



'ELEPAIO

Journal of the
Hawai'i Audubon Society

For the Protection of
Hawai'i's Native Wildlife

VOLUME 77, NUMBER 2

MARCH / APRIL 2017

State of the Society: Annual Report for 2016

By Linda M. B. Paul, President Hawai'i Audubon Society

Mission Statement: To foster community values that result in protection and restoration of native ecosystems and conservation of natural resources through education, science and advocacy in Hawai'i and the Pacific.

The Hawaii Audubon Society celebrated its 77th year of operations in 2016. It was established in 1939 by a small group of dedicated birders to further the protection and conservation of Hawaii's native wildlife and the ecosystems that support it. In 1967 it was granted non-profit §501(c)(3) status by the U.S. Treasury Dept. It is now a state-wide conservation organization with a membership of approximately 2,000. Although it became a chapter of the National Audubon Society (NAS) in 1978, it is independent of that organization in matters of governance, policy, financial control, and programs.

Society Governance

Programs, policies and activities are guided by our Mission Statement and the purpose, organization, and procedures are set forth in our Constitution and By-laws. The Society is governed by a Board of Directors. In 2016, after much discussion on how to protect the Society from hostile takeover attempts, the Board amended the Society's By-laws. The amendments tightened up the requirements and process for appointing Officers and Directors and converted the Society into a non-voting membership organization. During 2016 officers included President Linda Paul, First Vice President Elizabeth Kumabe, Treasurer Anthony Leiggi and Directors Thorne Abbott, Phil Bruner, Lance Tanino, Don Drake, Alice Roberts, Anna Pickering. Wendy Johnson served as the Society's Executive Director.

Education and Outreach

The Society has a number of standing committees headed by Directors. In 2016, Thorne Abbott continued to serve as Chair of the Conservation Policy Committee and Wendy Johnson was Chair of the Education Committee. The 'Elepaio and Field Activities Committees included all Board members. Committee membership is open to all members of the Society (Please see our website for more information).



Photo credit: Sherman Wing

The 'Elepaio: Our peer-reviewed journal focuses on research and conservation work in Hawaii and the Central Pacific and provides educational outreach to the Society's membership and subscribers. In 2016 Jody Smith served as

Managing Editor and Glenn Metzler as the 'Elepaio's Scientific Editor. Six bi-monthly issues were published in 2016. The 'Elepaio can be received by members both electronically and by mail. Scientific articles in 2016 included *The beginning of Black-footed Albatross colonization on O'ahu, Hawai'i* by Lindsay C. Young & Eric A. Vanderwerf; 2015: *Another record population count at the Freeman Seabird Preserve during a year of low productivity* by K. David Hyrenbach; *Reintroduction of 'Alala to Pu'u Maka'ala Natural Area Reserve, Hawaii Island, in 2016* by the partners coordinating the reintroduction (San Diego Zoo Global, U.S. Fish & Wildlife Service, Hawaii DLNR DOFAW, et al); *Non-breeding season movements of 'Akikiki & other endangered endemic forest birds on Kaua'i* by Kayla L. Bonnette, Lisa H. Crampton, Kyle E. Pias, Adam H. Elzinga, & Barbara A. Heindl; *Coming home: conservationists try a daring approach to save the endangered Hawaiian Petrel* by Libby Sander; The epic journeys of the plover by Eric Wagner; *A brief review of Hawaii's only native owl, the pueo* by Afsheen Siddiqi; and *Novel technologies for addressing avian malaria in Hawai'i* by Joshua Fisher.

www.hawaiiadubon.com: The Society's website provides a comprehensive source for up-to-date information on the Society and its activities. It includes electronic versions of the 'Elepaio, field trips, service projects, programs, meetings, volunteer opportunities, membership information, an on-line store, information on birding in Hawai'i, a gallery of beautiful bird photos, and links to a number of related organizations and issues. Office manager Jody Smith managed the website and Directors Anna Pickering, Lance Tanino and Tony Leiggi administered the Society's Facebook page.

www.freemanseabird preserve.com: As part of a grant from the Disney Worldwide Conservation Fund, the Society launched a new website in 2014, which remains operational. It focuses on the habitat restoration, scientific research and educational components of the Society's conservation programs at the Preserve.

