



'ELEPAIO

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Hawaii Audubon Society

For the Protection of
Hawaii's Native Wildlife

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KAHO'OLAWE

(an excerpt from Hawaii's Comprehensive Wildlife Conservation Strategy, October 1, 2005.
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Forestry and Wildlife. The entire document can be viewed and/or downloaded at <http://www.state.hi.us/dlnr/dofaw/cwcs/>)

Kaho'olawe is the smallest of the eight Main Hawaiian Islands. The island was historically inhabited by several hundred Native Hawaiians who farmed and fished for subsistence. Kaho'olawe also was important as a religious center where the navigators and *kahuna* (priests) responsible for guiding the ocean voyages of early Hawaiians were trained. Consequently, Kaho'olawe is listed on the National Register for Historical Places, containing 544 archaeological and historical sites with over 2,000 features including some of the largest and oldest *heiau* (Hawaiian shrines) in the State. After the arrival of Europeans, the island was used as a penal colony, for ranching, and for military training, including extensive bombing practice. These activities resulted in severe ecological degradation, and much of the soil (particularly on the eastern side and along the ridge crests) is exposed and lost to strong, easterly winds. Aliendominated vegetation covers most of the island and includes kiawe forest and buffel grasslands. Remaining native habitats include coastal dry shrubland dominated by ma'o (*Gossypium tomentosum* [Hawaiian cotton]), 'ilima (*Sida fallax*), and 'aki'aki (*Sporobolus virginicus*), lowland dry grassland, mixed shrub coastal dry cliff, a high salinity anchialine pool, intermittent streams, and ephemeral pools. Nearshore marine resources include substantial coral reefs and intertidal natural communities. Native wildlife species on the island include an endangered moth, seabirds, and monk seals.

OVERVIEW

Geology and Hydrology

Kaho'olawe is 11,520 hectares (28,800 acres) in total area, 17.6 kilometers (11 miles) long and 11.2 kilometers (seven miles) wide at its broadest point. The island is gently sloped with a diagonal ridge running across it. Steep sea cliffs mark the southern and eastern coastlines while sloping ridges with bays and beaches characterize the northern and western coasts. The highest point of the island is on the northeast end, at 450 meters (1,477 feet). Approximately 39 percent of the island is below 150 meters (500 feet) in elevation. Kaho'olawe has two offshore islands. There are no perennial streams.

Climate

Located in Maui's rain shadow, Kaho'olawe is very dry and arid, receiving no more than 65 centimeters (25 inches) of rain annually with most occurring on the eastern side of the ridge.

Land and Water Use

The Navy had used Kaho'olawe for several decades of military bombing exercises which ceased in 1990. The following ten year Navy clean-up resulted in approximately ten percent subsurface clearance of the island and 69 percent surface clearance of unexploded ordnance from the island. In 2003, management and ownership of the island was officially transferred from the U.S. Navy to the Kaho'olawe Island Reserve Commission (KIRC), a State agency administratively attached to DLNR, for management. The entire island is designated Conservation District under the State Land Use Code.

The island of Kaho'olawe and the waters two miles from the shoreline are designated as the Kaho'olawe Island Reserve, owned by the State of Hawai'i. KIRC manages Kaho'olawe in trust for a future Native Hawaiian sovereign entity. Access to the island is restricted due to unexploded ordnance, and commercial use is strictly prohibited. The island is managed and maintained in perpetuity for the following purposes: 1) preservation and practice of all rights customarily and traditionally exercised by the Native Hawaiians for cultural, spiritual, and subsistence purposes; 2) preservation and protection of its archaeological, historical, and environmental resources; 3) rehabilitation, revegetation, habitat restoration, and preservation; and 4) education. Overall activities on the island are guided by the following principles: traditional ecological knowledge, ecosystem succession, strategic restoration, keeping practices in line with the island's geography and natural systems, and integrated research and action.

Human Landscape

Although the island has no permanent residents, barracks provide accommodations for about 50 workers who are flown in for conservation and management activities or visitors coming to volunteer for conservation activities or participate in cultural practices.

