

## NMFS Report: Status of Seabird Issues

Several items of interest relating to various seabird issues are noted below. No Council action is required.

- ▶ Draft *National Plan of Action* for Reducing the Incidental Catch of Seabirds in Longline Fisheries is being finalized.
- ▶ *Washington Sea Grant Program's* Two-Year Research Study on the Effectiveness of Seabird Avoidance Measures is in its second year.
- ▶ U.S. Fish & Wildlife Service (USFWS) proposes *critical habitat* for two threatened species, the spectacled eider and the Steller's eider; proposed designation of critical habitat for the endangered short-tailed albatross is being considered.
- ▶ Status of the *proposed rule* to revise current seabird avoidance measures.
- ▶ NMFS contracts with IPHC for *seabird observer feasibility study*.
- ▶ *USFWS funds available* for supplying longline fishermen with seabird avoidance measures.

**National Plan of Action:** NMFS and the USFWS developed a National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (NPOA-S) based on the FAO's International Plan of Action. The Draft NPOA-S was made available through notice in the Federal Register on December 29, 1999 and comments were received through February 7, 2000. The NPOA-S is currently being finalized. See the Draft NPOA-S's Executive Summary and the overhead copies for additional information (Attachment 1). The Draft NPOA-S is available at <http://www.fakr.noaa.gov/protectedresources/draftnpa.htm>

**WSGP Study on the Effectiveness of Seabird Avoidance Measures:** A two-year study evaluating the effectiveness of seabird avoidance measures was initiated in 1999 by Mr. Ed Melvin of the Washington Sea Grant Program (WSGP). The Alaska longline industry has been integrally involved in this research project. Once final research results are available in early 2001, NMFS and the Council can anticipate recommendations being made by the WSGP for regulatory changes intended to improve the effectiveness of the currently required seabird avoidance measures. See Attachment 2 for information on the 1999 research and plans for the 2000 research.

**Proposed Critical Habitat for Bird Species:** Under authority of the Endangered Species Act (ESA), the USFWS proposed critical habitat designations for two threatened species, the spectacled eider (*Somateria fischeri*) and the Steller's eider (*Polysticta stelleri*). The proposals were published in the Federal Register on February 8, 2000 (65 FR 6114) and March 13, 2000 (65 FR 13262), with public comment being accepted through May 8, 2000 and May 12, 2000, respectively. In March 1999, the USFWS was sued over failure to designate critical habitat at the time the species were initially listed (1993 and 1997). In response to this lawsuit, USFWS has agreed to readdress the prudence of designating habitat. See the Federal Register publications for additional information or contact Sue Detwiler, USFWS, 907-786-3868 for species information packets. USFWS is currently considering whether or not a proposed designation for critical habitat for the endangered short-tailed albatross (*Phoebastria albatrus*) is prudent.

**Status of Proposed Rule to Revise Current Seabird Avoidance Measures:** The Council took final action in April 1999 and recommended revisions to the current seabird avoidance measures to improve

their effectiveness. The proposed rule is currently undergoing Regional review. The proposed revisions are:

- ▶ Hook-and-line vessels greater than 35 ft (10.7m) length overall (LOA) and using hook-and-line gear must use the prescribed seabird avoidance measures.
- ▶ Weights must be added to hook-and-line gear to cause the baited hooks to sink out of reach of seabirds.
- ▶ Hooks embedded in fish offal must be removed prior to offal discharge.
- ▶ Applicable vessels must use either a bird scaring line or night-setting.
- ▶ More specific instructions for the deployment of a bird scaring line are provided.
- ▶ Buoy bags, bird bags, or float devices would qualify as a bird scaring line but towing a board or stick would not.
- ▶ Use of a lining tube would have to be accompanied by the use of a bird scaring line.

**NMFS Contracts with IPHC for Seabird Observer Feasibility Study:** A USFWS Biological Opinion requires NMFS to prepare and implement a plan to investigate all options for monitoring the incidental take of the endangered short-tailed albatross in the Pacific halibut fishery in waters off Alaska. NMFS would then institute appropriate changes to the fishery as a result of its investigation. The purpose of this contract is to provide to NMFS the information required to identify the best and most practical option for monitoring the incidental take of the short-tailed albatross in the Pacific halibut fishery in U.S. Convention waters off Alaska.

**USFWS Funds Available for Supplying Seabird Avoidance Measures to Fishermen:** In an effort to reduce the taking of seabirds, including the endangered short-tailed albatross, the USFWS and the Pacific States Marine Fisheries Commission (PSMFC) have entered into an agreement that would provide \$400,000 toward the purchase and distribution of bird streamer lines to longline vessel operators and for the installation of streamer line deployment equipment on freezer-longliner vessels. PSMFC will be administering the program, contact is Al Didier (503-650-5400). For additional details, see Attachment 3.

## U.S. DRAFT NATIONAL PLAN OF ACTION FOR REDUCING THE INCIDENTAL CATCH OF SEABIRDS IN LONGLINE FISHERIES

### Draft 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 contrary to aesthetic and ethical values. The incidental catch of marine mammals and sea turtles has captured public attention, however seabirds are also affected.

Concerns about the world incidental catch of seabirds led to the development of the *International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries* (IPOA-S), a voluntary plan endorsed by the Food and Agriculture Organization of the United Nations Committee on Fisheries in February 1999. The IPOA-S applies to States in whose waters longline fishing is being conducted by their own or foreign vessels, and to States that conduct longline fishing on the high seas and in the Exclusive Economic Zones (EEZ) of other States, and calls on all States to implement the IPOA-S through the development of individual National Plans of Action.

Although the National Marine Fisheries Service (NMFS) is responsible for fishery actions that may impact seabird species, the U.S. Fish & Wildlife Service (FWS) has expertise and legal responsibility for seabird management. Given each agency's responsibilities, the U.S. *National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fishing* (NPOA-S) was developed collaboratively by NMFS and FWS. The resulting NPOA-S is a collaborative effort that has increased communication between seabird specialists within both FWS and NMFS. Maintaining this level of cooperation is a high priority for both agencies.

The NPOA-S contains the following themes:

- 1) **Action Items:** NMFS, with the assistance of the Regional Fishery Management Councils (Councils), the NMFS Regional Science Centers and FWS, as appropriate, should conduct the following activities:
  - a) Detailed assessments of its longline fisheries for seabird bycatch within 2 years of the adoption of the NPOA-S;
  - b) If a problem exists within a longline fishery, measures to reduce this seabird bycatch should be implemented within 2 years. These measures should include data collection, prescription of mitigation measures, research and development of mitigation measures and methods, and outreach, education, and training about seabird bycatch; and
  - c) Annual reports should be submitted to NMFS and FWS national headquarters, on the status of seabird mortality for each longline fishery, including mitigation and research efforts and assessment information as available.
- 2) **Interagency Cooperation:** The continuation, wherever possible, of the ongoing cooperative efforts between NMFS and FWS on seabird bycatch issues and research.
- 3) **International Cooperation:** The United States' commitment, through the Department of State, NMFS and FWS, to advocate the development of National Plans of Action within relevant international for a.

The development of the NPOA-S has emphasized that unique characteristics of all the EEZ longline fisheries exist, and that the solution to seabird bycatch issues will likely require a multi-faceted 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, nor does it attempt any intra- or inter-regional prioritizing. Rather, this NPOA-S provides a framework of actions that NMFS, and the Councils as appropriate, should undertake with each longline fishery within its area of authority. By working cooperatively, fishermen, managers, scientists, and the public may use this national framework to achieve a balanced solution to the seabird bycatch problem, promoting continuing sustainability of our national marine resources.



UNIVERSITY OF WASHINGTON

*Office of Marine Environmental & Resource Programs  
Washington Sea Grant Program  
Marine Advisory Services*

March 31, 2000

Clarence Pautzke, Executive Director  
North Pacific Fisheries Management Council  
605 West 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501

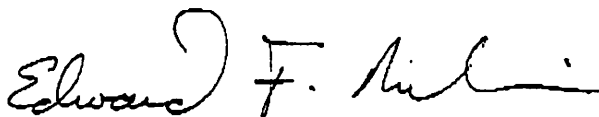
Dear Mr. Pautzke:

Attached is "Progress Report: Solutions to the Bycatch of Seabirds in Alaska Longline Fisheries". This report summarizes our research initiated in 1999 to test seabird deterrents on active fishing vessels in two Alaska longline fisheries: the IFQ sablefish fishery and the Pacific cod fishery. It also includes a brief description of our research plan for the 2000 season - our final year. This work was carried out under two National Marine Fisheries Service (NMFS) permits: Experimental Fishing Permit 99-01 and Exempted Fishing Permit 99-02. Funding was derived from NMFS through the Saltonstall/Kennedy program, the Alaska Region and the Alaska Fisheries Science Center, the US Fish and Wildlife Service, and the Washington Sea Grant Program. This research is also a special program of the NMFS Observer Program.

