



# 'ELEPAIO

Journal of the  
Hawaii Audubon Society

For the Protection of  
Hawaii's Native Wildlife

VOLUME 52, NUMBER 5

MAY 1992

## Agreement Reached to Protect Endangered Seabirds on Kaua'i

On 27 March the Kaua'i Electric Company (KE) and the Sierra Club Legal Defense Fund (SCLDF) announced a settlement of a federal lawsuit brought by SCLDF against KE that will provide long-term protection for endangered bird species native to Kaua'i and lead to improved electric power reliability on Kaua'i's north shore.

The settlement amicably resolves a lawsuit by SCLDF on behalf of the Hawaii Audubon Society, 1000 Friends of Kaua'i, and Sierra Club, alleging that KE's utility poles and lines violate the Endangered Species Act by interfering with the flyways of native seabird species, which are protected under the federal law.

A consent decree, signed on 25 March by SCLDF and KE, sets aside the lawsuit and clears the way for KE to rebuild an electrical distribution line through Kalihiwai Valley on Kaua'i's north coast

and to eventually build an electric substation in Kilauea. KE also will repair a transmission tower line running through the heart of the island.

A significant feature of the settlement is a five-year, \$400,000 study to determine the causes and prevention of the annual "fallout" of Kaua'i's seabirds, primarily Newell's Shearwaters and Dark-rumped Petrels (listed as threatened and endangered species). More than 1,500 seabirds, mostly Newell's Shearwaters, fall from the sky each year. (See *'Elepaio*, 51:10, October 1991, page 65.) The study will be advised jointly by KE and the environmental groups.

Denise Antolini, staff attorney for SCLDF, said the study will focus on the impact of utility lines and poles on the seabirds; the size, health, and stability of (Continued on page 31)

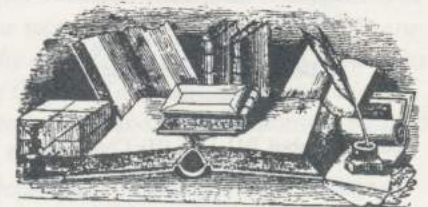
## Four Tuition Scholarships Available

The Hawaii Audubon Society will be awarding four undergraduate one-year tuition scholarships of \$1,340 each to Hawai'i residents attending the University of Hawai'i. These scholarships, named the Rose Schuster Taylor Scholarship, are made available by the Yao Shen Trust and are in honor of Rose Schuster Taylor. Terms of the trust require that recipients be Hawai'i residents, attending the University of Hawai'i, whose area of study is related to Hawaiian natural history, especially if it may lead to the better protection of native wildlife in Hawai'i.

Applicants should submit the following information: name, address, telephone number, class year, and explain how their academic major relates to Hawaiian natural history. They should also discuss how they plan to apply their academic degree to further study or work experience in Hawaiian natural history, how their course of study will enable them to contribute to the better protection of native Hawaiian wildlife, and if they have made contributions to the study of Hawaiian natural history, especially to anything that might contribute to the protection of native wildlife.

Applicants should attach a transcript of their college or high school records and three letters of recommendation.

Applications should be sent to Phil Bruner, Chair, Scholarship and Grants Committee, Box 1775, BYU-H, La'ie, HI 96762, telephone 293-3820 (W). The application deadline is 1 June.



## 'Alala Update

In April 11 'Alala, the endangered Hawaiian Crow, including five pairs and one floater, were found by federal biologists conducting a crow survey on the McCandless Ranch. The survey was a direct result of a lawsuit brought by the Hawaii Audubon Society and the National Audubon Society against the ranch and the U.S. Fish and Wildlife Service (USFWS) to compel the USFWS to carry out its recovery plan for the 'Alala.

On 3 April U.S. District Judge David Ezra approved an interim settlement between Hawaii Audubon, National Audubon, and the two defendants. That settlement permitted the USFWS to conduct an 'Alala population and nesting survey on the ranch and required that the initial phase of the survey be completed no later than 15 April, with a supplemental report completed by 30 April, if necessary.

Federal biologists had not been permitted to search for breeding 'Alala on the ranch for more than 10 years.

If this survey shows that an "emergency situation" exists with regard to the wild 'Alala, any party can apply to Judge Ezra to issue a ruling in the underlying lawsuit. Audubon is currently evaluating its options.

In addition, the National Academy of Sciences was scheduled to issue a report, commissioned by the USFWS, on the 'Alala on 30 April. While the Academy did not conduct field studies of the 'Alala, its experts visited the ranch and the state captive propagation facility at Olinda, Maui, where nine 'Alala reside.

The legal issues are far from settled. For more late breaking information see the accompanying issue of *Greenprint* and future issues of *'Elepaio*.

# Hawaii Audubon Society

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## Volunteer Corner

Article and photo by Rae Alice Hall

Hawaii Audubon was founded in 1939 by a group of concerned citizens who wanted to put a stop to a hunting season on the Kolea.

Bob Pyle is a long-time volunteer with Hawaii Audubon, and he says that the Society has long been in the forefront of the movement to protect the state's wildlife and its natural habitat. "But," he adds, "there wasn't much to be in the 'forefront' of back in the 1940s. Nobody else was very concerned about preserving our natural resources."

