

## 'ELEPAIO

Journal of the  
Hawaii Audubon Society



For the Protection of  
Hawaii's Native Wildlife

VOLUME 50 NUMBER 3

MARCH 1990

## FIRST RECORD OF GREAT CRESTED TERN IN HAWAII'

Robert L. Pyle

A Great Crested Tern (*Sterna bergii*) was observed repeatedly at the Marine Corps Air Station, Kane'ohe Bay, O'ahu, during the fall and winter of 1988-1989. This species had not been recorded previously in Hawai'i nor in the area covered by the American Ornithologists' Union *Check-List of North American Birds* (1983). The Great Crested Tern occurs on islands in the tropical Pacific from Christmas Island (in the Line Island group) and French Polynesia west to Australia and coastal Asia, and through the Indian Ocean to the coasts of eastern and southern Africa (Cramp 1985).

I first saw the bird 21 October, 1988 at 14:00. It was standing and moving actively on a sandbar in Pa'akai Pond at the east end of the air station. After observing it closely for 10 minutes, I left the area to try to contact other observers. Return visits with other observers were made later that afternoon, in the morning of 22 October, and in the afternoon of 23 October, but the tern could not be found.

Returning alone 29 October at 15:25 I found the bird standing on the same sandbar in Pa'akai Pond and watched it for 15 minutes. An hour later I returned with Andrew Engilis, Jr., and finally succeeded in having another observer confirm the observation. We studied the bird for 20 minutes as it stood in the same pond about 20 m from the sandbar. Still later the same afternoon, Peter Donaldson and I found the bird in adjacent Kaluapuhi Pond standing on a small emergent rock about 75 m from the sandbar in Pa'akai Pond. The bird soon flew off to the west, high above Nu'upia Pond.

On 30 October Donaldson took many photographs of the tern standing and sitting on the emergent rock in Kaluapuhi Pond. Six of these photographs are now in the Hawai'i Rare Bird Documentary Photograph File (HRBP 800 through 805). Engilis, Reginald David, and I saw the bird again on 11 November at 16:00 for 10 minutes, as it stood on a small emergent rock, this time in Pa'akai Pond.

The bird was recorded subsequently in either Pa'akai or Kaluapuhi Pond on at least 10 dates from 27 November 1988 through 27 March 1989, including 18 December when it was found during the Honolulu Christmas Bird Count. It was seen during this period by H.D. Pratt and numerous other observers. Efforts to find the bird were not reported after March.

Much later, on 13 June, 1989, a visiting observer, Todd Furniss, reported seeing an unfamiliar tern at Kailua Beach Park. He identified it from references and from his careful notes as a Great Crested Tern, despite his belief that this

species did not occur in Hawai'i. He had no knowledge of the earlier occurrence of this species at Pa'akai Pond. The bird was standing on a small float marking a swimming area offshore from the park. The observer swam out to within 5 m of the bird before it flew. Kailua Beach Park is about 4 km across Kailua Bay from Pa'akai Pond, and within sight of it. The observer's description indicated little if any difference in plumage from the Pa'akai bird. It is highly probable, although not certain, that the bird seen at Kailua was the same individual that wintered at Pa'akai Pond.

Observations of the tern at Pa'akai and Kaluapuhi ponds were made at 75 to 150 m with binoculars and spotting scopes under good light conditions. The bird's size, shape, and general plumage pattern were characteristic of a large tern, standing on short, dark legs. The bill was banana yellow with no hint of orange or red. The culmen seemed slightly arched, making the bill appear deepest in the center; the culmen tapered toward the tip, giving an appearance of a slight droop. The forehead was white, becoming smudgy grayish on the forecrown and shading to jet black on the hindcrown. The black crown feathers were ruffled occasionally in the wind, producing a large, shaggy crest; at other times they were smoothed down and extended down the nape to the base of the



Figure 1. Great Crested Tern at Pa'akai Pond, U.S. Marine Corps Air Station, Kane'ohe Bay, O'ahu, 30 October 1988. HRBP 802 (standing).

Photo by Peter Donaldson

neck. The black on the side of the head extended forward, completely surrounding the eye. The upperparts were pale gray and white, darkest in the mid-portions of the folded wings. The folded primaries appeared dark. With wings extended, the underwings were white with a narrow, dark fringe around the tip. The tail was forked. The legs were short and nearly black.

The tern's body was noticeably larger than that of the Lesser Golden-Plovers (*Pluvialis dominica*) and Hawaiian Stilts (*Himantopus mexicanus knudseni*) standing nearby. When first seen on 21 October, the bird walked back and forth between a dry sandbar and water 2-5 cm deep. When bathing, the bird slapped its wings on the water repeatedly and ruffled most of its feathers. Once it flew about 5 m. The bird did not call.

