



'ELEPAIO

Journal of the
Hawaii Audubon Society

For the Protection of
Hawaii's Native Wildlife

VOLUME 57, NUMBER 2

MARCH 1997

State of the Society For 1996: President's Report

by Linda Paul

The Hawaii Audubon Society, established fifty-six years ago by a small group of dedicated birders, is now a state wide conservation organization with a membership of over 2,000.

In the office, Susan E. Miller continued as administrative director, assisted by volunteer extraordinaire Lynnea Overholt. Ron Welton joined us as the new managing editor and Ron Walker took on the job of scientific editor. In February, Sibyl Heide generously donated a complete replacement of our Macintosh computer system and our financial records were subsequently entered into our computer system using QuickBooks software.

The Paradise Pursuits Environmental Education Program continued to grow during the 1995-1996 school year under the guidance of independent contractor Sylvianne Yee. Major funding for this annual program is provided by Hawaiian Electric Company with additional support from Aloha Airlines, Outrigger Hotels, Crazy Shirts, the Department of Land and Natural Resources, and the Department of Education's Environmental Education Branch. In April, the semifinal and final competitions were broadcast by KITV Channel 4 and hosted by Paula Akana. Kahuku High School won the finals. In August, Sylvianne moved from independent contractor status to part-time employee. In the fall thirty-four schools signed up for the 1996-1997 Paradise Pursuits season and Tina Xavier was contracted to write the 500+ questions needed for the competition.

Some of the Society's work continues to be done by independent contractors. Legislative Analyst Katherine Puana was contracted to monitor environmental issues of concern to the Society during the 1996 Legislative session, and wrote and pre-

sented testimony in behalf of the Society. She was assisted in this effort by members of the Society's Conservation Committee.

This year Linda Elliott wrapped up her contract work on the Oiled Wildlife Rehabilitation and Restoration Project before moving on to a permanent job in the field. In May, the International Bird Rescue Research Center was put on alert by Chevron for a possible wildlife response associated with a spill of 32,000 gallons of fuel oil from the Wai'au pipeline at the Hawaiian Electric Power Plant on the shore of East Loch in Pearl Harbor, where endangered water birds and migratory shore birds can be found. Subsequent monitoring by Linda revealed no oiled birds associated with the spill.

Volunteers continue to play the largest and most important role in the Society's conservation and environmental education efforts. Director Reggie David continued his valuable contribution on the 'Alala Recovery Team. Society volunteer observers continued to man the NAS/USFWS Laysan Albatross Recolonization Project on Kaohikaipu Island (Black Rock north of Makapu'u). A large group of volunteers also helped with the Paradise Pursuits program on O'ahu, Kaua'i, Maui, and the Big Island. Volunteers also manned a booth at the Earth Fest celebration. (See "Conservation Report," in the December 1996/January 1997 'Elepaio for other activities by Society volunteers.)

The Society awards grants for research in Hawaiian or Pacific natural history, administers the Rose Schuster Taylor Scholarship and funds the George C. Munro environmental law award. Three research grants were awarded in 1996. The Society also presented awards to the best junior and senior research projects in Hawaiian natural history at the 39th Hawaii State Science and Engineering Fair.

The Society continues to publish and sell educational materials relating to birds of Hawaii and the Pacific and provides a free two page guide listing areas on O'ahu where birds may be seen and where access is not a problem. This year we added a set of

cassette tapes "Voices of Hawaii's Birds" to our inventory featuring the calls of most of the birds found in Hawaii. The set was designed as a companion to our best selling book *Hawaii's Birds*, which was reprinted this year with minor changes and is now being distributed by Island Heritage. In addition, the *Field Check-Card of Birds of Hawaii* was revised this year.

The Society also maintains a list of birders interested in informal trips with other members. In November and December Lynnea Overholt put together two Birding for Beginners workshops at the Honolulu Zoo to orient new birders and to encourage participation in the annual Christmas Bird Counts in December, which were coordinated by Lynn Carey. Counts were taken on Kaua'i, O'ahu, Maui, Moloka'i, and the Big Island.

