same day, six of 12 participants got sick with similar symptoms.

The third episode occurred two days later when nine of 36 persons came down with the same illness after eating shellfish.

Investigation showed that the shellfish from the three parties all came from Tamashiro Market, one of the sources where Kuilima Hotel also obtained its shellfish.

DR. WIEBENGA said the FDA inspector was concerned that the products might have come from unapproved Mainland destinations but that investigation proved otherwise.

He did, however, find that Tamashiro's handling of the shellfish was less than ideal.

The problem centered on the market's recirculating system of salt water in which various types of shellfish were kept.

THE FDA INSPECTOR cited 10 problem areas,

including these:

—People could dip their hands into the water tanks containing the shellfish.

—The circulating water wasn't changed often enough.

—The temperature of the water needed better control.

—Some of the shellfish, such as clams, were found to be dead in the tanks.

THE FDA IS expected to submit a written report on the matter in a few weeks.

The FDA and the Health Department recommended that the market suspend use of the circulating water system until the suggested improvements could be incorporated. Meanwhile, it was recommended that the market keep fresh shellfish in iced trays.

A market official said the FDA's recommendations are being observed and that improvements would be worked out with health officials.

LABORATORY tests of shellfish samplings are under way to attempt to pinpoint the specific bacterial contamination.

Wiebenga said the investigations have shed light on the fact that the State has no regulations pertaining to the importation, raising, handling, marketing, etc. of shellfish.

Aerial Photos Useful in Land Use Planning

By Lyle Nelson
Star-Bulletin Writer

One way to look at the grass that cattle eat is to get down on your knees.

Another way is to take photographs of it from hundreds of miles up in

space using camera-loaded satellites.

Another way is to take pictures with a U-2 at 65,000 feet or fly over the grass at 500 feet altitude.

All are tools in the hands of any land-use data collector who uses

remote sensing techniques to learn more about the grass.

THE DATA would be useful to the manager of Parker Ranch on the Big Island, for instance, if he wants to increase livestock production.

The photos may tell him there are too many or too few cattle on a given pastureland.

Such studies were of interest to scientists who attended a recent two-day seminar at the Ala Moana Hotel.

THE SESSIONS, sponsored by the State Department of Planning and Economic Development, were conducted by ESL Inc. of Synnyvale, Calif., a consultant to the Hawaii Coastal Zone Management Program.

Gary E. Gnauck, senior ESL resource scientist, said, "The purpose is to get more land-use information to officials and planners by using aerial photography and remote sensing techniques."

A U-2 airplane operated by the space agency last year made photographs of the Islands for the State.

"Using these techniques we can better define the problem and then design the most cost-effective systems to obtain what is wanted," he said.

IN THE PARKER Ranch case, or any similar food resource or agricultural problem, the idea is to get the maximum use of the land for cattle grazing or whatever purpose.

"This can include having the man on the ground take samples of the grass, cut it out, weigh it and to dry it out to make an estimate on how much grass is available to livestock.

"A different type of study could involve a thermal plant pumping hot water into a bay," he said.

INFRARED SCANNERS on a U-2 can determine to what extent a bay is contaminated by hot water, he said.

"These remote sensing systems are no panacea, only more tools for the official who wants to know more about influences on ecosystems or the extent of disease in a food source," Gnauck said.

He said good photo interpreters are needed but computers can be programmed to look for certain things and save an interpreter time.



ERECTOR SET—The \$13.7 million bridge over Kipapa Gulch between Wahiawa and Mililani Town is expected to be completed in December. The bridge is part of construction that eventually will extend the H-2 Freeway to the North Shore.—Photo by Bob Young.

Aerial Photos Useful in Land Use Planning

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Environmental Issues in Campaign

April 1, 1976 58

Editorial in the New York Times

ANY CANDIDATE for the presidency in 1976 will brush off at his political peril the issue of environmental protection. Too much has happened since the first Earth Day, close to six years ago, to permit the easy belief that Americans care about the air, water and land of this

President Ford and Congress are both vulnerable in their failure to address environmental issues.

country only incidentally and after all their other problems have been solved.

The most striking of a series of similar findings by public opinion surveys is that six out of ten people are more concerned with improving the environment than they are with tax reduction or a curb on prices. They understand, as presidential aspirants ought to, that without vigorous action now, the risks of pollution can only grow and in the end cost far more than the programs contemplated today.

The environmental record of the Ford Administration therefore presents other candidates—whether Democrat or Republican (except for the incumbent)—an opportunity to seize an initiative that would be both politically popular and of enormous benefit to the country.

CONSIDER THAT RECORD:

—President Ford has twice vetoed legislation to regulate the surface mining of coal and to compel the reclamation of previously stripped and abandoned lands.

—He backed away entirely from national land-use planning, to which his predecessor had assigned the "highest priority," only to abandon it in his struggle to avoid impeach-

ment.

—In the Ford Administration, the Department of the Interior has slowed down the protection of wildlife, particularly of endangered species. In contrast, it has hastened the oil exploitation of the outer continental shelf without anything like an adequate study of environmental risks that have still to be weighed against the probable yield in energy.

THE RECORD OF Congress, with swollen Democratic majorities, makes some of that party's presidential candidates likewise vulnerable. On land-use planning Congress has retreated more than once before the fierce pressures of a determined lobby that was not above misrepresenting such legislation as the first step in a diabolical scheme for federal zoning of private property.

The Congress has been highly indulgent in stretching out the timetable for reducing harmful automobile emissions. It has scarcely

begun to do what must be done to enable the mass transit systems of this country to reduce a volume of auto traffic which has gone far to destroy the cities of America and the air above them.

In the four years following the next presidential inaugural, the environmental progress that has been made so far will either grind down, with grave consequences for the future, or it will regain a momentum that has faltered in the economic recession. It is up to the candidates to dramatize the environmental issue to point out that a major program to improve the environment could also improve the nation's economy through application of resources to build and install the pollution controls, for which in many cases funds have already been voted and plans drawn up.

THERE ARE MANY other serious environmental issues that need emphasis in this campaign: The ef-

fort to screen and control toxic chemicals; resolution of alarming questions concerning the possible effect of aerosol and refrigerant gases—as well as of supersonic aviation—on the stratospheric ozone layer; the proper balance among various uses of the nation's forests, restoration of its parks, extension of its wilderness areas and, far from least, protection of its vital coastal areas from the depredations of industry on shore and the spillage of oil by tankers and freighters at sea.

All these objectives can and must be attained. Far from subordinating them to the state of the economy, candidates should view them as a major factor in improving that economy. The preservation of America's air, water and land is far more than a make-work program. It is the condition of life itself for future American generations. For a presidential candidate's vision or lack of it, there can hardly be a better criterion.

Thursday, March 25, 1976 Honolulu Star-Bulletin

ATTENTION DIVERS! Best Hawaiian coral
heads in quantities. 949-2592

March 24, 76 Advertiser
Island plants unusual

I have received a copy of Bruce Benson's article concerning the native flora of the Hawaiian Islands (2/4).

May I stress that we botanists in The Netherlands are vitally interested in the plants of your Islands.

letters

They are unusual because their long isolation has induced them to evolve not only into distinct species but even into distinct genera found not elsewhere.

It may be news to you that our Dr. Hermann Sleumer (now retired) in 1938 published a monograph of the genus *Hydnocarpus* to which the chaulmoogra tree of leprosy fame belongs. He then visited your Islands to collect and concentrate on the genus *Styphella* to which the pukeawe belongs. He published his findings in our magazine *Blumea* in 1963.

The collection of Hawaiian plants in our Rijksherbarium is greatly prized. We should like to add to it.

DR. M. JACOBS

Senior Botanist

Member Netherlands Committee for International Nature Conservation
Leiden, The Netherlands



Wrestler and octopus.—AP Photo.

MARCH 24, 76 S-B

Octopus Law Upsets Divers

SEATTLE (AP) — Federal biologist Bill High says the state of Washington has stretched its tentacles too far with a regulation designed to protect the octopus.

High can be considered a specialist on the subject. He works for the National Marine Fisheries Service, has been studying the octopus for 19 years and was the 1963 world champion octopus wrestler.

High, 42, says a state Fisheries Department regulation prohibiting harassment of the eight-armed creatures will prevent scuba divers from observing or posing for photographs with octopuses.

THE ONLY WAY TO GET an octopus into the open is to ferret it out from a hiding place. Most of the usual methods — which include the use of irritating chemicals — are prohibited by the new law.

It is now a gross misdemeanor, punishable by a fine of up to \$1,000 and up to a year in jail, to "molest" or "harass" an octopus.

"I used to be a real wrestler back in the old days," High said. "But now, I like to just go down and look at them and photograph them."

And that, he said, is what the average scuba diver

wants. "They're interested in how the creature lives," he said.

But state fisheries director Donald Moos said there "are known areas of Puget Sound where the octopus population has been reduced due to the activity of divers."

HE SAID THERE IS EVIDENCE that when the big mollusks are treated poorly by scuba divers, they often die afterward.

High speaks with affection and respect about his scientific subjects.

"They are superneat and fun creatures and are extremely intelligent," he said.

High said the largest octopuses in the world are found in Washington's Puget Sound and off the coast of British Columbia.

He said very little commercial octopus harvesting goes on in the United States although the octopus is a major food source in Japan. Since 1965, between 24,000 and 41,000 pounds of octopus were caught annually in Washington waters.

March 23, 1976 5-6

Aquarium Closing Legality Queried

Spencer Tinker, former director of the Waikiki Aquarium, said he thinks it is against the law to close the facility for renovation.

He said that the Hawaii Revised Statutes state that the University Board of Regents shall "at all times maintain" an aquarium and marine biological laboratory.

The aquarium is only open on Saturdays and Sundays this month because of renovation work during weekdays.

"IN THE PAST it was never necessary to close this museum for repairs," Tinker said. "The building remained open while being painted. Tanks were built, additional rooms were built and various parts renovated. The work was programmed around the people."

ASKED TO comment on Tinker's statements, aquarium director Leighton Taylor said:

"If it is against the law to improve the Aquarium, then I'm guilty of breaking the law. As far as it being illegal, I'm not a lawyer but I have the permission from my superiors to close it."

He said that if there is a law saying it cannot be closed, it is not the intent of that law to prevent closing the aquarium for repairs.

Wednesday, March 17, 1976 Honolulu Star-Bulletin B-7



TOO LATE TO SAVE PUP — A mother harp seal returns to find the remains of her pup after it was skinned during opening day of annual seal hunt off New Foundland coast. Skins of seal pups bring about \$25 each and the thick layer of fat on each carcass is used for cosmetics and food oils.— AP Photo.

March 16, 76
S-B



The Kokua Line

By Joanne Imig

Dial 525-8686

Mrs. K. will answer questions, cut red tape, solve problems. TELEPHONE 8 a.m. - 8 p.m. weekdays or write: Kokua Line, Box 3080, Honolulu Hawaii 96802.

Q—Can you set us straight on when we can visit the Aquarium? We were turned away last week, and a friend said the place would be closed for a month. However, there appeared to be weekend visitors. I know they are redoing the outside pool for seals, but what else is going on? A favorite of mine is Friday, a Hawaiian monk seal, who was sent to Sea Life Park while work is being done at his Aquarium pool. Will he come back?

A—The Aquarium is closed weekdays but open on weekends this month. Beginning April 1, regular hours will be resumed. It will be open daily except Monday.

Director Leighton Taylor said the weekday closure is necessary because of sandblasting and work by contractors on Aquarium renovation. Biggest part of the project is resurfacing of the 70,000-gallon seal pool. Other exhibit changes also are being made. Smaller tanks are being installed to showcase small forms of sea life often lost in bigger tanks, and improvements are under way on the shark exhibit.

All of the seals will return to the Aquarium, said Taylor. That includes Friday, who is particularly valuable, and two harbor seals residing temporarily at Honolulu Zoo.

An appropriation from the 1974 Legislature is financing the renovation of exhibits while contributions from organizations and individuals are footing the bill to redo the Aquarium museum room. That is slated to reopen on April 23 with a photographic exhibit.

Just the other day the Senate Ways and Means Committee approved a \$169,000 measure for further expansion and improvement at the Aquarium. If and when the money becomes available, Taylor said first priority would be construction of a sea turtle pond, diamond head of the existing seal pool.

Seals and turtles now share quarters but don't get along very well, according to the Aquarium director. Turtles breed and nest on beaches. He hopes that in a more natural habitat exclusively their own, they will increase their number.

Second priority goes to a marine tidal pool where Aquarium visitors would be able to see and pick up typical inhabitants. Taylor would use the remainder of the next appropriation for painting, general improvement and replacement of glass in tanks. Some of the glass is badly scratched. Some of it is very old, older than the Aquarium as tanks were moved over from a previous structure.

March 11, 76
Advertiser

Floating protest

Boatloads of protesters picket the ship and nets holding five killer whales in Budd Inlet near Olympia, Wash. Controversy over the capture of the whales has extended to the state senate and courts. Washington Gov. Dan Evans is seeking to free the whales which were caught for exhibition.

UPI photo



March 19, 76 S-B

Legal Action on Marina Work Asked

By Richard Borreco
Star-Bulletin Writer

A U.S. Fish and Wildlife Service representative last night asked the Army Corps of Engineers to take legal action against the developer of the Makani Kai marina and housing complex on Kaneohe Bay.

The official, Mike Nishimoto, said at an Army Corps of Engineers public hearing at Castle High School that he believes "the applicant has knowingly violated the law."

"There have been at least four Corps violations in the last year. This is not in the public interest and we urged the Corps to take legal action in each case," Nishimoto said.

THE CORPS is considering an "after-the-fact" request for permit to build a floating dock and boulder wall along the small Kaneohe Bay marina.

The construction took place last year. According to Brian Gray, a consultant

ing engineer for the developer, Pacific Western Construction Co., the company did not know a permit was needed for the marina work.

The 80-berth marina is part of a luxury housing complex development along the bay.

"My client had nothing to gain by not proceeding with the applications — he acted out of ignorance," Gray said.

Douglas Meller, secretary of the Shoreline Protection Alliance, said that in 1973, however, the Board of Land and Natural Resources told the developer that Army Corps permits were needed for the marina.

REPRESENTATIVES of other civic groups opposed the permit because it would be issued after the fact and the marina would be private.

Honolulu District Engineer Frank Pender said the Corps could fine the developer, grant the permit, or order him to restore the area to its natural state.

March 19, 76 S-B



SEAL HUNT PROTEST — Montreal residents support a ban on seal hunting in the Arctic. The hunting season opens today, and protesters are planning confrontations with the hunters.—Canadian Press Photo.

Brunei: Leaping

By JOSEPH GALLOWAY
United Press International

BANDAR SERI BEGAWAN, Brunei — "On your call to New York City, sir, could you tell us what country that is in?"

Once satisfied as to where the Big Apple lies in relation to North Borneo, the Hotel Brunei operator connects you swiftly. It is a quantum leap across oceans and eras.

Fueled by a wealth of black gold, this sleepy little outpost is coming awake and about to jump from the 19th to the 21st Century.

A NEW MODERN airport, fully capable of handling jumbo and Concorde jets, sits just outside town.

But if you want to go to Bangar town a river taxi winds through chocolate colored rivers where an occasional crocodile suns himself on a sand bar.

A new color television broadcast system beams "Star Trek" and the latest newsfilm from London to tin-roofed wooden homes built on piles over the river.

And as soon as rural electrification gets rolling for Iban tribesmen in their communal longhouses the television will share pride of place with fighting cocks tethered outside every bedroom door.

Brunei today is still officially a British-protected state and the royal family is ardently Angolphile.

CONSEQUENTLY Bandar Seri Begawan boasts Asia's only Winston Churchill memorial museum and a life-size statue of Churchill — cigar and top hat included — flashing the "V" sign at the jungle.

On a green landscaped hillside the

British high commissioner, J. Davidson, looks down from his veranda on the harbor, the river traffic and the gold-domed mosque of Bandar Seri Begawan.

"It's a sweet place," he muses. "There aren't many like it left in this world." Davidson came here a year ago from tours in Bangladesh and Cambodia and he hopes the peace will hold for his time here.

Down the slope other Britons gather at the Royal Brunei Yacht Club for a sundown gin and tonic and dinner on an open veranda where Somerset Maugham and Anthony Burgess tripped in days gone by.

The club menu apologizes in advance for delays in preparing orders and enjoins members and guests against intruding into the kitchen and trying to "sort things out."

THOUSANDS OF expatriates staff the technical jobs in both government and the oil industry, while local technical colleges and British universities train the Brunei graduates who will ultimately replace them. They thirst for strong drink and female companionship — not necessarily in that order — in a strictly moral Moslem nation.

Alcohol flows freely, some say overfreely, but mobile patrols of inspectors from the Religious Affairs Department make fraternization with the opposite sex difficult and dangerous for foreigners and Moslems alike.

To meet the need and institution known as the "Flying Fifties" has grown up. Bands of prostitutes from neighboring capitals fly in on weekends to ply their trade on the jungle's edge.

Previously the going rate was 50 Brunei dollars (\$20) but recent inflation has added 10 Brunei dollars to the price

and the girls are now known as the "Flying Sixties."

Royal Brunei Airlines and Singapore Airlines offer a \$119 roundtrip weekend excursion fare to Singapore that at times seems to almost empty the town of foreigners.

IN BANGAR TOWN a battalion of the Royal Brunei Regiment settles in for a two-month tour of duty. Its British officers look out the window at a monument marking the spot where the 1962

rebellion broke out with a mob chopping the district officer to death.

They shrug and offer another round of cold beer to their guests before strolling up the road to the government guest house for plates of fried Chinese noodles. The monsoon has ended and the towns and swamps broil under a hot sun.

At the state secretariat a Brunei economist educated in Britain and Canada talks of a five-year plan that will bring industrialization to the nation, and says he hopes to find time soon to attend Harvard Business School to complete work on his master's degree.

AT THE YACHT CLUB a half-hearted dart game is under way and someone tells a newcomer the story of how the police commissioner in 1962 stood alone before a mob of 300 and threatened to blow the head off the first man to cross the sewer drain.

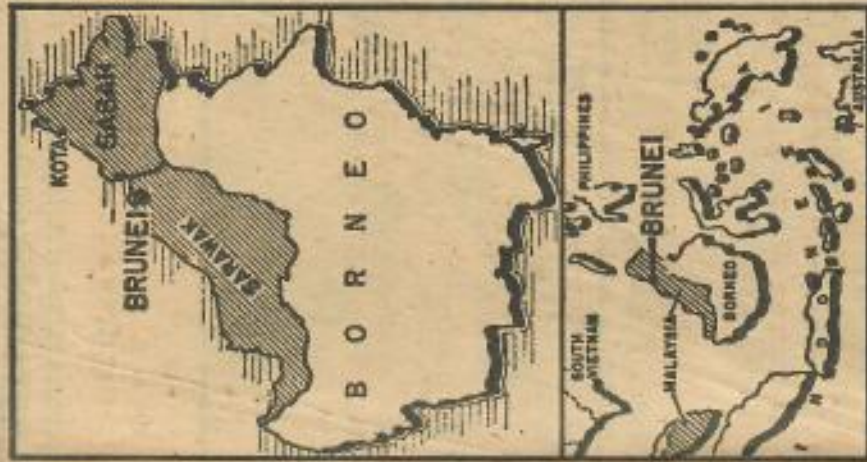
The first man to cross was duly beheaded by the commissioner's sawed off shotgun blast and the mob lost interest rapidly.

