



U.S. Final National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries

Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
February 2001

Executive Summary

Increased concerns have arisen about the incidental capture of non-target species in various fisheries throughout the world. Incidental capture can be economically wasteful, it impacts living marine resources, and the accidental killing of non-harvested animals may be aesthetically aversive. Incidental catch of non-target marine species such as marine mammals, sea turtles, and seabirds has generated growing concern over the long-term ecological effects of such bycatch in longline and other fisheries conducted in many areas of the world's oceans.

The United States has voluntarily developed the U.S. National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (NPOA-S) to fulfill a national responsibility to address seabird bycatch in longline fisheries, as requested in the International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-S). The IPOA-S applies to "States" (hereafter Countries) in whose waters longline fishing is being conducted by their own or foreign vessels, and to Countries that conduct longline fishing on the high seas and in the exclusive economic zones (EEZs) of other Countries. The IPOA-S is a voluntary measure that calls on Countries to: (1) assess the degree of seabird bycatch in their longline fisheries; (2) develop individual national plans of action to reduce seabird bycatch in longline fisheries that have a seabird bycatch problem; and (3) develop a course of future research and action to reduce seabird bycatch. The NPOA-S is to be implemented consistent with the FAO Code of Conduct for Responsible Fisheries and all applicable rules of international law, and in conjunction with relevant international organizations.

Development of the NPOA-S was a collaborative effort between the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (FWS) and the Department of State (DOS), carried out in large part by the Interagency Seabird Working Group (ISWG) consisting of representatives from those three agencies. This partnership approach recognizes the individual agency management authorities covering seabird interactions with longline fisheries. NMFS manages U.S. fisheries under the authority of the Magnuson-Stevens Fishery Conservation and Management Act and the High Seas Fishing Compliance Act. FWS manages birds predominately under the authority of the Endangered Species Act and the Migratory Bird Treaty Act. In addition, DOS has the lead role in international negotiations on fisheries conservation and management issues

that should help promote IPOA implementation by encouraging other nations to develop NPOAs. Given each agency's responsibilities, the NPOA-S was developed collaboratively by NMFS and FWS. This collaborative effort has increased communication between seabird specialists and fishery managers in FWS and NMFS. Maintaining this cooperation is a high priority for both agencies.

The development of the NPOA-S has emphasized that all U.S. longline fisheries have unique characteristics, and that the solution to seabird bycatch issues will likely require a multifaceted approach requiring different fishing techniques, the use of mitigating equipment, and education within the affected fisheries. Therefore, the NPOA-S does not prescribe specific mitigation measures for each longline fishery. Rather, this NPOA-S provides a framework of actions that NMFS, FWS, and the Councils, as appropriate, should undertake for each longline fishery. By working cooperatively, fishermen, managers, scientists, and the public may use this national framework to achieve a balanced solution to the seabird bycatch problem and thereby promote sustainable use of our nation's marine resources.

Introduction

There has been growing concern over the long-term ecological effects of seabird bycatch in longline fisheries conducted in many areas of the world's oceans. The United States has voluntarily developed the U.S. National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (NPOA-S) to fulfill a national responsibility to address seabird bycatch in longline fisheries, as requested in the International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-S). Specifically, "the NPOA-S is a plan that a State designs, implements, and monitors to reduce the incidental catch of seabirds in longline fisheries." In 1997, the Food and Agriculture Organization of the United Nations (FAO) Committee on Fisheries (COFI) considered a joint proposal from the United States and Japan for a Consultation on Guidelines for a Plan of Action for reducing incidental (i.e., unintentional) seabird catch in longline fisheries. The proposal culminated in the development of the IPOA-S, which was endorsed by COFI in February 1999, commended by the March 1999 FAO Fisheries Ministerial, and adopted by the June 1999 FAO Council and November 1999 FAO Conference.

The IPOA-S applies to "States" (hereafter Countries) in whose waters longline fishing is being conducted by their own or foreign vessels, and to Countries that conduct longline fishing

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April Program Meeting on April 16th

Our April Program Meeting will feature Hawai'i Division of Forestry and Wildlife veterinarian Greg Massey and International Bird Rescue and Research Center's Linda Elliott, who will speak on "Oiled Wildlife Response in the Hawaiian Archipelago." The presentation will review of the effects of oil spills on wildlife with specific information on tropical island factors. The recent history of spills in the Hawaiian Islands will be discussed, along with the development of Hawai'i's oiled wildlife response program, its proposed future direction, and how the public can assist in these efforts.

Program meetings are held at Henry Hall Room 109 on the Chaminade University campus from 7:30 to 9:30pm. Refreshments are served, and HAS publications, T-shirts, and maps are available for purchase.

IN MEMORIAM

Mitchell Lee Groth, production editor for the 'Elepaio, passed away unexpectedly in March. His contributions to this publication and to the Hawaii Audubon Society were greatly appreciated and will be sorely missed. Mitch received the Society's Volunteer Service Award in 1999 in recognition of his accomplishments. He is remembered for his reliability and perseverance; traits which were well balanced by his enthusiasm for life and a wry sense of humor.

Volunteers Needed:

Please call the office if you're interested in either opportunity -528-1432.

A volunteer is needed to do layout work for 'Elepaio. This requires about 10 or so hours per month, working at the HAS office on our PowerMac in Pagemaker 6.0. Copy is usually ready to be worked on by about the 12th of each month and should be done by the 20th.

