

HAWAIIAN MARINE TURTLES - 1975
newspaper articles

HAWAIIAN MARINE TURTLES- 1977
newspaper articles

HAWAIIAN MARINE TURTLES 1978
newspaper articles

HAWAIIAN MARINE TURTLES- 1976
newspaper articles

1975-1978

G. H. BALAZS
HIMB FILES



Dave Donnelly's Hawaii

COMMENT FROM THE UPI's Bob Miller on our return this week from the Far East: "That's a fair trade — the emperor leaves and you come back." . . . The Hawaii Hochi gave each staffer who helped put out a special edition on Emperor Hirohito's visit a bonus of \$100. That's a lot of sushi! . . . Sidelight: As the emperor was about to leave the Big Isle, 82-year old Hatsukichi Yamamoto of Hawi gave him (through a member of the imperial party) a walking stick the Big Islander had made from kauila wood about 35 years ago. Yamamoto had received the Sixth Class Order of Merit of the Sacred Treasure some years back and decided to return the favor . . . Never before told story: Defense Secretary



Schlesinger

James Schlesinger made a booboo of Pentagon proportions when he called Hawaii a few months ago to tell Lt. Gen. Louis H. Wilson he was being nominated for commandant of the Marine Corps. The Pentagon somehow got the Air Force's Gen. Louis L. Wilson on the phone instead, and Schlesinger conveyed the good news to him at some length before the surprised general could interrupt and inform the defense secretary he'd reached the wrong Lou Wilson. Well, there was a long, long pause on the phone, finally broken when Schlesinger spoke: "Forget everything I said except 'Hello.'" . . . Digging through a giant mound of mail after a month's absence, we found a postcard from Nephi Hannemann (since returned) which tells of stopping in a little pub in Ireland: "I must say for the first time I felt equal to Elvis, Frank Sinatra, Don Ho and all the biggies — the people didn't know any of them either." Sounds like George Simone is writing his material these days . . .

NEW MOLOKAI High principal Ron Kula seems appropriately named for his job — "kula" is the Hawaiian word for school. We won't go into the Italian meaning . . . State Rep. Neil Abercrombie is guest of honor at a Paradise Park gathering tonight, which ought to please all those who think he's for the birds anyway. He also promises to provide the world's greatest hot dog, a description he readily admits has been applied to him on occasion . . . Sheldon Omanson of Western Airlines says he just can't get away from the Star-Bulletin. While wandering



Abercrombie

around the BYU campus in Provo, Utah, recently he noted a guy following him wearing a T-shirt reading "Honolulu Star-Bulletin." Says Shel, "I know I didn't pay last month's bill yet, but do they have to hound me?" Which reminds us of the classic line, "Just because I'm paranoid doesn't mean nobody's following me." . . . Girl-watchers had best be warned that the Kuhio Hotel should be the place to be beginning tomorrow. That's when the cast of "Folles Bergere '75" from the Tropicana in Vegas arrives for a week's vacation. Lito Capina, an Islander who's in the show, reports the whole gang is getting four weeks off so Mitzi Gaynor can do a month-long engagement in the room. A week in Hawaii is part of their reward for relinquishing the showroom to Mitzi. The cast will also be guests of "Night in the Philippines" at the Royal Hawaiian. So if you see a group of six-foot tall showgirls walking around Waikiki, you'll know where they came from . . . Trade Publishing, the firm founded by Don Over and now run by Carl Lindquist, celebrates its 21st birthday next week. They now put out 15 different publications, headed by Builder's Report, and engage in more practical jokes than the rest of Honolulu put together . . .

MUCH SOUGHT-AFTER invites to the Kapiolani & Children's Hospital benefit Nov. 22 at the home of Monte and Sally Goldman have gone out. Only the first 85 couples to respond can be accommodated at the Goldmans' Portlock estate. Each couple will donate \$100 to the hospital fund. One couple which had to decline, regretfully, was Jeff Wald and Helen Reddy, who have a Mainland conflict that weekend. The Third Floor is catering the affair . . . Speaking of the Third Floor, wine steward Richard Dean is in London where he's just passed all exams and has been named a "Master Sommelier," quite an honor for one so young . . . If that cheerleader in the Finance Factors ads looks the part, it's because



Suzanne

she's Suzanne Casupang, a regular cheerleader at UH, rah, rah. She'd never done a commercial or posed for an ad but an alert adman spotted Suzanne at the kickoff luncheon of the Aloha United Way, where she roused a lethargic crowd into a roaring mob, and hired her . . . The menu at the 20th anniversary luncheon at the Princess Kaiulani Hotel today is recreated from the opening day festivities. It includes lomi-lomi salmon, turtle soup, kalua pig, breast of Maui chicken luau, Puna yams and pineapple delight. The luncheon also marks the 100th birthday of the princess.

STAR-Bulletin April 15, 75

Seafood Dinner Menu. At Hawaii's Most Unique Garden-Restaurant.



Thirty-two gourmet entrees including Abalone Steak, "Hama," Hawaiian Style Prawns, Grilled Rainbow Trout, Live Maine Lobster, Baked Kalamari, Seafood Curry Madras, Maui Channel Catfish, Red Snapper Saute, Green Turtle Steak, Steamed Mollusks Cantonese, and the chef's house specialties. Bouillabaise a la Marseillaise, San Francisco Cioppino, and a delicious selection of fresh hot and cold appetizers. All prepared in the best traditions of the Master Chefs around the world!

Menu Priced From 3.95
For Dinner Reservations Call 941-6611

THE ENCHANTED SEA DINING ROOM (First Floor)

THE NEW AMERICAN & JAPANESE MENU WILL BE SERVED IN THE LOTUS ROOM.

Ask about our Gift Certificates, the perfect gift.



PAGODA
FLOATING RESTAURANT

1525 Rycroft / Honolulu
Ample Parking Available

How a Briton views the Hawaii exhibit

By MICHAEL LEECH
Special to The Advertiser

(Editor's Note: Leech is a correspondent for The London Times and The London Daily Telegraph.)

Fabulous is an over-used word, but it comes at once to mind to describe the array of amazing artifacts now on display at the Museum of Mankind, just off London's Piccadilly.

Hawaii is the focus, and the exhibition is the first comprehensive exhibition of traditional Hawaiian culture ever seen in Great Britain. Indeed it is unlikely that even Hawaii itself could come up with such remarkable pieces, as one of the museum staff told me, somewhat apologetically.

The Hawaiian collections of the museum (which to give it its full title is the Ethnography Department of the British Museum) are among the finest in the world, due mainly to 18th century explorers who brought back the treasures before the strait-laced missionaries got there and conducted their tragic auto-da-fe. Many great sculptures by native artists must have perished in Hawaiian bonfires of the 18th century.

CAPTAIN COOK and Captain Vancouver (who gave his name to the Canadian city) brought back many important pieces at the same time that Lord Elgin was busily exploring the marbles from the Parthenon, and in a way there are interesting parallels whatever one feels about Greek treasures remaining in Britain, for as Hawaiian artifacts were destroyed so also were Greek sculptures, burned for their lime content.

One can understand, confronted by the strong, awe-inspiring figures of gods, both sexual and aesthetic, the missionaries' abhorrence and probable fear, but the exhibition is not limited to the wooden gods alone but to colored barkcloth, beautiful wooden bowls, elegant feather decorations, and simple tools — giving a vivid picture of the life of the islands prior to the advent of the last century of "civilization."

Indeed some of the most interesting pieces are artifacts like fish-hooks, made of a variety of materials from bone, tortoise shell and wood twisted as a shoot to grow into a curve. Sharks must often have been the catch, and their teeth are used everywhere, in necklaces and in sculptures, such as the smaller god-figures of polished wood inlaid with mother-of-pearl eyes and with grinning jaws studded sometimes with rows of human teeth.

The use of teeth as a decorative medium is occasionally surprising, as in the anklets probably worn by a chieftain — rows of dogs' teeth looking like the clustered shoots of a plant, and a bracelet of boars' tusks that

This life is mirrored in the feathered capes and articles of wear in the museum's new exhibition. Although close on 200 years old they have weathered well and the striking patterns of red and yellow still surprise the eye. These garments, together with helmets and necklaces, were ceremonial clothing for the nobility and symbolized their high social status.

And to show that nothing is new under the sun, the hair and neck ornaments sometimes bear a surprising similarity to modern jewellery — strange to think that an Hawaiian beauty of 1780 was actually parading a fashion that would be the thing in the 1970's.

ALSO FEATHER covered are the images of gods — perhaps evolved from helmets, these tall and elegant creations are made of basket work covered with mesh and then thousands of tiny feathers to create the effect of lustrous velvet. One can't help wondering how many exotic birds died for just one of these images.

Besides the glowing wooden bowls, sometimes contained within carrying ropes wound into intricate webs, there are also domestic utensils, fishing equipment such as snares for squid, games, tools and a variety of weapons some of these employing again the ubiquitous sharks' teeth with their rasping edges like many tiny saws as hard now as they were when they sliced into their living food two centuries ago.



Bracelet made from bear's tusks.

is a thing of breathtaking beauty, hard and glittering with the glow of ancient ivory, yet reminding one instantly of the fragile transient elegance of a living water-anemone.

THE BARKCLOTH has a whole large case to itself, and is striking in the different forms and patterns evolved — so much so that there is a large spread of patchwork to indicate the vast variety of differences. And of particular interest are the wooden sticks, stamped and cut with patterns to press into the cloth, looking rather like those antique wooden rollers they used to make Victorian wall paper with.

When Captain Cook discovered the Hawaiian islands in 1778 on his last voyage, he named them the Sandwich Islands. Then the original Hawaiians were prosperous with a tightly organized social and political system — and of course an accompanying ceremonial and religious life.



The touch basket's treasures are studied by Laie Elementary School second graders.—Photos by Warren Roll.



Leighton Taylor, new aquarium director, plans to give seals more room.

The Aquarium

By Lois Taylor,

"In real estate terms, this place is what they call 'a real fixer-upper, a buy for the handyman,'" said Leighton Taylor surveying the third oldest aquarium in the United States.

Taylor, named Oct. 1 as only the third director in the 71-year history of the Waikiki Aquarium, has big plans for the popular landmark. Located on the beach across from Kapiolani Park, the aquarium entertains 280,000 visitors a year.

He has the encouragement of the University of Hawaii, which since 1919 has controlled the aquarium and pays the bills. Like anybody else with rundown beachfront property, Taylor knows that a little remodeling is well worth the investment, and that the place to begin is the place people see first.

The State Foundation on Culture and the Arts has contributed a pair of seascapes by John Wisnosky and a ceramic tide pool inlaid in the floor by Claude Horan. They are all located in the entrance rotunda and are a vast improvement over the varnished, stuffed fish that used to decorate the area.

THE CIRCULAR TIDE pool shows shells and tiny sea creatures around the outer rim and fish in the sea-blue center. As a further note of realism, Horan has drawn a crumpled beer can in the colored tile.

"Soon we hope to have a real tide pool built where we now have a carp pond. It will give visitors, especially children, a chance to see and even to touch live specimens," Taylor said.

The musty old marine science museum has had a facelift by the Junior League of Honolulu, with a fresh coat of paint and an entirely new design for its exhib-

its. Formerly the room housed a shell collection in high glass cases, well beyond the eye level of a child.

"Museum exhibits like this reflect the 19th century," Taylor said. "We'll store the shell collection in the dark, which delays deterioration, and have it properly cataloged. It will be available to serious students of malacology."

The shells will be replaced with educational dis-

Star-Bulletin

Today

Section

C

Features
Entertainment

Honolulu, Tuesday, November 11, 1975

plays of marine ecology, focused on the problems and general environment of the waters surrounding the State.

The old seal tank with its fence across the middle to protect the sea turtles from being chewed on by the other tenants will be drained, repaired and repainted. The seals will then take over the entire tank and the

Gets a Facelift

Star-Bulletin Writer

turtles will find new housing in a pool to be built at the edge of the property on the beach. Both parties are expected to welcome this move.

ONE OF THE MOST important new developments at the aquarium has been the development of the docent program, 30 trained volunteers who guide students from kindergarten through college around the aquarium.

According to Taylor, a large part of the program's success is due to Edith Chave, a Ph.D. in marine biology. She has designed the educational tour on various grade levels to meet the interests of different audiences.

Among the younger children, the most popular part of the tour takes place in the shade of a grove of coconut trees. The classes are seated on the lawn while a docent reaches into what is called "the touch basket" for a session of show and tell.

The big wicker basket holds a starfish, a shark jaw, sea urchin skeleton, a crab, balloon fish, scorpion fish and various other underwater wonders. None, of course, is alive.

"First, we'll talk about how these sea animals protect themselves," said Erica Wyrteke, one of the docents.

SHE TOLD THEM HOW closely the scorpion fish resembles a rock, and can successfully hide. "What about the sea urchin?" she asked. "Pokers," several youngsters replied. "How about the shark?" "JAWS," hollered the entire audience, and everybody wanted a turn at putting his head between the shark's teeth.

After the youngsters passed the various exhibits around among themselves, they were taken to see the real things (except for the shark) in the tanks of live fish inside the aquarium.

Tours for students attending kindergarten through the ninth grade are given Tuesday through Friday from 10 a.m. until 1 p.m. High school and college groups are guided in the afternoon by either docents or senior staff members. Teachers should make advance arrangements with the Waikiki Aquarium office. All school groups accompanied by teachers are admitted free.

Ordinarily, everyone over the age of 12 must pay 25 cents admission. The aquarium is open from 10 a.m. until 5 p.m. Tuesday through Saturday and from noon until 5 p.m. on Sunday. Taylor hopes to extend the hours and to open on Monday, particularly since so many holidays now fall on that day.

SINCE NONE OF THE Neighbor Islands has an aquarium, and you can't pack up a tank of fish to take on tour, the Junior League is developing and funding an outreach program. It will take a slide and tape show and an expanded touch basket to schools all over the State.

To raise money for this and for other service projects, the Junior League of Honolulu is sponsoring Strawberry Station, a gift sale to be held Saturday from 10 a.m. until 5 p.m. at Ward Warehouse.

The sale, to which the public is invited, will offer original Christmas ornaments, one-of-a-kind gifts and stocking stuffers, children's toys and games, plants and craft items. Get a head start on holiday shopping and bring happiness to a fish all at once.

The Honolulu Advertiser— People

also in

B

- Entertainment: B4-6
- TV log: B6
- More news: B10



Debbie Wong,
far left, glides
toward moray
eel in crevice.
Left, she lures
him out.
Right, Debbie
with moray
firmly in hand.

Report



Tuesday, August 26, 1975



There's something

By **PATSY MATSUURA**
Advertiser Staff Writer

If housecleaning leaves you cold, just be thankful that you're not vacuuming inside a 20-foot deep reef tank with 2,000 fishes following you around.

Robert Bourke, curator of fish at Sea Life Park, and Debbie Wong, one of two divers, give the 70-foot-wide tank a thorough cleaning every three months.

"It takes us two weeks to complete the job because we have to wait until the 4 o'clock performance is over," said Bourke.

"We spend about 45 minutes each day cleaning the tank. It gets pretty chilly in the late afternoon when the sun disappears behind the mountains."

BUT WHEN they get through, no stone is unturned. Bourke can attest to that for he personally lifts each stone as Debbie siphons the debris with a vacuum. Tank-cleaning is a thankless job, but it's a necessity.

Debbie, who had just emerged from the tank, wore a jacket over her wet bikini and gratefully sipped a cup of hot coffee.

"I wear my bathing suit all day because I have four shows to perform each day," she explained.

Bourke said he is so used to seeing Debbie in swimsuit with long, uncombed hair that when she appeared at his dinner party one night all dressed up, he was pleasantly surprised.

"That was the first time I ever saw her completely dry," he laughed.

A GRADUATE of Oregon State University where he majored in zoology and fisheries, Bourke said it is a continual job to keep the reef tank well supplied with fish.

"Sea Life Park has one of the best designed and biggest single tanks in the world."

The tank contains 300,000 gallons of water which are pumped directly from the ocean. It comes offshore to the tank every one hour so the water is always fresh and clean.

Besides filling the tank with fish, Bourke must see to it that they are well fed and healthy. He and an assistant, Steve Kaiser, collect their own fish using a 16-foot Boston whaler.

"We catch 85 per cent of the fish between Sea Life Park and Rabbit Island," he explained. "First, we use a fence net, then we scoop up the fish with a hand net and put them in a little trap aboard the boat."

"WHEN WE go to Pokai Bay it's an all-day thing — from 6 a.m. to 8 p.m., but at Rabbit Island we spend only three to four hours. On the average we catch 25 fish a day. Our poor diving days are better than the good days on the West Coast.

"Sometimes we purchase fish from the fishermen at Kewalo Basin because they go farther out to sea and are able to catch unusual species."

Freshly-caught fish are placed in a holding tank for about one week to make sure they are free of disease.

The four basic types of food fed to the animals are fish and squid ground together, frozen chopped spinach, plankton, and plaster of Paris mixed with spinach, vitamins and fish. The latter is consumed by such fish as uhu (parrot fish.)

"Turtles in captivity eat meat, but we're trying not to feed them," said Bourke. "They're grabby eaters and very impatient. They give you the 'feed me or I'll bite you look.'"

"Debbie has a way with animals. She's so gentle and friendly that they respond to her. Although they're tame, you have to know how to approach them and gain their confidence."

DEBBIE, 24, a graduate of the University of Hawaii with a major in physical education, said she swam competitively for 10 years. She has been a show diver at Sea Life Park for almost one year, performing five days a week. Each show lasts 15 minutes.

"I wouldn't trade it for any other job," she said. "It's a neat feeling just being around fishes. They're my pets. Whenever one of them is ill, I can tell immediately. One of the friendliest is the baby spotted eagle ray."

Debbie's most extraordinary feat is her skillful handling of the deadly moray eel. She is one of the very few people in the world to handle the moray. Many tourists who have seen her in action are shocked because they have never seen anything like it before.

"They think I'm crazy," she said. "Before I started my act, I observed the morays for about a month, then I patted one and finally carried it. There are about five of them in the tank, but I handle only two of them — a black and white spotted one and a brown and white one."

BECAUSE THE moray hides in a cave or a crevice, Debbie draws it out by grabbing near the head and pulling it out slowly, then she pats it gently and plays with it before releasing it.

"The moray has a mouth full of fang-like teeth, but



*Robert Bourke
with freshly-
caught fish
ready for
holding tank.*

Advertiser photos by David Yamada

fishy going on!

it's not the grinding type," Bourke explained. "It grasps and swallows so if a moray should bite your hand, it's best not to pull it away. The eels get more aggressive and may rip off your flesh. Remain calm and it lets go."

In Hawaii, the moray or puihi is said to be the largest and most conspicuous family of eels. Because of its secretive nature and its preference for reef caves and crevices, the casual observer is unaware of its abundance. But the moray probably is the most dangerous fish after the shark, growing to 6 feet of fighting sinew and power.

SINCE THE EEL almost always remains well-anchored to its reef hole with its powerful tail, it is a formidable fighter. Most of the recorded instances where morays have attacked humans occurred when an eel was caught by a fisherman, or when a diver put a hand into its cave.

Although the moray opens and closes its mouth constantly, making it appear vicious and aggressive, the movements are the moray's way of breathing by pumping water across its gills. It feeds almost exclusively on small fishes, octopus and crustaceans. The ones at Sea Life Park are fed squid or fish.

When Debbie, in SCUBA gear, mask and fins, enters the tank with food in hand, she is surrounded by a

hundred different variety of marine life.

While she feeds, trains and plays with the animals, the taped narration is heard through a loudspeaker as the visitors wind down three fathoms of spiral viewing space to gaze through the large windows.

INSIDE THE tank is a tapestry of colors and motion as small fishes in brilliant shades of purple, yellow and blue mingle with larger fishes such as tuna, barracuda, and huge eagle and manta rays. The turtles plod by while the crustacea scurry or creep on the rocks and the reef floor.

Bourke, who has the enormous job of maintaining the man-made reef, hopes to keep improving the quality of the marine life with the aid of Debbie, Shelley Pitman, another diver, and Steve Kaiser, collector.

Having lived most of his life near the ocean in Southern California, where his father and relatives were marine biologists, Bourke said he naturally followed in their footsteps instead of becoming a beach bum.

"Ever since I was in the seventh grade, I wanted to be a marine biologist," he recalled. "After I was graduated from college I wrote to 50 public aquariums inquiring about a job. In fact, I must have written twice to each one before I finally got a job with the Sea Life Park.

"Persistence paid off," said the 24-year-old curator.

but programs can 'plea'

UH to absorb budget cutbacks

by SANDRA MICHIOKU
editor

The University is expected to delay program expansion because of a reduction in the budget allocations of the Governor.

Manoa's allocation fell \$5 million short of the figure appropriated by the legislature.

The budget cuts were part of a State government-wide effort to reduce operating cost resulting from a fear of uncertain revenue estimates for the next two fiscal years.

AFFECTED departments are now in the process of evaluating how much they can cut from their programs and these results should be in within a two weeks, Douglas Yamamura, Manoa chancellor,

said.

Once the department's reports are in, the Chancellor's office will formulate a plea which will then be sent to the UH President who in turn will submit it to the governor, Yamamura said.

However, a plea will not be sent unless deemed necessary after a case-by-case review of the various colleges are made, President Matsuda said.

MATSUDA noted that out of the \$5 million cut, \$2 million was not included in the original request.

This amount was inserted in the budget by the legislature, he said.

And the final allocation still represents "more dollars and more positions than last year," Matsuda said.

The \$55.6 million allocation approved for Manoa will fund instruction, organized research, public service, student services, academic support and institutional support. Takaaki Izumi, budget office director, said.

INSTRUCTION is expected to receive approximately \$26.3 million; Organized Research—\$8.4 million; Public Service—\$1.9 million; Academic Support—\$6.9 million; Student Services—\$1.8 million and Instructional Support—\$7.5 million.

Leahi Hospital is expected to receive \$2 million and Waikiki Aquarium, \$171,000 since they are administratively part of the Manoa campus.

One of the major items Manoa will be unable to fund is the anticipated \$764,000 expansion of the John Burns Medical School.

ALSO, programs which were to have been funded by \$1.2 million in supplemental appropriations are likely not to be funded or be funded at reduced levels, Izumi said. Allocations from supplemental funds total \$377,000.

Among the programs receiving supplemental allocations are the

budget cuts delay program expansion

(continued from page 1)
ment Station.

AMONG programs to receive no funding are Banana Research, Makahiki Kai and Hawaiian Green Turtle.

Several programs will be funded at a minimal level, some only enough to run a semester in hope that more money would be available to plug into them, Izumi said.

"Given the constraints, we almost have no choice other than to allocate it this way," Izumi said.

Approximately 34 positions added by the legislature for maintenance will not be funded, Izumi said.

"We just can't fund them," he said.

Of the total allocation, \$47,000 will be kept in reserve

Reductions to the budget reduction have been generally that of disappointment.

Yamamura said he was "unhappy" with the reduction but expressed his hope that more money would be released by the governor.

Matsuda said he was disappointed at the budget cuts, but stressed they are "not final and irrevocable."

Si Ellingson, dean of students, said the reduction is "disastrous."

"There was a good deal of hope and optimism during the legislative session that recovery of institutional funding was going to move us along to where we once were (in 1972-73)," Ellingson said.

"The programs are starving now. Another year of a starvation diet... I don't know if we can make it," he said.



Transplanted Turtles Go Home to

By Helen Ahonn
Star-Bulletin's Writer

George H. Balazs, Hawaii marine biologist, was expected to arrive at French Frigate Shoals today with 30 juveniles he

has raised for the past 2 1/2 years at Coconut Island.

They are green sea turtles which he captured at the Shoals as one-day-old hatchlings and brought here for research dealing with their dietary require-

ments and growth.

The turtles, now ranging from 20 to 30 pounds in weight, were gathered from the Shoals and returned under arrangements made by the U.S. Fish and Wildlife Service.

Balazs, with the University of Hawaii Institute of Marine Biology, conducted the growth studies to determine the suitability of raising green sea turtles commercially.

HE SAID THE results of his work, combined with information from other researchers, "necessitated a rejection of the animal for such purposes at the present time."

He cited three major reasons for the decision:

—Relatively high levels of protein are needed in artificial diets to produce good growth (resulting in an expensive diet).

—Inability of large numbers of young to be produced in captivity.

—Problems relating to the effects of commercial

sea turtle husbandry on conservation of the world's declining natural populations.

HE ROUNDED up the turtles from Coconut Island ponds Tuesday, crated them and loaded them on a U.S. Coast Guard buoy tender for the return home.

The only remaining green turtle nesting site in the Hawaiian Archipelago is the Shoals, 480 miles northwest of Honolulu.

Balazs planned to release his juveniles at sites frequented by turtles of the same size.

The animals have numbered and addressed tags on each flipper and are experimentally marked by "a harmless internal antibody that can be detected at a later date through laboratory analysis," Balazs told the Star-Bulletin before departure.

HE POINTED out the green sea turtle "has a complex and little

understood life cycle."

He said it isn't known if animals raised in captivity from hatchlings have the ability to mature successfully and eventually enter the breeding population after being returned to the wild.

"Releasing captive reared juveniles is therefore an unproven procedure with respect to conservation and should be regarded with caution until sufficient supportive information becomes available," he said.

"It's hoped that future recoveries of the tagged turtles by the Institute will add to the knowledge of their adjustment to the wild, their growth and development.



ENDANGERED SPECIES—An adult Hawaiian green sea turtle nests at French Frigate Shoals, the only remaining green turtle nesting site in the Hawaiian Archipelago.—Photo by George H. Balazs.

French Frigate Shoals

Balazs planned to conduct studies on this year's wild nesting population at

the Shoals.

His research there in 1973 and 1974 revealed

fewer than 200 adult females present during each season.

Transplanted Turtles Go Home to

By Helen Alhorn
Star-Bulletin Writer

has raised for the past 2½ years at Coconut Island.

They are green sea turtles which he captured at the Shoals as one-day-old hatchlings and brought here for research dealing with their dietary require-

ments and growth.*

The turtles, now ranging from 20 to 30 pounds in weight, were gathered from the Shoals and returned under arrangements made by the U.S. Fish and Wildlife Service.

Balazs, with the University of Hawaii Institute of Marine Biology, conducted the growth studies to determine the suitability of raising green sea turtles commercially.

HE SAID THE results of his work, combined with information from other researchers, "necessitated a rejection of the animal for such purposes at the present time."

He cited three major reasons for the decision:

—Relatively high levels of protein are needed in artificial diets to produce good growth (resulting in an expensive diet).

—Inability of large numbers of young to be produced in captivity.