The Society offers monthly field trips and service projects, and bimonthly programs at the Bishop Museum for both members and the public. Field trips this year included a hike through part of the Mo'omomi Preserve on Moloka'i; a service trip to Waikalua Loko fishpond in Kaneohe, a walk through the Ewa Plains limestone sink holes to hunt for fossil bird bones, a whale-watching hike, a walk through Ho'omaluhia Botanical Garden, a hike up the Aiea Ridge trail to look for 'apapane and 'amakihi, and a trip to the booby colony at Kaneohe Marine Base.

Programs included a talk titled Distribution, Abundance and Plumage Variation of O'ahu 'elepaio; a discussion of the endemic Hawaiian bat 'ope'apa'a and bats in general; slide shows of the flora and fauna of Paraguay and of the North Sulawesi Islands; and updates on the Occurrence and Status of Birds in Hawaii Project and the Laysan Albatross Recolonization Project.

Other Events:

In January we held our annual chapter leaders' retreat at the Hawaii Trail and Mountain Club facility in Waimanalo. In February, a Phone-A-Thon was conducted by board members to ask Society members to help fund this year's conservation projects.

In March, the Society filed a lawsuit in federal court against Kai Malino Ranch and the U.S. Fish and Wildlife Service (FWS) for an injunction under the federal Endangered Species Act (ESA) to stop koa logging on 5300 acres of essential habitat of the endangered Hawaiian crow, the 'alala. In May, the Society entered into a stipulation with the defendants whereby the ranch owners agreed to apply for an incidental take permit and to stay all timber harvesting on the acres at issue until they were granted

a permit and the Society agreed to withdraw without prejudice their preliminary injunction motions and stay all litigation until the FWS issues a decision granting or denying the Kai Malino Ranch application. Subsequently Congress released the funds needed to purchase the property and add it to the Hakalau National Wildlife Refuge. Negotiations over the sale had not been concluded by year's end.

In April, the Society was visited by John Flicker, President of National Audubon

Society (NAS), and Glenn Olson, the NAS Western Regional Director. The purpose of the visit was to investigate potential joint ventures that would fulfill NAS's strategy of joining with local chapters to achieve conservation and education goals. John and Glenn were given a tour of Kawai Nui Marsh where the Society would like to see an Audubon Education Center established in conjunction with the water bird habitat restoration work that will be done by the Army Corps of Engineers (if the Hawaii State Legislature provides the necessary matching funds). They also toured the Peregrine Fund forest bird facility on the Big Island and met with foundation officials to explore funding opportunities for Hawaii conservation projects.

In June, Linda Paul represented the Society at the NAS biannual meeting in Washington, D.C. where she attended a chapter leadership training workshop and visited our congressional representatives to urge them to continue vigilant protection of our environment.

In July, the Society was awarded a \$4,800 educational grant from the Environmental Protection Agency (EPA) to conduct teacher workshops on environmental issues and strategies. Of 140 grant proposals submitted nationwide, only eighteen were selected, including ours. The Department of Education's Environmental Education Branch pledged in-kind support.

In September, the Society held its annual awards dinner at the Queen Emma Summer Palace to honor Society volunteers, corporate sponsors and public servants who made significant contributions to the Society and its conservation and education efforts during 1996.

In October, NAS held a membership drive in Hawaii using the service of the Public Interest Research Group (PIRG). This was not an event sponsored by the Society, but after several complaints from the public, we met with the group to do some educating. NAS stopped the campaign in December.

In November, the Society officially withdrew from two ongoing legal actions involving critical habitats for plants and birds. We withdrew from the plant suit because it only covered federal lands and it was felt that the Army was already taking significant steps to comply with the law. We withdrew from the bird suit because it was felt that scarce FWS monies could be better spent drafting much needed updates of

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species recovery plans for listed endangered birds rather than going through the motions of designating critical habitat (the whole state could be considered critical habitat).

In December, the Society moved our office to 850 Richards Street, Suite 505 (across the street from the post office). Reason: more space, lower rent, and a view of green trees from the windows. Come visit.