The yellow bill distinguishes this bird from other large terns, including the Lesser Crested Tern (*Sterna bengalensis*, resident in Indonesia and the Indian Ocean), Royal Tern (*S. maxima*), Elegant Tern (*S. elegans*) and Caspian Tern (*S. caspia*), all of which have orange or red bills. The Great Crested Tern is further distinguished from Caspian Terns, which have occurred previously at Pa'akai Pond as stragglers, by its smaller size, proportionately shorter legs, and lack of dark coloring on the underside of the primaries.

The breeding colony of Great Crested Terns at Christmas Island is the nearest one to Hawai'i, and stragglers have also been recorded at Palmyra. Both islands are in the Line Island group, 1930-2415 km south of O'ahu. In the western Pacific region, Great Crested Terns breed north to the Ryukyu and Ogasawara (Bonin) islands, and the species has also been recorded at Marcus Island (Ornithological Society of Japan 1974). These sites are at latitudes north of most of the Hawaiian Islands. Although banding studies in Australian breeding colonies show that adults and immatures disperse around the Australian coast for hundreds of miles (Carrick et al. 1957), I could find no prior records of Great Crested Terns occurring elsewhere in the Pacific away from breeding islands.



Figure 2. Great Crested Tern at Pa'akai Pond, U.S. Marine Corps Air Station, Kane'ohe Bay, O'ahu, 30 October 1988. HRBP 805 (sitting).

Photo by Peter Donaldson

#### ACKNOWLEDGMENTS

I am grateful to Andrew Engilis, Jr., Reginald David, and Peter Donaldson for much helpful discussion on the identity of this bird, and to Roger B. Clapp for providing available background information about the Great Crested Tern and its occurrence in the Pacific area.

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- HRBP804, showing the Great Crested Tern sitting, is published in color in *American Birds* (1989) 43(1): 27.

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#### HAS GRANTS AND SCHOLARSHIPS

The Hawaii Audubon Society annually awards grants for research in Hawaiian or Pacific natural history. Awards are oriented toward small scale projects in Hawai'i and generally do not exceed \$500. HAS also awards an undergraduate tuition scholarship to deserving undergraduate students majoring in a field relating to Hawaiian or Pacific natural history. This \$1,000 scholarship is to be applied toward tuition at an accredited university. The deadline for grant applications is 1 April and 1 May for scholarships. For application forms contact John Engbring, Chair, HAS Grants and Scholarships Committee, P.O. Box 4443, Honolulu, HI 96812, 541-2749 (days).

## LAST CHANCE TO SIGN UP FOR 31 MARCH BIRDATHON

On your mark, get set, go birding! Come join the Hawaii Audubon Society for a fun-filled Saturday, on 31 March, as we comb Hawai'i, Kaua'i, Maui, Moloka'i, and O'ahu for bird species during our second annual Birdathon. *Honolulu Advertiser* 3 Dot Columnist Don Chapman is Honorary Chairman of the event.

The Birdathon operates much like walkathons. Birdathon participants obtain pledges from sponsors who agree to contribute a certain amount of money for each species seen in a 24-hour period.

Birders will receive official Birdathon T-shirts designed by Hawai'i wildlife artist Patrick Ching to wear during the Birdathon. These collectors' item T-shirts will only be available to actual Birdathon team members.

Even if you do not participate as a birder, you can still help us meet our goal of \$18,000. Sponsor a participant or an island team and get your friends to do the same. You can use the handy pledge form below or call the HAS office, 528-1432, and we will send you as many as you need. Prizes will be awarded to Auduboners based on the funds they have collected by the established deadlines (see the pledge form below). All you have to do is turn your sponsor lists in to the Hawaii Audubon Society, 212 Merchant Street, Room 320, Honolulu, HI 96813. We will send letters to your sponsors telling them how much they owe.

Among the prizes donated to date are 20 pounds of frozen lobster tails; submarine ride for two off Kailua-Kona, donated by Atlantis Submarines; \$100 gift certificate toward printing of personal stationery, donated by Valenti Brothers Graphics; books, donated by Honolulu Book Shops; four passes to Sea Life Park, donated by Sea Life Park; a Paradise Cove Luau for Two, donated by Paradise Cove Luau Park; a gift certificate from Hawaiian Telephone, good for merchandise at Phone Mart or to apply toward your telephone bill; dinner at Cafe Che Pasta, donated by Cafe Che Pasta; dinner at Studebaker's Restaurant, donated by Studebaker's Restaurant; and admission to the Polynesian Cultural Center, donated by the Polynesian Cultural Center.