—Problems relating to the effects of commercial



ENDANGERED SPECIES—An adult Hawaiian green sea turtle nests at French Frigate Shoals, the only remaining green turtle nesting site in the Hawaiian Archipelago.—Photo by George H. Balazs.

sea turtle husbandry on conservation of the world's declining natural populations.

HE ROUNDED up the turtles from Coconut Island ponds Tuesday, created them and loaded them on a U.S. Coast Guard buoy tender for the return home.

The only remaining green turtle nesting site in the Hawaiian Archipelago is the Shoals, 480 miles northwest of Honolulu.

Balazs planned to release his juveniles at sites frequented by turtles of the same size.

The animals have numbered and addressed tags on each flipper and are experimentally marked by "a harmless internal antibody that can be detected at a later date through laboratory analysis," Balazs told the Star-Bulletin before departure.

HE POINTED out the green sea turtle "has a complex and little

understood life cycle." He said it isn't known if animals raised in captivity from hatchlings have the ability to mature successfully and eventually enter the breeding population after being returned to the wild.

"Releasing captive-reared juveniles is therefore an unproven procedure with respect to conservation and should be regarded with caution until sufficient supportive information becomes available," he said.

"It's hoped that future recoveries of the tagged turtles by the Institute will add to the knowledge of their adjustment to the wild, their growth and development.

French Frigate Shoals

Balazs planned to conduct studies on this year's wild nesting population at

the Shoals.

His research there in 1973 and 1974 revealed

fewer than 200 adult females present during each season.

The Editor's Mailbag

EGYPTIAN-POLYNESIANS

With regard to your comment (PIM, Jan, p 13) "Was grandad a mummy" I guess our society has to do a little public relations work on your side of the Pacific.

Let me assure you that the hieroglyphs not only exist, but can be read, and on the basis of what they said the attention of American archaeologists was directed to points on the west American coast where similar inscriptions, probably dated either 15th or 16th year of the reign of Ptolemy III, ought to be found.

Within eight days of the publication of the find (Nov 21, 1974) Professor George F. Carter of Texas A & M University successfully located the first inscription, carrying the predicted date of Ptolemy regnal year 16 (BC 231).

Since then five more related inscriptions have been found on the west coast of the Americas.

The Polynesian Epigraphic Society has a membership comprising qualified graduates and professors, representing the fields of archaeology, astronomy, physics, geography and linguistics, all of them fields which relate to the highly-technical nature of the ancient inscriptions and calculations.

The West Irian caves contain the oldest-known account of Eratosthenes' calculation of the circumference of the world, as well as much else that has aroused the interest of leading astronomers, here and overseas.

BARRY FELL
(President, Polynesian
Epigraphic Society)

Arlington,
Mass, USA.

MISFITS AND BUMS

It is pleasing to note that the nations of the South Pacific are making a concerted effort to tackle the labour problems in the islands (PIM, Jan, p 77). However, one is a little perturbed by the fact that some Island nations continue to play hosts to a group of misfits from other societies.

It is difficult to gauge the authorities' decision allowing derelict expatriates as well as beach bums to

remain in the Islands. I cannot, for the life of me, imagine any developed nation welcoming misfits from the Islands. In fact, the ones that want to get out have to stow away and, more often than not, find a cold reception in the quarantine station of the first port of call, followed by deportation and embarrassment to the culprits and relatives in the Islands.

A few have found unofficial economic asylum in the two developed economies of the South Pacific—New Zealand and Australia. The 'economic demonstration effect' and the sheer lack of things to do (whether employed in the modern or the traditional sense) are the main causes why people migrate today, as the South Pacific Commission, the South Pacific Forum, ILO or whatever body charged with the responsibility of undertaking the recommended research will find.

It seems the leaders of the Island nations—for whatever reasons—have agreed or rather been convinced that training in one's own environment is better than training in a foreign environment. Again research is needed to determine the effectiveness (in terms of time and the degree of applicability) of the locational factor in training. The donor nations would undoubtedly favour the least cost approach.

The effectiveness of the Peace Corps and the like should also be questioned. Are these fresh university and college graduates (working within movements instigated by leaders of super-powers primarily for personal glorification) making any positive contribution to the development of the Islands? Are the Island authorities making full use of the trained indigenes, who are more familiar with the problems of the Islands, and making sure that the trained personnel are engaged in areas they were trained for?

The money spent sending out 'raw' human resources to the Islands, could be better spent training indigenes to serve their own communities.

VILIAMI M. KAIHAU HOLANI,
Haberfeld, NSW.

GREEN SEA TURTLES

Perhaps PIM readers can be of assistance in solving a mystery which has arisen during the course of my studies on green sea turtles at French Frigate Shoals (23°45'N 165°10'W), the only remaining nesting site in the Hawaiian Archipelago.

During 1974, a number of adult male and female green sea turtles were observed that had distinct "U" and "V"-shaped notches cut into the marginal plates of their upper shell. These notches, which ranged between one and two centimetres in width, appeared to be quite old and had apparently been placed there for identification purposes. Unfortunately, no knowledge on the history of these notches exists with the US Fish and Wildlife Service, the Hawaii State Division of Fish and Game or anyone else I have contacted.

Although tagging studies conducted in recent years strongly suggested that turtles nesting at French Frigate Shoals only travel within the confines of the archipelago, there is still the possibility of international migrations occurring in at least a portion of the population.

I would therefore greatly appreciate receiving from your readers any information on green sea turtle research in the Pacific that involved shell notching, regardless of how long ago it may have been conducted. No reliable information exists on the longevity of sea turtles in the wild, and any clues to the origin of these notches could provide valuable information on the biology of the species.

I might add that I am familiar with the October, 1969 PIM article by Dr H. R. Bustard which describes the clipping of turtle shells for identification purposes on the Great Barrier Reef. After examining photographs, Dr Bustard has assured me that my turtles in question are not those marked during his previous experiments.

GEORGE H. BALAZS,
Jr Marine Biologist.

Hawaii Inst of
Marine Biology,
PO Box 1346,
Kaneohe, Hawaii 96744.

More to Green Sea Turtle Than Shell

If scientists learn enough about the habits of the green sea turtle, a threatened species native to Hawaiian waters, the turtle population may increase to the point where the animals could supply a valuable source of supplementary protein.

This is the opinion of George H. Balazs, of the Hawaii Institute of Marine Biology.

In remarks prepared for a State Senate hearing this week on a bill to provide \$50,000 for a three-year resource management study on green sea turtles, Balazs stressed the importance of the animals.

HE SAID that at a recent international meeting of marine turtle biologists in Miami, it was concluded that most of the green turtles in the world are either extinct, threatened with extinction or rapidly declining.

In Hawaii, he said, the killing of green turtles—called honu in Hawaiian—has been proceeding "at a record rate."

"Not only was the honu being openly sold down the final road to extinction in the name of exotic dishes for tourists, but in a more subtle manner a large portion of essential nesting habitat has been disrupted or modified, thereby rendering it useless," Balazs said.

He said reports from the State Division of Fish and Game showed that turtles laid eggs only at French Frigate Shoals, as opposed to a number of

key nesting sites throughout the Islands 30 years ago.

"ALTHOUGH our green turtle has suffered significant declines over the years, I am nevertheless convinced that the remaining wild population has the potential for providing a renewable source of supplemental food to the people of Hawaii," he said.

He added, however, that sufficient basic biological information must be available for management purposes.

Balazs pointed out that local funds have been limited for turtle research, and federal funds for fish and wildlife restoration projects cannot be applied to turtles, which are classified as neither fish nor wildlife.

GARDEN Island

APR 1975
First case in Hawaii

1/20/75

Kauai court fines turtle poacher and restaurant

The first fines in Hawaii for illegally killing and selling sea turtles were levied on Robert Peltier of Kapaia and the Kauai Surf Hotel in Kauai District Court on Friday.

Mr. Peltier was charged with illegally taking and unlawfully selling 180 lbs. of turtle meat in late August and the Kauai Surf hotel, represented by Food and Beverage Manager, Alfredo Kabakunga, was charged with illegally buying and reselling the turtle

meat.

Both parties changed "not guilty" to "guilty" pleas at the trial. Peltier was fined \$50 and the Kauai Surf \$100. Under the new law, passed last May, guilty parties may be fined not more than \$500.

The new law states that turtles may be taken for home use only. A permit, good for one year, must be obtained from the Department of Land and Natural Resources office on the second floor in the State

Building in Lihue, and each time a turtle is taken, a full report to that office is required.

Nets and explosives are not permitted in hunting the sea turtle and their shells must be a minimum of 36 inches in length. Snaring, harpooning, spearing and wrestling are permitted with a permit.

The reasons for the reduction of the turtle population on Kauai, and the enactment of the new law are: continuous overfishing of their shallow underwater grazing pastures, and capture of the mothers, eggs and hatchlings on and near their beach nesting sites, that occurred until the 1930's in Hawaii. Sea turtles have not nested on the inhabited Hawaiian Islands for over 40 years.

As a result, the Hawksbill turtle, has been placed on the U.S. Endangered Species List and the population of the more common Pacific Green Turtle is dwindling.

activities abroad, the FBI is supposed to carry out its functions privately within the United States.

A FORMER CIA official, who had earlier risked in the agency at the time of the foreign monitoring operations, said the CIA initiated a program of foreign surveillance of political dissidents under the Johnson Administration.

The program was started under the direction of former CIA operations intelligence chief James Angleton



UPI File



UPI File

Both Wright and Villegas stressed to the committee the need for legislative action. His sessions in gross that the City and State can make a joint request for Federal funds for design and construction.

The Federal Government, which will pay for 80 per cent of any project, will give Hospitala priority over other applicants who are ready to construct a system. Plans for a system must be approved by the State Legislature, the City Council, Gov. George Ariyeh and Honolulu Mayor Frank F. Fain

dicted. "But from a practical standpoint, we can't construct it all at once and we must first determine," he said. Villegas said his department would consider a shorter, 7-mile system as the first leg of a total system.

However, he added, "I feel we must serve at least Haleiwa Stadium and the airport first. If we don't, the system may not be as attractive to the user as otherwise."

To serve those points would require a 12-mile system.

GIRL FRIDAY
WANTED
 Immediate position
BOOKKEEPER
 946-9701

It's frustrating for State agency, too

Second of a series

By **SAMPORD ZALBURG**
 Advertiser Staff Writer

"This is the worst employment period in the last 20 years," said Edwin Kamida, manager of the Honolulu office of the State Employment Service, who has been with the State agency since 1954.

"Right now it's very frustrating," he said. "There is a lack of job

people agonize over whether they can fill a vacant job.

The State's unemployment figures are calculated by Gordon Frazier, chief of research of the State Department of Labor and Industrial Relations. He bases them on a complex method of reckoning which takes into account people collecting

unemployment compensation, people not covered by unemployment insurance, reentrants into the job market, household workers, the self-employed and others.

Some economists dispute the validity of his figures. Frazier placed the number of unemployed in the islands in Novem-

ber at 7.3 per cent of the work force, or 28,000 people out of a work force of 380,000.

Kamida believes that the figure now is "more than 8 per cent." Frazier estimates that "the outlook is for a rise to over 9 per cent." That would be more than 32,000 people.

WHAT JOBS are available?

Kamida said there are openings for example, for electrical technicians, for registered nurses and for licensed practicing nurses.

On the other hand, he said, the supply of job seekers is more than

See HELPING on Page A-4

Stuffed turtle is defendant in suit here

By **NICKI DONAHUE**
 Advertiser Staff Writer

A 20-inch stuffed turtle here probably could claim that the judicial system is slower than legend says he is.

The U.S. Attorney's Office and the U.S. Fish and Wildlife Service are also a bit upset that the hawabill turtle has been around for almost two years. The turtle, proposed, uninvited, in offices of the U.S. marshal.

So Assistant U.S. Atty. T. David

Woo Jr. yesterday took action to rid himself and other government agencies of the rare reptile.

He named the turtle as defendant in a U.S. District Court suit, alleging that its presence here violates Federal laws protecting endangered species.

Woo's suit asks the court to throw out any claim by anyone alleging ownership in the turtle and to order the stuffed reptile condemned, confiscated and disposed of according to the law.

The lengthy battle over the turtle began Jan. 31, 1973, when the U.S. Customs Mail Facility at Honolulu Airport confiscated a package containing an "exotic" — the turtle.

The Wildlife Service took control of the turtle, which apparently had been shipped from the West Caroline Islands.

The next year was spent fruitfully trying to locate a seaman, R. M. Lyons, who was believed to have shipped the endangered species

illegally. Three notices to the seaman were returned, unclaimed and unanswered.

Woo breached a sign of relief when, on Nov. 18, Lyons finally was located at Coast Guard station in New Jersey. Lyons was told he would be assisted for shipping the turtle illegally.

The U.S. marshal's spokesman says that they'll be happy to get rid of the reptile, but will "keep the exhibit safely" until the court orders otherwise.

Advertiser Jan. 9, 1975, A1:3

And Don't Miss...

CHUCK'S STEAK HOUSE—Whalers Village, Kaanapali. Ph. 661-4495. Lunch 11 to 3, Mon. to Fri. Dinner 5:30 to 10. Cocktails to 1, weekends to 2. Live music nightly. No reservations necessary. Air conditioned. On the ocean.

YE OLDE ICE CREAM SHOPPE — In the Whaler's Market Place, 505 Front St., (home of the big flags). 30 varieties of top grade island ice creams. Continental breakfast: orange juice, sweet roll or English muffin, Kona coffee, \$1.25

PINOS — At Iao Valley Lodge, Wailuku, 15 min. drive from Kahului Airport. Ph. 244-4025 or 244-7521. Delightful and distinctive dining. Luncheon 11:30-2:00. Dinners 6 to 9:30. Cocktails from 11:00 a.m. Reservations suggested.

LE TOURNEDOS—At Napili Shores Resort Hotel, 8 minutes from Kaanapali, overlooking the fountain, gardens and Molokai. Phone 669-8077. Serves very fine French specialties and seafood, features sauteed filets of beef, French onion soup, escargots. Excellent cappuchino. From 6 p.m. Closed Mon. *American Express Accepted.*

SURFSIDE RESTAURANT & BAR—In the Maui Surf Hotel, overlooking pool & tennis courts. Featuring a delightful Buffet dinner nightly 6:30-9 p.m., \$4.95. Open daily for breakfast, lunch & steak dinners.

And Don't Miss...

ALEX'S HOLE IN THE WALL — 834 Front St., down Wahie Lane, Lahaina. Ph. 661-3197. Italian specialties, home-made pastas. Lunch 11:30-2:30. Dinner 5:30-10:00. Complete dinners from \$4.25. Reservations suggested.

DON THE BEACHCOMBER—On the grounds of the Royal Lahaina Resort. Ph. 661-3611. Where good food is immortalized. & drinking is an art. Dinner nightly from 6 to 9:30 p.m. Closed Wednesday.

CHEZ PAUL FRENCH RESTAURANT—4 miles before Lahaina. Ph. 661-3843. French specialties, selected wines. Cocktails. Dinner from 6 p.m. Closed Sunday and Monday.

RENE'S — 736 Front St., Lahaina. Phone 661-8185. Authentic French cuisine from the Napoleon era. Large selection of wild game. Fine wines. Dinner from 6 p.m. Aloha attire. Reservations suggested. Valet parking.

LOKELANI STEAK HOUSE — On the grounds of Royal Lahaina Resort. Ph. 661-3611. Family style dining with entertainment (no cover). Complete dinners, \$5.75 to \$8.25. Featuring steaks & seafood. Garden terrace setting.

CASA DI GRILLO — Whalers Market Place, overlooking the ocean, 505 Front St., Lahaina. Ph. 661-3316. True Italian cuisine. Romantic atmosphere. Dinner from 5 to 10 p.m. Dinners \$2.95 to \$6.25, including salad, hot bread & butter. Free hotel pick-up.

BRASSERIE BY THE SEA — On the beach at the Royal Lahaina Resort—Kaanapali. Ph. 661-3611. French Country Cooking including a variety of casseroles served with french bread and wines. Dinner 7-10 p.m. Closed Thur.

COLONEL SANDERS KENTUCKY FRIED CHICKEN—In Wailuku at 1740 Kahumanu Ave., 10 min. from Kahului Airport. Also in Lahaina in the Lahaina Shopping Ctr., across from the Post Office. Eat in clean, pleasant surroundings, or take out for picnics or parties.

French RESTAURANT

COCKTAILS
 DINNER from 6 p.m.

Closed Sunday & Monday

Chez Paul

RESERVATIONS
 Phone—661-3843

Famous
BANYAN INN



(Opposite the Banyan Tree)

JUICY
 "SIZZLING" STEAKS
 HOMEMADE PIES

Lunch Dinner
 Cocktails

640 Front St. Ph. 661-0755

Finest Restaurant in the Pacific

A few of the select entrees available:

Filet Mignon \$9.50

Steak "Diane" \$10.50

Chateaubriand Bouquetiere (for two) \$22.00

Rack of Lamb Bouquetiere (for two) \$20.00

Veal "Oscar" \$9.50

Dover Sole "Meuniere" \$7.50

Lobster "Savannah" \$15.00

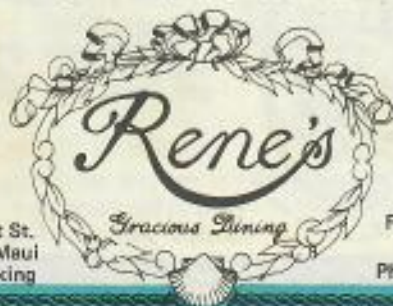
Pheasant Baked in Clay (for two) \$16.00

Lion Steak \$15.00 Wild Boar \$14.00

Buffalo \$12.50 Moose \$12.50

Hippopotamus \$15.00

Full Selection of Appetizers, Salad, Desserts and Wines
 Dinner from 6:00 p.m. • Aloha Attire



736 Front St.
 Lahaina, Maui
 Valet Parking

Gracious Dining

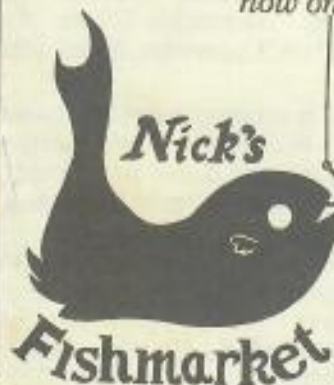
Reservations
 Suggested
 Ph. 661-8185



and
 DRINKS
 to match

In the Clubhouse just inside entrance to Kaanapali Resort Area (Lahaina end) near Maui Surf Hotel. Phone: 661-3160

World Renowned Nick's Fishmarket
 now on Maui



DINNER

From 6:00 to 11:00
 Weekends to 11:30



NITELY ENTERTAINMENT
 by the popular group
 "WISH"

888 Front St., Lahaina
 Upper Deck

Reservations Please: 661-4831

Maui Dining Tips *by Barbara Long*

Walk across the bridge over the carp pond and enter the soaring elegance of the **QUEE QUEG DINING ROOM** at the Maui Surf, Kaanapali, where two dinner shows nightly may be enjoyed in cool, candlelit luxury. Dinner is served at only two seatings, 6 p.m. and 8:15 p.m.

Recommendations from the Quee Queg Room menu begin with your choice of Special Salad with Fresh Island Fruit Supreme or French Onion Soup. Continue with Continental Entrees such as Crepes Seafood filled with lobster, scallops, crab and shrimp topped with Sauce Mornay, \$8.50. Or try the tender Beef Burgundy in wine sauce, with Fetuccini, onions and mushrooms garni, \$6.95. The favorite Roast Prime Rib of Beef, au jus, is \$8.50, or have Mahimahi Grenobloise, sauteed with a sauce of melted butter with capers, diced croutons, and lemon, \$6.75.

From the broiler you may select from Top Sirloin, \$7.75; New York Cut Steak, \$8.75; or Filet Mignon, \$8.50. All broiled to your own choosing, of course.

All Quee Queg Room entrees are served with potato and vegetable du jour. You may order a baked potato, .75, or sauteed fresh mushrooms, \$1.50. Desserts include the popular Cheesecake with your choice of blueberries, strawberries or pineapple, \$1.25; Apple Pie Glace, .95; Napoleon a la Creme, \$1.25, and more.

For fine foods and delightful Hawaiian dinner shows in the grand tradition of the South Pacific, don't miss the Quee Queg Room at the Maui Surf Hotel.

<p>Alex's Hole in the Wall RESTAURANT <i>Italian and Continental Cuisine</i></p> <p>• DINNER 5:30-10:00</p> <p>Complete Dinners FROM \$4.25</p> <p>Reservations Please 834 FRONT STREET down Wahie Lane, Lahaina PH. 661-3197</p>	<p>Pino's DISTINCTIVE DINING at Iao Valley Lodge</p> <p>• LUNCHEON 11:30 to 2:00 • DINNER 6:00 to 9:30</p> <p>SUNDAY FEAST</p> <p>Reservations Please: PHONE 244-7521</p> <p>15 min. from Kahului Airport</p>
--	--

COUPON



SPAGHETTI SPECIAL

WITH THIS COUPON

Spaghetti with meat or mushroom sauce, crisp green salad, garlic bread **2.99**

Children under 12 **1.99**

IN THE MAUI MALL

Next to the Petroglyph Garden
KAHULUI, MAUI, PH. 877-3761



Henry Allen, and his quartet play it smooth and cool for listening and dancing each night except Thurs. in the Pequod Bar of the Maui Surf from 8 p.m. till closing.

Maui Dining Tips *by Barbara Long*

The suave and refined **le TOURNEDOS** brings the excitement of elegant Parisian dining to the Island of Maui. A place of charm and personality, this restaurant with its stately intimacy overlooks entrancing fountain gardens and a soothing vista across the Au Au Channel to the Island of Molokai.

le TOURNEDOS is a restaurant in which the great traditions of French cuisine are observed. The dining is superb. The chef, bless him, starts with ingredients of the finest quality and is so exacting in the preparation of his sauces. The service staff perform their duties with a finesse and pride that comes from working for a great house. You are welcomed with a gracious warmth.

The repertoire of tournedos, those delectable petite filets of prime beefsteak, encompasses most of the classic French preparations: Tournedos Diane, Au Poivre, Marsala Au Champignon, Lyonnaise, Marchand De Vins, to name a few.

Each dinner, from \$5.95, is accompanied by Caesar Salad, **le TOURNEDOS** own Rice Pilaff, Rolls, Butter, Tea or Coffee. Other dishes include Boeuf Stroganoff, Grandes Scampi A La Marseille, Mahimahi Bearnaise, and a young Duckling Peach-Melba.

le TOURNEDOS, a most agreeable rendezvous in which to spend a mellow evening—just minutes north of Kaanapali at Napili Shores Resort; cocktails in the unique Cappucino Library; dinner 6–10, closed Mon. Please make reservations after 4 p.m. at 669-8077.

Rare Hawksbill Turtle Found in Tide Pool

A tiny hatchling hawksbill turtle was found by Nancy Johnson in a tidal pool near Malaekahana in Windward Oahu.

Fortunately she recognized the rare creature

for what he is, and whisked him to Sea Life Park for tender loving care.

He's one of the U.S. Government's rare and endangered species of wildlife.

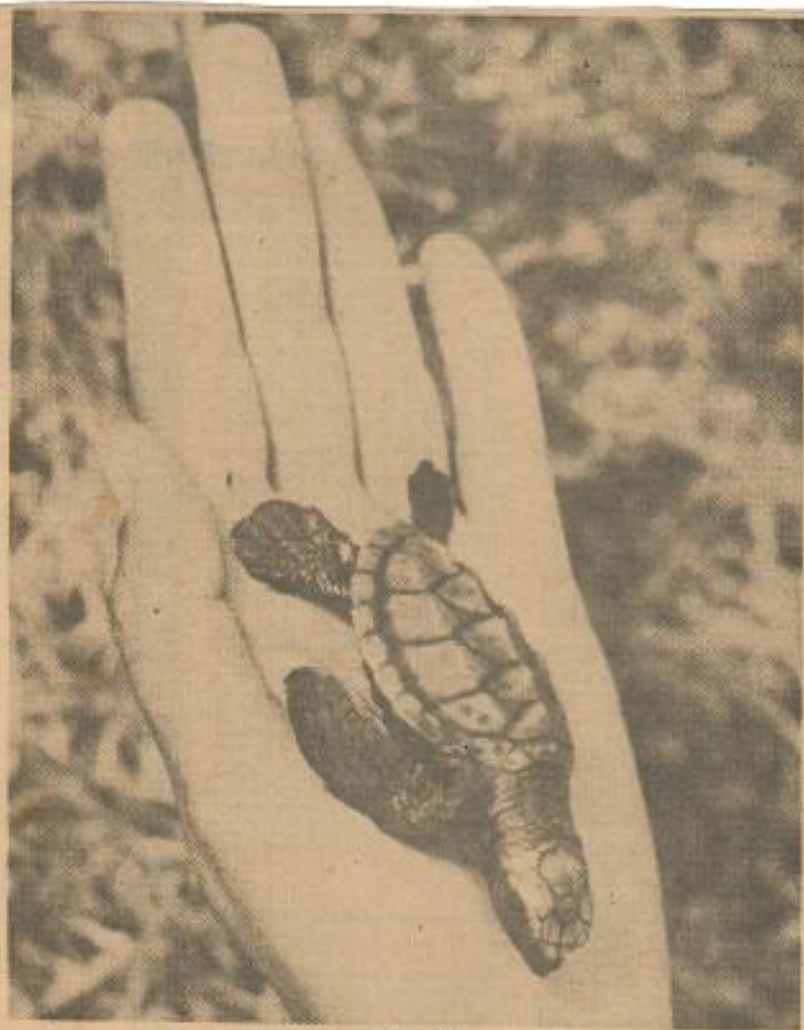
Many marine scientists thought the hawksbill had ceased to breed here because of Oahu's heavy population and construction near their natural breeding grounds on the sand beaches.

At Sea Life Park, Dr. Edward Shallenberger and all the other turtle watchers are encouraged. The baby is gobbling up squid, smelt and herring, and seems to be in excellent condition.

Plans are afoot to place him in a public display as soon as possible.



HOWZIT—A full grown hawksbill turtle at Sea Life Park takes a look at a new arrival — a hatchling found on Oahu's Windward shore.



In safe hands

This baby hawksbill turtle — of an endangered species that many scientists believed was no longer breeding in Hawaiian waters — was found on the beach at Malaekahana in Windward Oahu. The finder, Nancy Johnson of Manoa, delivered it to Sea Life Park, where the turtle is receiving special care. The park plans to build a home for it and place it on public display.

July 13, 75 HONO
~~Advert~~-513

REAL ESTATE FOR SALE

1/2 AC. Pt.