Pyle joined Hawaii Audubon for the first time in 1953. He has served as president of the organization three times and is now membership chairman. He has organized

## HAS Dues for 1992

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and compiled many Christmas Bird Counts in Honolulu for the Society. He has collected and archived bird sighting reports from Hawai'i for the last 15 years and sometimes has written summaries of current bird reports for 'Elepaio. He has always been interested in birds and has also been active in Audubon in Los Angeles, Seattle, and Washington, D.C.

Pyle has seen many changes in the organization over the years, and he feels that "the effectiveness of leadership determines how active a Society can be.

"The Society's membership has been growing in the last few years, and we are involved in many different areas," he says. "But, what we really need right now are more volunteers to keep these programs going. The volunteers we have are trying to do everything. We could use more help."

As membership chairman, Pyle maintains the membership records for the various categories of members. "We have between 2,500 and 2,700 names on our list," he says. "About three-fourths of those have joint membership in both the local and national Societies, and about one-fourth belong to the local Society only."

Birds play an important part in Pyle's other outside activities. Since the early 1980s, he has worked as curatorial assistant for birds in the zoology department of the Bishop Museum.

He lives in Kailua, and both he and his wife, Leilani, like to travel. Many of their trips center around birding and "plant-looking," which is Leilani's main interest. They are particularly interested in birds and plants of the Pacific area. Leilani has served as secretary of the Society in past years.

Bob Pyle's many years of service to the Hawaii Audubon Society is a good example of what volunteerism is all about.

## Mahalo Donors!

We wish to thank the following members and friends for their generous support. This list reflects contributions received from 4 March through 13 April.

Ronald Erle Arbuckle, Patrick Ching, Joannie Dobbs, Sally Edwards, Phyllis Enomoto, Gerard Fryer, Susumu Fujii, Sarah Gentry, Stephen Hyde, Janice Lum, Alan McCray, Linda Mitchell, Albert Moscotti, Paul Newman, Elizabeth Porteus, Neil Reimer, Stanley Strezleck, and Suzanne Terada.

# Rain Forest Development on the Lava Flows of Mauna Loa

by Donald Drake

In 1989, the Hawaii Audubon Society was generous in granting me \$400, which allowed me to begin a research project to study the process of forest development on recent lava flows in the montane rain forest zone on Mauna Loa, Hawai'i. Although 80% of the research was completed from July-August 1989, analysis of the initial results indicated that additional data were required to round out the emerging picture. Field work was completed in late 1991. Recently a manuscript was submitted for publication in a scientific journal. The following is a summary of the major findings of the study.

Plant communities were sampled on a series of lava flows aged 47, 137, circa 300, circa 400, and circa 3,000 years, in the Upper Waiakea Forest Reserve. Because the flows were all geologically similar ('a'a lava), located at the same elevation (1,250 meters above sea level), and received equal rainfall (4,000 millimeters per year), the differences in their vegetation cover were assumed to be attributable to the different lengths of time that forest development had proceeded on each flow. Thus, the data were used to infer the pattern of forest development, or forest succession, over a 3,000-year period on a single flow. For *Metrosideros polymorpha* ('ohi'a-lehua) and other potential canopy tree species (*Cheirodendron trigynum*, olapa; *Ilex anomala*, kawa'u; and *Myrsine lessertiana*, kolea), diameters of individual plants were measured and population densities were determined. Population densities were also measured for the three species of tree ferns (*Cibotium* spp.) found on the sites.

The upper layer of vegetation at all sites was dominated by *M. polymorpha*. Populations of other trees were relatively sparse throughout the study area. For *M. polymorpha* populations, basal area per hectare increased (though at an ever decreasing rate) as flow age increased, indicating that biomass continued to accumulate throughout the 3,000-year period. In contrast, population densities of seedlings, saplings, and trees peaked on the 137-year flow, then declined with further increases in flow age. The combination of

increasing biomass and decreasing density within a population is usually interpreted to mean that the population is undergoing a process of competition known as "self-thinning," in which the increasing biomass of the large, dominant individuals more than compensates for the loss of biomass due to the death of the smaller, weaker ones. The decrease in density of *M. polymorpha* on the older flows was accompanied by an increase in the density of tree ferns, which formed a closed sub-canopy on the 400 and 3,000-year flows, and may have cast enough shade to inhibit regeneration of *M. polymorpha*. On the three oldest flows, wind-thrown trees created gaps in the forest canopy, and these gaps provided sites in which *M. polymorpha* was able to reproduce both vegetatively and from seed. Among *M. polymorpha* trees, there was a successional transition from pubescent varieties on the three youngest flows, to glabrous varieties on the oldest flow.

