



NATIVE BREEDING BIRDS OF HAWAII

Robert L. Pyle

The native breeding birds of Hawai'i are of unique interest. They are cited and discussed in many different ways, not only in Hawai'i but also in national and worldwide contexts. Three concepts that have aroused the most interest in the birds of Hawai'i are endemism, extinction, and endangerment. In each of these three e's, the native breeding birds of Hawai'i rank among the world's highest. A large percentage of Hawaiian native birds is endemic, a large percentage is extinct, and a large percentage is endangered. But percentages of what? Although these percentages are often cited, we are seldom told the total number of Hawaiian "birds" upon which these percentages are based, or even what is meant by the term "bird" in this context. Sometimes the total includes indigenous species; sometimes it includes only endemic species. Sometimes "bird" may represent only a species, and sometimes either a species or a subspecies.

Another complication is that the official number of endemic or extinct Hawaiian bird species can change even without a change in their actual biological status (as a living or extinct population). The scientific authority for determining bird species in Hawai'i is the American Ornithologists' Union *Check-List of North American Birds*. The current edition was published in 1983 (A.O.U. 1983), with amendments issued biennially to report changes and corrections. Because of the 1985 amendment, for example, Hawai'i lost an endemic genus and gained 3 endemic species, although the total number of endemic "forms" (meaning species and subspecies) remained unchanged. The 1983 A.O.U. *Checklist* and its amendments have invalidated earlier statistics consisting of numbers and percentages of species that are endemic, extinct, or endangered in Hawai'i.

Table 1 categorizes native breeding birds in Hawai'i according to whether or not they are endemic, extinct, or endangered. Category totals are given for species, subspecies, and total forms, so that readers may calculate their own numbers and percentages as needed. For example, 70% (24 of 34) of the living endemic species in Hawai'i are endangered, but only 62% (30 of 48) of the living endemic forms are endangered.

Native breeding species in Hawai'i are those listed as "Resident native species" or "Breeding species in Hawaii; native" by Pyle (1988). The classification of species and subspecies used in Table 1 follows the 1983 A.O.U. *Check-list* as amended in 1985, 1987, and 1989. Newell Shearwater is considered here to be a full species, *Puffinus newelli*, which follows the A.O.U. *Check-list's* alternate treatment rather than its primary treatment of *newelli* as a subspecies of *Puffinus auricularis*. Only one species of 'Elepaio on



Hawai'i 'Akepa (*Loxops coccineus coccineus*) at Hakalau National Wildlife Refuge, Hawai'i.

Photo by Jaan Lepson

Hawai'i island is considered here, pending treatment of subspecies by the A.O.U. *Check-list*. Five species (Oloma'o, 'O'o'a'a, Bishop 'O'o, Kaua'i 'Akialoa, and Moloka'i Creeper) are treated in the A.O.U. *Check-list* as living species, but recent observations of them are so few that if they are not already extinct they likely will become so before long.

The designation of endangered species and subspecies follows the latest official listing by the U.S. Fish and Wildlife Service (1989).

Table 1 does not include ancient species known only from paleontological remains. Olson and James (MS) list 35 ancient species from subfossils found in Hawai'i. All would be considered endemic and extinct; none would be endangered.

My thanks to Dr. H. Douglas Pratt for helpful reviewer's comments on this manuscript.

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Table 1. NATIVE BREEDING BIRDS IN HAWAII
(Species Still Alive at Western Contact)

	Endemic at Subfamily Level		Endemic at Genus Level		Endemic at Species Level		Endemic at Subspecies Level		Not Endemic	
	Species		Species		Species					
	Alive	Extinct	Alive	Extinct	Alive	Extinct	Alive	Extinct	Alive	Extinct
Drepanids										
Psittirostrini	5	4*								
Hemignathini	11	2*	6	5*						
Drepanidini	4	3*		1*						
Other Landbirds										
'Elepaio			1		2					
'O'o's, Kioea			2	3*						
Millerbirds						1			1*	
"Thrushes"						4	1*		1*	
'Io						1				
'Alala						1				
Pueo									1	
Waterbirds										
Nene			1							
Newell Shearwater, Koloa, Laysan Duck, 2 rails						3	2*			
Hawaiian: Petrel, Coot, Moorhen, Stilt, Noddy grebe, 2 albatrosses, 2 petrels, 2 shearwaters, 2 storm-petrels, 2 tropical birds, 3 boobies, frigate bird, night-heron, whistling-duck, 3 terns, 2 noddies									5	
										22
Endemic Species: 49 = 34 + 15*	20	9*	4	3*	10	3*				
Endemic Subspecies of indigenous species: $\frac{6}{55} = \frac{6}{40} + \frac{15}{15}$								6		
Total Species Endemic: $\frac{55}{71} = \frac{40}{71} + \frac{15}{71}$										
Additional Subspecies of endemic species: $\frac{16}{71} = \frac{8}{48} + \frac{8}{23}$		6	6*		2			2*		
Total Forms Endemic: $\frac{71}{22} = \frac{48}{22} + \frac{23}{22}$										22
Total Indigenous Species: $\frac{22}{22} = \frac{22}{22}$										
Total Native Breeders										
Species: 77 = 62 + 15*										
Forms: 93 = 70 + 23*										
Endangered										
Endemic Species: 24	14		2		8					
Additional Subspecies of endemic species: 2		2								
Endemic Subspecies of indigenous species: 4								4		
Total Endangered Forms: 30										
Threatened:										
Endemic Species: 1					1					