1 1/2'

SEA TURTLES

Play beneath you—Whales scout and frolic in the sun. Giant waves crash the islands of the outer reef, leaping high, then smothering them with a fury of foaming water falls. Rhythmic thunder of surf cures insomnia in all 4 bedroom of this near new oceanfront home.

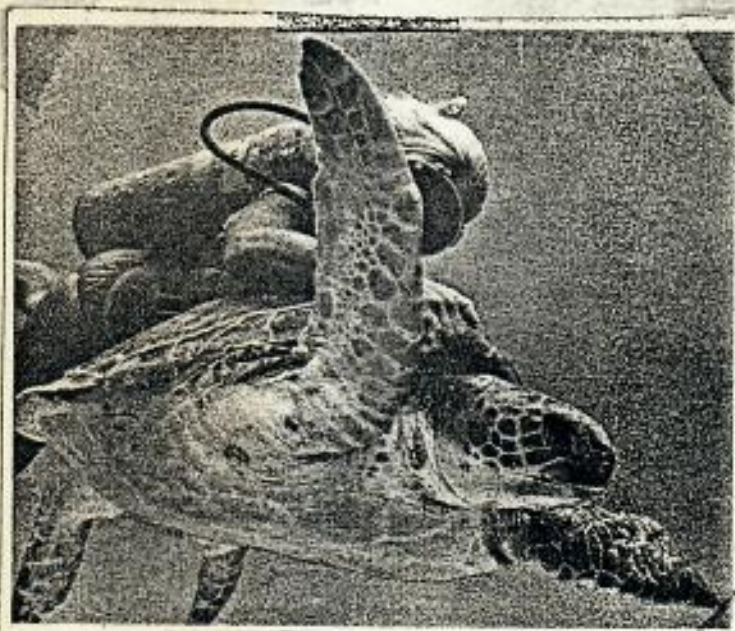
FEE SIMPLE

Priced unbelievably low (mid \$90's) for fast sale. Call "Bebe" (S)

Mrs.
HAROLD L. FULLER SR.

Phone 293-8000

"The Brokers Broker"



PINEAPPLE HILL

Russian Empire 1978

*TX 708
11/9*



Appetizers

DUNGENESS CRAB COCKTAIL
3.95

SHRIMP COCKTAIL
3.95

ESCARGOTS BOURGUIGNONNE — ½ doz. 3.95

NÊHMS — Oriental style crabmeat roll 3.95

FRESH STUFFED MUSHROOMS — Crab & Shrimp 3.50



Island Cocktail Specialties

PINEAPPLE HILL HOUSE DAIQUIRI	2.00
<small>light rum blended with fresh pineapple and fresh island juices</small>	
STRAWBERRY DAIQUIRI	2.50
BANANA DAIQUIRI	2.50
MANGO DAIQUIRI (in season)	2.75
CHI CHI	2.50
<small>a tall and cool concoction to delight the palate; prepared with vodka, pineapple juice and coconut</small>	
MAI TAI	2.50
<small>Tahiti's own favorite . . . this one needs no explanation</small>	
KONA COFFEE COCKTAIL	2.50
KEIKI'S PLANTERS PUNCH (for the little ones)	1.25

Desserts

ICE CREAM75	SUNDAES	1.50
SHERBET75	PARFAIT	1.50
CAKE	1.00	PIE	1.00

A Hawaii State Tax Will Be Added to All Checks



Across from the Napili Kai Beach Club at the end of the road in Napili, you'll find the Pineapple Hill Restaurant. Dinner is served daily from 5:30 PM to 10:00 PM, with cocktails served in the lounge from 4:30 PM. All major credit cards accepted. For reservations, call 661-0964.

Dinners

SOUP DU JOUR	or	TOSSED SALAD	
Boiled Potatoes or Rice	and	Garden Vegetables	
1. CHICKEN PINEAPPLE HILL			6.95
2. FRESH ISLAND FISH (when available)			7.95
3. FROG LEGS A LA PROVENCALE			9.95
4. BEEFKABOB			4.95
5. PRIME RIB			8.95
6. LONG ISLAND DUCKLING			7.95
7. ISLAND TURTLE STEAK (when available)			8.95
8. ALASKA KING CRAB LEGS			7.95
9. SAN FRANCISCO ABALONE (when available)			8.95
10. SHRIMP TAHITIAN			9.95
11. NEW YORK STEAK			9.95
12. TOP SIRLOIN			8.95
13. FILET MIGNON			9.95
14. MARINATED RACK OF LAMB			9.95
15. PACIFIC LOBSTER TAIL			9.95
16. ISLAND MAHI MAHI			6.95
17. TERIYAKI STEAK			6.95
18. FRESH HAWAIIAN PRAWNS (when available)			7.95

FRENCH FRIED POTATOES	1.00		
MAUI ONIONS SAUTEE	1.00	FRESH MUSHROOMS SAUTEE	1.50
COFFEE, TEA or MILK	.50		

for dinner reservations
call 669-6129 or 661-0964



George,

This is the turtle reference:

The Miami Herald Jan 5 1976
Page: 6-B.

"Frigate Atoll is a Beacon in the
Pacific"
U.P.I.

The article mentions "turtles"
and "seals"

It was obviously written by
Kay Lynch but this version
was not signed by her

Extinction threatened

I was astonished to read the "mini-editorial on the subject of turtles" which appeared in the Dining Out advertising supplement of the Sunday Star-Bulletin and Advertiser (1/18).

The author, Mrs. Francee King, claimed to have "set the record straight" on the ethics of restaurants in Hawaii selling imported sea turtle soup and meat. What she actually did was to spread erroneous information that is damaging to responsible efforts to conserve these vanishing creatures.

In essence, Mrs. King told her readers that it is perfectly all right to order sea turtle dishes. Her rationale for this stamp of approval was that such products are not obtained from our locally depleted turtle population, but rather from European sources where Mediterranean turtles are "plentiful" and "not endangered". Let's see if the facts can support her claims.

1. Nearly all sea turtle products coming from Europe are derived from animals that were killed at widely separated areas around the world. The Caribbean is presently one of the principal areas of exploitation. At this location, company ships are efficiently exterminating turtles in their shallow water feeding pastures. On the nesting beaches, adult females are slaughtered when they crawl out of the ocean — often even before having a chance to lay their eggs.

Also not uncommon is the practice of killing turtles solely for the few pounds of cartilage that can be cut from their belly plates. Such dried cartilage brings a



high price from the European processing plants where it is turned into what Mrs. King alludes to as "soup of the evening, beautiful soup!" In short, companies in Europe are literally ransacking the earth to supply the international luxury market with sea turtle products.

2. The International Union for Conservation of Nature (IUCN), one of the most highly respected conservation organizations in the world, has examined the global survival status of sea turtles.

Its findings revealed that the majority of the populations are either extinct, threatened with extinction, or rapidly declining. A major factor found to be responsible for this dismal situation is the international trade in sea turtle products (meat, soup, hides and shell). Further, all species of sea turtles, including those found in the Mediterranean, now have the dubious distinction of appearing on the IUCN's "endangered" list.

To quote the words of Dr. Archie Carr, the foremost authority on sea turtles, what we need is "more sanctuaries, more research, and a concerted effort by all impractical, visionary, starry-eyed and antiprogressive organizations, all little old ladies in tennis shoes, and all persons able to see beyond the ends of their noses, to control the international commerce in sea turtle products." I might add that this certainly also applies to existing commercial turtle "farms", as their present practices are not in the conservation interests of sea turtles.

I really can't see why some restaurants in Hawaii (and their advertising agents) feel insecure if they aren't selling genuine sea turtle dishes. Alternate or imitation products of equal taste and exotic appeal are readily available. Their use would not place the persons involved in the unethical position of helping to drive a species to the brink of extinction.

GEORGE H. BALAZS
Hawaii Institute of Marine Biology

letters

a mini-editorial —

on the subject of turtles

"Soup of the evening, beautiful soup!" as Lewis Carroll described it in Alice's Adventures in Wonderland, just shouldn't be the cause of arguments. But through misunderstandings and misapprehension, turtle soup and turtle steak have become the subject of a controversy that really needs to be cleared up. Like another quotation from "Alice," it has almost become a matter of "Sentence first — verdict afterwards."

To set the record straight, I have been in contact with both the Hawaii State Division of Fish and Game, and with the U.S. Fish and Wildlife Service which is the Federal regulatory agency on the subject of marine turtles. I'd like to share my findings with you.

Turtle broth and turtle meat served in local restaurants are imported, either in the can or frozen, from France and other European sources where the Mediterranean turtle is not one of the endangered species. And although they are not classified as endangered in those foreign waters, the green sea turtle, the hawksbill and the leatherbacks cannot be legally imported here in any form according to the State and/or Federal regulatory agencies, because they are among the endangered species in this part of the world.

The regulations are very specific, the penalties high, and documented proof is required by the agencies before any turtle product can be brought in for sale.

What it all comes down to is that the turtle meat and turtle soup that you eat in Hawaii's restaurants have been legally taken, legally imported, and are plentiful. None of the turtles in Hawaiian or adjacent waters can be used in a restaurant under the State regulation.

Even for a person to take a "local" turtle for his own use, for scientific study, for educational or propogational purposes, he must first secure a permit issued by the State Board of Land and Natural Resources. Nor can turtles be netted, molested in any way, sold, or bought within the law.—Francee.

January 18
Footnote
from Francee

We Fat is first with the celebration of the approaching Year of the Dragon. More events will be detailed in next week's issue. Today we explore three new and different members of the Dining Out family: the two House of Happiness restaurants, Shiro's Hula Hula, and La Fonda. All this plus a couple of

features, a mini-editorial, and Pupu Platter — and that's what it's all about this week, dear readers.

Francee K

An HNA advertising supplement to the Sunday Star-Bulletin & Advertiser

Sunday ~~5~~ ~~1976~~ ~~Jan~~ Jan 18, 1976

a mini-editorial —

on the subject of turtles

"Soup of the evening, beautiful soup!" as Lewis Carroll described it in Alice's Adventures in Wonderland, just shouldn't be the cause of arguments. But through misunderstandings and misapprehension, turtle soup and turtle steak have become the subject of a controversy that really needs to be cleared up. Like another quotation from "Alice," it has almost become a matter of "Sentence first — verdict afterwards."

To set the record straight, I have been in contact with both the Hawaii State Division of Fish and Game, and with the U.S. Fish and Wildlife Service which is the Federal regulatory agency on the subject of marine turtles. I'd like to share my findings with you.

Turtle broth and turtle meat served in local restaurants are imported, either in the can or frozen, from France and other European sources where the Mediterranean turtle is not one of the endangered species. And although they are not classified as endangered in those foreign waters, the green sea turtle, the hawksbill and the leatherbacks cannot be legally imported here in any form according to the State and/or Federal regulatory agencies, because they are among the endangered species in this part of the world.

The regulations are very specific, the penalties high, and documented proof is required by the agencies before any turtle product can be brought in for sale.

What it all comes down to is that the turtle meat and turtle soup that you eat in Hawaii's restaurants have been legally taken, legally imported, and are plentiful. None of the turtles in Hawaiian or adjacent waters can be used in a restaurant under the State regulation.

Even for a person to take a "local" turtle for his own use, for scientific study, for educational or propagational purposes, he must first secure a permit issued by the State Board of Land and Natural Resources. Nor can turtles be netted, molested in any way, sold, or bought within the law.—Francee.

July 16, 76 5-B

Q—A friend sent me a package from Tahiti consisting of a tortoise shell bracelet, some pareus and shell combs. Customs personnel at the post office said my package probably was confiscated because the tortoise shell is illegal. Why don't they send me the things that are not illegal? Also, what is done with items that customs people confiscate?

A—Every parcel arriving from a foreign area is checked by customs employes at the post office, a customs official said.

Items not permitted, such as turtle shells on the endangered species list, are held for checking by appropriate agencies. In that case it was the U.S. Fish and Wildlife Service.

Depending on the questionable item, it might come under scruti-

ny of the Food and Drug Administration, various branches of the Department of Agriculture or other agencies which then decide upon the disposition.

The customs official said confiscated items which are prohibited usually are destroyed. The intended recipient of the parcel is notified by mail of items confiscated.

Permitted items remaining in the parcel are released to the addressee.

Anyone with questions about confiscated items in parcels sent to them should contact the customs office at the post office. Be able to tell the customs people the contents of the parcel and your name for checking purposes.

Honolulu Star-Bulletin Tuesday, November 9, 1976

715—Misc. for Sale

CARPETS, ORIENTAL—HANDMADE
100% WOOL, PILE ALL SIZES.
NAMURO ORIENTAL ART GALLERY
1137 12th Ave. 9-5 p.m. 737-6477

CHAIN LINK FENCE—See Direct &
Save 50' rolls, 3 \$34.50 3 1/2 \$40.50
4'—\$46.50 5' \$58.00 6' \$68.00
Chevisek—one, two Materials only
or installed CORRUGATED SHEET
(26" wide) 10' \$4.00 SPECIAL 4 FEET
ONLY SLIGHTLY WEATHERED 100 FT
ROLLS \$55 PER ROLL. Sale Prices
Cash only

AMERICAN FENCE PH. 671-1756
Main Ofc. 244-8422
Hilo Ofc. 935-8422

Chairs 4 & 5-drawer under \$20 & \$25
McCallister's 841-6124, 949-5574

CHRISTMAS
SHOPPERS

Tired of sending money or paying high
postage? Gift service catalogs \$8.95-
\$34.95. You select price, they select 1
of over 20 gifts. Sent post paid.
Call 395-3468, 5-9 p.m. dir

Collectors' Decorative Endangered
species Turtle Shells 734-0565

COMBINATION Bumper Postcard
table. Best offer. Call Keith 927-
2322, 946-7439

Oahu Fish Farm

By Helen Alton
Star-Bulletin Writer

A group of scientists formerly associated with Taylor A. Pryor's aquaculture operation are going into business for themselves with a \$75,000 loan from the State.

The Board of Agriculture recently approved the loan, fourth in an aquaculture program established by the 1971 Legislature to stimulate fish farming in Hawaii.

Aquatic Farms Ltd., incorporated in October, plans to raise oysters and prawns on a 42-acre farm at Hakipuu, Oahu, with an investment totaling about \$370,000.

The company is headed by Edward D. Scura, who was chief scientific consultant for Pryor's oyster-rearing project in Waimanalo from 1972-75.

SCURA IS a physiologist with the National Marine Fisheries Service,

Southwest Fisheries Center, La Jolla, Calif.

He designed the system used at Pryor's oyster farm in Kaneohe, with effluent from turtles serving as the nutrient source for mass culturing of phytoplankton to supplement the oyster diet.

Others associated with the company are Linden Burzell, vice president-secretary; Charles Greenwald, treasurer, and Andrew M. Kujis, consultant.

Greenwald was chief economic consultant for the Oahu Oyster Farm from 1974-75. Kujis, a biologist, also was a consultant for Pryor's development.

Burzell, program manager for the URS Research Co., has been a research assistant at the Oceanic Institute at Makapuu, the University of California, Los Angeles, and Scripps Institution of Oceanography in La Jolla.

THE COMPANY plans to produce oysters and Malaysian prawns.

Richard Morimoto, State farm loan administrator, told the agriculture board in presenting the loan request that the biggest concern is raising oysters that can meet health

Star-Bulletin

Business
and
Finance

Gets State Go-Ahead

standards.

He said the Health Department will work closely with Aquatic Farms to raise marketable oysters.

The company expects, conservatively, to harvest about 6,000 pounds of prawns and 333 bushels of oysters during the first year.

Production is expected to increase to 7,500 pounds of prawns and 4,000 bushels of oysters the second year.

The Legislature established the

aquaculture loan program with a \$500,000 appropriation.

Previous loans from the revolving fund include \$75,000 to Pryor for his oyster farm, \$75,000 to Fish Farms Hawaii, and \$25,000 to Ed Otsuji for a prawn farm at Hauula.

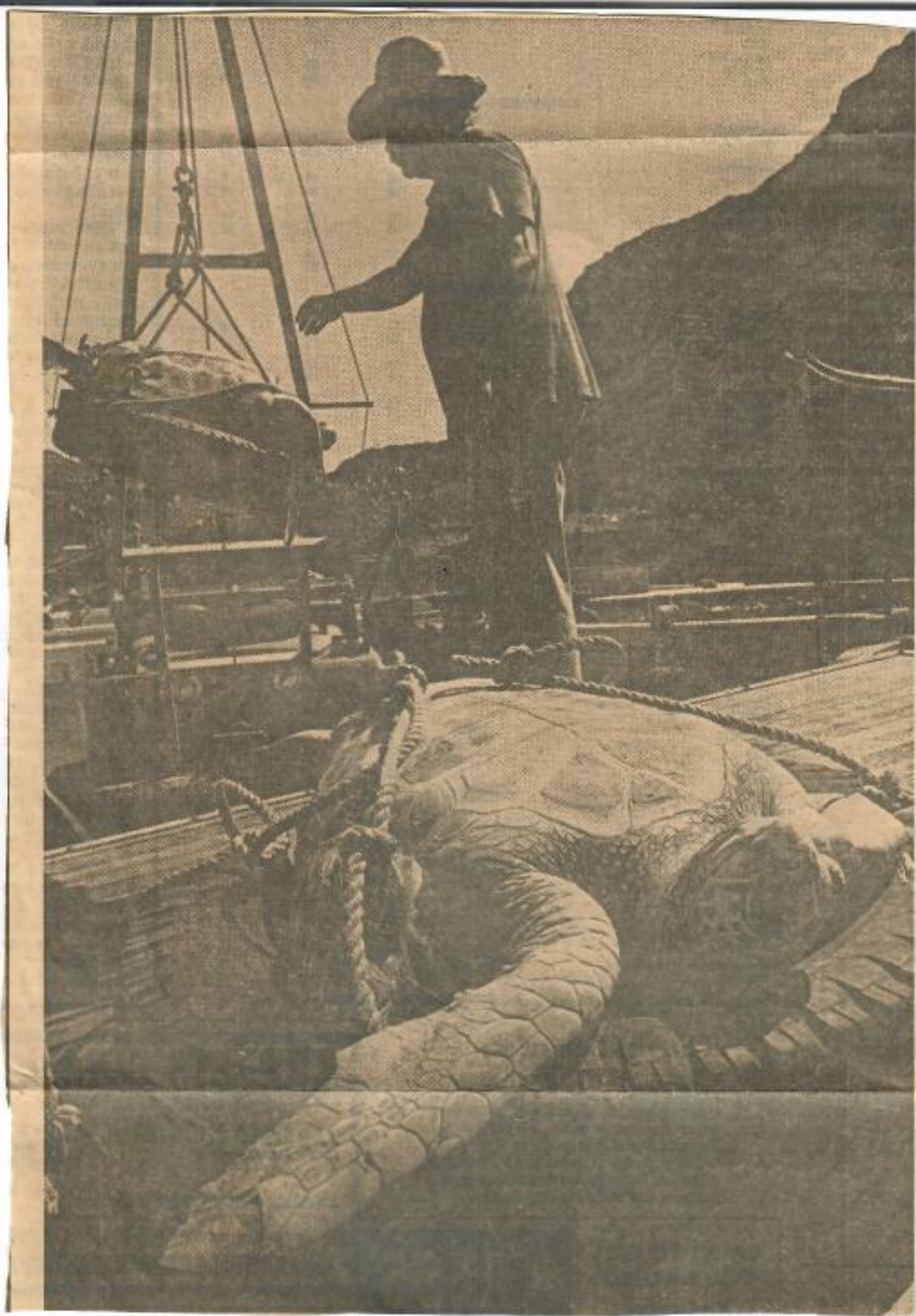
John Farias Jr., State agriculture director, said Aquatic Farms "will expand on what Tap Pryor is doing."

He said the loan "is in keeping

with our effort to expand the aquaculture program in the State.

"We feel the Hawaiian scene can involve greater ocean and aquaculture development, and raising of prawns—which we now dub the Hawaiian prawn—to satisfy the ongoing market."

Farias said he has discussed the prawns with markets on the Mainland and there is great interest in importing the Hawaiian product.



The Honolulu Advertiser

Hawaii Report



© ** Wednesday, November 10, 1978 A-3

4 giant turtles sea-seasoned

What do you do with 140 400-pound green sea turtles?

Some people might eat them. But not the folks out at Sea Life Park. Having brought the threat of such a situation on themselves, they recently have been taking the only honorable course: letting the creatures go.

Actually, only a few of the total turtle population at the park fit the 400-pound category. For this reason — and because they are mature, able to fend for themselves, and reproduce their diminishing numbers — staffers at the park yesterday let four of them loose in the sea.

Park officials have no fear of running out of their turtle supply, however. For one thing, as public relations manager Jane Martin explains, "the turtle population here keeps expanding as people pick them up and bring them in."

But more than this, the park's inordinate number of the creatures — at least until recently — was due to a unique situation: the first success of a three-year-old effort to breed green sea turtles in captivity.

Working together with University of Hawaii marine biologist George Balasz, "the park built a turtle lagoon with a nice warm sandy beach where they're supposed to crawl out and lay their eggs," said Martin.

Unfortunately, though, the mama turtles didn't (or wouldn't) get the hang of it for several years.

"Sometimes they'd lay their eggs — we'd find 110 of them floating around in the water. So all the trainers would dive in, net the she said, and then bury them in the sand," noting, at the same time, that the eggs "look exactly like Ping-pong balls."

Efforts to incubate the eggs this way never worked, however, so an artificial incubator was custom made. And this time, the park hit the jackpot.

Not only did the incubator bring forth about 100 baby green sea turtles, but also, at the same time roughly 40 more hatched in the sand. In all, the 140 or so were "the first green sea turtle eggs ever hatched at Sea Life Park," Martin said.

And, she added, "they're adorable."

Although not an endangered species, green sea turtles are protected by State laws, which restrict the conditions under which they can be captured.

Hoping to increase the local green sea turtle population, the park has saved a few and released most of the other babies at night so predators, such as birds and big fish would have a harder time catching them.

Martin observed that in leaving, the tiny creatures have also abandoned a steady, dependable diet of "chopped squid, brine shrimp, chopped fish and frozen plankton — but no wine."

But a quick introduction to the open sea was necessary, she said. Otherwise, their instincts "to find food and protect themselves would soon be destroyed by living in captivity."

Like a tourist stretched out on Waikiki beach, this giant green sea turtle placidly soaks up the sun. Together with his friend on the tire in the background, he is about to be released to the sea (above).



With a mighty heave-ho, staffers from Sea Life park send this green sea turtle into the water, for his first taste of freedom in about 10 years (right).

Advertiser photos by Ron Jeff



POPULATION EXPLOSION—Deb Wong, a swimmer at Sea Life Park, with some new residents at the Waimanalo park. Scientists at Sea Life Park are proud of the 34 newborn green sea turtles, which are an endangered species and rarely hatched in captivity. They were two inches long

and weighed three grams each when they hatched. They could grow to four feet and 450 pounds at maturity. The turtle breeding project is jointly sponsored by the University of Hawaii and Sea Life Park. —Star-Bulletin Photo by Ken Sakamoto.

SEPT 27, 76
STAR-BULLETIN



Our Environment

By
Harry Whitten

Sea Turtles

CONSERVATION GROUPS think endangered sea turtles should be protected but they also think common sense should be used in making rules.

The U.S. Fish and Wildlife Service is considering a proposal to treat three non-endangered species of sea turtles as endangered because they closely resemble three species listed as endangered. The three non-endangered "look alikes" are the loggerhead, Pacific ridley and green sea turtles. The endangered species are the hawksbill, Atlantic ridley and leatherback.

The Island conservation groups oppose commercial taking of the green sea turtle but point out people in Hawaii have long taken this turtle for home consumption.

IN LETTERS sent to Lynn A. Greenwalt, director of the Fish and Wildlife Service, four Island groups have proposed that exemptions be allowed to permit taking the green sea turtle for home consumption.

The letters were sent by John W. Beardsley, chairman, Animal Species Advisory Commission; Frank J. Radovsky, acting director, Bishop Museum; Robert W. Nemechek, president, Hawaii Chapter, Sierra Club; and Sheila Conant, president, Hawaii Audubon Society.



Hawaiian green sea turtles with a seal.

Green Sea Turtle Study Will Begin This Month

A three-year management study that begins this month will pinpoint concentrations of the Hawaiian Green Sea Turtle in State waters and in the more remote areas of the Leeward chain.

The study in the Leeward Islands beyond Kauai will complement a joint State-federal resource assessment survey of the area scheduled to begin later this year.

Other survey objectives include determining the distribution and abundance of algae used as food by the Hawaiian green sea turtle.

The purpose of the study is to insure that adequate numbers of the Hawaiian green sea turtle, a popular ocean delicacy, will continue to survive.

George H. Balazs of the Hawaii Institute of Marine

Biology will conduct the State-funded study.

He will attempt to determine the rate of growth and age of this turtle at sexual maturity under natural conditions.

This type of information on the green turtle is virtually nonexistent, he said.

The study also will cover the reproductive potential, as well as mortality factors limiting the population.

These turtles are known to travel 500 miles or more to French Frigate Shoals in the Leeward chain for mating.

Many of the adults spend most of their lives feeding on algae or limu in Hawaiian waters.

Hungry Tiger Offers Delicacy: Sea Turtle

RANCHO MIRAGE — We may be a long way from the Caribbean, but now the Caribbean has come to the desert. In fact, it has come to the whole West Coast in the form of the Caribbean Sea Turtle, and is now the newest item on the extensive sea food menus at The Hungry Tiger Restaurants in California.

The Hungry Tiger chain has created another "first" by offering this gourmet delicacy. It is now on the menu at the desert's Hungry Tiger Restaurant in Rancho Mirage.

"The sea turtle has almost no fat or cholesterol," informed local Hungry Tiger manager Andy Andersen. "The meat is very tender and tastes similar to veal. There is no fishy taste," he said.

The Hungry Tiger together with Terbak Corporation is licensed to offer this

new food which is farmed commercially in the British West Indies.

The green sea turtle is now being farmed in the West Indies and because of the farming the chances of survival of this almost extinct species is now better than ever. More than a per cent of all the hatched turtles are returned to the seas.

"The turtle is higher in

protein count than beef, and also very low on calories," added manager Andersen.

The sea turtle is flown in fresh to the Hungry Tiger restaurants, as are the fresh Maine lobsters, Boston scrod, oysters, clams, shrimps and all the other seafoods offered on the daily menu at the desert and other Hungry Tigers.

Dining & Entertainment

Wednesday, August 18, 1976 Honolulu Star-Bulletin

Turtles

This letter is in answer to an article by George Balazs, published June 5:

Dr. Balazs' intimate connection with turtles over some years seems to have given him a jaundiced view of the efforts at turtle farming on Grand Cayman, which is at variance with his scientific training.