Kawainui-Hamakua Marsh Complex: The Kawainui-Hamakua Marsh Complex on windward O'ahu is the largest remaining wetland in the State. Society members have been working for years for its protection, including advocating for state matching funds to construct habitat ponds for endangered waterbirds. After completion of the construction of 11 ponds by the

Army Corps of Engineers, the Society adopted Pond #10 and Society volunteers, Returned Peace Corps Volunteers of Hawaii, and volunteers from many other organizations, as well as the public continued assisting DLNR's Division of Forestry & Wildlife (DOFAW) with waterbird habitat restoration in the ponds and wetlands.

The Society is a founding member of Ho'olaulima Ia Kawainui, which is a network of conservation organizations whose collective mission is to foster public awareness and understanding of the natural, historical, cultural, and scenic resources of the Kawainui-Hamakua Marsh Complex to ensure the long-term protection, restoration and stewardship of its resources. In addition to planning World Wetlands Day celebrations, the network has worked on a resources interpretive plan and an update of the 1994 Kawainui Master Plan. The Society submitted comments on the draft Plan that was released by DOFAW in June 2014 and recommended that it be redrafted into a 25-year plan with the goal of restoring the Marsh to the condition it was 250 years ago. It also recommended the State Department of Health allow DOFAW to permit water from the ponds to flow out of the ponds and to not allow the expansion of the industrial park located along Kapa'a Stream just upstream from the Marsh, which was recently approved by the City Council. In August 2016 HHF Planners released its Summary of Public Comments on the Draft Master Plan Project and in October 2016 the Society submitted 12 pages of comments on the Kawainui-Hamakua Master Plan Project EISPN and requested to be a consulting party in the preparation of an EIS. The draft Environmental Impact Statement is expected to be released by DLNR in 2017.

Conservation

Freeman Seabird Preserve: In September 2007, the Society was given a one-acre coastal property at Black Point on the southern coast of O'ahu thanks to an unprecedented gift from the Houghton Freeman Foundation. The Freeman Seabird Preserve is home to the island's only remaining south shore nesting colony of Wedge-tailed Shearwaters ('ua'u kani, *Puffinus pacificus*). With the valued guidance of experts and hundreds of volunteers over the years, this vacant residential property now supports over 24 native plants typical of Hawaiian coastal habitats before human disturbance and invasive species altered the natural landscape. In 2015 new signage designed by local artist and environmental educator Patrick Ching and paid for with the Disney grant was installed at the entrance to the Preserve. The research and lesson plans supported by the Disney grant were also completed. Society board member and botanist Alice Roberts put together a 4-color native plant guide for use on the Preserve by volunteers for habitat restoration and maintenance purposes. (See 2016 Updates by David Hyrenbach on pg. 13).

The Pueo: Board members Tony Leiggi and Alice Roberts attended a meeting convened by the State Senate to discuss the current status of Hawaii's native owl pueo. (See January/February 2017 issue of the *'Elepaio*.) Hawaii has declared the pueo endangered on Oahu due to extensive loss of habitat due to urban development as well as mortality due to alien species predation and motor vehicle collisions.

Rim Island 2: In March 2016 the Society sent a letter to the U.S. Army Corps of Engineers, Honolulu District, regarding Rim Island 2. RI-2 is a small, isolated island in the middle of the Hawaii Kai marina with a large pond-like depression in the middle. The shallow pond is half filled with brackish water, has a gently sloping beach and is surrounded by low bushes. RI-2 is a known feeding and nesting habitat for the endangered Black-necked Stilt (Hawaiian Stilt). The Hawaii Kai Marina Association would like to fill up the pond with dredge spoils. The Society believes that a long term data set is needed to determine whether or not RI-2 is still good stilt habitat before it is subjected to such a use. At the very least an EIS is needed.

Pacific Fisheries Coalition (PFC): The PFC, a project of the Society, is a unique collaboration between conservationists and fishermen who found common ground in their desire to promote the conservation and responsible use of living marine resources in Hawaii and the Pacific Basin. It began in 1998 and over the years has received grants from several foundations and other sources. The project is administered by Linda Paul, who serves as project administrator on a *pro bono* basis. She has represented the Society on the U.S. delegation to the Western & Central Pacific Fisheries Commission since 1999, was reappointed to the U.S. Advisory Council to the Commission in 2015, and attended the 2016 Commission meeting in Fiji. Our participation on the delegation over the years has resulted in observers being allowed to attend and speak at Commission meetings and by-catch control and mitigation measures that have helped to conserve populations of seabirds, turtles, sharks, and highly migratory pelagic fish species. The Society is also a member of the national Marine Fish Conservation Network. The Network advocates for national policies to achieve healthy oceans and productive fisheries. It works on the reauthorization and implementation of the Magnuson Stevens Act, as well as the national standard guidelines, bycatch reduction, and marine spatial planning. The PFC has produced a number of educational reports, brochures and posters, which are distributed to policy makers, resource managers, fishermen, educators, students and the general public.