* Extinct Forms

FIRST OBSERVATIONS OF THE NORTHERN SHOVELER (*ANAS CLYPEATA*) ON THE ISLAND OF TAHITI, FRENCH POLYNESIA

C. Monnet and A. Varney

This paper reports our observations of a Northern Shoveler (*Anas clypeata*, Fig. 1) on the island of Tahiti (Society Islands). This rare migratory visitor to the region (Pratt et al. 1987) has not been previously reported from the Society Islands, but it has occurred at least once on Tikehau in the Tuamotu Archipelago (Holyoak and Thibault 1984).

We visited Phaeton Cove on the southern side of Tahiti 117 times between 14 April 1987 and 30 December 1989 to observe Gray Ducks (*Anas superciliosa*); during those visits we saw a single Northern Shoveler 19 times in that area; we also saw an individual 5 times in a bay of the isthmus, 2.5 km from the cove, and once at the mouth of the Faatautia River on the eastern side of Tahiti. The bird was always in the company of a flock of Gray Ducks, which varied in size between 3 and 68 individuals. The shoveler fed in a muddy area of Phaeton Cove at the edge of the lagoon. The dominant plant species there is a fern, *Acrostichum aureum*. The bay was used for roosting.

The bird first appeared in nuptial plumage, during a period of rainfall and high northeasterly winds between 13 and 22 April 1987. Plumage changes, as described by Cramp and Simmons (1977), during the rest of the observation period were recorded and are shown in Figure 2.

Nothing permits us to assert that our observations were of the same or several individuals, but we never saw more than one at Phaeton Cove during the 19 observations. It is interesting to note the time lag in the moulting cycle between 1987 and 1989. The individual observed was in eclipse plumage during September and November of 1987 and January and February of 1988; whereas, in 1989, a bird was seen in eclipse plumage in May and December. A possible explanation of this phenomenon could be that this boreal bird had altered its annual moulting cycle to match the reverse seasons of the southern hemisphere. This phenomenon has also been observed in *Anas clypeata* in New Zealand (Williams in Reader's Digest 1985).



Figure 1. Northern Shoveler (*Anas clypeata*), at center, with Gray Ducks (*Anas superciliosa*) Phaeton Cove, Tahiti, 3 November 1988.

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Centre Orstom de Tahiti
 B.P.529
 Papeete, Tahiti
 Polynesie Francaise

Figure 2. Plumages of Northern Shoveler observed in Tahiti during 1987, 1988, and 1989.

	J	F	M	A	M	J	J	A	S	O	N	D
1987				■	■				▨		▨	
1988		▨	▨	■	■							
1989					▨	■	■			■		▨



Eclipse plumage - Supplementary plumage.



Nuptial plumage.

HAWAII AND NATIONAL AUDUBON TAKE LEGAL ACTION TO PROTECT THE ENDANGERED HAWAIIAN CROW

Citing neglect in the recovery of the endangered Hawaiian crow or 'Alala (*Corvus hawaiiensis*), the Hawaii Audubon Society and the National Audubon Society served a 60-day notice of intent to file suit against the U.S. Fish and Wildlife Service for failure to uphold the Endangered Species Act.

The notice of intent was filed by the Sierra Club Legal Defense Fund on 31 October on behalf of Audubon. Audubon seeks to compel the U.S. Fish and Wildlife Service to carry out its own recommendations to save the 'Alala from extinction. Skip Spaulding and Michael Sherwood of the Legal Defense Fund wrote the notice and will represent Audubon in court if necessary.

The 'Alala is a federal- and state-listed endangered species now on the verge of extinction. Once widespread in the forest on Hawai'i, the crow's habitat has been steadily reduced by logging, planting of non-native species, and grazing. The 'Alala has also suffered from disease, predation, illegal shooting, and low reproductive success. Virtually all of the remaining wild 'Alala exist within the boundaries of McCandless Ranch, west Hawai'i, including a parcel of state-owned land currently leased by the private ranch. The McCandless Ranch 'Alala population consists of as few as 10 birds, making it the last remaining wild flock of 'Alala in the world.

"Biological monitoring and implementation of all 'Alala recovery plan recommendations are absolutely essential in order to save the species," says Bruce Eilerts, Hawaii Audubon vice president. "Without full implementation of the recovery plan, the 'Alala will be doomed to extinction within a relatively short period of time."