His attempts to "put the situation in its proper perspective" concentrate on the past misfortunes of Mariculture Ltd rather than looking at the situation existing today.

Cayman Turtle Farm, Ltd. does not claim it is beneficial to the conservation of the world's declining sea turtle population. It merely says its methods are not harmful to these populations and when it has achieved biological self-sufficiency, it could then be a positive factor. Dr. Balazs may have his views about the biological feasibility, but they are not shared by eminent biologists who are helping us to solve the problem.

Some quite irrelevant statements are made about the economic viability of turtle farming — some of them misleading and incorrect — which have nothing to do with the conservation issue which Dr. Balazs should stick to. These are in contrast to earlier, enthusiastic articles by Dr. Balazs when he was trying to demonstrate the viability of turtle farming.

W.A. Johnson
Chief Executive
Cayman Turtle Farm

The Facts on Turtle Farms

By George H. Balazs
Biologist, Hawaii Institute of Marine
Biology

DURING THE PAST year and a half readers of Honolulu's two daily newspapers have been exposed to no less than five articles dealing with the controversial subject of commercial sea turtle farming. Conflicting information has often been presented; therefore it's not hard to understand why many people are confused over the whole issue.

To add substantially to this confusion, on May 7 KGMB-TV news presented a glowing report on turtle farming which neglected to even mention that the subject is controversial. Before anyone in Hawaii runs out and starts investing hard-earned dollars in such a scheme, I want to briefly summarize the existing situation and put it into proper perspective.

Many may recall the numerous claims made by promoters of the world's only sea turtle "farm", Mariculture, Ltd., located in the Caribbean on Cayman Island. In essence, the claims stated that such an operation is (1) beneficial to the conservation of the world's declining sea turtle populations; (2) biologically feasible; and (3) economically successful.

Along with Dr. Archie Carr and other knowledgeable sea turtle scientists, I have disputed these claims as being unfounded, unsubstantiated and, for the most part, just plain hogwash. Let us see how the claims hold up against the evidence.



George Balazs

WITH RESPECT to conservation merits, in November of 1974 the respected International Union for Conservation of Nature (IUCN-Switzerland) sent a task force of turtle specialists to Cayman Island to examine critically the company's contentions. Investigations found that Mariculture, Ltd., was guilty of making claims and statements that were misleading and demonstrably incorrect. The conclusion was reached that the company's operation cannot be regarded as being in the conservation interests of sea turtles.

With respect to biological feasibility, that is, the actual capability of successfully farming turtles, the same international task force found

that the viability of the company's turtle culture operation has yet to be proved, as indeed has that of turtle farming in general.

Large numbers of eggs must now be removed from natural nesting beaches, and the outlook seems poor for achieving self-sufficiency in the production of young. Furthermore, disease and mortality problems are considerable, and the type of high protein feed that turtles will accept is incredibly expensive and inefficient.

WITH RESPECT to economic success, the evidence is even more damaging. In May of 1975 Mariculture, Ltd., went bankrupt. This came after seven years of efforts, millions of dollars in expenditures, and numerous promises and predictions that did not prove true. Just two months ago a German corporation purchased Mariculture, Ltd., from the bankruptcy trustees.

All total, the stockholders of Mariculture, Ltd., ended up with absolutely nothing—a loss amounting to \$3.5 million. Unfortunately, many of these investors were American citizens who had believed the company's promotional literature and other glowing "success" stories heard about turtle farming.

The lesson seems clear to me. Perhaps at some date in the distant future sufficient scientific information and expertise may be developed to make turtle farming a realistic and acceptable proposition. However, for the present time it's just another pie-in-the-sky scheme that doesn't make good sense.

Aquarium Releases 7 Turtles

By Helen Altom
Star-Bulletin Writer

The Waikiki Aquarium released seven adult green sea turtles off Barbers Point yesterday to help build up the declining turtle population in Hawaiian waters.

Aquarium Director Leighton Taylor said the turtles were tagged to keep track of their movements.

He said the aquarium kept the best turtles in its collection to display in a new sea turtle exhibit to be built with funds appropriated by the last Legislature.

HOWEVER, HE SAID, "We have a few too many sea turtles for our current exhibit space."

The excess turtles were loaded onto the Easy Rider, skippered by Skip Naftel, for the trip to Barbers Point. Naftel, a fisherman interested in conservation, donated his boat and his crew for the project.

Green sea turtles have been released before by the aquarium in cooperation with George H. Balazs, University of Hawaii marine biologist who specializes in turtle research.

The only remaining green turtle nesting site in the Hawaiian Archipelago is French Shoals, 480 miles northwest of Honolulu.

TAYLOR SAID 10 GREEN sea turtles were released from the beach in front of the aquarium in January 1973 and in March that year 11 were released off the north coast of Niihau.

Three turtles from the first group were recovered in 1975 at Maui, Oahu and Molokai.

"The most comforting thing was that one of the second group released off Niihau was recovered in June 1974 at French Frigate Shoals and was nesting," Taylor said.

"The reason that's comforting is that it indicates these turtles held in captivity for some time are able to return to nature and become part of the natural population."

TAYLOR SAID A TURTLE released from Sea Life Park in 1973 also was recovered in January this year from French Frigate Shoals.

He said the new turtle display at the aquarium will have a little sandy beach built into it so the turtles will be able to nest — "we hope."

"So in addition to being a display, it will have a research element to it," he added. He said he and Balazs will be working closely on the exhibit "to observe turtles in a seminatural habitat."

State regulations went into effect in 1974 to prohibit the taking of leatherback, hawksbill and green sea turtles in Hawaiian waters.

Green sea turtles may be taken for home consumption but only with a permit and over a certain size.

Hawksbill Is No Slowpoke at the Table

The rare hawksbill turtle found on a Windward beach a year ago was just a shaver (right) compared to the healthy specimen Shelley Pitman is holding today.

The tiny creature was delivered to Sea Life Park for safekeeping, and after a year of a diet of squid, smelt, herring and much attention it's a husky young adult.



Extinction threatened

I was astonished to read the "mini-editorial on the subject of turtles" which appeared in the Dining Out advertising supplement of the Sunday Star-Bulletin and Advertiser (1/18).

The author, Mrs. Francee King, claimed to have "set the record straight" on the ethics of restaurants in Hawaii selling imported sea turtle soup and meat. What she actually did was to spread erroneous information that is damaging to responsible efforts to conserve these vanishing creatures.

In essence, Mrs. King told her readers that it is perfectly all right to order sea turtle dishes. Her rationale for this stamp of approval was that such products are not obtained from our locally depleted turtle population, but rather from European sources where Mediterranean turtles are "plentiful" and "not endangered". Let's see if the facts can support her claims.

1. Nearly all sea turtle products coming from Europe are derived from animals that were killed at widely separated areas around the world. The Caribbean is presently one of the principal areas of exploitation. At this location, company ships are efficiently exterminating turtles in their shallow water feeding pastures. On the nesting beaches, adult females are slaughtered when they crawl out of the ocean — often even before having a chance to lay their eggs.

Also not uncommon is the practice of killing turtles solely for the few pounds of cartilage that can be cut from their belly plates. Such dried cartilage brings a



Extinction threatened

I was astonished to read the "mini-editorial on the subject of turtles" which appeared in the Dining Out advertising supplement of the Sunday Star-Bulletin and Advertiser (1/18).

The author, Mrs. Francee King, claimed to have "set the record straight" on the ethics of restaurants in Hawaii selling imported sea turtle soup and meat. What she actually did was to spread erroneous information that is damaging to responsible efforts to conserve these vanishing creatures.

In essence, Mrs. King told her readers that it is perfectly all right to order sea turtle dishes. Her rationale for this stamp of approval was that such products are not obtained from our locally depleted turtle population, but rather from European sources where Mediterranean turtles are "plentiful" and "not endangered". Let's see if the facts can support her claims.

1. Nearly all sea turtle products coming from Europe are derived from animals that were killed at widely separated areas around the world. The Caribbean is presently one of the principal areas of exploitation. At this location, company ships are efficiently exterminating turtles in their shallow water feeding pastures. On the nesting beaches, adult females are slaughtered when they crawl out of the ocean — often even before having a chance to lay their eggs.

Also not uncommon is the practice of killing turtles solely for the few pounds of cartilage that can be cut from their belly plates. Such dried cartilage brings a



letters

high price from the European processing plants where it is turned into what Mrs. King alludes to as "soup of the evening, beautiful soup!" In short, companies in Europe are literally ransacking the earth to supply the international luxury market with sea turtle products.

2. The International Union for Conservation of Nature (IUCN), one of the most highly respected conservation organizations in the world, has examined the global survival status of sea turtles.

Its findings revealed that the majority of the populations are either extinct, threatened with extinction, or rapidly declining. A major factor found to be responsible for this dismal situation is the international trade in sea turtle products (meat, soup, hides and shell). Further, all species of sea turtles, including those found in the Mediterranean, now have the dubious distinction of appearing on the IUCN's "endangered" list.

To quote the words of Dr. Archie Carr, the foremost authority on sea turtles, what we need is "more sanctuaries, more research, and a concerted effort by all impractical, visionary, starry-eyed and antiprogressive organizations, all little old ladies in tennis shoes, and all persons able to see beyond the ends of their noses, to control the international commerce in sea turtle products." I might add that this certainly also applies to existing commercial turtle "farms", as their present practices are not in the conservation interests of sea turtles.

I really can't see why some restaurants in Hawaii (and their advertising agents) feel insecure if they aren't selling genuine sea turtle dishes. Alternate or imitation products of equal taste and exotic appeal are readily available. Their use would not place the persons involved in the unethical position of helping to drive a species to the brink of extinction.

GEORGE H. BALAZS
Hawaii Institute of Marine Biology

Sunday 2-1-76

Turtles, bilingual program

Extinction threatened

I was astonished to read the "mini-editorial on the subject of turtles" which appeared in the Dining Out advertising supplement of the Sunday Star-Bulletin and Advertiser (1/18).

The author, Mrs. Francee King, claimed to have "set the record straight" on the ethics of restaurants in Hawaii selling imported sea turtle soup and meat. What she actually did was to spread erroneous information that is damaging to responsible efforts to conserve these vanishing creatures.

In essence, Mrs. King told her readers that it is perfectly all right to order sea turtle dishes. Her rationale for this stamp of approval was that such products are not obtained from our locally depleted turtle population, but rather from European sources where Mediterranean turtles are "plentiful" and "not endangered". Let's see if the facts can support her claims.

1. Nearly all sea turtle products coming from Europe are derived from animals that were killed at widely separated areas around the world. The Caribbean is presently one of the principal areas of exploitation. At this location, company ships are efficiently exterminating turtles in their shallow water feeding pastures. On the nesting beaches, adult females are slaughtered when they crawl out of the ocean — often even before having a chance to lay their eggs.

Also not uncommon is the practice of killing turtles solely for the few pounds of cartilage that can be cut from their belly plates. Such dried cartilage brings a



3 ROOMS

letters

high price from the European processing plants where it is turned into what Mrs. King alludes to as "soup of the evening, beautiful soup!" In short, companies in Europe are literally ransacking the earth to supply the international luxury market with sea turtle products.

2. The International Union for Conservation of Nature (IUCN), one of the most highly respected conservation organizations in the world, has examined the global survival status of sea turtles.

Its findings revealed that the majority of the populations are either extinct, threatened with extinction, or rapidly declining. A major factor found to be responsible for this dismal situation is the international trade in sea turtle products (meat, soup, hides and shell). Further, all species of sea turtles, including those found in the Mediterranean, now have the dubious distinction of appearing on the IUCN's "endangered" list.

To quote the words of Dr. Archie Carr, the foremost authority on sea turtles, what we need is "more sanctuaries, more research, and a concerted effort by all impractical, visionary, starry-eyed and antiprogressive organizations, all little old ladies in tennis shoes, and all persons able to see beyond the ends of their noses, to control the international commerce in sea turtle products." I might add that this certainly also applies to existing commercial turtle "farms", as their present practices are not in the conservation interests of sea turtles.

I really can't see why some restaurants in Hawaii (and their advertising agents) feel insecure if they aren't selling genuine sea turtle dishes. Alternate or imitation products of equal taste and exotic appeal are readily available. Their use would not place the persons involved in the unethical position of helping to drive a species to the brink of extinction.

GEORGE H. BALAZS
Hawaii Institute of Marine Biology

Aug 13, 76 V8 N7

SUNBUMS Page 15

BACKDOOR

Jose Angel was a father to all of us who touched the ocean here. He was one those few people who can honestly and factually be called a "water man." He knew it inside out, took off on walls bigger, twenty years ago, than anything the majority of us will even paddle into the channel to watch, in *our* lifetime. When surfing changed, boards shortened, the crowds quadrupled and relaxation became fiercely aggressive, there was still space reserved for him in the line-up, no matter what time of day he got out. His ability below the surface was notable, as well. He knew the channels, the reefs, the currents, and all that lives and breathes down there. The mistake that took him from his family, his friends, and all of us, should come as no surprise to those who always live so close to the limits of life. The reality of stepping off the edge at any moment is not a feeling or thought juggled in the mind, it is a consequence or alternative that must be seriously acknowledged and accepted. It is a life style that creates the fullest of experiences and visions, envied and feared by the spectating world, but saluted by all of the other people throughout the world who have taken that pledge and are also pushing those limits at all times.

Deadlines continue to fall between contests, and with the U.S. Championships in a holding pattern at press time and the Ala Moana Championships double parked, we'll wait till one or both get finished before announcing any winners from the events. You can only get up so many mornings (pre-dawn) in a row for a check-out from Magic Island to find it oh-so-flat. What a difference a week can make — only days before the bowl was maxing out in the afternoons, Concessions was connecting with Big Rights on the morning tide, Yokohama had size, and Portlock's outside and inside line-ups were fairly packed under the the long lull conditions between overhead sets. Maalaea picked

up some waves, but Lahaina had the abundance of the swell and minimal crowds. Then, the low to the Northwest threw us three days of soft but heaven-sent country action and the crowd situation really thinned out. The variable wind condition dropped in at the wrong moment, slopping out the U.S. at Ala Mo, but it looked like everyone was still getting into the water for the fun of it. July is almost always the month you can count on for nothing, but for a 1976 it has given up two North Shore swells and a lot of varying town size. Now, if we don't get choked off in August, the season could dissolve into a definitely better-than-average one, compared to past summers.

Grand Opening for Craig Sugihara's Town and Country Surfshop in the Waimalu Shopping Plaza will include a surf film to be shown in the parking lot, a pretty nice way of entertaining new customers and letting the old regulars know things will be even better than before. It's a super location with almost unlimited parking and surrounded by food spots; what an attraction!

South Africa and the Gunston 500 are over, and though we don't have a report on the conditions, we do have the top four winners. Shaun the Prawn Thompson racked up his fourth victory, South Africa's Johnathan Paarman captured 2nd, Peter Townend slid 3rd and Ian "Kanga" Cairns was 4th.

An attempt was made to produce a pro event in Brazil for all of the returning surfers from South Africa, but it never made it. We don't think, however, that it stopped anyone from visiting Rio anyway. There's always Ipanema and the strings.

The rumor wire from Australia has a major pro event in the negotiating stage for next year (or 1978), sponsored solely or in part by John Arnold, of O'Neill and Golden Breed products fame down there. He also handles distribution of most of the major surf films for the entire country.

For Your Dining and Dancing Pleasure: The North Shore population and its tastes grow, and to keep pace so must its eating establishments. The Sands Restaurant in Haleiwa is under new ownership with a brand new menu, and it's been announced that they will specialize in turtle steaks and the local daily catch from the North Shore waters. If you're into a bit more style with entertainment, an after-surf evening at Waimea Fall's Proud Peacock Restaurant will rival almost anything. A salad bar that includes bananas rolled in graham cracker crumbs, a super tasty menu, bar drinks, and cheesecake, three top-notch musicians surrounded by your choice of either outdoor or indoor dining, and an excellent staff, get it our High n' Tight rating. You might not even want to wait for a swell to try it out.

ISLAND STYLE

State Approved by local health dept

Old law a new threat to turtles

By BRUCE BENSON
Advertiser Science Writer

When marine biologist George Balazs noticed turtle-skin purses on sale in Shirokiya's at Ala Moana Center, he notified management that selling turtle products is endangering the species.

Balazs, a researcher at the Hawaii Institute of Marine Biology, is an active voice in an international movement to protect all species of marine turtles. He has produced excellent results in his notices to some retail outlets.

Store managers at J. C. Penney's and Liberty House, for example, listened to his arguments and promptly removed all turtle-product items from the shelves.

Shirokiya's, however, went to Federal and State officials and wound up with a State-issued license giving them permission to continue selling their purses — thanks to an old Hawaii law.

For Balazs, the turtle-products license is galling.

"I think that requiring a license for the import of these products gives their sale a degree of false legitimacy, a false facade of it being okay to sell the stuff," he said yesterday.

BALAZS AND OTHER pro-turtle forces thought they had achieved success in relieving the hunting pressure on the creatures when the State Division of Fish and Game adopted Regulation 36 to prohibit further commercial exploitation.

While that may be the rule for Hawaiian waters, it now turns out that the division has an earlier rule known as Regulation 11 that allows the licensing of imported marine products that are illegal to take locally.

Adopted before Statehood, the old rule apparently intended to ensure the delivery of fish products to the Islands from elsewhere when those products were out of season locally, hence illegal to take here.

The problem of "endangered species" has become more critical in the years since Rule 11 was written. But a division official said yesterday that he must still follow it and issue permits to those who seek to import marine products that are banned within Hawaii.

"If the product cannot be taken legally from the imported areas, then such provisions would be taken care

of there by people who would be concerned. Our concern is to protect it here," said the official, who wished to remain anonymous.

BALAZS WROTE in a recent issue of 'Elepaio, the journal of the Hawaii Audubon Society: "It is regrettable that we have not yet become responsible enough to protect the world's other declining turtle populations from our commerce here in Hawaii."

There is an attempt, meanwhile, by the U.S. Fish and Wildlife Service to restrict turtle trade within states and importation into the United States.

But one problem, according to Kimberly Wright, special agent for the service in Honolulu, is that once a product gets to the retail shelf the burden of proof that it came from an officially endangered species shifts to the Federal Government.

"A lot of times, by the time a product is made into a commercial article it is almost impossible to identify the species," she said.

That difficulty may turn out to work to the advantage of local conservationists, since Regulation 11 says the seller must identify the species of the goods being sold before the State grants a license.

MEANWHILE, Elsie Shimabuku, head of import and export here for Shirokiya's, assured a reporter yesterday that the sale of the turtle purses is entirely within the law.

And the Pocketbook Man, another Ala Moana shop spotted selling turtle products by Balazs, said yesterday that he is selling none of the wares. (Balazs claims he saw them on the store's shelves Monday.)

Still others to catch his eye include Betty Ford, who served turtle soup at the White House last spring, according to Vogue magazine.

Balazs sent notification to the First Lady — but, as he reported in the 'Elepaio journal "short letter from social secretary—to my knowledge, no corrective action taken."

HONOLULU ADVERTISER Friday, January 16, 1976 A-15



WANTED!

146

Old law a new threat

By BRUCE BENSON
Advertiser Science Writer

When marine biologist George Balazs noticed turtle-skin purses on sale in Shirokiya's at Ala Moana Center, he notified management that selling turtle products is endangering the species.

Balazs, a researcher at the Hawaii Institute of Marine Biology, is an active voice in an international movement to protect all species of marine turtles. He has produced excellent results in his notices to some retail outlets.

Store managers at J. C. Penney's and Liberty House, for example, listened to his arguments and promptly removed all turtle-product items from the shelves.

Shirokiya's, however, went to Federal and State officials and wound up with a State-issued license giving them permission to continue selling their purses — thanks to an old Hawaii law.

For Balazs, the turtle-products license is galling.

"I think that requiring a license for the import of these products gives their sale a degree of false legitimacy, a false facade of it being okay to sell the stuff," he said yesterday.

BALAZS AND OTHER pro-turtle forces thought they had achieved success in relieving the hunting pressure on the creatures when the State Division of Fish and Game adopted Regulation 38 to prohibit further commercial exploitation.

While that may be the rule for Hawaiian waters, it now turns out that the division has an earlier rule known as Regulation 11 that allows the licensing of imported marine products that are illegal to take locally.

Adopted before Statehood, the old rule apparently intended to ensure the delivery of fish products to the Islands from elsewhere when those products were out of season locally, hence illegal to take here.

The problem of "endangered species" has become more critical in the years since Rule 11 was written. But a division official said yesterday that he must still follow it and issue permits to those who seek to import marine products that are banned within Hawaii.

"If the product cannot be taken legally from the imported areas, then such provisions would be taken care

of there by people who would be concerned. Our concern is to protect it here," said the official, who wished to remain anonymous.

BALAZS WROTE in a recent issue of 'Elepaio, the journal of the Hawaii Audubon Society: "It is regrettable that we have not yet become responsible enough to protect the world's other declining turtle populations from our commerce here in Hawaii."

There is an attempt, meanwhile, by the U.S. Fish and Wildlife Service to restrict turtle trade within states and importation into the United States.

But one problem, according to Kimberly Wright, special agent for the service in Honolulu, is that once a product gets to the retail shelf the burden of proof that it came from an officially endangered species shifts to the Federal Government.

"A lot of times, by the time a product is made into a commercial article it is almost impossible to identify the species," she said.

to turtles

That difficulty may turn out to work to the advantage of local conservationists, since Regulation 11 says the seller must identify the species of the goods being sold before the State grants a license.

MEANWHILE, Elsie Shimabuku, head of import and export here for Shirokiya's, assured a reporter yesterday that the sale of the turtle purses is entirely within the law.

And the Pocketbook Man, another Ala Moana shop spotted selling turtle products by Balazs, said yesterday that are selling none of the wares. (Balazs claims he saw them on the store's shelves Monday.)

Still others to catch his eye include Betty Ford, who served turtle soup at the White House last spring, according to Vogue magazine.

Balazs sent notification to the First Lady — but, as he reported in the 'Elepaio journal "short letter from social secretary—to my knowledge, no corrective action taken."

HONOLULU ADVERTISER Friday, January 16, 1976 A-15



Turtles and Seals

Find a Home

By Helen Altorn
Star-Bulletin Writer

To most people, it's just "a damn old rock."

But, after seven days and nights on Necker Island, George H. Balazs says, "To me, it's like a great cathedral."

Balazs shared the precipitous islet with Hawaiian monk seals, green turtles, hundreds of thousands of native seabirds and shrines of ancient Polynesians.

"It was a beautiful experience," he said, describing his adventure.

BALAZS IS A research biologist at the University of Hawaii's Institute of Marine Biology and the endangered Hawaiian green turtle is his special interest. He recently was appointed a member of the Marine Turtle Specialist Group of the International Union for Conservation of Nature.

He is in his second year of a three-year study to survey the turtle population in Hawaiian waters, including remote areas of the Leeward chain. He also hopes to learn more about their movements, growth and eating habits.

His research is funded by the State Marine Affairs Coordinator and the National Sea Grant Program.

Gary Naftel, captain of the Easy Rider, was doing fisheries research in the Necker area and dropped Balazs there with a week's supplies on Aug. 19.

NECKER, A narrow fishhook of volcanic rock, is 393 miles northwest of Hawaii in the Hawaiian Islands National Wildlife Refuge. Technically, it is part of the City and County of Honolulu. The rocky island comprises 41 acres and the highest spot there is 275 feet.

The islet is protected from human contact by hazardous landing conditions, and by the U.S. Fish and Wildlife Service, which gave Balazs a permit to work there.

Balazs spent three days in a cave shelter on a bluff but changed camp after puncturing his mattress.

"It was rough sleeping on the lava rock," he said.

He made three trips along the peak of the island, setting up observation stations, but said, "It's pretty precipitous. There are not many places to hike. I wore out a pair of boots."

HE SAID THAT, wherever he went on the island, he saw turtles

coming in to feed on the seaweed.

"I never saw such lush stands of limu," he said.

Balazs saw "a fair number" of Hawaiian monk seals with young pups born on the island.

"This was new information for Necker," he said. "We hadn't thought of it as a pupping area."

The seals and turtles "team up" on Necker, snoozing together on the ledges, Balazs said. "I'm really amazed at how they are able to live in harmony in a limited area on the rock ledge."

HE ALSO WAS surprised to see the turtles "hauling out on the lava rock and sleeping." On other islands, they bask on coral sand, or crawl under ledges underwater, Balazs said.

The turtles arrived at about 10 or 11 at night and left about 7 or 8 in the morning, he said.

He caught six small turtles with a scoop net to tag and measure them to follow their movements—"if they're moving"—and monitor their growth. He also used a probe sampler to obtain stomach contents to find out what they're feeding on.

There was a "definite change-over" of turtles, Balazs said. "I never caught the same small turtle twice." And, based on his observations, he estimates a minimum of 50 turtles using the nearshore waters.

NECKER SITS on a 650-square-mile bank, with the greatest depth 125 feet, Balazs said.

"It's conceivable the turtles are using the entire bank and the island itself as part of their total cycle," he said.

Necker is about 75 miles from the turtle breeding grounds at French Frigate Shoals so Balazs believes it is an important island for them.

"I feel the adults are probably fairly resident to the island," he said.

He found the birds and animals far tamer at Necker than at other islands where they have acquired fear of man.

KENNETH P. EMORY, senior archaeologist at the Bishop Museum, was "shocked" when he saw a slide show of Balazs' trip to Necker.

Emory spent five days on Necker in 1924 and recorded 34 maae (shrines) built by ancient Polynesians. He thought they were still there, undisturbed, but Balazs' pictures showed a number of the reli-

gious structures had been destroyed by bombs.

Emory said he learned the Navy was bombing the island during World War II and advised the naval command at Pearl Harbor that the island was covered with ancient ruins.

Balazs found a 250-pound bomb on one section of the island and two more bombs on the northwest cape

with birds perched on them.

Balazs would like to go to Lisianski, which he believes may be another important island for turtles, and to other remote islands in the leeward area.

But, he said, there is no transportation into the eight units of the wildlife refuge except for French Frigate Shoals where a Coast Guard navigation station is located.



Star-Bulletin

Section

G

Wednesday,

October 12, 1977

Seabirds flock around a marae (shrine) built on Necker Island by ancient Polynesian travelers while George Balazs, left, keeps watch from an observation post on a steep cliff.-Photos by George Balazs.