SPECIES AND HABITATS OF IMPORTANCE

Historically, Kaho'olawe was home to a range of vegetation communities that included dry forest and shrublands, grasslands, coastal vegetation, and possibly a mesic forest. However, due to 200 years of grazing by introduced ungulates, followed by decades of military bombings, the habitat on the island has been

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reduced to over 80 percent barren or hardpan soil and/or aliendominated vegetation. In addition to the two islets, the western coastal area is the only area where native vegetation remains. Despite this, Kaho'olawe is still home to 14 rare plants as well as a new species, *Kanaloa kahoowawensis*, in a new genus. Under the island's management plan, five native terrestrial communities have been identified: 'Aki'aki Coastal Dry Grassland, the Hawaiian Mixed Shrub Coastal Dry Cliff, the 'Ilima Coastal Dry Shrubland, the Ma'oa Coastal Dry Shrubland, and the Pili Lowland Dry Grassland. Most of the rare plant populations that are known can be found on the southern and eastern seacliffs.

For wildlife in particular, important areas on the island include coastal areas such as Honokanai'a, Ku'heia, Lae o Kuikui, Hakioawa, and the uplands. In addition, the USFWS designated 1,701 hectares (4,252 acres) of critical habitat for Blackburn's sphinx moth (*Manduca blackburni*). Vegetation within this area consists of mixed-species, mesic and dry grass and shrubland communities with a high percentage of non-native vegetation interspersed with native vegetation. There are also several wetland areas on the island (e.g., Lua Kea'lialalo, Lua Kea'lialuna, Lua Makika) that can provide habitat for migratory shorebirds and waterbirds. Kaho'olawe is also home to two islets, Pu'u koae and 'Ale'ale, both of which are significant habitats for nesting seabirds (e.g., 'ua'u [*Pterodroma sandwichensis* or Hawaiian petrel], 'ake'ake [*Oceanodroma castro* or band-rumped storm petrel]) and migratory birds (e.g., kioea [*Numenius tahitiensis* or bristle-thighed curlew]) and contain native shrub coastal dry cliff communities.

Appendix A provides information on the wildlife Species of Greatest Conservation Need present on Kaho'olawe and its associated offshore islands. KIRC has plans to also reintroduce species such as birds, invertebrates, 'o'pe'ape'a (*Lasiurus cinereus semotus* [Hawaiian hoary bat]), and marine reptiles.

SUMMARY OF KEY THREATS TO SPECIES AND HABITATS

Many general threats to native wildlife are discussed in Chapter 4 (Statewide Conservation Needs) and Chapter 5 (Marine Conservation Needs). Threats more acute or specific to

Kaho'olawe are listed below. Because Kaho'olawe has no perennial streams, there are no identified threats specific to freshwater species on Kaho'olawe.

- Feral cats (*Felis silvestris*), barn owls (*Tyto alba*), and rodents that prey on ground nesting seabirds;
- Established populations of alien ants, wasps, and parasites that negatively affect native invertebrates;
- Wide-spread non-native vegetation and soil erosion threaten habitat restoration (an estimated 1.9 million tons of soil is lost each year);
- Unexploded ordnance that limit conservation activities;
- Fire that can exacerbate the distribution of alien vegetation and disrupt current native vegetation restoration efforts;
- Marine debris accumulation;
- Sedimentation due to historic grazing and land degradation;
- Lack of compliance with fishing regulations.

ISLAND STRATEGIES

In addition to the statewide strategies identified in association with the seven conservation objectives in Chapter 4 (Statewide Conservation Needs) (main bullet), additional island-specific strategies for Kaho'olawe include the following (sub-bullet):

- Maintain, protect, manage, and restore native species and habitats in sufficient quantity and quality to allow native species to thrive.
- Support existing conservation management and implement future needs as identified below in 'Management Needs' section;
- Develop and/or implement recovery plans for threatened and endangered species on Kaho'olawe;
- Secure permanent, long-term funding for KIRC;
- Eradication of mammalian predators, particularly feral cats, and avian predators (e.g., barn owls, cattle egrets) from the island;
- Enhance existing wetlands (e.g., fencing, restoration, control of alien vegetation);
- Reintroduce appropriate native species (e.g., waterbirds, Laysan duck, native passerines, native invertebrates, Hawaiian hoary bat, native plants);