To join a team or start one call Lynne Matusow on O'ahu at 531-4260 or one of the team leaders below:

- Hawai'i--Reggie David, 329-9141
- Kaua'i--Bruce Eilerts, on O'ahu, 599-4795
- Maui--Fern Duvall, 572-1584
- Moloka'i--Thane Pratt, on Hawai'i, 967-7146
- O'ahu, Lynne Matusow, 531-4260

If you can help or need more information, call Lynne Matusow on O'ahu, 531-4260.

### Pledges

You can raise dollars for the Hawaii Audubon Society by soliciting sponsors to support your birding, or that of one of the teams, on Saturday, 31 March. These sponsors will make you eligible for prizes. Prizes will be awarded to those turning in the list with the most sponsors by Friday, 6 April, and to those whose sponsors have turned in the most dollars by 13 April, 15 May, and 31 May. The Grand Prize will be awarded to the person whose sponsors have contributed the most dollars by 7 June.

Ask your friends, neighbors, and relatives to sponsor you. All contributions are tax deductible and help support the activities of Hawaii Audubon.

| YOUR NAME                   |         |             |            |            |         |
|-----------------------------|---------|-------------|------------|------------|---------|
| ADDRESS                     |         |             |            |            |         |
| CITY                        | STATE   | ZIP         | HOME PHONE | WORK PHONE |         |
| SPONSOR'S NAME              | ADDRESS | CITY, STATE | ZIP        | PHONE      | PLEDGED |
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| <b>TOTAL AMOUNT PLEDGED</b> |         |             |            |            |         |

## JOINT HAS/NAS CONSERVATION CAMPAIGN

In January 1989, when the National Audubon Society opened its first field operation in Hawai'i, it was generally recognized that it would be beneficial to both the national organization and the local chapter, Hawaii Audubon Society, to adopt common conservation goals and objectives. HAS and NAS adopted a 3-year joint Audubon Conservation Campaign. The campaign goals and objectives below are only those that HAS and NAS have agreed to implement together, and both organizations are working on other conservation issues separately.

### GOALS AND OBJECTIVES

#### Goal #1:

To increase public awareness of alien species and their impacts and to reduce the negative impacts of alien species.

#### Objectives:

- 1) Publish a series of articles describing the negative effects of alien bird species. Focus on O'ahu alien birds as pests to agriculture and backyard gardens, and on the potential negative impacts from game bird species (spreading avian diseases, competing for resources with native birds).
- 2) Produce a series of television public service announcements describing negative effects of alien species.
- 3) Establish a working group of environmentalists, agriculturalists, aviculturists, and state officials to review and amend the state list of restricted and unrestricted bird species and to propose changes to the regulations governing the importation of alien bird species.

#### Goal #2:

To assist appropriate government agencies with securing and managing four primary habitat areas for endangered Hawaiian waterbirds, thus aiding in their recovery.

#### Objectives:

- 1) Facilitate the transfer of management of Kawai Nui Marsh, O'ahu, from the City and County of Honolulu to the Hawai'i Division of Forestry and Wildlife in order to enhance waterbird habitat.
- 2) Assist with the development of cooperative agreements and state and federal funding to provide for the management of wetlands on the Waipi'o Peninsula on O'ahu.

- 3) With the cessation of sugar cane cultivation, urge the state to designate the Mana wetlands on Kaua'i as a permanent wildlife sanctuary.
- 4) Lobby for funding to enhance waterbird habitat at Kealia Pond on Maui following its acquisition by the U.S. Fish and Wildlife Service.

#### Goal #3:

Increase efforts to implement forest watershed management programs that will protect, preserve, and enhance Hawai'i's native forest ecosystems in perpetuity.

#### Objectives:

- 1) Lobby to conserve the 'Alala (Hawaiian Crow) and other endangered native forest birds and protect their habitat in Central Kona on Hawai'i.
- 2) Support legislation and lobbying efforts that facilitate forest watershed protection and management.
- 3) Support legislation and lobbying efforts for increased funding and provide volunteers for weed-control programs that benefit native plant communities.
- 4) Support legislation and lobbying efforts for tax incentives at the county level for private landowners to retain their lands in native forest.

\* \* \* \* \*

The HAS Conservation Committee is charged with implementing the joint HAS/NAS Conservation Campaign. The extent to which we accomplish the goals and objectives of the campaign depends on how involved HAS members and volunteers become. The HAS Conservation Committee is seeking volunteers to work on the campaign. If you are interested in working on any aspect of the campaign or other conservation matters in Hawai'i, please contact Marjorie Ziegler, HAS Conservation Committee, 528-1432, and attend the first meeting of 1990 on 12 March at 6:00 P.M., 212 Merchant Street, Room 320, Honolulu.