Also attached are summaries of two of our five industry meetings held in the past year: 9 July and 22 November 1999. These provide insight into the collaborative effort between the University of Washington and the longline industry and the range of discussion that took place regarding appropriate seabird deterrent strategies to test in Alaska longline fisheries.

We look forward to sharing the results of our two year study with the Council in April 2001. At that time, we intend to provide specific management recommendations based on the results of the full two year study. We do not recommend changes to seabird bycatch regulations based on one year of research. We appreciate the continued support of the Council.

Sincerely,



Edward F. Melvin  
Principal Investigator/Marine Fisheries Specialist

Cc: Julia Parrish  
Kim Rivera  
Greg Balogh  
Thorn Smith  
Bob Alverson  
Louie Echols

**Progress Report: Solutions to the Bycatch of Seabirds in Alaska Longline Fisheries**  
Washington Sea Grant Program, University of Washington; March 31, 2000

Research was initiated in 1999 to test seabird deterrents on active fishing vessels in two Alaska longline fleets: the IFQ sablefish fishery and the Pacific cod fishery. The goal of the research program is to develop methods to reduce the incidental capture of seabirds in Alaska longline fisheries without decreasing the target catch or increasing the bycatch of other species.

Five meetings were held with industry representatives in Seattle, Washington between 1 March 1999 and 14 March 2000. Through these meetings, seabird deterrent strategies were discussed and specific strategies were chosen for testing in the research program. Summaries of each meeting were written and distributed to attendees and the resource management agencies.

In the Sablefish fishery, paired streamer lines and weighted groundlines were compared to a control of stuck gear with 5 to 10 pound weights at each skate junction. Weighted groundlines were the control gear with 8 oz. of lead attached to the groundline at a spacing of approximately 11 meters (every 10th hook). In the Pacific cod fishery, we compared three strategies to sink the gear below the surface quickly to a control of Fiskevegn swivel gear with no additional weights. The three sinking strategies tested were line shooters (shoots the groundline slack), lining tube (sets the gear subsurface) and lines with added weight (approximately an additional ten pounds per 300 feet). Through our meetings, it was agreed that sink rate strategies would be tested in the first year of the research program in the Pacific cod fleet to determine the extent to which sink rate enhancement strategies alone reduce bycatch. In the second year, we would then combine successful sink rate strategies with surface deterrents. Because most sets are made at night in the Pacific cod fishery and setting at night is currently an option as a seabird deterrent in Alaska fisheries, we compared catch rates of all species between sets made during the day and at night.

### **Sablefish**

Three fishing vessels hosted two specially trained, NMFS certified observers. Fishing vessels included F/V Quest, F/V Seymour and F/V Judi B. Fishing occurred from 14 May to 7 June 1999 and ranged from the Central Gulf to the Aleutian Islands to about 180 degrees Latitude. Collectively, the vessels made 121 sets in 43 fishing days for a total of 414,000 hooks. A total of 90 seabirds were hooked in the course of this research endeavor; 72 Northern Fulmars, 16 Laysan Albatross, and two gulls. Short-tailed albatross were frequently seen in small numbers in the vicinity of the vessel during gear retrievals, but never attempted to take hooks during deployment of fishing gear. Seabird bycatch varied significantly among the two deterrents and the control. Compared to controls paired streamer lines significantly reduced seabird bycatch by 92% and lines with added weight and no surface deterrent significantly reduced seabird bycatch by 47%. We found only one significant difference among all fish species – more grenadier

species were caught when paired streamer lines were used compared to weighted lines and the control.

### **Pacific Cod**

Two fishing vessels fished under Exempted Fishing Permit (EFP) 99-02 and hosted two to three NMFS certified observers. Fishing vessels included the F/V Frontier Mariner and the F/V Norton Sound. Fishing occurred from 31 July to 6 September 1999 along the 100 meter contour from just north of Unimak Island to just south and east of the Pribiloff Islands. Collectively, the vessels made 169 sets in the course of fifty fishing days for a total of 2,071,000 hooks. Fish catch was within EFP allocations. A total of 403 seabirds were hooked in the course of the research activity; 191 seabirds were taken in just two of the 169 sets. Eighty seven percent were Northern Fulmars and the balance were Short-tailed Shearwaters. Albatrosses were rarely seen and none were hooked. Short-tailed Albatross were sighted on three occasions but did not interact with fishing gear. Seabird bycatch rates varied significantly among the three deterrents and the control. Compared to controls, sets made with the lining tube and with additional weight reduced seabird bycatch rates by 79% and 76%, respectively, while sets made using the line shooter increased bycatch rates by 54%. Despite large percentage differences, the three deterrents were not significantly different from each other or the control in post-hoc comparisons. There were no significant differences in catch rates for any fish species by deterrent. Compared to day, the rate of seabird bycatch was significantly greater (330%) during sets made at night. Comparing fish species between day and night, significantly more skates (41%) were caught at night.

From these data we conclude that: 1) Paired streamer lines hold great promise to significantly reduce seabird bycatch in Alaska longline fisheries; 2) Weighted lines and lining tubes enhance sink rates of longline gear and can reduce seabird bycatch, but alone are not adequate deterrents; 3) Setting gear slack with a line shooter does not enhance the sink rate of the gear or reduce seabird bycatch rates; 4) Night fishing alone is not an adequate seabird bycatch deterrent in Alaska waters; 5) Larger sample sizes are required to conclusively compare seabird deterrents on vessels fishing Pacific cod in the Bering Sea in August.

### **Year 2000 Research**

Based on these results and industry discussion through our most recent meetings, we will increase the number of sets monitored in both fisheries and test the following seabird deterrent strategies in 2000. In both the sablefish fishery and the Pacific cod fishery, paired streamer lines with additional weight on the groundline, and paired streamer lines without additional weight on the groundlines will be compared to the controls used in 1999. In the sablefish fishery we will also test a third deterrent - single streamer lines resources permitting. In the Pacific cod fishery, we will attempt to compare deterrents set at night with and without lights directed over the gear as it is deployed, and extend the research activity into the September open access fishery.



UNIVERSITY OF WASHINGTON

*Office of Marine Environmental & Resource Programs  
Washington Sea Grant Program  
Marine Advisory Services*

**Summary: Longline Seabird Bycatch Meeting**

22 November 1999, Fisherman's Terminal, Seattle.

Bob Alverson, Fishing Vessel Owner's Association, chaired the meeting. Approximately thirty five persons attended. The purpose of this meeting was to review preliminary results from the 1999 research program and to begin planning the research program for 2000. Ed Melvin, Fisheries Specialist for the Washington Sea Grant Program and principal investigator of the research program, presented an overview of the work and the process. The two year research program is testing seabird bycatch deterrents in the IFQ sablefish fishery in the Gulf of Alaska and the Aleutian Islands and the Pacific Cod fishery in the Bering Sea to develop deterrents specifically for Alaska groundfish fisheries. Results will serve as a foundation for future fishery regulations. Julia Parrish, Research Professor, UW Zoology Department and co-principal investigator, reviewed aspects of seabird biology and conservation as they relate to bycatch in Alaska longline fisheries with an emphasis on short-tailed albatross. Because, in general, albatrosses are long-lived (upwards to 45 years), start to breed late in life (5 to 10 years), do not breed every year, and lay only one egg in years when they do breed, populations can decline with even small increases in adult mortality. Mortality of only four short-tailed albatross over two years can close the entire Alaska longline groundfish fishery. Mortality of only 2 short-tailed albatross can close the Alaska halibut fishery. Development of successful seabird deterrents are critical to the continued health of the fishery and short-tailed albatross populations. Lack of attention by even one vessel for one set could spell disaster for entire fleets.

Kim Rivera, NMFS, commented on seabird bycatch regulations and the process of changing regulations in the future and responded to questions. Several issues were raised. Kim indicated that in 2000, NMFS observers will record information on seabird deterrents being used in Alaska longline fisheries on a set by set basis. As in previous meetings, the question of what percent reduction in seabird bycatch was deemed acceptable by NMFS could not be equivocally answered. Greg Balogh, USFWS announced that the Service is being sued by an environmental organization for not having designated critical habitat for the endangered short-tailed albatross. The implication of this for the fishery are unclear and Greg could not comment further due to the pending litigation.



## **Preliminary Results from 1999**

Ed Melvin presented preliminary results from the 1999 season for both fisheries. A written report of these findings is planned for February 2000. Results are preliminary because statistical comparisons are not complete. This summary reflects trends as opposed to conclusions.