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- Implement fire suppression measures and protocols for post-fire restoration;
- Increase marine debris removal capacity and collaborate with experts on marine
- Suppress fires and implement fire management protocols.
- Combat invasive species through a three-tiered approach combining prevention and interdiction, early detection and rapid response, and ongoing control or eradication.
- Improve prevention measures and early detection and rapid response capacity for species not yet established in the islands (e.g., brown treesnake, West Nile virus, Argentine fire ant) or present in the MHI but not yet established on Kaho'olawe;
- Support efforts to strengthen marine alien species prevention and control.
- Strengthen existing and create new partnerships and cooperative efforts.
- Support ongoing projects to address Non-Point Source Pollution.
- Expand and strengthen outreach and education to improve understanding of our native wildlife resources among the people of Hawai'i.
- Maintain existing outreach and educational programs at managed conservation areas.
- Support policy changes aimed at improving and protecting native species and habitats.
- Evaluate all current Marine Managed Areas for purpose and management effectiveness and consider need for new Marine Managed Areas;
- Increase enforcement capacity and education on the value of the Reserve.

PLANS AND TOOLS TO AID MANAGEMENT

Management plans and tools exist to address some of the threats listed in the Summary of Key Threats to Species and Habitats section and include the following:

- Specific management plans developed by KIRC, including the Kaho'olawe Use Plan (1995), the Kaho'olawe Ocean Management Plan (1997), the Kaho'olawe Environmental Restoration Plan (1998), and the Draft Access and Risk Management Plan (2001);
- Species Conservation Plans prepared by the USFWS, including the Regional Seabird Conservation Plan (2005), U.S. Pacific Islands Regional Shorebird Conservation Plan (2004), the Draft Recovery Plan for Blackburn's sphinx moth (2003);
- Critical habitat designations by the USFWS for the Blackburn's sphinx moth;
- A summary of research and information on individual offshore islands, prepared by the Offshore Island Restoration Committee, and found at <http://www.botany.hawaii.edu/gradstud/eijzenga/OIRC/>;
- Bishop Museum has a comprehensive database of invertebrates;
- The Audubon Society maintains a Sightings database of bird species observed in the State;
- The Pacific Basin Information Node maintains a database of information on species and habitats in Hawai'i;
- The Hawai'i Biodiversity and Mapping Program (formerly the Hawai'i Natural Heritage Program) maintains a database of rare species and habitats.

MANAGEMENT NEEDS

Current Management of Species and Habitats

The following section addresses the current management actions and future needs of key habitats on Kaho'olawe. The discussion of future management needs is highlighted within each current managed area. Unlike other islands (except Ni'ihau), Kaho'olawe is managed by one entity, the Kaho'olawe Island Reserve Commission (KIRC).

Kaho'olawe Island Reserve (28,800 terrestrial acres-entire island), KIRC

Species: Native invertebrates including Blackburn's sphinx moth and koa butterfly, seabirds, migratory birds.

Habitats: Coastal dry grasslands, dry cliff, dry shrublands, anchialine pool, wetlands.

Current Management: Management plans exist. Erosion control, revegetation and habitat restoration, predator control.

Future Needs: Continue existing management. Adequate funding to implement management plan. Eradication of cats.

Kaho'olawe Island Reserve (marine waters up to two miles from shoreline), KIRC **Species:** Hawaiian monk seals, coral reef organisms, pelagic and bottomfishes, green sea turtles.

Habitats: Marine ecosystems including shallow coral reef, deeper reefs, sandy beach, and rocky habitats.

Current Management: Limited access and take, no commercial activity, monitoring, water quality improvements.

Future needs: Additional monitoring, increased enforcement.

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Albatross Chicks Take Flight to Help Their Short-tailed Cousins

Pilot Project Will Expand Knowledge to Benefit the Endangered Short-tailed Albatross

Ten special visitors are scheduled to arrive in Kaua'i today, announced the U.S. Fish and Wildlife Service. Ten Laysan albatross chicks – approximately one month old – are making the 1,000-mile journey from Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial to Kilauea Point National Wildlife Refuge for a new life on the Garden Island. The new arrivals are part of a pilot study to gain more experience in the handling and rearing of albatross chicks.