## HAS PRESIDENT APPOINTED

M. Casey Jarman was appointed President of the Hawaii Audubon Society by the Board of Directors at its February meeting. Ms. Jarman is an Assistant Professor of Law at the William S. Richardson School of Law, University of Hawaii, and specializes in environmental law.

### **PUPPETS ON THE PATH TO PERFORM SATURDAY, 21 APRIL**

When do tree ferns yodel, seedlings sing, dolphins dance, and albatrosses boogie? When Puppets on the Path, Hawai'i's environmental entertainment troupe, takes the stage at a special Hawaii Audubon Society performance on Saturday, 21 April, 12:00 noon. The performance is part of the Keiki Arts Festival at Honolulu's McCoy Pavilion in Ala Moana Park.

Now in their seventh year of travelling statewide to bring alive the natural history of Hawai'i to audiences of all ages, the Big Island troupe blends the sciences with the visual and performing arts to create an unusual spectacle of song, story, puppetry, and people.

"We remain very grounded in the natural sciences," says puppeteer Dina Kagler, "and all our information is based on scientific facts. We simply spice it up, shake it around, and sing it forth in a playful manner."

"Folks will listen to a pig puppet who is boarishly intent on destruction, when they might not listen to a lecture on the fragility of native forest ecosystems," says puppeteer Kate Schuerch.

"With our Pacific Treasures production, to be performed at the 21 April HAS sponsored show, which focuses on marine ecosystems, we depict the life stories of some shoreline and ocean denizens from Pacific waters," adds puppeteer Jo Diotalevi.

"Our state, as well as our planet, is rapidly losing species of plants and animals due to habitat destruction, forest fragmentation, and other careless management practices. Puppets on the Path is striving to make audiences more aware of the unique richness of species that exist in our state and to encourage good stewardship of natural resources on a global level," comments Dina.

The three women who power the puppets and lend voice to the original scripts and songs of the productions are known collectively as the Anthurium Sisters. They do it all--make the puppets, write the scripts and songs, research the subject matter, relying heavily on a statewide network of natural scientists and land managers, and then create.

Puppets on the Path presentations are not strictly for kids. "We are family fun," comments Jo. "The young children like the visuals and songs, the older kids begin to understand the content and messages, but it is only the adults who will catch the more subtle humor that we weave into the show."

Some of their most avid supporters are adults, and that includes the Hawaii Audubon Society. We encourage you to come to the family day activities on 21 April. Bring your children, your neighbor's children, and your friends to see Puppets on the Path, and to join us afterward for a picnic lunch (please bring your own). Prior to the performance, the City and County of Honolulu Department of Parks and Recreation is sponsoring a workshop on puppetry, where the keiki can learn firsthand how puppets are made and how to make

them work. There will be arts and crafts activities and games for the children throughout the free festival.

This program is in lieu of the HAS April General Meeting.

### **ART OF THE 90s TO BE HIGHLIGHTED AT HAS EXPOSITION, AUCTION, AND SALE**

The Hawaii Audubon Society has sponsored wildlife art shows and contests for the last few years. To celebrate our 50th Anniversary, in 1989, we expanded the show, and the Wildlife Art Exposition, Auction, and Sale, hosted by Pacific Island Arts Gallery, was born. This year the HAS Wildlife Art Exposition opening night reception will be on Saturday, 16 June, from 5:00 P.M. to 9:00 P.M.

Wildlife art is called the "art of the 90s." The subject matter is broad in scope. Some pieces are simple depictions of the beauty and grace of wildlife; other pieces are more complex. Besides depicting wildlife, some of the most successful art uses components of nature to symbolize environmental issues.

More than 40 artists had their works exhibited at last year's show. Norman Nagai, the overall winning artist in 1989, has been commissioned to do a commemorative limited edition for this year's exposition. Wildlife artists are encouraged to enter and there is a special student division (for those age 21 and under). For details on entering, see the following article on call for entries.

Pacific Island Arts Gallery is located in the North Shore Marketplace, 66-250 Kamehameha Highway, Hale'iwa, HI.

### **ATTENTION ARTISTS AND PHOTOGRAPHERS--CALL FOR ENTRIES**

Plans are underway for the Hawaii Audubon Society's Annual Wildlife Art Exposition, contest, and sale. Once again, the event will be hosted by Pacific Island Arts Gallery in Hale'iwa in June 1990. The opening night festivities, auction, and awards ceremony will be on Saturday, 16 June, 5:00 P.M. to 9:00 P.M. Subject matter is limited to any species of mammal, bird, fish, invertebrate, or plant residing in the Pacific region, extending from northernmost Hawai'i, east to the Galapagos, and all of Polynesia and Micronesia. To receive an entry form, send a self-addressed, stamped envelope to Wildlife Art Exposition, Hawaii Audubon Society, 212 Merchant Street, Room 320, Honolulu, HI 96813.

