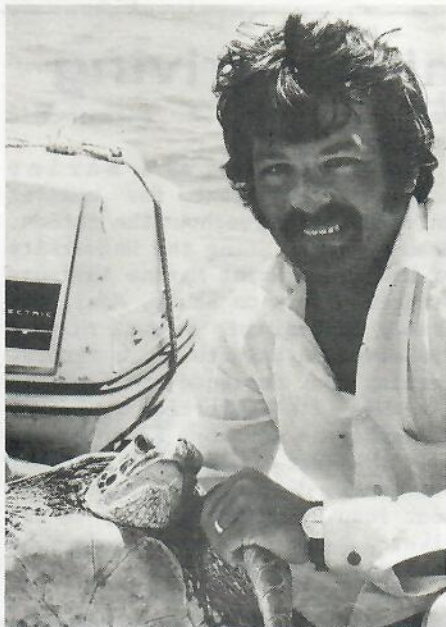


MAP MARINE MISCELLANY



George Balazs and his friend.

Coastal Plants Slideshow

The University of Hawaii Sea Grant Marine Advisory Program and the Conservation Council for Hawaii will present a 20-minute slideshow on Hawaii's coastal plants. Titled "Na Mea Ulu Ma Kahakai o Hawai'i," the slide/tape presentation features Hawaii's unique and interesting coastal flora.

The slideshow was prepared by Bert Kimura of Leeward Community College and Ken Nagata of Lyons Arboretum under a special project funded by the UH Sea Grant College Program.

In addition to the slideshow presentation, Kimura and Nagata will also discuss some of their findings from extensive field surveys conducted in Hawaii. One of the purposes of their work was to document the status of coastal plants considered as threatened or endangered.

The slideshow will be presented at the McCully-Moiliili Library on Thursday, December 14, at 7:30 p.m. For more information, call the Marine Advisory Program at 948-8191.

Copies of the slideshow will be made available for use by the public later this year.

A rare photo of the Hawaiian monk seal and Hawaiian green sea turtle napping together at Whale-Skate Islet, French Frigate Shoals has been published in the May-June issue of *Sea Secrets*.

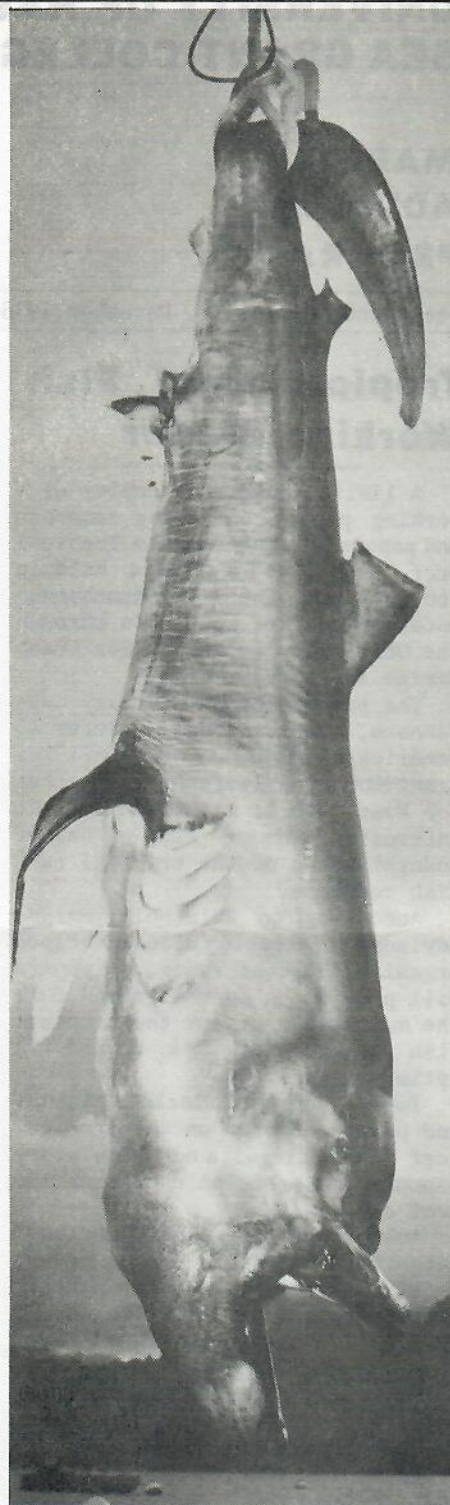
The photo was taken by George H. Balazs of the Hawaii Institute of Marine Biology and was used to illustrate an article on the rare behavioral traits of green sea turtle aggregations in the Hawaiian Islands National Wildlife Refuge. The unusual photo also appears in the December issue of *Honolulu* magazine with other outstanding photos of wildlife in the leeward chain. In addition, seabird photos by Balazs will be featured in the 1979 Dillingham tide calendar.