A volunteer is also needed to come to the office about 2-3 hours per month and mail out the First Class postage and International 'Elepaio (grand total of about 40 - 50). This must be done as soon as 'Elepaio is delivered to the office from the printer - usually in the last week of the month.

April Field Trip to See Red-footed Booby Colony at Marine Corps Base Hawai'i is Finally Scheduled!

It's time for our most popular field trip of the year! On Saturday, April 28th, we will be able to see the Red-footed Booby colony at Marine Corps Base Hawai'i in Kane'ohe! Field trip will start at 9AM. Please call office (528-1432) to register BEFORE April 23rd. All drivers must have proof of no-fault insurance to get on base. No unregistered persons will be allowed to participate. Limited to 25 people.

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Development of the NPOA-S was a collaborative effort between the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (FWS) and the Department of State (DOS), carried out in large part by the Interagency Seabird Working Group (ISWG) consisting of representatives from those three agencies. This partnership approach recognizes the individual agency management authorities covering seabird interactions with longline fisheries. NMFS manages U.S. fisheries under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the High Seas Fishing Compliance Act (HSFCA). FWS manages birds predominately under the authority of the Endangered Species Act (ESA) and the Migratory Bird Treaty Act (MBTA). In addition, DOS has the lead role in international negotiations on fisheries conservation and management issues that should help promote IPOA implementation by encouraging other nations to develop NPOAs. The ability of NMFS to implement effective seabird bycatch mitigation measures in all U.S. longline fisheries will be strengthened by working through the ISWG to accomplish this goal.

Although incidental catch of seabirds in longline fisheries is often termed "bycatch," the Magnuson-Stevens Act specifically excludes seabirds from the definition of "fish" and, therefore, bycatch (1). For the purpose of this NPOA, however, the term "bycatch" refers to incidental, or unintentional, seabird catch or mortality, and the term "seabird" refers to those bird species that habitually obtain their food from the sea below the low water mark.

Purpose

The purpose of the NPOA-S is to provide an action plan that reduces seabird bycatch in U.S. longline fisheries, to provide national-level policy guidance on reducing seabird bycatch in U.S. longline fisheries, and to require that NMFS, in cooperation with FWS, conduct an assessment of all U.S. longline fisheries to determine whether a seabird bycatch problem exists. This NPOA-S further requires NMFS, in cooperation with FWS, to work through the regional fishery management council (Council) process in partnership with longline fishery representatives to develop and implement seabird bycatch mitigation measures in those fisheries that have a seabird bycatch problem. Such measures should attempt to reduce seabird bycatch to the maximum extent practicable.

Although this NPOA-S does not include quantitative criteria for determining what constitutes a seabird bycatch problem, NMFS, in consultation with FWS, should make a determination that is consistent with applicable federal laws, Executive Order 13186, the FAO Code of Conduct for Responsible Fisheries,

and the NMFS Bycatch Plan (NMFS 1998c). Specifically, a "problem" may include an unacceptable level of seabird take that has a measurable negative effect on a seabird population, or unacceptable take of a bird species, as determined by FWS and NMFS. Seabird bycatch assessments should be completed as soon as practicable, which should be within 1 year and will be no later than 2 years after publication of this NPOA-S. Within 1 year after a seabird bycatch problem is found to exist, the appropriate NMFS Region should develop a seabird bycatch reduction program that details fishery-specific seabird bycatch reduction measures. The programs will address the seven action elements of the NPOA-S (I through VII listed above), and will clearly describe the criteria used to determine that a seabird bycatch problem exists.

Fishery-specific measures to reduce seabird bycatch should then be developed through the Council process, integrated into Fishery Management Plan (FMPs), or included in FMP amendments or regulatory amendments, and submitted to the Secretary of Commerce for approval. Management measures mitigating seabird bycatch will be developed within 2 years after a seabird bycatch problem is found to exist. Every effort will be taken to expedite this time line and, where feasible, documented area- and fishery-specific mitigation measures will be implemented as expeditiously as practicable. Public participation is provided during the Council process for developing these mitigation measures, and additional opportunity for public comment is provided during the NMFS implementation process on proposed seabird bycatch regulations.

Background

National and international initiatives highlight the need to address fisheries bycatch issues, including seabird bycatch. The FAO Code of Conduct for Responsible Fisheries was adopted in 1995 by the FAO Conference and calls for States to "take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species ... and promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques." (FAO Code of Conduct for Responsible Fisheries, Article 7.6.9).

In the United States, a longline is defined as "a line that is deployed horizontally and to which gangions and hooks or pots are attached. Longlines can be stationary, anchored, or buoyed lines that may be hauled manually, electrically, or hydraulically" (50 CFR 600.10). This definition includes demersal, or bottom set, longlines for groundfish and sharks, as well as pelagic (set at or near the surface or within the water column) longlines for sharks, tunas, swordfish and other species. There are other regional terms for longline gear, including hook-and-line gear and tub trawl. For the purposes of this NPOA-S, the term "longline" refers only to hook-and-line gear and does not include gear with pots attached.