McCandless Ranch owners refuse to allow access to their land to assess the status of the remaining 'Alala population. "The U.S. Fish and Wildlife Service has allowed the personal opinions of a private land owner and political concerns to derail recovery efforts," says Dana Kokubun, director of National Audubon Society's Hawai'i State Office. Adds attorney Skip Spaulding, "the Fish and Wildlife Service has the power and the responsibility to enforce the Endangered Species Act, even when the species in question is on private land. The agency is reluctant to enter the McCandless Ranch, but it must do so in order to save the 'Alala. Dereliction of that duty is illegal."

A captive breeding program for the 'Alala was established by the state in 1976, with the ultimate goal of reintroducing the species into the wild. The current status (i.e., number, health, sex, and ages) of the remaining wild crows is unknown and will remain unknown unless access is granted. Information about nesting, movement, and mortality of the wild birds is also currently unavailable. In the meantime, the 'Alala is poised on the brink of extinction.

Marjorie Ziegler

GEOTHERMAL VIDEO AIRS AGAIN

"Geothermal: A Risky Business" airs statewide Saturday, 5 January at 8:00 P.M. on KHET. It follows two state-produced videos on energy in Hawai'i, which air at 7:00 P.M.

1990 CHRISTMAS BIRD COUNTS

The 1990 Christmas Bird Counts will take place on Kaula'i, O'ahu, Moloka'i, Maui, and Hawai'i. These counts are always exciting, with records to be broken and new birds to be seen! We especially need people to attend counts on the outer islands. For information on the counts, contact the leaders listed below. The 1990 counts are scheduled as follows:

KAUAI:

Kapa'a--Sunday, 30 December	Barbara Stuart 826-9233
Lihu'e--Saturday, 15 December	Winona Sears 822-3045
Waimea--Saturday, 29 December	Marsha Erickson 335-9975

O'AHU:

Honolulu--Sunday, 16 December	Bruce Eilerts 599-4795
Waipi'o--Saturday, 15 December	David Bremer 623-7613

MOLOKA'I:

Saturday, 29 December	Torrie Haurez 567-6680
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MAUI:

Pu'u O Kali--Saturday, 15 December	Fern Ducall 572-1584
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HAWAII:

North Kona--Sunday, 16 December	Reggie David 329-9141
Volcano--Saturday, 29 December	Larry Katahira 967-7416

Please give Larry your name, social security number, etc., by 10 December if you are interested in birding at Kulani.

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, Suite 320, Honolulu, HI 96813, (808) 528-1432.

OFFICE HELP NEEDED

Volunteers are needed to be at the Hawaii Audubon Society office one day a month to answer the telephone, process mail, and do other office-related tasks. Please call George Campbell for more information, if you would like to, help out, 941-1356 (hm).

GREENPRINT

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ENVIRONMENTAL ACTION: A NOVICE'S STORY

by Suzanne Kīka

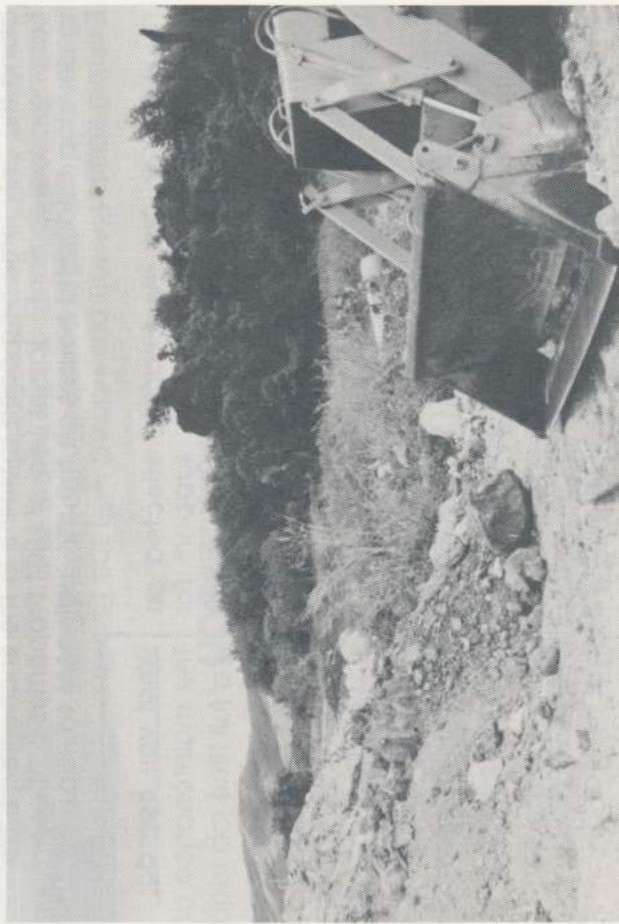
How did the new kids on the block -- my husband Bob, our sons Oran and Scott, and I -- become impassioned environmental activists? We'd always been concerned for the health of our planet, our state, and our Kailua, but our concern for the Ka'elepulu wetlands was personal and immediate: it was literally our own backyard!