Northwestern Hawaiian Islands Ecosystem Protection

Linda Paul also represents the Society and the broader conservation community on the Northwestern Hawaiian Islands Coral Reef Ecosystem Advisory Council (RAC) and has been its vice chair since 2004. The Papahānaumokuākea Marine National Monument was the result of an initiative to protect the NWHI begun by the PFC in 1999. In 2016 the Society sent President Obama a letter in support of expanding NWHI ecosystem protection. The letter said in part:

"As we gain more knowledge of the NWHI marine ecosystems and their inhabitants, it appears that more conservation improvement could be achieved by increasing the seaward boundary of the NWHI Marine National Monument from 50 to 100 nautical miles. Within 100 nm no extractive activities should be permitted. Expansion to 100 nm would protect most of the newly surveyed seamounts that are not currently within Monument boundaries and all of Middle Bank. If the Monument were to be expanded to include the entire U.S. EEZ in the NWHI, no resource extraction should be permitted between 100-200 nm other

than sustainable pelagic fishing such as trolling. It is critical that any expansion of the Monument include all of Middle Bank. Middle Bank is located southeast of Nihoa Island, which is 167 miles northwest of Kauai. The highly endangered Hawaiian Monk seals resident at Nihoa Island forage for bottom fish and other species on nearby banks, including Middle Bank. Currently less than a third of the Bank is protected by the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve (Reserve). Most of the Bank is harvested for bottom fish. However, protecting a minor portion of the Bank protects none of it, since both fish and seals range across the entire Bank."

Manu o Kū Festival: In May 2106, Society co-sponsored a festival at 'Iolani Palace in celebration of the Centennial of the Migratory Bird Treaty. The festival featured the Manu o Kū, a white seabird also known as the fairy tern, which has been designated the City Bird of Honolulu. Participants viewed the white tern first hand and learned about their distribution, natural history and role in navigation by Hawaiian voyagers. The Society provided an information table, hourly birding tours and kids' birding hunt activities on the Palace grounds.

Legislature: Conservation Committee co-chairs Thorne Abbott and Linda Paul reviewed and monitored environmental bills introduced in the Legislature related to the Society's mission statement, including bills and resolutions related to marine life protection (HB 1734), feeding feral cats (SB 2450), the ivory trade, and native wildlife mortality from wind turbines. During FY 2015 there were twenty observed wind turbine bird deaths: Hawaiian petrel (2), Pueo (2), Nēnē (4), Gray francolin (3), White-tailed tropicbird (1), Eurasian skylark (1), Black francolin (1), Pacific golden plover (1), and the Ring-necked pheasant (5). An unknown number of native bats were also killed.

Field Excursions, Service Opportunities and Educational Programs

James Campbell National Wildlife Refuge Tour, 1/16/2016. Led by Richard (Dick) May & Tony Leiggi. Participants viewed endangered wetland birds and migrant shore birds that inhabit this Refuge.

Freeman Seabird Preserve Habitat Restoration was held every Saturday, January through March. Volunteers helped maintain native plants and removed invasive species, cleared and reconstructed burrows for the Wedge-tailed Shearwaters, and removed trash and debris from the coastline area. On March 12, 2016 Volunteer Appreciation Night was held to show our thanks to the volunteers who pulled out all the alien vegetation that had grown in the Preserve during the previous 12 months.

Kawainui & Hamakua Wetlands Restoration was held on the first Saturday of every month. When volunteers are not busy restoring seabird habitat at Freeman each January & February, they work with DOFAW Wetlands Coordinator Ati Feffers-Fabro restoring habitat for Hawaii's endangered water birds with a focus on keeping wetlands clear of invasive plants and functioning as optimal habitat for the birds. In February 2016 DOFAW shifted the once-a-month workday on the ponds to different sites in the Kawainui-Hamakua wetlands complex. Volun-

teers may see the 'Alae 'Ula (Hawaiian gallinule), 'Alae Ke'oke'o (Hawaiian coot) Ae'o (Hawaiian stilt) and the Koloa Maoli (Hawaiian duck).