### **IFQ Sablefish**

We compared a control of no seabird deterrent (skates with 7 to 10 pound weights at each skate junction) to two deterrents: the control fished with paired tori lines, and "weighted gear" (control with a half pound of seine lead every 10 hooks). The weighted treatment was developed based on experiments on the F/V Quest in which time-depth recorders were used to measure the sink rate of gear weighted with a variety of weights at different spacing within a skate. Northern fulmars, Laysan albatross, and gulls were caught in the course of our fishing experiments. Briefly, compared to the control bird bycatch rates (per 1000/hooks) were dramatically reduced in sets with paired tori lines (90%). Weighted lines reduced bird bycatch rates but to a lesser degree (35% reduction). Target catch rates increased slightly with paired tori lines. Sablefish catch rates were similar to controls but halibut catch rates decreased slightly in weighted sets. Trends in bird attack rates on baits and abundance during sets did not reflect trends in bycatch rates.

### **Freezer Longline Cod**

We compared catch rates of sets made using line shooters (sets gear slack) and weighted lines to a control of no seabird deterrent (Fiskevegn swivel gear with no added weight) on two vessels. On one vessel, we also collected data on catch rates in sets made with a lining tube (sets gear subsurface). All sets consisted of swivel gear set from either a MARCO or Mustad Autoline system in August in the eastern Bering Sea. Weighted regimes were decided by measuring sink rates of different weighting strategies on both vessels. Weighting regimes for deterrents were 14 each 10 pound cannonballs per magazine on Mustad gear and 3 each 10 pound cannonballs per 245 hooks of MARCO gear (about 3 pounds per 100 feet). Only Northern fulmars and short-tailed shearwaters were caught -- almost no albatrosses were encountered. Compared to a control of no deterrent, sets made with the lining tube and extra weight reduced bycatch dramatically (81% and 76%, respectively); whereas, bird bycatch increased when the line shooter was used (35% increase). Cod and halibut bycatch rates were similar among all the deterrents and controls with one exception - halibut bycatch increased by 82% using a lining tube. We also compared catch rates of sets made at night and sets made during the day. Somewhat surprisingly, seabird bycatch was almost 300 % higher at night. Skate bycatch was also higher at night (41%), but cod and pollock catch rates were about the same, and halibut bycatch was

16% less at night. Trends in bird attack rate and bird abundance did not reflect trends in bird bycatch rates.

### Industry Tests and Experiences

At our two earlier meetings, skippers were asked to experiment on their vessels with seabird deterrents and record specifications and observations to share at these meetings. Several vessel operators shared the outcomes their experiences with seabird deterrents on their vessels.

- Per Odegaard (F/V Vansee; IFQ) reported zero bycatch of birds for two years by combining a single tori line with weighed groundline (0.5 pounds per 20 hooks). Tori line was made of old groundline and had a ruptured buoy at the end and several trolling bells near the buoy. He also splices weight to the groundline between gangions as opposed to sacrificing a hook and replacing the hook with weights (as we did in the IFQ study).
- Bill Chace (F/V Frontier Mariner; cod) indicated that their paired tori line system using a davit (port side) and a dedicated pole (between center and starboard) caught few birds with no difference between night and day. Tori line made of old groundline was about 50 fathoms and was typically aloft to 35 fathoms behind the vessel. It was attached to A3 polyform buoys preceded by a 10 pound cannonball on 2 feet of chain. It was attached to the vessels at a height of about 30 to 35 feet above the water at the stern. Streamers were made of surgical tubing and lines were hauled with a dedicated hydraulic hauler. The davit allows the crew to position the tori lines over the gear correcting for wind and seas (they plan to add a second davit starboard for 2000). Connecting both tori lines to a single buoy forming a "V" was quite successful but eventually conflicted with other aspects of the skippers operational preferences.
- Larry Mishefski (F/V Deep Pacific; cod) uses paired tori lines going to a single buoy ("V" configuration) but without streamers. Tori line and tori streamers (when used) were 6 mm orange mending twine. Tori lines were attached to the vessel 40 feet above the water.
- Jan Foss, president of RENA International, discussed aspects of line technology and possibilities for adding weight into the line itself (avoiding adding and removing leads during each set). He indicated that three things can be manipulated to increase the inherent sink rate of longlines: the amount of lead in the line, the combinations of fibers used to make line, and the weight and interval of hardware (swivels and stops). Fiskevegn gear has a specific gravity of 1.1 to 1.2 indicating it sinks in water. Also he mentioned that the line can be colored by adding pigment to plastic coatings; however, disguising gear probably creates safety hazards for crew. Gangions can be dyed any color.

There were many contributions by other participants that are reflected under other headings.

***Experimentation by skippers is extremely important to this process.*** Skippers are strongly encouraged to innovate with deterrents and write down specifications and results to share in the future. We are preparing a form with guidelines that we hope will help skippers keep useful records. If we have data from the fishery, the research program could build on the experiences of the fleet. PLEASE INNOVATE and REPORT.

### **Deterrent Options for 2000**

**IFQ:** After some discussion, IFQ representatives suggested combining tori line deterrents with weighted deterrents for next season. Consensus was strongest for comparing control (7 to 10 pound weights at the skate junctions) to single and paired tori lines combined with the weighting treatment used in 1999 trials (1/2 pound every 10 hooks). This suggestion agrees strongly with results from 1999 and is likely to result in near zero bycatch in the IFQ fleet. If single tori lines prove equally effective as paired tori lines, they are preferred because they are easier to deploy and retrieve and are less likely to foul on the second tori line. Single tori line may be less effective at reducing seabird bycatch because they may be more difficult to center over the gear in a range of weather. Concern was voiced that paired tori lines present unique challenges to smaller vessels, especially attachment to the vessel, getting spread between lines, and retrieving and deploying lines. Deterrents and participating vessels will be finalized in a meeting of IFQ vessels prior to mid march 2000. Based on the 1999 experience, the research program will focus on fishing grounds west of Kodiak to maximize interactions with albatrosses. We also hope to include a fourth vessel with all vessels fishing less time than 1999. Prompted by a suggestion, the research program will make a special effort to include input from vessels in the less than 60 foot class in making final decisions on deterrents to test in 2000.

**Cod:** After considerable discussion, no consensus was reached on what deterrents or deterrent combinations to test in the autoline cod fishery in 2000.

**Lining Tube:** The Lining tube proved successful (preliminarily) at reducing seabird bycatch and may require no further testing. Based on this and earlier meetings, interest by other vessels in using lining tubes ranges from weak to zero. Lining tubes are practical for vessels shooting gear from lower decks but impractical for vessels shooting gear from higher decks. Installed cost is about \$40K and time is required to train crew and fine tune efficiency.

**Weights:** Available data thus far strongly suggest increasing weight and/or combining tori lines with added weight are likely to reduce bycatch to near zero. This is a deterrent strategy which is likely to be

successful on a wide range of vessels. Some, but not all, skippers complained that adding and removing weights was impractical and in some cases is a safety hazard. For weighting to be widely applicable and practical, innovation must occur both at the line and hardware manufacturing level and at the fishing operations level.

*Line Shooter:* Available evidence suggests that line shooters alone increase bycatch and are difficult and labor intensive to use. For line shooters to be considered further there would have to be considerable innovation at the manufacturer level. Even then lines set with shooters are likely to need added weight. Line Shooters may be useful to vessels that shoot gear from more than 10 feet above the water if they are combined with increased weight, but are probably of little value to vessels shooting gear close to the water. Whether a line shooter would provide benefit over weight alone is a matter of debate.

*Colored Bait:* Coloring squid on the vessel was quickly rejected as impractical unless the industry went to using artificial bait immediately – this is highly unlikely.

*Towed Buoys:* After several meetings, there is a growing consensus that towing a buoy is likely to be less effective than tori lines and present an uncomfortably high chance to be abused by uncooperative fishers.

A decision on what deterrents to test in 2000 was postponed to a date immediately after the winter fishery. At this time we anticipate having enough funding to test two deterrents or deterrent combinations to a control of no deterrent. We hope to develop an industry consensus on what to test in 2000 based on results and evidence collected to date. Skippers once again are encouraged to experiment with seabird deterrents and keep records on specifications and bycatch rates in support of suggested deterrents. Because almost no albatrosses were encountered in August in the eastern Bering Sea in 1999 and August fishing might not represent conditions of this predominantly winter and fall fishery (a concern expressed by several participants), all aspects of the research program operations for 2000 need reexamination (month, location and number and types of vessels participating). Subsequent to the meeting, one vessel has volunteered to host deterrent research in the winter open access fishery. Prompted by a suggestion, we will circulate a questionnaire to cod vessels to seek input on deterrents or deterrent combinations to test in 2000 based on observations from the winter fishery. We will also circulate a form that might help in collecting useful information on deterrents.

#### **Other**

Greg Balogh, USFWS announced that a program was being developed with USFWS funds to purchase tori lines for the fleet, possibly beginning as soon as January 2000. The program is being expanded to

include the purchase of davits on a cost sharing basis. The program will be run through the Pacific States Marine Fisheries Commission. Detailed announcements are planned soon.

Janet Smoker, a private consultant, presented information on a voluntary program among 28 cod vessels to monitor seabird bycatch in real time in that fishery. It is patterned on a similar program designed to monitor and avoid halibut bycatch. (not related to the UW research program, but included as a courtesy to NPLA).