The same issue of *Sea Secrets*, an International Oceanographic Foundation publication, includes a US Navy photo of the unknown shark "megamouth," which was hauled up dead by a Navy research vessel operating in deep waters northwest of Oahu. The fish, a 15-foot male weighing about 1,600 pounds, is one of the largest species of sharks, according to a research team headed by Dr. Leighton R. Taylor, director of the Waikiki Aquarium.

A discussion of megamouth is also included in Spencer Wilkie Tinker's 568-page *Fishes of Hawaii: A Handbook of the Marine Fishes of Hawaii and the Central Pacific Ocean*, which came off the press in September and is now available in island and mainland bookstores.

Tinker's newest book joins his *Pacific Sea Shells* and *Sharks and Rays: A Handbook of the Sharks and Rays of Hawaii and the Central Pacific Ocean*, which have been popular in Hawaii for many years. Charles J. DeLuca, curator of the Waikiki Aquarium, is co-author of the *Sharks and Rays*.

Also keeping the marine environment in the public consciousness is an article on "Harvesting Hawaii's Oceans" in the September-October issue of *Downtown* magazine. The article by David Logan discusses Hawaii's fishing potential and the successful fish aggregation project begun by the National Marine Fisheries Service and the Pacific Tuna



A U.S. Navy photo of the shark "megamouth," which is one of the largest species of shark.

Development Foundation.

Another marine-related cover story entitled "Big Stakes at Kahuku" in the October issue of *Hawaii Business* discusses Hawaii's aquaculture industry and corporate farmer, Art Lowe. The article also mentions C. Brewer's Kilauea Agronomics subsidiary on Kauai and other fish farming projects on Oahu and throughout the state.

NMFS to Study Fishing Activities

A comprehensive government-sponsored fishing study will be conducted in Hawaii, Guam, and American Samoa during the next 12 months.

The study will collect information about recreational fish catch and recreational fishing activities. According to the National Marine Fisheries Service (NMFS), data on commercial fishing have been gathered for years, but there is little information about recreational fishing.

Previous studies have suggested, however, that the catch by recreational fishermen may be as great as the commercial catch. The lack of reliable information about fish caught by recreational fishermen has made it difficult to have good management plans for certain species of fish such as the blue marlin.

The study in Hawaii will involve telephone interviews and many on-site interviews with fishermen at piers, boat launching ramps, and along the coastline.

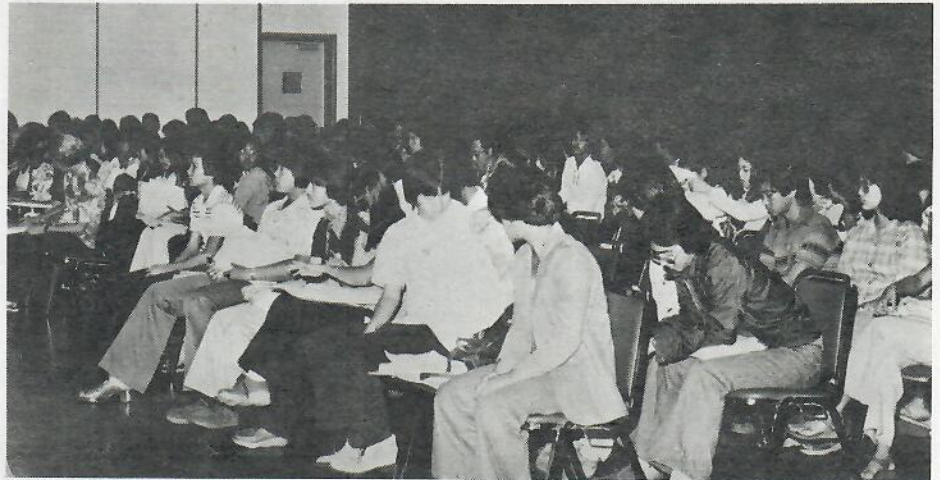
In Guam and American Samoa, the survey will be conducted door-to-door. On-site interviews will also be conducted with fishermen.

The data gathered through both surveys will provide an estimate of total fishing activities by the population, total catch by species, and total weight of fish caught.

This study will be conducted by SMS Research, a Honolulu firm. The study is part of a nationwide effort which will also cover the continental United States, Alaska, Puerto Rico, and the Virgin Islands. The project is being sponsored by NMFS.