Mahalo To Our Donors

by Susan Elliott Miller

Our appreciation goes out to the following people whose responses to the Society's 1996-97 Annual Appeal were received through January 31, 1997:

Dean Amadon, Shirley D. Bennett, Carol Hopper Brill, Phillip Bruner, Lucille S. Byrne, Thomas R. Chell, Evelyn F. Cox, Solomon F. Cushman, Bernardo G. Dimaliwat, Satoru Doi, Eugene V. Donaldson, Elaine F. Fessenden, Michael J. Fischer, Hubert & Mabel Frings, Steven D. Frye, Lillian T. Fujii & Steven T. Hayashi, Lila D. Gardner, Jennifer S. E. Garrison, William S. Haines, Melissa Jones Hamilton, Jeff S. Hatfield, Col. Robert B., Hill, M.D., M.B. Hopkins, Betty Louise Foyer Johnson, Pearl C. Johnson, Tracy A. Johnson, K.W. Kenyon, Harvey C. King, Dana Kokubun, William F. Kruse, G. Donald Kucera, Patricia G. & Kenneth R. Kupchak, and E.F. Laak.

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General contributions were also received from Hawaiian Wildlife Tours and Nicole D. Luce.

Issues and Strategies Workshop Participants to be trained in the use of programs and processes

by Wendy Johnson

The Hawaii Audubon Society is planning a workshop to train participants in the use of programs and processes which are relevant to the study of environmental issues in Hawaii. Funded by the Environmental Protection Agency, and presented in partnership with the DOE, the workshop is open to all public and private middle and high school teachers, and will take place on five Saturdays in April and May (4/5, 4/19, 5/3, 5/10, 5/17, 1997) at Kamehameha Schools.

Teachers will be introduced to critical thinking and problem solving skills within the context of specific local environmental issue investigations and resolutions. Hubert Minn, teacher and past chairman of the State Board of Education, will discuss the philosophy of Total Quality Learning and how it relates to environmental education. He plans to bring some of his students from Wahiawa Intermediate to demonstrate this teamwork approach to communication and teaching. Charles Higgins of the DOE will introduce Win-Win Bargaining techniques for educators to utilize and teach when students are grappling with conflict and decision making in the environmental arena. Colleen Murakami, Environmental Education Specialist with the DOE, and her team

will present the Environmental Issues and Actions approach to science-related social issues. Workshop participants will have the opportunity to identify relevant research questions and work in groups to investigate and report on specific issues in preparation for teaching these skills to their students. Workshop presenters will emphasize the creation of implementation plans designed to resolve environmental problems.

Data and perspectives on the subject of water use will be presented by a panel of speakers so that teachers will gain first-hand knowledge regarding various aspects of a current Hawaiian conservation issue. A field trip to relevant sites on O'ahu is also planned as an opportunity to enhance understanding of our unique water systems and diverse water uses.

It is recommended that interdisciplinary teams of teachers from individual schools participate in the workshop together, but all interested parties are encouraged to attend. Teacher training credits will be offered to participants. For more information or registration, contact: Wendy Johnson, Workshop Coordinator, ph/fax 261-5957.

Education Committee — Annual Report

by Wendy Johnson

HAS Education Committee activities focus on providing opportunities and motivation for learning about Hawaii's native wildlife and environmental issues. Paradise Pursuits, our quiz program for high school students, completed its fifth year in 1996, with twenty-eight public and private schools represented statewide. Final competitions were televised in June by KITV, with the winning team from Kahuku displaying an impressive depth and range of knowledge about the flora, fauna and natural history of Hawaii.

A team of Education Committee representatives acted as judges at the 39th Hawaii State Science and Engineering Fair and presented two awards for outstanding research relating to Hawaii's natural his-

tory. One project resulted in some useful implications regarding the preservation of koa trees, while the other quantified the impact of human activities on biodiversity at a roadside location near Volcano, Hawai'i.

Grant monies were received in 1996 from the Environmental Protection Agency for a project to create a series of teacher workshops in Hawaii. The EPA requested proposals for programs which would provide background for individuals and groups to "make responsible decisions and take a stewardship role" in protecting the environment. The Education Committee will sponsor and coordinate the workshops in 1997 to train teachers in communicating critical thinking and problem solving skills to their students, within the context of specific local environmental issues.