These down-covered chicks bring hope to the survival of another albatross species only known to breed in Japan. The short-tailed albatross, also known as the “golden gooney,” is on the brink of extinction. Knowledge gained from this pilot project will help researchers in Japan relocate birds to establish new breeding colonies which will help in the recovery of the species.

By translocating chicks to a safer new colony site in Japan, researchers hope to “jump start” the process of new colony formation, thus speeding up the recovery process. The preliminary step of translocating Laysan albatross chicks (a relatively abundant species) will provide the knowledge needed in the handling and rearing of the albatross chicks, in order to minimize risks to the endangered short-tailed albatross during future translocations.

“This unique pilot project allows us to share our previous knowledge and experience with our Japanese counterparts across the Pacific while also expanding that knowledge and experience through cooperative efforts to recover this endangered seabird,” said Barry Stieglitz, project leader for the Hawaiian and Pacific Islands National Wildlife Refuge Complex.

The chicks were gently captured by hand on Sand Island, one of three islands that make up the Midway Atoll NWR, by refuge staff. The young seabirds, placed in individual shipping containers, are being flown from Midway to Kaua'i on a chartered plane.

Once the chicks arrive at the Lihue Airport in Kaua'i, they are subject to a routine series of inspections and health tests required by state and federal law. The chicks will be examined and tested for avian influenza, external and internal parasites, and overall health by U.S. Geological Survey veterinarian Thierry Work. Depending on the results, the chicks may or may not have to be quarantined for a brief period of time. The chicks will then be transported to Kilauea Point NWR where they will be weighed, tagged, and released in a secured location for rearing.

“The rearing site is within a portion of the refuge previously closed to public entry to protect and minimize disturbance to wildlife. It is a beautiful area for albatross, on a protected ridge overlooking the ocean with tradewinds needed for their first flight in a few months,” said Brenda Zaun, Kilauea Point NWR biologist. “Chicks will be fed an appropriate diet and their weights regularly monitored until they fledge sometime in July.”

Zaun will work closely with Dr. Tomohiro Deguchi – an expert in avian husbandry and graduate research assistant, Tomaka Harada of the Yamashina Institute of Ornithology – who will be responsible for the daily feeding, rearing activities, and data collection during the pilot study. Other non-federal partners involved in the study include Toho University, Japan and Linda Elliot of the Hawai'i Wildlife Center.

The short-tailed albatross (*Phoebastria albatrus*) was possibly the most abundant of the three North Pacific albatross species. Millions of these birds were harvested by feather hunters prior to and following the turn of the 20th century, resulting in the drastic decline of the species by the mid-20th century. Fewer than 2,000 birds are known to exist today. The species is known to breed on only two remote sites (Torishima and Senkaku) in the western Pacific. Torishima Island, where 80 to 85 percent of the species breed, is an active volcano, and the natural colony site on the island is susceptible to mudslides and erosion. An artificial colony site has been established in a less erosive area on the island. The other breeding site in the Senkaku Islands, located to the southwest of Torishima, is subject to political uncertainty, jurisdiction disputes, and oil exploration.

The short-tailed albatross is a large pelagic bird with long narrow wings adapted for soaring just above the ocean surface. The bill is large, bright pink and hooked with a bluish tip, has external tubular nostrils, and has a thin but conspicuous black line extending around the base. Adult short-tailed albatrosses are the only northern Pacific albatross with an entirely white back. The white head develops a yellow-gold crown and nape in mature adult birds. The Laysan albatross has a white head, neck, and underbody with a dark eye patch. The top of the wings are black and the bill varies from gray to yellow with a darker tip. Legs and feet are pink. Midway Atoll NWR hosts the world's largest populations of Laysan and Black-footed albatrosses. In 2005, 487,527 Laysan albatross nests were counted on Midway Atoll NWR.



Source:
USFWS News Release
dated March 3, 2006

Contact: Ken Foote,
808 792 9535 or
282 9442 or
Brenda Zaun,
808 635 6349

Photos courtesy of
USFWS

Managing Editor Linda Shapin to Migrate

In mid-April, I'll be moving to Flagstaff, Arizona, where there are hummingbirds and Red-tailed Hawks, but, alas, no 'Amakihi or Red-vented Bulbuls. Of all of my HAS responsibilities, editing the 'Elepaio was by far my favorite. Thanks for your comments, compliments and suggestions over the past seven and a half years. Being Editor has been an honor, a privilege, and a total delight. I will really miss it.