SMS Research will conduct a total of 16,000 interviews in Hawaii, Guam, and American Samoa. Interviewing will continue until October 1979.

STUDENT SYMPOSIUM (Continued from page 1)



Students attend the awards ceremony at the third annual Secondary Student Symposium, which was held on the Manoa campus in January 1978.

students will present their papers are:

- Marine Resource Management: who should manage; how should resources be managed; impact on citizens, resource users, or consumers
- Coastal Zone Management: application; potential; issues relevant to Hawaii
- Aquaculture: problems; potential; development
- Marine Biology: problems; potential; development; futures
- Ocean Engineering: physical and biological engineering
- Marine Transportation: a supplement to land-based mass transit systems for Hawaii; alternative modes; economics of marine transit; futures
- Marine Recreation: problems; potentials; development, and users
- Marine Resources (precious corals, reef-building corals, manganese nodules, offshore mining, ocean thermal energy conversion, pelagic fisheries, etc.): conservation; economics

oi hatchery funded

The Oceanic Institute at Makapuu Point, Oahu, has received \$312,000 from the state to construct an experimental fish hatchery, the first of its kind in Hawaii.

According to Dick Power, president of Oceanic Institute, the pilot hatchery will be used to investigate the viability of operating large-scale commercial fish hatcheries in the state.

Researchers at the Institute will also be investigating the possibilities of raising and releasing hatchery-produced fish into the wild to replenish and increase fishery resources, stocking commercial ponds with hatchery-produced fish, and developing a suitable baitfish for the aku fishing industry.

This project will also serve as a training center for hatchery technicians.

The construction of the hatchery is expected to be completed in spring 1979.

University of Hawaii
Sea Grant Publications
2540 Maile Way
Room 253, Spalding Hall
Honolulu, Hawaii 96822



SEA GRANT NEWSLETTER

in this issue:

STUDENT SYMPOSIUM

Sea Grant Newsletter, December 1978

Volume 8, Number 12

joint meeting of wprfmc and mfac held in kona, hawaii



The subject of a joint WPRFMC and MFAC meeting, the management of tuna, is not yet determined.

Marine Affairs Symposium to be Held

Over 100 students from public and private high schools throughout the state are expected to attend the fourth annual Secondary Student Symposium on Marine Affairs which will be held at the University of Hawaii Manoa Campus from January 11 to 13, 1979.

The Symposium is sponsored by the University of Hawaii Sea Grant College Program in cooperation with the State Department of Education (DOE). Funding was provided through a special appropriation by the State Legislature to the DOE.

Rose Pfund, Symposium coordinator, said the purpose of the Symposium is "to provide a forum for high school students to come together annually to discuss and exchange information on their research."

She added that it also "focuses their attention on the ocean and provides them with the opportunity to do serious thinking within an ocean environment."

Pfund said the Symposium will be "a bit different this year because we will be bringing in teachers to attend the Symposium."

During the Symposium, thirty-two papers written by students will be presented on eight panels. These panels will be held in two sessions with four panels being held at the same time. Each of these sessions will be repeated twice. This method will allow students to attend at least two panel presentations.

The papers should be based on original library, field, or laboratory research on one of several aspects of marine affairs.

All papers to be presented at the Symposium will be reviewed and evaluated by qualified UH faculty and professionals from the private sector.

Certificates of Excellence for outstanding papers will be presented during the opening ceremonies.

The eight panels in which the
(Continued on page 6)

Key participants of the joint meeting of the Marine Fisheries Advisory Committee (MFAC) and the Western Pacific Regional Fisheries Management Council (WPRFMC) held in Kona in late October agreed that (1) such a meeting was long overdue and (2) it resulted in better understanding of the needs of Hawaii, Guam, and the Trust Territory of the Pacific.

State Senator Wadsworth Yee, chairman of the council for the Western Pacific area (Hawaii, Guam, and American Samoa), said the meetings were "no guarantee that we'll get what we ask for" in funding requests, but added that it was "the first time in the advisory committee's history that they met in the Pacific area."

"I think their eyes were opened," Yee said.

Hawaii sport and commercial fisherman Charles Yamamoto, who is a member of MFAC and the spokesman for the Western region, arranged for the committee to meet in Kona where he felt other members of MFAC could get a good view of the potential for fishery development in the Pacific.

"I don't want Washington to make policies that don't cover the Pacific basin," Yamamoto said.

He said that his hope was to make fisheries officials more aware of what was generally a neglected area, and the federal and Hawaii spokesmen who attended the meeting agree that this goal was achieved.