Other potential canopy tree species first appeared on the 137-year flow and became relatively common on the older flows. Although individual trees occasionally reached large sizes (stem diameters of 25 cm, *Cheirodendron trigynum*; 35 cm, *Ilex anomala*; 45 cm, *Myrsine lessertiana*), they were never much more than half the diameter of the largest *M. polymorpha* at any given site, nor were they abundant enough to challenge for dominance. Instead, they comprised an open canopied middle layer between the tree ferns below and the *M. polymorpha* above. Across the series of flows, *C. trigynum* exhibited a shift in pattern of establishment; more than 97% of the trees on the three youngest flows were growing directly on the ground or on fallen logs, while one-third of those on the older flows grew as hemi-epiphytes, perched high above the ground in the crowns of large, living *M. polymorpha* trees, and sending roots down along the stem of the supporting plant to the ground.

The pattern of forest development along the series of flows may be summarized as follows. Pubescent *M. polymorpha* colonized first; its population increased in

density and biomass, then began to self-thin and suffer wind throw. As pubescent individuals died, they were replaced by glabrous ones. Meanwhile, populations of other pioneer tree species, and then tree ferns, colonized and began to develop. After 3,000 years, each of these groups was still present, and the forest consisted of an open, upper layer dominated by glabrous *M. polymorpha*, an open, middle layer consisting of *Cheirodendron trigynum*, *Ilex anomala*, and *Myrsine lessertiana*, and a dense, closed, lower layer of *Cibotium* spp. tree ferns. Other native plant species were of course present, and others will continue to enter the community as succession proceeds, but they generally contribute little to overall forest structure and do not successionally displace the *Metrosideros-Cibotium* rain forest on well-drained sites.

## Kaua'i Seabirds

(Continued from page 29)

the bird populations; the location, size, and use of flyways by the two species; recommendations on how to eliminate and mitigate the possible adverse effects of utility structures; and the effectiveness of Kaua'i's Save Our Shearwater Program and how it could be enhanced. She said the study will be island wide and will examine both the adult and juvenile populations.

Dennis Polosky, KE's director of planning and regulatory affairs, noted the rebuilt 12-kv line along Kalihiwai Road will be at a lower height than a new 69-kv line that had been planned through Kalihiwai Valley. Antolini said the line's lower height will preserve this flyway for the birds, which fly through the valley between their rookeries in the mountains and their feeding areas out at sea each year during the summer-fall nesting season.

Under the settlement, KE will not seek permits to build a 69-kv transmission line anywhere across Kalihiwai Valley until 1998. Also, KE will not seek permits for additional transmission line work along Kalihiwai Road until 2004.

# Humpback Whale Watching

by Casey Jarman

The humpback whales (*Megaptera novaeangliae*) have begun their long migration from Hawai'i's tropical waters back to the nutrient rich cold waters of Alaska where they will feed for the summer and fall. How many of us have watched them, entranced, as they swim at the surface, their dark humped backs and broad tails glistening in the sun? How many of us have been awed by their power as they breach, flinging their 40-foot long, 40-ton bodies into the air for a brief look at the world above the sea?

Marine biologists estimate that more than 1,000 humpback whales breed and calve each year in the waters surrounding the main Hawaiian islands, with the first animals arriving in Hawai'i in early December. Little is known about their migratory routes or the time it takes them to complete their journeys. However, one whale, spotted by researchers in Alaska during the beginning of the southern migration time, was resighted 80 days later in Hawaiian waters.

When born in our warm Hawaiian waters, a calf is 10 to 12 feet long and weighs approximately a ton. Feeding from his mother's rich breast milk, a young calf gains 50 pounds a day. Females are 5 to 7 years old when they give birth to their first calf. Generally they are thought to be capable of calving annually. Annual birthing seems an amazing feat as the gestation period lasts 11 to 12 months. While the females are calving and caring for their young, males spend their time trying to breed females and engaging in vocalizations, known as "singing." Researchers who have recorded and studied these beautiful, haunting melodies believe that all males sing the same song, with variations evolving as the season progresses. No one knows why they sing or how prolonged a single male vocalization is. One researcher recorded a whale singing almost constantly over a 22-hour period. Their songs are powerful, rendered at decibels equivalent to three times the level of a jet airplane whose engines are fully revved up for take off!

In April, the whales began their journey back to Alaska where they will once again

feed after their winter fast in Hawai'i. They have developed a matriarchal feeding hierarchy, where females get the best feeding grounds, followed by adult males, with juvenile males having last preference.

Humpback whales have baleen rather than teeth. These plates, 300 on each side of the mouth, are fringed with hair and hang two-and-a-half feet from the top jaw. They act as a sieve to strain food as the whale scoops up hundreds of pounds of water, krill, and small fish at the same time. After spending the summer replenishing their fat resources, they will return to the warmer waters of Hawai'i, Mexico, and Japan.

Our ocean waters seem emptier now that the humpback whales have left for their northern home. With a little luck, the help of marine biologists, and the sensitivity of the human species, this endangered species of whale will grace our waters in even greater numbers in the future.

## Volunteers Needed!

Hawaii Audubon Society desperately needs help in the following areas:

**Phone Tree Coordinator.** You will be responsible for maintaining the list of persons participating in the telephone tree and giving information to phone tree participants when calls need to be made. We need a self starter who is a good communicator and who can devote four to eight hours a month for a minimum of a year. This work can be done from home. Some knowledge of environmental issues and legislators is a plus. To volunteer call David Hill, 943-2784 (H).