Although the IPOA-S does not define the term "longline," the international fishing community has a common understanding of the equipment and techniques used in longline fisheries. Longline gear is hook-and-line gear that is generally deployed from the vessel's stern, with the main line and attached hooks following the vessel in a downward sloping diagonal line until it enters the water. The baited hooks on this main line remain in

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the air or near the water surface and are accessible to seabirds for varying times and distances depending on the size of the vessel, sea conditions, gear deployment equipment and methods, and the specific longline gear configuration.

Longline fishing vessels also discharge offal in the form of discarded fish, fish scraps from cleaned fish, and used or discarded bait. The availability of "free" food in the form of offal and bait attracts seabirds to longline fishing operations. Most seabirds that are killed during longline operations are attracted to the baited hooks when the gear is being set. The birds are sometimes accidentally hooked or entangled while feeding on baits near the surface and are dragged underwater and killed by drowning or by strangulation. Birds are also hooked or entangled during the haul back process but these birds are usually released alive.

The factors potentially affecting seabird hooking and entanglement on longline gear are complex and include geographic location of fishing activity, time of day, season, type of fishing operation and gear used, bait type, condition of the bait (frozen, thawed, dyed), length of time baited hooks remain at or near the surface of the water, water and weather conditions, availability of food (including bait and offal), bird size, bird behavior (feeding and foraging strategies), and physical condition of the bird. Most seabird species probably interact with longline fishing gear; however, only the larger species have the physical capabilities and feeding strategies to face frequent interactions and potential hookings. The highest density of large seabirds in the United States occurs in the Pacific Ocean. NMFS regulations designed to reduce seabird bycatch in the Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) groundfish longline fisheries were approved and implemented in 1997, in the Pacific halibut longline fishery in 1998, and are under development for the Hawaii pelagic longline fishery. In addition, NMFS plans to promulgate new seabird bycatch mitigation regulations in Alaska longline fisheries to provide additional seabird protection. Such measures will be based on the results of scientific research and on ESA requirements. Several research projects on seabird-longline interactions have been completed in the Pacific by U.S. researchers, and additional seabird bycatch research is currently underway.

NMFS published a bycatch reduction policy document entitled *Managing the Nation's Bycatch: Programs, Activities, and Recommendations for the National Marine Fisheries Service* (NMFS Bycatch Plan; NMFS 1998c). The NMFS Bycatch Plan addresses harvested fish species as well as non-harvested and protected species such as seabirds. It also presents national objectives, priorities, and strategies for avoiding and reducing bycatch, and for minimizing mortality of bycatch that cannot be avoided. The document reviews bycatch reduction efforts already completed or underway, provides recommendations for evaluating existing bycatch management and research programs, and suggests future efforts to reduce bycatch and bycatch mortality.

NMFS and FWS believe that implementation of the NPOA-S, the FAO Code of Conduct for Responsible Fisheries, the Council-developed FMPs and FMP amendments promulgated under the Magnuson-Stevens Act, Executive Order 13186, and the NMFS Bycatch Plan will significantly reduce seabird bycatch

in longline fisheries conducted within U.S. waters. Managing seabird bycatch in U.S. fisheries is a partnership effort that will require cooperation among the Councils, NMFS, FWS, the longline fishing industry, individual longline vessel owners and operators, fishing gear manufacturers, conservation organizations, and other interested groups and individuals.

Implementation of the NPOA-S

The initial process for NPOA-S implementation will occur over the course of the next 4 years. Assessments of all U.S. longline fisheries will be completed within 2 years. In those fisheries where a seabird bycatch problem is found to exist a mitigation program will be developed within 3 years and implemented within 4 years. In all longline fisheries where an initial determination is made that no seabird bycatch problem exists, a re-assessment will be conducted within 4 years of such a determination.

Implementation of the NPOA-S may vary among Council jurisdictional areas and longline fisheries. Some Councils need to start or complete seabird bycatch assessments for the longline fisheries within their jurisdictional area, and each fishery may require individually tailored seabird management measures. This NPOA-S provides the Councils with flexibility to develop effective seabird mitigation measures for individual longline fisheries. In U.S. longline fisheries where seabird bycatch problems are already known to exist, including Alaska demersal groundfish and Hawaii pelagic longline fisheries, regulations are already in place or under development to mitigate seabird bycatch. The North Pacific and Western Pacific Fishery Management Councils are well positioned to develop seabird bycatch reduction programs needed to implement the NPOA-S, because they have already conducted seabird bycatch assessments and developed regulations to implement seabird bycatch reduction measures.

Role of the ISWG

The ISWG is composed of agency staff from NMFS, FWS, and DOS. The ISWG should continue to address seabird bycatch issues and help coordinate the implementation of the NPOA-S and IPOA-S. Future activities of the ISWG may include, but are not necessarily limited to, the following:

- * Assist in development and review of regional seabird bycatch programs and individual Council Plans of Action
- * Assist in assessing the adequacy and effectiveness of these programs
- * Assist in drafting of the NPOA-S Implementation Report that is to be included in the biennial report to FAO on Code of Conduct for Responsible Fisheries
- * Promote and coordinate implementation of the NPOA-S and the IPOA-S in all relevant U.S., international, and regional fisheries organizations
- * Advise on training for Regional and Council staff on how to conduct seabird assessments and develop regional seabird bycatch reduction programs, and
- * Brief the public and interested parties on the status of the NPOA-S, additional efforts to reduce seabird bycatch in other fisheries, and on related efforts.