At the bar a British customer smooths out his airfreighted copy of the Daily Telegraph — only two days old — and points with horror at a headline reporting that a transvestite had been accused of picking up a lesbian under false pretenses and then raping her.

"I mean you expect that sort of thing in some newspapers. But the Telegraph? Good God, what's the world coming to these days?"

Over at the states secretariat earnest young men put the finishing touches on blueprints for construction of the Brunei satellite ground station due for completion in 1977.

The world, it would seem, is coming to Brunei.



Advertiser

1976

Feb?

Federal official watches boaters chasing whales

By BRUCE BENSON
Advertiser Staff Writer

A small pleasure boat chasing humpback whales was seen this week from an airplane whose occupants included a Federal fisheries biologist involved in enforcing a stiff new law that prohibits such harassment.

The boat chased and encircled a pod of whales off Maui and Lanai on Wednesday, then ran

alongside the creatures so that divers could jump into the water from the boat to take pictures, according to Ed Shallenberger of Sea Life Park.

Shallenberger, a specialist in ethology, the study of animal behavior, said the plane that he and three others were aboard passed low over the boat and took photographs of its name and of its harassing maneuvers.

JOHN NAUGHTON, a

biologist with the National Marine Fisheries Service, also was aboard the plane and witnessed the chase of the whales.

Naughton said that whether his office will seek prosecution depends in part on precisely what distances show up on the film between the boat and the whales.

Vessels are not allowed within 50 yards of the federally protected humpback whales now spawn-

ing in Hawaiian waters.

Naughton said it is unclear whether the boaters were harassing the whales intentionally. "I have a feeling that the people just wanted to draw ahead of the whales to put divers in the water. But in the process, by pulling alongside and ahead of the whales, they put stress on the animals. They herd them along, so to speak."

SHALLENBERGER said he believes that many incidents of such harassment, whether intentional or not, are taking place in Hawaiian waters. Some have been witnessed and reported, he said.

The whales are protected under recently enacted rules of the Marine Mammal Act. Naughton said he knew of no prosecution under the act in Hawaii to date, although legal action has been taken on the Mainland.

Anyone convicted under the law faces a penalty of up to \$20,000 and one year in prison.

FEB 27 5-6 1976
Sewage-Fertilizer

Research Urged

Gannett News Service

BOSTON — Sewage and other municipal wastes will become important fertilizers, but only if research can find ways of dealing with the poisonous heavy metals they contain, two specialists said at a scientific meeting here.

Raymond J. Miller, director of agricultural research at the University of Idaho, and D. E. Koeppel of the University of Illinois told a session of the American Association for the Advancement of Science that scientists must investigate intensively the way some plants escape injury from heavy metal pollutants, such as lead and cadmium.

Only then, they said, will the widespread use of municipal wastes as agricultural fertilizers be possible.

THE CORN plant defends itself against lead by turning it into lead phosphate and storing it in its cell walls, where it cannot interfere with the plant's life processes.

Knowledge of such mechanisms in plants is essential before the risk of using sewage waste as fertilizer can be taken, Miller and Koeppel said, otherwise we risk permanent damage to farmland.

Cadmium has been found to inhibit the growth of lateral roots that supply a plant with nourishment. But Koeppel and Miller said no one knows why this happens and research in the area should be greatly expanded.

In case of nuclear war, there's this little nestegg

By CHARLES R. BABCOCK
Washington Post Service

CULPEPER, Va.—In what could be called the Ft. Knox of Paper Money, the Federal Reserve Board has stockpiled billions of dollars in cash in a heavily-guarded, little-known complex carved into a hillside near here.

The huge supply of new bills — believed to be the most kept in any vault in the world — would be used to replenish the nation's money supply in case of a nuclear attack.

Federal Reserve officials are reluctant to talk about the value of the 700 million "notes" stored in the Culpeper facility, 80 miles southwest of Washington.

FROM ROUGH calculations though, it can be estimated that the cache of unused currency — in denominations from \$1 to \$100 — totals about \$4 billion.

The bunker-like facility also houses a records center and a sophisticated computer operation which currently directs communications among the 5,700 member banks of the Federal Reserve System.

The seven-member Federal Reserve Board controls the basic money supply by buying or selling government securities and by other means.

Culpeper is the most elaborate of a series of "relocation centers" set up by the Fed's 12 district banks as part of the nation's Emergency Preparedness Plan.

The center, built in the late 1960s, was designed to be the new home of the Richard District Bank — and apparently the board itself — after a nuclear war.

About 100 persons work there fulltime — about 30 in administration and records, 30 in the computer operation and about 40 in security.

The security force is supplemented by an elaborate system of television surveillance.

THE CENTER is inside Mt. Pony, just off U.S. 3, near Culpeper, a town of 7,000 in the foothills of the Blue Ridge Mountains.

It was built to withstand both blast and radiations from a nuclear attack.

Space for the three-story, 400-foot long structure, which slopes back with the hillside, was blasted out of solid rock. Gordon Grimwood, the Fed's top emergency planning officer, said in a recent interview: "We dug a hole in the side of the mountain, built it, and covered it up again."

Two to four feet of dirt covers the foot-thick concrete walls of the building. Lead shields are positioned to be raised over windows in case of attack.

The facility also has its own water, air filtration and power supplies, and enough freeze-dried food to last 30 days.

IN ADDITION, there is office and dormitory space for the families of the Fed officials of "the list" of those to be relocated there.

On the second floor, plastic covered desks and chairs sit at the ready in empty offices. On the third floor, there are 200 empty bunk beds.

"We can sleep 400 people here by using a hot bed system (sleeping in shifts)," Grimwood said.

Other emergency centers for the district banks include a limestone mine in Western Pennsylvania, the bottom of a salt mine in Kansas, an abandoned communications bunker at a military airbase in Massachusetts, and basement rooms on several colleges campuses across the country. Most are merely depositories for bank records.

Details of the center's function in storing the nation's emergency money supply is not widely known.

Marines Say Isle Is Needed

Continued from Page One

separated from air wings, he said, except in the Carolinas where they are so close that fighters can reach ground elements for war exercises within minutes.

As for bombing practice, McLaughlin said all his Marine forces in the Pacific have target ranges for practice.

Marine fighters in the Far East bomb islands, coastlines or valleys in the Philippines, Japan and on Okinawa, including Ie Shima, where journalist Ernie Pyle died in 1945.

In California, McLaughlin's fighters use ranges in Yuma, Ariz.; Fallon, Nev.; China Lake and Twenty-Nine Palms, Calif.

Why do Marine pilots need bombing practice?

"Pilots have a long syllabus for training and they have to go through all of it to achieve accuracy in air-ground bombing and gunnery," he said.

LAST YEAR MARINES FROM Kaneohe trained at Kahoolawe 353 days.

Overlapping training schedule included 125 days for fighters, 55 days for artillery teams on the ground at Kahoolawe, 35-40 days for infantry units and another 40 days for Marine spotter planes working with Naval gunfire teams aboard ships from Pearl Harbor.

Pearl Harbor figures show that, in a one-year cycle ending last September, 2,073 hours were spent in aerial attacks on Kahoolawe and 513 hours in offshore gunfire by ships.

The Defense Department maintains it needs Kahoolawe for national security.

"It is essential as long as Navy and Marine Corps forces are based in the Hawaii area," a spokesman said.

Increasing civilian pressure for the return of Kahoolawe to the State has been mounted lately through illegal trespass by private citizens and a resolution introduced by legislators.

Questions on the legality of military control of the target island are headed for the courts.

The military has bombed Kahoolawe since 1941.

The Marine air-ground team has been based at Kaneohe since 1954 except for the years it fought in Vietnam.

floor leader in the Senate, said the measure would freeze all assessments and rates at present levels until the State has adopted programs to meet criticisms contained in an audit made last year on property taxation.

"The recent controversy involving the Governor switching positions on a tax assessment ratio indicates that Hawaii's taxpayers are caught in the middle of a political fight between contending factions of the Democratic party," Anderson said in a prepared statement.

"It will be in the best interests of the State to freeze tax assessments at their 1975 level until all differences are worked out in the State administration, the Legislature and at the county levels," Anderson said.



Ron Loftus

Loftus Plans Fourth Bid for Office

Ron Loftus, a Democrat, today announced his candidacy for the State House from the 7th District (Aiea Haina-Hawaii Kai).

Loftus, 43, is publisher

Crime-Fight
Finder

Endangered Species

THE ISLANDS of Hawaii are so attractive and the climate so benign that conflicts are almost inevitable over the best use of the limited land area.

Besides such traditional conflicts as those between developers and farmers, conflicts have also developed between groups that would ordinarily be considered allies.

Such as foresters and botanists.

Volleys were fired this month by Tom K. Tagawa, State forester, and Charles H. Lamoureux, professor of botany at the University of Hawaii.

TAGAWA'S opinions were expressed in a talk he gave Feb. 2 to the convention of the National Association of Conservation Districts, meeting in Honolulu. Lamoureux's comments, given in a letter to Tagawa, answered some of the points raised by Tagawa.

Their points of difference involve the Endangered Species Act of 1973 and especially the critical habitat for endangered plants.

Tagawa said the Forestry Division is concerned with the act's administration because "the entire forest or portion of agriculture land may be locked up as a 'critical habitat' or 'range' for the sole purpose of not conservation, but preservation of the endangered and threatened flora and fauna."

HE CITED the State's need for present farm crops, for more diversified agriculture, and for forest development.

He said about 640 species of native plants are listed as endangered; 1,088 species are on a Smithsonian Institution list of extinct, endangered or threatened Hawaiian plants.

"Foresters need to know the beneficial and detrimental effects on birds and other animals that may result from timber stand improvement, timber harvesting" and other management activities, he said.

"This information is vital for the foresters to make future forest management decisions to conserve our native birds and our endangered species as a whole."

HE SAID he had asked the Smithsonian for data on how the listing was selected and if the institution had a base map delineating locations of the endangered flora. Instead of getting the data and map, the Smithsonian accused the Forestry Division of causing "much of the endanger-



Our Environment

By
Harry Whitten

ment of native fauna and flora in Hawaii, which is not true," he said.

"Care and selectivity must be used when nominating species because of the major impact and restriction the endangered plants and their habitat will have on such activities as pasture improvements, forestation, game management, conversion of forest lands and for other agricultural use and even forest recreation," he said.

He raised the question as to wheth-

Foresters and botanists don't see eye to eye on the meaning of the Endangered Species Act but they agree more facts are needed.

er the federal government would provide additional funding for forest fire protection, since a devastating fire could cause extinction of endangered species in a very short period.

He called for more research, better criteria for critical habitats, maps locating threatened species, participation by landowners, and public hearings.

LAMOUREUX, in his answer, said he didn't think maps should be readily available to everyone. "Based on experience in Britain and elsewhere, the surest way to wipe out a population is to publish a map showing exactly where the last of it

is found," he said.

He said that no serious student of Hawaiian biology would opt for strict preservation of endangered species, that planned management, "such as control of feral and game mammals and weedy plants" is essential to conservation.

He argued that "endangered species protection is as compatible with the multiple use concept as are most other forest uses."

TAGAWA HAD criticized the Smithsonian list as the product of inadequate study. In answer, Lamoureux said that F. R. Fosberg, Smithsonian botanist, had begun his studies of Hawaiian plants in 1932, that the studies are continuing, and that the Pacific Science Association Standing Committee on Pacific Botany initiated a project in 1953 to produce a list of rare and endangered plants in the Pacific Basin.

He presented a chronology to show work over a 20-year period toward developing the Smithsonian list but agreed there are shortcomings in the list.

He appealed to Tagawa for cooperation in "gathering more factual data on endangered species."

Military Bombing

A PANEL discussion on how military bombing has affected the islands of Kahoolawe, Kaula and Makua will be held at 7:30 p.m. Tuesday in the Kukui Health Building, 245 N. Kukui St.

Representatives from the Navy and Army, Hawaiians, fishermen and scientists have been invited to speak.

The discussion is sponsored by the Oahu Chapter, Conservation Council for Hawaii, and the University of Hawaii Sea Grant program.

Sierra Club

BOB NEMECHEK is the new chairman of the Hawaii Chapter, Sierra Club, succeeding David Raney.

The executive committee includes Raney, Lorin Gill, Annette Kaohe-auli'i, Diane Kiel, Attoman Kimm; and David Boynton, Kausi; Bud Aronson, Maui, and Helen Baldwin, Big Island.

The Hawaii Chapter of the conservation organization now has 725 members, it was announced at its annual meeting Thursday. A unit is being formed on the Big Island.

Marines' Presence

By Lyle Nelson
Star-Bulletin Writer

The Marine Corps' Pacific commander suggested yesterday that Marine forces at Kaneohe may be forced to pull out of Hawaii if civilian efforts to obtain the return of Kahoolawe to the State are successful.

Lt. Gen. John McLaughlin, Fleet Marine Force, Pacific, commander, said in an interview at his Camp H.M. Smith headquarters that the 1st Marine Brigade's F-4 Phantom fighter-bomber pilots at Kaneohe need a target for bombing practice to maintain their

skills and, unless Kahoolawe is available, the force would have to look somewhere else.

Asked whether the forces under his command, specifically Air Group 24 at Kaneohe, could maintain combat readiness without Kahoolawe to bomb, McLaughlin said, "We would need a range. We would have to look for a range. We have to train."

A 1972 ENVIRONMENTAL impact statement which came to light recently said there was no suitable alternative to Kahoolawe in the State.

Maj. Gen. Valentine A. Siefermann, State adjutant

Tied to Kahoolawe

general, earlier this week said combat forces in Hawaii might be forced to pull up stakes if Kahoolawe were not available.

He named Marines at Kaneohe, among others, as forces that could be forced to relocate.

Navy officials at Pearl Harbor said the Marines took up 70 per cent of the time consumed in bombing Kahoolawe in 1975.

The Marine Corps has 8,542 men and women in Hawaii and another 7,081 dependents; the bulk of the force serves at the Kaneohe base.

The Marine Corps combat tradition links infantry ground forces with an air wing.

Fighter Squadrons 235 and 212 based at Kaneohe operate as a firepower team with ground forces.

McLAUGHLIN WAS ASKED if the ground forces can remain at Kaneohe without fighters.

"They are collocated in the geographical sense," he said, an answer that translates to "No." Fighter and ground troops go together, he said.

Nowhere else in the world are Marine ground troops

Turn to Page A-8, Col. 1

FEB 17, 1976 Advertiser

'Whale blitz' gets socked in

The State's first "whale blitz" — an intensive effort to count whales vacationing in Hawaiian waters — fizzled over the weekend because of rough weather that hampered counting from sea and shore.

One aerial flight, however, did yield a tally of 85 humpbacks, reported Dr. Edward W. Shallenberger, a Sea Life Park whale expert.

"I'm sure there's 100 whales from the Penguin Banks (a shoal area off

the west end of Molokai) to the East end of Maui. There may be more. We counted 85 in one flight," Shallenberger said.

Despite the fizzled effort of last weekend, Shallenberger said that another blitz is on the agenda. And volunteers are encouraged to sign up to help, he said.

Anyone who can help look for whales from shore, from boats or from the air should call Shallenberger at Sea Life Park.

He said that an intensive count will be made in another couple weeks, attempting to include the waters around the entire inhabited Hawaiian Island chain.

No one knows just how many humpbacks there are in the world, Shallenberger said. Rough estimates place the world population at perhaps 5,000. For the North Pacific, the population stands maybe at about 1,200, he said.

Sat Feb 21
1976

Paiko Lagoon

S-B

The political flip-flop on the Paiko Lagoon Wildlife Refuge is an example of the effects of delayed public reaction.

After the Legislature decided last year to exempt a single house lot from its acquisition of property on Paiko Peninsula, strong sentiment developed in the area against permitting the construction of a house on the property inside the sanctuary.

The four State senators representing the area favored the exemption last year, on the ground that it would save the State money. Now the area's legislators advocate eliminating the exemption and purchasing the lot.

The environmental issue is clouded. Conservation groups argued that the house construction would be harmful to the lagoon's birds, but a University of Hawaii bird specialist denied this.

However, it is clearly incongruous to have a private home inside a wildlife sanctuary. Whether it was worth the financial saving to the State to permit it is not the point. The point now is that the public has made it plain that it objects strongly to the idea.

The Senate Ecology, Environment and Recreation Committee has recognized this sentiment and recommended State purchase of the controversial house lot. The Legislature as a body should comply.

Defectors May

By Lee Hicking
Gannett News Service

WASHINGTON — Thanks to Pollard, Bullder and the GE Three, the nuclear power industry has just gone through the roughest month of its young life.

The question is now whether it will ever recover.

When all that has happened sinks into the public consciousness, it is just possible that the development of nuclear power—on which many people say the energy future of this country depends—will be cut off short.

That is a strong statement, and calls for a little explaining:

POLLARD IS Robert D. Pollard, who worked for

the Nuclear Regulatory Commission and its predecessor, and the Atomic Energy Commission, for 6½ years, until he quit last month while, of all things, being interviewed by Mike Wallace on the television program "60 Minutes."

Bullder is Carl Bullder, NRC director of safeguards, which means the protection of materials like plutonium that could have military uses. He wrote a memo, that someone else leaked to an anti-nuclear group, in which he said a lot of the nuclear bomb materials in the hands of private companies in this country could probably be stolen by an armed band as small as two or three.

The GE Three are Dale Bridenbaugh, Richard

Hubbard and Gregor Minor. They quit good jobs in California with General Electric's nuclear energy division last week, declaring that they cannot go on any longer contributing to what they feel is the increasing danger of nuclear power.

The importance of Bridenbaugh, Pollard and the rest (Bullder may be a different case) is that they have suddenly appeared from the inside of the nuclear establishment to say the same things that many people on the outside had been saying.

RALPH NADER and his troops, whether their goals are right or wrong, have suffered from one big handicap in their campaign to put the brakes on nuclear development.

Cripple Nuclear

Star-Bulletin News Analysis

They sometimes get their data wrong, and people like physicist Ralph Lapp can blow them out of the water with one or two well-placed scientific facts.

The nuclear industry and the nuclear establishment in government have always fallen back on the argument that only persons who have a technical understanding of nuclear power can form a rational judgment on whether it is safe.

And, they say, everyone who really understands it is for it.

"Well, I understand it," said Bridenbaugh, "and I'm against it."

EX-ASTRONAUT William A. Anders, chairman of the NRC, met with the GE Three last week to see if they had "any specific information which might require immediate regulatory action." Anders reported that they said they had none, and the NRC chairman described their concern as "philosophical in nature, over the long-term use of nuclear power."