**Phone Tree Callers.** We are growing a phone tree—a chain of people who can make calls to decision-makers on environmental issues. This allows the environmental community to respond very quickly with public pressure on important issues. To join our phone tree, call David Hill at 943-2784.

**Testimony Presenters.** Here we need self-starters who can tactfully and effectively present testimony at the legislature, county councils, and hearings of governmental boards and agencies, usually on weekdays during daytime hours. If you can't write the testimony, we will have someone else do it. A knowledge of Hawai'i, including issues, politicians, and who the players are is a big plus. A minimum of four hours a month is required. To volunteer call David Hill, 943-2784 (H).

# Manoa Cliffs Trail Field Trip Report

by John and Donna de Haan

Although Manoa Cliffs Trail received 7 to 10 inches of rain in the three days preceding the March field trip, Sunday morning dawned bright and sunny, and the trail had not yet suffered enough traffic to stir up much mud. The de Haans found themselves with 11 serious birders, including some mainland Auduboners. We took four hours to walk the loop from Connector Trail parking—Manoa Cliffs-Pu'u'ohi'a Trail and back down the road to our cars.

The 'Elepaio come-on ("possible sighting of 'Apapane") turned out to be easy to deliver. We sighted four birds. Frankly, it was a pleasant surprise. We've seen 'Apapane on this trail over the past 13 years, but every time they're sighted it's still a great treat. Speculation says that "winter drives them to lower elevations," or that "the 'ohi'a is blooming," and in fact, that is when we have seen them. Now add "albizia leafing out" to the 'Apapane sighting profile.

Red-whiskered Bulbuls were abundant, as were White-rumped Shamans, who seemed very busy posturing, chasing one another about, and vocalizing profusely. 'Amakihi could be heard in most areas but were hard to spot. The Japanese Bush Warbler broke silence in late January this year and is now up to full song, with several of its long, descending vocal lines delivered for our group. However, none were seen by our swift moving band.

Manoa Cliffs Trail is remarkable for the diversity of native plants, and, fortunately, there are labels on many of them. We were able to procure some copies of the DLNR-Forestry and Wildlife guide produced by Raymond Tabata and John Moriyama in 1982, so there was an interesting botany section along with the birding. Though the exotics are maintaining their relentless march into this area, it should remain a rare treat for many more years.



Photo by Mark Collins and the Nature Conservancy

## Researchers Discover First Known Nests for Endangered Crested Honeycreeper at Waikamoi Preserve on Maui

On 11 March, and again on 18 March, two researchers discovered three nests of the 'Akohekohe (Crested Honeycreeper) at the Nature Conservancy's Waikamoi Preserve on Maui. These are the first 'Akohekohe nests witnessed by modern day scientists. These discoveries will help provide valuable information for recovery plans for this rare and endangered native Hawaiian bird species, which is extinct on Moloka'i and found only in a small region on Maui. Participants in the 1992 Maui forest bird survey discovered a fourth nest in the Hanawi area of east Maui, at an elevation of 6,300 feet, the week of 6 April. The nest was in the canopy of an 'ohi'a tree. Adult birds were observed feeding young.

In commenting on the three nests at Waikamoi, Mark White, Maui preserves manager for the Nature Conservancy of Hawai'i, said, "we're very excited about these discoveries because they confirm the importance of our conservation efforts at Waikamoi. These are the first nests discovered since a biologist wrote about an 'Akohekohe nest in 1860." The Nature Conservancy of Hawai'i has been managing 5,230 acres of prime forest bird habitat at the Waikamoi Preserve since 1984.

"These will be the first 'Akohekohe nests ever studied," said Paul Conry, wildlife biologist with the state Division of Forestry and Wildlife, "so we will be able to gather,

for the first time, the life history information we need to better understand all the factors which affect the bird's nesting biology and identify any factors limiting its success."

From these discoveries alone, it is already clear that the 'Akohekohe nests very high, in the branch tips of large 'ohi'a-lehua trees over 60 feet tall. The three nests are within a few hundred feet of each other, indicating that the nesting territory of the birds may be relatively restricted. The nests are located in one of the more pristine areas of the preserve with an abundance of native understory trees and shrubs.

The researchers have already witnessed two fledglings flying from one of the nests. They have also observed the parents attending and feeding the baby birds, as well as driving away neighboring birds when they come too close to the brood. Researchers will continue to track the activities of the newly fledged birds and record observations of a second nest which has newly hatched birds, and a third nest with eggs being incubated.

The two researchers, Ellen VanGelder and Bradford Keitt from San Francisco State University, discovered the nests while conducting surveys, working under cold, wet conditions, as part of a joint study sponsored by the Hawai'i Department of Land and Natural Resources, the National Park Service, the Nature Conservancy of Hawai'i,

and the Hawai'i Conservation Biology Initiative.