"Birds Rock Sea Life Park", 3/6/2016. The Birds Rock! event focused on the state's diverse population of seabirds and included educational exhibits and family-friendly activities highlighting the park's seabird rehabilitation efforts. SLP & the Society hosted a table and educational display about Hawaii's seabirds, and a nest-building craft activity for the kids.

Makapu'u Lighthouse Trail, 3/19/2016. Don Drake & Tony Leiggi led a guided tour to view white terns, sooty terns, great frigate birds, red-footed boobies and others.

Kona Pelagic Tour, 3/26/2-16. Led by Lance Tanino, 14 participants observed 12 seabird species (Highlights: Mottled Petrel, Buller's Shearwater, Sooty Shearwater, Leach's Storm-Petrel, Band-rumped Storm-Petrel, and Red Phalarope) and three marine mammal species (Humpback whale, Short-finned Pilot whale, and Pantropical Spotted Dolphin).

Paiko Lagoon Farewell to Shorebirds Tour, 4/9/2016, led by Alice Roberts. Society members and other interested participants explored the lagoon and learned about Hawaii's wintering shorebirds.

Kona Pelagic Tour, 4/23/2016. Led by Lance Tanino & Alex Wang, 23 participants observed 11 seabird species. Highlights: Hawaiian Petrel, Bulwer's Petrel, Wedge-tailed Shearwater, and Arctic Tern. They also saw three marine mammal species (Short-finned Pilot Whale, Spinner Dolphin, Pantropical Spotted Dolphin).

Celebrate International Migratory Bird Day, Kona 5/14/2016. Lance Tanino led a walk to Aimakapa Pond. Participants then carpooled to Kealakehe WWTP and enjoyed a sea watch from Keahole Point.

Keauhou Bird Conservation Center Tour, 6/4/2016. Led by Lance Tanino & Jody Smith. Participants (19 from Big Island, 6 from Oahu) learned about the successful efforts to breed the highly endangered 'alala (Hawaiian crow) and an upcoming release of some of them.

Paiko Lagoon Just a Summertime Low Low Tide, 6/4/2016. Led by Alice Roberts. Participants saw 'iwa, egrets, herons, ducks and a resident pair of Hawaiian stilts, as well as limu and marine creatures.

'Alae'ula Research Update, 6/16/2016, Le Jardin, Oahu. Charles Van Rees & Marty Kawasaki gave an excellent presentation on Hawaii's endangered waterbirds.

Waikamoi Preserve, 6/18/2016, Kula, Maui. Led by Laura Berthoi MDBPR, the Preserve is located on the slopes of Haleakala, a dormant volcano. The 5,200 acre property is home to 12 species of native birds, 7 of which are endangered. Access to the property is strictly controlled by Haleakala National Park.

Migratory Bird Treaty Centennial "Intro to Birding", Kapiolani Park, 6/25/2016. Led by Keith Swindle USFWS & Tony Leiggi.

Nihoku (Crater Hill) at Kilauea NWR, 8/25/2016. Led by Lori Walker & Jennifer Waipa.

Kona Celebration of World Shorebird Count Day, 9/4/2016. Co-sponsored by the USFWS and the Society. Birdwatching led by Lance Tanino.

Bishop Museum Vertebrate Collection Tour, 9/7/2016. Led by Molly Hagemann, Vertebrate Collections Manager. Participants viewed bird skins and bones as well as bats and other vertebrates.

Paiko Lagoon Welcome Home to Our Shorebirds, 9/17/2016. Alice Roberts led a walk to look for wintering shorebirds recently returning to Hawaii from their nesting grounds across the Pacific.

Alaka'i Boardwalk: KFBPR Hike & Learn, 10/11/2016. Lisa "Cali" Crampton talked about the Kauai Forest Bird Recovery Project's efforts to monitor the Puaiohi, 'Akikiki, & 'Akeke'e using mist netting, banding & re-sighting, sample collection, rodent control, and egg collection to create a captive population.

Hawaii's Native Forest Birds: their past, present & future, 10/20/2016. Presentation at Kapi'olani Community College STEM Center by Lisa "Cali" Crampton, KFBPR and Laura Berthold, MFBPR.