Bob and I purchased our home on Akula Place in the Enchanted Lakes subdivision during the summer of 1987, more because of the setting than for the house itself. As one of the purchase conditions, we received written assurances that the area across the waterway would remain undeveloped and pristine; a beautiful haven in the midst of suburbia.

In the first two years our sons Oran and Scott enjoyed every feature of this aquatic retreat. An incredible wildlife panorama lay just outside our back door, not to mention the fishing, crabbing, and boating. Our family albums filled with photos of night herons, Hawaiian coots, stilts, egrets, gallinule, fish, shellfish, and other aquatic life.

So we worried when the wetlands began to change. The small mangroves directly across the channel from our home grew rapidly into trees reaching thirty feet in height! The mangroves encroached into the channel, encouraging siltation and causing the channel to become narrower and shallower.

Our neighbors say the channel used to be six to eight feet deep. Today it is so shallow that we have not been able to launch our boats for months and our dock is often surrounded by mud and grass, not water.



Ka'elepulu Pond Site; for over 10 years the controversy has continued

Photo by Sandra Pao

Fewer of our feathered friends ply the disappearing waters, which are becoming more and more polluted. Garbage finds its way in to the mudflats and collects there, along with a sea of mangrove pods. It takes major effort just to keep the rubbish cleaned up.

We sought help from the developer of Keolu Hills, asking him to dredge the channel and to remove the non-native mangroves. He said he didn't have the resources, and that he was not

Akaka Defends Endangered Species Before U.S. Senate

Hawai'i conservationists breathed a sigh of relief as an eleventh-hour attack on the federal Endangered Species Act was turned away in the U.S. Senate as the 101st Congress came to a close in late October. Alerted to action by the Audubon's Hawai'i State Office, concerned Audubon members and others launched a flurry of phone calls to Senators Daniel Inouye and Daniel Akaka. Akaka was among the majority voting to kill a move to severely weaken the tough laws protecting the nation's endangered plants and animals. Senator Inouye voted with the losing minority.

The storm of controversy surrounded the future of the Northern Spotted Owl. A federally-listed threatened species, the owl's survival depends upon the ancient forests of the Pacific Northwest. At issue was whether or not a committee of political appointees would be allowed to decide the owl's fate.

Supported by the timber industry, Senator Robert Packwood of Oregon sought to allow rates of logging which would have destroyed critical owl habitat. The Packwood amendment would have convened the Endangered Species Committee, also known as the "God Committee", to decide whether or not the owl should be exempted from the protection of the Endangered Species Act.



"... if the earth is no longer fit for animals to live upon, surely it will not be fit for humans, either."

-Senator Daniel Akaka, in his statement before the U.S. Senate on the Packwood Amendment, October 23, 1990

Convening the God Committee would have prevented federal experts from making decisions about the owl. In his speech on the Senate floor, Akaka was sharply critical of the God Committee, asking "Whose judgement do you trust more: our on-the-site park rangers or some Washington desk jockeys?"

In his remarks, Akaka noted the relevance of the spotted owl debate to the protection of Hawai'i's endangered species: "I'm concerned because my home state of Hawai'i has become a desperate battleground where individual battles for survival are waged every day. Numerous plant and wildlife species are barely clinging to survival. Countless others have disappeared altogether. . . I urge my colleagues to join me in opposing the Packwood amendment. . . The spotted owl is not the only creature at stake; so are we."

What you can do:

Write to Senator Akaka thanking him for killing the Packwood amendment. Ask for his future support in protecting endangered species. -AND/OR- Join the Audubon Activist network! Call 522-5566 if you are willing to write letters and make phone calls on environmental issues affecting Hawai'i. Audubon will alert you when important action is needed.

determine who owned the waterway and wetlands, but without success. Frustration and feelings of despair set in. We talked with neighbors. They all wanted to do something, but no one seemed to be able to make any headway.

Then on June 5, 1990, a special notice appeared in the newspapers. The U.S. Army Corps of Engineers was considering a request for an after-the-fact approval of the unauthorized filling of wetlands along Keolu Drive. The Corps wanted to know if the people thought a public hearing on the permit request was necessary.

We wrote a letter in support of holding the public hearing, though we had never attended one before and had no idea how the process worked. But we felt our prayers had been answered--maybe this could be our vehicle for ACTION!

Then on a Sunday afternoon, a woman appeared at our door asking for a few moments of our time to discuss her concern for wildlife of the Ka'elepulu wetlands. Her name was Sandy Pao. Sandy had already done an incredible amount of research into the very questions we had been unable to answer. Sandy hoped to find enough concerned citizens to organize a group to save the wetlands. We were more than eager to get involved!

Sandy and my husband Bob decided to host a meeting for interested neighbors at our house. The turnout at the meeting was terrific! It was great just having the chance to get to know folks we barely recognized in passing; to nurture our sense of neighborliness.