The field surveys are the first of a three-part strategy to protect Hawai'i's rare and endangered birds before their populations decline to such low numbers that they reach the brink of extinction. VanGelder and Keitt will continue to work in the cold, wet mountains as they complete this phase of research, which also calls for surveys of two other endangered Hawaiian bird species, the Maui Parrotbill and the Po'ouli. Researchers will study the natural history of the three endangered bird populations across their range on the north slope of Haleakala in Waikamoi, the state's Hanawi Natural Area Reserve, and Haleakala National Park. Results from the research will be incorporated with findings from the second phase of research, an extensive resurvey of Maui's forest birds conducted last month. Researchers will compare the findings from the April survey to findings from a similar survey conducted in 1980 to determine changes in the birds' habitat. The third phase of the recovery strategy includes the study and rearing of native forest birds at the state's Olinda Endangered Species Captive Propagation Facility. Birds raised at Olinda will be bred to bolster wild populations and, hopefully, restore birds to some of their former range.

For the last eight years, the Nature Conservancy of Hawai'i, the State Department of Land and Natural Resources, and the National Park Service have been working to save the habitat of Maui's forest birds by controlling the destruction of the forest caused by feral pigs and other non-native species. "Now that we have a better handle on securing the birds' habitat, we can focus more of our energy on learning more about the other special needs of individual species like the 'Akohekohe," said White.

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## Request for Reprints on Owls

Authors of articles or publications dealing with owls and wishing them to be listed in the second edition of a *Working Bibliography of Owls of the World: With Summaries of Current Taxonomy and Distributional Status* are asked to send reprints to Richard J. Clark, The Owl Bibliography, c/o Department of Biology, York College of Pennsylvania, York, PA 17405.

# Calendar of Events

## First Monday of Every Month

Monthly meeting of the Conservation Committee, 6:00 p.m., HAS office. To join or for more information call David Hill, 943-2784 (H).

## May 11, Monday

Board meeting, 7:00 p.m., HAS office. Call Reggie David on Hawai'i, 329-9141 (W), for details.

## May 16, Saturday

Hakalau Wildlife Refuge, Big Island. For information call Casey Jarman, 956-7489 (W). Suggested donation: \$2.00.

## June 14, Sunday

See seabirds at the Makapu'u Lighthouse. Meet at the State Library on Punchbowl Street at 8:00 a.m. or the lighthouse parking lot at 9:00 a.m. For more information call Casey Jarman, 956-7489 (W). Suggested donation: \$2.00.

## June 15, Monday

General meeting, 7:30 p.m., Atherton Halau, Bishop Museum. For more details see the June *'Elepaio*.

## July 19, Sunday

Ko'olau Poko Trail. This three mile stretch of trail in Maunawili was recently completed by the Sierra Club for the Hawai'i State Department of Land and Natural Resources. It will be part of a larger trail system along the Ko'olau Mountains' windward side. Come with us and be the first to find out what birds are there. Everyone is to meet at the State Library on Punchbowl Street at 7:30 a.m. For more information call Casey Jarman, 956-7489 (W). Suggested donation: \$2.00.

## 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.

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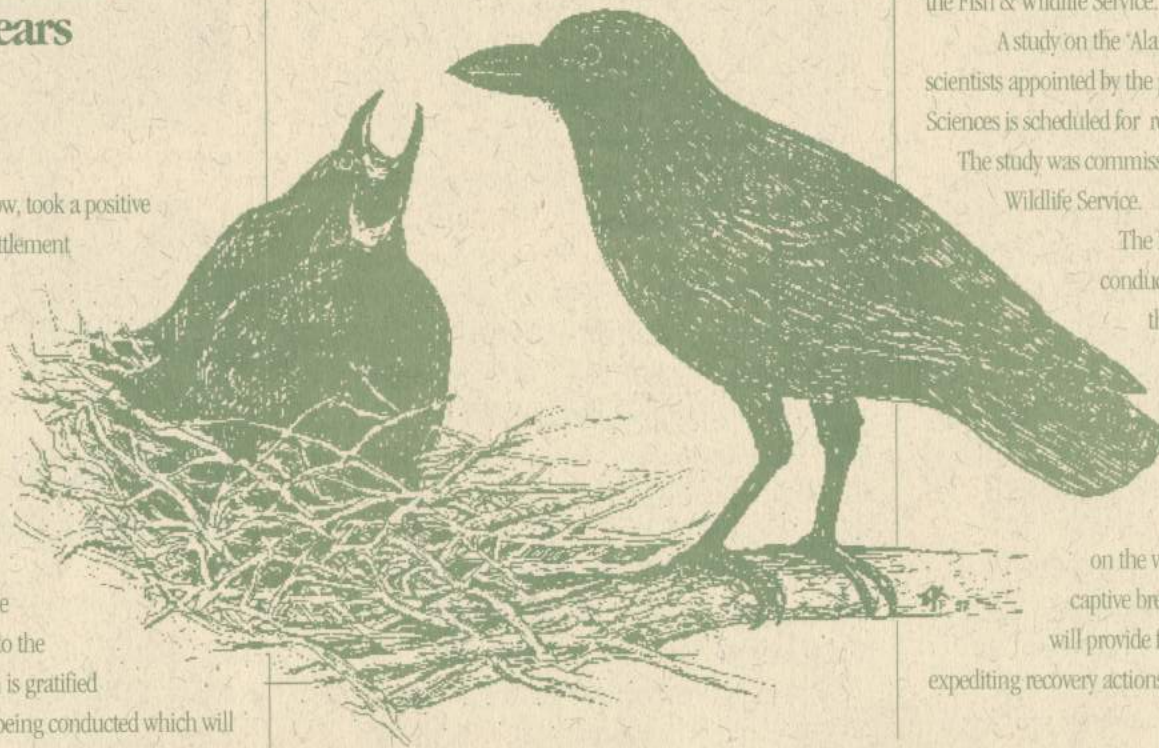
## Wild 'Alala surveyed for first time in ten years