James Campbell National Wildlife Refuge Tour, 10/22/2016 & 10/29/2016. Led by Dick May & Tony Leiggi, participants viewed the wetland birds and migrant shore birds that inhabit this Refuge, including the Hawaiian coot, gallinule, bristle-thighed curlew, and others.

Pearl Harbor National Wildlife Refuge: Honouliuli Unit, 10/30/2016 & 11/6/2016. Dick May & Tony Leiggi led a tour to see Hawaii's native waterbirds as well as the White-faced ibis, Laughing gull, Northern Pintail & Northern Shoveler ducks, the American & Eurasian Wigeon, & the Green-winged teal.

Endangered Bird Conservation: contrasting Pacific Islands & North America, 11/1/2016. Talk by Loyal Mehrhoff, Endangered Species Recovery Director for the Center for Biological Diversity.

Hawaii Audubon Society's Annual Members' Meeting, Dinner, Program, Book Signing and Silent Auction, 12/1/2016 at Treetops Manoa. Following the annual members' meeting and buffet dinner, Oscar "Wally" Johnson talked about the use of new technology to track the Pacific Golden Plover's transoceanic migrations and Susan Scott talked about wildlife she has seen while sailing along the east coast of Australia. Both presenters talked about their new book: *Hawaii's Kolea*, which they co-authored. Copies of the book were on sale at the meeting and purchasers kept the authors busy signing them. The event generated both a good time for members and funds to support the conservation work of the Society.

Introduction to Birding, 12/10/2016. Led by Keith Swindle, USFWS.

117th Annual Audubon Christmas Bird Count. Society members and friends participated in the longest running citizen science survey in the world, which provides critical data on bird population trends. All over the United States tens of thousands of people participate. From December 13, 2016 to January 3, 2017, Society members and volunteers counted birds within historic circles in Honolulu and Waipio on O'ahu, and at several locations on the neighbor islands. The results will be officially announced by the Society later this year. The multi-year data base is available from the National Audubon Society.

Society Awards and Grants

Maria Costantini was awarded a **Student Research Grant** from the Society for her study describing the diet of the 'Aki-kiki through DNA barcoding of fecal samples. Maria is a student in the Department of Biology, University of Hawaii at Manoa.

Finances and Fundraising

As the Society has slowly grown over the years the number of tasks needed to be accomplished began to outpace the time and ability of our volunteers. Accordingly, more and more tasks are now done professionally, including office management, bookkeeping, and the distribution of our peer-reviewed journal and educational products. In October 2015 our previous office manager accepted a job with the USFWS and Jody Smith was hired as the new office manager. However, volunteers and donors are still needed to provide vital, critical and essential assistance, skills, leadership, and support to the Society. The Society currently derives the majority of its operating and programmatic funding from membership dues, generous gifts, and sales of its educational products, which include the incomparable book *Hawaii's Birds* and its audio companion *Voices of Hawaii's Birds* (2 vol. CD). In 2016 the Board determined that it was time to publish a 7th Edition of *Hawaii's Birds* and hired Lance Tanino, who resigned from the Board to serve as co editor along with Dr. Phil Bruner. Lance is currently seeking some new photographs to add to the many excellent ones in the book. The Society also sells *Hawaii's Kolea*, Treasurers of O'ahu, a birding & family hiking map, *Hawaii's Rare & Endangered Birds Art Collection* greeting cards illustrated by Patrick Ching (pkg of 8), Elepaio patches, check lists of the birds of Hawaii, Micronesia, and the Mariana Islands, a field card, and 'Elepaio, Kolea & Ruddy Turnstone "Akekeke" T-shirts. The Society also depends on the many generous donations and matching gifts from our members and benefactors who support the Society's species conservation and ecosystem protection funds that focus on native species research and protection, native habitat restoration, and conservation education: * Freeman Shearwater Preserve * Munro Dryland Ecosystem Fund * Forest Birds Protection Fund * Wetland Birds Fund * Marine Species Conservation Fund * Shorebirds Research Fund * Watershed Protection Fund * Seabirds Fund.

2016: A Year of Average Productivity and Provisioning at the Freeman Seabird Preserve

By K. David Hyrenbach, Associate Professor of Oceanography, Hawai'i Pacific University, khyrenbach@hpu.edu

We report on the ongoing monitoring and restoration efforts of the Freeman Seabird Preserve by Hawai'i Audubon since 2009, provide updates on the findings from the 2016 breeding season, and briefly discuss the plans for future monitoring, habitat restoration, and predator control at the site.