### **ERRATA**

In the February 1990 issue of the 'Elepaio, Vol. 50(2):18, we incorrectly reported Meyer Ueoka's location and phone. He can be reached on Maui at 244-4352. Our apologies.

## CONSERVATION NEWS

### Congressional hearing on marine issues:

On 9 January 1990, Skip Spaulding, a staff attorney for the Sierra Club Legal Defense Fund, presented testimony on behalf of the Hawaii Audubon Society and 12 other environmental organizations in Hawai'i to members of the U.S. Congressional Committee on Merchant Marine and Fisheries. The committee met in Hawai'i to learn firsthand about marine issues in the Pacific. Included in the testimony were HAS's concerns with the lack of necessary recovery efforts in Hawai'i for threatened and endangered marine species, including the Humpback Whale, Hawaiian Monk Seal, and sea turtles, and the hazardous conditions on Tern Island (Northwestern Hawaiian Islands), which threaten native species occurring there.



Green Sea Turtle (*Chelonia mydas*) and Hawaiian Monk Seal (*Monachus schauinslandi*) at French Frigate Shoals, Hawai'i.

Photo by George Balazs

**Introduced species control:** Patricia Tummons has been presenting testimony this legislative session on behalf of HAS supporting increased efforts by the State in preventing the introduction of potentially harmful species of plants and animals to Hawai'i. Specifically, we supported stronger enforcement of Hawai'i's quarantine laws and increased funding to expand the Hawai'i Department of Agriculture's efforts to enforce compliance with the plant quarantine laws, including the recently established beagle program at the Honolulu Airport.

Pat is also involved with the Hawai'i Department of Agriculture, Dana Kokubun of the National Audubon Society, and Steven Montgomery of the Conservation Council for Hawai'i in producing a videotape on introduced species and their impacts to the native biota and agriculture in Hawai'i. There is a good chance that the State Legislature will appropriate \$50,000 to the department for production of the videotape.

**Eels (again!):** HAS testified against House Bill 2320 and Senate Bill 2635, which would allow the introduction of alien species of freshwater eels (*Anguilla* spp.) to Hawai'i for experimental purposes with the intent of establishing an aquacultural venture in the islands. We also testified against Senate Bill 3063, which would appropriate funds for the establishment of an experimental facility for eels on the Big Island of Hawai'i. The inevitable escape of these introduced eels in the wild would result in the establishment of a voracious predator--"an aquatic mongoose"--in Hawai'i; native stream animals and waterbirds would be seriously threatened.

On 16 February, we received news that the eel bills in both the House and Senate were dead. Intensive lobbying against the proposed introduction by, primarily, Steven Montgomery for Conservation Council for Hawai'i, Lola Mench for Sierra Club, and Alan Ziegler for Hawaii and National Audubon Societies, alerted legislators to the past history and problems of such proposals. Essential scientific background information on *Anguilla* eels was provided to the lawmakers by the University of Hawaii Environmental Center (through John Harrison and Jacquelin Miller) and the U.S. Fish and Wildlife Service (through Allan Marmelstein, John Ford, and Andy Yuen). Timely unbiased coverage of the controversy was given by the news media. However, all of these actions combined could not have killed these particular bills; the two events that really turned the tide and led to their defeat were, unquestionably, the presentation of heartfelt personal testimony at legislative hearings by a number of concerned individuals and, especially, the flooding of legislators' offices with telephone calls from numerous members of the various conservation groups in Hawai'i. And, on a continuing positive note, there is a growing feeling among those long involved in fighting this persistent threat that this may finally be the last time we will see this ill-conceived proposal before the State Legislature. MAHALO NUI LOA TO ALL!

**Wetland protection on O'ahu:** Dana Kokubun, Hawai'i Representative of the National Audubon Society, has been presenting testimony on behalf of NAS and HAS in support of securing wetlands on O'ahu. Dana is working with others on increasing management efforts for waterbird habitat at Kawai Nui Marsh on Windward O'ahu, securing the He'eia meadowlands, also on Windward O'ahu, and emphasizing wetland protection in the planning process.