They did raise, he said, "several general safety issues, all of which are under active consideration by the staff."

Pollard, in a long memo he filed with Anders Feb. 6 before he left the NRC, furnished what may be a glossary on that phrase.

When the NRC says a problem "is being reviewed on a generic basis," he said, it really means, "this problem affects too many plants and we don't know how to solve it yet."

THE NUCLEAR industry so far seems to view Pollard and the Three as a public relations problem, and its first counter-attack has been that they are saying nothing new.

Like Anders, industry defenders stress the long-range and "philosophical" character of what is being said by the defectors.

Certainly, there is a philosophical, or at least moralist, strain to what they have said in the countless news conferences they have held since they quit.

Minor, who was GE's manager of advanced control and instrumentation, said he has "a deep conviction that nuclear reactors and nuclear weapons now present a serious danger for the future of all life on this planet."

BUT THIS, while broad, is not unspecific, and Minor gets more specific still:

"We cannot prevent major accidents or acts of sabotage. I fear that continued nuclear proliferation will quickly consume the limited uranium supply and force us into a plutonium-based fuel economy with even greater danger or genetic damage and terrorist and weapons activity."

Hubbard, who was manager of quality assurance for Minor's department, is even more specific:

"I have seen too many instances where engineers did not consider all of the relevant parameters, where craftsmen did not follow the prescribed construction and manufacturing methods . . . and where plant maintenance decisions were based on continued power production, not plant safety."

Hubbard's strictures, in still more detail, are the theme of a long memo that Pollard filed with Anders this week before he left the NRC — a move that, he said, is causing "a massive upheaval in my personal life" and which he would never have made "if there were any other way to make the point."

POLLARD was NRC project manager on eight reactors currently being built. His memo focused on two New York nuclear units, Indian Point 3, being built, and Indian Point 2, which is finished and on which he was also project manager.

The gist of what he said

was that the technical staff at the NRC, and earlier at the AEC, was never able to reach the top levels of either commission with warnings of defective design and faulty construction in nuclear plants.

"The plain fact," he told Anders, "is that many dedicated government employees are deeply troubled by the pervasive attitude in the NRC that the most important job is to get the licenses out as quickly as possible and to

Power Effort

keep the plants running as long as possible."

"MIDDLE management" at the NRC, Pollard said, puts up barriers to keep the staff's warnings from reaching the level of the policy and decision-makers.

The extent of unresolved safety problems is suppressed, he said, and buried in "For Official Use Documents" that the public never sees.

His memo contained a long list of such documents that he urged

Anders to declassify at once and make available in the NRC Public Document Room.

The significance of the charges made by Pollard, Bridenbaugh and the rest is not in their novelty but in the fact that they came from insiders — thoroughly-trained, professional, once-dedicated technologists.

Now they are standing up to say the same things that amateur critics of nuclear power have been saying.

UH budget: Ariyoshi just said cut it

By PETER ROSEGG
Advertiser University Writer

"The cuts in the University of Hawaii budget we have been forced to make by the Governor's restrictions are the same chunk out of the system as asking us to close Leeward Community College. In fact, closing Leeward would be cheaper."

That was how Durward Long, University vice president for academic affairs, illustrated to members of the House Higher Education Committee the size and severity of the budget cutbacks imposed by Gov. George R. Ariyoshi on the University and other State agencies.

The 1975-76 operating budget for Leeward is about \$4.3 million. The Governor's restriction of nearly \$4.9 million (originally \$5.8 million) was almost 6 per cent of the University's legislative appropriation of \$88.3 million.

THE FUNDS WITHHELD from the University of Hawaii are in line with cuts made elsewhere by the State Administration. In all, the Governor has held back \$22 million from the \$696 million in general funds appropriated by the Legislature.

Cuts in other major departments vary from less than 1 per cent from Social Services and Housing to 5 per cent from Health to a whopping 23 per cent from the Governor's own office. The Department of Education, by comparison, has done without about \$6 million or 3 per cent of its \$180 million appropriation.

The withholding of funds was spread unevenly through the University system. Although Ariyoshi's office dictated the amount, the decision of where to cut was made by the president's office and the four chancellors.

In explaining the cuts to inquiring State legislators, administrators almost always begin with the words, "We were faced with very difficult decisions on where cuts should be made," as Manoa Chancellor Douglas Yamamura told the House Finance Committee.

In earlier testimony before that committee, University President Fujio Matsuda listed areas of advancement in the University system but told legislators, "It is highly likely we have purchased such progress at the expense of deferring improvement and strengthening other continuing programs."

THE UNIVERSITY'S 1974-75 general fund budget was \$68.4 million. The 1975-76 appropriation (before funds were held back) was \$88.3 million.

But through charts and diagrams, Matsuda and Long showed legislators that when fund withholding, inflation, unexpected enrollment increases and mandated new programs are deducted from the \$88.3 million, the University has only \$86.1 million to pay for the same services which cost \$88.4 million a year ago.

The Governor's \$4.9 million cut hit the Manoa campus hardest, with \$3.2 million cut from the legislative appropriation.

By percentages, however, the hardest hit campus was Hawaii Community College, which lost 11 per cent of its appropriated budget. Kauai Community College lost 10 per cent, Hilo College lost 9 per cent, and Manoa 6 per cent.

(West Oahu College was down 29 per cent, but the cuts were largely voluntary due to only a half year of operation and low start-up enrollment.)

INSTRUCTION CUTS AT MANOA totaling \$1.2 million were made by reducing staffs, much of them clerical and professional, from the Colleges of Arts and Sciences and Tropical Agriculture and the Schools of Nursing and Public Health.

Organized research at Manoa lost nearly a half a million dollars from a variety of institutes.

The decision not to add 36 people to Manoa's custodial staff was questioned by a number of legislators. Several new buildings have opened recently at Manoa, increasing the workload for already overburdened custodians.

"How can you come to this Legislature asking for \$45 million in capital improvements when you decide not to release the necessary positions to take care of what you have?" one legislator asked Matsuda.

"YOU WANT \$10 MILLION this year for new athletic facilities, but the present gym at Manoa is crumbling for lack of care."

In the House, some representatives were particularly unhappy to discover what had become of their pet projects — appropriations that were added at their insistence to the University's budget last year.

Studies of the Hawaiian green turtle, tissue culture for ornamental plants and banana development, the marine technician program for Leeward, three additional staffers for the Kona Branch Experimental Station and one and a half positions for Philippine studies were completely scrapped.

During various hearings, at least one senator and one representative expressed the opinion the Legislature was wasting its time in consideration of the University's budget. After the Governor's withholding of funds and the administrators' priorities were decided, very little was left of legislative intent, they said.

THE LEGISLATORS FOUND little comfort in the University's second-year supplemental requests, either. The list includes four higher education items totaling \$358,000 and \$50,000 for the Waikiki Aquarium, which is considered to be culture and recreation.

"I was surprised, after your dire implementation report to find only five small items on your supplemental budget," one legislator told Matsuda.

"If we got everything you gave us last session we wouldn't need any more," he replied.

Further questioning by members of the House Higher Education Committee revealed the University's original supplemental budget request which had gone to the Governor's office totaled about \$1 million. Three of the four higher education items finally forwarded to lawmakers—all for marine programs—were not even requested by the University, but were added in the Governor's office.

"We are here to defend the Governor's budget," Matsuda told legislators, but he agreed to turn over to the committee the University's original \$1 million supplemental request list.

The Butcher

By Merle Ellis



Beef—Not Exactly Corn Fed

When I was a kid growing up on the farm in Nebraska, my grandfather had a feedlot. Well, it wasn't actually his feedlot. It belonged to Old Man Davey and my grandfather worked the place. He was, you might say, a tenant-farmer-feeder. But that was where my brother and I helped feed cattle.

In those days, in Nebraska, that meant CORN. The place was dotted with corn cribs, which were kind of free-formed structures about 20 feet high made of wire fencing or wood and wire "snow fence" with galvanized tin roofs that we weren't supposed to climb on. They were everywhere in Nebraska in those days and they bulged with corn.

Feeding cattle with Grandpa meant riding in the wagon behind the team, May and Nell — sometimes even holding the reins — hauling corn from one of the cribs to the feedlot.

THERE WAS corn everywhere back then, so much some years that there weren't enough corn cribs to hold it all and we'd turn the cattle loose in the corn fields to feast. The pigs would be turned in behind the cattle and the chickens would come along behind the pigs to clean up anything that was left.

We don't have that kind of corn anymore. Oh, we've got just as much corn — more in fact! But there aren't many corn cribs bursting at the seams with surplus these days. As a matter of fact, we've been a little short for the past few years. Crops haven't been as good as they could have been and then we have sold a few cribsful overseas. There just hasn't been enough corn for the past couple of years to turn the cattle out in.

That scarcity has caused a lot of folks to get the idea that maybe we shouldn't be feeding what we do have to cattle or pigs or chickens, but that, rather, we should be using it to help feed the world. Now that's a noble idea, but it doesn't take into account the reality of what animals eat, and what they provide in return for what they eat.

CATTLE DON'T eat just corn. We used to turn them into the corn field AFTER the harvest to eat the stalks. They have stomachs that work wonders on all kinds of things you and I would gag on. Eighty per cent of the feed cattle consume is not grain — never has been. It's grass, hay, straw and corn cobs and all kinds of stuff. Cattle have more stomach for it than we do.

You would be amazed at the things they consume and turn into high quality protein for our tables. Would you believe, cardboard? There are experiments being conducted in which recycled cardboard is being used as a cattle feed. It has food value for them and, if the experiment works out, in turn for us.

Almost all the products of the food industry are, or have the potential of being, used as feed for animals. What's left of the grape after they make your wine, what's left of the hop after they brew your beer, what's left in the bottom of the great big pots after they brew your freeze-dried coffee, sugar beet tops and pulp, peanut shells, potato skins, rice straw, tomato skins, what's left of an orange after Minute Maid has made their squeeze — all of that and more go to feed cattle.

IT MAKES ME laugh, being a butcher and a beef eater — a rather pained laugh, I'll admit — to read comments such as the one I read in Frances Moore Lappe's "Diet for a Small Planet."

"The average steer is able to reduce 21 pounds of protein in feed to one pound of protein in expensive steak or roast . . ." That may well be true, but if the feed protein she is talking about is coming in the form of cardboard, aspen trees and what's left of the sugar beet after the sugar's squeezed out, then I doubt if I could get my family to eat it — even with a good Bordelaise sauce.

Before you decide that meat is not a valid part of man's diet in this hungry world, eat a piece of cardboard!

finance committee questions UH requests

by KALYNN CHONG
legislative reporter

Unfavorable reactions arose among the House Finance Committee members during last Wednesday's hearing. University of Hawaii-Manoa Chancellor Douglas Yamamura presented testimony requesting State assistance in funding certain higher education programs, as well as Capital Improvement Program (CIP) requests on projects ranging from art facilities competition, to possibly constructing a new laboratory building at Coconut Island.

Negative response from the committee members became apparent when Walter Muraoka, physical planning director, began reading off the University's re-

quests.

ON ONE particular project, in which CIP funds were being requested for a laboratory building on Coconut Island, Rep. Ronald Kondo (D-6th Dist.), questioned the validity of such a facility for UH Oceanography Department.

"Why do the oceanography people have their facilities all over the island. You talk of doing research projects all the time. Where's the result of these research studies," Kondo said.

"We have to know that taxpayers' money will be utilized for something worthwhile."

"There has to be some trade-offs in terms of benefiting the people and the needs of this State," Rep. Norman Mizuguchi

(D-19th Dist.) said.

AT ONE POINT Kondo referred to the advances Taiwan has made in terms of constructing a "floating city" of its own and compared Hawaii's underdevelopment in areas such as these.

John P. Craven, professor of ocean engineering however reminded Kondo that the concept for Taiwan's "floating city" was originally taken from a research study done by the UH Ocean Engineering Department. The department had previously requested for State and federal funding assistance to construct Hawaii's own "floating city," but the request never went through.

The University should not be expected to compete in private enterprise in order to test the validation of their research projects, Craven said.

REP. KINAU BOYD KAMALJI (R-11th Dist.), agreed and said that the State legislature should take advantage of the University's research studies.

Rep. Jack Suwa (D-1st Dist.), chairman of the House Finance Committee, summed up most member's views. "Too many research studies are being done now with no relation to the needs of the people of Hawaii and that should be the priority in these matters."

"You're going to get a hard time from me, I'm telling you right now" said Kondo, referring to the UH CIP proposals.



JOHN CRAVEN

THE ORDER OF priority listing for CIP requests still needs Board of Regents approval, Muraoka said. The tentative CIP requests list as first priority, the completion of the art facilities and lastly proposing a construction for pedestrian crossing at Dole Street.

The most costly CIP request will amount to \$9.7 million and entails construction of a permanent indoor facility for the Physical Education Department.

The least expensive CIP request would total \$76,000 and calls for additional funding for completion of a field laboratory for the Department of Agronomy and Soil Science.

OTHER CIP PROPOSALS include matching State funds for completion of UH Medical School



DOUGLAS YAMAMURA

facilities at Kapiolani-Children's Hospital and for a Cancer Research Center at Queen's Hospital; additional planning funds for permanent facilities for the law school as mandated by the American Bar Accreditation Team; additional construction and equipment funds for an oceanographic and marine laboratory and funds for mid-level facilities to house scientist and technicians at the Mauna Kea Observatory.

Yamamura also gave testimony concerning UH level of educational emphasis (grad level versus undergrad level). University restrictions on budget items that were approved by the legislature last session and were subsequently dropped by the University officials and other information on UH's 1975-76 operating budget.

Moose vs. wolf vs. marksmen vs. ecologists

Christian Science Monitor Service

WASHINGTON — Which comes first, the moose or the wolf?

Alaska wants to boost its dwindling moose herds by killing wolves that prey on them, but environmentalists have rushed to the aid of the wolves.

Sharpshooters riding in helicopters had hardly started an aerial slaughter of some 200 wolves as an "experiment" in game management when their action triggered public and private reaction in Washington and elsewhere:

- Cutoff of Federal funds for the state's "wolf control" program has been ordered by the Department of Interior.

- Eight conservation groups have filed suit in U.S. District Court to stop the wolf kill from taking place on Federal lands.

In addition, bad weather and an exploding helicopter reportedly have halted the wolf hunt temporarily.

ONE IMPORTANT issue is as old as the Civil War and growing more familiar in many states: Do individual states have the right to control wildlife within their borders?

The Interior Department, working under a 1974 Endangered Species Act, has listed 144 animals, birds, and insects as either endangered or threatened — thus blocking many Federal, state and private projects which might harm the protective enclaves of these species.

The Alaskan timber wolf, however, and other animals such as 25,000 wild horses roaming free in 10 Western states are not listed as endangered or threatened. The Rocky Mountain timber wolf and Eastern timber wolf — southern cousins of the Alaskan canine — are nearly extinct in the lower states.

The U.S. Supreme Court will hear arguments in February on the question of states' right to protect wildlife. The case involves a 1975 ruling by a New Mexico district court that a 1971 Federal law aimed at protecting wild horses and burros is unconstitutional.

ALASKA'S WOLF KILL is designed to find the best wolf — moose ratio to benefit both species.

But environmentalists — some of whom support the project — say the Alaska Department of Game and Fish simply wants more moose for hunters after several years of decreasing populations.

HONOLULU ADVERTISER Friday, February 6, 1976 D-9



Will Alaska's environmental battle help the moose?

Christian Science Monitor Service photo

Ariyoshi Backs

By Gregg Kakesako
Star-Bulletin Writer

Gov. George R. Ariyoshi today said he is willing to risk the University of Hawaii's suspension from the National Collegiate Athletic Association (NCAA) if that is what it takes to get four Rainbow basketball players back on the team.

The NCAA has already said that the four players — Henry Hollingsworth, Gary Gray, Dave Knight and George Ritter — are ineligible because they participated in a television commercial.

THE COMMERCIAL, approved by basketball

Star-Bulletin

SPORTS

Honolulu Thursday, February 5, 1976

Coach Bruce O'Neil, was for Cutter Ford, Inc., from whom O'Neil received the use of a new car for a year.

At his weekly news conference, the Governor said he "was very highly incensed that these four boys were being made a scapegoat."

He told newsmen that he has called for a full investigation into the matter to see who is responsible for the fiasco.

However, Ariyoshi said he was not ready at this point to lay blame at KGMB-TV, who paid for the television broadcast rights and made the commer-

cial, or Coach O'Neil, who approved of the four players' participation.

BUT THE Governor said: "Whoever is guilty will have to take it on the chin even it means the University of Hawaii or the athletic department."

"These four young

4 'Bows

Section

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men are the innocent parties," Ariyoshi added. "I don't think they ought to be suspended... I don't want to see their innocent collegiate careers hurt.

"I am willing to go as far as to say that if reinstatement of the four men means suspension from the

NCAA, then that's the way it has to be."

THE GOVERNOR added: "I don't want the boys punished and everyone else left alone."

The Governor said that so far he has only discussed the case with University of Hawaii President Fujio Matsuda and not with anyone from the University's athletic department.

He said that he reacted with dismay when he first saw the television commercial involving the four basketball players and disk jockey Hal "Aku" Lewis.

"My reaction then was oh, my goodness, what are they doing?"



George R. Ariyoshi

Feb 2, 76 S-B

War on Whalers Takes to the Air

MENDOCINO, Calif. (AP) — The sultry voice of "Mendocino Rose," speaking Russian amid the crackling static of marine radio, is a weapon in a war being waged by this ecology-minded town against Soviet and Japanese whalers.

"Hello, Soviet whalers. This is Octobriana, speaking to you from the former imperial Russian colony in California."

The Russian-born Californian is known as "Mendocino Rose" — a takeoff on World War II's "Tokyo Rose."

"Mendocino Rose," who declines to be identified because she fears for relatives in Russia, appeals to Soviet sailors to end their slaughter of California gray and sperm whales and defect to the United States.

She offers the sailors food, housing and training for other industries in the United States.

Located on wind-carved coastal bluffs about 150 miles north of San Francisco, this town of less than 1,000 residents decided to unleash "Rose" and boycott Japanese-made goods after sighting a Russian whaler off the coast here six months ago.

"We are not against anybody, but we have to save God's whales," said Byrd Baker, 52, a wood sculptor and a warrior in the war.

"And I believe there is a Russian aboard those ships who feels he can't kill another one. The whalers have to feel bad when they see a mother and father dash themselves against a ship after their baby has been harpooned."

Baker says he really believes the town's campaign will prevail over the two major marine fishing nations.

"One morning, we're going to wake up and there will be a Russian ship beached in the harbor and a whole crew asking directions," he says.

JOHN BEAR, 37, AN advertising man, said the whale war has both political and economic objectives.

"Whaling is a \$150 million-a-year industry in Japan," he explained.