JOHN T. USHJIMA
PRESIDENT

DUKE T. KAWABAKI
VICE PRESIDENT

DONALD D. H. CHING
MAJORITY LEADER

ANSON CHONG
STANLEY I. HARA
GEORGE H. TOYOFUKU
ASSISTANT MAJORITY LEADERS

ROBERT S. TAIRA
MAJORITY FLOOR LEADER

JOHN J. HULTEN
DENNIS O'CONNOR
MAMORU YAMASAKI
ASST. MAJORITY FLOOR LEADERS

FRANCIS A. WONG
MAJORITY POLICY LEADER

FIRST DISTRICT
STANLEY I. HARA
RICHARD HENDERSON
JOHN T. USHJIMA

SECOND DISTRICT
HENRY TARI'AI
MAMORU YAMASAKI

THIRD DISTRICT
D. G. ANDERSON
MARY GEORGE
JOHN J. HULTEN

FOURTH DISTRICT
DONALD D. H. CHING
JOSEPH T. KURODA
FRANCIS A. WONG
PATRY K. YOUNG

FIFTH DISTRICT
DUKE T. KAWABAKI
ROBERT S. TAIRA
RICHARD S. H. WONG
T. C. YIM

SIXTH DISTRICT
ANSON CHONG
JEAN KING
JOHN LEOKLE
WADSWORTH YEE

SEVENTH DISTRICT
DONALD S. NISHIMURA
DENNIS O'CONNOR
PATRICIA SAKI
W. BUDDY SCARER

EIGHTH DISTRICT
GEORGE H. TOYOFUKU

SEICH HIRA
CLERK

The Senate
The Ninth Legislature
of the
State of Hawaii
HONOLULU, HAWAII



March 30, 1977

response sent 4/1/77

Mr. George H. Balazs
Hawaii Institute of Marine Biology
P. O. Box 1346
Kaneohe, HI 96744

Dear George:

Enclosed is a copy of an article from the Pacific Business News of March 14th.

When you have a moment I'd be very interested in your comments.

With all good wishes,

Jean

JEAN KING
State Senator

JK:evv

Enclosure



SENATOR JEAN KING
The Senate
State of Hawaii
State Capitol
Honolulu, Hawaii

Meat from Caymans being sold now

Importers hope to start turtle farm

By Kulani Mahikoa

Turtle meat as an abundant food source for the Pacific Basin is a long-range goal of turtle meat distributors Lee Mench and Henry Bush, who own Tropic Seas Foods, 697 Ahua St.

The importers have sights on starting a turtle farm in Hawaii, probably on Molokai, they say. "We're trying to generate interest for the farm from the state, but the first step is to get people accustomed to eating turtle meat," Bush said.

The partners are hoping that with the state's current interest in aquaculture the idea of a turtle farm in the

Islands will gain momentum and financial backing from the state.

Bush pointed out that the Green Sea turtle, which the distributors sell, has been a familiar food for Island people throughout the world before it became an endangered species.

The Cayman Island Turtle farm in the Cayman Islands, from which the importers get their turtle meat, was started in 1968 as a conservation program to propagate the dying amphibian breed.

The potential of the farm was also seen as providing food for underdeveloped islands where people don't

have ready access to beef and depend on sea foods, Bush said. Subsequently, the farm began to breed the turtles for commercial use, he said.

"It's the only turtle farm like it in the world," Jackson said. Mench added that the farm breeds about 700,000 turtles a year and returns thousands of them back to the Caribbean Sea.

"In the ocean, only 3 out of 153 eggs survive. At the farm, 60 to 70 per cent of the eggs hatch because they're not subject to predatory creatures," Bush said.

Hawaii's climate and accessibility to the Pacific Basin islands make it an ideal spot for a turtle farm, Bush said.

But the first step in their grand plan — getting Hawaii residents accustomed to eating turtle — has been taken by offering the turtles in restaurants. Among clients are: Territorial Tavern, Nick's Fishmarket, Little George's, Sanford's, The Sheraton Surfriider, the Second Floor, the Fogcutter, the Proud Peacock, Haleiwa Sands, and

Sea View Inn.

Cost of the turtle steak is high, comparable to the best cut of porterhouse or T-bone steak, Bush said. "By no means has it reached the commonality that beef or pork enjoy," Bush added.

The nutritional value of turtle is higher than either beef, pork or chicken, Bush pointed out. A meal-size portion of turtle meat contains 23 grams of protein, 2 grams of fat and 102 calories, compared with chicken that has 21 grams of protein, 12 grams of fat and 199 calories — or beef, that contains 19 grams of protein, 19 grams of fat, and 247 calories.

Immediate plans for expansion include stocking local grocery stores with turtle soups from the Cayman Island Turtle Farm. The soup will carry the brand name Poole's Turtle Soup and come in three varieties: chowder, bisque and bouillion.

The partners are also making plans to sell their turtle filets over the counter at grocery stores.



Lee Mench shows off turtle meat and turtle soups his company Tropic Seas Foods distributes in the Islands.

uid freedom. Sure there are thousands of surfers that get stoked each year, and maybe they get tubed every once in a while, but few actually find that lost moment of freedom when they tackle nature's power, using a three-inch-thick piece of stick, they look back through the crystal-clear lip and see what they have been looking for all their life. I am sure there are other people who have found that surfing is just not a sport, but a way of life. A lifestyle. I have found myself through surfing, found happiness that words cannot express. Just think how better the nation would run if President Carter was a true surfer at heart.
 Jerry Ky Snyder,
 Hermosa Beach, California

LIVE BAIT?

I have read with concern the advertisement for Golden Turtle brand lotion, which appears on page 27 of your November issue. By running this advertisement, you are, in essence, encouraging surfers and other readers active in ocean sports to use a body lotion which contains sea turtle oil. I question the wisdom of such a practice. Sea turtles are known to be a dietary component of large sharks, especially the tiger shark, *Galeocerdo cuvieri*. For example, in a shark control and research program conducted by the State of Hawaii in 1971, 18% of the tiger sharks captured were found to have turtle parts in their stomachs.

Our knowledge of what motivates sharks to attack humans is still extremely sparse. However, it is well known that sharks are able to detect and seek out small quantities of certain substance, such as fish blood and other aquatic animal fluids. Although I am not aware of any specific experiments that have been conducted, it is logical to assume that this sense of smell could easily also include the oil of sea turtles. This would seem particularly true when the sharks in question have had previous experiences feeding on turtles.

No one who regularly enters the ocean environment would consider using a body lotion which contains fish extract. By the same logic, I would think that lotions containing sea turtle oil should also be avoided. I would appreciate any comments you may have on the point I have raised.

George H. Balazs, Jr. Marine Biologist
 University of Hawaii

A NOTE FROM SPACE

Fellow space travelers, greetings, long now have we, your galactic neighbors, remained silent and observed the planet. From the wastes of North Africa to the islands of intense waves. Perhaps some have seen us as we have ridden your waves, marched with your armies, worked in your factories, attended the

THE COVER UP

New protection for boards and legs with the COVER-UP. Surf More Products introduced the no-kink swivel several years ago and now we are covering it and all metal rings with soft rubber for maximum protection.

THE NEW POWER UNIT

A NEW SUPER-STRONG ankle grabber strap and the time-proven, 575lb. test shock unit with the new COVER-UP. Great for all-around surfing!

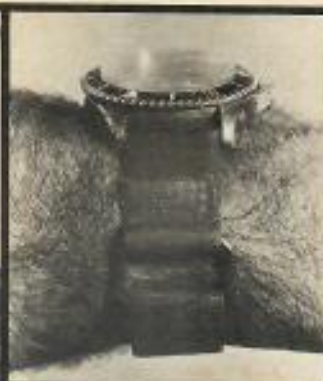


THE BULL
 for short boards and big waves

THE RHINO
 for LONG boards



FIN LEASHES



WATCH BANDS



"MAX" BOARD LOCK

GUARANTEE

Surf More leashes are GUARANTEED against manufacture defects in materials and workmanship for the LIFE of the materials!

Surf More Products

P.O. Box 3154, San Clemente, California 92672

- The Bull \$8.95
- The Rhino 6' \$10.00
- The Rhino 7' \$10.50
- Power Unit \$7.95
- Velcro Watchband \$1.95
- Swim Fin Leash \$3.50
- "Max" Boardlock \$8.95

NAME _____
 ADDRESS _____
 CITY _____
 STATE _____ ZIP _____

California residents add 6% sales tax

Dining Cues

This listing of recommended restaurants is compiled as an information service for our readers and is a cross section of Honolulu's better restaurants as represented by our advertisers. We report extensively on three each month, and attempt to keep information up-to-date on the others. But to spare yourself possible inconvenience we encourage you to recheck special information by phone. (Letters following the listing indicate credit cards accepted: A=American Express; B=BankAmericard; C=Carte Blanche; D=Diners Club; M=Master Charge.)

THE SECOND FLOOR - 315 Ulukoua, Kailua Square-Kailua. American/Seafood specialties. Small, comfortable and charming. The Second Floor is a breath of fresh air on the restaurant scene. The menu offers some new and different choices. The polished wood table tops, white lattice-work and lush, green, growing plants provide a decor that's young, clean and refreshing.



With eager, young and knowledgeable waiters and waitresses, reading the menu was fun with their help, selection was easier than it would have been otherwise. For starters we chose our waiter's recommendation. How right he was. We had the veggie pupu platter (the only thing I didn't like was the name) - selection of Maui onion rings (imported the menu says), taro fritters, zucchini sticks and eggplant all dipped in a delicate batter and deep fried to crisp perfection on the outside, fresh and tender on the inside. Served on a platter for two (\$3.95), the "vegies" were piping hot and would make a succulent luncheon platter by itself. The antipasto salad and the ratatouille looked like good bets also. We selected a new Pouilly-Fuisse label, Louis Jardot, because they were out of Beauregard and because our waiter said it was lighter and dryer. He was right. Chilled within an inch of its life, it was a perfect accompaniment to the taro fritters.

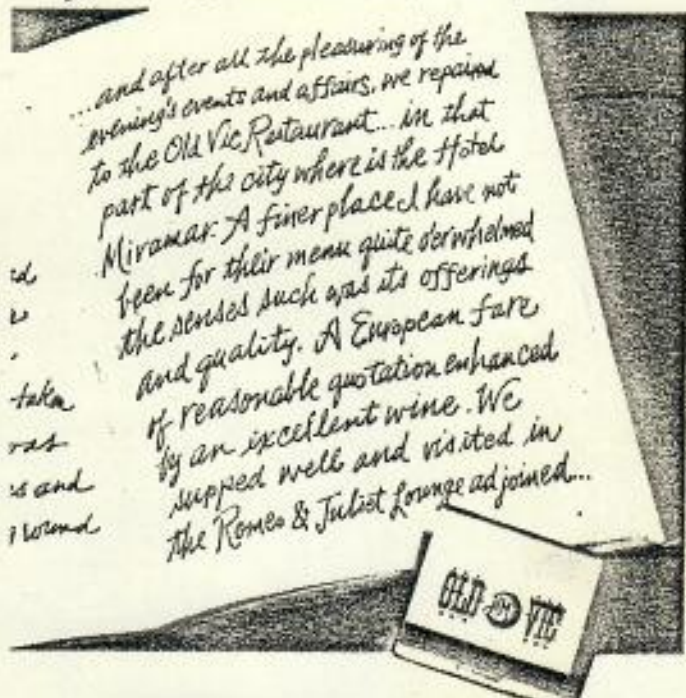
As entrees we selected veal Oscar, made from scratch and garnished with fresh asparagus, crabmeat and sauce bernaise (\$9.75) and turtle steak saute. Pampered, farmed, Cayman Island turtles make a sweet, delicate tasting meat. The steaks should have been pampered just a bit more in the kitchen, however, as the coating was doughy and could have used some crisping and browning (\$9.50). The steak was served with fresh green beans and with brown rice that had bits of bacon and other goodies crumbled into it.

The coffee was Kona, brewed fresh and strong (\$3.50), with an attentive bus boy hovering nearby with the pot. We're both

THE OLD VIC

A Theater Tradition

...and after all the pleasuring of the evening's events and affairs, we repaired to the Old Vic Restaurant... in that part of the city where is the Hotel Miramar. A finer place I have not been for their menu quite derelict the senses such as its offerings and quality. A European fare of reasonable quotation enhanced by an excellent wine. We supped well and visited in the Romeo & Juliet Lounge adjoined...



Tony Piazza entertains at the piano in the adjacent

Romeo and Juliet Lounge

Monday through Saturday 8 p.m. to 1:30 a.m.

HOTEL MIRAMAR HAWAII

2345 Kuhio Avenue, next to International Market Place.
Reservations: 922-2077.

The Willows hasn't changed a bit

We think you'll agree that there is no restaurant in Hawaii which more graciously typifies the old-fashioned Hawaiian spirit than the Willows. Plan your next business meeting with us. Come and refresh yourself in our unique atmosphere.



the Willows

Lunch from 11:30
Dinner from 5:30

DAILY EXCEPT SUNDAY

901 Hanalei Street 946-4809



Chuck's

STEAK HOUSE

KAHALA
MILILANI
HAWAII KAI
PEARLRIDGE

19
Broiler
Selections

Lunch
Dinner
Cocktails

Salad Bar



suckers for custard, and our waiter said that the Creme Brulee was very special (\$1.95). He was right. It's a delicate, but sturdy, custard, not too sweet.

When dinner is over at 10 p.m., the large, mirror-lined cocktail lounge becomes a discotheque. On Sunday, Wednesday and Thursday, dancing to the sizzling music of the "Hotcakes" - live. On Tuesday, Friday and Saturday, dancing to records spun from the special sound booth, and on Monday nights, football on The Second Floor's giant 67 inch screen.

The Second Floor also provides special arrangements for large parties and catering specialties for the Kailua area. Reservations suggested. Ample free parking in Kailua Square. Aloha shirt. Nightly, 6-10. ABCDM. 261-2422. - Jeri Bostwick

THE SUMMIT - 410 Atkinson Drive, 36th floor of the Ala Moana Americana, Honolulu's highest restaurant. Continental. It's always been breathtaking to walk into The Summit restaurant. With its new room design, you step off the elevator and it's just like walking into the cockpit of a 747 - the whole eastern part of the island is spread out before you in a mingling of land and sea.



Starters and salad were simple. We knew from past experience what we wanted. Smoked salmon with capers and onion garnish (\$3.50) and escargots Bourguignonne (\$4.25). In our continuing research on smoked salmon, we have probably now found the smallest serving in town, too small to evaluate. The half dozen snails were piping hot, buttery and garlicky to perfection and served with two crusty rolls for sopping bread.

The Summit's fresh spinach salad is practically as well known as the view and still excellent (\$2.25 per person). The spinach is tender, crisp and cold, the cucumbers sliced thin, and the Ala Moana hot dressing just the right combination of bacon bits, vinegar, oil, sugar and black pepper.

For entrees we selected two island favorites - Longshore lamb chops (\$11.75) and baked, fresh opakapaka (\$9.25). The lamb chops, meaty and tender, had been treated with loving care, pink on the inside and almost charred on the outside. Makes gnawing the bones a happy gustatory experience, though Amy Vanderbilt might frown.

Baking opakapaka in ti leaves with a banana half imparts a certain flavor that is achieved in no other way - elusive, delicate and delicious. I think I prefer it to mahi-mahi. Leek potatoes, different and good, were served with the lamb, spinach (how were we to know?), and what I thought was ratatouille. It was actually stewed tomatoes with a touch too much sugar.

Since it was a special occasion and we

Cocktails and good cheer in an atmosphere of cordiality. Fireplace, chrome and leather. Fine books. And a piano bar.

the library



Gourmet dining with a wide selection of provocative entrees.

or third the



hawaiian regent • 2552 Kalakaua Avenue • Phone 922-6611 • Validated parking

Shimmering turquoise waters surround Tern Island in the French Frigate Shoals, 500 miles northwest of Oahu. On the half-mile stretch of beach, waves tumble onto golden sand. A few inches above the water line, hundreds of squawking terns nest on patches of grass, and from shoulder-high, shrub-like trees booby birds watch goony birds waddle by.

There is a gentle breeze and a clear sky except for a few tufts of clouds that provide occasional relief from the brilliant noon sun.

Life on islands in the middle of the Pacific are supposed to be equivalent to paradise. But for the 20 men stationed at the Coast Guard's Loran station, the French Frigate Shoals is one of those places that's nice to visit, but hell to live on.

IN COAST GUARD circles, the one-year tour of duty at the French Frigate Shoals station is just about the worst—the only one less desirable is in Alaska, where the men have to remain indoors throughout the year because of arctic conditions.

At the Pacific station, the men can roam what land there is—the island looks like the top of a sunken aircraft carrier. Its dimensions are 410 by 3,100 feet, or about a city block wide and little more than a half mile long. Elevation is 9 feet and the terrain is flat. There are five shrubs that could pass for trees, but the tallest things around are the half dozen one-story Coast Guard buildings that are living quarters and station.

The only natives are the thousands of birds that nest on the island and squawk throughout the day and night. Tern Island is a national wildlife refuge, part of the City and County of Honolulu. There are also visiting green sea turtles and Hawaiian monk seals, but the only humans are the guardsmen.

Their job is to man the Loran (long-range aids to navigation) station round the clock, assisting ships and aircraft in navigating through the air and sea. Once a week a Coast Guard plane flies in food, supplies and mail.

MOST OF THE MEN are in their early 20s and on their first or second tours of duty. After the initial awe at the beauty of surf and almost

year-round sunshine, the loneliness of isolation sets in.

"It's like taking your family and living in the bathroom for a week," explained Chaplain W.C. Glaser of the U.S. Navy, who visits the station twice a year. "The problems the men tell me about are just like those of anyone else, except that they're heightened by the frustration of isolation."

The Coast Guard, realizing the tough psychological conditions, assigns the men to a shorter than normal tour. A guardman is stationed on the shoals for a year, and can get off the island once during that period for a month's leave.

Last Thursday as a morale booster, the Coast Guard arranged with McDonald's in Honolulu to fly in Big Mac hamburgers for the men, McDonald's employees, among them 10 women, and the local media were invited along to tour the island for a couple of hours.

FOR A NUMBER of men at the station it was the first time since October, when Red Cross nurses came to draw blood, that they'd seen a woman. At a briefing in Honolulu before the flight the women were jokingly told "to stick together, and if the men don't know what to do with the bags of Big Mac, just hand them to them. They may be in shock."

It took about two hours to fly from Barber's Point to the station by Coast Guard plane. When the plane landed, the men were waiting—but not for the women or 50 Big Macs, which were intended to be a surprise. For the men, the biggest morale booster of all was aboard the plane, the weekly mail.

After getting over their initial shock at seeing 10 women loaded down with hamburgers disembarking from the plane, the questioning turned to such as "Anyone got a newspaper?" or "Where's the mail?"

The mail was handed out and the Big Macs were distributed by the women, and after a quick tour around the island, the men and their guests sat down.

"This is nice," Corpsman Walter Lewis. He is the station's doctor and dentist and a 10-year Coast Guard veteran who's spent nine months on the island. "It's a treat. The only time we get to see women is once in a while

The Sunshine, Sea ...and Loneliness



From the gentle smile on his face, it's obvious that Jeff Wilson is reading a letter from his girlfriend.

Chaplain W.C. Glaser of the U.S. Navy, below, spends some time watching a napping Hawaiian monk seal. While the seals take refuge on the island, the only natives of the shoals are the thousands of sea birds whose population seems to be booming what with all the eggs, below right, that have been laid, some in peculiar places.



when we're shown an R-rated movie here. But usually we see Walt Disney or 'Call of the Wild.'"

Mail, Lewis explained, is the only good thing that happens to the men at the station. Jeff Wilson, who has served three months in the French Frigate Shoals, sat smiling, reading a letter from his girlfriend.

Thursday, he explained, was a good mail day. He got four letters from his girlfriend, three from his family and several packages. "It was a big haul," he said, grinning. The week before hadn't been a good one—the plane for some reason hadn't stopped over.

ASKED WHAT THEY missed most, the men said it was their wives, their girlfriends or their families. Next to that, explained Joe Palmeri, who's been on the island since December, "is the availability of getting what I want when I want it. It goes very slow here. It's hard to live with 20 people constantly, eat and sleep together. The only thing I'm looking forward to is my leave."

"The hardest time is weekends, when it kills you knowing what's happening back home," Lewis said.

Each man knows the date he landed on the island and the date his tour ends. Lewis' tour ends Aug. 12.

Thursday marked Dan Lavign's 365th day on the island, but not his last. He extended his tour two months so he could be stationed in Maine where his fiancee lives.

"THIS IS INHUMANE, but nobody freaks out," Lewis said. "You get your frustration out playing tackle football."

Some of the men work out their frustrations drinking beer, the only liquor permitted on the island, at a little clubhouse. Lewis prefers to keep in shape on the jogging track or in the gym. There are also tennis courts. Movies are shown in the mess and recreation room where there's foosball, a pool table and television set which has never been used because there aren't any videotapes.

Thursday, for the first time, television came to the French Frigate Shoals. One of the television news crews had filmed the island and men on videotape. It was fed into the television set and the room soon rang with howls and catcalls as the men spotted themselves in the footage.

"Show me a commercial, please," someone begged.

The camera panned in on a seal lolling in the surf and then scanned the turquoise waters and the clear blue sky and one of the men gasped. "Look at this...Boy, that looks pretty. It looks like this is a paradise."

Star-Bulletin Today

Features
Entertainment

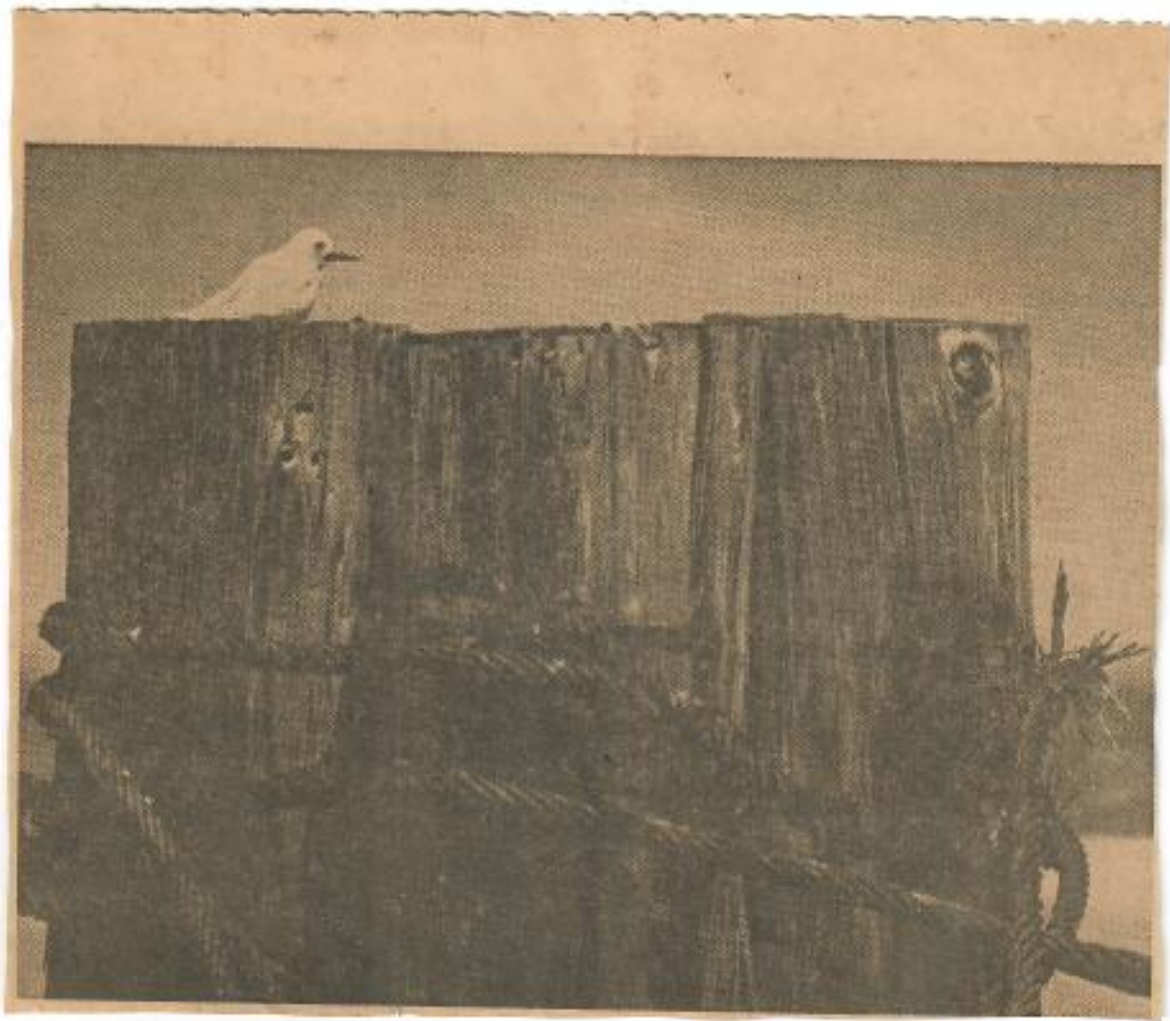
Section
F

Honolulu, Wednesday, April 6, 1977

The Coast Guard Loran station on Tern Island in the French Frigate Shoals.



Guardsman Joe Palmeri, who's been on the island since December, devours his hamburger treat, while Dwight Tovey, below, enjoys a bicycle ride in front of the Coast Guard building.



Photos by
Craig Kojima





Turtles and Seals

By Helen Altonn
Star-Bulletin Writer

To most people, it's just "a damn old rock."

But after seven days and nights on Necker Island, George H. Balazs says: "To me, it's like a great cathedral."

Balazs shared the precipitous islet with Hawaiian monk seals, green turtles, hundreds of thousands of native seabirds and shrines of ancient Polynesians.

"It was a beautiful experience," he said, describing his adventure.

BALAZS IS A research biologist at the University of Hawaii's Institute of Marine Biology and the endangered Hawaiian green turtle is his special interest. He recently was appointed a member of the Marine Turtle Specialist Group of the International Union for Conservation of Nature.

He is in his second year of a three-year study to survey the turtle population in Hawaiian waters, including remote areas of the Leeward chain. He also hopes to learn more about their movements, growth and eating habits.

His research is funded by the State Marine Affairs Coordinator and the National Sea Grant Program.

Gary Naftel, captain of the Easy Rider, was doing fisheries research in the Necker area and dropped Balazs there with a week's supplies on Aug. 19.

NECKER, A narrow fishhook of volcanic rock, is 393 miles northwest of Hawaii in the Hawaiian Islands National Wildlife Refuge. Technically, it is part of the City and County of Honolulu. The rocky island comprises 41 acres and the highest spot there is 275 feet.