**Lentipes concolor petition:** On 31 January 1990, the Sierra Club Legal Defense Fund sent a letter to the U.S. Fish and Wildlife Service Region 1 office in Portland, Oregon, requesting information on the current status of our petition to list the Hawaiian endemic freshwater fish, *Lentipes concolor* (o'opu hi'u kole), as a threatened and an endangered species with critical habitat designated. HAS, along with four other conservation organizations in Hawai'i, sent the petition to Secretary of the Interior Manuel Lujan on 29 September 1989, and we have not yet received an initial response from Interior.

**Environmental Legislative Network:** HAS is tracking selected bills and resolutions relating to the conservation of native Hawaiian species and their habitat this legislative session. HAS is a participating organization of the Environmental Legislative Network ("ELN"--an informal group of individuals interested in environmental legislation). There are several very important bills that are of interest to the Society and other participating organizations, and we are combining testimony whenever possible.

ELN meets every Tuesday during the legislative session at 12:00 to 1:00 P.M. in Room 208 of the Arcade Building, 212 Merchant Street, Honolulu. (The network meets every second and fourth Tuesday during the interim.) ELN recently hired a part-time coordinator to help track legislation and is planning a banquet, tentatively scheduled for Friday, 20 April, in celebration of Earth Day. Participating organizations will be acknowledging outstanding legislators for their environmental work at the banquet, and money raised from ticket sales for the event will be donated to ELN. Keep the 20th open and look for details in the April issue of *'Elepaio*.

If you are interested in legislation and would like to participate in the decision-making process on behalf of HAS, join ELN on Tuesdays; bring a lunch and network with others involved in shaping environmental legislation in Hawai'i. For more information, call Marjorie Ziegler, HAS Conservation Committee, 528-1432.

## NOTICE TO AUTHORS

The *'Elepaio*, Journal of the Hawaii Audubon Society, invites authors to submit scientific articles on natural history of Hawai'i and the Pacific. Scientific articles are subject to peer review. The *'Elepaio* also serves as a newsletter to inform members of conservation issues, HAS events, and other subjects of interest to members. Manuscripts of articles and newsletter items may be sent to Editor, *'Elepaio*, Hawaii Audubon Society, 212 Merchant St., Room 320, Honolulu, HI 96813. Articles not subject to peer review normally are published at least two months from the date of receipt by the editor.

Scientific articles should be typewritten and double-spaced. Three copies of text should be submitted. Any photographs should be submitted as photographic prints in color or black and white (they will appear black and white) and should be adequately cropped if cropping is required. Authors are advised to design their illustrations with the *'Elepaio* format and column size in mind (please look at a copy of the journal). Original copies of figures, including maps and graphs, should be clear and clean, with lettering large enough to remain legible upon reduction to fit the newsletter format. An original and two good quality "xeroxed" copies of each illustration should be provided with the manuscript.

## JANUARY PROGRAM: THE IMPORTANCE OF BIRDS IN TRADITIONAL HAWAIIAN CULTURE

Keone Nunes spoke on the importance of birds in traditional Hawaiian culture at the HAS January General Meeting. The talk was lively and informative. Keone described the construction and designs of feather cloaks, demonstrated hula steps based on the movements of two birds, and showed a woven mahiole (helmet) he made and explained how feathers would be attached to it. How well do you know the significance of birds in traditional Hawaiian culture? Here is a short quiz based on the presentation:

1. Regal cloaks were often made with red and yellow feathers. From which birds did these feathers come?
2. How were the feathers secured to the cloaks?
3. The movements of which birds were incorporated into the hula?
4. The skin and feathers of which bird were displayed on a Ionomakua (banner) during makahiki (peacetime)?
5. When were bird eggs eaten by the Hawaiians?

### ANSWERS:

1. Red: 'Iwi, 'Apanane; Yellow: 'O'o, Mamo
2. With fiber made from the 'Olona plant
3. Domesticated chicken & Kukuihue'o (a still)
4. Ka'upu (probably the Black-footed Albatross)
5. Only during the Ipu O Lono ceremony of rites of passage for young men

## MARCH PROGRAM: RED-FOOTED BOOBIES

Kiana Pugh and Marle Breese will discuss Red-footed Boobies at the HAS General Meeting on Monday, 19 March. The meeting will be held at the Atherton Halau of the Bishop Museum and begins at 7:30 P.M. All are welcome and refreshments will be served.

## BEQUESTS

A bequest to the Hawaii Audubon Society is an excellent way to help in our conservation efforts. George C. Munro, enthusiastic and tireless field ornithologist and naturalist, provided for a fund to be used exclusively for the protection of native dry forests. Today, the George C. Munro Fund provides money for research projects on such forests. Although an attorney should be consulted in the drafting of your will, a model clause for bequests is set forth below.