The meeting was adjourned at approximately 2 PM.

The meeting was organized by the Washington Sea Grant Program with help from Sue Robinson, (Fisherman's Finest) Mike Bayle (AFCO), Thom Smith (NPLA), Marine Windrow (Glacier Fish), and Bob Alverson (FVOA). Thom Smith and Patti Church of NPLA provided refreshments and lunch.

Ed Melvin, Washington Sea Grant Program December 7, 1999

**Longline Seabird Bycatch Meeting**

22 November, 10 AM

North Pacific Fishing Vessel Owner's Association Conference Room  
Fisherman's Terminal, 1900 W. Emerson Place, Suite 101, Seattle**Agenda**

1000 Introductions/ purpose (Bob Alverson, Chair)

**Background and 1999 Results**

1010 Research Program Overview (Ed Melvin)

1020 Seabird Biology and Conservation (Julia Parrish)

1040 Regulatory Implications (Kim Rivera, NMFS and Greg Balogh, USFWS)

1050 Preliminary Results IFQ and Cod (Melvin)

1120 Results from Individual Experimentation by Industry (All)

**Noon: Lunch (provided - host NPLA)****Plans for 2000 based on Results**

1230 Possible Deterrents Options (Melvin/All)

1245 IFQ

1300 Cod

**Related Opportunities**

1315 USFWS Tori Line Program

1330 Bycatch Monitoring (Janet Smoker)

1345 Other

1400 Adjourn



UNIVERSITY OF WASHINGTON

*Office of Marine Environmental & Resource Programs  
Washington Sea Grant Program  
Marine Advisory Services*

**Summary: Seabird Bycatch Research Program: Freezer Longliners Industry Meeting  
July 9, 1999 Nordby Conference Center, Fishermen's Terminal, Seattle**

Bob Alverson chaired the meeting. About thirty people attended most of whom were freezer longliner skippers or mates (see attached list). The purpose of the meeting was to gather freezer longliner skippers and company representatives to review and fine tune the freezer longline research program scheduled for August 1999 in the Bering Sea. Specific areas of input sought were to 1) define the control to which the performance of seabird deterrents would be compared, 2) establish to what extent industry practices and gear are standardized within the fleet, 3) explore practical issues related to weighting gear, 4) define the weighted gear treatment to test in 1999, and 5) to explore other deterrent possibilities.

Ed Melvin, Washington Sea Grant Program, and Julia Parrish, UW Zoology Department, are leading the research program to test selected seabird bycatch deterrent measures in both the Alaska IFQ sablefish fishery and the Pacific cod freezer longline fishery. Ed Melvin provided background and details of the research program. The primary motivation is to avoid fishery closures and to avoid negative affects on seabird populations from longline fishing activities.

Key elements of the program include the following:

- the research program is a university -industry collaboration. Research is to take place on active fishing vessels and the deterrents tested are determined based on industry instinct and experience;
- The research is designed to compare target and non-target fish catch as well as seabird bycatch among selected seabird bycatch deterrents and a control of no deterrent. We want to compare seabird bycatch in the context of the catch of all species.
- findings (after two years of research) will serve as a foundation for updated seabird bycatch regulations;

- the research is funded from multiple sources including the National Marine Fisheries Service (NMFS), The US Fish and Wildlife Service (USFWS), and the Washington Sea Grant Program (WSGP).

### **Experimental Design**

In both fisheries, two seabird deterrents will be compared to a control of no deterrent. Because seabird bycatch is rare, large sample sizes are required to make statistical comparisons. This will require fishing 40 to 50 at-sea fishing days per fleet or three trips by three vessels in the ITQ fleet (about 0.5 million hooks) and two vessels each doing a single 25 day trip in the P-cod fleet (about 2 million hooks). Data collected will include measures of bird abundance and behavior during each set, as well as tallies and weights of all catch.

### **Permits**

A Section 10 ESA permit was obtained by USFWS that allows for the capture of one short-tailed albatross by the project with no consequence to the industry, the cooperating fishing vessel or the project. The program has two NMFS Exempted fishing permits: one that allows use to fish a control of no seabird deterrents and one that allows us to fish for P-cod prior to the third trimester open access fishery. We also have permits from the USFWS and the Alaska Department of Fish and Wildlife which allow for the take of seabirds during the experiments.

### **Preliminary Results from IFQ Sablefish Fishery**

Ed Melvin presented preliminary data from the work done in May and June of 1999. In the sablefish fishery (primarily hand baited gear), we compared a control (skates with approximately 10 pounds at each skate junction) to two deterrents: the control fished with paired tori lines, and "weighted gear" (control with a half pound of seine lead every 10 hooks). The weighted treatment was developed based on experiments on the F/V Quest in which time-depth recorders were used to measure the sink rate of gear weighted with a variety of weights at different spacings within a skate.

Briefly, bird bycatch rates (per 1000/hooks) in both the control with tori lines and weighted gear were less than bycatch rates in the control. Bycatch was least in sets with paired tori lines. Target catch rates were similar for the control and both deterrents. Bird attack rates on baits



were fewer only in sets made with tori lines. The distribution of attack rates as a function of distance behind the vessels were altered with both deterrents compared to the control.

### **Regulatory Implications**

Greg Balogh, USFWS, and Kim Rivera, NMFS, discussed aspects of current regulations and the need to make them more specific to Alaska fisheries. Research on seabird deterrents is required under the biological opinion on short-tailed albatross bycatch from the USFWS. They reiterated that results of this study will serve as a foundation for future regulations. Aspects of research related permits were discussed as were current take limits on short-tailed albatrosses in the Alaska longline fisheries, and the populations status of short-tails. Concern was expressed that the goal for seabird bycatch reduction is not specified; i.e., is it a percentage reduction or zero or something in between.

### **Characteristics of the Longline Fleet**

A list was circulated of all vessels in the fleet. Participants were asked to fill in gear preferences (type of longline material and weighting strategy) and type of gear deployment system (automated - Marco or Mustad, or hand baited). Discussion ensued on the variation of gear and practices within the fleet. Consensus was quickly established that there is great variation among vessels and skippers and a "typical gear or practice" is difficult to establish. Understanding the gear characteristics and practices of the fleet are critical to establishing a meaningful research program and practical regulations.

### **Deterrents Used in Other Fisheries**

Ed Melvin discussed seabird bycatch deterrents used in other fisheries as background for a discussion of seabird bycatch deterrents to test in the P-cod fishery in 1999. Deterrent strategies fall into three categories: 1) Increase sink rates (weighted lines, lining tubes and line shooters) 2) surface deterrents (buoy bags, streamer (tori) lines, water jets), and 3) Other (offal discharge while setting, colored (dyed) bait (being tested in Hawaii), night fishing, loud sound and assorted combinations). Ed pointed out that the primary focus of seabird bycatch reduction research worldwide in both demersal and pelagic longline fisheries is to increase the sink rate of the gear by adding weight within skates. In general, most research to date suggests that weight of about 10 pounds (4.5 kg) every 50 meters or less (about 50 hooks) can eliminate or significantly reduce

seabird bycatch. The effect of propeller turbulence on sink rates could be a critical consideration in developing seabird bycatch strategies.

### **Discussion on Deterrents/Research for 1999**

The research is scheduled to take place on the F/V Norton Sound and the F/V Frontier Mariner beginning in late July under a NMFS Exempted Fishing Permit issued to the University of Washington. Based on the March 1, 1999 industry meeting, line shooters and a weighted treatment without surface deterrents are scheduled to be compared to a control. Although the original sample size limitations called for comparing two deterrents to a control, there is also interest in including the lining tube already installed by Glacier Fisheries on the F/V Norton Sound.

- **Line shooters (LS):** They create slack in the line as it is deployed, allowing the line to begin sinking closer to the boat thus shrinking the zone in which birds are vulnerable to hooking. They were originally developed to minimize wear from swivel gear on lining tubes. LS are being installed on both the F/V Norton Sound and the F/V Frontier Mariner using USFWS funds. LS's, if successful, have the potential to be a uniform solution for most larger vessels using automated gear regardless of the height of the shooting deck. There also could be an added benefit of reducing bait loss as the gear goes taught due to snags; etc., as it is deployed. Cost is relatively low around \$10,000 plus installation. Jan Silden of Mustad indicated that LS are a new technology and there are only four of these new units in use worldwide. The two being installed for this research would raise that number to six. Concerns raised included reliability, there is currently only a single manufacturer, compatibility with non-Mustad systems, applicability to hand baited operations, and creating solutions that favor gear manufacturers. It was unanimously agreed that LS warrant testing in the first year of the project.
- **Lining Tubes:** Lining tubes set the gear subsurface. Jon Youngblood, Glacier Fish Co and skipper of the F/V Norton Sound, indicated that the F/V Norton Sound has had great success at reducing their seabird bycatch using a Mustad lining tube, but only after three years of fine tuning with little vendor support. Concerns raised with using lining tubes as a seabird deterrent included, cost, single vendor availability, the need for extensive fine tuning, wear from swivel gear on the tube, lack of applicability to vessels shooting gear from upper decks,

and developing solutions that favor gear manufacturers. It was unanimously agreed to test the F/V Norton Sound lining tube in 1999.