Hawaii's Birds and Bees

We need to know more about the...interaction of plants and their pollinators

by Dave Hopper, Adam Asquith, and Marie Brueggemann¹

The Hawaiian Islands are home to 277 species of endangered and threatened plants, more than any other state and almost half of all plants listed under the Endangered Species Act. Another ten Hawaiian plants are considered candidates for future listing. Two basic factors account for these high numbers. As the world's most geographically isolated island ecosystem, Hawaii supports a rich diversity of endemic plants. But these species have been plagued by a variety of impacts, including habitat loss, browsing and trampling by nonnative animals, and competition from introduced plants. Another threat, not as well known but of increasing concern, is the decline and extinction of endemic pollinators.

Many endemic plants appear to have evolved closely with avian pollinators. The most notable of these are the lobelias, a number of the hibiscus, and some of the mints. Virtually all of the endemic lobelias bear a flower with a long, curved floral tube, and a number of the native nectar-feeding honeycreepers (forest birds) have long, curved bills that appear to fit these flowers perfectly. While curve- or sickle-billed honeycreepers like the 'i'iwi (*Vestiaria coccinea*) are still common in many upper elevation habitats, other birds known to be foragers on lobelias, such as mammas (*Drepanis* spp.) are now extinct.

Pollination by insects has not been as well studied in Hawaii, but it probably was a major evolutionary force for many of Hawaii's native plants. For instance, botanists surmise that two endangered lobelia species, the 'olulu (*Brighamia insignis*) of the island of Kaua'i and pua'ala (*B. rockii*) of Maui, Moloka'i, and Lana'i, were pollinated by a species of moth, possibly a hawk moth (Sphingidae). With the apparent extinction of this moth, these plants have been hand-pollinated by researchers of the National Tropical Botanical Garden, located on Kaua'i. The endemic yellow-faced bees (subgenus *Nesoprosopis*) of which some sixty species were originally described, are

important pollinators for many of the archipelago's plant species. Among the plants dependent on these bees are such endangered species as the Haleakala silversword (*Argyroxiphium sandwicense* ssp. *macrocephalum*) and 'ohai (*Sesbania tomentosa*). Other native insects that likely serve as pollinators are butterflies, moths, and beetles, but little is known about them.

Just as Hawaii's plants have declined in the face of habitat loss and the effects of introduced species, so have their pollinators. Of the fourteen bird species most likely to have played a role in Hawaiian plant pollination, eight are believed to be extinct and one, the crested honeycreeper (*Palmeria dolei*), is endangered. This leaves only six native bird species that are considered important pollinators. The recent restriction of many of these avian pollinators to habitats above 4,500 feet (likely clue to the upper elevational limits of introduced malaria-carrying mosquitoes) bodes ill for the native plants that occur only below that elevation. Although there have been introductions of other flower-visiting birds, they certainly will not provide the pollinating services of the original Hawaiian endemics. The continuing decline of some forest bird species will almost certainly have negative impacts on some rare plants as well as on more common species. Hawaii's pollinating insects have undergone declines as well. For example, of the recognized sixty-two species of native yellow-faced bees originally described from the islands, thirty-seven are considered rare and another thirteen are believed to be extinct.

Introductions of alien insects, especially social ants, bees, and wasps in the order Hymenoptera, have had huge impacts on native insect pollinators. Nonnative ants are known to prey on the yellow-face bees and their larvae. This is a well documented problem in Haleakala National Park and likely occurs elsewhere throughout the islands. In some instances important nectar resources are monopolized by the European honeybee (*Apis mellifera*), which excludes the native bees and possibly native birds as well. In many of these cases, the introduced bees fail to transfer pollen in a fashion that will result in fertilization and seed set of the plants. Introduced ants, too, will monopolize nectar resources. The big headed ant (*Pheidole megacephala*) has been observed to drive native yellow-faced bees away from flowers of the endangered 'ohai.