"I hereby give, devise, and bequeath to the Hawaii Audubon Society, Honolulu, Hawai'i, the sum of \_\_\_\_\_ dollars (or set forth a description of property), to be used for the general purpose of said organization."

For more information and assistance, contact the Hawaii Audubon Society, 212 Merchant Street, Room 320, Honolulu, HI 96813, (808) 528-1432.



## MAHALO DONORS!

The Hawaii Audubon Society thanks the following members and friends for their generous contributions. This list reflects donations received from 14 January, 1990 through 29 January, 1990.

Peter Adler, Vilma Aleka, Jane Anderson, Anne Ashford, Clinton & Mildred Basler, John W. Beardsley, Jr., Shirley Bennett, David Bremer, Barbara Brodhead, Phil Bruner, Alan D. Cameron, George Campbell, Hampton and Meredith Carson, Daniel Char, Walter Choy, Jean Clark, Claudette Coburn-Ovio, William Collins, Wilbur Collis, J. William Cook, Bob Crone, Linda Cuddihy, Albert H. Davis, Jr., in memory of Miriam Davis, Marri Decosin, Alice Dewey, Peggy Dickie, Satoru Doi, Dorothy Doleman, Steven Donovan, John Earle, Ed Eby, Frances Fairbanks, Joanne Farmer, Stewart and Peggy Fefer, Dr. James Fernandes, Elaine Fessenden, Lester Fox, Susumu Fujii, Evangeline Funk, William Gilmartin, Mary Grantham, Lt. Gail Griffin, Mrs. Freddie Harby, Patricia Hartwell, Nan Harvie, Sibyl Heide, Barbara Heil, Noboru Hirayama, Peggy Hodge, in memory of Marion Bairos, Ed and Sandra Hoover, David R. Howard, William Indich, Ray Jarman, Pearl Johnson, Molly Jones, Gail Kajiyama, Art Kanna, Judith Kearney, Karl Kenyon, Mrs. Richard Kimball, William Kruse, and Collette Kuo.

Also, Cathy Lowder, Arthur McEwen, Fred Metzger, Gary Moniz, Duane Morita, Dr. and Mrs. Haig Naylor, Y. Otoshi, Leilani Peale, Sam Perri, Janet Pettengill, Geoffrey Pickton, Beverly Porter, Donald and Evelyn Quaintance, Mrs. M. L. Randolph, Charles Richardson, Shaunagh Robbins, James Rodeheaver, John Rogde, Eileen Root, Craig Rowland, Susan Scott, Masaharu Shimoda, Ann Snyder, Donald and Helene Sroat, Dorothy Stubnitz, Bette Stuhmacher, Ray Tabata, George Takato, Thomas Tokumoto, Walter Tokushige, Dr. Evelyn Urrere, Harry Whitten, Chris Wilburn, and Roy Yoshimura.

## HAWAII AUDUBON SOCIETY PUBLICATIONS

*Hawaii's Birds* by the Hawaii Audubon Society, 4th edition, 1989. Over 150 color photographs and illustrations. \$10.20 per copy (\$8.95 plus \$1.25 postage).

*Checklist of the Birds of Hawaii -- 1988* by R.L. Pyle, 1988. Lists all taxa naturally occurring in Hawai'i and introduced species that have established viable populations. Also includes all changes from the 1983 Checklist. \$2.00 postpaid.

*Checklist of the Birds of Micronesia* by P. Pyle and J. Engbring, 1985. Lists all taxa naturally occurring in Micronesia and introduced species that have established viable populations. \$2.00 postpaid.

*Field card of the Birds of Hawaii* by R.L. Pyle and A. Engilis, Jr., 1987. A pocket-sized field card listing bird taxa found in Hawai'i with space for field trip notes. \$.25 postpaid, ten or more, \$.10/copy.

*Endangered Waterbirds of the Hawaiian Islands* by R.J. Shallenberger, 1978. Hawaiian Stilt, Coot, Gallinule (Moorhen), and Duck each described in two pages of photographs and text. \$1.00 postpaid.

Posters, 43 x 56 cm., \$1.00 each, postpaid:

*Our Homes are Hawaii's Wetlands*, 1984. Native wildlife of a Hawaiian marshland.

*Hawaiian Forests are More Than Trees*, 1988. Hawaiian forest plants, invertebrates, birds, and the Hawaiian Hoary Bat. Booklet included.

\* \* \* \* \*

If you are interested in purchasing any of these publications or posters, please send your order and check (payable to the Hawaii Audubon Society) to the HAS office, 212 Merchant Street, Room 320, Honolulu, HI 96813.