- **Increased Weighting:** Weighting refers to adding weight to the gear to sink it faster thus shrinking the area in which birds are vulnerable to hooking. It was made clear that weighting strategies are highly variable and vary with area, season, weather, and catch rates. The most common weighting strategy is attaching 10 pound leads at skate junctions; adding weight within skates is rare. Concerns with adding weight to the gear included, crew safety, efficiency, P-cod catch rates, increased halibut bycatch, and potential bait loss and product quality loss from flea (amphipod) damage. It was unanimously agreed that the weighted treatment should consist of adding 10 pound weights at skate junctions to swivel gear (see comments on control below).
- **The control:** After a good deal of discussion it was the unanimous consensus of the group that the control should be unweighted swivel gear. There was general agreement that the hardware in swivel gear adds considerable weight to the gear and probably sinks it faster than the mainline or nylon gear tested with TDR's in the IFQ fishery.
- **Tori lines:** Summarizing the experience in the IFQ sablefish fishery, Ed Melvin indicated that performance of tori lines as a seabird bycatch deterrent was dependent on keeping lines suspended above the water at least 50 meters behind the vessel. Attachment of tori lines to the vessel at a minimum height of 25 to 30 feet above the water and the buoy's ability to dig in and hold the line aloft were critical to deploying effective tori lines. Based on feedback at the 1 March industry meeting, paired tori lines were deemed most effective at reducing bird bycatch in a wide range of weather conditions.
- **Towed Buoy/s.** Concern was expressed that towed buoys should be tested in addition to tori lines and that they are commonly used by many of the vessels as a primary bird deterrent. It was generally agreed that towed buoys are effective at times, but are likely to be less effective than tori lines under a wide range of weather conditions.
- **Loud Sound.** Several skippers indicated that they occasionally used loud sound (air horn) to deter birds from the gear, but also suggested that it might not be effective under a wide range of conditions and that birds were likely to ignore it or to use these sounds to trigger attacking the bait (dinner bell). Julia Parrish discussed some general patterns of bird hearing and ecology.

- **Water Jets:** Some skippers have tried using high pressure water jets to deter birds from the gear. It was generally agreed that this could be highly effective under some conditions, but is unlikely to be a consistently effective method.
- **Night vs. Day:** Several participants were skeptical that fewer birds are caught at night compared to day, and were critical of regulations that restrict the use of vessel lights while setting at night. It was generally agreed that use of vessel lights with surface deterrents make the surface deterrents more effective. Day vs. night comparisons will be incorporated into the study in 1999.

#### Other points raised.

Vessel skippers want a range of deterrents to choose from to suit their fishing strategy, their crew capabilities and weather conditions. If weighted lines prove beneficial, using leaded groundline would be the best approach.

#### Conclusions:

Line shooters and a weighted treatment of swivel gear weighted with 10 pound per skate (about 200 hooks) will be compared to a control of swivel gear with no additional weight in the 1999 freezer longline seabird deterrent research. Lining tubes will be included in comparisons, but at sample sizes less than the other deterrents. Fishing will be divided into 50% night and 50% day to address the effect of night and day on bird bycatch rates. Research in 1999 will focus on sink rate strategies. Research in 2000 will combine surface deterrents with sinking strategies found most successful in 1999. This separation should allow us to parse out the effects of sinking rates alone and surface deterrents plus sinking rate strategies.

The meeting was adjourned at approximately noon.

The meeting was organized through the collective efforts of Susan Robinson, Fisherman's Finest, John Bruce, Jubilee Fisheries, Marie Windrow of Glacier Fish Company, Bob Alverson, Fishing Vessel Owners' Association, Patty Church of the North Pacific Longline Association (NPLA), and Ed Melvin, the Washington Sea Grant Program. NPLA provided refreshments.

Ed Melvin, Washington Sea Grant Program



UNIVERSITY OF WASHINGTON

*Office of Marine Environmental & Resource Programs  
Washington Sea Grant Program  
Marine Advisory Services*

Freezer Longline Fleet Seabird Bycatch Meeting  
9 July 1999, 9 AM to Noon, Nordby Center, Fisherman's Terminal

Agenda

- 0900 Introductions (Alverson, Chair)
- 0910 Research Program Overview (Melvin/Parrish/Windrow/Bayle)
- 0920 Preliminary Results from IFQ (Melvin/Alverson)
- 0940 Regulatory Implications (Rivera, NMFS and Balogh, USFWS)
- 0945 Freezer Longline Fleet Characteristics (Robinson/Windrow/All)
- 1000 Possible Deterrents (Melvin/All)
- Freezer Longline Best Deterrent Possibilities (All)
- 1015 Line shooters (Jan Silden/Bayle/Windrow/All)
- 1030 Lining Tubes (Windrow/All)
- 1040 Weighting (Melvin/All)
- 1100 Other? (All)
- 1145 Wrap Up/Timelines

U.S. Fish & Wildlife Service

# News Release



Office of Public Affairs  
1849 C Street, NW  
Washington, DC 20240  
202/208 5634 Fax: 202/219 2428



March 17, 2000

Karen Boylan 907-786-3309

## **SERVICE AND ALASKAN FISHING INDUSTRY UNITE TO PROTECT THE ENDANGERED SHORT-TAILED ALBATROSS AND OTHER SEABIRDS**

In an effort to reduce the taking of seabirds, including the endangered short-tailed albatross, the U.S. Fish and Wildlife Service and the Pacific States Marine Fisheries Commission today signed an agreement providing \$400,000 to help longliners install seabird deterrent devices on boats fishing the Bering Sea and North Pacific off the coast of Alaska.

"Unfortunately, the short-tailed albatross and many other seabirds have developed the habit of following commercial longline fishing boats and diving on baited hooks -- often with deadly results. This unique partnership addresses this problem without disrupting Alaska's vital fisheries industry," Jamie Rappaport Clark, Director of the Fish and Wildlife Service, said. "With the support of the Administration and Congress, we've established a Landowner Incentive Program to provide on-the-ground dollars to people to further the conservation of endangered species. That program made today's agreement possible. This agreement is yet another example demonstrating how the Endangered Species Act can and does work."

The fishing industry, the National Marine Fisheries Service and the Fish and Wildlife Service, along with researchers at the University of Washington's Sea Grant Program, have been working together to develop and test various means of reducing the by-catch of seabirds, including the short-tailed albatross. Preliminary results suggest that, with a relatively small investment in seabird deterrent devices, the loss of thousands of seabirds annually can be dramatically reduced.

Today's agreement between the Service and the Commission will promote the continued development and installation of seabird deterrent devices on longline fishing boats in the Bering Sea and North Pacific. The Commission will assist the Service in providing cost-sharing dollars to fishers for the installation of various devices that will significantly reduce the by-catch of seabirds. The Service anticipates that the \$400,000 provided by the Landowner Incentive Program will be leveraged to more than \$600,000 by cost-sharing with the industry. This will allow all of the 36 large freezer longliner fishing vessels and approximately half of the 2,000

smaller longline vessels to install seabird deterrent devices.

-2-

"This effort is good for the albatross and other seabirds, good for the fishing industry, and is a tribute to all those individuals who focused on finding solutions to this conservation challenge," David B. Allen, the Service's Alaska Regional Director, said.

The short-tailed albatross, a long-lived seabird that is also the largest in the northern hemisphere, spends nearly its entire adult life soaring over the Bering Sea and North Pacific Ocean. The short-tailed albatross is listed as endangered internationally under the Endangered Species Act. The Service has proposed extending this designation to also cover U.S. waters.

The world's population of short-tailed albatross, which once totaled about 5 million birds, was devastated by feather hunters during the late 1800s and early 1900s. In the 1930s its numbers were further decimated by volcanic eruptions on Torishima, Japan, one of only two islands where it was known to nest. By the 1940s scientists estimated that fewer than 50 adult birds survived. Today, the entire world population totals only 1,200 birds. Nearly the entire population nests on Torishima Island, and efforts are being made to stabilize the steep eroding slopes of their habitat on this volcanic island.

The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 93-million-acre National Wildlife Refuge System which encompasses more than 520 national wildlife refuges, thousands of small wetlands and other special management areas. It also operates 66 national fish hatcheries, 64 fishery resource offices and 78 ecological services field stations. The agency enforces Federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

You can subscribe to the U.S. Fish and Wildlife Service, Alaska region listserver, to have our press releases sent to your e-mail address automatically by sending an e-mail message to: [listserver@www.fws.gov](mailto:listserver@www.fws.gov). Please indicate that you would like to subscribe to FWS-Alaska news and give your name in the body of the message.