2016 Update This year we documented 226 active nests of Wedge-tailed Shearwaters (*Ardenna pacifica*, 'Ua'u kani) at the Freeman Seabird Preserve,

16% lower than the record count of 268 nests in 2015. Nevertheless, the annual population surveys continue to show a statistically significant trend ($F = 34.4858$; $df = 1, 7$; $p = 0.001$) with an average increase of 24.3 (± 11.7 S.D.) nests per year, which captures 85 % of the year-to-year variability in the time series (Fig. 1). The decrease observed in 2016 mirrors a similar decline in 2010, after a period of warm-water conditions. Yet, despite the decrease in the number of active nests after onset of the 2015-16 El Niño event, the overall trend for the colony did not change after 2016.

The July 14 count of 226 nests was followed by a count of 91 nests, after the peak hatching period (September 14). This decline represents a loss of 59.7 % of the nests during the two-



Example of egg predation observed 2016

month period spanning hatching and the first month of the chick's life. Furthermore, the weekly monitoring of 60 nests between July and November revealed that 2016 was characterized by high egg loss, with 31.7% of the monitored eggs being lost. Nevertheless, chick mortality was very low in 2016, with only 7.7 % of the monitored chicks being lost.

The colony monitoring also revealed that 2016 was characterized by average phenology, similar to that documented in previous years. In 2016, chick hatching dates spanned from

August 1 to 21, with a mean of August 5 (± 5.5 S.D. days). These hatching dates fell in line with those from previous

years, except 2010, when the mean hatching date was delayed substantially (August 19 ± 9.0 S.D. days). Chick peak masses were also comparable to those recorded in the past. In 2016, they ranged from 411 to 630 grams, with a mean of 513.7 (± 52.4 S.D. grams). Again, the 2016 mean value fell in line with observations during "average" years (2010, 2012, 2013, 2014), was above those during a year of poor provisioning (2009) and below those during a year of good provisioning (2011).

Furthermore, weekly monitoring of the chicks' growth over time suggests that parents provisioned their chicks through early November in 2016, as evidenced by increasing body masses late in the breeding season (Fig. 2). This pattern, which mirrors the findings of the 2014 and 2015 seasons, contrasts with the previous years, when chick masses peaked in late October / early November, and declined thereafter (Hyrenbach 2011, Hyrenbach & Johnson, 2012).

In summary, these results suggest that the average productivity documented in 2016 was caused by a combination of factors. The monitoring data suggest that 2016 was a year of high egg losses and low chick losses, with average phenology and chick provisioning, in the context of the available time series (2009 – 2016). Despite the warm-water conditions observed during the summer, chick growth was not depressed in 2016. Overall, chick peak masses were, on average, substantially higher in 2016 (mean = 513.7 ± 52.4 g S.D.) than in 2015 (mean = 496.8 ± 56.1 g S.D.). This result suggests that, chick provisioning improved after the transition from El Niño to La Niña conditions.

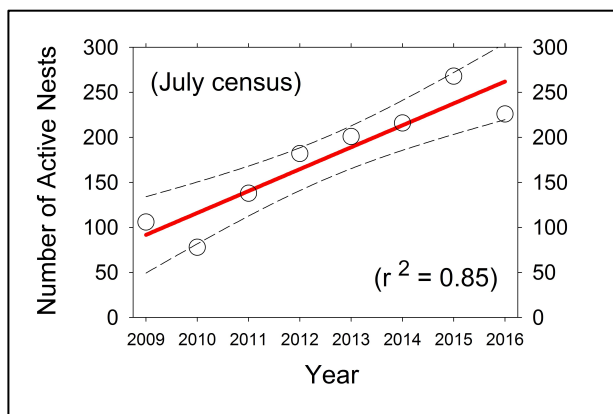


Figure 1. Trend in the number of Wedge-tailed Shearwater active nests at the Freeman Seabird Preserve, from the annual colony-wide census during the peak incubation period (July 14), showing the best-fit linear slope from linear regression (solid line) and the 95% confidence interval envelope (dashed line).