Birds have always been a part of my life, and I love them incredibly. Although I look forward to seeing the many different species that Arizona has to offer, nothing will ever replace the reverence I felt seeing an 'I'iwi in native forest, or most especially, a Laysan Albatross on the wind.

Ho'olaukanaka i ka leo o na manu

(Life is made joyful by the voices of many birds)

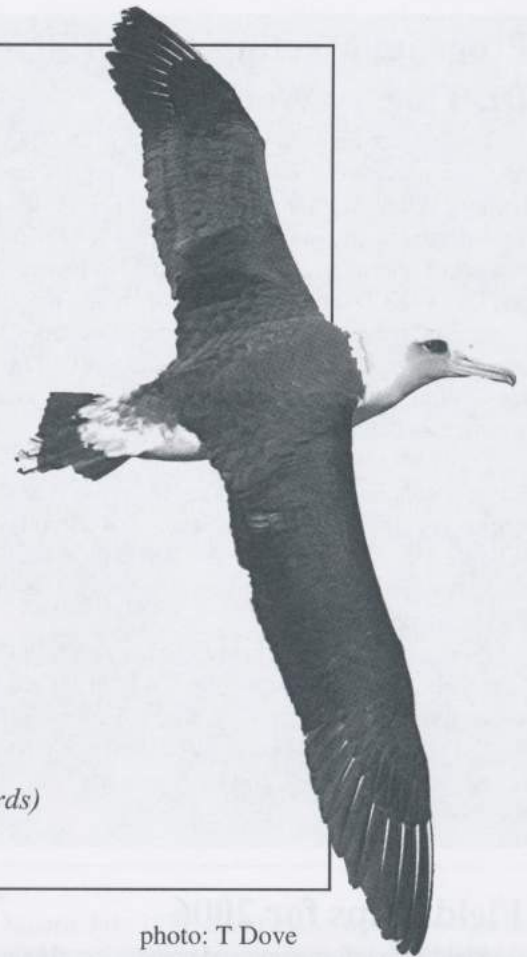


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Program Meeting April 17th - Dr. Thierry Work

The speaker for Monday April 17th is Dr. Thierry Work, who is a wildlife disease specialist and project leader of the National Wildlife Health Center, Hawai'i Field Station. He has a BS degree in entomology from Texas A&M University, a masters of science in entomology from University of California, Davis (UCD) and a doctor of veterinary medicine and a masters of preventive veterinary medicine from UCD. He completed a residency in wildlife medicine at UCD and worked for California Department of Fish and Game as a wildlife veterinarian before coming to Hawai'i in 1992.

Dr. Work will be speaking on his work with wildlife in Hawai'i including laysan ducks and many native avian species, marine sea turtles, marine fish and coral and other Hawai'i Wildlife. He will discuss USFWS/USGS planning for surveillance of migratory birds for avian influenza in Hawai'i and the Pacific Islands.

Program Meetings are held at the University of Hawai'i St. John Lab (Botany Building Rm. 011) in the ground floor auditorium at 3190 Maile Way, where it intersects East-West Road. Program meetings take place from 6:30pm to 8:30pm, refreshments are served, and HAS products will be available for purchase.

Field Trips for 2006

Field Trip information and updates are also be available on the HAS office answering machine (528-1432) and on our website, www.hawaii.audubon.com. Details for the field trips will be published and posted as they become available.

April 15, Saturday: Paiko Lagoon with Alice Roberts. A chance to bid our shorebirds goodbye (Pacific Golden Plover, Ruddy Turnstone, Sanderling, etc.), as they will be leaving for Alaska shortly. Wear old tennis shoes or reefwalkers, and bring sunscreen, binoculars, water, and lunch. Keiki welcome. We will meet at Paiko Lagoon at 8:30am. Call Alice to register, 864-8122.

May: Chevron Ponds with Christine Volinski

June: Hilton Hawaiian Village birds (?)