While pollinator extinction has not yet received the attention it needs, some steps have been taken to investigate plant-pollinator associations and initiate recovery efforts. Successful forest bird conservation efforts will likely have positive effects on the native flora. Control of the invasive Argentine ant (*Iridomyrmex humilis*), which preys on the pollinators of silverswords and other plants, is being researched in Haleakala National Park. This could result in measures that not only protect native pollinators and their associated plant species, but also help protect other native species from ant predation. The Fish and Wildlife Service (FWS) is also supporting research at the University of Hawaii at Manoa to address larval host plant associations of a rare, endemic sphinx moth that is likely important in the pollination of native plants. Issues still to be addressed include control of the introduced honeybee, which is widespread and common from sea level to high elevation forests.

Naturalist Aldo Leopold spoke of the need to save all "the cogs and wheels" of ecosystems to ensure that they work properly. To be successful in plant and ecosystem conservation, we need to know more about the many integrated parts. The interaction of plants and their pollinators is one of those parts.

¹The authors are biologists in the FWS Pacific Islands Ecoregion Office, Honolulu.

Source: Endangered Species Bulletin, November/December, 1996.

T-shirts for Sale

The Hawaii Audubon Society has a stock of T-shirts designed to spread the Audubon message. Not only are they attractive personal apparel, but they make excellent presents as well.

T-shirts bearing the Society's 'Elepaio logo are available in blue spruce and forest green. We also have a few in ash (gray). In addition, the "hot" Kolea (Pacific Golden Plover) T-shirts are also available. This T-shirt is white with a three-color design of the Kolea and native hibiscus. Proceeds from the Kolea T-shirt sales support research on the kolea.

Send check made payable to HAS with order (\$12 plus \$2.00 shipping) to Yvonne Izu, 1957 Alai Place, Wahiawa, Hawai'i 96786.

Principles of Birding Ethics

Everyone who enjoys birds and birding must always respect wildlife, its environment, and the rights of others. In any conflict of interest between birds and birders, the welfare of the birds and their environment comes first. The following code has been developed and is being promoted by the American Birding Association, PO Box 6599, Colorado Springs, CO 80934-6599

Code of Birding Ethics

Promote the welfare of birds and their environment.

Support the protection of important bird habitat.

To avoid stressing birds or exposing them to danger, exercise restraint and caution during observation, photography, sound recording, or filming.

Limit the use of recordings and other methods of attracting birds and never use such methods in heavily birded areas or for attracting any species that is threatened, endangered or of special concern, or is rare in your local area.

Keep well back from nests and nesting colonies, roosts, display areas, and important feeding sites. In such sensitive areas, if there is a need for extended observation photography, filming, or recording, try to use a blind or hide, and take advantage of natural cover.

Use artificial light sparingly for filming or photography, especially for close-ups.

Before advertising the presence of a rare bird evaluate the potential for disturbance to the bird, its surroundings, and other people in the area, and proceed only if access can be controlled, disturbance can be minimized, and permission has been obtained from private landowners. The sites of rare nesting birds should be divulged only to the proper conservation authorities.

Stay on roads, trails, and paths where they exist; otherwise keep habitat disturbance to a minimum.

Respect the law and the rights of others.

Do not enter private property without the owner's explicit permission.

Follow all laws, rules and regulations concerning use of roads and public areas both at home and abroad.

Practice common courtesy in contacts with other people. Your exemplary behavior will generate goodwill with birders and non-birders alike.

Ensure that feeders, nest structures, and other artificial bird environments are safe.

Keep dispensers, water, and food clean and free of decay or disease. It is important to feed birds continually during harsh weather.

Maintain and clean nest structures regularly.

If you are attracting birds to an area, ensure the birds aren't exposed to predation from cats and other domestic animals, or to dangers posed by artificial hazards.

Group birding, whether organized or impromptu, requires special care.

Each individual in the group, in addition to the obligations spelled out above has responsibilities as a group member.

Respect the interests, rights and skills of fellow birders as well as those of people participating in other legitimate outdoor activities. Freely share your knowledge and experience when practicable. Be especially helpful to beginning birders.

If you witness unethical birding behavior assess the situation and intervene if you think it prudent. When interceding, inform the person(s) of the inappropriate action and attempt, within reason, to have it stopped. If the behavior continues, document it and notify appropriate individuals or organizations.