-FWS-



National Audubon Society



RECEIVED

MAR - 6 2000

N.P.F.M.C

Eric Gilman, Pacific Representative  
*Living Oceans Program*  
National Audubon Society  
2718 Napuaa Place  
Honolulu, HI 96822 USA

Phone: 808.988.1976  
Fax: 808.988.1440  
E-mail: egilman@lava.net

1 March 2000

Ms. Penny Dalton, Director  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910

Dear Ms. Dalton:

As a result of subsequent discussions concerning a letter I sent to you on 16 February 2000, which addressed the Living Oceans Program's concerns with the draft U.S. National Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries (U.S. NPOA—Seabirds), I thought it prudent to try to eliminate problems that my letter may have caused your agency. I now understand that I may have misinterpreted statements made by your legal counsel during our meeting on 10 February. I recognize that the Magnuson-Stevens Act (M-S Act) §3(5), definition of the term, "conservation and management," provides the National Marine Fisheries Service (NMFS) with the authority to address the problem of seabird mortality caused by commercial fisheries, and that there is at least one legal precedent to support this interpretation of the law.

The discussion of the NMFS' authority pursuant to the M-S Act to address seabird mortality rose when, during our meeting, you asked your legal counsel if NMFS would have the ability to enforce the U.S. NPOA—Seabirds. You posed the specific scenario of what NMFS could do if a regional council neglected to follow guidelines of the National Plan. This led to the tangent concerning the lack of inclusion of seabirds under the definition of bycatch in the M-S Act. My understanding is that the NPOA—Seabirds is intended to be a policy document, providing national guidance to avoid and minimize seabird mortality in U.S. longline fisheries. It is not intended to be legally enforceable, and thus the discussion of authority for enforcement was unnecessary. I apologize if my broaching this subject in my previous letter caused unforeseen problems, as this was definitely not my intent. As Heather Pellet of Defenders of Wildlife accurately stated during our meeting, your hesitance to require the draft NPOA—Seabirds be revised to include detailed national guidance, centralized coordination, specific performance standards, and a schedule to achieve stated performance standards is unwarranted if your hesitance is due to NMFS' inability to enforce the National Plan. Please, seriously consider the comments submitted by the American Bird Conservancy, BirdLife International, World Wildlife Fund, Defenders of Wildlife, Environmental Defense, Pacific Seabird Group, American Birding Association, and Living Oceans Program, which all call for the draft NPOA—Seabirds to be revised to include specific national coordination and guidance.

I perceive that the North Pacific Fishery Management Council, the Western Pacific Regional Fishery Management Council, NMFS, the U.S. Fish and Wildlife Service, and the Alaska and Hawaii-based longline industries are making significant strides to address the problem of seabird mortality in longline fisheries. The Western Pacific Council took proactive steps to assess the problem, conduct research and develop mitigation methods, and NMFS PIAO is planning to publish a proposed rule this month based on the Council's recommendations. The U.S. Fish and Wildlife Service and NMFS are conducting ESA §7 consultation regarding the Hawaii longline fisheries affects on the federally listed endangered short tailed albatross. It has been a slow process, and we are not always in agreement with management decisions, but progress is being made. The North Pacific Longline Association,



North Pacific Council, NMFS, and U.S. Fish and Wildlife Service have made significant strides to avoid and minimize the mortality of albatrosses in the Alaska longline fisheries, where there is a large incentive of avoiding takes of the short tailed albatross to avoid closure of their fishery. Occasional revisions of NMFS' Alaska seabird regulations are expected as new information is obtained in order to continue to reduce seabird mortality. The U.S. NPOA—Seabirds has the potential to augment these commendable regional efforts if it is revised to provide centralized coordination of regional efforts (e.g., guidance on how to conduct assessments, how to structure research and development programs, how to institutionalize the substantive involvement of industry, how to disseminate information); provide performance standards, or what Brothers et al. 1998 refers to as suitability criteria, for mitigation measures (e.g., guidelines concerning what constitutes efficient and cost effective mitigation measures); and in general, state national goals and guidance on how to achieve these goals for each of the NPOA's seven sections. If you require these types of changes to the U.S. NPOA—Seabirds, then the Plan will be of service for U.S. regional efforts, and will serve as a positive model for international emulation as has Australia's Threat Abatement Plan.

The Living Oceans Program aims to constructively assist the federal government to address the seabird bycatch problem. The Living Oceans Program and the NMFS Pacific Island Area Office (PIAO) are working together to establish a partnership to implement an annual Protected Species Workshop. Living Oceans fully supports these types of outreach efforts, providing a vehicle to share information on the best way to deploy required mitigation methods, to disseminate national and international information on new mitigation measures, and for managers to learn from industry's experiences with seabird regulations' required mitigation measures and voluntarily employed seabird deterrent methods. This type of partnership could be a template to be included in the U.S. NPOA—Seabirds.

I hope that this letter clears up any misunderstandings that my previous letter may have caused. Thank you again for taking the time to meet with me and the other NGO representatives, and to consider our requests and recommendations to improve the draft U.S. NPOA—Seabirds.

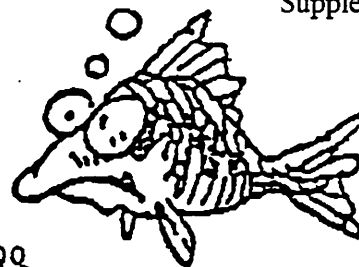
Best regards,



Eric Gilman  
Living Oceans Pacific Representative

C: Heather Pellet, Defenders of Wildlife  
Gerald Winegrad, American Bird Conservancy  
Rod Fujita, Environmental Defense -  
Dr. John Cooper, BirdLife International  
Craig Harrison, Pacific Seabird Group  
Dr. Ed Melvin, Washington Sea Grant Program  
Stanley Senner, National Audubon Society, Alaska State Office  
Steve Leathery, NMFS  
Kathy Cousins, NMFS  
Kim Rivera, NMFS  
Jamie Clark, U.S. Fish and Wildlife Service  
Kent Wohl, U.S. Fish and Wildlife Service  
Al Manville, U.S. Fish and Wildlife Service  
Robert Smith, U.S. Fish and Wildlife Service  
Beth Flint, U.S. Fish and Wildlife Service  
Kitty Simonds, Western Pacific Regional Fishery Management Council  
Clarence Pautzke, North Pacific Fishery Management Council  
Thorn Smith, North Pacific Longline Association -  
Larry Six, Pacific Fishery Management Council

North  
Pacific  
Longline  
Association



March 17, 2000

RECEIVED

MAR 17 2000

N.P.F.M.C

Mr. Richard B. Lauber, Chairman  
North Pacific Fishery Management Council  
605 West 4th Avenue  
Anchorage, AK

RE: The Seabird Report

Dear Rick:

I am writing to thank the Council for its ready cooperation in our efforts to reduce seabird bycatch in longline fisheries, and to bring you up to date on our outreach activities. I also wish to remind the Council that after we have the data from our current research we will have to revise the seabird avoidance regs.

As you are aware we are trying to reach out to other longliners worldwide, in order to resolve the global problem. Last November I did the seabird slide show for the Chinese in Busan, and for the Japanese in Tokyo (Dr. Hiroshi Hasegawa joined me in this latter effort). During the week of February 21 I went to Washington, D.C. at the request of the U.S. Fish and Wildlife Service. There we did the slide show for the Director of USFWS and her staff, USFWS staff in Alexandria, VA, staff of the House Resources Committee and the Senate Commerce Committee. I was surprised to be given an award and letter of commendation from USFWS - an award more richly deserved by Ed Melvin and his research staff (attached). USFWS has also supplied \$400,000 for the purchase of tori lines in the longline fleet, the funds to be managed by the Pacific Marine States Fisheries Commission. Since then I have done the show for the Western Pacific Council and the Fourth Annual Sino-U.S. Living Marine Resources Conference in Honolulu; I expect to do it during the ICC talks in Russia.

While progress has been made in our research, we do not yet have enough information to recommend changes in the regs. Rather than promote rampant speculation regarding the upcoming revisions, we prefer that Ed reserve his comments to the Council until after he has analysed this year's field work, which is now in the planning stage.

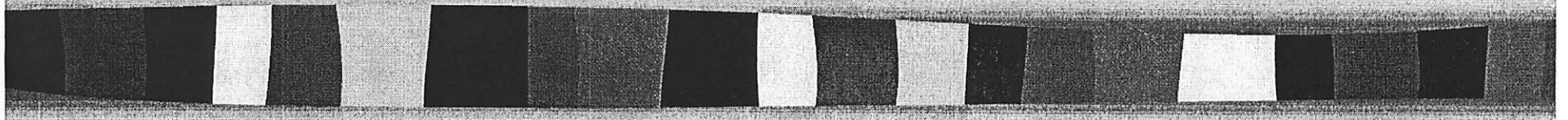
It is our sincere hope that the Council will be the first management entity in the world to effectively reduce seabird bycatch through regulation.