June 10 and 24, Saturdays: Paiko Lagoon with Alice Roberts. A lowtide meander as Alice talks about the many fascinating creatures visible along the shoreline. This a wonderful treat of a field trip, and one that keiki will particularly enjoy! Both trips meet at Paiko Lagoon at 7:00am. Call Alice to register, 864-8122.

July: Honolulu Zoo with Wendy Johnson

August: 'Aiea Loop Trail with Phil Bruner

September: Kuli'ou'ou with Alice Roberts

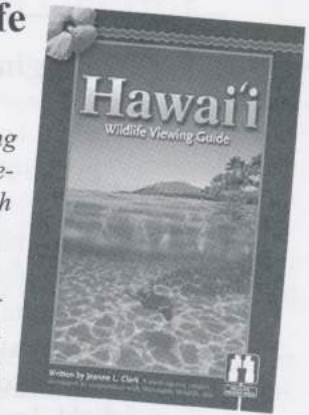
October: Kahuku Shoreline with Phil Bruner

November: James Campbell National Wildlife Refuge with Ron Walker

December: Christmas Bird Count

The Hawai'i Wildlife Viewing Guide

*Your Guide to Hawaii's Amazing
Wildlife- a multi-agency project de-
veloped in cooperation with
Watchable Wildlife, Inc.*



The Hawai'i Watchable Wildlife Project is a statewide network of 31 viewing sites, a road signing program to direct travelers to the viewing locations, and a viewing guide and website to enhance the visitor experience and encourage responsible and sustainable viewing behavior.

This project helps both residents and visitors learn about and experience Hawai'i's native flora, fauna and habitats in a manner that will be ecologically responsible, economically sustainable, and supported by local communities, the tourism industry and the visitors.

Hawai'i packs amazing diversity into a handful of small islands that offer numerous opportunities for you and your family to connect with nature.

The Hawai'i Wildlife Viewing Guide provides information, resources and contacts for planning your visit. Thirty-one carefully selected viewing site profiles offer detailed descriptions including maps, natural and cultural history, the species commonly seen at the site and the best times of year and even the best times of day to visit in order to maximize your viewing experiences.

The Hawai'i Wildlife Viewing Guide focuses on wildlife, but showcases many sites that are known for their outstanding scenery, cultural values or water-oriented recreation. Visits to even a few sites on an island can expose you to some huge gatherings of seabirds, remarkable scenes of migrating whales, up close views of rare forest birds or incredible underwater vistas of coral gardens and colorful fish.

The Hawai'i Wildlife Viewing Guide is now available in stores throughout Hawai'i.

About the Author:

Jeanne L. Clark has worked in the field of natural resource communications for over twenty-five years and has written numerous books, magazine articles, video scripts, brochures, and reports. She is the author of the coffee table book, *America's Wildlife Refuges: Lands of Promise*, a commemorative book showcasing the National Wildlife Refuge System centennial anniversary. She also authored the *California Wildlife Viewing Guide* and the *Nevada Wildlife Viewing Guide*, and co-authored *Northern California Nature Weekends*.

Jeanne has worked with numerous government agencies and private organizations. For eight years she served as editor of *Out & About*, an award-winning quarterly newsletter published by the U.S. Fish and Wildlife Service/Pacific Region, and has written many other Fish and Wildlife Service publications. Jeanne lives in Newcastle, California, where the beauty of nature and the march of the seasons help to shape and enrich her writing.

Excerpts from:

Pox Virus in Laysan Albatross Chicks at Ka'ena Point, O'ahu:

How Can We Help? by Eric A. VanderWerf, Keith A. Swindle, and Lindsay C. Young

(see full article and references in 'Elepaio Vol. 65, No.1, February 2004)

In early 2004, visitors and biologists noticed unsightly growths and lesions on many of the albatross chicks at Ka'ena Point. The growths probably were caused by avian pox virus, a widespread disease in birds that is transmitted by mosquitoes. In most years there are very few or no mosquitoes at Ka'ena Point due to the dry climate on that part of the island, but in wet years, like 2004, rain puddles provide breeding habitat for mosquitoes, increasing the potential for transmission of pox virus to native seabirds. Being large, sedentary birds, albatross chicks are virtually defenseless against mosquitoes. A viral infection can develop at the spot where the bird is bitten by a mosquito, and uncontrolled replication of the virus within epithelial cells results in soft swellings and wart-like growths on the skin. Many of the albatross chicks at Ka'ena Point had numerous growths on the feet and face, indicating they had been bitten by multiple mosquitoes. In some cases the infections were quite extensive, completely covering one or both eyes.