Sandy shared the wealth of information she had collected during weeks of detective work and also touched us all with her heartfelt concern for the environment. Neighbors shared their sadness, frustrations and concerns.

(cont. next page)

Citizens Rally to Preserve Ka'elepulu Pond Wetlands

by Dana Kokubun

October second was a banner day for wetlands protection on O'ahu's windward coast. Two hundred concerned citizens attended a public hearing hosted by the U.S. Army Corps of Engineers and dozens spoke out for protecting Ka'elepulu Pond wetlands. They were joined by several elected officials, including Council members John Felix and Steve Holmes, and state Senator Stan Koki.

The Corps is considering granting a permit for filling wetlands along the only remaining open shoreline in the Enchanted Lakes housing development. James Lee of LECI Properties proposes to develop additional houses on the site, adjacent to Keolu Drive in Kailua.

The testimony at the hearing reflected an overwhelming majority of support for restoring part of the wetlands which were illegally filled by its previous owner, Lonestar Hawaii, in 1977-78. The community, led by Sandra Pao of the Coalition to Save Ka'elepulu Pond, also called for permanent protection of the entire wetland area.

Pao spearheaded efforts to rally her neighbors in Enchanted Lakes to protect the Ka'elepulu Pond wetlands. Members of the Coalition she organized walked door-to-door, wrote and called elected officials, and alerted the media to their concerns. Their tremendous grassroots effort resulted in an impressive turnout at the Tuesday night hearing, held at Enchanted Lakes Elementary School.

Kendall McCreary of the Hawaii State Office staff testified on Audubon's behalf, pointing out that the wetland still provides habitat for the endangered Hawaiian Coot, Stilt, and Gallinule. McCreary also reminded the Corps that under the federal Clean Water Act, the Corps can only permit filling a wetland if there are not alternative sites and the project is a water dependent activity. Clearly, a housing project is a non-water dependent activity, meaning that its basic function does not depend upon sitting it upon or nearby waters of the United States. By legal definition, wetlands are considered "waters of the United States."

Novice's Story continued. . .

Out of this meeting the Coalition to Save the Ka'elepulu Wetlands was born. Our mission is to stand against ANY development of the wetlands area, and to fight for the restoration of the wetlands to their natural state.

Coalition member La-Ling Hing drafted a group letter requesting the public hearing, and within a week, the letter was circulated by Bob and signed by 55 residents in the immediate area.

Meanwhile, Sandy solicited help in gathering signatures and letters from residents who live across the channel on Keolu Drive. Congressional representatives and other elected officials were contacted and informed about the Coalition's mission.

Over the weeks that followed, the Coalition gathered strength and an intensity of purpose. A second meeting held at our house was attended by thirty representatives from areas contiguous to Ka'elepulu Pond.

We decided who would contact organizations like the Audubon Society, reinforce contact with elected officials, and marshal support from other community groups.

Over coffee and dessert, we drafted a publicity flyer. We shared photos taken over the years of the beautiful creatures whose habitat was being destroyed and Sandy offered to assemble them into a display for the hearing. We decided who would present oral testimony and drafted news media releases.

Our efforts were rewarded when the Corps announced it would hold a public hearing in early October. As others in the group worked hard to get the word out, my family mobilized, too: Oran got on his bike and rode for petition signatures. Bob canvassed more of the neighbors, getting good exercise as he walked up and down the meandering streets of Enchanted Lakes. I circulated the flyer and gathered signatures at our church and at work.

Little Scott and Oran, born naturalists, were just as excited as us big folks about helping with the cause. They begged us to stay up late, listening and learning at Coalition meetings about how to try to protect and save what you hold dear.

What you can do:

The maintenance of Hawaii's wetlands is a full time job requiring constant attention. Volunteer to care for a wetland on Saturday, January 5 by pulling mangrove seedlings at the West Loch Shoreline Park. Call the National Audubon Society Hawaii State Office at 522-5566 to register or for more information.

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In his testimony, McCreary concluded, "Hawai'i has already lost over 30% of its coastal plain wetlands. It is important to guard against the incremental loss of our remaining wetlands, including what is left of Ka'elepulu Pond. The planned project is private and non-water dependent and should not take precedence over wetland areas. The Corps would not be acting in the public interest if it grants these permits."

As Greenprint went to press, a decision on whether or not to permit the wetlands fill was expected shortly from Lt. Colonel Donald Wynn, head of the Corps' Honolulu District. The U.S. Fish & Wildlife Service, who is responsible for the protection of Hawai'i's endangered species, announced its intent to protest a permit if one is issued without adequate mitigating measures.

Meanwhile, Audubon is trying find a potential buyer for the Ka'elepulu Pond wetlands, who would be willing to restore the entire wetland and donate it to a government agency or a private organization for perpetual maintenance. One of Audubon's major goals is to preserve and protect wetland areas of ecological significance throughout Hawai'i.