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The Nature Conservancy-O'ahu Program Needs Volunteers

What's an 'Elepaio? The O'ahu 'Elepaio (*Chasiempis sandwichensis ibidis*) is a monarch flycatcher found only in forests on the island of O'ahu. Populations of O'ahu 'Elepaio have severely declined over the last few decades. The total remaining population is approximately 1400 birds in seven isolated habitat fragments. This subspecies is currently listed as endangered under the both the federal and state laws. The primary causes for the decline of O'ahu 'Elepaio populations are introduced diseases, especially avian pox virus (*Avipox sp.*), and predation on nests by black rats (*Rattus rattus*). The population in Hono'uli'uli Preserve represents a good portion of the second largest population of O'ahu 'Elepaio with approximately 350 birds. The head color and body markings of the O'ahu 'Elepaio are different from Kaua'i 'Elepaio and Hawai'i 'Elepaio. Current genetic research may determine whether each island's 'Elepaio really should be classified as distinct species and not subspecies.

What is the project? A combination of snap trapping and rodenticide will remove rats in and around the 40 acre South Ekahanui fence enclosure during the 'Elepaio nesting season (January through May). South Ekahanui gulch is in The Nature Conservancy of Hawai'i's Hono'uli'uli Preserve located on the eastern slope of the southern Wai'anae Mountains. Rat removal has been used successfully to increase 'Elepaio reproductive success on O'ahu, and the work in Hono'uli'uli Preserve is an expansion of this management technique. In the long-term, it is hoped that through these predator control efforts, the 'Elepaio will eventually be able to re-colonize much of its former range throughout the Wai'anae Mountains and the Ko'olau Range.

How are the rats removed? Sixteen 'Elepaio territories have been selected for predator control in and around a 40 acre fenced pig enclosure. Each territory is approximately 3-4 acres in size. Currently, 14 'Elepaio pairs have been found in or directly adjacent to the fenced enclosure and two males apparently are without mates. Two rat snap traps and two rat bait stations are placed in each of the 16 territories and near the nests that have been found. Bait stations are checked and restocked weekly to provide a continuous supply of diphacinone rodenticide. Bait

stations and snap traps are checked less frequently as the local rat population declines. To check the stations, a 6 hour hike in steep, loose terrain is required (8 am to 2 pm).

Who is doing the rat removal? The Nature Conservancy of Hawai'i O'ahu Program based in Kunia utilizes staff, interns, and volunteers to restock the rat bait stations and remove rat carcasses from the snap traps.

How is the The Nature Conservancy monitoring the success of the project? We are surveying for 'Elepaio nests in the treatment area. Once found, those nests will hopefully serve to indicate whether nest success rates are at or above 56%, the nesting success rate observed last year at Hono'uli'uli and at levels on par with predator control efforts conducted in the past in southeastern O'ahu.

When are the bait stations checked? Check dates have been tentatively scheduled for April 5, Thurs. April 19, Thurs. May 3, May 5, Thurs May 17, Fri May 19, Tues. May 30, Thurs. May 31

Nests will also be monitored on these dates as time permits. Each trip lasts about 6 hours from 8:00 a.m. to 2 p.m. starting and ending at our baseyard.

Why should I be concerned about the 'Elepaio? Native forest birds and other native plants and animals are all unique and precious components of our Hawaiian Island ecosystems. Learning about and protecting the 'Elepaio from extinction is an important step that we can make toward directly conserving Hono'uli'uli's natural resources for future generations. For those interested in conserving our natural heritage, the project offers an opportunity to define our own ecological roles by removing some of the threats to native wildlife that humans have brought to the islands. Lastly, if we lose these species, they are gone forever.

How can I get involved and what should I bring? Volunteers are needed to re-stock the bait stations and monitor the nests. Please call our Volunteer Coordinator, Nat Pak, at 677-1674 or send emailto: npak@tnc.org at least one week in advance of the scheduled date if your are interested. Please bring adequate hiking gear (sturdy shoes, rain gear, at least 1 liter of water,

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The Natural and Cultural History of the Kailua Ahupua'a and Kawai Nui Marsh 2001

Sponsored by the Kawai Nui Heritage Foundation and 'Ahaui Malama I ka Lokahi.

The educational tours of the Kailua Ahupua'a and Kawai Nui Marsh will be subject oriented as well as general introduction tours of the natural and cultural history of the Kailua Ahupua'a and Kawai Nui Marsh. The purpose of these tours is to inform residents, educators and members of the various Kailua community organizations about the archaeological, historic and ecological sites of the marsh.

The tour group will meet at the Windward Kailua YMCA at 8:30 am and walk as well as car pool to the following sites as time permits. Return trip should be back at the Kailua YMCA by 1:00 pm. A donation fee of \$5.00 for non-members and \$3.00 for members will be accepted for the tour. Group size will be limited to 15 persons.

Dates of the tours :

Sat. May 5 - Hawaiian Chants & Legends of Kawai Nui
Sat. Jun. 2 - General Introduction to the cultural and Natural History of Kawai Nui and the Kailua Ahupua'a

WHAT TO BRING: Backpack or Fanny-pack, water bottle, mosquito repellent, sunscreen, rainwear, hat or cap, sunglasses, camera and notebook. Snack?