The islet is protected from human contact by hazardous landing conditions, and by the U.S. Fish and Wildlife Service, which gave Balazs a permit to work there.

Balazs spent three days in a cave shelter on a bluff but changed camp after puncturing his mattress.

"It was rough sleeping on the lava rock," he said.

He made three trips along the peak of the island, setting up observation stations, but said, "It's pretty precipitous. There are not many places to hike. I wore out a pair of boots."

HE SAID THAT, wherever he went on the island, he saw turtles

coming in to feed on the seaweed.

"I never saw such lush stands of limu," he said.

Balazs saw "a fair number" of Hawaiian monk seals with young pups born on the island.

"This was new information for Necker," he said. "We hadn't thought of it as a pupping area."

The seals and turtles "team up" on Necker, snoozing together on the ledges, Balazs said. "I'm really amazed at how they are able to live in harmony in a limited area on the rock ledge."

HE ALSO WAS surprised to see the turtles "hauling out on the lava rock and sleeping." On other islands, they bask on coral sand, or crawl under ledges underwater, Balazs said.

The turtles arrived at about 10 or 11 at night and left about 7 or 8 in the morning, he said.

He caught six small turtles with a scoop net to tag and measure them to follow their movements—"if they're moving"—and monitor their growth. He also used a probe sampler to obtain stomach contents to find out what they're feeding on.

There was a "definite change-over" of turtles, Balazs said. "I never caught the same small turtle twice." And, based on his observations, he estimates a minimum of 50 turtles using the nearshore waters.

NECKER SITS on a 650-square-mile bank, with the greatest depth 125 feet, Balazs said.

"It's conceivable the turtles are using the entire bank and the island itself as part of their total cycle," he said.

Necker is about 75 miles from the turtle breeding grounds at French Frigate Shoals so Balazs believes it is an important island for them.

"I feel the adults are probably fairly resident to the island," he said.

He found the birds and animals far tamer at Necker than at other islands where they have acquired fear of man.

KENNETH P. EMORY, senior archaeologist at the Bishop Museum, was "shocked" when he saw a slide show of Balazs' trip to Necker.

Emory spent five days on Necker in 1924 and recorded 34 marae (shrines) built by ancient Polynesians. He thought they were still there, undisturbed, but Balazs' pictures showed a number of the reli-

Find a Home



gious structures had been destroyed by bombs.

Emory said he learned the Navy was bombing the island during World War II and advised the naval command at Pearl Harbor that the island was covered with ancient ruins.

Balazs found a 250-pound bomb on one section of the island and two more bombs on the northwest cape

with birds perched on them.

Balazs would like to go to Lisianski, which he believes may be another important island for turtles, and to other remote islands in the leeward area.

But, he said, there is no transportation into the eight units of the wildlife refuge except for French Frigate Shoals where a Coast Guard navigation station is located.

Star-Bulletin

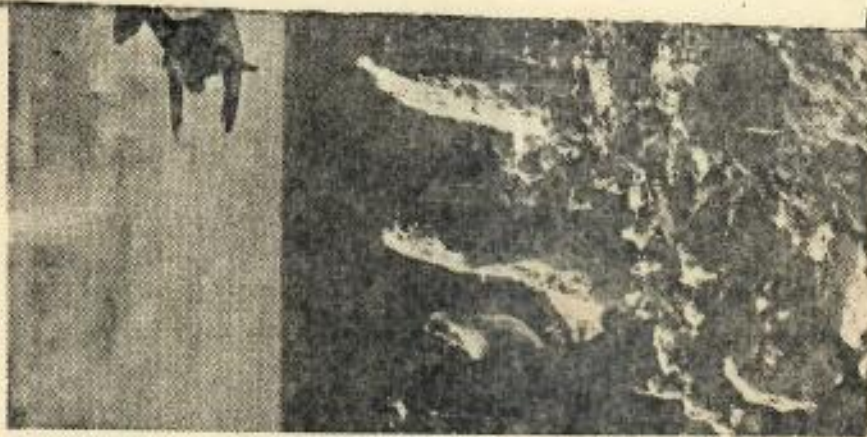
Section

G

Wednesday,

October 12, 1977

Seabirds flock around a marae (shrine) built on Necker Island by ancient Polynesian travelers while George Balazs, left, keeps watch from an observation post on a steep cliff.-Photos by George Balazs.





george daacon...

Star spangled banter

Guido Salmaggi last night went with Robert Goulet to the Kahala Hilton, where a cosmetic company was hosting a cocktailer & buffet to show off Arlene Dahl. After breezing in, Guido turned to comic Norm Crosby and quipped: "Bob may be younger and more handsome — but at least I never forget the words to the National Anthem."

James Garner will play in the Hawaiian Open Golf Tourney's Pro-Am event Feb. 2 and let's hope he doesn't drive golf balls the way he drives his car on "The Rockford Files" . . . Eddie Albert of "Switch" overnighted at the Regency and told Hyatt Hostess Sheryl Hee "You look like a Chinese version of Faye Dunaway." Others agree. Yesterday a Tokyo publishing company was photographing her for possible stardom in Japan . . . No mistaking Sebastian Cabot, who was sunning himself at the Moana Hotel in his



Cabot
colorful shorts, white socks up to his knees and that famous beard. He's in for a "Family Affair" relaxer with the Mrs. and some friends . . . Ex-beachboy Charlie Lambert presented Shirley Temple Black with a ginger lei yesterday and then reminded her of a picture of Shirley hanging in the Waikiki Historical Room at the Sheraton. At age 6, she posed on the beach with a surfboard and t-shirt reading "Waikiki Beach Patrol."

Jerry Lucas is houseguesting with Bob Turnbull at the Waipuna . . . Turnbull, no dummy, has asked Howdy Reynolds to teach him ventriloquism so he can get the Bible message over to kids . . . Lotta people are going to miss Jan Oudendijk, who leaves town in two weeks. The Kahala Hilton's food and bev mgr is being transferred and promoted to exec. asst. mgr. of the 750-room Caribe Hilton in Puerto Rico . . . George Weiss will take over his slot here . . . How appropriate (with the trouble we're having) that Phyllis Strobelm of the Kauai County YWCA sends us a wall-plaque which says "Don't blame me — blame the X!X?!! computer" . . . For those who remember the Eddie Howard Orchestra, it'll offer a Roomful of Roses and a roomful of music next week at the Coral Ballroom.

Typically, Chris Hemmeter is out of town on business and hasn't seen his picture on the cover of Hawaii Business Mag which taps him "Businessman of the Year." He's on the Mainland talking to investors about his next project: A 500-room hotel he'll begin building at Kaanapali later this year for \$40 million . . . Featured on the cover of



Hemmeter
Graphics Today Mag is Waimea, Kauai, native Neil Fujita. Neil has his own design shop in New York and came up with the covers of "The Godfather" and "In Cold Blood" . . . The Rev. Burton A. MacLean, former headmaster (11 years) of Iolani School, has assumed his duties as headmaster of Pomfret School in Pomfret, Conn. . . . And anybody remember Big Island newsman Larry Ketchum? He's sold his Clyde Republican Weekly in Kansas and is in Hollywood pursuing an acting career.

Sam Sanford opens his "Sanford's" restaurant in beautiful downtown Mapunapuna Friday, where turtle steaks will grace the menu. Last time I ate turtle I was eight hours late getting home . . . Sam's employe manual says "no girl will say no to any customers" and it should be quite a spot if all rules and regulations are followed . . . Construction started yesterday on "The Royal Saloon"—the tentative name for Matteo's new branch restaurant on Nuuanu at the old Golden Guinea . . . Ed Green's Jameson's Coffee House, neighbors of Matteo's in Waikiki, will be neighbors Downtown too when their Coffee House 2 opens in mid-Feb. . . . And Anna Bananas owners Gary & Ann Buding are talking about opening "Nuuanu Underground," a basement bar-eatery in the same area.

Frank Cooper trotted out his new Islanders g.m. Fred Whitacre yesterday. Fred's main concern at the moment is finding a furnished house to rent. Fred and wife Mary Anne, now at the Queen Kapiolani Hotel, will even consider house-sitting, says Cooper — "at least until the Islander check clears the bank" . . . Back at the Holiday Inn Waikiki is New Zealand runner Max Telford — preparing for his 24-hour endurance run in Hawaii Kai Saturday . . . K-LEI's Bob Bahn reports this street sightem: A pedicab lumbering along Kalakaua with two hefty girls in it. Suddenly POW! the wheels split right out. The embarrassed girls had to agree with onlookers that it was funny as they snapped pictures of damage they'd done to that cab . . . Ron Hurov is back from a world trip where he got on a Ghana Airways plane and in the pouch found a "See Hawaii" Hawaiian Airlines pamphlet. A mind-boggler until he learned the plane is being leased to the Africans and that the pilots were Hawaiian Air flyboys Joe Stella and Harry Chandler.

The Sir Shop in Mau's Whalers Market Place is the first Ice Cream Parlour customer to buy their \$100 "It" dish. They'll donate the 48 scoops to a Big Brothers & Big Sisters party there tonight . . . Ice cream and cake were "on the house" at the Benihana Lounge Monday night when Linda Coble dropped in to celebrate her birthday. Linda's collection of turtles is growing, slowly but surely, as Al Lopaka gifted her with a small jade companion to one she received at Christmas . . . One for the road: "Why did the turtle cross the road?" Answer: "To get to the Shell station."

**UNIVERSITY OF HAWAII AT MANOA
HAWAII INSTITUTE OF MARINE BIOLOGY**

P.O. BOX 1346
KANELOHE, HAWAII 96744

April 24, 1978

TO: Hawaii's Sport and Commercial Fishermen
FROM: George Balazs, Hawaiian Sea Turtle Research Program
SUBJECT: The Recovery of Turtles or Turtle Parts from the Stomachs of Large Fish

Virtually nothing is known about the life of sea turtles from the time they leave their natal beaches as one ounce hatchlings until they are first seen as juveniles (approx. 10 lbs or larger) in relatively shallow waters close to shore. This lack of information is due mostly to the fact that turtles under 10 lbs are seldom ever seen, thereby making them unavailable for scientific study. It has been reasonably assumed that smaller size turtles live for a period of time in the open ocean away from land where they feed at the surface on small animals (i.e. squids, crustaceans).

One method which I believe has considerable promise for gaining biological and ecological information on this little-known size category involves the indirect sampling of the turtles from the stomachs of pelagic fish such as tuna, mahimahi, marlin and others. These fishes (as well as sharks) could be expected to periodically eat small turtles. The recovery of whole small turtles or turtle parts from the stomachs of such predators is therefore entirely possible, provided that the person conducting the examination is alerted to the immense importance of such a finding.

If you should find a turtle or turtle part in the stomach of a fish, it would be greatly appreciated if you would contact me at your earliest opportunity (telephone 247-6631, collect if on an outer island). If I am not in my office when you call, please leave your name and number with our secretary and I will contact you as soon as I receive the message. After learning of your discovery by telephone, I would like to immediately pick up the recovered turtle material and transfer it to our laboratory for detailed study.

Thank you in advance for any assistance that you can provide to this research program. I would be pleased to talk with you at any time on matters relating to sea turtles.

Good fishing!

JUNE 1978

Long Lines



International Game Fish Association

3000 EAST LAS OLAS BOULEVARD
FORT LAUDERDALE, FLORIDA 33306 U.S.A.

Mr. Chuck Johnston, Editor
Hawaii Fishing News
P.O. Box 25413
Honolulu, Hawaii 96825



PACIFIC BUSINESS NEWS

VOL. 16, NO. 23

MONDAY, AUGUST 21, 1978

HONOLULU, HAWAII

Page 32

COURT



Cases Filed in Circuit Court

Filed Aug. 11-18

C-55392—Vulcan Hawaii, Inc., vs. Ronald A. and Shirley A. Petty. Suit for an order requiring the specific performance of alleged lease agreement. Atty. for plaintiff: Louis B. Blissard.

C-55393—Cayman Turtle Farm, Ltd., vs. Henry Bush, dba Tropic Seas Enterprises, also dba Tropic Meats Unlimited, and also dba Tropic Seas Food, et al. Suit for \$27,160 allegedly owed. Atty. for plaintiff: Timothy J. Holzer.

C-55394—Anne H. Nordeck vs. State of Hawaii. Suit for \$150,000 general damages and special damages to be shown at trial for injuries allegedly suffered due to defendant's alleged negligence. Atty. for plaintiff: Willson C. Moore Jr.

C-55395—R.G. Booker vs. Midpac Lumber Co., Ltd., Cesario R. Constantino, and Stewart Ltd. Suit for \$200,000 damages for injuries allegedly suffered due to defendant's alleged negligence. Atty. for plaintiff: D.N. Ingram.

C-55396—Wahiawa Builders, Inc., and Koji Tsujimura vs. Nakashima, Inc., Calvin T. Nakashima, individually and as president, general manager, and chief executive officer of Nakashima, Inc., Susan A. Nakashima, et al. Suit for not less than \$2.02 million general, special, punitive and other damages, for \$219,950 and interest allegedly owed, and for foreclosure of a lien on certain real property, all for alleged breach of contract, unfair and deceptive trade practices, and intentional infliction of mental distress. Atty. for plaintiffs: Bert T. Kobayashi Jr.



'BORN FREE'—Two green sea turtles, longtime residents of the Waikiki Aquarium, are returned to native waters. —Photo by George Balazs.

Aquarium Green Turtle Now Living Free in Natural Habitat

By Helen Ahorn
Star-Bulletin Writer

One of two green sea turtles returned to the ocean last October after years of tenancy at the Waikiki Aquarium recently was seen happily basking with other turtles at East Island in French Frigate Shoals.

That is a major nesting area for Hawaiian green sea turtles.

George Balazs, turtle authority at the Hawaii Institute of Marine Biology, saw the aquarium turtle hauled out on the beach at the end of East Island last month.

He didn't recognize the tag number and checked it with Leighton Taylor, aquarium director, who identified it as one of the released aquarium turtles.

"IT'S REALLY neat that an animal that lived here 10 years made it back (to the nesting ground)," Taylor said.

He said the former female resident of the aquarium also was observed to nest and produce live hatchlings.

He said a number of turtles had been on display at the aquarium for more than 10 years. "but they had outgrown the facility and I didn't feel the facility was proper for them."

In a recent aquarium newsletter, Taylor noted: "In the final analysis, the only justification for placing animals in captivity is to assure the well being of wild populations through increased human knowledge and understanding

"BECAUSE OUR green sea turtles, hawksbills and loggerheads had to share space with three large seals to the disadvantage of all the animals, we felt that we were unable to meet the dual responsibility of exhibit standards and therefore had to consider several alternatives."

One was to improve the facilities and a new sea turtle pool was planned with a nesting and basking beach to encourage the turtles to nest.

The 1976 Legislature appropriated \$100,000 for the project; the state designed plans, and Gov. George R. Ariyoshi participated in a groundbreaking ceremony.

But the funds were never released. CONSEQUENTLY, Taylor said the

aquarium's hawkbill and loggerhead turtles were given to Sea Life Park and eight adult green sea turtles were set free.

He said the hawkbill was retained because it is an endangered species --and it's unlikely that we would be able to obtain specimens again."

The Atlantic loggerheads weren't released because it was believed they couldn't survive in Pacific waters.

Although they won't see any turtles, members and guests of the Friends of the Waikiki Aquarium are invited to view the facilities and other exhibits at a special event from 5 to 9 p.m. Friday.

Mayor Frank F. Fasi will proclaim it "Friends of Waikiki Aquarium Day."

Star-Bulletin Sept 6, 78

Dial -A- Dietitian



By dialing 536-1315 between 8 a.m. and 6 p.m. on Thursday and Friday, your questions concerning foods and nutrition may be left with our answering service who will forward them to a graduate dietitian.

Your questions should be in simple and brief form and you must provide your name and telephone number in order that the dietitian may answer your questions in the next few days. No answers are given by mail.

Dial-A-Dietitian is sponsored by the Hawaii Dietetic Association and is available on Oahu only.

How many calories are there in broiled turtle meat?

Raw turtle meat has 89 calories in a 3½-ounce serving and cooked turtle meat has 106 calories per serving.

Is carrot juice bad for diabetics?

Not if used sparingly. Suggest 4 ounces not more than one time a week. Carrot juice has 8.3 gms of protein in 4 ounces. It also has 20,000 IU of vitamin A value in the form of carotene. This is 4 times the daily recommendation for vitamin A which can be stored in the body. Taken daily, 4 ounces of carrot juice will supply the toxic dose of 50,000 IU in 2½ days. Large doses of carotene will cause the skin to turn yellow.

What is the nutritive value of Pringles Potato Chips?

Ten chips (0.5 oz) of Pringles will supply 73 calories and 7.7 grams of carbohydrate.

What is the caloric count of vitamin E in 800 IUs?

Vitamins themselves have no calories. Vitamin E is usually found dissolved in oil in such small amounts that the calories will hardly count. The dosage of vitamin is usually excessive. The Food and Nutrition Board says "The absence of vitamin E deficiency in the general population suggests that the amount of vitamin E in foods consumed is adequate. The RDA for vitamin E for all people over four years of age is 30 IU daily."

What is the nutritional value of watercress and water chestnuts?

Watercress (1 cup) raw has 7 calories, 0.9 gm protein, 42 meq calcium, 27 mg of vitamin C, and 574 IU vitamin A. Watercress (½ cup) cooked has 7 calories, 0.9 gm protein, 42 meq calcium, 721 IU vitamin A and 22 mg. vitamin C. Waterchestnuts (4 medium) raw have 18 calories, 0.4 gms protein, 0 calcium, and no vitamins.

Skiers Complete San Diego-to-Waikiki Crossing

HONOLULU (AP)—Eighteen days, seven hours and four seas storms after they left San Diego, three thirsty, tanned and exhausted adventurers touched down Friday on a beach at Waikiki.

They had achieved the distinction of being the first persons to ski across more than 2,000 miles of Pacific Ocean in a stunt aimed at testing a product called "jet skis" and a wing stabilizer developed by one of the trio, 32-year-old Tom Calamia.

Calamia, Dave Calderon, 33, and Tracy Shelley, 21, had hoped to arrive in Honolulu the day after Christmas, but bad weather and ocean swells reaching heights of 25 feet slowed

them considerably.

"It was long, grueling, fun and scary and everything you can possibly imagine," Calamia said. He even was able to recount an incident of ramming into a startled turtle and being knocked into the water.

Calderon reported getting seasick once, while Calamia admitted that "Now and then, we all got queasy."

The two men usually rode for six-hour periods, while Shelley, a college coed, usually took three-hour rides. However, she often ended up gliding across the ocean for up to five and six hours as well.

Calamia said that at night, the skiers would ride in the wake of their

support ship, with a strobe light giving some sense of direction.

The jet ski is a mechanized version of a water ski, combined with a motorcycle and powered by a stream of water forced through a jet pump. Calamia, who conceived and put the trip together in a month's time, said the "wing" he developed helped make the skis "300 percent more stable."

He said he now has his sights and skis set to go up the Colorado and Feather rivers, and perhaps even take a crack at crossing the Hokkaido Channel in Japan.

The three are due to arrive back in San Diego—the more conventional way via a commercial airliner—on Sunday.

3-1908
(July 1961)



Bureau of Sport Fisheries and Wildlife
INTER-OFFICE TRANSMITTAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
DIVISION OF ECOLOGICAL SERVICES
300 Ala Moana Blvd., Rm. 6307
P. O. Box 50167
Honolulu, Hawaii 96850

INSTRUCTIONS: Attach securely to material to be transmitted & mail through regular channels

To: Director, _____
 Regional Director, _____
 Project Leader, _____
 GEO. BLAZS HTMB

Regular Mail
 Air Mail
 Action
 Information

From
MAURICE H. TAYLOR

Office
ECOLOGICAL SERVICES

Date
2/6/79

Subject
TURTLE INFORMATION

*Thought you'd be interested
maurice.*

SHRIMP TRAWLING HAS BEEN BANNED IN THE PORT CANAVERAL NAVIGATION CHANNEL under emergency regulations to protect the loggerhead and Atlantic ridley sea turtles which burrow into the channel bottom to hibernate. The prohibitions, effective upon publication 22-Nov in the Federal Register, could be extended beyond the normal 120-day lifetime for emergency regs following public hearings set for 12Dec in Port Canaveral FL. However, impact of the action on the shrimp fishery is not expected to be major, a Natl. Marine Fisheries Service spokesman noted, since the area is not frequently used for trawling.

The greatest potential damage to sea turtles could come from U.S. Navy operations at its submarine base in Port Canaveral. An earlier NMFS proposal (Federal Register, 28Jul78) to consider the navigation channel and other areas as critical habitats for sea turtles aroused the Navy's concern, OSN was told. However, it's not vessel or submarine traffic (which, after all, isn't supposed to scrape bottom, the Navy points out) that concerns wildlife officials, but the potential damage caused by dredging the channel during winter months. The two species are thought to hibernate in the area from at least November to March, NMFS notes, but it should be possible to carry out maintenance dredging during summer months with no harm.

From what is presently known, it appears that hibernating sea turtles, once disturbed, may not be able to return to hibernation, especially if the water is cold. The dislodged turtles, NMFS notes, may be further weakened by exposure to cold water temperatures and become highly vulnerable to predation. Shell damage may also result from contact with trawl doors or collision with other vessels. The agency will be carrying out further surveys, the first one this week and another in January, to gather additional information. Comments on the desirability of modifying or extending these emergency regs should be submitted by 22Jan79 to Asst. Administrator for Fisheries, NMFS, 3300 Whitehaven St. NW, Washington DC 20235. The 12Dec hearing, beginning at 10 a.m. in the Canaveral Port Authority Bldg., Port Canaveral, will address both the emergency regulations and the proposal to designate the area as a critical habitat. A separate hearing on a critical habitat designation for leatherback sea turtles in St. Croix is set for 6Dec. Additional information is available from William P. Jensen, NMFS Office of Marine Mammals & Endangered Species, at the above address; telephone: (202) 634-7461.

NOAA SCIENTISTS ARE MONITORING CHEMICAL WASTE DUMPING in the tropical and mid-Atlantic ocean to trace vertical and horizontal dispersion and examine effects on the marine ecosystem. The Natl. Oceanic & Atmospheric Administration conducted its first experiment 50 nautical miles north of Arecibo, Puerto Rico, late last month at a depth of 12,800 ft., and began a second experiment 13Nov off the New Jersey coast in 8,000 ft. of water. The scientists from NOAA's Atlantic Oceanographic & Meteorological Laboratories in Miami are employing acoustical and chemical methods in detecting and mapping liquid pathways, and are taking water samples where dumped liquid concentrations are highest.

A SERIES OF HYPERBARIC WELDING TESTS WERE SUCCESSFULLY COMPLETED by Oceaneering Intl. in Aberdeen, Scotland, to qualify welders and welding procedures to the acceptance standards of Phillips Petroleum and Det Norske Veritas. The test program, conducted for the Phillips Norway Group, will be completed during tests offshore in 300 ft. of water.

U.S. MARINE CORPS' AV-8B HARRIER MADE ITS FIRST FLIGHT 9NOV at McDonnell Douglas Corp. in St. Louis MO. The vertical/short takeoff and landing (V/STOL) aircraft, which succeeds the British Aerospace AV-8A Harrier, next will fly to the Naval Air Test Center in Maryland to complete the flight test program. Following the prototype phase, full-scale development will begin Jan79 with full-scale production slated to start in 1983.

TRACOR INC. REPORTED A 25% INCREASE IN EARNINGS OVER LAST YEAR both for the third quarter and nine months of 1978. That makes the 14th consecutive quarter of increased earnings for the Austin TX-based, technological products and services company.

—A FOOT & A FIELD IN HAWAII—

Turtle Man and a peek into

By Helen Shiras Baldwin

All of us who filled to overflowing a room at Hilo Community College recently enjoyed a real treat when the "Turtle Man" spoke to us about the leeward islands of the Hawaiian island chain and also about the sea turtles and other life there. He had also a truly magnificent set of photographic slides of all the little islands and their wildlife, especially the turtles which he is studying.

So we had pictures of sea turtles from the time they come to their ancestral breeding grounds and waters, the digging of the nest, the eggs laid there and covered with sand, then the hatching and instinctive rush of the hatchlings to the sea where they are safe from land predators.

But here they meet other predators and different hazards. So comparatively few of the turtles hatched each year survive to adulthood and still fewer to old age. Little as yet is known about the life of young turtles in the sea and why so many die. That is one of the things the Turtle Man is studying to find out. Young turtles can be caught and raised in captivity but that is very different from growing up in the wild.

To study any one form of life, it is necessary to study the environment in which it lives. So we were given a detailed tour of the little islands which were once noble volcanic peaks that have gradually eroded and sunk to mere fragments of their former selves on their long journey riding their Pacific crustal plate northwestward toward Taiwan and Japan.

This gives us a preview of the fate of our own islands tens of millions of years from now. By then our own islands will be submarine foundations for coral reefs and atolls and in the case of our own island of Hawaii, a curving rocky islet flanked by two little islands once the tops of Kilauea and Kohala. Meanwhile new volcanoes will be building new islands as the sea floor of the big crustal plate glides over the mid Pacific hot spot.

This is the foundation upon which life has built its variety and abundance, and would continue to do so if man did not interfere. But man's record in the mid Pacific has been a strange mixture of appreciation and concern on one hand and ruthless destruction on the other. So it is no wonder that some species have become extinct while others like the monk seals and the sea turtles are now on the endangered species list.

Theodore Roosevelt visited these islands during the summer nesting season when thousands of sea birds of various species were nesting on the sand, the rugged cliffs, in and under shrubbery. He was so much impressed that he joined with conservation forces of seventy years ago and succeeded in getting the island chain made a wild bird sanctuary. This has been expanded to include other life as well and the curious archeological remains on Necker and a few other tiny islands.

During the guano mining episode when tons of bird droppings were hauled off for fertilizer, rabbits were liberated on two well vegetated islands to provide

our future

additional meat for the workers. When the guano operations closed down, the rabbits were left behind without predators or disease to keep down their numbers. The rabbits increased to the limit of their food supply then slowly diminished through starvation as the vegetation was used up. Unfortunately two rare native land birds also perished as food and water supplies disappeared.

Much later the government sent out men to exterminate the remaining rabbits. Then vegetation was transplanted from other islets to rehabilitate the bare ones. This operation has proven successful and birdlife is returning slowly as are the seals and turtles.

The greatest havoc of all was done by our Armed Forces during and after World War II. Many islets were practice-bombed as training exercises, ruining many bird nesting sites. The top of Necker island was blasted off to make a landing place for helicopters regardless of any archeological remains that may have been there.