Volunteer Spotlight: Anne Roberts Pierson

by Rae Alice Hall

Anne Roberts-Pierson has worked with the Peace Corps in Africa and has served in the United States Navy, but now she has a new career as a volunteer for the Audubon Society.

"I have always been interested in conservation and the environment," Anne says, "but while I was in the Navy, I wasn't able to do any volunteer work." Now, as a civilian, she is making up for lost time.

Anne has a hard time describing her job with the Audubon Society. "Everytime I go in, it is something different. I guess you'd just say I do anything that needs doing." "Anything that needs doing" includes typing, xeroxing, computer programming, filing, answering phones, running errands and delivering the Audubon magazine to legislators at the State Capitol. She also helps

Enchanted Lakes School's auditorium and helped Sandy arrange the displays. Then we waited to see who would appear. At first we were concerned. Where were all those folks who said that they'd be there? Then people started to arrive, and the place filled up until there was standing room only.

The developer's agent led off the evening with a slideshow. Then, it was our turn. What followed was testimony overwhelmingly in favor of denial of the developer's permit request and a call for the restoration of the wetlands. Several elected officials were on hand to lend their support to the Coalition's goals.

We were elated at both the television and newspaper coverage of the hearing, and felt that things just couldn't have gone better. Public opinion was on our side.

We await word on the Corps' decision. It is so quiet, these last six weeks. There are no meetings, no strategies to develop, no publicity to get out. All we can do is wait and wonder. Of course, the Coalition plans further action if the Corps' decision favors development of the wetlands.

Whatever the outcome, we have grown as citizens, as individuals, and as a family through our first-time involvement in community action. The rewards defy description. What we learned about nature, human nature, and citizen action, left us changed for the better. We hope to see the Ka'elepulu wetlands changed for the better as well.



Anne Roberts-Pierson hard at work
Photo by Rae Alice Hall

with the office recycling program and with volunteer workshops.

In addition to Audubon, Anne also does volunteer work for the Sierra Club and for the Humane Society.

As a Peace Corps worker in a small village in Zaire, Anne was an animal husbandry extension agent. Her main mode of transportation was a bicycle and she went from farmer to farmer working to upgrade livestock and increase agricultural production.

After the Peace Corps, Ann joined the Navy and she arrived in Hawaii in 1986. She is married to a Navy man.

"Hawaii is a wonderful place to live," she says, "and I want to do everything I can to conserve and protect it."

REMEMBERING HARRY WHITTEN

Long-time Hawaii Audubon Society member Harry Whitten of Honolulu passed away on 1 August at the age of 75. He was best known to the public as the veteran environmental columnist for the *Honolulu Star-Bulletin*, but HAS members held him in especially high regard for his never-failing helpfulness in the operations of the Society.

Harry came to Hawai'i in 1947 as a night police reporter and general reporter for the *Star-Bulletin*. During his 37 years with the paper, he served as night editor, assistant editorial page editor, and energy and environment writer, among other things. Beginning in 1972, Harry wrote a weekly environment column that covered everything from esoteric and exciting scientific projects to the controversial conservation issues of the day. He could be depended upon to include news of conservation and natural history organizations in his column on short notice, and often announced and then covered the annual HAS Christmas Bird Counts.

Regularly attending HAS general meetings with his spiral-bound notebook, Harry would report on Society activities, programs, and field trips in his column. He also helped out with the mechanics of HAS (proofreading 'Elepaio articles, for example) as a quiet and cheerful volunteer. I never knew him to turn down a dish of ice cream at 'Elepaio paste-up sessions at Thane Pratt's house. Harry and his wife, the late Ruth Crymes, often came out on field trips; both were keen hikers and fond of natural history walks.

Although we adjusted to the absence of Harry Whitten's column since he retired in 1985, it will be much more difficult to adjust to his absence from our midst.

Sheila Conant

**MICRONESIA BIRDING TOUR
ALMOST FILLED**

The Hawaii Audubon Society is sponsoring a visit to Micronesia from 15 February to 3 March 1991. The focus is on birds.

Koror, Yap, Truk, Saipan, and Pohnpei are among the thousands of coral atolls and volcanic islands scattered across nearly 12,000 square miles of the Pacific Ocean and known as Micronesia.

The Pohnpei Flycatcher, Fantail, Lory, Cicadabird, Long-billed White-eye, Oceanic Flycatcher, Blue-faced Parrotfinch, Great Truk White-eye, Palau Fruit-Dove, Micronesian Pigeon, Palau Ground-Dove, Nicobar Pigeon, Nightingale Reed-Warbler, Golden White-eye, Rufous Fantail, Mariana Fruit-Dove, Mariana Crow, and Black Drongo are among the birds the group can hope to see.

Dr. H. Douglas Pratt, an authority on the natural history and bird life of Hawaii and the Pacific, will lead the HAS group. Pratt, a talented artist as well as a zoologist, illustrated the *Field Guide to the Birds of Hawaii and the Tropical Pacific*. His work is on display at the Bishop Museum.