CALL: Chuck "Doc" Burrows for more information and to register for these educational tours at:

Home Phone: 595-3922 or email: cburrow@aloha.net

II. Data Collection: Seabird bycatch data collection programs should collect statistically reliable data to determine seabird bycatch rates in longline fisheries and to evaluate the effectiveness of mitigation measures. Such programs will be incorporated into existing fishery observer programs wherever possible. Ongoing data collection efforts, including the NMFS Observer Program, will be expanded to include detailed data on seabird interactions. Some progress towards this goal has been made regionally, but efforts will be expanded across all U.S. longline fisheries in order to determine which fisheries have seabird bycatch problems. This effort will be facilitated and coordinated by the recently created NMFS National Observer Program.

III. Prescription of Mitigation Measures: Where appropriate, longline fishery-specific seabird mitigation methods should be prescribed by the Councils for longline fisheries with seabird bycatch problems. These measures should be of known efficiency and be cost-effective for the fishing industry. Councils should implement several different mitigation measures based on the particular circumstances of individual longline fisheries if bycatch reduction can be improved by combining different mitigation measures or devices. See the technical note in Appendix 1 for suggested measures.

NMFS and the Councils, in collaboration with FWS, will examine each individual longline fishery, even prior to the completion of the formal assessments, to determine whether the precautionary imposition of seabird bycatch mitigation is appropriate and practicable. These management measures should be incorporated into FMP or regulatory amendments and submitted to NMFS for approval and implementation.

IV. Research and Development of Mitigation Measures and Methods: NMFS, in consultation with FWS, will work in partnership with the Councils and longline fishermen to conduct research on seabird bycatch, develop the most practical and effective seabird deterrent measures, evaluate the effectiveness of those measures, and evaluate and improve other technologies and practices that reduce seabird bycatch. This may include incentive programs and recognition of individual fishermen that achieve low seabird bycatch rates.

Seabird bycatch reduction will be supported through continuing research into new gear designs and fishing techniques. The IPOA-S includes descriptions of gear modifications and fishing techniques currently being used and tested in the various longline fisheries around the world. It is important to reiterate that seabird bycatch reduction measures developed for one fishery may not be equally successful in other fisheries.

V. Outreach, Education, and Training About Seabird Bycatch: NMFS and FWS will:

- * Develop mechanisms to raise awareness among fishermen, fishing industry associations, gear manufacturers, and other groups concerning the need to reduce seabird bycatch in longline fisheries. This should include designing and implementing seabird bycatch outreach programs for fishermen, fisheries managers, gear technologists, maritime architects, shipbuilders, conservationists, and other partners. These programs should improve understanding of seabird bycatch problems and the importance of using mitigation measures.

Outreach programs should include educational curricula and guidelines that will be disseminated through workshops, videos, handbooks, brochures, and posters. The program should focus on both the conservation aspects of managing seabird bycatch and the economic benefits of increased fishing efficiency that result from eliminating bait loss to seabirds.

- * Make available the NPOA-S, IPOA-S, and other information on seabird bycatch in longline fisheries.
- * Promote the implementation of the NPOA-S within U.S. fisheries.
- * Provide information about seabird bycatch technical and financial assistance, and
- * Provide education to Council, NMFS, and FWS personnel on seabird bycatch assessments and reduction measures.

VI. Reporting: NMFS, in collaboration with the appropriate Councils and in consultation with FWS, will prepare an annual report on the status of seabird mortality for each longline fishery, including assessment information, mitigation measures, and research efforts. FWS will also provide regionally-based seabird population status information that will be included in the annual reports. The reports will be submitted annually as part of the Stock Assessment and Fishery Evaluation (SAFE) Report that is already provided on an annual basis by NMFS and made widely available. Such annual reports will be compiled and incorporated into NMFS' biennial status report to FAO on its

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Announcing Waikiki Aquarium's 2001 Natural History Lecture Series

This year, the Aquarium's annual lecture series focuses on the importance of sustaining Hawai'i's "treasures" of natural history and natural resources. These natural treasures can be valued in more than one way: for their biological and ecological value; as well as for their value in terms of human survival, culture, and economics.

Experts in marine science, wildlife management, and Hawaiian culture present examples of valued resources that we must strive to sustain.

Wednesday, April 18, 7:30 PM at

**Waikiki Aquarium foyer, 2777 Kalakaua Ave., Honolulu
(\$4.00 donation appreciated):**

**Sustaining Islands and Atolls: One Size Does Not Fit All
Dr. Robert Shallenberger, Deputy Project Leader
Hawaiian and Pacific Island National Wildlife Refuges,
US Fish and Wildlife Service**

Atolls and islands are natural laboratories, rich with unique and interdependent life forms. These biological treasures are easily disturbed by impacts from outside and, potentially, from within. What challenges do we face in managing these unique ecosystems and what lessons can we learn? Dr. Robert Shallenberger of the US Fish and Wildlife Service shares spectacular images and the lessons of a career spent treasuring the diverse islands and atolls of the Pacific.

For more information, please call the Waikiki Aquarium Education Department at 808-923-9741 (M-F, 8AM to 4PM).

implementation of the Code of Conduct for Responsible Fisheries. The ISWG may participate in the compilation, drafting, and review of the NPOA-S section of the biennial report to FAO.