"If the boycott results in them losing that much in trade revenue from the U.S. — and conceivably just a northern California boycott would accomplish that — they would have a strong incentive to get out of the business."

As part of the boycott, Bear said he has given up two advertising contracts with Mendocino County Datsun car dealers.

Other merchants also have made sacrifices: sake has been removed from the shelves of one liquor store, where a sign is displayed, "No more sake until Japan stops killing whales"; a delicatessen owner no longer sells Japanese beer, and a restaurant has removed Japanese noodles from its menu.

FEB 4, 76 S-B

UH Asks Additional \$405,500

Fujio Matsuda, University of Hawaii president, last night presented the Governor's request for \$408,500 in supplemental appropriations for the University of Hawaii.

Matsuda told the House Committee on Higher Education that \$358,500 of this sum is earmarked for higher education and \$50,000 is intended for culture and recreation.

The five budget items and the amounts requested for each are: State higher education loan fund, \$275,000; marine option program, \$25,000; sea grant publications program, \$20,000; Makahiki Kai, \$38,500; and Waikiki Aquarium marine education program, \$50,000.

THE LOAN fund provides assistance to needy University students; the marine option program provides marine education to undergraduates in all disciplines; and the sea grant publications program disseminates information about marine research, marine education and marine advisory services.

The Makahiki Kai is an exhibit which showcases marine resources.

Plans are to display it for seven days at Blaisdell Center and then tour the Neighbor Islands.

The Waikiki Aquarium marine education program will offer innovative educational programs for the entire community, Matsuda said.

He was asked by committee members to provide them with a list of budget items originally proposed by the University but removed from the supplemental budget by the Governor.

FEB 4, 76 S-B

Correction

Castle & Cooke Inc.'s net income for 1975 was wrongly stated in late editions of yesterday's Star-Bulletin.

Net income for the 53 weeks ended Jan. 3, 1976, was \$38.2 million, equal to \$2.23 per common share, compared with \$42.5 million, or \$2.48 a share, for 1974.

Auctions Set for Hunting, Fishing Gear

Public auctions will be held next month on Oahu and Molokai to dispose of hunting and fishing equipment confiscated by State Fish and Game wardens.

The auctions will be at noon March 5 at the Fish and Game Division office, 1179 Punchbowl St., Honolulu, and at noon March 6, at the division office in Kaunakakai.

Items to be sold on Oahu mostly include fishing and diving gear, with rods and reels, bamboo poles, spears, buckets, knives, lanterns and nets.

The auction on Molokai will feature an assortment of rifles, ammunition and spotlights.

FEB 18, 76 S-B

Endangered plants list draws fire

By BRUCE BENSON
Advertiser Science Writer

State Forester Tom K. Tagawa has accused the U.S. Fish and Wildlife Service and the Smithsonian Institution of withholding data on a plan to limit the use of rural land in Hawaii.

Tagawa said the Smithsonian and the wildlife service are taking a "capricious and arbitrary" position in declining to provide data on how a controversial list was compiled on endangered and threatened plant species.

The national list enumerates such species for each State. Hawaii's position is by far the worst, with more entries—639—than any other state.

Congress ordered the list, the Smithsonian wrote it and it was released in preliminary form last summer. When made final, lands where endangered and threatened plants occur will fall under strict Federal conservation measures.

In Hawaii, State Planning Director Hideto Kono is encouraging the conversion of 5,000 rural acres each year into plantings for commercial lumber operations. His policy almost certainly would be impaired if not thwarted by adoption of the Hawaiian plant list in its present form.

TAGAWA ISSUED his criticisms in a speech prepared for the annual meeting of the National Association of Conservation Districts. Four thousand people are attending the session in Waikiki.

Congress ordered the plant list in order to start implementing the Endangered Species Act of 1973. Tagawa said in Monday's speech:

"The State Division of Forestry is very concerned with the administration of the act because the entire forest or portion of agriculture land may be locked up as a 'critical habitat' or 'range' for the sole purpose of not conservation, but preservation of the endangered and threatened flora and fauna."

He defined conservation as planned management of a resource to prevent its destruction. Preservation, he said, emphasizes keeping a resource exactly as it is without change.

"If Hawaii is to retain the present standards of living and remain viable, we must further develop our growth potential in the area of diversified agriculture," he said.

"THEREFORE, we must be permitted to modify and develop our native forest. We must be allowed a parallel program of economic development and preservation of our ecosystem."

Gov. George Ariyoshi is backing the concept of a "parallel program" or multiple use on the lands in question.

Tagawa said he asked the Smithsonian last April how they decided which plants to put on their critical list. "Instead of receiving a response..." he said, "they camouflaged the issue by accusing the Division of Forestry activities (of causing) much of the endangerment of native fauna and flora in Hawaii..."

"We believe the power of the Endangered Species Act places a tremendous responsibility on those compiling the endangered species list. Care and selectivity must be used when nominating species because of the major impact and restriction the endangered plants and their habitat will have on such activities as pasture improvements, forestation, game management, conversion of forest lands for other agricultural use and even forest recreation."

TAGAWA ALSO contended that the list is defective because "very little other than basic taxonomic work has been conducted for much of Hawaii's native flora."

That position was challenged late last year when the Hawaiian Botanical Society testified at a State Senate hearing that the Smithsonian's list should be accepted as it stands. Final acceptance will be a Federal, not State, decision.

"This list was carefully prepared by botanists who have had many years of experience with the Hawaiian flora and who were extremely careful in preparing the list, taking care to include only those species in real danger of extinction," society members Ruth Gay and Sheila Conant testified.

Jan 24, 76 5-15
I call 1/26/76

Hawaii Encyclopedia

Taps Many Experts

By Ben Wood
Star-Bulletin Writer

One of the Hawaii Bicentennial Commission's major projects — the Encyclopedia of Hawaii — will not be completed during the bicentennial year, but its editors think it will be worth waiting for.

"It will certainly be the most complete and authoritative work on the Islands," said Robert Sparks, director of the University Press of Hawaii. "All the experts in town are contributing to it."

The University Press will publish the volume, which should run more than 1,000 pages. However, Sparks says that "it will take 12 months, maybe a little less," after receiving the manuscript to get it into book form.

HE IS NOT scheduled to get the completed manuscript until June 30, so it will not be completed until mid-1977.

Encyclopedia editor Robert Scott says he will be able to get the volume out for about \$57,000, just over half of the \$110,000 which was authorized by the State Bicentennial Commission. The cost is to be split evenly between the State and federal governments.

The encyclopedia will contain information on:

Agriculture, art, a biography of persons significant to Hawaii, communications, culture, economy, education, fauna, flora, government, health, history, immigration, labor, land, language, law, the military, race relations, religion, science, social progress, sports, tourism, transportation, war, water and women.

NO PRICE tag has been placed on the encyclopedia as yet.

"It's risky to predict printing costs a year ahead," Sparks said. "But the cost will be kept as low as possible for maximum circulation. We can do this because we are a nonprofit publisher."

Scott and Sparks hope that the public, as well as schools and libraries, will purchase the encyclo-

pedias. Scott is former director of the University of Hawaii's journalism department. He has taken a two-year leave of absence from his University duties to edit the encyclopedia. His annual salary is \$19,500.

SCOTT is assisted by 18 advisory editors who are specialists in a wide range of topics. They are:

Harry F. Clements, agriculture; Wesley L. Young, crime and law enforcement; Sara E. King, communications; John Ramsey, economy; Robert W. Clopton, education; Daniel W. Tuttle, government; Bernhard L. Hornmann, history and social process; Andrew W. Lind, race relations.

Jon J. Chinen, land; Elizabeth Carr, language; Judge Samuel King, law; Dr. Charles S. Judd Jr., medicine; Lyle E. Nelson, military; E. Alison Kay, science; Charlotta M. Hoskins, sugar; E. Alvey Wright, transportation; Gwenfread Allen, war; and Judith Gething, women.

An impressive list of some 170 contributors, from various walks of life, will provide the written material for the encyclopedia.

AMONG THE contributors are:
Malis Solomon, Bill

Gee, Thomas H. Hamilton, Ben Hyams, Cornelius Downes, Dorothy K. Gellett, John T. Griffen, Msgr. Charles Kekumano, Sen. Daniel K. Inouye, Jim Hackleman, Thomas J. Jordan, Col. Harold W. Kent, Napua Stevens, Y. Baron Goto, George Kanahale, Dr. Ira T. Hirschy, Richard A. Cooke Jr., Barbara Milz, Gregg Takayama, Jack Thropp and George C. Villegas.

Other contributors include:

Phil Mayer, Alf Pratte, Thurston Twigg-Smith, J. Garner Anthony, Harry A. Whitten, Russ Apple, Lee E. Winters, Dave Donnelly, Ed Sheehan, Dr. Harry L. Arnold Jr., Cynthia Eyre, Samuel H. Elbert, Horace F. Clay, Helga Frankel, Shiro Amoika, Thomas K. Hitch, Bob Krauss, Janos Gereben, Kenneth Kawashima, Mike Keller, Beinvenido Junasa and Judith S. Chong.

The contributors will receive a free copy of the encyclopedia for their work. Those who write more than one piece will be paid \$20 for each additional effort.

IN DRAWING up guidelines for the encyclopedia, Scott in July 1974 wrote that it would be a work of general reference that must be "accurate, informative and detailed."

"Though we do not intend to be definitive, we must be broad and precise. There is neither time nor money for further research, so content must be drawn from what is known," Scott wrote.

"If it isn't in the book, we must tell the reader, in a selected bibliography, where to find it."

The \$57,000 to be spent on the encyclopedia is broken down as follows:

Scott's two-year salary, \$39,000; secretarial fees, \$12,000; contributors, \$2,000; office supplies and equipment, \$4,000.

Scott and his secretary are working in a rent-free office at Wilson School in Kahala.

732-7778
SPARKS of University Press said that any profit from the sales would "presumably be banked for revision costs."

'Spies' to protect mating whales

By BRUCE BENSON
Advertiser Science Writer

A cadre of spies is starting to work in the first systematic program to peek in on the doings of humpback whales in Hawaiian waters.

The humpbacks, estimated by a Japanese scientist in 1972 to number only 1,200 in the North Pacific, travel to Hawaii each year at this time to honeymoon and to calve. The total number in the pod coming to Hawaii is thought to be around 100.

Since little is known for sure about the whales, and since concern has arisen that high-speed boats might interrupt their breeding habits, the experts have set up an extensive observation program.

Observers will be on duty at coastal sites on Lanai and Maui; in the air on charter flights and Royal Hawaiian Air Service; and at sea aboard the hydrofoils of SeaFlite and on other smaller boats.

IT WAS THE ARRIVAL of SeaFlite's hydrofoils in 1974 that caused some people to worry about the future of the whales. That led directly to the start of an observation program this year.

Repeated, systematic whale watching over a period of years should lead to more knowledge on humpback habits and trends. It should also help answer whether modern mariners are harming the whales, even though Hawaii sailors no longer carry harpoons.

SeaFlite, criticized in November for not doing enough to make sure that its vessels leave the whales alone, is taking a major part in the observation program, as well as putting up \$3,000.

Dr. Ed Shallenberger of Sea Life Park, a specialist in animal behavior, said he thinks that SeaFlite is making a good-faith effort at this point to stay out of the way of the whales.

"I think they're making a very concerned effort. The tide has turned," he said. "As for the observations, I think we're doing all of the relatively simple things we could do."

Sea Life Park and the Sea Grant office of the University of Hawaii are coordinating the whale watch. Sea-

Flite supervisor Larry Kelly said that besides the \$3,000 from his company, \$2,000 is coming from Sea Grant for the observations.

Some of the money will buy time aloft for aerial watching, he said.

BESIDES WATCHING and note taking, activities to help the humpbacks include several changes in the daily operations of the SeaFlite boats, Kelly said.

"Since Dec. 1, we've seen whales at sea about 20 times. Most of them have been seen north of Lanai and west of Maui, so we have altered our regular track and we no longer go through the slot (between Molokai and Lanai)," he said. "We are going around to the south of Lanai on our Maui run."

"So far, we've had no hits, and I don't know of any near misses. In a few cases, we've had to change course to avoid them."

Kelly said the whales and their calves appear to nurse at depths from 6 to 30 feet. The foils on which the SeaFlite boats ride normally extend 6½ feet beneath the surface.

"When we pass through a whale area, we slow down from our normal 42 m.p.h. to 35 or 36 m.p.h., and set our foil depth at the shallowest possible, depending on the weather. That's usually about 4 feet," he said.

One job for the whale watchers will be to report just where they see the humpbacks. Their reports will be tallied on a daily map.

Coastal watchers — one at Maui's MacGregor Point and another at Lanai — will relay their sightings by radio to central points where the information will be passed along to SeaFlite pilots. They then can change course before approaching the sites the whales are frequenting at the moment.

SeaFlite crews also have taken training for the whale watch with Shallenberger at Sea Life Park. He has taught them how to look for telltale water patterns, as well as other tricks.

MORE COMPLEX, expensive ways of finding the whales are under discussion. They include using passive hydrophones at shore sites and using scanning

sonar aboard the hydrofoils.

Kelly, in a company report, said the whales are intelligent and in time can learn to avoid the hydrofoils.

The whales also have natural enemies. Maybe noise like that of their enemies could help them avoid hydrofoils, he said.

Besides the stepped-up effort to leave the humpbacks alone, there is still other protection for the endangered creatures. Under terms of the recently enacted Marine Mammal Protection Act, anyone harassing them in almost any way can be fined up to \$20,000 and spend a year in prison.

1924 Main Street
Wailuku, Maui, Hawaii 96793
244-9118

HYDROFOIL HITS "SHARK OR WHALE"

By Jeanette Foster

Seaflyte's hydrofoil reportedly hit either a "large shark" or a "small whale" on its December 8 run back to Honolulu, according to a crew member's announcement over the boat's public address system. Whatever was hit, it broke the shear pin and forced the vessel to complete the trip off its foils.

"Right when we got around Lanai there was this large thump, causing the boat to spin around in a circle," said a passenger on the trip, who doesn't want to be identified. "They kept trying to get the vessel back up on its foils, but they couldn't do it."

"Finally someone announced to us over the PA system that we had hit either a large shark or a small whale."

Seaflyte's log for the flight said that the Kamehameha hit a large shark at 12:38 p.m. The heavy impact, which hit the starboard tip, immediately caused a safety mechanism to go into effect: the shear pin, which is a device on the forward foil, broke away under the impact.

"It is designed to do that for safety reasons," said hydrofoil skipper Chris Rose. "Whenever the boat hits something over .6g the steering device will break away. It's just a safety feature."

Rose explained that .6g is equivalent to an object the

size of a 10 foot shark.

He didn't think the damage to the shear pin, caused by the "shark", was unusual (although this was the first time this has happened).

"I wasn't on that run," Rose said. "But it is possible that an animal could not be visible at that particular time."

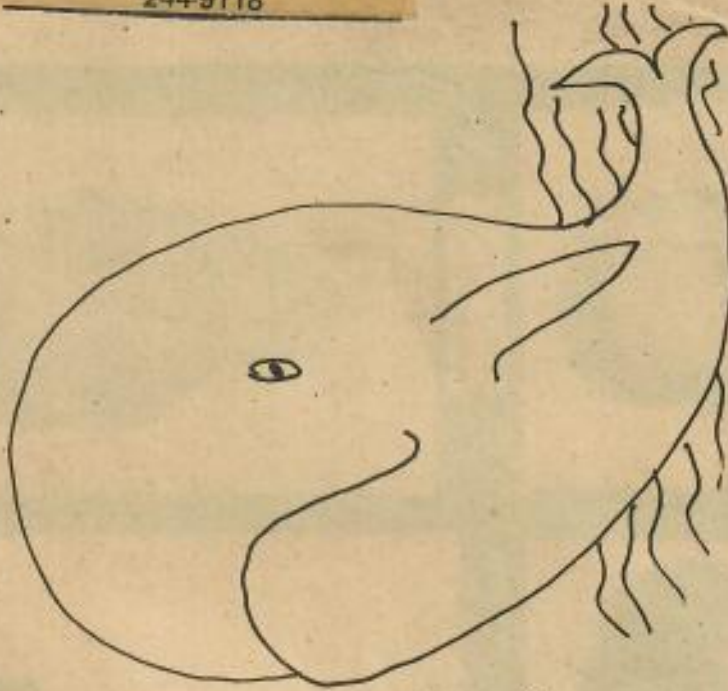
While watchers have expressed the fear of just that: the hydrofoil hitting a whale when the animal wasn't visible from the boat.

Bob Iverson, of the National Marine Fisheries Service (the agency responsible for protecting the whales under the Marine Mammals Protection Act), hasn't been informed of the hydrofoil's hitting a whale.

"The National Marine Fisheries Service deals in facts," he said. "I want to be darn sure that we're dealing in facts and not accusations. Just because a crew member may have assumed that they hit a whale or a shark doesn't prove it or make it a fact."

The log for the Kamehameha notes that the boat arrived in Honolulu at 3:33 p.m., instead of the regularly scheduled time of 1:10 p.m.

"We replaced the shear pin that night," said Larry Kelly, supervisor of marine operations. "And normal operations were conducted the following day."



Vigil Is the Watchword

Hydrofoil, Whale Crashed Feared

By Helen Altom
Star-Bulletin Writer

SeaFlite officials are working with Hawaii scientists to avoid a potential crash between a fast-moving jetfoil and a 30-ton, slow-moving humpback whale.

But Edward W. Shallenberger, vice president and director of Sea Life Park, believes "it will be sheer luck" if there is no collision.

"It's really a serious problem and I'm afraid something is going to happen," he said in an interview. "I think SeaFlite is a good thing and we're trying to help them solve the problems."

Shallenberger is concerned about the jetfoils hitting any cetaceans—air breathing mammals that spend most of their time in the upper 10 feet of water and go to the surface at intervals to breathe.

HE SAID the most common along SeaFlite's routes are the spinner, spotted and rough-toothed dolphins, pilot and humpback whales.

He is most worried about the humpback whales which migrate to Hawaiian waters annually from Alaska to breed and calve. The greatest concentration occurs from February through April.



An artist's concept of what happened when sailors encountered whales in the 19th century.

Program and \$3,000 donated by SeaFlite.

The National Marine Fisheries Service and Royal Hawaiian Air Service also are participating and the Fisheries Service is expected to help financially.

Kelley said the boats are going south of Lanai to Maalea, Maui, in a course recommended by the scientists instead of along the south side of Maui, which is one of the

most popular areas for the whales.

"And in whale-infested waters the boats slow down as much as possible and fly with the foils as shallow as possible . . .," he said.

HE SAID spotters on shore are relaying information to a tugboat at Maalea if they see any whales and the tugboat relays it to arriving hydrofoils.

Other boats are assisting with the spotting, as well as Royal Hawaiian's airplanes, he said.

"We're real careful. Honest," he said. "The guys are really watching for them . . . We're doing everything we can and, really, I think by doing these things we are benefiting the whole outfit, the Hawaiian whale program."