by Dana Kokubun

The imperiled 'Alala, or Hawaiian Crow, took a positive step towards recovery in an interim settlement approved by Judge David Alan Ezra on April 3rd. For the first time in over a decade, federal biologists were allowed onto McCandless Ranch in Kona to search for breeding 'Alala.

Reginald David, President of the Hawai'i Audubon Society, represented the chapter in many of the difficult negotiation sessions that led to the interim settlement. "Hawaii Audubon is gratified that a scientifically credible survey is being conducted which will provide information quantifying the population and hopefully, its breeding viability," David commented. "This information is critical to the FWS so they can make and implement scientifically defensible management plans."

Judge Ezra's order ensures the implementation of an interim settlement agreement between Audubon, the Fish and Wildlife Service and the McCandless Ranch that was signed and put into effect in late March. Previously, efforts to evaluate the status of the remaining wild crows — believed to number



McCandless Ranch. It is a wild creature under the protection of the Fish & Wildlife Service."

A study on the 'Alala by a panel of nationally recognized scientists appointed by the prestigious National Academy of Sciences is scheduled for release at the end of April.

The study was commissioned at the request of the Fish & Wildlife Service.

The National Academy of Sciences did not conduct field studies of the 'Alala. However, this panel of experts in population biology, genetics and captive breeding visited the ranch and the state captive propagation facility on Maui where nine 'Alala reside.

Their report is expected to comment on the various methods for recovery, such as captive breeding. Audubon hopes that the report will provide future guidance on improving and expediting recovery actions.

## Paradise Pursuits — An Environmental Quiz Show

by Sheila A. Laffey

Paradise Pursuits is a quiz competition designed to stimulate



between nine and twenty — were stymied for over a decade by the refusal of McCandless to allow federal biologists to survey the crows on their ranch. For its part, the U.S. Fish & Wildlife Service claimed that it had no legal authority to enter private property to rescue an endangered species over the objections of a landowner.

A lawsuit brought by the National Audubon Society and the Hawai'i Audubon Society against the U.S. Fish & Wildlife Service and McCandless Ranch sought to compel the federal agency to carry out its own published recovery plan for this unique Hawaiian species of crow. Audubon argued that under the federal Endangered Species Act, the Service had a duty to carry out priority actions in the 'Alala's recovery plan.

Racing against the clock to ensure access to 'Alala during their vocal pre-nesting period, Audubon's representatives and attorneys from the Sierra Club Legal Defense Fund worked furiously on the terms of a compromise with the government and the McCandless Ranch.

After an initial survey completed on April 15th, the Service will monitor any breeding pairs found for the rest of the breeding season. As *Greenprint* went to press, biologists had evidence of five pairs of 'Alala and one unattached "floater". All were found in a narrow band of koa forest habitat between 4,000 and 5,500 feet in elevation. It is not yet known if the pairs are breeding successfully or if they have inbreeding problems similar to the captive flock of 10 birds at Olinda, Maui. If it is determined that the 'Alala are in an emergency situation, any party in the lawsuit can ask Judge Ezra to rule on the motions in the lawsuit. A ruling in Audubon's favor could lead to further immediate recovery actions.

Skip Spaulding, managing attorney of the Sierra Club Legal Defense Fund's Honolulu office, cautioned that the legal issues are far from settled. "If Audubon had not brought this suit, no progress would have been made," Spaulding said. "It's a good beginning, but we must remain vigilant to protect the 'Alala." Spaulding added that the lawsuit was initiated to protect a publicly-owned resource: "The 'Alala doesn't belong to you, it doesn't belong to me, and it doesn't belong to the

interest in Hawaii's environment among high school students. Audubon hopes to inspire students by making learning about the environment fun and entertaining.

Twelve O'ahu high schools will be participating in Paradise Pursuits this spring, with competitions expanding statewide in the fall. The twelve teams, sporting the names of native species, are: Kalani (Pulelehua), McKinley (Palila), Roosevelt ('Ohi'a), Kamehameha (Hui Lama), Iolani ('Io), University High School ('Akialoa), Punahou (Puhala), Hawaii School for Girls (Kolea), Moanalua (Mano), Mililani (Pueo), Castle ('Ahinahina), and Waipahu (Ope'ape'a).

Prizes for the winning teams include a kayaking trip on Kaua'i and an overnight camping trip in the Waikamoi Preserve on Moloka'i. Other prizes include trips on the Navitek, Atlantis submarine rides, environmental music videos and books, guest passes to various island attractions, gift certificates, adopt-a-whale certificates and tee shirts.