VII. Collaboration between NMFS and the FWS on Seabird Issues: NMFS and FWS will continue to promote and implement the NPOA-S. This should be accomplished at the regional level through the Council process and by the FWS through research needed to assess and monitor seabird populations and to improve population assessment methodologies. The ISWG should continue to collaborate on seabird bycatch issues at both the national and international levels.

NMFS and FWS will:

- * Participate in the Council process to help develop, implement, review, and recommend changes to regional seabird bycatch programs, recognizing that FWS currently has no vote on the Councils
- * Assess all U.S. longline fisheries to determine whether a seabird bycatch problem exists
- * Conduct collaborative research to determine the effectiveness of seabird bycatch mitigation measures, further refine those measures, and develop new measures

- * Continue to develop and review fishery observer programs that collect seabird bycatch data
- * Seek additional funding to expand observer programs and increase collection of seabird data
- * Conduct outreach, education, and public awareness programs on seabird bycatch issues
- * Provide recognition to fishermen and organizations that promote seabird bycatch reduction
- * Develop incentive programs to encourage further seabird bycatch reductions
- * Participate in national and international seabird bycatch meetings and workshops
- * Assess, at least every 4 years, the implementation of the NPOA-S and individual fishery seabird bycatch mitigation plans to determine their effectiveness
- * Continue ESA Section 7 Consultations as required
- * Continue working through the ISWG to promote and coordinate implementation of the NPOA-S and the IPOA-S in all relevant international and regional fisheries organizations, and
- * Develop consolidated biennial national status reports on seabird bycatch reduction to provide to FAO.

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A New International Agreement to Protect Threatened Seabirds is Concluded in Cape Town

Negotiations have concluded successfully today on the text of a new international treaty, the Agreement on the Conservation of Albatrosses and Petrels (ACAP). The Agreement was finalized following a week-long meeting hosted by the South African Government in Cape Town, which included government representatives from albatross and petrel range states and nations with fishing fleets that interact with these highly threatened seabirds.

Albatrosses have the highest proportion of threatened species of any bird family, making them the most imperiled of all the world's seabirds. Scientists fear that up to 26 species of albatross and petrel may soon become extinct unless firm steps are taken to reverse the destructive effects of uncontrolled longline fishing, pollution, habitat degradation, human disturbance of breeding sites, and introduced diseases and predators.

Of the 24 species of albatross, 21 species have declining populations, or have populations of unknown status. About 50 percent of albatross populations contain fewer than 100 breeding pairs, making albatrosses extremely susceptible to random events or even low levels of mortality.

The Agreement, which includes an Action Plan, describes a number of conservation measures to be implemented by signatories to the proposed Agreement. These include research and monitoring, reduction of incidental mortality in fisheries, eradication of non-native species at breeding sites (especially introduced predators such as rats and cats), reduction or disturbance and habitat loss, and reducing pollution.

Fishery By-catch Background:

National and international initiatives highlight the need to address fisheries bycatch issues, including seabird bycatch. The FAO Code of Conduct for Responsible Fisheries was adopted in

1995 by the FAO Conference and calls for States to "take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species and promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques." (FAO Code of Conduct for Responsible Fisheries, Article 7.6.9).

In the United States, a longline is defined as "a line that is deployed horizontally and to which gangions and hooks or pots are attached. Longlines can be stationary, anchored, or buoyed lines that may be hauled manually, electrically, or hydraulically" (50 CFR 600.10). This definition includes demersal, or bottom set, longlines for groundfish and sharks, as well as pelagic (set at or near the surface or within the water column) longlines for sharks, tunas, swordfish and other species. There are other regional terms for longline gear, including hook-and-line gear and tub trawl. For the purposes of this NPOA-S, the term "longline" refers only to hook-and-line gear and does not include gear with pots attached.

Although the IPOA-S does not define the term "longline," the international fishing community has a common understanding of the equipment and techniques used in longline fisheries. Longline gear is hook-and-line gear that is generally deployed from the vessel's stern, with the main line and attached hooks following the vessel in a downward sloping diagonal line until it enters the water. The baited hooks on this main line remain in the air or near the water surface and are accessible to seabirds for varying times and distances depending on the size of the vessel, sea conditions, gear deployment equipment and methods, and the specific longline gear configuration.

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The Kawai Nui Heritage Foundation and 'Aha Hui Malama i ka Lokahi In cooperation with the following allied environmental and Hawaiian cultural organizations: Conservation Council for Hawai'i Hui Lama-Kamehameha Schools High School Hikers-Sierra Club Invites you to kokua and malama Kawai Nui Marsh.

Na Pohaku O Hauwahine (The rock formation of the Hawaiian Mo'o goddess and guardian of Kawai Nui Marsh) is located on the right-hand side of Kapa'a Quarry road at the Y-intersection before entering the Kapa'a Landfill Transfer Station. It offers a panoramic view into the "piko" of Kawai Nui Marsh where one can observe in tranquility the wetland birds and marsh vegetation. Recent brush removal and trail construction has revealed an ancient Hawaiian terrace that aligns the massive rock outcrops. We will be clearing alien vegetation and continue with the loop trail construction and landscape the area with native plants to recreate a dryland forest and marsh ecosystem. Presently we are working in the marsh, to form a wetland bird habitat.