Shallenberger said, "The skippers truly are concerned. Most people

we are dealing with truly are concerned. But the problem is still there, although some changes have been made."

He said, "There is nothing in the whale's environment that goes 42 knots. They're not afraid of anything. They don't run from things."

HE SUGGESTED possible use of sophisticated electronic equipment to detect the whales or use of an underwater hydrophone to drive the animals away from the boats with "loud anddd painful sounds."

But he said the best solution is to alternate courses—getting away from breeding and calving areas—and to eliminate night runs.

"One thing that should be considered is if a whale is hit, what do you do? Is the whale to be left to bleed to death and be torn apart by sharks? How do you dispose of a 30-ton whale," he continued.

He said, "The whales obviously aren't scared of SeaFlite. They are not swimming away. I've seen as many as five whales a trip now."

Kelley said the vessels have spotted whales on 29 days since Dec. 1. "Sometimes we see them blow;

they stick their heads up, and sometimes they leap . . ."

He said, "We do send out quite a bit of noise and there is no question in my mind that the cetaceans can hear us coming."

"THE PORPOISE and the dolphin are learning. They don't come as close to us as they did early in the game. But these guys live here all the time so they can catch the habit of it. The whales don't stick around long enough to get to know us."

Shallenberger said only an estimated 5,000 humpbacks are left in the world and only about 1,200 in the northern Pacific—an estimate he thinks is far too high. "I think probably there are only about 300."

Although they are endangered animals protected by federal law, he fears it may already be too late to save them. "They are not coming back at all (in population), even with protection," he said.

He said he is worried also about the increase of boats in the Lahaina Roadstead area where the whales congregate annually. "This may force the whales out and I don't know how to stop it," he said.

...there may be 50 to 100 humpback whales in the area where the hydrofoils travel and they're extremely difficult to spot because they're under water 15 to 20 minutes.

"Whales and dolphins are often very difficult to see even under ideal conditions in a slow-moving boat," he said, pointing out that the jetfoils travel 42 knots. "There is a definite chance of impact."

"IT'S SCARY," he said. "Whales breach—they come out of the water—and if a hydrofoil hit one like that, that would be all she wrote." He said both the whale and the vessel would be damaged.

Larry W. Kelley, supervisor of SeaFlite's marine operations, said the worst situation would be for a vessel to hit a whale head-on and midships, in the middle of its back.

"I suspect it might well kill the whale and if it is big enough, 40 or 50 tons, the foil would fold back toward the hull of the boat and the boat would come down on the hull.

"But I do not think any passengers would be hurt or the boat would be permanently hurt," Kelley added.

He said SeaFlite has made some changes in its routes and general operations along lines recommended by the scientists to avoid the whales.

THE COMPANY also has joined a spotting program to learn more about the whales—where they are, why they're here and how many there are—because there is little knowledge about them.

Shallenberger and Tim Smith, University of Hawaii zoologist, are conducting the study with \$2,000 from the Sea Grant

U. S. BANS TAKING OF CORAL

by Sarah Marquis

The waters off the Florida Keys shelter the only living coral reefs in the continental United States—reefs that have been threatened by souvenir hunters and commercial collectors since the 1950's. Concern over the health of the reefs has been a recent development, resulting in an emergency measure by the U.S. Department of Interior. A recent order bans the taking of coral from the outer reefs along a 150-mile stretch of the Florida Keys.

The order prohibits the removal or destruction of coral—living or dead—from all areas of the continental shelf, primarily affecting the waters off the Keys. Until recently, the Marine Patrol had been enforcing state laws against the taking of coral from this area. A Supreme Court decision in March defined responsibility outside of the three-mile limit to be Federal, however, resulting in a lack of protection for the reefs. This Federal order is temporary until formal regulations can be drawn up, and offers aid to an area of natural architecture seriously threatened by destruction.

*Florida Conservation News
NOV 75*

Porpoise order eased

WASHINGTON (UPI) — The government has decided to weaken its proposed crackdown on the number of porpoises allowed to be killed in tuna catches, an environmental group said yesterday.

The issue has been a major one among some conservationists, who claim that several hundred thousand of the marine mammals have been killed since the 1960s because yellowfin tuna follow them in the Pacific Ocean and fishermen hunt them down to catch the tuna.

DEC 5, 75 Advertiser

Correction

Castle & Cooke Inc.'s net income for 1975 was wrongly stated in late editions of yesterday's Star-Bulletin.

Net income for the 53 weeks ended Jan. 3, 1976, was \$38.2 million, equal to \$2.23 per common share, compared with \$42.5 million, or \$2.46 a share, for 1974.

NDV 18, 75 S-B

Navy offers land for grazing and for beekeeping

If your cattle are going hungry and your bees are homeless, call the Navy.

The Navy has some available land and it would like a livestock owner and beekeeper to lease it, according to the Real Estate Division of the Pacific Division, Naval Facilities Engineering Command.

There are 118 acres of

grazing land at the Naval Magazine, Lualualei. As for bees, the Navy has 12,000 square feet of land and two adjoining aircraft revetment structures at the Naval Air Station, Barbers Point.

Lessees will be selected through competitive bids and the leases are for a maximum of five years.

Bid forms and details may be obtained from the Navy real estate office in the Makalapa area of Pearl Harbor Naval Station. The mailing address is Commander, Pacific Division, Naval Facilities Engineering Command, FPO San Francisco 96610.

Bid proposals must be received by 2 p.m. Dec. 19 for the livestock lease and 2 p.m. Jan. 7 for the bee lease. The public opening of bids will be at the Navy real estate office on those dates.

Vanishing bird sanctuaries

I have been reading with interest articles written on "bird sanctuaries," especially at Paiko Peninsula. Terrific—how do you stop anything that is already started. Letter writer Harold Loomis thinks the legislators should go down and take a look. I do, too, providing the same legislators take a trip to the Big Island to a place in the forest reserve I remember as a boy.

It was the home of the alala (Hawaiian crow) and many of the birds with long yellow and red plumes. They're not there any more, because their homes have been reduced to rubble to make way for the growing of sugar cane. Huge ohia and koa trees, including the hard-to-find naia (false sandalwood) and illahi (true sandalwood) have been bulldozed together in windrows and mostly burned to ashes.

My last trip up there was last July and more and more of the forest was being knocked out.

At least the ohia and koa trees could have been utilized but to be burned up, that's different, I think. This is not just a few acres like Paiko—but acres in the

thousands on State grazing lands which, incidentally, are on a month-to-month revokable lease, and that can last for years.

I guess no one can stop progress, even to plant sugar cane which should increase the rent for the State lands, but no one can prove to me that the rate has gone up.

HERBERT (TED) SUMNER

Sat Jan 10, 76
S-B

Fishing Limits

When the Senate goes back to work Jan. 19, the first order of business will be a bill extending the U.S. fishing limit to 200 miles from the present 12. Foreign fishing would be strictly regulated in the new zone; American fishermen would have first option on fish stocks.

A similar bill passed the Senate in 1974 but died at the end of the session when the House took no action. Last October, however, the House passed a companion bill 208-101.

The Senate vote may be much closer than the 68-27 margin in 1974. The Armed Services Committee and the Foreign Relations Committee are divided over the measure, Armed Services approving it 9-7 and Foreign Relations opposed 7-6. The Ford Administration is opposed and so are tuna and shrimp interests.

The big hangup is that fishing limits is one of the subjects under consideration at the United Nations Law of the Sea Conference, which will meet again in March. The Ford Administration argues that action should be taken by international agreement rather than unilateral decision by the United States.

The tuna and shrimp interests fear they would suffer from retaliatory action by other nations. They operate far from U.S. shores, and many tuna boats have been seized already by Peru and Ecuador.

Proponents of the measure deny that it would affect the Law of the Sea negotiations. They emphasize that the U.S. fishing industry has been seriously hurt by foreign fishing off U.S. shores. Besides, at least 35 countries have extended their fishing jurisdictions on their own in recent years.

There seems little doubt that a 200-mile fishing limit is coming, but how it comes seems to us to be very important. A unilateral declaration could not fall to affect the Law of the Sea negotiations, and these involve many other matters of great concern to the United States besides fishing. To compromise our bargaining position could be a costly mistake.

As the Foreign Relations Committee observed in reporting the bill adversely, if the Law of the Sea Conference failed, the United States could always take unilateral action on the fishing limit. But such action should not be taken when it could jeopardize our interests at the conference.

Oceanic Ventures

By Dr. Leonard Reiffel

WHATEVER HAPPENED to all these money-making opportunities in oceanography?

For years now, romantically-inclined stock purchasers have been watching the oceanographic market. Prior to the great market slide, oceanographic stocks were high flyers. The romance of the ocean together with scientific reports of the enormous mineral and biological potential hidden under the waves pushed some of these stocks to dizzying levels.

But it was more romance than reality because the ocean is a very tough environment. Anything you do, out in the ocean is likely to cost ten times as much as doing the same thing on land. Logistic support—simple things like food and electrical power—become significant projects. Ships at sea are a lot more expensive than tents and jeeps.

And, then, of course, there is the awesome power of the sea itself... a storm on land might cause a bit of flooding or force you to wear snowshoes, but a storm at sea can tear cables apart, rend steel plates, and wash valuable equipment overboard.

Man still has a lot to learn about exploiting the riches that undeniably lie buried in the deep ocean. But it becomes increasingly obvious that the size of the investment required

to conquer the sea is much larger than naive analysis might lead one to believe.

ASIDE FROM military matters, ventures in the ocean can be broken down into five segments: marine science; food and drugs from the sea; underwater mining; offshore oil; and the diving industries that hope to provide the work forces for ocean-based projects.

A look at each of these sectors today is a very sobering experience. One is repeatedly struck by the great possibilities and the trivial amount of money being spent to exploit them. The gap between technical possibility and probability is perhaps nowhere wider than it is in oceanography.

A few profitable areas stand out: Offshore oil from the sea is already big business even though it has many ecological problems, and fish farming seems promising. So, too, does the comparatively mundane but nevertheless profitable activity of dredging sand from the ocean floor to fill out beaches.

But the story ends about there. All the big money projects are still as much in the future as they were in the late '60s and early '70s, when Wall Street took its dive into oceanographic stocks.

January 8, 1976 Star-Bulletin

Matsunaga Puts His Hat in Race

By Gregg K. Kakesako
Star-Bulletin Writer

Promising "a hard-nosed, no nonsense campaign" Rep. Spark M. Matsunaga today announced his candidacy for the U.S. Senate seat held by Republican Hiram L. Fong, who is expected to retire.

Matsunaga said he does not expect a "bloody campaign" as suggested by Sen. Daniel K. Inouye and others commenting on the Democratic primary race between Matsunaga and Rep. Patsy Mink.

"Of course, personalities will enter into the campaign as they usually do, but as far as I'm concerned I do not intend to spill anyone's blood, including mine," he said.

HE SAID a tough primary fight will result in a stronger Democratic party because it will draw more voters to the Democratic ballot.

He said he is confident of winning the primary and defeating the Republican candidates in the general election.

Matsunaga, a seven-term Democratic congressman, called newsmen to Club 100 to make his formal announcement.

He said he chose the setting since it was "a special place" representing not only "an indelible link with the past, but is also a basis of hope for the future."

Club 100 was formed following World War II by Nisei veterans of the 100th Infantry Battalion which Matsunaga served with.

The 59-year-old legislator described the club as a symbol of the "values that our country is seeking, almost desperately, to rekindle today in this 200th anniversary of its birth."

"THERE is abroad in the land today," Matsunaga said, "a spirit of cynicism and indifference that threatens the very roots of our democracy."

He said that government so far has been unable to reverse "the erosion of public confidence begun with the shattered hopes of the Kennedy

the debacles of Vietnam, Watergate and the cancerous problems of inflation.

"The steady bombardment of news surrounding these and other events has left the public confused and embittered."

Matsunaga, first elected to the U.S. House in 1962, said the nation is in retreat in the steady abandonment of national principles of integrity, individual liberty and purpose.

"The job of this year's candidates is going to be to prove as perhaps never before that they can measure up to the expectations of the electorate," Matsunaga said.

"IT'S going to be a hard-nosed, no nonsense campaign. The American people have lost confidence in no-compromise, ultra-liberal zealots and die-hard conservatives.

They are looking for leaders who can pull the country and its factions together.

"There will be no room in this year's campaign for flowery speeches, or unworkable schemes. It will be a campaign of issues and records, not one of promises. For today's aroused citizen is far more interested in results than in appearances."

Matsunaga said today's issues are "safety in the home and in the streets, jobs and the cost of living, public health and the security of the elderly, national defense and a foreign policy in which all Americans can take pride, not one based on fear and reaction."

Matsunaga will face his House colleague, Rep. Patsy T. Mink, who has already announced her intentions to seek Fong's

Bid for Senate
Is Announced
by Matsunaga

Continued from Page One
the October

Despite Congress, Diego

By ROBERT KAYLOR
United Press International

BANGKOK — Congress has ordered a freeze on further expansion of the controversial naval base at Diego Garcia Island in the Indian Ocean, but construction work still goes on and air activities have steadily escalated.

A military construction bill which President Ford signed into law last year halts most further spending on the \$173 million base complex until April 15, 1978. Congress told Ford that instead he should negotiate with the Russians to halt the arms race in the Indian Ocean.

U.S. MILITARY spokesmen have always been closed-mouthed about what goes on at the isolated base, located about 1,000 miles south of the tip of India. But U.S. Navy sources familiar with Diego Garcia

operations and personnel stationed there give the following picture of activities:

• A battalion of Seabees is building more barracks and other facilities and surveying for the expansion of the airfield, while a civilian contractor is dredging out a channel in the island's lagoon big enough to accommodate aircraft carriers. U.S. Navy sources said money Congress provided in earlier years is being used for the work.

• One year ago long-range U.S. Navy P3 reconnaissance bombers operated from the base during the intermittent forays by American naval vessels into the Indian Ocean. Today there are up to four of the submarine-hunting airplanes flying from the base at all times. Navy men at Diego Garcia say there have also been occasional visits from U2 spy planes and the KC135 aerial tankers that are used to refuel B52 strategic bombers.

The Sunday Star-Bulletin & Advertiser Honolulu, January 4, 1976 B-7

Garcia buildup goes on

• Operations are expanding at the naval communications station on Diego Garcia. U.S. Navy sources say the station sends low frequency radio messages to American Polaris submarines and monitors radio traffic from Russian naval vessels.

LOCATED ON A wishbone-shaped coral atoll enclosing a lagoon 13 miles long and six miles wide, the base is controversial because of increased Russian and American naval interest in the Indian Ocean. Both liberals in Congress and governments of some countries bordering the ocean are calling for the ocean to be established as a "zone of peace."

Russian naval activity in the ocean has been on the upswing since 1968, with Soviet naval vessels of one type or another always present. U.S. Navy sources say that American Polaris subs were venturing into the huge body of water as early as 1971.

From patrol stations in the Arabian Sea — the arm of the ocean that lies between the Indian subcontinent and the Arabian peninsula — the submarines have targets in the underbelly of Russia and Moscow itself well within range of their nuclear tipped Poseidon missiles.

DIEGO GARCIA is theoretically a British-controlled base on a British-owned island although there are only 20-odd British servicemen stationed there compared with more than 1,000 Americans. The plans for expansion include increased fuel storage and pier facilities that will make it a refuelling stop for American aircraft carriers. So far, some \$65.3 million has already been spent on the base.

"What Diego Garcia is designed for is essentially a means of keeping an eye on the Russians and there is nothing wrong with that," a British source said. "After all, it is the Russians who remain our most likely common enemy. And we should know what they are up to."

Diego Garcia has already earned a reputation among U.S. Navy men as a good post to stay away from. Sailors headed for the island are warned by veterans that the only females are wild donkeys left behind by native plantation workers who were hustled off the atoll when it was chosen as a secret communications base.

The atoll boasts palm trees, balmy breezes, sunny skies most of the year — and plenty of boredom, rats and large-sized land crabs. The tour of duty is one year.

FOUR SERVICE CLUBS on the island sell beer and whisky and Navy men say attempts to eradicate marijuana smoking have been futile.

India has been critical of the U.S. position and the Americans admit wryly that the very name of the Indian Ocean appears to give Prime Minister Indira Gandhi a proprietary feeling. Daniel Patrick Moynihan, then ambassador to New Delhi, once tried to ease her fears by saying Diego Garcia was no taller than she was.

January —planet ahead

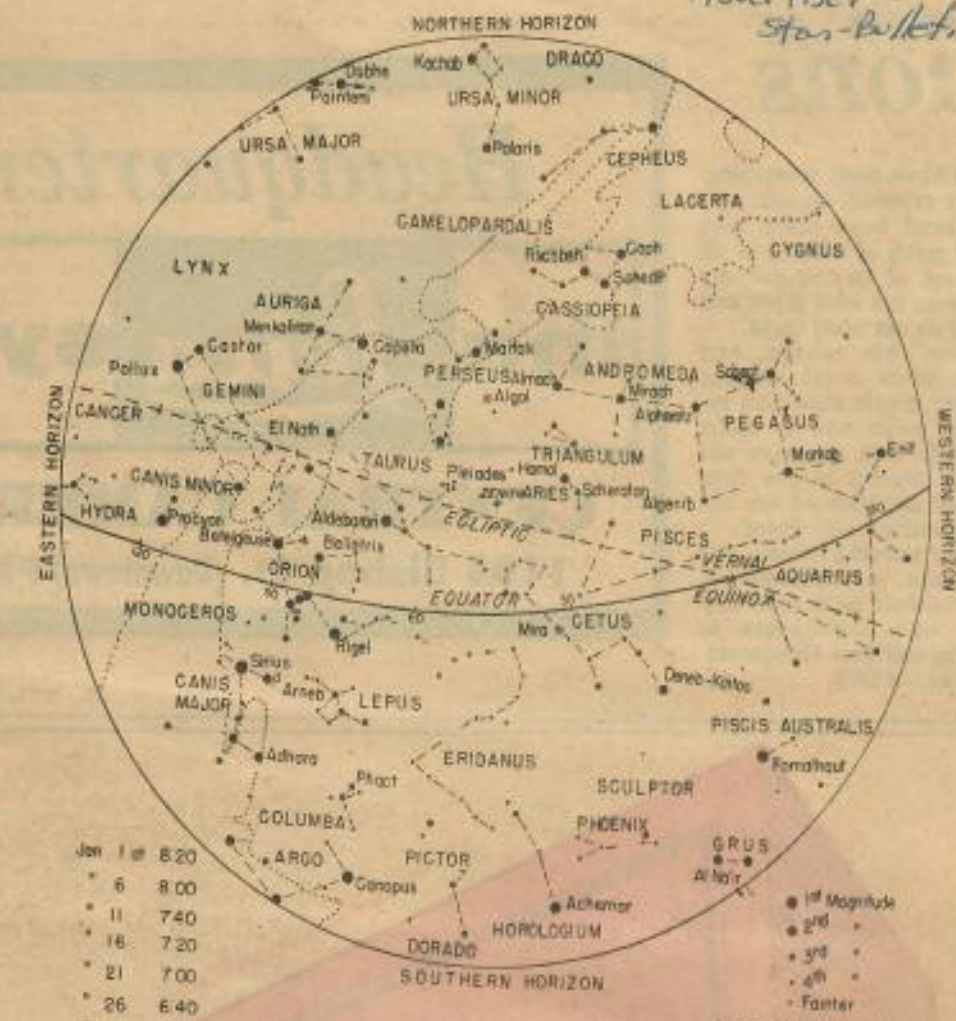
The chart shows the sky from horizon to horizon as seen from the latitude of Hawaii during January in the early evening. The table of dates and hours indicates when the chart will coincide with the sky. To use the chart hold it overhead with horizon directions on the chart corresponding with those of the true horizon.