The tour will cost \$3,895 a person, including round-trip air fare from Honolulu. If there are fewer than 13 participants, the cost will be \$3,995 each. Hawaii Audubon will receive \$150 per participant. At this time, persons interested in going on the tour should contact the agent directly: Mary Lee, Voyagers International, P.O. Box 915, Ithaca, NY 14851; telephone: 1(800)633-0299.

PEOPLE'S WATER CONFERENCE # 7

"Integrating Water and Land-Use Planning in Hawai'i" is the title of the seventh annual People's Water Conference, which is scheduled for Saturday, 12 January 1991, 8:30 A.M. to 3:00 P.M. at the Hawai'i State Capitol Auditorium. The public is invited to this free conference to hear keynote speaker Gregory Thomas, Chief Executive for the Natural Heritage Institute in California. Dr. Thomas has taught law in California and, as a Fulbright Scholar, in the People's Republic of China. He has worked with the Natural Resources Defense Council, Sierra Club Legal Defense Fund, and other organizations. He is the author of several publications on resource law, management, and protection. Other speakers at the conference will discuss the Hawai'i Water Plan, including county water development and management plans. For more information, contact Martha Black, 229 Po'ipu Drive, Honolulu 96825; telephone: 395-2127.

Marjorie Ziegler

HAS DUES SET FOR YEAR 1991

The Hawaii Audubon Society Board of Directors has approved the following membership schedule for the calendar year 1991. The basic \$6 rate is unchanged from 1990. Surcharges for postage have been added for certain classes of mail to compensate more adequately for certain mailing costs.

HAS DUES FOR 1991
Includes delivery of 'Elepaio

U.S. Zip Code Addresses	\$ 6
(Bulk mail, not forwardable to new address)	
(Life Membership, may be paid in three equal installments)*	150
(Junior Membership age 18 and under)*	3
Mexico	12
Canada	13
All other countries, surface mail	13
(Delivery in 6 weeks to 3 months)	
*Additional postage charged for airmail and foreign addresses	

Optional Airmail Delivery

U.S. Zip Code Addresses (1st Class)	12
All other countries except U.S., Canada and Mexico	24

The foregoing dues schedule is based on current U.S. Postage rates. An increase in U.S. rates is possible in 1991. However, the Society will maintain the above dues level through 1991.

HELP WANTED

Computer-knowledged volunteer to assist in establishing a Society membership address and mailing list in the Society's MacIntosh Plus computer. Please contact Robert Pyle at 262-4046.

MOVING?

Please allow four weeks for processing address changes. Because our records are kept in order by zip code, we need both old and new addresses.

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. 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, Suite 320, Honolulu, HI 96813.

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).

HAWAII AUDUBON SOCIETY STICKER

Three inch round bumper stickers depicting the 'Elepaio (see logo on page one) are available free of charge at the office or by sending a self-addressed stamped envelope to Sticker, Hawaii Audubon Society, 212 Merchant Street, Suite 320, Honolulu, HI 96813.

T-SHIRTS AND TANK TOPS FOR SALE

The Hawaii Audubon Society recently received a shipment of t-shirts and tank tops for the upcoming holiday season. These shirts make wonderful Christmas gifts and help spread the Audubon message as well.

T-shirts and tank tops with the HAS 'Elepaio emblem are available in aqua, navy blue, and beige. Tank tops with the HAS 'Elepaio emblem are available in aqua and black. The Society is also selling the Kolea (Golden Plover) research t-shirts and tank tops, which some of you may have seen already. These shirts and tanks come in white only, with a beautiful 4-colored design depicting the Kolea.

HAS and Kolea t-shirts are \$12 each; HAS and Kolea tank tops are \$10. Sizes available are adult medium, large, and extra-large. The t-shirts and tank tops are sold at HAS General Meetings, which are usually held on the third Monday of each month, 7:30 P.M., Atherton Halau at the Bishop Museum in Honolulu. Shirts and tanks may also be ordered by mail. Please send your order and check payable to the Hawaii Audubon Society to:

Andrea Bruner
Box 1775
BYU-H
La'ie, Hawai'i 96762

Please add an extra \$2 per shirt for postage and handling. Don't forget to indicate style (t-shirt or tank top), design (HAS or Kolea), quantity, color, and size, and indicate second choice just in case your first choice is not in stock.

A gift joint membership to the Hawaii Audubon Society/National Audubon Society, and HAS publications, such as *Hawaii's Birds*, also make thoughtful holiday gifts and support Audubon's efforts in native species protection.

SPECIAL OFFER FROM BIRD WATCHER'S DIGEST

The bimonthly *Bird Watcher's Digest* has made a special offer to Hawaii Audubon Society members. HAS will receive \$7.50 from each subscription (half of all new subscriptions generated by the chapter).

Recent articles have covered the common barn owl, recognizing bird watchers, how to clean your binoculars, birders and hunters, to feed or not, how to photograph birds in flight, teaching children about birds, the forest birds of Hawai'i, the Hawaiian Stilt, growing up without a field guide, and stories on various species of birds.