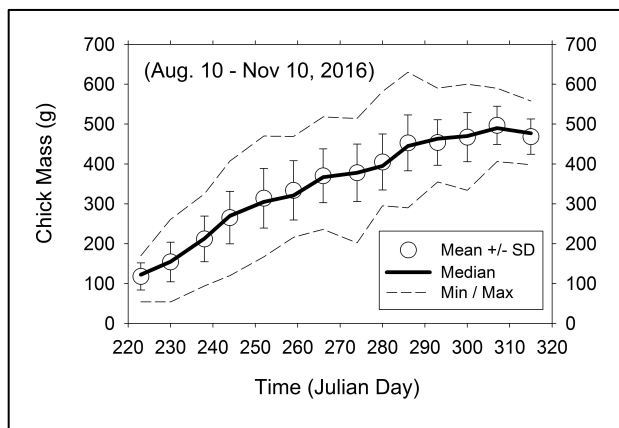


Figure 2. Time series of chick mass collected during the 2016 breeding season, showing the mean \pm S.D., the median and the range of values (maximum – minimum). Sample size = 35 chicks.

While predation continues to pose a risk for shearwater chicks, 2016 was characterized by low mortality, with only three monitoring chicks being lost: two died and one disappeared from the nest. Nevertheless, 2016 was a year of high egg loss due to predation and abandonment. While the traps and cameras did not reveal unusually high rat activity in the colony during 2016, a mongoose was trapped in the neighborhood late in the breeding season.

The current La Niña is expected to weaken during the winter of 2017, and to transition to ENSO-neutral conditions by late spring (See NOAA's Climate Prediction Center ENSO Diagnostic Discussion, www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/). Based on these model predictions, we can anticipate that 2017 will be another “average” year for Wedge-tailed Shearwater breeding at the Freeman Seabird Preserve. Altogether, the findings from 2016 underscore the dynamic conditions faced by breeding shearwaters, with their productivity being

influenced by both ocean conditions and by predation pressure at the Freeman Seabird Preserve.

Ongoing Efforts Habitat restoration efforts continued during 2016. From January through March, while the Wedge-tailed Shearwaters were at sea, Hawai'i Audubon Society members and other volunteers worked to remove alien plant species, to maintain natural nesting sites, and to create new artificial nesting sites. Additional restoration and management efforts in 2017 will continue monitoring the colony and enhancing the breeding habitat at the Freeman Seabird Preserve.

Habitat Restoration: From January through March, volunteers will remove alien plant species and will create new artificial nesting sites on the terrace.

Colony Monitoring: Population censusing and nest monitoring for phenology, chick growth and reproductive success will continue in 2017, to augment the ongoing time series started in 2009.

Predator Control: Ongoing surveillance for predators is planned during the 2017 nesting season, to minimize and document predation by rats, cats and mongooses on breeding shearwaters.

Literature Cited

- Hyrenbach, K.D. 2011. Tale of Two Years: Monitoring Wedge-tailed Shearwaters at Freeman Seabird Preserve in Black Point, O'ahu. 'Elepaio 71(3): 17-20.
- Hyrenbach, K.D., and Johnson, W. 2012. 2011: A Mixed Year at the Freeman Seabird Preserve. 'Elepaio 72(2): 13-14.

Upcoming Events, Field Trips, & Student Research Grants

Please RSVP with name and contact information to

Hawaii Audubon Society at (808) 528-1432 or hiaudsoc@pixi.com unless otherwise specified

For full descriptions of our Events, Field Trips and Student Research Grants, go to our website: www.hawaii.audubon.org

EVENTS

Sunset & Shearwaters: Volunteer Appreciation Night

Freeman Seabird Preserve
Saturday March 18, 2017, 5pm to Sunset

Honolulu Zoo Earth Day: Aloha 'Aina Festival

April 22, 2017 10:00 am – 3:00pm
Learn what you can do to help the environment and see what local grass roots conservation groups are doing for you! Located on the stage lawn at the zoo.

Manu o Kū Festival

'Iolani Palace Coronation Lawn
May 20, 2017 11:00am – 3:00pm
This event is free and open to the public. Celebrate the Manu o Kū – Kū's Bird (White Tern) – Official Bird of Honolulu. To VOLUNTEER, contact Marjorie Ziegler at (808) 593-0255

FIELD TRIPS

Farewell to Our Shorebirds:

Paikō Lagoon Wildlife Sanctuary

April 15th, 2017 10:30am – approximately noon, East Honolulu
Explore the lagoon while learning about Hawaii's visiting shorebirds. We may see some shorebirds (Kōlea, Ruddy Turnstone, Wandering Tattler) as well as a resident pair of Hawaiian Stilts, year round 'Iwa, Egrets & Herons, lots of urban birds & ducks. Please RSVP to Alice with your name and phone number at 808-864-8122.