Planets for January:
Mercury may be seen low in the southwest in the evening twilight during the first half of January.

Venus will continue to be a bright morning object, rising about two and a half hours before the sun. It will be near the crescent moon on the morning of Jan. 8, magnitude -3.6.

Mars is high in the east at sunset in the direction of the constellation Gemini. It is easily recognized by its strong amber light, magnitude -1.0.

Jupiter stands almost directly overhead at sunset in the direction of the constellation Aires. Its magnitude is -2.0.



Jan 1 at	8:20
• 6	8:00
• 11	7:40
• 16	7:20
• 21	7:00
• 26	6:40
• 31	6:20

• 1st Magnitude
• 2nd
• 3rd
• 4th
• Fainter
Limits of Milky Way

Saturn rises at about sunset in the direction of the constellation, Cancer. Its magnitude is zero.

The Earth is nearest the sun on Jan. 4.

PHASES OF THE

MOON:
New Moon Jan. 1, 30
First Quarter Jan. 9
Full Moon Jan. 16
Last Quarter Jan. 23
The Planetarium show "From Eyeball to Com-

puter: 200 Years of Astronomy" opens Tuesday. For show times call Bishop Museum.

Chart by E. H. Bryan, Jr., astronomical information by George W. Sutton, Hawaii Science Center, Bishop Museum.

He Doesn't Lobby, He Crusades

Nader Touch Is Devastating

By John J. Fiolka
Washington Star

WASHINGTON — Item: The other day the Office of Nuclear Affairs (ONA) of the Federal Energy Administration disappeared. It's \$1 million budget was suddenly abolished by Congress. The move took FEA by surprise. "To be honest, I don't know what we're going to do," said a spokesman.

Item: Craig Hosmer, former ranking Republican member of the Joint Committee on Atomic Energy, suddenly has appeared in a luxurious downtown office as a lobbyist. Since he left the House last January, the nuclear power industry has been throwing money at him. He is now the head of a trade association with 120 members and a war chest of \$500,000.

The disappearance of ONA and the appearance

For a congressman, beset by vague worries from constituents that nuclear power is unsafe, and busy with dozens of other topics, a simple explanation of a nuclear topic can be godsend.

Claybrook stresses the need for accurate information, short briefings with interested congressmen. Her staff, nearly all lawyers, has been carefully selected.

"TO ME the most important thing is to find people who are self-confident, and secondly people who have the ability to quickly assess a situation politically and have good judgment and act on it. There are times when it is a waste of time to pursue something, even when it's a high priority goal, and there are other times when with a very little amount of work you can achieve an enormous amount."

The fate of the Office of Nuclear Affairs is one example of achieving a lot with a small, but precise application of energy. In September, Frank G. Zarb, Federal Energy Administration's (FEA) administrator, decided he would need a unit in his agency that would, among other things, "provide government advocacy needed for public acceptance of the nuclear option."

Worried that this might be a "devious end run" allowing the federal gov-

ernment to campaign against the California initiative, Claybrook's staff discovered that, although fiscal 1976 is half over, the FEA was still operating on an extension of last year's budget. The 1976 budget was still being scrutinized by House and Senate committees.

Claybrook drafted a letter pointing out that FEA already had a nuclear power unit (involved in research and development),

that promoting nuclear power was the job of another federal agency (the Energy Research and Development Administration), and that "using the taxpayer funds paid by all citizens to advocate one side in a controversial debate" raised substantial questions.

Early this month FEA was busy staffing up the Office of Nuclear Affairs. Paul Dragoumis, a former vice president of the

Potomac Electric Power Co., had been named ONA's director, and had hired six staff professionals, three secretaries and an assistant when tax fell.

Lobbying



of lobbyist Hosmer have one thing in common: They are both creatures of the formidable lobbying skills of consumer advocate Ralph Nader.

Nader does not just lobby, he crusades, blending grass-roots politics, intense cultivation of the media and effective contact with lawmakers into whirling political tornadoes that have the power to carry things like ONA away without expending much energy.

IT HAS taken slightly more than two years to put together a movement that now has leaders of the \$100 billion nuclear power industry seriously worried about whether the age of atomic power may be coming to an early, political death.

Citizen groups now are gathering signatures in 16 states for initiatives to put so-called "safe energy laws" on the ballot for next year's elections.

The laws would stop the construction of future nuclear plants unless a two-third's majority of each state legislature is convinced that all the safety questions surrounding nuclear power have been solved. Without such a vote, existing nuclear plants would be phased out. The measure already is on the ballot in California for the June primary.

The anatomy of this crusade probably begins with Joan Claybrook, 38, a quiet, well organized lawyer who functions as Nader's chief lobbyist on Capitol Hill. She runs Congress Watch, Nader's largest lobbying unit, which now has eight registered lobbyists roaming the halls of the capitol.

While Congress Watch was in the planning stage, Nader was approached by a small group of scientists led by Dr. Henry Kendall, a physicist at the Massachusetts Institute of Technology. They charged that nuclear power was unsafe, inefficient and that its true costs were masked by heavy subsidies from the federal government.

HERE, IT was decided within the Nader organizations, was the opportunity for the biggest "structural change" of all, the opportunity to unplug the nuclear power industry.

According to Claybrook, Congress Watch's main technique is to give congressmen accurate, well-written and succinct information on bills that are coming up for consideration. She will not hire a lobbyist who is not a good phrasemaker.

"We work very hard to put down on a piece of paper the rationale behind the bill and the content of the bill so that when you talk to him (the congressman) you don't hand him — as some trade association people who I know do — a whole notebook. We try to hand him a single piece of paper. We work terribly hard to synthesize material."

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Catfish Venture Gets State Grant

By Helen Altorn
Star-Bulletin Writer

The State Board of Agriculture has approved a \$44,580 grant to establish a commercial channel catfish hatchery at Kealia, Maui, in a joint venture with Pacific Aquaculture Corp., doing business as Fishfarms Hawaii.

Kenneth Kato, company president, told the board yesterday. "There is no question in our minds that it can be a viable business."

He said the Department of Interior put restrictions last month on the importation of aquatic species to Hawaii under the Injurious Species Act.

Channel catfish are not on the "clean list," so they can't be imported live unless a permit is granted by the director of the U.S. Fish and Wildlife Service, he said.

THERE WAS so much opposition, he said, "that they are trying now to come up with a dirty list." But he said nothing has been done about it yet.

He said, "They are trying to restrict the flow of aquatic resources interstate as well as from foreign sources. . . . Hawaii is treated as a foreign port."

Kato said Fishfarms Hawaii has raised channel catfish for five years, depending upon the Mainland for its fingerlings. The company recently built a "conditioning" room to raise catfish next to its Kealia prawn hatchery.

He said the company has numerous requests for fingerlings from all over the Pacific, and "a fellow from Japan is willing to buy 10,000 a month continuous."

KATO SAID the company has succeeded in sending live shipments to Taiwan, Japan, the Philippines and Tahiti, and a Hawaii hatchery could "capture the existing fingerling market" in the Western and Central Pacific, which get their fingerlings from California producers.

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EPA: Get chemical out of water

WASHINGTON (UPI) — Environmental Protection chief Russell Train announced yesterday a plan, depending largely on voluntary action by industry, to sharply reduce discharge of polychlorinated biphenyls — “a delayed action timebomb” — into U.S. waterways.

The EPA administrator said PCBs, which have been showing up in the food supply — particularly in freshwater fish — are a “serious threat” to human health.

“We must as a society, accept and work toward a goal of totally eliminating the production, importation and use of PCBs as rapidly as possible,” he said.

PCBs, used since 1929 in such products as inks, paints and plastics, are used mainly as insulating fluids in electrical equip-

ment. They do not break down in the environment, but persist in the food chain.

TRAIN SAID PCB levels above five parts per million have been found in fish from the Great Lakes, the upper Mississippi River, off the Southern California coast and the Hudson River — endangering commercial fishing industries there.

Lab tests have found PCBs cause reproductive failures, gastric disorders, skin lesions and tumors in mammals. Japan banned their production after about 1,000 people became ill in 1968 from eating rice oil containing a PCB.

Train urged quick passage by Congress of a Toxic Substances Act to grant the EPA authority to limit or ban the use or

distribution of hazardous chemicals such as PCBs.

MEANWHILE, he told EPA regional offices to work with states in surveying plant discharge and setting guidelines to “virtually eliminate” PCB from process wastes of all manufacturers of PCBs and transformers that use them.

The surveys also will determine if air emission

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UPI photo

Albino raccoon

Wayland Middendorf of Covington, Ill., has been an amateur trapper for 12 years and his father, Leroy, has trapped for 30 years. But neither had ever seen a white raccoon until Wayland caught this one in a trap near his home recently. Middendorf plans to have the animal mounted.

Chart House Fire Cause Elusive

By Mary Adamski
Star-Bulletin Writer

The fire that demolished the Chart House Restaurant Sunday may have started in the wine storage room but the cause remains a mystery, Assistant Fire Chief Richard Sawyer said yesterday.

Sawyer was among the Honolulu Fire Department investigators, police detectives and electrical inspectors who sifted through the charred rubble yesterday in an attempt to determine the cause and assess the damage. They planned to continue their investigation at the scene today.

Meanwhile most of the 252 residents of the Ilikai Marina apartments above the second floor restaurant were able to return

to their apartments after a free night's stay in the Ilikai Hotel across the street.

Sliding glass lanai doors shattered by the heat were about the worst damage in the 10 apartments still not habitable, said William Hulett, general manager of the Ilikai apartments.

The smoky drapes from many of the apartments were being cleaned on the spot yesterday by a dry cleaning company mobile unit.

"IT LOOKS far worse from the outside than it is inside," said Hulett of the blackened building front.

Sawyer estimated the damages to the Chart House at \$800,000 and to the apartment building at about \$100,000.

Kenneth T. Ching, co-owner of the restaurant, was at the scene yesterday but refused to speak to newsmen.

Investigators said plans were being made to rebuild the restaurant.

Chart House Hawaii Inc. held \$350,000 insurance on the restaurant contents, according to

investigators. In addition, damage done to the structure itself would be covered by the Ilikai Marina condominium's insurance, they said.

Joseph Cabell is president of the restaurant company and co-owner with Ching, the vice president. E. Gunner Schull is secretary treasurer.

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Section

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Tuesday, December 16, 1975

Hawaii Historic Sites Program Gets \$523,000 Federal Boost

The U.S. Department of Interior has allotted \$523,000 to Hawaii for land acquisition, planning and preservation of historic sites.

Gov. George R. Ariyoshi, in announcing the grant, indicated it makes possible more than \$1 million worth of historic preservation work under both public and private auspices.

These funds, for use at sites listed on the National Register of Historic Sites, will be disbursed on a 50 per cent matching and reimbursable basis and may be spent over three years, said Jane L. Silverman, State historic preservation officer.

Private acquisition and development projects to be supported are:

Grove Farm Plantation Museum, Lihue, Kauai, by the Nuhou Corp.; Seaman's Hospital, Lahaina, Maui, by the Lahaina Restoration Foundation; Pillanahale heiau preservation, Hana, Maui, Pacific Tropical Botanical Gardens; and Bailey House Museum, Waiuku, Maui, Maui Historical Society;

Falls of Clyde, Honolulu, Bishop Museum, for deck replanking; Yokohama Specie Bank, Honolulu, Alan Beale, exterior restoration; and Hulibee Palace, Kona, Hawaii.

emergency seawall work and exterior restoration. State Department of Land and Natural Resources historical projects

to be supported are: Royal Mausoleum, Honolulu, restoration; Russian Fort Elizabeth Historic Park, Waimea, Historic Park, Big Island.

Kauai, wall stabilization; and land acquisition for Kealahou State Historic Park at Napoopoo on the Big Island.

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HYDROFOIL HITS "SHARK OR WHALE"

By Jeanette Foster

Seafite's hydrofoil reportedly hit either a "large shark" or a "small whale" on its December 8 run back to Honolulu, according to a crew member's announcement over the boat's public address system. Whatever was hit, it broke the shear pin and forced the vessel to complete the trip off its foils.

"Right when we got around Lanai there was this large thump, causing the boat to spin around in a circle," said a passenger on the trip, who doesn't want to be identified. "They kept trying to get the vessel back up on its foils, but they couldn't do it."

"Finally someone announced to us over the PA system that we had hit either a large shark or a small whale."

Seafite's log for the flight said that the Kamehameha hit a large shark at 12:38 p.m. The heavy impact, which hit the starboard tip, immediately caused a safety mechanism to go into effect: the shear pin, which is a device on the forward foil, broke away under the impact.

"It is designed to do that for safety reasons," said hydrofoil skipper Chris Rose. "Whenever the boat hits something over .6g the steering device will break away. It's just a safety feature."

Rose explained that .6g is equivalent to an object the

size of a 10 foot shark.

He didn't think the damage to the shear pin, caused by the "shark", was unusual (although this was the first time this has happened).

"I wasn't on that run," Rose said. "But it is possible that an animal could not be visible at that particular time."

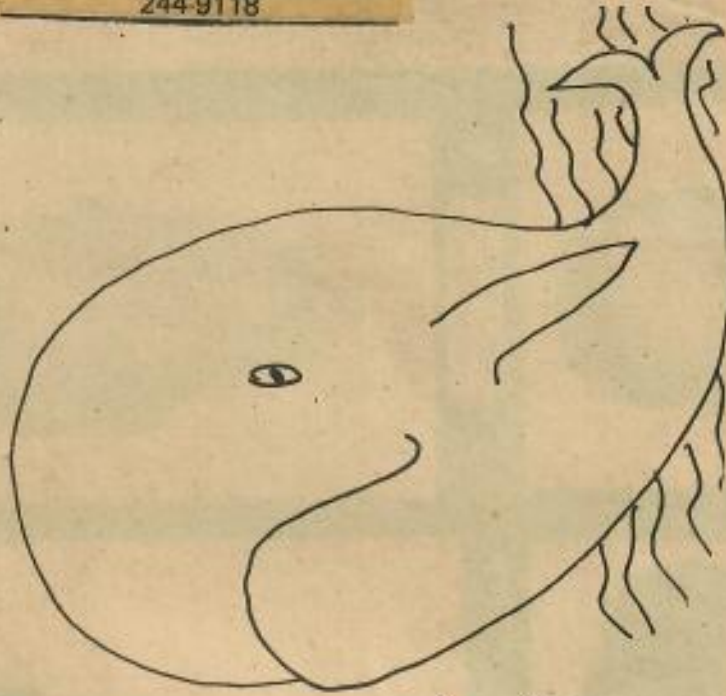
While watchers have expressed the fear of just that: the hydrofoil hitting a whale when the animal wasn't visible from the boat.

Bob Iverson, of the National Marine Fisheries Service (the agency responsible for protecting the whales under the Marine Mammals Protection Act), hasn't been informed of the hydrofoil's hitting a whale.

"The National Marine Fisheries Service deals in facts," he said. "I want to be darn sure that we're dealing in facts and not accusations. Just because a crew member may have assumed that they hit a whale or a shark doesn't prove it or make it a fact."

The log for the Kamehameha notes that the boat arrived in Honolulu at 3:33 p.m., instead of the regularly scheduled time of 1:10 p.m.

"We replaced the shear pin that night," said Larry Kelly, supervisor of marine operations. "And normal operations were conducted the following day."



Endangered Plant Disputes

GENERALLY SPEAKING endangered plants haven't yet aroused as much emotion as endangered mammals, such as the whale, or endangered birds, such as the bald eagle.

But interest in endangered plants is heating up, accompanied by disputes among scientists and government officials and by sharp comments between botanists and foresters.

An example was the article by Tom K. Tagawa, State forester, published Thursday, in which he cites the need for much more study. Tagawa, in his article, answered a Letter to the Editor (Nov. 25) from Edward S. Ayensu, chairman and director of Endangered Flora Project, Smithsonian Institution.

Ayensu's letter commented critically on statements by Tagawa and Otto Degener, veteran Island botanist, which we quoted in "Our Environment" Oct. 4. Degener has written a rejoinder to Ayensu.

THE SUBJECT of endangered plants also came up at the annual Forestry Conference Oct. 23 in Hilo, to which F.R. Fosberg, one of the two major compilers of the list of endangered Hawaiian plants, sent a paper sharply criticizing opinions of Robert E. Nelson, head of the Institute of Pacific Islands Forestry in Hawaii.

Fosberg, curator of botany at the Smithsonian, has studied Island botany for more than 20 years. He and Derral Herbst, of the Lyon Arboretum, listed 1,765 species and varieties of rare, endangered and extinct plants of the Hawaiian Islands.

Of these, 1,088 were deemed in such precarious state that they were included in the Smithsonian's report to Congress, the first step toward their being officially protected by federal law, and were published in the Federal Register July 1.

Fosberg's and Herbst's list of 1,765 plants was published in the first number of *Allertonia*, a new botanical journal issued by the Pacific Tropical Botanical Garden, Kauai.

GOV. GEORGE ARIYOSHI, in a letter to F. Eugene Hester, director of the federal Fish and Wildlife Service, said the list proposed in the Federal Register "is not acceptable."

He enclosed a revised list, with 418 fewer entries than the federal list, and recommended that a State committee of botanists, foresters, agriculturalists and others work with the Fish and Wildlife Service in developing an official list.

The new list, and Ariyoshi's recommendation, resulted from a review by the Division of Forestry.



Ariyoshi pointed out Hawaii does not have a State botanist and that the State forester handles such matters. Forester Tagawa has said that he'd like to have a botanist on his staff but the State hasn't funded such a position.

Ariyoshi's letter was sent to Hester because the Endangered Species Act of 1973 gives the primary responsibility for endangered species lists of both plants and animals to the Fish and Wildlife Service.

The State's edited list excluded ex-

Government officials, botanists and foresters all say they want to save endangered plants but they have their disagreements.

inct species from the list "because there is nothing we can do to protect them."

OTTO DEGENER, in his reply to Edward Ayensu's letter, emphasized the need for more botanical research in Hawaii and the likelihood that there are many native plants that haven't been discovered.

He criticized a "Red Book" of endangered plants as inadequate, saying that such a book ignores all native Hawaiian flowering plants not yet studied, all ferns, mosses, lichens, fungi, limu and "humbler" plants making up an ecosystem necessary for survival of native birds and "humbler" animals.