Preliminary rounds will be hosted by Kauanoelehua Chang, head of the DOE Hawaiian Studies Program and Randy Scovill, Earth Science Teacher at Highlands Intermediate School. Judges will include Dr. Steven Montgomery, Dan Moriarty and Emily Gardner.

The public is invited to attend the semi-final and final rounds to be held at Castle High School Auditorium on Sunday, May 24 from 6 to 8:30 p.m. which will be hosted by KSSK Radio personality Dave Lancaster. Come to support your favorite team or just to see the action and learn more about our precious environment. These competitions will be videotaped for broadcast on KHNL-TV on Thursday, May 28, 9:05 p.m. and again on Saturday, June 6 at 4 p.m.

Paradise Pursuits is sponsored by the National Audubon Society in association with Hawaii Audubon Society and in cooperation with the Department of Education. Funding is provided by the Hawaiian Electric Company.

## CATCH THIS WAVE!

*Paradise Pursuits*: The environmental quiz show where Oahu High School teams compete for great prizes and show what they know about Hawaii's environment!

### LIVE at Castle High School

May 24, 1992, 5:45 p.m.

### OR Catch it on KHNL TV Channel 13

May 28, 1992, 9:05 p.m.

June 6, 1992, 4:00 p.m.

Mahalo to the following organizations who generously donated prizes for Paradise Pursuits:

Aloha Island Air	Koke'e Natural History Museum
Atlantis Submarines	Moanalua Gardens Foundation
Conservation Council for Hawaii	National Tropical Botanical Garden, Kaua'i
Crazy Shirts	National Audubon Society
Earthtrust	Natural Resources Defense Council
Earth Day Hawaii	Recycling Association of Hawaii
Environment Hawaii	Royal Hawaiian Cruises
Hawaii Audubon Society	Sea Life Park
Hawaii Maritime Center	The Nature Company
Hawaii Nature Center	The Nature Conservancy of Hawaii
Honolulu Advertiser	Waima Falls Park
Kayak Kauai	
Kilauea Point Natural History Association	

Audubon would also like to thank those who were instrumental in the development of Paradise Pursuits: Kersten Johnson, former chairperson of Hawaii Audubon Education Committee for providing the original inspiration for an environmental board game; biologist Emily Gardner for formulating and compiling most of the questions used in the competitions; and Dan Moriarty, current Chairperson of the Hawaii Audubon Education Committee and Lorin Gill, Education Director of Moanalua Gardens Foundation, for reviewing the questions and answers.



## Ka'elepulu Wetlands in Limbo

by Dana Kokubun

Wetlands have often been described as lands in limbo, habitats that are neither terrestrial or completely aquatic. Truly, they are "the interface where land and water meet." The Ka'elepulu wetlands in Kailua on the island of O'ahu are in transition all right, but not of the type you would imagine if you were viewing them with a purely scientific eye. For now, the last open stretch of shoreline on Ka'elepulu pond lies in a sort of regulatory stasis.

Over strenuous objections from some residents in the Enchanted Lakes community and the National Audubon Society, on June 25, 1991 the U.S. Army Corps of Engineers allowed LECI Properties to retain an unauthorized fill placed in the Ka'elepulu wetlands in 1978 by the previous landowner. LECI proposes to build several single family residences on the site, the last remaining open shoreline on Ka'elepulu Pond. (For a history of the permit action see *Greenprint* issues December 1990/January 1991 and April/May 1991). In order to do so, they needed an after-the-fact permit from the Corps, issued under the agency's regulatory authority stemming from the federal Clean Water Act. LECI applied for such a permit and eventually received one.

A scant 5 months later, on November 26, 1991, the Corps allowed LECI to modify a mitigation plan they had previously required as a condition of permit approval.

Under fire from state and federal lawmakers and agencies, the Corps suspended its approval of the permit modification a short time later. Currently, the Corps awaits opinions from the Coastal Zone Management Program in the Office of State Planning and the Department of Health. OSP must determine if the modification is "consistent" with federal coastal zone



Water Branch of the Department of Health, which is responsible for water quality certification, was also not consulted.

Several lawmakers — including Council-members Steve Holmes and John Felix, State Senator Stan Koki, and Congresswoman Patsy Mink — objected to the modification approval on behalf of their constituents. Councilman Felix introduced an ordinance which would place an interim development control on the wetlands owned by LECI.

On January 27th, Audubon Director Dana Kokubun received a letter, signed by Lt. Colonel Muratsuchi, informing Audubon that he had decided to suspend the modification approval. His decision was based on "State Coastal Zone Management and Department of Health objections and requests for modification coordination." However, despite the suspension, Muratsuchi stated his belief that, "The modification will have no significant effect on the roughly five-acre waterbird refuge to be created and managed under the initial permit."

Representative Patsy Mink sharply questioned the Corps' handling of the LECI application in a letter to Colonel Muratsuchi dated February 26, 1991. "As you well know, the community's ire has once again been ignited over Ka'elepulu Pond, that LECI would be so bold as to request to build this wall to enhance its project's profit potential — and that the Corps would so willingly assist this effort with a modification

approval rather than insisting on conformance to the original plan's configuration that was so long and contentious in coming."