Send a \$15 check payable to the Hawaii Audubon Society, along with your name and address, to the Hawaii Audubon Society, 212 Merchant Street, Suite 320, Honolulu, HI 96813.

ENVIRONMENTAL DIRECTORY AVAILABLE

The Hawaii Audubon Society recently published the *Hawai'i Green Pages*, a directory compiled in celebration of Earth Day 1990. The directory lists over 150 environmental efforts in Hawai'i. For a free copy, send a self-addressed stamped #10 envelope to Directory, Hawaii Audubon Society, 212 Merchant Street, Suite 320, Honolulu, HI 96813.

Boycott Koa?

HONOLULU

It is gratifying to witness the growth of public and even political concern about the global loss of tropical forests. It is high time! Hawaii's tropical/subtropical forests should be setting the standard for conservation. Instead, they are suffering the same degradation as their counterparts in the less-developed countries.

New mechanisms for slowing the rate of disappearance and for conserving their wealth of biological diversity need to be found and implemented. In the Third World, debt-for-nature swaps are one such innovative device. Timber boycotts are being talked about as another. One Mainland-based environmental organization, Rainforest Action Network, concerned about the situation in Hawaii, has been urging a boycott of koa (*Acacia koa*, endemic to Hawaii) and has asked environmental organizations to support this action. In my opinion, we should refrain. Rather, we should divert the limited energy available into an alternative and more rewarding effort.

The greatest threat to the continued existence of koa forests is livestock, not logging. Eliminating the market for the beautiful and valuable koa wood would further reduce the economic incentive for private landowners to maintain their lands in forest. This is one of the basic problems with tropical timber boycotts. If no value is to be realized from forests, they will be destroyed and converted to something else, usually to shifting agriculture or to grazing.

At present, with koa prices high, landowners are interested not only in harvesting, but regenerating koa — even planting koa on open lands. Prices will probably continue to increase, a fact not lost on thoughtful landowners, or the state. A conference on koa in December 1986 at Hilo, sponsored by the Forestry Committee of the State Resource Conservation and Development Council, helped to crystallize interest in the welfare of this species.

Developed-country scientists and environmentalists alike have pointed with horror at the land-taxation policies of Brazil which in effect subsidize the clearing of precious tropical rainforests to convert to cattle ranches. Land assessment and taxation policies in Hawaii are of the same nature, presenting financial disincentives for growing forests, and encouraging conversion of forests to agriculture and grazing.

Grazing in koa forests is destroying more forest habitat than cutting mature trees for the wood market. Natural regeneration of koa follows logging where there is no grazing and no fire. We will save more forest by revising the taxation policies than by boycotting koa.

The taxation problem now is somewhat more complicated than it was a few years ago, when only State legislation and policy had to be dealt with. Now the system must be changed in each county. I am ready to work with members of the environmental community who are willing to devote time to achieving more rational, conservation-oriented land-assessment policies. The Hawaii Society of American Foresters is prepared to offer technical guidance to any effort. I am a member of this professional organization as well as of the Audubon Society. Is anyone out there prepared to think globally--act locally--on this issue?

Lawrence S. Hamilton
EAPI, East-West Center
1777 East-West Road
Honolulu, Hawaii 96848

The 'Elepaio welcomes expressions of opinion from readers on matters that are germane to the concerns of the Hawaiian Audubon Society.

This column is not intended as a medium for the publication of field observations. Please do not exceed 250 words. Remember to include your name, address and professional/organizational connections. The editor may elect to condense your message.

'ELEPAIO NEEDS YOU

Lynne Matusow and Marjorie Ziegler, who have been handling the production of 'Elepaio this year, both have other substantial HAS duties -- one as the Society's treasurer and fundraiser and the other as corresponding secretary and conservation committee chair -- in addition to full-time outside jobs.

To give these two busy people a break, 'Elepaio needs one or more volunteers to assist with keying non-scientific articles and announcements on a Macintosh Plus computer using Write Now software. The time is flexible. Help is also needed with the once-a-month "paste-up" for the printers. The work is done at the HAS office.

Call 'Elepaio Managing Editor Stuart Lillico at 734-3703 if you can volunteer, particularly for the word processing job, which is most urgently needed.

HAWAII AUDUBON SOCIETY

212 Merchant Street, Suite 320
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(808) 528-1432

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CALENDAR OF EVENTS

Dec. 10 HAS Special Board Meeting: HAS office at 6:00 (Mon.) P.M. Call M. Casey Jarman for details, 949-1943 (hm), 956-7489 (wk).

Dec. 17 HAS General Meeting: Atherton Halau, Bishop (Mon.) Museum, 7:30 P.M. Call M. Casey Jarman for details, 949-1943 (hm), 956-7489 (wk).

December Field Trip: 1990 Christmas Bird Counts (see details inside).

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