Terry Leitzell, who heads the NOAA National Marine Fisheries Service (NMFS), readily acknowledged that what he and other Washington representatives learned at the Kona meetings would help in long-range plans for financial

(Continued on page 5)

JOINT MEETINGS IN KONA (Continued from page 1)



Using bamboo poles and barbless hooks, Hawaiian fishermen attempt to load their boat with a good catch of tuna. Tuna fishing was a key issue at the recent Kona meeting.

assistance to fishery development.

"I thought the meetings were very successful," Leitzell said. "We got a better understanding of the concerns of the Pacific area that will be reflected in the long run as we make budgetary decisions.

"The Pacific is an area where we don't have many people with much of an understanding" he added.

"The meetings were not planned or intended to handle specific proposals," Leitzell said.

Such proposals may emerge for Washington consideration after the completion of the state's Hawaiian Fisheries Development Master Plan by January 1, 1980.

Stanley Swerdloff, manager of the project, said the plan would represent the first step in comprehensive fisheries development planning by more clearly defining the roles of all the agencies which play a part.

"No agency in the state is totally responsible for development," Swerdloff said. "The plan should help to identify the actors and organizational structures who should do the work."

The master plan project began in October, funded by a \$150,000 appropriation from the State Legislature, with the expectation that the plan address several areas, including harbor facility requirements for fisheries development, financing programs for fleet expansion, conservation and management policies, and marketing of fisheries products.

Two years ago, the Congress enacted the US Fishery Conservation and Management Act which set up 200-mile fisheries management and

conservation zones and established eight regional councils to manage the non-migratory fishery resources in the designated zones. Tunas are exempt under the Act because they are migratory species.

The number of Pacific island nations has grown in recent years, each with an increasingly acute concern that it controls the rich marine resources in the waters around it. Tuna fisheries was a subject much discussed at the Kona meetings.

Richard Shomura, Honolulu NMFS director, prepared a slideshow for screening at the meetings. Shomura's narration concentrated on the wish of the Pacific nations people to reap the economic benefits of the tuna in their area, regardless of its migratory nature.

"When fishermen are in the 200-mile zone, each nation wants a say in the management of their resources," Shomura said.

Yamamoto said that the proposal to place tuna under the federal act's management guidelines is opposed by influential tuna industry representatives from San Diego. These representatives are afraid a change in the hands-off policy in tuna management would hamper their freedom in hauling in catches off Costa Rica.

"Tuna is a half-billion dollar industry in California," Yamamoto said. The prospect of Congress changing the Act to include management of tunas remains some distance off, he added.

"It's really too early for any kind of amendment to the Act," he said.

Conference Calls

The fourth Annual Tropical and Subtropical Fisheries Technological Conference of the Americas will be held in St. Petersburg, Florida, from April 22 to 25, 1979.

The conference is designed to encourage participation of industrial groups, fishermen, processors, dealers, and anyone interested in seafood technology.

This conference is sponsored by the participating university Sea Grant Programs and the National Marine Fisheries Service.

Papers from scientists, students, marine advisors, and members of the seafood industry are needed for the conference. Papers will be selected on their value of information for the tropical and subtropical seafood industries.

If you plan to submit a paper, a tentative abstract (50 words or less) must be submitted before January 15, 1979. A guide for preparing your paper for the conference proceedings will be forwarded to you if your paper has been accepted.

For more information contact W. Steven Otwell, 325 Food Science Building, University of Florida, Gainesville, Florida 32611.

Geometrics '79, a series of four seminars dealing with hydrography, is scheduled for May 1979 in Toronto and Ottawa, Canada.

These seminars will be of interest to surveyors who already possess some knowledge of hydrographic operations and engineers and geologists involved in undersea studies. However, those with a limited understanding of the marine environment will be introduced to the fundamental aspects of surveying on or under the water.

Seminar schedules are:

- HYDROGRAPHY - May 7 to 11 in Toronto
- SONAR WORKSHOP - May 7 to 11 in Toronto
- LAW OF THE SEA - May 14 in Ottawa
- CONTROL SURVEYS (MANOR PROGRAM) - May 28 to June 1 in Toronto

For further information contact the Conference and Seminar Services, Humber College of Applied Arts and Technology, P.O. Box 1900, Rexdale, Ontario, M9W 5L7, or phone (416) 675-3111.

This seminar series is sponsored by the Humber College of Applied Arts and Technology in cooperation with the Canadian Institute of Surveyors, the Canadian Hydrographic Service, the Canadian Hydrographers Association, and the Ontario Land Surveyors.