Despite his position on the political hotseat, Colonel Muratsuchi surprisingly declined to attend or send a representative to an informational meeting organized by Councilmember Felix on his proposed interim development control for the



## An Addition to the Audubon Flock

Preserving Hawai'i's unique environment is just one of the goals of Suzanne (Suzy) Palmer, the new Office Manager for the Hawai'i State Office of the National Audubon Society.

Suzanne holds a BA degree in journalism with a minor in history, and has been living in Hawai'i since July of 1991. She is originally from California, and has always been concerned about the environment. Although she has never been involved in a conservation group before, she is anxious to take steps in improving Hawai'i's environment.

Despite just starting with Audubon, Suzanne has already jumped into such projects as the Oiled Wildlife Rescue Center (OWRC) and wetlands preservation.

management laws and DOH must certify that water quality would not be adversely affected. The Board of Land and Natural Resources must also rule on a Conservation District Use Application for the project, which lies partially within the state's Conservation District.

In granting the original permit to LECI in June 1991 the Corps required LECI Properties to build and maintain a wetland adjacent to the house lots to compensate for some of the historic wetland values of the site. Less than two months after receiving their Corps permit, LECI was back, asking for a modification to the mitigation plan. In an October 14, 1991 letter to the Corps, LECI's own investors — including LECI President James Lee — claimed that "additional lot depth is a necessary prerequisite for us to provide interim financing." Therefore, claimed LECI, it would be necessary to replace a sloping grassy buffer area between the houses and the wetland with a rock wall, reducing the mitigation area by about 16,000 square feet, but allowing the developer to increase the size of the house lots.

Apparently looking no further than LECI's own statements about its financial condition, in late November 1991 the Corps granted the modification. In September 1991, the U.S. Fish & Wildlife Service urged the Corps not to approve the modification because "...the interface of vegetation and open water along the moat was designed to provide maximum opportunities for foraging, loafing, and nesting by endangered waterbirds using the mitigation wetland." In addition, according to the Fish & Wildlife Service, the sloping bank would have provided an additional buffer zone between the housing and the wetland area.

The U.S. Fish & Wildlife Service, responsible for commenting on the biological impact of the permit decision, registered a strong protest to modification of the mitigation plan. Director of the Office of State Planning Harold Matsumoto also objected that the state Coastal Zone Management Program had not been consulted about the modification. Apparently the Clean

area. Instead, in a letter to Councilmember Felix dated February 18th, he wrote, "I believe that the District's permit record speaks for itself, and that my or Larry's (Hawthorne, public affairs officer for the Corps) participation would serve no additional useful purpose. You have a copy of the permit issued in June, 1991."

For the moment, LECI's plans to build houses on the last remaining open shoreline on Ka'elepulu Pond remain in regulatory limbo. A call to the state Department of Health's Clean Water Branch on April 10th confirmed that LECI had not yet submitted a water quality certification application. The Office of State Planning awaits receipt of a water quality management plan from LECI, and is also considering the latest conservation recommendations from the Fish & Wildlife Service. Technically, OSP has until August to render their determination. Meanwhile, a public hearing on the Conservation District Use Application is pending.

Unfortunately for the neighborhood conservation activists and the wetland itself, the resolution of this long-debated issue remains unresolved. It remains to be seen whether the Ka'elepulu wetlands will be restored to health anytime in the near future.

## What You Can Do

- 1) Write to Harold Matsumoto, Office of State Planning, No. 1 Capitol District, 250 S. Hotel St., Honolulu, HI 96813. Ask him to ensure that the LECI properties development mitigation plan is made to conform with coastal zone management policies calling for the protection of wetlands.
- 2) Volunteer with the Hawai'i State Office of the National Audubon Society. We are seeking volunteers willing to serve as wetlands advocates in their community and statewide. Call 522-5566 for more information.

The OWRC committee is made up of several different agencies that are all dedicated to working together in the area of wildlife clean-up. "With the heavy dependence on oil here in Hawai'i, we need to be prepared for a major oil spill," said Suzanne. "The need for fully trained volunteers and supervisors is essential in preserving Hawai'i's wildlife."

In the area of wetlands, Suzanne is undertaking a somewhat controversial preservation issue of Nu'upia Ponds at Kane'ohe Marine Corps Air Station (KMCAS). The wetlands are located on 8 ancient Hawaiian fishponds which are no longer used for that purpose, and have become home to the endangered Hawaiian Stilt (as well as other endangered waterbirds such as the Hawaiian Gallinule, the Hawaiian Coot, and the Hawaiian Duck).

The Marines at KMCAS have won numerous awards for their preservation and upkeep of the wetlands, however, there is a legislative effort being made to restore and restock the fishponds with consequences unbeknownst to the endangered birds.

Besides working on these issues, Suzanne will be writing, editing and designing the *Greenprint* newsletter. Her other interests include photography and sports such as tennis, swimming and aerobics.