Group Leader, Responsibilities [amateur and professional trips and tours].

Be an exemplary ethical role model for the group. Teach through word and example.

Keep groups to a size that limits impact on the environment and does not interfere with others using the same area.

Ensure everyone in the group knows of and practices this code.

Learn and inform the group of any special circumstances applicable to the areas being visited (e.g., no tape recorders allowed).

Acknowledge that professional tour companies bear a special responsibility to place the welfare of birds and the benefits of public knowledge ahead of the company's commercial interests. Ideally, leaders should keep track of tour sightings, document unusual occurrences and submit records to appropriate organizations.

Please Follow This Code — Distribute it and Teach it to Others

Source: Bird Awareness Newsletter, Fall, 1996. American Birding Association

Thank You, HECO!

by Sylvianne Yee

Hawaiian Electric Company is once again supporting the Audubon Society's Paradise Pursuits Environmental Quiz Program with a generous grant for the '97-'98 school year. Hawaiian Electric becomes our major sponsor for the seventh year in a row. We applaud and appreciate Hawaiian Electric's commitment to education and the environment!

Hawaiian Electric has also generously donated a large number of prizes for the team competitions. With a record number of schools participating in Paradise Pursuits, more prizes were needed, and Hawaiian Electric came through for us again. A special mahalo to **Scott Shirai**, Director of Community Relations for Hawaiian Electric Industries and karaoke instructor/author *extraordinaire* of karaoke courses and a popular new book, for his unwavering support of Paradise Pursuits.

Audubon Field Trips for 1997

March 29 **Saturday:**
Makapu'u Point with Lance Tanino, plus discussion of the Laysan albatross project at Kaohikaipu island.

April 19 **Saturday:**
Hanauma Bay with docent Jean Carr and Ranger Jack Oehrlein; geology, fish, turtles, legends.

May 10* or 24* **Saturday:**
Kaneohe Marine Corps Base Hawaii to view the Red Footed Booby colony.

June 14 **Saturday:**
Sinkholes at Barbers Point with Alan Ziegler to dig up fossil bones of birds.

July 19 **Saturday:**
Ancient fishpond exploration at Waikalualoko Fish Pond with Herb Lee; slide presentation plus hands-on experience in the pond netting fish and helping to pull up some of the encroaching mangroves.

August 16 **Saturday:**
A walk along the dam and lake at Hoomaluhia Botanical Garden with docent Mary Gaber.

September 13 **Saturday:**
Kii Unit of James Campbell National Wildlife Refuge with Refuge Manager Johnny Beall; we should see our four endangered water birds plus others.

October 12* **Sunday:**
Manana (Rabbit) Island State Seabird Sanctuary with Eric VanderWerf to kayak to the island and tour the seabird colony. (All day, limited number, extra fee)

November 15 **Saturday:**
Kahuku Point sand dunes and beyond with Phil Bruner to see migratory birds.

December 6 **Saturday:**
Aiea Loop/Ridge trail with Pete Donaldson to try to spot the apapane.

NEXT YEAR: Tentative plans are being made for a trip to Midway Island in March, 1998. Watch for further details.

*Tentative dates

Editors note: Please regard all of the above trips as *tentative*. Final plans may be found in the calendar column of the 'Elepaio issue just prior to the event.

Field Activities Report — 1996

by Mary Gaber

The following is a listing of the sites visited by HAS sponsored field trips this past year:

January Whale watch, Koko Head

February Ewa Plains
bird bone fossils dig

March Diamond Head hike

April Kolea bird watch

May Likeke Trail

June Marine Corps Base
red footed booby colony

July Moomomi Nature
Reserve, Moloka'i

August Honolulu Zoo,
forest bird project

September Aiea Ridge trail

October Waikalualoko Fish Pond

November Hoomaluhia walk

December Christmas Bird Count

Paradise Pursuits O'ahu Winners

by Sylvianne Yee

The Paradise Pursuits O'ahu preliminary games were held on February 1 and 8 at 'Olelo The Corporation for Community Television. With nineteen teams going buzzer to buzzer, the games were challenging but fun. Five schools emerged as winners advancing to the playoffs to be held on Friday, April 11.