Pox virus occurs virtually worldwide and affects a variety of bird species (U.S. Fish and Wildlife Service 1987, Tripathy 1993), but the effects of this disease vary considerably among bird species. For many endemic Hawaiian forest birds pox is often crippling or fatal (Warner 1968, VanderWerf 2001, Van Riper et al. 2003). Less is known about the effects of pox on albatross and other seabirds, but some data indicate that Laysan albatross have much greater immunity to pox than Hawaiian forest birds. In 2004, 14 albatross chicks hatched at Ka'ena Point, all of which were infected with pox (L. Young, unpubl. data). Eleven of the chicks eventually recovered from pox and fledged without any assistance or interference from humans, even a severely infected bird that had both eyes completely covered by scabs for several weeks. So, the simple answer to the question posed in the title, how can we help albatross chicks that have pox, is to leave them alone and let their parents care for them. Many seabirds, including albatross, have very specific means by which they recognize their offspring; chicks that are removed from their nest and returned later may not be recognized by their parents and may be abandoned. Although the chicks may appear to be suffering, their best chance for recovery and survival is for their parents to continue feeding them.

Another way that people can help reduce the threat from pox is to remove plastic containers and other debris in which mosquitoes may breed. There is no treatment for avian pox, but birds that survive have increased immunity to subsequent infections (Tripathy 2003). Preventative vaccines have been developed to protect birds before they become infected, primarily for use in the poultry industry. There are several strains of pox virus, however, each of which requires a specific vaccine (Tripathy 2003), and we do not yet know which strain(s) infects albatross. If rainfall is high again in the winter of 2004-05, as it has been thus far (*editor's note: the winter of 2005-06 has had high rainfall as well*), it is likely that albatross chicks at Ka'ena Point will again be afflicted with avian pox. If the appropriate vaccine were available, the albatross chicks could be immunized soon after hatching in an attempt to prevent infection, but if mosquito

populations are high it could be difficult to administer vaccinations before the chicks are bitten. Otherwise, the best way to help is to leave the chicks alone and give their parents a chance to care for them, no matter how seemingly heart-wrenching they appear.

Furthermore, Laysan albatross and other native birds are protected by law under the Migratory Bird Treaty Act (MBTA). The MBTA states:

"Unless and except as permitted by regulations..., it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the conventions... [between the U.S. and Canada, Mexico, Japan and USSR]"

Federal regulations implementing the MBTA do, however, recognize the occasional need for people to assist birds:

"...a rehabilitation permit is required to take, temporarily possess, or transport any migratory bird for rehabilitation purposes. However, any person who finds a sick, injured, or orphaned migratory bird may, without a permit, take possession of the bird in order to immediately transport it to a permitted rehabilitator."

We emphasize that before picking up an apparently orphaned bird, it is extremely important to ascertain that the bird really has been orphaned or abandoned by its parents, and that they are not simply away foraging or were temporarily scared off by the approach of people. The first course of action should always be to watch the bird from a distance to observe its behavior and that of the parents. In the case of albatross and other seabirds, the parents may leave the chick unattended for hours or even days at a time before returning with food, and larger chicks may wander some distance from the nest and may not be in the immediate vicinity of the nest. The parents can still recognize them under these circumstances by their calls and possibly by their smell. Only if it is certain that the chick is orphaned or abandoned and in immediate danger of dieing should it be picked up and brought to a licensed bird rehabilitator.

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birds a future...**

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Hawaii Audubon Society, 850 Richards
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Calendar of Events

Saturday, April 15 Field Trip

Paiko Lagoon with Alice Roberts. *See page 20.*

Monday, April 17 Program Meeting

Dr. Thierry Work. *See page 20.*

Monday, May 15 Board Meeting

Open to all members, 6:30 to 8:30pm at the HAS office. Education and Conservation Committees meet at 5:45pm before Board meetings.

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