Sincerely,

*Thom*

# National Marine Fisheries Service

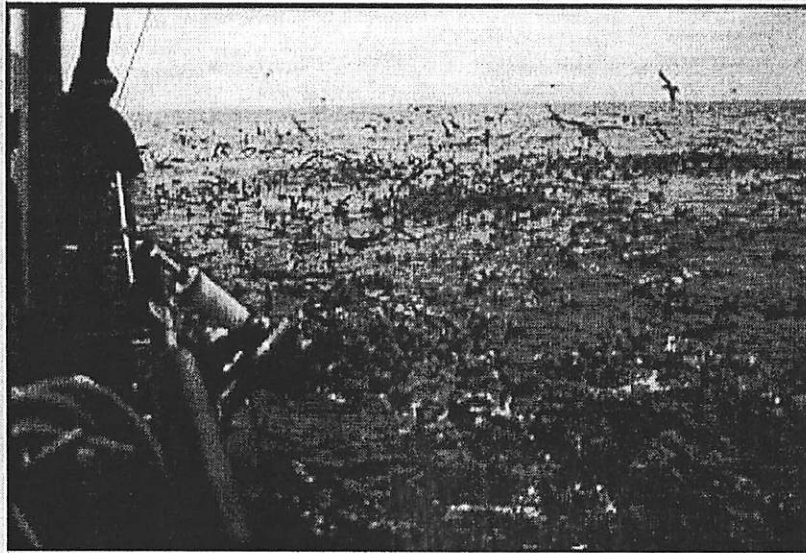
January 2000



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

# Purpose of NPOA-S

- To reduce seabird bycatch in those U.S. longline fisheries where bycatch is determined by a regional fishery management council to be a problem



F/V Frontier Mariner  
Photo from Sharon Davis  
NMFS North Pacific Groundfish Observer Program

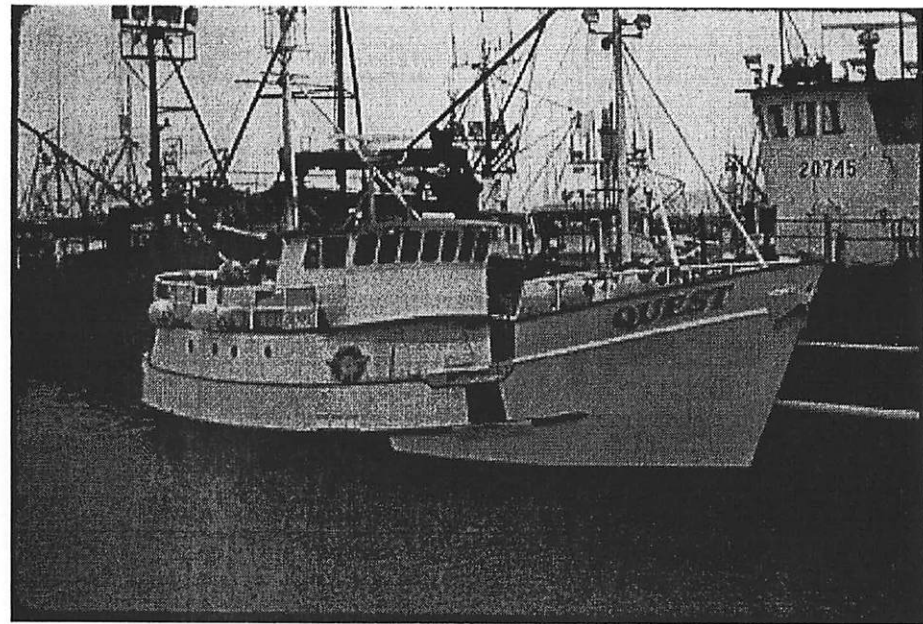




# Regional Implementation

- The regional implementation schedule of the NPOA-S may vary among regions and even fisheries, as some regions may need to start or complete additional research on seabird bycatch in their longline fisheries
- Each fishery is unique and may therefore require unique seabird management measures

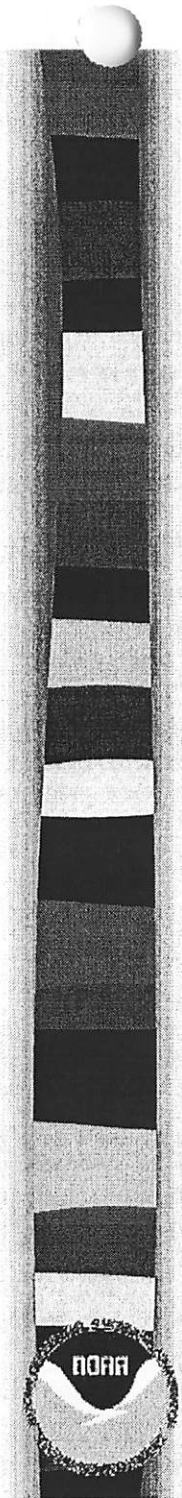
- The lack of specific mandatory measures in the NPOA-S is intended to give the regional fishery management councils additional flexibility to incorporate measures considered appropriate



F/V Quest

Photo from Sharon Davis

NMFS North Pacific Groundfish Observer Program



# Planned Actions for Regions with Longline Fisheries

- I. Seabird Bycatch Assessment
- II. Data Collection and Improved Reporting
- III. Prescription of Mitigation Measures
- IV. Research and Development of Mitigation Measures and Techniques
- V. Outreach, Education, and Training About Seabird Bycatch
- VI. Reporting
- VII. Collaboration between NMFS and FWS on Seabird Issues



## VI. Reporting

- The NMFS Regions and the regional fishery management councils will also each prepare an biennial report - scheduled for COFI off-years - on the status of seabird mortality for each longline fishery, including mitigation and research efforts and assessment information as available





- Regional annual reports may be compiled and incorporated into the NMFS biennial status report to FAO on its implementation of the *Code of Conduct for Responsible Fisheries*

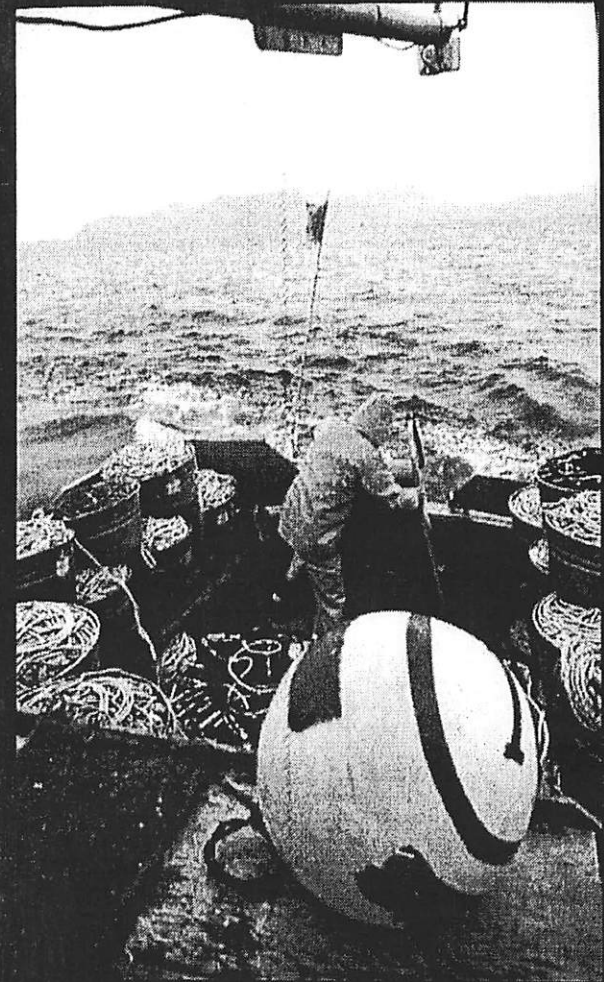


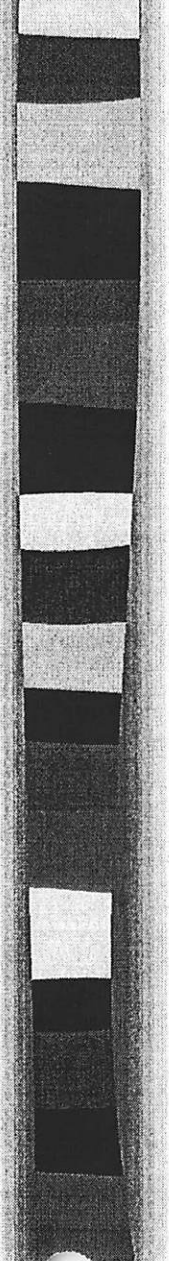
Photo from North Pacific Longline Association