The crowning injustice came with the permit to destroy thousands of sea birds during the breeding season to keep them off of certain airfields. The birds fouled the jet engines, wings and tails of aircraft making it hazardous to land or take off from these fields. Ironically after the island with one airfield was cleared of birds the airfield was abandoned as the runway was too short for the new planes. Yet in other ways the military were very careful not to harm the birds. Now the survivors are slowly increasing since the slaughter is over.

Hawaii's Leeward Islands

Leeward Island

There has been increased interest lately in the potential fishery and natural resources of the Leeward (northwestern) Hawaiian Islands. These islands stretch out 1500 miles from the main inhabited Hawaiian Islands to Kure Atoll, also a part of the state. In between, very little land shows above the water, but extensive shoals and reefs and nearshore waters are rich in marine life and birds.

Several bills were passed in the 1978 State legislative session relating to the Leewards, mainly for planning the future commercial fisheries. Some of the natural resources in the area include, groundfish and precious corals (often on the seamounts in the U.S. 200 mile fishery zone); tuna; billfish; ono; mahimahi; bottomfish (snappers and groupers); lobsters; and turtles. The fish called Opeku Kala (*Naso Hexacanthus*) may be found in schools large enough for commercial boats, but no research has been done on this species in the area. Other fishes important in Hawaii, such as the reef fish menpachi, are abundant also. The offshore nehu (*Stolephorus buccanieri*) may be important as a baitfish for aku.

A difference of opinion exists over who should actually control parts of this vast area. A 1909 executive order signed by President Theodore Roosevelt designated the Leewards as a wildlife refuge, mainly to protect the

research plan approved

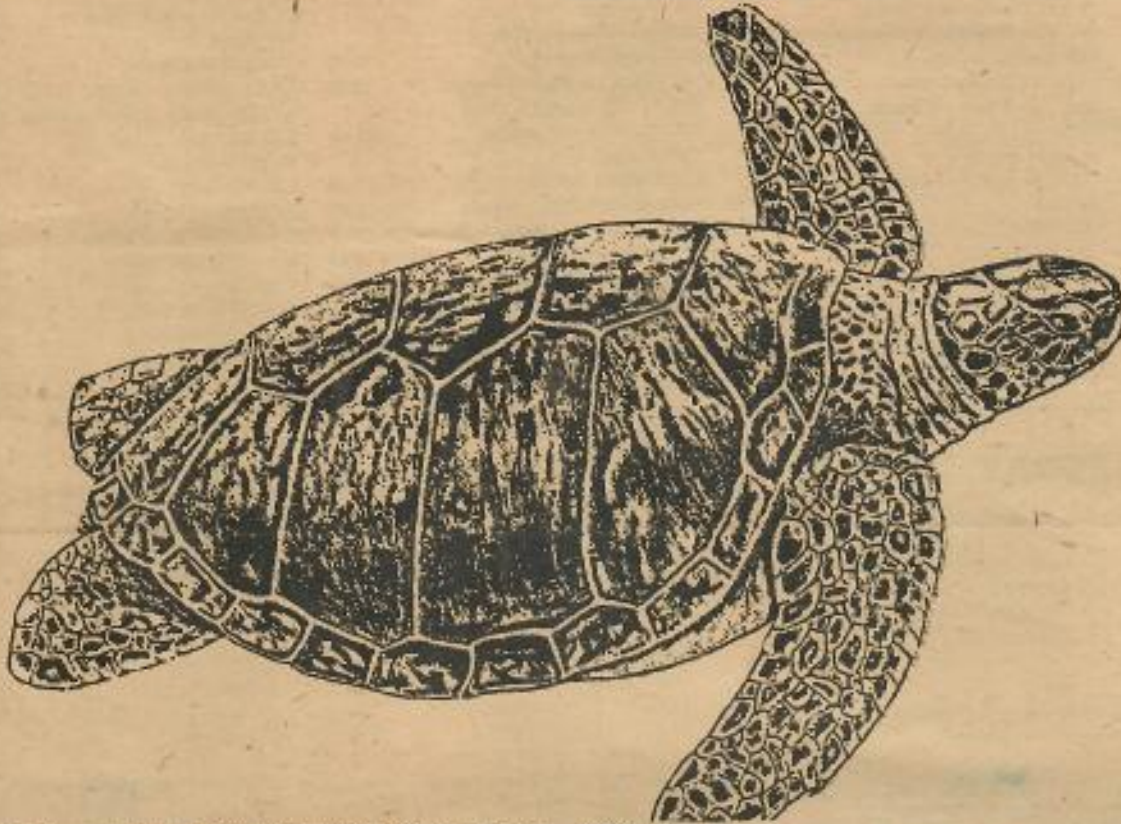


Marine
advisor

Pete Hendricks

U.H. Sea Grant

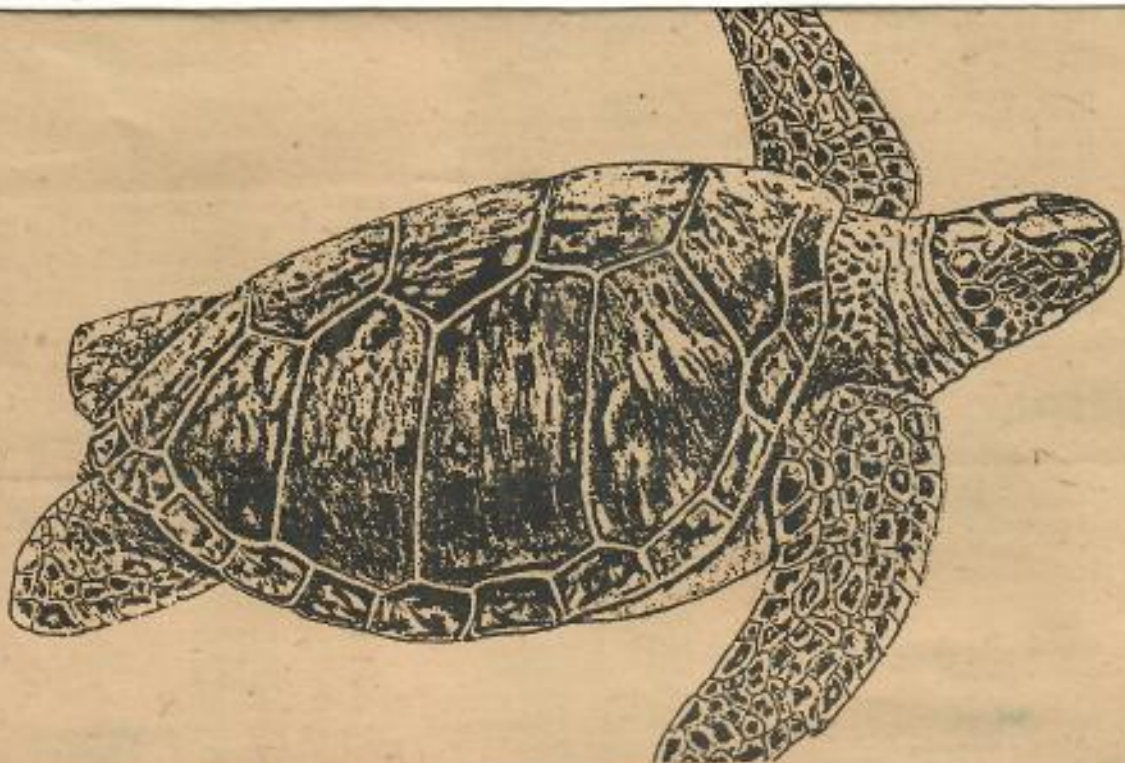
For information
about a lecture
tomorrow in Kona
about the Leeward Islands,
please see page 7



birdlife from plamage and egg hunters. Other animals
have become important also, such as the Hawaiian Monk

zones.

One marine animal which disregards man's boundaries



birdlife from plumage and egg hunters. Other animals have become important also, such as the Hawaiian Monk Seal, now protected by the Endangered Species Act of 1973.

The 'emergent lands' (above the water) in the Leewards total about 1700 acres. There is a proposal in Congress to designate the Leewards a "Wildlife Area" which would bring even tighter restrictions regarding access and use of the area. Under one plan, about 303,000 acres of land and water would fall under federal control. The State of Hawaii considers the ocean out to three miles as state water. The federal government would take control of all nearshore waters in the area as part of the wildlife management - protection program. The state wants to participate in the management of nearshore waters, which contain some of the most important commercial species of marine life.

A "Tripartite Agreement" has been reached for initial resource research work in the Leewards. The parties are National Marine Fisheries Service (federal), U.S. Bureau of Fish and Wildlife, and the Hawaii State Division of fish and Game. U.S. Fish and Wildlife will handle the land zone (including avian resources and dependence on nearshore small fish), Hawaii Fish and Game will handle the nearshore zone from land out to 20 meters deep, and NMFS will handle the pelagic ocean area from 20 to 200 meters deep. Obviously, some species overlap several

zones.

One marine animal which disregards man's boundaries is the sea turtle. In fact, sea turtles use all three of the designated research zones in their travels: the land phase, in which baby turtles emerge from eggs buried in the sand by their mothers; the oceanic phase which can include migrations of many hundreds of miles; and a nearshore phase, in which the turtles graze for periods on shallow 'pastures' of algae in the ocean. The illustrations with this column depict Green sea turtles found in the Hawaiian Islands, along with Hawksbill and Leatherback turtles. Many of these turtles visit our shores, and a few are known to nest and lay eggs, but the main nesting grounds are in the Leeward Islands. Hawksbill and Leatherback turtles are protected by federal law. Green sea turtles are no longer a commercial fishery in the state, due to excessive pressure on the stocks. They may be taken for home consumption only by permit from Hawaii Fish and Game Division, and then the animal must have a straight-line shell length of at least 36 inches.

Voluntary information on turtle sightings is helpful to researchers determining population and migration statistics. If you are interested in more information on this program, call or write our office (322-2577; Box 839, Kealahou, HI 96750).

NOTE: The free Marine Lecture Series tomorrow Saturday, July 1, will feature George Balazs, Hawaii Institute for Marine Biology, speaking on wildlife of the Hawaiian Leeward Islands. Balazs is an authority on sea turtles of the Pacific, and has done field work in the Leeward Islands. The lecture (with slides) will be at 7 p.m. in the Kamehameha Room of the Kona Surf Hotel.



Turtle sightings, fish catch reports helpful to studies

Last week we discussed the Hawaiian Leeward Islands and their marine natural resources, including commercial potential. One of the marine animals of that area with former, and perhaps future, economic importance is the green sea turtle.

Sea turtles are animals about which virtually nothing is known from the time they leave the beach as one ounce

hatchlings until they are first seen as juveniles (about 10 pounds or larger). The juvenile turtles are usually first seen in shallow waters close to shore. Juvenile and larger turtles are found in the main Hawaiian Islands, and occasionally adults nest and lay eggs here. A few hatch on our beaches and go to sea.

Smaller size turtles apparently live for a period of time in the open ocean away from land where they feed on squids, crustaceans and jellyfish. Their growth rate is about ¼ inch per year. Commercial fishing for green sea turtles is currently prohibited due to stress on the stocks of animals. George H. Balazs of the Hawaiian Sea Turtle Research Program is seeking biological and ecological information on young sea turtles (under 10 pounds). One method for gaining information involves the indirect sampling of the turtles from the stomachs of pelagic fishes such as tuna, mahimahi, marlin, sharks and others. These fishes may periodically eat small turtles. The information gathered in this project will be valuable in improving management of Hawaiian sea turtle stocks. Any fisherman finding a fish with turtle contents in the stomach can call George Balazs direct at 247-6631 (Oahu). Neighbor islanders may call collect.

An ongoing program helpful to marine research is the sea turtle sighting program. This is a volunteer program in which persons sighting sea turtles report information on standard forms designed for this purpose (see illustration at bottom of page). For either of the above programs, you can contact George H. Balazs, Hawaii Institute of Marine Biology, P.O. Box 1346, Kaneohe, HI, 96744.

A marine research project very visible to Kona fishermen is the National Marine Fisheries Service Fish Aggregation Buoy system. There are six in the state. The two buoys off Kona, 4 miles out from Kaiwi Point and 8 miles up from Ke-ahole Point are drawing fish for commercial, charter and recreational boats. An experimental project of this type requires voluntary information from fishermen to be successful. The main problem, according to fisheries personnel, is not lack of fish, but lack of information about the catches. The statistics are necessary to justify maintaining (and perhaps adding) buoys. The illustration at the left is a sample Fish Catch Record for reporting catches within 3 miles of the buoys. Visits to the buoys with no catches should also be recorded. Some volunteer fishermen have been reporting already, but more data is needed. Some Kona Charter Skippers Association, Kona Activities Center, Kona Manka Trollers and Kona Iki Trollers members have been reporting. If you are interested you can also contact our office, P.O. Box 659, Kealahou, HI, 96750. Phone 322-2577.

SEA TURTLE SIGHTING REPORT

(Please return to: George H. Balazs,
Hawaii Institute of Marine Biology;
P. O. Box 1346; Kaneohe, HI 96744;
Tel. 247-6631)

Observation made by: _____

Address & Tel. no. (optional): _____

Date: _____ Time: _____ Location (indicate on chart): _____

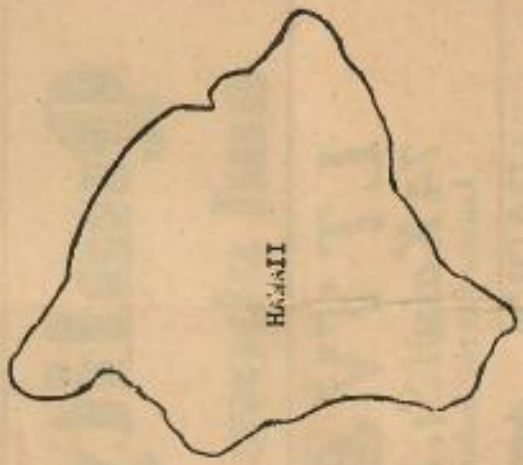
Observation made from: _____ shore;
_____ boat; or while _____ skin _____ SCUBA diving.

Estimated size (shell length): _____

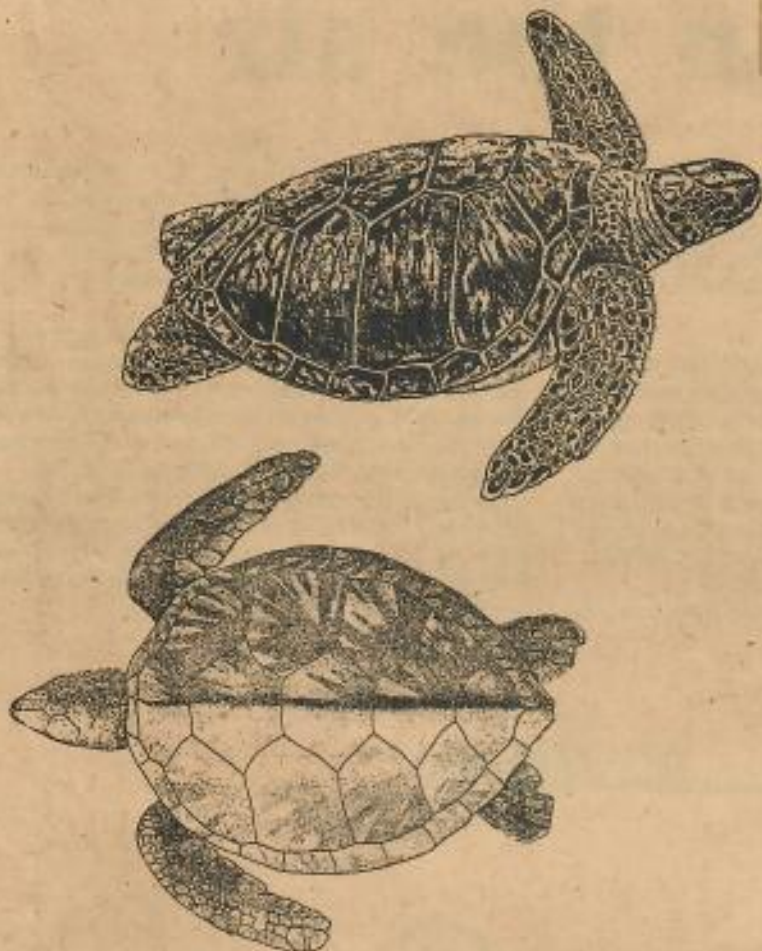
Turtle seen on: _____ surface; or at depth of approx. _____ ft. Distinguishing

characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): _____

Other comments: _____



THANK YOU FOR YOUR COOPERATION



GREEN TURTLE — *Chelonia Mydas*

Wildlife and geology of the Hawaiian leeward island chain

George H. Balazs, assistant marine biologist at the Hawaii Institute of Marine Biology, Coconut Island, will present a slide lecture on "Wildlife and Geology of the Hawaiian Leeward Island Chain" on Friday, at 7 p.m. at the Hawaii Community College, Building 394, Room 1.

Balazs is a research biologist with the endangered Hawaiian green turtle being his special interest. He received B.S. and M.S. degrees from the University of Hawaii and has studied the green turtle at French Frigate Shoals in the Hawaiian Islands National Wildlife Refuge.

He was recently appointed a member of the marine turtle specialist group of the International Union for Conservation of Nature. His research has included studying the movements, growth, and eating habits of the green turtle and he has published a number of scientific and popular articles dealing with the ecology and conservation of these endangered turtles.

tomorrow on Leeward Islands

George Balazs, biologist with the Hawaii Institute of Marine Biology, will lecture on "Wildlife and Geology of the Hawaiian Leeward Islands" tomorrow, Saturday, at 7 p.m. in the Kona Surf.

The lecture by Balazs is the fourth in a series of marine lectures sponsored by the University of Hawaii Sea Grant Marine Advisory Program, the Waikiki Aquarium, Office of Marine Affairs, and the Hawaii Academy of Science.

Admission is free and the public is invited to attend the lecture in the Kanehameha Room of the Kona Surf, according to Pete Hendricks, UH Marine Advisor in Kona.

The marine life of the

LEATHERBACK TURTLE—Among the turtles found in Hawaiian Leeward Islands are the Leatherback variety, shown at left. Drawing by biologist George Balazs.

HAWKSBILL TURTLE—Here Balazs has drawn the Hawksbill Turtle, another variety found in the Leeward Islands of Hawaii. Tomorrow night at the Kona Surf, he will lecture on "Wildlife and Geology of the Hawaiian Leeward Islands." It is the fourth series of Marine Lectures sponsored by the University of Hawaii Sea Grant Marine Advisory Program, and other marine life oriented organizations. Both drawings courtesy of George H. Balazs and the Hawaii Institute of Marine Biology.

Hawaiian Leeward Islands is widely known for its diversity and plenty.

Balazs is also an artist of marine life, and the turtle pictures accompanying this article were drawn by him.

Other lectures in the series given in Kona this year were, "Hawaiian Coral Reefs: How They Grow, What Lives There," by Professor Arthur Reed, given on April 1; "Fish, Sharks and Other Friendly Forms of Reef Life," by Leighton Taylor, Waikiki Aquarium director, April 29; and "Ocean Currents and Waves and How They Affect Hawaii," by Professor Edward Stroup,

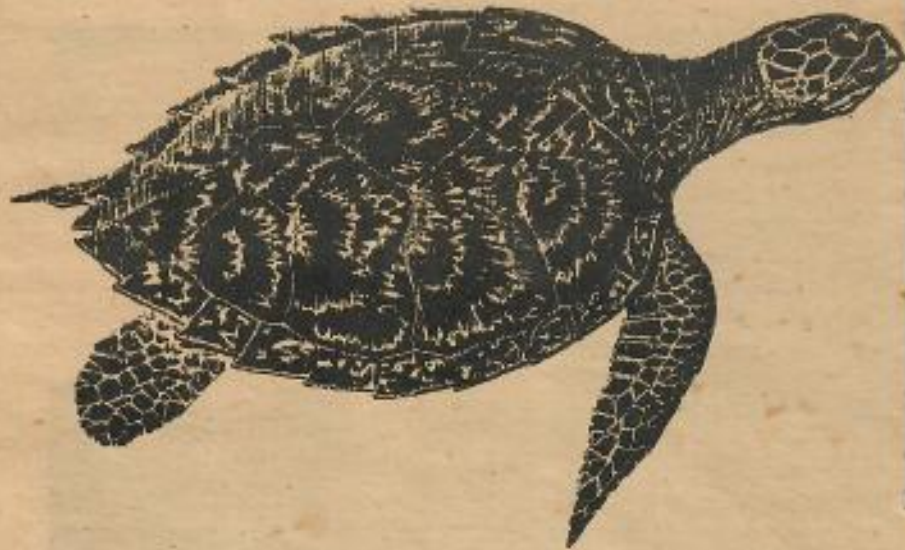
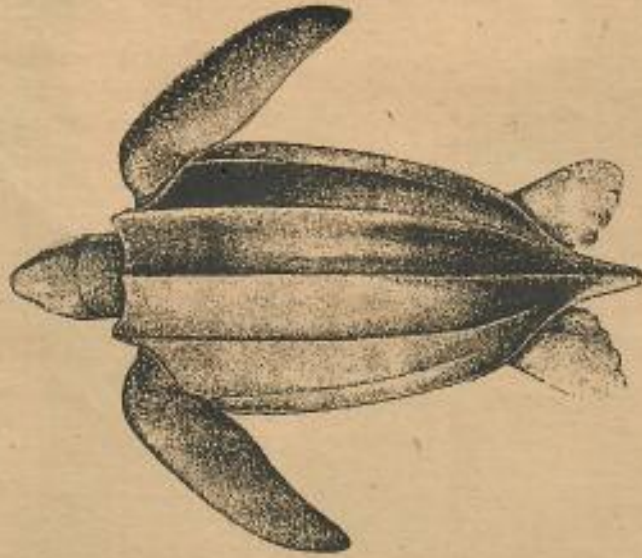
May 27.

The final lecture in the series will be given on July 29 by Professor Alison Kay on "Opihi."

For further information, call Pete Hendricks in Kona at 322-2577.

Marine life lecture

Biologist speaking



State Litter Control Program

THE TOURISTS write letters about the litter they see in Hawaii.

The Islanders who appreciate their state's rich natural beauty are embarrassed by the ugliness that litter causes.

Hawaii is trying to do something more than the sporadic clean-ups that organizations and individuals have conducted for years. Since last August the state has had a Litter Control Program in the State Health Department, the result of the State Litter Control Law passed by the 1977 Legislature.

The program's responsibility is to eliminate litter in Hawaii; there is a

A week-long litter cleanup campaign begins Saturday.

Litter Control Plan organized with seven goal categories and 18 program elements.

One part of the plan calls for a massive statewide litter cleanup campaign; the week-long campaign will begin Saturday. The campaign is a high point in an education and litter law enforcement effort that continues throughout the year.

Clyde B. Morita, administrator of the Litter Control Program (LCP), said organizations and individuals are volunteering to help in the campaign, to be known as Clean Our Land Week. Groups who want to participate may arrange to do so by calling the litter hotline at 549-3400.

THE CAMPAIGN begins in April, chosen as Keep America Beautiful Month. Saturday was Keep America Beautiful Day, sponsored nationally by Keep America Beautiful, Inc., an organization founded in 1953 by the beverage and container industry and funded by it.

gram in effect by the fall semester, Morita said.

He admits the litter control will demand continuing efforts, that only the surface of the program has been scratched so far. Recommendations on needed laws or programs will be presented to the next Legislature, he said.

The Litter Control Program, especially in its public education and public relations, has been assisted by Clean Hawaii, a private, non-profit group supported by concerned businesses.

Clean Hawaii is working on a long-range program to educate children in the ethics of not littering.

The state's two-year pilot program to control litter is supported by a \$300,000 appropriation from the general fund.

The proper approach to the litter problem has been subject of much debate. Many environmental groups have favored a mandatory deposit law, the so-called "bottle bill", modeled after the law pioneered by Oregon. An attempt to pass a bottle bill in the recent legislative session was again defeated in the Senate Ecology, Environment and Recreation Committee, despite support by the committee chairman, Sen. Jean King.

MANDATORY DEPOSIT legislation was adopted this year by the Iowa and Connecticut legislatures. Deposit bills were passed in 1977 in Maine and Michigan but the laws haven't yet taken effect in those states.

Oregon and Vermont are the only states with much experience so far with mandatory deposit laws. Citizens and public officials in both states say the laws are working very well and have statistics to prove it. Representatives of the beverage and



Harry Whitten

container industries have other statistics to dispute these claims.

Hawaii's litter law is modeled after the one in the state of Washington, which went into effect in 1972. The Washington law takes a broad approach to the problem, emphasizing public education, recycling, and control efforts on other forms of litter besides bottles or cans.

California, Colorado and Virginia have adopted litter laws along the line of the Washington law. The Oregon and Washington approaches are not mutually exclusive; Maine has tried to combine the two.

A strong argument in favor of the mandatory deposit law is that it fosters savings in energy, resources and pollution reduction as well as reducing litter.

Newspapers and officials in Oregon and Washington have been carrying on public debates as to which state has the best approach. Surveys and statistics are presented to support each approach.

My observations, made on a trip last summer, are that both beautiful states are doing a better job at litter control than Hawaii or most other states.

Litter control is complex, involv-

ing good habits, pride, source reduction, recycling, and continuing education. Hawaii's Clean Our Land Week, besides reducing litter for a while, should help make Islanders aware of what needs to be done to keep Hawaii beautiful.

Storm Damage

DR. GEORGE H. MILLS, medical director of the Kamehameha Schools, has sent us an item from the Massachusetts Audubon Newsletter telling about the damage done by storms to houses built on sand, in flood hazard areas, in filled-in salt marshes, or close enough to the ocean to suffer wave destruction.

The author says, "I found out why I am a conservationist."

Dr. Mills said he was impressed by how pertinent the article was to problems of wave and storm damage due to poor judgment and politics in Hawaii.

"I wonder how many early Hawaiians would locate their grass houses on the North Shore beaches, Keapuka, or on the valley walls out Aiea Haina way," he said.

Notes

A LECTURE, "The Wildlife of the Leeward Hawaiian Islands," will be given at 7:30 p.m. Wednesday at the Waikiki Aquarium by George Balazs, of the University of Hawaii's Institute of Marine Biology.

The lecture, part of the Marine Lecture Series, will be repeated at 7:30 p.m. Thursday in Room GT 105, Leeward Community College, and May 3 at Kaneohe Regional Library.

Elvis Stahr, president of the National Audubon Society, will present the charter to the new Hawaii chapter at 7:30 p.m. May 15 in St. John Hall, University of Hawaii.