## MARCH FIELD ACTIVITY

The Hawaii Audubon Society will conduct a 2-mile hike (3-4 hours) to the Makapu'u Lighthouse on Windward O'ahu on Sunday, 18 March. Bruce Eilerts will lead the hike, which features seabirds, marine mammals, sea turtles, native coastal vegetation, the lighthouse, and spectacular views of O'ahu's east shore. Hiking shoes, sunscreen, binoculars, camera, water, and lunch are recommended. We will be meeting in front of the State Library on Punchbowl Street at 7:30 A.M. or at the Makapu'u Lookout at 8:30 A.M. Contact Bruce Eilerts for more information, 599-4795 (eves.).



**HELP WANTED**

**Conservation:** There are several opportunities for members to become involved in HAS conservation matters. First, the HAS Conservation Committee is charged with implementing the joint Hawaii Audubon Society/National Audubon Society 3-year Conservation Campaign (see this issue) and is seeking volunteers to work on the campaign.

Second, the committee is seeking volunteers to track selected state bills and resolutions and to prepare and present testimony on behalf of HAS for the remainder of the 1990 legislative session.

Finally, in addition to the joint Conservation Campaign, HAS is involved in various conservation matters relating to the protection of native species and their habitats. The HAS Conservation Committee for 1990 is currently being organized and will be meeting for the first time on Monday, 12 March at 6:00 P.M. at the HAS office, 212 Merchant Street, Room 320, Honolulu. If you are interested in working on the Conservation Campaign or other HAS conservation matters, please call Marjorie Ziegler, HAS Conservation Committee, 528-1432, and attend the first meeting on the 12th.

**'Elepaio:** The 'Elepaio production staff is seeking a volunteer or two to type articles and news items into the computer at the HAS office for a few hours each month. Knowledge of Macintosh Plus hardware and Microsoft Word software would be helpful but is not necessary. The staff is also considering using PageMaker software in order to eliminate pasting up each issue. This is a great opportunity to learn desk-top publishing. If you have a few hours a month to spare and would like to help with the 'Elepaio, please call Lynne Matusow, 531-4260, or Marjorie Ziegler, 528-1432. We would really appreciate your help!

**Finance:** Auditors and accountants are needed to help audit the books for calendar year 1989 and prepare the IRS 990 form. If you can share your expertise with us, please call Lynne Matusow at 531-4260. This work can be done during the day, in the evening, or on weekends.

**Office:** HAS needs volunteers to give one day a week (10:00 A.M. to 2:00 P.M.) Monday through Friday. No typing or other machine operation required. If you would like to help out, call George Campbell at 941-1356.

**Wildlife Art Exposition:** HAS needs help in publicizing the contest, auction, and show and in making presales, especially to corporations. Please call Lynne Matusow, 531-4260, if interested.

**HAWAII AUDUBON SOCIETY**

212 Merchant Street, Room 320

Honolulu, Hawai'i 96813

(808) 528-1432

**BOARD OF DIRECTORS**

|           |                        |                                |
|-----------|------------------------|--------------------------------|
| President | M. Casey Jarman        | 263-4070 (hm)<br>948-7489 (wk) |
| 1st V.P.  | Bruce Eilerts          | 599-4795 (hm)                  |
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|                       |                        |                                |
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| Adopt-a-Refuge        | Phil Bruner            | 293-3820 (wk)                  |
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| Field Activities      | Bruce Eilerts          | 599-4795 (hm)                  |
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**'ELEPAIO STAFF**

|                   |                   |               |
|-------------------|-------------------|---------------|
| Managing Editor   | Stuart Lillico    | 734-3703 (hm) |
| Scientific Editor | Sheila Conant     | 948-8241 (wk) |
| Production        | Lynne Matusow     | 531-4260 (hm) |
|                   | Marjorie Ziegler  | 247-5318 (hm) |
| Mailing           | George Campbell   | 941-1356 (hm) |
|                   | Elizabeth Edwards | -             |
|                   | Susan Schenck     | -             |
|                   | Alan Ziegler      | 247-5318      |

CALENDAR OF EVENTS

- Mar. 12 (Mon.) Conservation Committee meeting at the HAS office at 6:00 P.M. Call Marjorie Ziegler for details, 528-1432.
- Mar. 12 (Mon.) Board Meeting at the HAS office at 7:00 P.M. Call Bruce Eilerts for details, 599-4795 (eves.)
- Mar. 18 (Sun.) Makapu`u Lighthouse hike. Details inside.
- Mar. 19 (Mon.) General Meeting at the Atherton Halau, Bishop Museum, at 7:30 P.M. Program: Red-footed Boobies, by Kiana Pugh and Marle Breese

Coming Up in April, special performance by Puppets on the Path at McCoy Pavilion on 21 April at 12:00 noon. See details inside.

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