The schools and their coaches were **Waianae** (Linda Gallano and Lei Aken), **Iolani** (Vincent Tortero), **Kahuku** (Anne Zellinger), **Kamehameha** (Richard Mills), and **Kailua** (Clyde Kobashigawa). Congratulations to them and to all of the O'ahu schools who took the Paradise Pursuits Challenge. The neighbor island winners will be announced in the next issue of the 'Elepaio.

Full Tuition Undergraduate Scholarships Available

Through a trust set up by Yao Shen in memory of Rose Schuster Taylor, HAS has been able to grant a full tuition scholarship to an undergraduate student in the University of Hawaii system for most of the past two decades.

Students must be majoring in a field related to Hawaiian or Pacific natural history. Applications are available from the HAS office; completed applications must be received by May 1 of each year.

Besides providing transcript(s) and three letters of recommendation, applicants are asked to respond to the following questions:

- How does your academic major relate to Hawaiian or Pacific natural history?
- How do you plan to apply your academic degree to further study or work experience in Hawaiian or Pacific natural history (for example, graduate study, career plans)?

- How might your course of study enable you to contribute to the better protection of native Hawaiian or Pacific wildlife, a major purpose of the trust?
- Have you already made contributions to the study of Hawaiian or Pacific natural history, especially anything that might contribute to the protection of native wildlife?

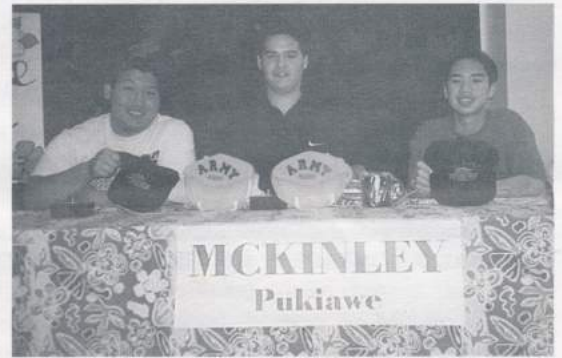
Undergraduate students are encouraged to request an application. Scholarships will be administered through the University of Hawaii Financial Aid Services.

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.



The Paradise Pursuits O'ahu preliminary games were held on February 1 and 8 at 'Olelo The Corporation for Community Television. "With nineteen teams going buzzer to buzzer, the games were challenging but fun," said Sylvianne Yee. Pictured here are ten of the participating teams. Future issues will include additional teams.



Calendar of Events

Monday, March 3 and April 7

Regular first Monday of the month meeting of the **Conservation Committee**, 6 p.m., at the U.H. Environmental Center (Crawford Hall, Room 317, 2550 Campus Road). All are welcome. For more information call chairperson Dan Sailer, 455-2311.

Thursday, March 6 and April 3

Monthly meeting of the **Education Committee**, 7 p.m. at BaLe Sandwich Shop in Manoa Marketplace (near Safeway). All are welcome. For more information, call chairperson Wendy Johnson, 261-5957.

Monday, March 10 and April 14

HAS Board meeting, (always open to all members) 6:30 p.m. at the new HAS office, 850 Richards Street, Suite 505 (across from the Main Post Office).

Saturday, March 29

Lance Tanino will lead a field trip to the lookout atop Makapu'u Point and will help us identify seabirds along the way. At the lookout, Gail Grabowsky-Kaaialii will discuss the Laysan albatross restoration project which is using Kaohikaipu Island below Makapu'u as a base for albatross decoys. We may also see whales and turtles. Bring binoculars, sunscreen, and water. Meet for car pooling from the Honolulu area at the Punchbowl side of the State Library, mauka of King Street, at 7:30 a.m. Or meet at 8:30 a.m. beside the locked gate on the Hawaii Kai side of Makapu'u Point; park along Kalaniana'ole Highway. Reserve with Lance at 247-5965 or the HAS office at 528-1432, voice mail box 4, by March 22. Requested donation, \$2.00/person.

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