HAWAII AUDUDON SOCIETY: STUDENT RESEARCH GRANTS

Information & Application: www.hawaii.audubon.org/programs
Amount: Approximately \$500.00
Deadline: April 1st, 2017

Hawai'i Audubon Society Membership/Donation Form

- ☐ \$25 Regular Member
- ☐ \$15 Student Member
- ☐ \$40 Family Membership
- ☐ \$100 Supporting Member

International Membership:

- ☐ \$28 Canada & Mexico
- ☐ \$33 Other

☐ \$ ____ Donation

Donations are tax-deductible and greatly appreciated.

Name: _____

Address: _____

Phone: _____ Email: _____

- ☐ E-mail me the 'Elepaio ☐ Mail me the 'Elepaio ☐ E-mail me volunteer opportunities, updates, & field trips.

Thank you for your concern and commitment to protecting Hawaii's native wildlife and ecosystems.

Pay by credit/debit card at www.hawaiiaudubon.org.

Please make checks payable to **Hawai'i Audubon Society**

Mail form and payment to 850 Richards St., Suite 505, Honolulu, HI 96813

Translocation of Black-footed Albatross



Photo Credit: Lindsay Young, Pacific Rim Conservation

Oahu, Hawaii - Pacific Rim Conservation successfully translocated 15 Black-footed Albatross chicks from Midway Atoll National Wildlife Refuge to Oahu on February 17, 2017. These chicks will be hand-raised for the

next five months in hopes of starting the first Black-footed Albatross colony on a main Hawaiian Island. This will happen every year for the next 3-5 years in order to move enough birds to start a new colony that is safe from sea level rise, and protected from predators within a newly fenced, predator-free area. For frequent updates please visit the Pacific Rim Conservation Facebook page.

Wisdom Hatches Another Chick

Honolulu, Hawaii - Wisdom, the world's oldest known breeding bird in the wild, successfully hatched another chick at Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial within Papahānaumokuākea Marine National Monument. The chick hatched approximately two months after Wisdom, at least 66 years old, was first spotted incubating an egg at the same nesting site her and her mate, Akeakamai, use each year.



Photo Credit: Naomi Blinick, USFWS Volunteer

Rapid 'Ōhi'a Death

has the potential to kill 'ōhi'a trees statewide

Clean your Gear * Wash your Vehicle * Don't Transport 'Ōhi'a

BIRDERS and HIKERS: Clean your shoes, and clothing. Decontaminate shoes by dipping the soles in 10% bleach or 70% rubbing alcohol to kill the ROD fungus. Other gear can be sprayed with the same proven cleaning solutions. Wash clothing in hot water and detergent.

Rapid 'Ōhi'a Death Fact Sheet:

<http://go.hawaii.edu/J1>

'Elepaio ISN 0013-6069

Managing Editor: Rheanne Berg

Scientific Editor: Glenn Metzler

The 'Elepaio is printed on recycled paper and published six times per year.

Hawai'i Audubon Society
850 Richards St, Suite 505 Honolulu, HI 96813
Phone: (808) 528-1432
Email: hiaudsoc@pixi.com
<http://www.hawaiiaudubon.org>
<http://www.facebook.com/hawaiiaudubonsociety>





HAWAI‘I AUDUBON SOCIETY
850 RICHARDS ST, SUITE 505
HONOLULU, HI 96813-4709

www.hawaiiiaudubon.org
(808) 528-1432
hiaudsoc@pixi.com
www.facebook.com/hawaiiiaudubonsociety

Nonprofit Organization
U.S. Postage
PAID
Honolulu, Hawai‘i
Permit Number 1156

ADDRESS SERVICE REQUESTED

‘ELEPAIO • 77:2 • MARCH / APRIL 2017

Table of Contents



Don't miss ANY announcements from the
Hawai‘i Audubon Society

Subscribe to monthly email updates to catch
last minute tours and events that didn't make
our 'Elepaio publishing deadline.

www.hawaiiiaudubon.org/e-subscribe

State of the Society: Annual Report for 2016.....	9
2016: A Year of Average Productivity and Provisioning at the Freeman Seabird Preserve	13
Upcoming Events, Field Trips, and Student Research Grants.....	14