Holomakani Heiau (The running wind) was presumed to be destroyed according to McAllister's account in 1933 but was rediscovered in 1987. Archaeological surveys suggest that this site may be a "possible prehistoric heiau or large terrace structure of some significance". It may have been associated with other heiau sites and important events in the Kailua Ahupua'a. This site is located on the mauka side of Kapa'a Quarry road about 0.7 miles from the intersection of Kalaniana'ole Hwy. A short hike of 15 minutes from the Quarry Road along roadways created by off road vehicles will lead to the site. Off road trucks have damaged the rock wall of the heiau in recent years. We have cleared the heiau terraces and posted a sign to inform others about the significance of this Hawaiian cultural site and to

respect its Hawaiian religious values. We are in the process of creating a view plane into Kawai Nui Marsh and maintaining the site.

SERVICE PROJECT DATES 2001

Sat. Apr. 21 - Holomakani Heiau - 8:30am - 2:30 pm

Sat. May. 19 - Na Pohaku o Hauwahine - 8:30am - 2:30 pm

Sat. Jun. 16 - Na Pohaku o Hauwahine - 8:30am - 2:30 pm.

WHAT TO BRING: Backpack, lunch, 1 qt. water, rain gear, mosquito repellent, gloves.

TOOLS: Sickles, pruners, hand saws, machete, weeders.

CALL: Chuck "Doc" Burrows for more information and to sign-up for these service projects at:

Home Phone: 595-3922, Pager - 581-2922, email:

cburrow@aloha.net

KAPA'A QUARRY ROAD LITTER TRASH PICK-UP

Every year for the past several years, the Kawai Nui Heritage Foundation has sponsored the Kapa'a Quarry Road trash pick-up starting from Mokapu Blvd. along the two mile Kapa'a Quarry Rd. to the Kalaniana'ole intersection in Maunawili. Students from Kalaheo High School, other Kailua community organizations and the City and County of Honolulu Refuse Department have been instrumental in removing tons of garbage and abandoned vehicles along this highway that borders Kawai Nui Marsh. Volunteers meet at the parking lot of Kalaheo High School at 8:00 am on the designated litter trash pick-up dates. They are given safety instructions, divided into teams and assigned to different areas along Kapa'a Quarry Road.

WHAT TO BRING: Wear walking shoes, cap or hat, backpack, 1 qt. water, rain gear. Gloves and juice will be supplied.

CALL: Keith Krueger for more information and to sign-up for these litter trash pick service projects at: Home Phone: 239-5958. Litter Trash Pick-Up dates to be announced later.

U.S. National Plan of Action continued from page 27

Action Elements of the NPOA-S

For those areas where longline fisheries occur, this NPOA-S strongly encourages that the following actions to be taken:

I. Assessment: NMFS, in cooperation with FWS, will conduct regional assessments of seabird interactions with longline fishing gear within no longer than 2 years of the adoption of the NPOA-S where none have been completed. NMFS and FWS will work in partnership with the Councils to conduct the assessments and determine the extent and nature of seabird interactions within each longline fishery conducted under a Council's area of authority. The assessment will address the following:

- * Criteria used to evaluate the need for seabird bycatch mitigation and management measures
- * Longline fishing fleet data (numbers and characteristics of vessels)
- * Fishing techniques data (demersal, pelagic, and other pertinent technical information)
- * Fishing areas (by season and geographic location)
- * Fishing effort data (seasons, species, catch, number of sets, and number of hooks/year/fishery)

- * Status of seabird populations in the fishing areas, if known
- * Estimated total annual seabird species-specific catch and catch-per-unit-effort (number/1,000 hooks set / species / fishery)
- * Existing area and species-specific seabird bycatch mitigation measures and their effectiveness in reducing seabird bycatch
- * Efforts to monitor seabird bycatch (e.g., observer program and logbooks), and
- * Statement of conclusions and decision to develop and implement mitigation measures as needed.

If NMFS or a Council assesses seabird bycatch in a longline fishery and determines that a seabird bycatch problem does exist, then a mitigation plan will be developed within 1 year to implement the following action items within 2 years. Additionally, NMFS and the Councils will review such a determination on a regular basis (at least every 4 years), and take into account changes such as expansion or reduction of existing longline fisheries or the development of new fisheries. If, based on an initial or a subsequent assessment, it is determined that a seabird bycatch problem (e.g., impact on a population or unacceptable take of a species) does not exist, then no additional action is necessary until the next periodic assessment (within 4 years).

snacks or a lunch). All safety equipment will be provided. Mosquito repellent and long pants and long sleeve shirts are also recommended.

Rodenticide Information Section:

In order to ensure that volunteers understand the risks involved, all volunteers are required to read the attached label and material safety data sheet (MSDS) before any rat bait handling.

What kind of rodenticide is being used? The active ingredient is Diphacinone (2 diphenylacetyl-1, 3-indandione) in a 0.005% concentration. It reduces the clotting ability of blood and causes bleeding. Rats require several feedings on the bait blocks before death occurs (46,000 mg/kg bait for oral LD50). Rats which consume the bait generally die in hidden or underground areas. Rats are very susceptible to this type of anti-coagulant even at such low concentrations.