UGLY BUT NICE—A rare loggerhead turtle gobbles squid at Sea Life Park after a mysterious ocean journey to Hawaii.—Star-Bulletin Photo by Warren Roll.

Battered Vagrant Gets a Lift and Finds a Home in Hawaii

By Helen Altom
Star-Bulletin Writer

A Waianae veterinarian fishing off Lanai recently rescued an injured stranger in Hawaiian waters—a loggerhead turtle battered by sharks.

Scientists say it's only the second such turtle ever found here. They speculate it may have escaped from captivity somewhere because it isn't afraid of people.

The rare, 200-pound animal is under treatment at Sea Life Park where it is reported "eating squid like a bandit . . . and eating out of people's hands."

DR. LYNN MCKINNEY of the Waianae Veterinary Clinic said his family was fishing from a boat at Penguin Banks "and the water was flat, and we thought we saw a log. We always fish by logs and we came up on it."

He said his wife, a reporter for Hawaii Fishing News, discovered the log was a turtle and wanted to get pictures of it.

"We came up close to it, and it tried to get on the boat to rest—it was so tired. We stopped the boat and it went all around looking for a ledge to climb on," McKinney said.

"We thought it was a common old turtle, but we couldn't see leaving him out there. After about half an hour of playing cowboy, we finally got him roped—it's not the easiest thing to get a rope around—and brought him back.

"Being a veterinarian, I still don't know too much about turtles," McKinney said. "I didn't know what to do with him."

HE SAID THE TURTLE had been attacked by sharks and had lost his tail and a flipper. He had a big bite on his head and he was heavily infested with parasites.

"He had two big barnacles on his back that looked like eyes sticking out," McKinney said.

"All turtles cry, and he was sure crying. Tears were running out of his eyes. He was a nice turtle," McKinney added.

He called the National Marine Fisheries Service, which suggested he take the turtle to Edward Shallenberger, director of operations at Sea Life Park.

Park officials said yesterday the turtle was "really emaciated and in extremely bad shape, but he seems to be recovering nicely."

"He is not a beauty. He's a

beat-up turtle and he has a great big head—bigger than most turtles," they said.

GEORGE H. BALAZS, University of Hawaii research biologist and an authority on turtles, noted the loggerhead's condition and surmised, "It's likely that he drifted off track and floated here."

He said loggerhead turtles generally live in the Atlantic Ocean but some are found off Baja California, off Fiji and the south coast of Japan.

"This one is a lost individual from another population," Balazs said.

He said in the late 1930s or early 1940s, former Waikiki Aquarium Director Spencer Tinker identified the only other loggerhead turtle found in the Hawaiian Islands.

Balazs suggested the new arrival might have gotten away from a facility elsewhere because of its unusual acceptance of humans and captive conditions.

"It sticks its head out of the water waiting to be fed," he said. "Wild turtles don't act that way—even sick and tired ones. A wild turtle would be fearful."

Crown of Thorns Starfish

THE CROWN of thorns starfish, considered a menace a few years ago to reefs off east Molokai and especially to the Great Barrier Reef off Australia, has been out of the news lately.

Word now comes that this coral-eating echinoderm has been causing severe damage to reefs off American Samoa, after first being sighted there in 1976.

The American Samoan government has become so concerned that it is offering a bounty of 15 cents on each dead starfish. The offer, announced last month by Manager Henry Sesapasara of the Office of Marine Resources, applies only to the crown of thorns; other forms of starfish aren't wanted.

The crown of thorns starfish was first noted in 1976 on a reef near the entrance to Pago Pago Harbor and the infestation has spread to reefs on both sides of the harbor entrance.

One official in the Office of Marine

The crown of thorns starfish has been causing severe damage to reefs off American Samoa.

Resources thinks there are millions of the starfish eating away and moving into more live coral.

There is some disagreement in scientific circles as to exactly how much of a menace the crown of thorns starfish is. Some scientists, led by Robert Endean of the University of Queensland, think the starfish will destroy vast stretches of reef, especially the Great Barrier Reef but also other reefs in the Pacific and Indian oceans.

OTHER SCIENTISTS think the starfish infestations are natural developments that come in cycles. Edward Frankel, professor of geology at the University of Sydney, made drillings that showed evidence of starfish spines buried deep in the Great Barrier Reef, which would indicate starfish infestations are no recent thing.

The starfish are believed normally present on coral reefs in small numbers; concern has been aroused only when they were found in great numbers.

A big starfish plague was reported off Okinawa in the late 1950s, and then at other places in the Pacific and Indian oceans, including Guam and the Cook Islands.

The crown of thorns was first noted in Hawaii in 1969. The State Fish and Game Division, led by



Harry Whitten

Kenji Ego, Fisheries Branch chief, mobilized divers who used hypodermic needles and syringes to inject ammonium hydroxide (aqua ammonia) into the starfish.

Three expeditions were conducted, in 1970, 1972, and 1975, to the main starfish colony, a three-mile reef off Kawela, Molokai, five miles east of Kaunakakai. Thousands of starfish were poisoned.

EGO SAYS Fish and Game hasn't done anything lately about the Molokai colony and has no plans for any further action in the immediate future. He says the starfish are still there but doesn't know to what extent.

Albert H. Banner, University of Hawaii professor of zoology, says the excitement concerning the crown of thorns starfish has died down. He thinks the whole matter was much overblown eight years ago.

He is interested, however, in what develops concerning the crown of thorns starfish infestation in American Samoa.

Soil Erosion

LEGUMES, SUCH AS BEANS, peas, clover and alfalfa, have long been prized by farmers. Aside from their obvious virtues, they have the ability to take nitrogen from the air and convert it into forms of nitrogen that can be used by plants.

Mainland farmers try to rotate legumes with other crops. Here in Hawaii the U. S. Soil Conservation Service and the Hawaiian Sugar Planters Association Experiment Station are interested in legumes to prevent soil erosion, with an added benefit of savings in cost of fertilizer, plus less energy and less labor needed to apply the fertilizer.

Sugarcane fields erode after harvesting and during the first four to six months of the planting cycle, until the young cane gets bigger. The erosion takes away valuable soil

and also washes sediments into streams and coastal waters.

Some new harvesting methods leave a crop residue on fields for soil protection after harvest. Researchers think a ground cover plant could do the job better.

Researchers at the Soil Conservation Services Hawaii Plant Materials Center at Hoolehua, Molokai, started the search for a good ground cover plant two years ago and decided that low-growing legumes would be best.

SEVENTY VARIETIES of legumes were evaluated; two have emerged as most promising for Hawaiian conditions.

"It looks as if our search is drawing to a close," says Robert J. Joy, plant materials specialist and center director.

The two most promising plants are the bur clover and the narrow-leaf trefoil; they will undergo final field observations.

The plant that researchers were looking for must germinate and cover the ground rapidly, be low-growing and not climb the cane. It should not compete for nutrients and should die out as the cane overtopped it. It should reseed itself and should not harm other agriculture if it were to migrate from the cane-fields.

Both bur clover and trefoil will be planted within the next few weeks on Oahu and Big Island plantations under supervision of Robert D. Wiemer, HSPA sub-station manager and project leader.

These trials are to find out how adaptable the two legumes are to varying field conditions.

The prospective energy conservation results from the legumes' ability to convert atmospheric nitrogen into nitrogen for the soil. Initial testing indicated as much as 500 pounds per acre of nitrogen was fixed in the soil by the legume plantings, which would significantly reduce the amount of nitrogen fertilizer that would ordinarily be applied to the cane fields.

Research has done wonders for American agriculture. The experiments now being conducted with the two legumes shows how research can continue helping to solve problems, including such ones as soil erosion and water sedimentation.

Necker Island

GEORGE BALAZS of the Hawaii Institute of Marine Biology has been tireless in his efforts to save sea turtles and the Hawaiian monk seal.

He recently did research on Necker, one of the Northwestern Hawaiian Islands. He'll discuss and show pictures of the seals, turtles, birds and Polynesian archeology of Necker at a lecture at 7:30 p.m. Friday in the Waikiki Aquarium foyer.

The lecture, open to the public, is sponsored by the Friends of the Waikiki Aquarium.

Crown of Thorns

THE CROWN of thorns starfish, considered a menace a few years ago to reefs off east Molokai and especially to the Great Barrier Reef off Australia, has been out of the news lately.

Word now comes that this coral-eating echinoderm has been causing severe damage to reefs off American Samoa, after first being sighted there in 1976.

The American Samoan government has become so concerned that it is offering a bounty of 15 cents on each dead starfish. The offer, announced last month by Manager Henry Sesapasara of the Office of Marine Resources, applies only to the crown of thorns; other forms of starfish aren't wanted.

The crown of thorns starfish was first noted in 1976 on a reef near the entrance to Pago Pago Harbor and the infestation has spread to reefs on both sides of the harbor entrance.

One official in the Office of Marine

The crown of thorns starfish has been causing severe damage to reefs off American Samoa.

Resources thinks there are millions of the starfish eating away and moving into more live coral.

There is some disagreement in scientific circles as to exactly how much of a menace the crown of thorns starfish is. Some scientists, led by Robert Endean of the University of Queensland, think the starfish will destroy vast stretches of reef, especially the Great Barrier Reef but also other reefs in the Pacific and Indian oceans.

OTHER SCIENTISTS think the starfish infestations are natural developments that come in cycles. Edward Frankel, professor of geology at the University of Sydney, made drillings that showed evidence of starfish spines buried deep in the Great Barrier Reef, which would indicate starfish infestations are no recent thing.

The starfish are believed normally present on coral reefs in small numbers; concern has been aroused only when they were found in great numbers.

A big starfish plague was reported off Okinawa in the late 1950s, and then at other places in the Pacific and Indian oceans, including Guam and the Cook Islands.

The crown of thorns was first noted in Hawaii in 1969. The State Fish and Game Division, led by



Harry Whitten

Kenji Ego, Fisheries Branch chief, mobilized divers who used hypodermic needles and syringes to inject ammonium hydroxide (aqua ammonia) into the starfish.

Three expeditions were conducted, in 1970, 1972, and 1975, to the main starfish colony, a three-mile reef off Kawela, Molokai, five miles east of Kaunakakai. Thousands of starfish were poisoned.

EGO SAYS Fish and Game hasn't done anything lately about the Molokai colony and has no plans for any further action in the immediate future. He says the starfish are still there but doesn't know to what extent.

Albert H. Banner, University of Hawaii professor of zoology, says the excitement concerning the crown of thorns starfish has died down. He thinks the whole matter was much overblown eight years ago.

He is interested, however, in what develops concerning the crown of thorns starfish infestation in American Samoa.

Soil Erosion

LEGUMES, SUCH AS BEANS, peas, clover and alfalfa, have long been prized by farmers. Aside from their obvious virtues, they have the ability to take nitrogen from the air and convert it into forms of nitrogen that can be used by plants.

Mainland farmers try to rotate legumes with other crops. Here in Hawaii the U. S. Soil Conservation Service and the Hawaiian Sugar Planters Association Experiment Station are interested in legumes to prevent soil erosion, with an added benefit of savings in cost of fertilizer, plus less energy and less labor needed to apply the fertilizer.

Sugarcane fields erode after harvesting and during the first four to six months of the planting cycle, until the young cane gets bigger. The erosion takes away valuable soil

Crown of Thorns

THE CROWN of thorns starfish, considered a menace a few years ago to reefs off east Molokai and especially to the Great Barrier Reef off Australia, has been out of the news lately.

Word now comes that this coral-eating echinoderm has been causing severe damage to reefs off American Samoa, after first being sighted there in 1976.

The American Samoan government has become so concerned that it is offering a bounty of 15 cents on each dead starfish. The offer, announced last month by Manager Henry Sesapasara of the Office of Marine Resources, applies only to the crown of thorns; other forms of starfish aren't wanted.

The crown of thorns starfish was first noted in 1976 on a reef near the entrance to Pago Pago Harbor and the infestation has spread to reefs on both sides of the harbor entrance.

One official in the Office of Marine

The crown of thorns starfish has been causing severe damage to reefs off American Samoa.

Resources thinks there are millions of the starfish eating away and moving into more live coral.

There is some disagreement in scientific circles as to exactly how much of a menace the crown of thorns starfish is. Some scientists, led by Robert Endean of the University of Queensland, think the starfish will destroy vast stretches of reef, especially the Great Barrier Reef but also other reefs in the Pacific and Indian oceans.

OTHER SCIENTISTS think the starfish infestations are natural developments that come in cycles. Edward Frankel, professor of geology at the University of Sydney, made drillings that showed evidence of starfish spines buried deep in the Great Barrier Reef, which would indicate starfish infestations are no recent thing.

The starfish are believed normally present on coral reefs in small numbers; concern has been aroused only when they were found in great numbers.

A big starfish plague was reported off Okinawa in the late 1950s, and then at other places in the Pacific and Indian oceans, including Guam and the Cook Islands.

The crown of thorns was first noted in Hawaii in 1969. The State Fish and Game Division, led by



Harry Whitten

Kenji Ego, Fisheries Branch chief, mobilized divers who used hypodermic needles and syringes to inject ammonium hydroxide (aqua ammonia) into the starfish.

Three expeditions were conducted, in 1970, 1972, and 1975, to the main starfish colony, a three-mile reef off Kawela, Molokai, five miles east of Kaunakakai. Thousands of starfish were poisoned.

EGO SAYS Fish and Game hasn't done anything lately about the Molokai colony and has no plans for any further action in the immediate future. He says the starfish are still there but doesn't know to what extent.

Albert H. Banner, University of Hawaii professor of zoology, says the excitement concerning the crown of thorns starfish has died down. He thinks the whole matter was much overblown eight years ago.

He is interested, however, in what develops concerning the crown of thorns starfish infestation in American Samoa.

Soil Erosion

LEGUMES, SUCH AS BEANS, peas, clover and alfalfa, have long been prized by farmers. Aside from their obvious virtues, they have the ability to take nitrogen from the air and convert it into forms of nitrogen that can be used by plants.

Mainland farmers try to rotate legumes with other crops. Here in Hawaii the U. S. Soil Conservation Service and the Hawaiian Sugar Planters Association Experiment Station are interested in legumes to prevent soil erosion, with an added benefit of savings in cost of fertilizer, plus less energy and less labor needed to apply the fertilizer.

Sugarcane fields erode after harvesting and during the first four to six months of the planting cycle, until the young cane gets bigger. The erosion takes away valuable soil

Starfish

and also washes sediments into streams and coastal waters.

Some new harvesting methods leave a crop residue on fields for soil protection after harvest. Researchers think a ground cover plant could do the job better.

Researchers at the Soil Conservation Services Hawaii Plant Materials Center at Hoolehua, Molokai, started the search for a good ground cover plant two years ago and decided that low-growing legumes would be best.

SEVENTY VARIETIES of legumes were evaluated; two have emerged as most promising for Hawaiian conditions.

"It looks as if our search is drawing to a close," says Robert J. Joy, plant materials specialist and center director.

The two most promising plants are the bur clover and the narrow-leaf trefoil; they will undergo final field observations.

The plant that researchers were looking for must germinate and cover the ground rapidly, be low-growing and not climb the cane. It should not compete for nutrients and should die out as the cane overtopped it. It should reseed itself and should not harm other agriculture if it were to migrate from the cane fields.

Both bur clover and trefoil will be planted within the next few weeks on Oahu and Big Island plantations under supervision of Robert D. Wiemer, HSPA sub-station manager and project leader.

These trials are to find out how adaptable the two legumes are to varying field conditions.

The prospective energy conservation results from the legumes' ability to convert atmospheric nitrogen into nitrogen for the soil. Initial testing indicated as much as 500 pounds per acre of nitrogen was fixed in the soil by the legume plantings, which would significantly reduce the amount of nitrogen fertilizer that would ordinarily be applied to the cane fields.

Research has done wonders for American agriculture. The experiments now being conducted with the two legumes shows how research can continue helping to solve problems, including such ones as soil erosion and water sedimentation.

Necker Island

GEORGE BALAZS of the Hawaii Institute of Marine Biology has been tireless in his efforts to save sea turtles and the Hawaiian monk seal.

He recently did research on Necker, one of the Northwestern Hawaiian Islands. He'll discuss and show pictures of the seals, turtles, birds and Polynesian archeology of Necker at a lecture at 7:30 p.m. Friday in the Waikiki Aquarium foyer.

The lecture, open to the public, is sponsored by the Friends of the Waikiki Aquarium.

'ELEPAIO

*Journal of the
Hawaii Audubon Society*



*For the Protection of
Hawaii's Native Wildlife*

VOLUME 39, NUMBER 5

NOVEMBER 1978

A CALL FOR OBSERVATIONS: TURTLES IN FISH STOMACHS

by George H. Balazs

Virtually nothing is known about the life of sea turtles from the time they leave their natal beaches as one-ounce hatchlings until they are first seen as juveniles, 10 lbs and larger, in shallow-water feeding pastures close to shore. This lack of information is due mostly to the fact that turtles under 10 lbs are seldom seen under natural conditions, thereby making them unavailable for scientific study. It has been reasonably assumed that smaller size turtles live for a period of time in the open ocean, away from land, where they feed at the surface on small invertebrates such as squids and crustaceans.

One method which I believe has considerable potential for gaining biological and ecological information on this little-known size category involves the indirect sampling of the turtles from the stomachs of pelagic fishes such as tuna, mahimahi, marlin and certain sharks. These fishes could be expected to periodically eat small turtles. The recovery of whole small turtles or turtle parts from the stomachs of such predators is therefore entirely possible, provided that the person conducting the examination is alerted to the importance of such a finding.

If an HAS member or friend should find a turtle or turtle part in the stomach of a fish, I would greatly appreciate it if he would contact me on Oahu at 247-6631. Phone collect if you are on an outer island. If I am not in my office when you call, please leave your name and number with our secretary, and I will contact you at the earliest opportunity. After learning of your discovery by telephone, I would like to pick up the recovered material and transfer it to our laboratory for detailed study.

Thank you in advance for any assistance that you can provide to this research project.

*Hawaii Institute of Marine Biology
P. O. Box 1346
Kaneohe, Hawaii 96744*

ATTENTION: BOX HOLDERS ON LANA'I AND MOLOKA'I

Post office boxholders on Lana'i and Moloka'i are requested to send in the CLIP & MAIL section of this newsletter if they wish to remain on the mailing list. All names received before June 30 will be kept on the mailing list. Everyone else will be dropped from the regular mailing list as of July 1. Individual requests will be included in the list after July 1. Regular readers on Lana'i and Moloka'i are strongly encouraged to spread the word on this new policy. NOTE: This policy does not apply to readers whose name and address appear on the mailing label; this policy does apply to readers with mailing labels which are addressed to "HAWAII RESIDENT".

It has been the policy of the Department of Planning and Economic Development to include box holders on Lana'i and Moloka'i on the Hawai'i CZNews mailing list. Due to the relatively small populations on these islands, the cost of printing and postage was not significant compared to the rest of the mailing list. The policy has been reconsidered in light of letters from Lana'i residents.

TURTLE INFORMATION NEEDED

George Balazs of the Hawaiian Sea Turtle Research Program is seeking biological and ecological information on young sea turtles (under 10 lbs.). Virtually nothing is known about sea turtles from the time they are born and until they are first seen as juveniles. It is believed that the smaller turtles live in the open ocean far away from land for a period of time. To gather more information, Balazs is looking for specimens of turtles found in the stomachs of pelagic fish such as tuna, mahimahi, marlin, shark and others. The information gathered in this project will be valuable in improving management of Hawaiian sea turtles.

Any fishermen finding such a fish with turtle contents in the stomach, should call Balazs at 247-6631 (neighbor islanders may call collect). He will arrange for immediate pick-up and delivery to a laboratory for study. For more information on this project, write to George Balazs, Hawai'i Institute of Marine Biology, P.O. Box 1346, Kane'ohe, Hawai'i 96744.



Dear Editor,

Is it legal to empty a swimming pool into a storm drain? In this particular case pool water flows about 200 yards in the storm drain and then directly onto the shoreline and into the ocean? Who should be notified?

Name withheld by request
Waimanalo, Hawai'i

(Ed: While the Dept. of Health Sanitation Division requires that pool "backwash" (the dirty water that gets flushed through a pool filter) must be discharged into a sewer (or cesspool, depending on the area), there are no regulations against draining pool water into storm drains. According to DOH engineers, such pool drainings occur infrequently, perhaps once a year. Regularly maintained pool water is not very dirty, they say, and any residual chemicals in the water are so dissipated and diluted that they should not create a pollution problem in receiving waters. On O'ahu, the City and County of Honolulu Building Dept. (requires that building plans be approved by the department's plumbing section. Where a continual drainage creates a nuisance or hazard, especially in a business or commercial district, persons should call the City and County Division of Public Works to report such cases.

Dear Editor,

I would like to acquire (buy) archaeological maps or copies of maps of Maui, specifically of Kahakuloa Valley where I own property.

Mahalo,

David P. McMullen
Lahaina, Maui

Ed. Write to the Dept. of Land and Natural Resources, Historic Sites Branch, P.O. Box 621, Honolulu, HI 96808, with your tax map key parcel number if you wish to determine whether any archaeological sites exist on your property. Also indicate what island it is located on. While the State Historic Preservation Office does have USGS maps that show archaeological sites, the office does not sell them, and prefers to deal with queries directly, because some sites are located on private property. Certain archaeological sites have already been surveyed and are included in the Hawai'i Register of Historic Places. The office said private land owners should already have been notified if such sites have been found on their property.

The Hawai'i CZM program 306 document lists several proposed activities aimed to identify and protect significant archaeological resources. One proposal would fund the development of a system of "sensitivity" maps to indicate areas of high archaeological potential (such as fishponds and heiaus). This is currently being done for the island of Kauai, under the Hawai'i CZM program.

HAWAII COASTAL ZONE NEWS

Co Sea Grant/Marine Advisory Program

252-B Spalding Hall

University of Hawai'i

Honolulu, Hawai'i 96822

G.H. Balazs
HIMB - Coconut Is.
Campus Delivery

Elephant Seal, Eagle Come from Far Away

Unique Visitors

By Helen Altorn
Star-Bulletin Writer

Two unique creatures recently turned up in the Hawaiian Island chain — one traveling at least 3,500 miles by sea and another arriving by air, possibly from the Siberia region.

They are an elephant seal, discovered on Midway, and a sea eagle which apparently was blown onto Kure Atoll by a storm.

Hawaii has native monk seals but the elephant seal is the first identified in the Hawaiian Islands since 1825, said George H. Balazs, University of Hawaii research biologist.

A golden eagle was spotted flying over Kauai in 1967 and was reported still soaring there in 1976. But no sea eagles have been sighted in Hawaii until now.

BALAZS IS AN authority on turtles and has been conducting a three-year survey of the turtle population in Hawaiian waters, including the remote Leeward chain.

He happened to be on Midway last month for his research project and was told a seal had come up on the beach.

He said it's very rare to see any seal on the Navy-occupied island, but this one stayed 10 days.

It was thought at first to be a monk seal, but Balazs saw that it was an immigrant elephant seal when Gary Means, honorary game warden on Midway, took him to look at it.

Balazs said an early sailing explorer reported seeing "sea elephants and sea leopards" at Pearl and Hermes Reef and Kure Island in the last century "but most people thought it was a mistake or misidentification . . .

"WITH THIS report (of the Midway seal) I wonder if he did make a mistake?" Balazs said.

He said elephant seals don't get their name because of their size, although males can get up to a couple tons. The name comes from their upper nose, which gets very long and curls over, he explained.

"But the female doesn't get near that big and doesn't have that nose," Balazs said.

The Midway seal was a northern species, which breed in the Channel Islands off California and at Guada-

lupe off Baja, Calif.

She was a young female and appeared in good shape, although she had some superficial wounds, Balazs said. "She was sleeping on the beach most of the time there. She seemed to be exhausted and was getting a long sleep."

HE SAID THE seal had a tag with numbers on it and he called John Naughton, biologist with the National Marine Fisheries Service in Honolulu, in hopes of finding out where it had originated.

Naughton checked with the Northwest Fisheries Center in Seattle and learned the seal had been tagged by the center's biologists at San Miguel Island in February 1977.

Their reaction was, "Oh, wow!" Naughton said.

"The only strays they have gotten from tag returns have been off the Aleutians . . . But this was a young female (on Midway) — maybe they are more adventuresome," he said.

He said elephant seals at one time may have ranged throughout the Pacific. "They were very docile and could have been exterminated rapidly."

ELEPHANT SEALS were slaughtered for oil in the 1800s and their population fell to as few as 20 animals.

But Naughton said the population has been growing under federal protection and the animals may be ranging to their original islands.

"It would be extremely interesting if it (the Midway seal) gets back to its rookery (at San Miguel). It would be an indication she knew what she was doing, and wasn't just lost," he said.

Just before leaving for Midway, Balazs received a call from the commander of the Coast Guard Loran Station on Kure with the startling information that "an eagle took up residency there in early February."

So he went on to Kure from Midway to get a look at it and continue his work on turtles.

HE CAME HOME and went to the books to try and identify the eagle. He believes it's an immature Steller's sea eagle, which breeds on the coastal area of the Bering and Okhotsk Seas and in Kamchatka in Siberia, and is distinguished by a yellow bill.

Arrive by Air, by Sea

He said the Kure visitor has a prominent yellow beak and yellow, featherless legs.

He said it was probably blown off track during a storm because Coast Guard officials said it was soggy and beat up when it landed on Kure.

But he said it appears to have recovered nicely from its harrowing journey — and is feasting on gooney birds (black-footed and Laysan albatrosses).

"IT'S ALMOST like an eagle paradise for him," Balazs commented. He said thousands of gooneys are on Kure now breeding and raising their young.

"If the eagle stays alive during the next six months or so, somebody ought to think seriously about what's going on," he said, questioning the effects of the eagle's diet on the gooney bird population.

Kure Atoll is part of the City-County of Honolulu and technically under the jurisdiction of the state Department of Land and Natural Resources.

Balazs reported the eagle to Ron Walker, state wildlife chief, and will provide him with information and photographs so he can try to identify it positively.

Adding to the excitement of the elephant seal and eagle, Balazs cap-

tured six green turtles on Midway and nine on Kure, and in each batch was a turtle which had been tagged in his research to monitor their travels and growth rate.

"I was very fortunate," he said.

His research is funded by the state marine affairs coordinator and the National Sea Grant Program.



HAWAII'S NEW RESIDENT—A sea eagle has comfortably settled on Kure Atoll, dining on the gooney birds. —Photos by George Balazs.



VISITOR FROM AFAR—An elephant seal snoozes on the beach at Midway after wandering from its colony at San Miguel Island off California.

Star-Bulletin

Section

C

Honolulu

Wednesday, March 15, 1978