He proposed a "Blue Book," not yet in existence, which would list Hawaiian plants which are not endangered and which could be chopped or bulldozed away without worry over their future. Plants not on this list should be protected, he said.

AS AN EXAMPLE of how plants might be revived, he cited the Haleakala, Maui, silversword, *Argyroxiphium sandwicense*. Due to depredations of feral goats and fly maggots, barely 100 plants were found when he studied it in 1927. Because of protection by the National Park Service, there are now more than 25,000 plants, he said.

However, a related plant, the Kau silversword, (*Argyroxiphium kauense*) is truly an endangered and threatened species, he said. There are only 1,000 plants in its concentrated range of 20-30 acres on private land on the southwest slope of Mauna Loa.

The Kau silversword grows about six feet tall. A few flowers from it were collected and presented to Emperor Hirohito and Empress Nagako of Japan on their recent visit to the Big Island.

DEGENER EXPRESSED some concern as to what might happen to the Kau silversword if mouflon sheep, now on Mauna Kea, should reach Mauna Loa.

The mouflon, a native of Sardinia and Corsica, was introduced to Mauna Kea several years ago and the first hunting season for the animal was held in August. Ronald Walker of the State Fish and Game Division said the division started a five year study in July of the mouflon's food habits. The animal will be observed and stomach contents studied of animals killed by hunters.

"We are also concerned about the silversword," Walker said. A small stand of Maui silversword exists on Mauna Kea and has been fenced off by the Forestry Division to save it from feral goats or sheep.

DEGENER AND his wife Isa attended the International Botanical Congress in Leningrad last summer and lectured there on Hawaiian plants.

They are authors of the series of books, "Flora Hawaiiensis," of which six volumes have been published. Degener, also the author of "Plants of Hawaii National Park," has been a free lance botanist in Hawaii and staff member of the New York Botanical Gardens since the 1930s.

F. R. Fosberg, incidentally, is author of an article on Hawaii's endangered plant species in the October issue of National Parks and Conservation Magazine. The front and back covers of the magazine have color photographs of flowers of three endangered plants, taken by R. J. Shallenberger, Derral Herbst, and Ken Nagata, all well-known in Island scientific circles.

Enewetak's people want to go home

In a recent article that appeared in this paper, Walter Pincus of the Washington Post Service exposes a disheartening aspect of our national character. He shows positively that we are not a people who can be trusted. Our promises are fraudulent. We default on our commitments. We break our given word whenever it suits our purpose. We do not honor our pledges. And we are in fact exactly what other nations have often accused us of being: pious phonies.

There is of course no denying the fact that we have in the past spent billions of our hard-earned dollars to help other countries and other peoples. We spent tons of money to repair the devastation that we had caused in Japan, Germany and the Philippines. We have spent other untold billions to bolster up the decaying economies of many other countries. We have spent and are still spending more billions to sustain countries that need our help — and in many cases sustain tyrants in power over those countries. These all rebound to our side of the ledger even when we have been overly extravagant in our expenditures.

had handy for the purpose of blowing up little coral atolls. At that time, we Americans told them that we would let them return to their homes after we were all through using them for our somewhat nefarious purposes. Well, we stopped blowing up their homes 17 years ago. But we have not moved the people of Enewetak

vide among themselves and call it square. After all, that would give each of them a bit over \$55,000. Not bad when you think of it from an American's viewpoint. Fine, except they could not spend it because the nearest store is several hundred miles away. In any case, the people of Enewetak do not want the money. Odd fel-



THE WORLD OF

sammy amalu

back to their atoll. In fact, we have begun our old game of welshing on promises that we made.

AND WHY? Or how come? The answer is simple. Because it would cost us \$57 million to keep our promise. That is the price we must pay to rehabilitate the islands of Enewetak, parcels of land that added up are less than four square miles in area. And as the Republican congressman from California, Burt L. Talcott, has said — that is just too much money to spend for the benefit of the 450 people who now call Enewetak home. Of course, Talcott does not bother to calculate how much money we spent destroying that home. But then that seems to be beside the point. The only point is that \$57 million is a lot of money to pay out to keep our given word. And of course, the 450 people of Enewetak do not vote. They have no voice in our Congress. They cannot get up and protest in the General Assembly of the United Nations. They are just simple natives who once lived on a necklace of islands in the Pacific.

lows, they just want to go home.

Well, I think that this is something that Americans who live on continents must learn about people who live on islands. We islanders learn to love our islands, to love the very soil itself, the ocean waves that wash that soil and the ocean breezes that waft over that soil. There is no amount of money large enough to compensate an islander for the loss of his island.

WE ALSO HAVE spent exorbitant amounts of our national treasure to defray the costs of some of our more picturesque adventures such as the Bay of Pigs in Cuba, our seemingly never-to-end defense of South Korea and our most unfortunate chess game in the fens and forests of Indochina. Our government has time and time again wasted so much money in these adventures that I often marvel at the astonishing patience of the American taxpayer, who year after year deprives himself in order to pay the high costs of these games.

There is no doubt that we Americans have been liberal and sometimes even unwisely so. We sent a billion dollars up to the native peoples of Alaska. We are beginning to pay off some of the claims that our own Indians have been lodging against us for a long time. These are all meet and right, things that we should do and we must do.

THEN A Democrat congressman from Missouri, Richard H. Ichord, came up with a cheaper proposition. Let us pay the 450 people of Enewetak half the amount — \$25 million — that they then could di-

HEAVEN KNOWS, we American Hawaiians get upset enough when we find the Navy bombing our little Kahoolawe, and we do not even live there and never have lived there. Imagine how a person from the necklace of islands that is Enewetak must feel about his little islands.

All I can say is that \$57 million — or twice or thrice that amount — is a cheap enough price to pay when we consider our pledge, our promise, our given word. The amount is not even a decent example of our typical largesse when we think about the vast amounts — at least 10 times as large — that we send yearly to countries that do not even like us. In any case, we must once in a while do what is right. This is the least that we can do for the great wrong that we already have done to the people of Enewetak.

NOR DO I mean to introduce a sense of cynicism here when I recall that in the case of the native Alaskans, a payment of a billion dollars may in the long run prove to be a wise and perhaps clever investment on our part. Those Alaskans are of course the closest American neighbors that the Russians have, right on the Russian borders as it were. And those natives were after all once a part of imperial Russia. A token payment of a billion dollars may after all cause them to forget their former allegiance to a nation that has every potential of being one of our more formidable enemies.

As for the American Indians, any payment to them is a debt that is long overdue. Everything from Portland, Maine, to Portland, Ore., was once theirs. We can never hope to pay them for the country that is now the United States. And it looks good when we publicly acknowledge our debts even when that acknowledgement takes the form of token payments. All very commendable, especially for our public posture before the world as a people of good heart and of fair dealings.

BUT WHAT of the little people to whom we have done great damage? Let us consider for instance the 136 persons of the little atoll of Enewetak. These are the people of whom Walter Pincus writes in his article. These people are Marshall Islanders, who live on what Pincus describes as a necklace of islands in the Pacific where the United States tested nuclear weapons from 1947 to 1958.

About 30 years ago, we moved these people away from Enewetak because we were going to blow up their homes with our atom bombs, our hydrogen bombs and whatever other dangerous toys we

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A Particular Point of View

Endangered Plants

By Tom K. Tagawa

State Forester

IN YOUR NOV. 25 edition, Edward S. Ayensu, Department of Botany, Smithsonian Institute, wrote a letter to the editor regarding endangered plant species. Moreover, he stated that I criticized the Smithsonian Report on Hawaiian endangered and threatened plants in Harry Whitten's Oct. 4 "Our Environment" column.

In Mr. Whitten's Oct. 4 column, I expressed an opinion which was not intended to criticize the Smithsonian Report in any way. I expressed doubt as to whether the outlook for certain native plants in Hawaii is as bad as the Smithsonian census would indicate.

To corroborate this statement, I cite a recent publication (May, 1975) entitled, "The Diversity and History of Polynesian *Bidens* section *Campylotheca*," appearing in the U.H. Harold L. Lyon Arboretum Lecture Series, by an authority on Hawaiian plants, Dr. George W. Gillett. Dr. Gillett conducted field studies and experimental hybridizations of 18 species of *Bidens* including 42 experimental interspecific hybrids.

Based on his studies, Dr. Gillett concluded that "weak genetic barriers and extensive natural hybridization are cited as justification for merging the 42 Hawaiian species into one species with seven subspecies. Twenty-eight of these 42 species are listed in the Smithsonian Report."

THE SMITHSONIAN Report lists many plant species at the varietal level (52 per cent). Studies similar to Dr. Gillett's should be conducted with those species having many varieties that are listed on the Smithsonian Report. The results of such studies may indicate that many of the listed varieties are mere phenotypes. Therefore, the listing at the species level is adequate since the species theoretically has the genetic make-up for almost all its varieties where the varietal expressions are generally limited by the biotic and abiotic components of the environment.



Tom K. Tagawa

Herbst's paper the following:

"This list is clearly premature . . . given our current incomplete knowledge of Hawaiian plants. The criteria for inclusion of species in the list were vague and they were not applied uniformly to different groups . . .

"We are sure that many plants included in this list as species merit only varietal rank. However, nomenclatural combinations for many of these are not available."

The above quotes of Drs. Forsberg and Herbst clearly indicate how little is known and the difficulties involved with the taxonomy of the Hawaiian flora. Therefore, I reiterate the fact that one year to compile an endangered and threatened list of Hawaiian plants is totally inadequate.

report generated from Hawaiian officials do not contain any hard information or reasons why any species or lower taxon should be deleted from the listing. The public should know that the Smithsonian list presents little quantitative data.

MOREOVER, Drs. Fosberg and Herbst clearly stated in their *Allertonia* publication that they did not have this information. They based their list on "opinions and impressions" and said that "there are almost no quantitative factual data" to substantiate the listed species.

Furthermore, they state that the list is "based on their experience" and that "no claim is made to objectivity." Therefore, the State did not accept the Smithsonian List of endangered and threatened Hawaiian plants appearing in the July 1, 1975 Federal Register in its present form. The State must have factual quantitative data indicating that the plants on the list are, in fact, endangered or threatened.

The implications resulting from the administration of the Federal Endangered Species Act of 1973, based on a list to be compiled by the U.S. Fish and Wildlife Service of endangered and threatened plant species, will have a major impact on land use and land management on both public and private lands. Therefore, it is critical that endangered and threatened plant species on the U.S. Fish and Wildlife Service list be selected on the basis of quantitative factual data.

THE DIVISION of Forestry strongly believes that the conservation and preservation of native plants is a definite part of our forest resource management plan, however, not at the expense of the total management plan. To this end, the division has proposed over 100,000 acres to the Natural Area Reserves Commission to be set aside to preserve our native biota. The commission thus far has failed to act on our proposal. Yet the Division of Forestry is continuously harassed by "environmentalists." I must point out that foresters created the forest reserves at the turn of the century. If it were not for these protected forests, we would not be enjoying the heritage of our native plants today.

I must re-emphasize that the Division of Forestry is responsible for the management of the State forest lands under a multiple use plan. Forest resources must be integrated and balanced in the limited land area of Hawaii. Hawaii is too small and has too little land to set aside vast tracts of land for a single-use purpose for the sole function of conserving endangered and threatened native flora and fauna.

Various interest groups concerned about the State's forest lands and the resources they contain have vastly different desires. As a result, these groups judge our management decisions only in terms of their own values. Forest management decisions must be based on the "total picture". We seldom cater to single interest groups but always try to incorporate their interests in the total management plan.

THE STATE DIVISION of Forestry is responsible for the management for the natural resources in the

Forester Tagawa says that the Smithsonian Report on Hawaii's endangered plants was made in too much of a hurry. He discusses the Forestry Division's responsibility in resource management.

I also pointed out in Mr. Whitten's Oct. 4 column that the Smithsonian study was a rush job with scientists given only one year to complete the study. I am sure Mr. Ayensu will agree with me that one year to prepare a list of endangered and threatened native Hawaiian plants based on factual quantitative data delineating on base maps the actual areas where these plants occur is too short a time in view of the incomplete knowledge of the Hawaiian plants. Furthermore, they have not delineated on maps the locations of the endangered species.

IN VOLUME 1 of Allertonia, Drs. F. R. Fosberg and Derral Herbst published a paper entitled, "Rare and Endangered Species of Hawaiian Vascular Plants," which formed the basis for the Smithsonian Report. The introduction of this article points out the inadequacies of the list. I quote from Drs. Fosberg's and

State forest lands in which most of the endangered species occurs. As such, the Forestry Division should have been consulted in the preparation of the list of endangered and threatened plants. We were not consulted.

Copies of the rare and endangered Hawaiian plants prepared by Dr. Fosberg were circulated in Hawaii; however, the Forestry Division did not receive a copy for comments. Therefore, I indicated in Mr. Whitten's column that the Governor has suggested a study by a State committee of botanists, foresters and other knowledgeable people to develop a list and habitat need for saving endangered and threatened plants.

Mr. Ayensu indicated that all of the comments on the Smithsonian

New Policy to Try to Save Porpoises

(C) N.Y. Times Service

WASHINGTON — A government attempt to reduce the number of porpoises killed by the American tuna fleet has met opposition from both environmentalists and the tuna industry.

The National Marine Fisheries Service regulations, dated Dec. 2 and effective Jan. 1, initially set no quota on the number of porpoises that could be killed incidental to the netting of tuna in 1976.

However, the regulations require that the 1976 death rate be at least 30 per cent lower than the 1975 figure, based on projected estimates to be made by the government next spring. If the projection shows no reduction, a quota will be established.

Having hoped for an immediate quota on porpoise killings, the environ-

mentalists see the new rules as a victory for industry. But the industry, which is fundamentally opposed to any quota, sees the rules as a threat to its very existence.

Richard E. Gutting Jr., western regional counsel of the Environmental Defense Fund, said the government had been "thoroughly intimidated" and had "given in to industry pressure" in creating the new regulations.

John P. Mulligan, assistant executive director of the Tuna Research Foundation, an organization representing major tuna canners, said the regulations "do not make industry comfortable."

"Industry is under the gun," Mulligan said in a telephone interview from his office at Terminal Island, Calif. "We've got a hell of a job to do," he said, to meet government requirements.

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A-18

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Fishery Prospects

The new National Plan for Marine Fisheries, developed by the National Marine Fisheries Service of the U.S. Department of Commerce, makes a convincing case for stepped-up efforts to develop the U.S. fishing industry. The plan points out that:

—U.S. consumption of fishery products has nearly doubled in the last 25 years, but the U.S. catch has remained static while the world catch has increased. So the increase in U.S. consumption has been met by a four-fold increase in imports.

—Many important U.S. marine fish stocks are becoming depleted or threatened as a result of increased fishing. An important factor in this depletion is the rapid growth of foreign fishing off U.S. coasts.

—Another threat to U.S. fish stocks is increasing deterioration of marine and estuarine environments.

One point of particular relevance to Hawaii is that in 1973 the U.S. tuna catch was 515 million pounds while imports were 1.5 times as much. By 1985 an increase in consumption of 370 million pounds is projected.

"The biggest opportunity to expand tuna landings," the plan says, "is in improving knowledge of skipjack tuna resources in the Pacific, Atlantic and Indian Oceans and in developing means of locating and harvesting these resources."

Hawaii's fishing industry is a small affair, but there are inklings of a greater potential.

The International Center for Living Aquatic Resources Management, established early this year by the Rockefeller Foundation with its main base in Honolulu, has taken on assessment of skipjack tuna in Oceania as one of its first projects. Director Philip Helfrich says the skipjack has been identified as the largest underexploited fish resource in the Pacific.

State officials are talking about eventual establishment of a Hawaii home base for purse seiners. Andrew Gerakas, chief of the Economic Development Division of the State Department of Planning and Economic Development, points out that "not only would we develop logistical services for these vessels, but if they had a place to dump their fish we could have more extensive fishing operations here."

That of course depends on learning where the fish are, for one thing. Another problem is the short supply and short life of nehu, the favored tuna bait. "If we can solve the bait problem, we've got lots of people interested in getting into longer-ranging vessels," Gerakas says.

This is not to say that Hawaii is on the verge of a fishing industry boom. Many economic and technical problems would have to be surmounted to achieve significant expansion.

But it is encouraging that people are working on some of the problems. And it is stimulating to imagine what a large and thriving fishing industry could mean here.

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Parleys Will Air Control of Opihi Harvest

Six ideas to control the opihi harvest in Island waters — ranging from a size limit to a sales ban on the delicacy—will be considered at public meetings throughout the State.

The County fish and wildlife advisory committees on each Island will call the meetings to obtain public reaction before a regulation is prepared by the State Division of Fish and Game.

Recommendations also will be presented to the division by the Animal Species Advisory Commission after studying the testimony at the meetings.

ALISON KAY, University of Hawaii scientist, is conducting research on the opihi with funds from the State government and the Hawaii Association of Counties.

But Michio Takata, head of the fish and game division, said, "If we were to wait until we learn everything there is to know about the opihi, we would be waiting forever. In the meantime there is danger of opihi resources becoming depleted."

He said there is an "apparent decrease" of the resource along all the rocky shores of the State.

"THEREFORE, we probably will be acting on the basis of the best information we have rather than wait until we have all the information," Takata added.

He said the regulation

ultimately selected "will be based on the enforceability and effectiveness in preserving the opihi resource . . . and to promote the recovery of the resource."

The alternative proposals, drawn up by the Division of Fish and Game, have one disadvantage in common: They would all be difficult to enforce, some more than others.

THE ONE THAT offers the most promise, according to the list, is area closure.

"Depending upon various factors such as the size of area, period of closure, and public support obtainable, area closure offers one of the more promising alternatives for controlling opihi harvest," it was noted.

However, the division said it anticipates considerable difficulty getting public agreement on area configuration and public support for the measure.

The other suggestions include a minimum size limit on the shell and meat, a bag limit, seasonal closure, prohibition on sales and a moratorium for a prescribed period of time.

Both the moratorium and sales prohibition would encounter vigorous opposition, the division said, commenting: "Because of high demand and high price of opihi, we anticipate bootlegging of this commodity to flourish."

The Honolulu Adv

Hawaii's Prizewinning Newspaper

Loch Ness real, scientists

BOSTON (UPD) — The Academy of Applied Sciences reports Nessie, the Loch Ness Monster, is not a myth, but real and alive — and scientists have evidence to prove it.

"There's no chance of a hoax at all. All of us make our livings on the basis of our integrity and we wouldn't risk it for something like this," said Dr. Robert Rines in a copy-

righted interview published in today's Boston Globe.

Rines, a physicist, patent attorney and law school dean, said scientists will gather at a Dec. 9 symposium in Edinburgh, Scotland, to exchange evidence of Nessie's existence and to view, for the first time, photographs taken by Rines this summer.