How are the risks to non-target organisms minimized? The Nature Conservancy of Hawai'i's O'ahu Program has met or exceeded all Hawai'i State Department of Agriculture permit requirements for the use of diphacinone rodenticide in conservation areas. In order to minimize the risks of non-target organisms feeding on the rodenticide, the rat bait is placed in sturdy, locked, tamper resistant boxes, and secured at least three feet above the ground outside of fenced areas. Raising the boxes and securing them to branches prevents pigs and other non-target animals from consuming the bait. In fenced areas, bait stations are placed

on the ground as the area is already free of pigs. In each 'Elepaio territory outside of the fence area signs have been conspicuously placed to notify anyone in the area of the rat baiting efforts. Signs are placed at entrances to fenced areas. Also, the rat bait itself is colored green to help prevent birds from feeding on the bait. The snap traps are shielded to prevent any ground feeding forest birds from being accidentally caught in the traps. All rats found in snap traps are buried on-site to reduce the risks of disease to non-target organisms. Signs of secondary poisoning to animals other than rodents will be reported immediately to the Pesticides Branch of the Hawai'i Dept. of Agriculture.

How are volunteers and staff protected when handling the rat bait or carcasses? Although diphacinone cannot be readily absorbed through the skin, latex gloves will still be worn during bait handling. While there are no health hazards posed by inhaling bait particles (other than general irritation), dust masks will be made available to avoid inhaling any fugitive dust. Gloves will also be worn during any on-site burial of carcasses, as rats are carriers of leptospirosis and other diseases.

What if I want to assist the project but I don't want to handle any rat bait or carcasses?

If volunteers do not want to handle the bait blocks or carcasses, but would still like to assist the project, we can also spend the time attempting to find and monitor any 'Elepaio nests. Finding nests and monitoring nesting success will be critical to determining the efficacy of the project.

A New International Agreement continued from page 27

Longline fishing vessels also discharge offal in the form of discarded fish, fish scraps from cleaned fish, and used or discarded bait. The availability of "free" food in the form of offal and bait attracts seabirds to longline fishing operations. Most seabirds that are killed during longline operations are attracted to the baited hooks when the gear is being set. The birds are sometimes accidentally hooked or entangled while feeding on baits near the surface and are dragged underwater and killed by drowning or by strangulation. Birds are also hooked or entangled during the haul back process but these birds are usually released alive.

The factors potentially affecting seabird hooking and entanglement on longline gear are complex and include geographic location of fishing activity, time of day, season, type of fishing operation and gear used, bait type, condition of the bait (frozen, thawed, dyed), length of time baited hooks remain at or near the surface of the water, water and weather conditions, availability of food (including bait and offal), bird size, bird behavior (feeding and foraging strategies), and physical condition of the bird. Most seabird species probably interact with longline fishing gear; however, only the larger species have the physical capabilities and feeding strategies to face frequent interactions and potential hookings. The highest density of large seabirds in the United States occurs in the Pacific Ocean. NMFS regulations designed to reduce seabird bycatch in the Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) ground-fish longline fisheries were approved and implemented in 1997, in the Pacific halibut longline fishery in 1998, and are under development for the Hawaii pelagic longline fishery. In addition, NMFS plans to promulgate new seabird bycatch mitigation

regulations in Alaska longline fisheries to provide additional seabird protection. Such measures will be based on the results of scientific research and on ESA requirements. Several research projects on seabird-longline interactions have been completed in the Pacific by U.S. researchers, and additional seabird bycatch research is currently underway.

NMFS published a bycatch reduction policy document entitled *Managing the Nation's Bycatch: Programs, Activities, and Recommendations for the National Marine Fisheries Service* (NMFS Bycatch Plan; NMFS 1998c). The NMFS Bycatch Plan addresses harvested fish species as well as non-harvested and protected species such as seabirds. It also presents national objectives, priorities, and strategies for avoiding and reducing bycatch, and for minimizing mortality of bycatch that cannot be avoided. The document reviews bycatch reduction efforts already completed or underway, provides recommendations for evaluating existing bycatch management and research programs, and suggests future efforts to reduce bycatch and bycatch mortality.

NMFS and FWS believe that implementation of the NPOA-S, the FAO Code of Conduct for Responsible Fisheries, the Council-developed FMPs and FMP amendments promulgated under the Magnuson-Stevens Act, Executive Order 13186, and the NMFS Bycatch Plan will significantly reduce seabird bycatch in longline fisheries conducted within U.S. waters. Managing seabird bycatch in U.S. fisheries is a partnership effort that will require cooperation among the Councils, NMFS, FWS, the longline fishing industry, individual longline vessel owners and operators, fishing gear manufacturers, conservation organizations, and other interested groups and individuals.



APRIL 2001

'ELEPAIO

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Calendar of Events

Mondays, April 9 and May 14

Conservation Committee and Education Committee monthly meetings at the HAS office at 5:45 p.m. For more information, call Conservation chairperson Dan Sailer, 455-2311, or Education chairperson Wendy Johnson, 261-5957.

Mondays, April 9 and May 14

HAS Board meeting, always open to all members, 6:30 to 8:30 p.m. at the HAS office.

Monday, April 16

Program Meeting: Hawai'i Division of Forestry and Wildlife veterinarian Greg Massey and International Bird Rescue and Research Center's Linda Elliott will speak on "Oiled Wildlife Response in the Hawaiian Archipelago." See page 22.

Saturday, April 28

Field Trip: Red-footed Booby colony at Marine Corps Base Hawai'i. See page 22.

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