DR. GEORGE ZUG, a zoologist at Washington's Smithsonian Institution, who has viewed the photos, said, "This is additional proof there is a population of living animals in Loch Ness (Scotland's largest lake), things that have been called Loch Ness monsters."

"The pictures are good pictures

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this time and they give us a good idea of what these things are. They are something that we're not familiar with," said Zug.

If the evidence and pictures are true, it could end hundreds of years of speculation and myths.

NESSIE, a monster supposedly

living in Loch Ness, has been the subject of gossip as far back as AD 565. St. Adamnan, abbot of Iona, reported "the driving away of a certain water monster by virtue of prayer of the holy man."

More recently, the monster was described by one observer as "a great hump above the water, some-

times with and sometimes without an extended head and neck looking like an elephant trunk, occasionally with extended antennae, like those of a snail."

Nessie has been reported to be 30 to 60 feet long and up to 45 tons, and able to move at a rate of 8 to 10 knots.

Would Regulate Use of Islets, Rocks

Seabird Sanctuary Proposed

By Helen Ahorn
Star-Bulletin Writer

A Hawaii State Seabird Sanctuary has been proposed to protect bird colonies and regulate activities of intruders on numerous islets and rocks off Island shores.

Michio Takata, State Division of Fish and Game chief, said only four islands now are designated bird sanctuaries and covered by State regulation: Moku Manu, Mokuua and Manana (Rabbit Island) off Oahu and Mokuhooniki off Molokai.

"We are proposing to include other islands, changing it to a marine bird sanctuary system," he said in an interview.

"It involves more than the protection of seabirds," he added.

HE EXPLAINED that the Small Islands constitute unencumbered State lands over which there is no control now and the sanctuary system is intended to bring them under the jurisdiction of the Department of Land and Natural Resources.

He said there is nothing now to prevent littering or

overnight camping on the islands and rocks and they bear considerable traffic. "People swim across. They go by surfboard and boat," he said.

David H. Woodside, State wildlife biologist, said the land department has been criticized because of trespassing in the bird sanctuaries, especially Manana Island.

But he said management of the islands is difficult because they are popular with fishermen and oysther-pickers and subject to no regulations.

It has been a question

who has jurisdiction over the offshore islands, he said, but it's assumed the land department does because of its responsibility for conservation districts.

HE SAID the proposed regulation would give sanctuary status to about 33 islands and rocks in addition to the four already named. It would prohibit certain activities on them.

Woodside said the division has frequent complaints about people camping on the islands, particularly transients

staying "weeks on end" during the summers. There are no sanitation or other facilities for campers and they create a "mess," he said.

"The problem with any regulation is how to define camping," he said. For example, he noted a fisherman who sits all night landing his lines. "Is this camping?"

He said some policy guidelines must be developed under the proposed regulation to make it workable.

The regulation would prohibit any damage or disturbance to the bird colonies and vegetation, landing of any aircraft or vehicles, introduction of plants and animals, camping or construction of any structure, littering or trespassing in "no trespassing" areas.

THE REGULATION would allow permits to be issued for persons to enter the islands for scientific or educational purposes.

Violators would be subject to up to one year imprisonment or a fine of up to \$1,000 or both.

The regulation will be considered by the Animal Species Advisory Commission for recommendations at a meeting Friday.

It must be approved by the State Board of Land and Natural Resources before it takes effect.



BIRD SANCTUARIES—Manana (Rabbit) Island, in the foreground, and Kaohikaipu (Black Rock), off Makapuu, would have stronger protection under a proposed new State regulation.

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Law to Protect Opihi Awaits UH Research

By Robert McCabe
Maui Bureau Chief

WAILUKU, Maui — Because little is known about the complex biology of the opihi, a shell fish delicacy much favored at luaus, very little can be done to regulate hunting of the marine creatures.

Christopher Cobb, chairman of the Board of Land and Natural Resources, said in a letter to the Maui County Council that implementation of controls on the gathering of opihi is "extremely difficult" until enough is known about the shellfish.

"Formulation of any protective regulation should be based on factual information," Cobb said.

HE WAS responding to a request by the Council for measures that would prevent over-hunting of opihi.

The request, prompted by Councilman Joseph Bulgo, stems from concern that the opihi population is declining.

Bulgo said this has been brought about by a recent increase in the gathering of the shellfish as a jewelry item.

Cobb acknowledged that the opihi supply is "drastically low" and that there is a need to protect the creatures "for the purpose of restoring their populations."

not be done without proper scientific information on the opihi's "complex biology."

Biological knowledge of the shellfish is "very limited," he said.

"In nature, for example, the larval form of opihi leads a planktonic existence, thus rendering its survival and subsequent recruitment to the harvestable population entirely dependent upon the vagaries of ocean currents and other hydrographic conditions," Cobb said.

He pointed out, however, that a study of the opihi is being conducted by Allison Kay of the University of Hawaii, with funds provided by the State government and the Hawaii Association of Counties.

COBB SAID he expects the study will provide baseline data which could be useful in the formulation of regulatory measures.

"The Maui Council may be interested to know that the subject of opihi has been placed on the agenda

of the next Animal Species Advisory Commission's meeting," he said.

At this meeting, Cobb said, various management alternatives "applicable to the protection and restoration of the opihi will be evaluated and discussed," after which the best alternative "will be selected to serve as the basis for a proposed regulation."

Once the proposed regulation is developed, Cobb said he will "subject it to the established rule-making procedures."

S-B NOV 10 75

'3-Year' Study Ordered Done in 120 Days

By Helen Altom
Star-Bulletin Writer

The State Board of Land and Natural Resources has challenged the Hawaii Historic Review Board to complete a site review in 120 days instead of three years.

The challenge was tossed out at a board meeting Friday when an application was presented from William J. Paris Jr., for a conservation district permit to build a beach home and work camp near Kainaliu in the Big Island's Kona district.

Land planner Roger C. Evans described a series of problems concerning the historic and archaeological importance of the area, which has been proposed for the Hawaii Register of Historic Places.

"YOU CAN'T give them a specific time," said Parks Administrator Joseph Souza Jr., shaking his head. "You just can't..."

Asked why, he said, "Well, I'm just comparing it to the H-3 (freeway project). That's what's holding it up, the historical evaluation."

Board members voted to approve Paris' application with the proviso that the approval will be void in 120 days if the area is determined to be a historic site.

Although the applicant has to wait four months, Cobb commented, "It's better than the three years he might have ended up with."

IN OTHER business Friday, the board:

He said because of a lack of coordination both the Bishop Museum and the Land Department's Historic Preservation Office examined the 3.5-acre site. Further, their reports conflicted.

"OUR PEOPLE said the area had marginal value and the Bishop Museum said it was valuable," Evans said.

"The Bishop Museum viewed it from a historical perspective and our people viewed it from an archaeological perspective and now it's up to the Historic Review Board... to come to a final conclusion.

"This hasn't been done and as to when it will be done the response is 'perhaps in the next three years,'" Evans said.

He explained that the board has no set meetings and determines its own agenda by priority of sites.

"That's just tough," said Land Chairman Christopher Cobb. "Give them 120 days to take action."

Manuel Moniz Jr., Maui board member, agreed: "Give them 120 days and then the application will be automatically approved. An applicant shouldn't have to wait three years."

—Approved a proposal to seek \$120,000 in Sea Grant funds to support the State's fresh water prawn project for the next year. The Legislature has provided \$50,000 for the project, aimed at developing a prawn farming industry for the State.

—Approved delegation of \$10,000 appropriated by the 1972 Legislature to Hawaii County for comprehensive historical and archaeological survey of Waipio Valley.

—Appointed Akio Serizawa as Planner V, a new position in the State Parks Division.

—Deferred action until Nov. 21 on a sublease agreement between the University of Hawaii and the Canada-France-Hawaii Telescope Corp. for use of about two acres for astronomical observatory facilities which are already under construction on Mauna Kea.

With Federal Push

Fish Farming Is Coming of Age

By Julian J. Nagdeman

(Reprinted from *Barron's National Business and Financial Weekly*)

The final draft of a federal report on fish farming last month began circulating for comment among interested parties in business, education and government.

Prepared by three Commerce Department agencies — the National Oceanic & Atmospheric Administration, National Marine Fisheries Service and Office of Sea Grant — the 157-page study, entitled NOAA Aquaculture Plan, covers both ocean and fresh water opportunities.

Once all the returns are in later this year, NOAA Administrator Robert M. White intends to launch a wide-ranging program of up to 10 years duration, at an annual cost of approximately \$10 million.

At this point, top priority is to encourage the raising of fishery products by private enterprise for sale and by public agencies to increase natural stocks. Second, the Administration hopes to capitalize on resources not currently used to any great extent for animal husbandry: The nation's brackish and salt waters.

Federal assistance schemes in too many cases have proved expensive boondoggles. But the potential returns on a modest investment in aquaculture (or mariculture, as it sometimes is called) appear to far outweigh any bureaucratic hazards. What's more, if a business of any meaningful size ever is to develop in the U.S. outside help of some sort will be needed.

THANKS TO THE steady growth in demand for economically priced protein sources, fish farming periodically has been hailed as a wave of the future. But says John H. Ryther, senior scientist in the Department of Biology, Woods Hole Oceanographic Institution: "The embryonic industry in the U.S. has a dismal track record that threatens the field with extinction before it fairly has gotten under way."

Ryther's blunt assessment is borne out in data compiled by NOAA. Over the past five years, free world aquaculture production has doubled to 13.2 billion pounds, roughly 10% of local global output.

Most of the activity is in the Far East or along the coasts of South America, where there is abundant cheap labor and little legislation to restrict the use of shorelines. By contrast, American output of fish grown in captivity has remained static at 143 million

pounds, or only about 3 per cent of current domestic consumption.

Probably the most important reason for this disappointing performance is the fact that private enterprise has been reluctant, or unable, to spend large sums for research, which could establish a sound biological and technological base for raising certain species economically.

"Aquaculture methods are well known for catfish, trout and oysters; production can readily be increased to meet demand," says a NOAA official. "But for other species — marine shrimp, freshwater prawns, lobsters, crabs, certain mollusks and ocean-ranched salmon — the risks still are too great in terms of potential rewards to attract private capital."

This official source also noted that existing gaps in research and development are at least partially attributable to a diffusion of government efforts. "Too many agencies at both the state and federal levels have undertaken narrow projects within the framework of their specific missions," he says. "There's been precious little coordination, let alone any attempt to define realistic long-term goals."

IF ALL GOES WELL, NOAA Aquaculture Plan's power of the purse eventually could help remedy some of the difficulties. Meanwhile, investors have learned some costly lessons. During the early '70s, both Wall Street and Main Street were buying fish stories.

Not too surprisingly, more than a half dozen imaginatively named start-up operations seized the opportunity to float new stock issues. The plausible concept: Growing fish for food was analogous to domesticating once-wild animals like cattle, sheep or fowl.

As it happened, the promoters proved more adept at raising money than fish. Lacking the requisite know-how, the newcomers soon found themselves strapped for cash; most sank without a trace. Moreover, the few survivors — like Marifarms and Marine Protein — still are awash in red ink.

"Most of this new industry's difficulties must be attributed to the ambition, impatience and naivete of the aquacultural entrepreneur," says Ryther of Woods Hole.

Since the disappearance of the small fry, pure aquaculture enterprises have become a scarce commodity for investors. Indeed, as far as publicly held



—Drawing by Ray Higuchi

companies are concerned, participation largely is limited to giants like ConAgra, Dow Chemical, Esmark, General Mills, Inmont, Ralston Purina, Union Carbide and United Brands.

For diversified corporations of this size, fish farming is at best a sideline or a hedge against the future. A number of utilities are in the same boat, including Central Power & Light (of Corpus Christi, Tex., Florida Power & Light, Pacific Gas & Electric, Long Island Lighting and San Diego Gas & Electric.

Organizations like the Office of Sea Grant continue to bridge the gap between lab experiments and sizable commercial operations. So far, about 30 universities participate in this program, which is named to emphasize the similarities between it and the land grant system that helped advance American agriculture.

AMONG THE PROGRAMS currently in progress is an experiment in shrimp culture, conducted by the University of Miami, in cooperation with Esmark, Florida Power and United Brands. Texas A&M, teamed up with Central Power & Light, is overseeing a similar venture offshore Corpus Christi, using warm water discharged from the utility's nearby power plant. San Diego State, with the help of the local gas and electric utility, is doing the same sort of work in an effort to accelerate the maturation of lobsters.

As Sea Grant's parent organization, NOAA obviously is in a position to allocate future institutional funds in line with priorities identified in its draft report. Questions of grantsmanship apart, the selections demonstrate the agency's apparent desire to win a few comparatively easy and popular victories at the outset.

pounds annually, but more than 60 per cent of the total now is imported.

Work at the government's Martha's Vineyard Lobster Hatchery off the coast of Massachusetts indicates that if water temperatures are raised to 70 degrees this crustacean can be grown to marketable size in two years, against five to eight in nature. Unfortunately, since these denizens of the deep are cannibalistic, it is difficult to raise them in the densely populated environments which are required for efficient aquaculture operations.

LAST BUT NOT least on the top-priority list are oysters. By no coincidence, the U.S. is the world's top producer and consumer. The nation's output aggregates 55 million pounds a year, almost 80 per cent grown in captivity. Another 25 million pounds are imported each year, largely from Japan and Korea.

All told, Americans gulp down 60 per cent of the global oyster supply. Since the Fisheries Service estimates domestic demand at 125 million pounds by the turn of the century, with commensurate increases in other affluent lands, U.S. production obviously has to go up.

At one time, stocks of marine resources were considered virtually inexhaustible. But the Food & Agricultural Organization of the United Nations warns that serious shortages of fishery products can be ex-

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Heading the list is salmon, which accounts for 7 per cent of domestic seafood consumption. Since 1960, the Fisheries Service has spent only \$7 million on improving pen-rearing techniques. As a result, over this span, production in the Columbia River has jumped from 10 million to 30 million pounds a year. Now, the agency is seeking to perfect methods for ocean ranching.

Next come marine shrimp, the leading species in terms of volume and value; domestic consumption is close to 800 million pounds a year, worth roughly \$450 million at wholesale. About half of these totals represent imports, so points could be made by nurturing a viable domestic industry.

Also prime NOAA targets are freshwater prawns, almost unknown on the Mainland but popular in Hawaii, where the market potential is reckoned at \$8 million a year, and lobsters. Domestic consumption of this latter disappearing delicacy exceeds 200 million

... with the Same Fertilizer

By Dennis Montgomery

KINMUNDY, Ill. (AP) — An aquatic biologist is testing a recipe for what he says could be the most efficient method of producing useful protein for humans.

You take a pond of water, stir in four varieties of a special fish, add a dollop of plankton, fold in a dash of vision and brew with liberal amounts of raw manure, said Dr. Homer Buck.

Buck calls the product aquaculture and says the idea was cooked up hundreds of years ago in China. Though it may sound as if it's more than most Americans could stomach, he's tried it and says he likes it.

Buck, an Illinois Natural History Survey scientist, is experimenting with a prototype of a never ending animal cycle that, in effect, turns barnyard waste into food.

"IT COULD be used for

either animal or human consumption," the 55-year-old scientist said in an interview. "The water is enriched by the manure and this enrichment causes a stimulation of all types of organisms that are used as fish food. Primarily it stimulates the production of plankton algae."

Plankton are microscopic plants and animals.

"In our case," he said, "we are dealing primarily with the plant species and this is fed upon by the Chinese silver carp. It has the ability to strain these little plants right out of the water just swimming around with its mouth open."

Experiments conducted at the nearby Sam A. Parr Fisheries Research Center last summer in a series of ponds and pools enriched with pig manure showed the plankton consume enough potential pollutants to keep the water clean and provide enough nourishment to turn fingerling into edible fish worth harvesting —

as large as four pounds.

"We had fantastic success," he said. "We did better than we thought we could."

MOREOVER, the fish tasted fine. "Good to excellent," Buck said. "There is no peculiar taste to them," he compared the quality of their firm, light flesh to fish sold in supermarkets.

Though pig waste was used in his experiments, he said, compost and other manures — including human — would work as well. More experiments are planned this summer.

"We eventually hope to know enough about these kinds of systems that you can visualize an integrated system designed for large-scale production of fish, beef, poultry, swine,

grain — all in one, integrated system.

"This would involve a reservoir in the center. You'd have your livestock facilities on the margin of the reservoir and then an outer circle with your hay and grain fields.

"So you are producing grain to feed the livestock and the livestock wastes are used in the water for the production of fish."

Excess waste can be used as grain fertilizer. Fish can be fed raw to pigs or processed and added to feed supplements.

"What you've got," he said, "is a sort of closed system where you have fish and no waste. We think this might be applied to a family farm or commercial operation."

Star-Bulletin



Honolulu

Thursday, January 29, 1976

Depletion of the Seas Becoming Real Threat

Continued from Page B-1

pected within a decade if the global population continues to climb and conservation schemes are not put into effect.

At present, the worldwide catch exceeds 78 million metric tons annually, up from 15 million 25 years ago. The practical upper level for ocean harvests is pegged at between 120 million and 185 million metric tons.

The narrowing gap between demand and supply is largely a result of overfishing by such seagoing nations as Japan and the Soviet Union, which operate far-ranging flotillas of highly mechanized trawlers.

With the exception of shrimpers in the Gulf of Mexico and tuna fishers in the Pacific and off Puerto Rico, the U.S. fleet is generally inefficient and unwilling to adopt modern techniques. As a result, productivity, measured in terms of catch per man-day, has declined by more than 25 per cent in the past decade. And the U.S. now imports roughly two-thirds of its fish needs.

ALSO CONTRIBUTING to the prospective shortage of edible seafood — albeit to a lesser extent than environmentalists would have the public believe — is the siting of electric power plants in tidal estuaries, where thermal pollution of the water can disrupt the spawning of certain species. Water diversion projects also can be a headache, pulling fish into irrigation channels and inland waterways where they may die or be unable to reproduce.

At any rate, the depletion of the seas has become a real threat. In the Atlantic, the sea herring census has been reduced to 10 per cent of historic norms, while cod, which is down to 3 per cent, may never return, say marine biologists. Off the West Coast, the striped bass population has dropped 50 per cent in just the past decade. Also in retreat are flounder, halibut, haddock and many bivalve mollusks, along with California's abalone.

Realizing the imminent difficulties, the Fisheries Service for the past few years has been trying to popularize plentiful but unfamiliar species like pollock, Greenland turbot, whiting, mullet, ocean quahogs and Jonah crabs, as substitutes for the dwindling varieties.

It has issued pamphlets and planted recipes in the food sections of newspapers and conducted consumer acceptance and taste tests. The success of the effort to make additions to U.S. seafood menus has yet to be gauged, though there have been occasional merchandising triumphs.

Thus, analysts at Frost & Sullivan, a Manhattan-based research organization, point out that blowfish tails became a popular restaurant item once they were rechristened sea squab.

NEWSPAPER CLIPPINGS

1975-1977

G. H. BALAZS