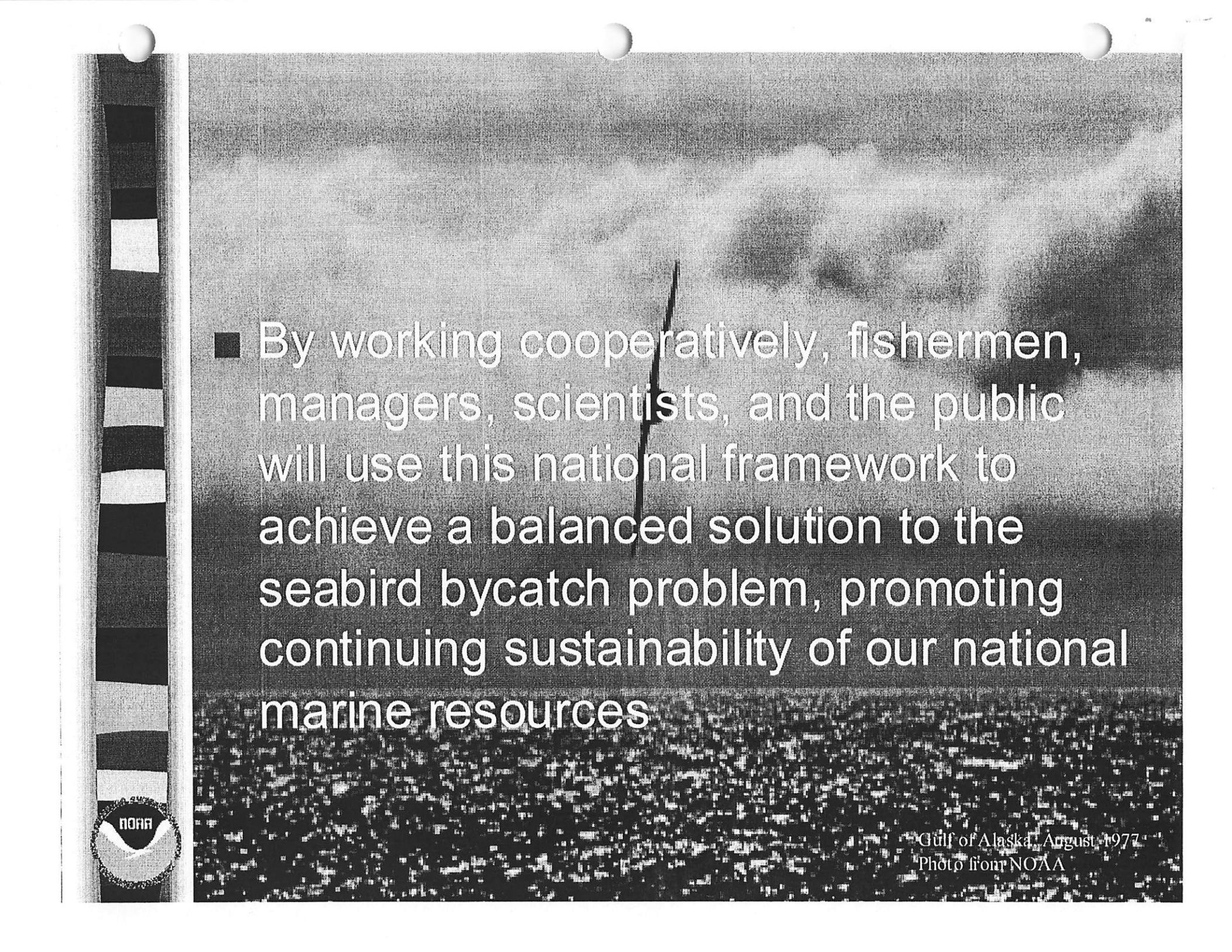


# Conclusions

- NPOA-S development process was a collaborative effort between NMFS and FWS with assistance from State
- NPOA-S requires seabird-fishery interaction assessments, yet allows regions and the regional fishery management councils the flexibility to develop fishery-specific seabird mitigation measures

Gulf of Alaska August 1977  
Photo from NOAA



- 
- By working cooperatively, fishermen, managers, scientists, and the public will use this national framework to achieve a balanced solution to the seabird bycatch problem, promoting continuing sustainability of our national marine resources

Gulf of Alaska, August 1977  
Photo from NOAA

B-5



**U.S. Fish & Wildlife Service**

# **Proposed Critical Habitat For The Spectacled Eider In Alaska**





# Threatened and Endangered Species Fact Sheet

## Spectacled eider (*Somateria fischeri*)

### Status

Threatened throughout its range (*Federal Register*, May 10, 1993)

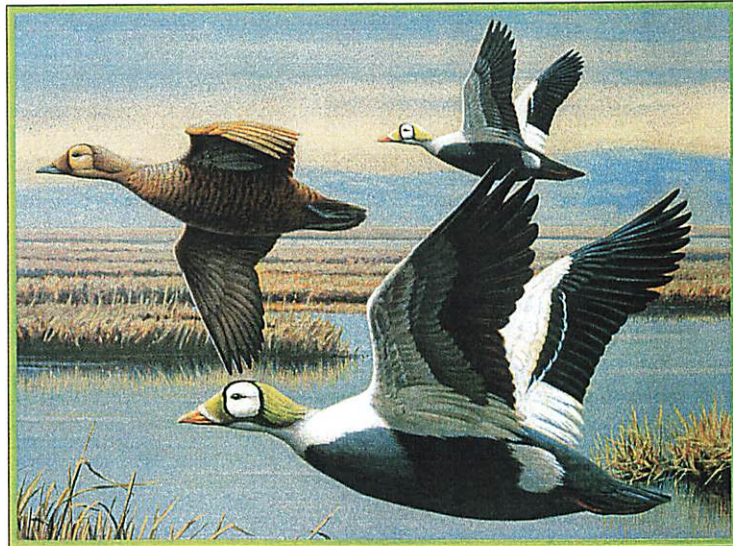
### Description

Spectacled eiders are large sea ducks, 52-56 centimeters long (20-22 inches). In the winter and spring, adult males are in breeding plumage with a black chest, white back, and pale green head with a long, sloping forehead and white spectacle-like patches around the eyes. During the late summer and fall, males are entirely mottled brown. Females and juveniles are mottled brown year-round with pale brown eye patches.

### Range and Population Level

Historically, spectacled eiders nested along much of the coast of Alaska, from the Nushagak Peninsula in the southwest, north to Barrow, and east nearly to the Canadian border. They also nested along much of the arctic coast of Russia. Today, three primary nesting grounds remain; the central coast of the Yukon-Kuskokwim Delta, the arctic coastal plain of Alaska, and the arctic coastal plain of Russia. A few pairs nest on St. Lawrence Island as well. Their fall and winter distribution was virtually unknown until satellite telemetry led to the discovery of spectacled eiders at sea in 1993. Important late summer and fall molting areas have been identified in eastern Norton Sound and Ledyard Bay in Alaska, and in Mechigmenskiy Bay and an area offshore between the Kolyma and Indigirka river deltas in Russia. Wintering flocks of spectacled eiders have been observed in the Bering Sea between St. Lawrence and St. Matthew islands.

Between the 1970's and the 1990's, the breeding population on the Yukon-Kuskokwim Delta declined by over 96%, and only about 4,000 pairs nest there today. Historical data for other nesting



*As their name suggests, male spectacled eiders in breeding plumage have distinctive patches around the eye which resemble eyeglasses, or spectacles. Female spectacled eiders, like the bird on the left, are mottled brown with faint eye patches. Reprinted with permission from an original painting by Joseph Hautman.*

areas are scarce, but recent data and observations by native elders suggest populations may have also declined on the arctic coastal plain of Alaska. Biologists estimate that about 9,000 pairs currently nest on Alaska's arctic coastal plain, and at least 40,000 pairs nest in arctic Russia. The current worldwide population estimate is 360,000 birds, which is derived from winter surveys in the Bering Sea and includes non-breeding birds.

### Habitat and Habits

Spectacled eiders are diving ducks that spend most of the year in marine waters where they probably feed on bottom-dwelling mollusks and crustaceans. Around the time of spring break-up, breeding pairs move to nesting areas on wet coastal tundra. They establish nests near shallow ponds or lakes, usually within 3 meters (10 feet) of water. During this season they feed by diving and dabbling in ponds and wetlands, eating aquatic insects, crustaceans, and vegetation. Soon after eggs are laid, males leave the nesting grounds for offshore molting areas, usually by the end of June. Females whose nests failed

leave the nesting area to molt at sea by mid-August. Breeding females and their young remain on the nesting grounds until early September. Molting flocks congregate in relatively shallow coastal water, usually less than 36 meters (120 Feet) deep. While moving between nesting and molting areas, spectacled eiders travel along the coast up to 50 kilometers (31 miles) offshore. During the winter months of October through March, they move far offshore to waters up to 65 meters (213 feet) deep, where they sometimes gather in dense flocks in openings of nearly continuous sea ice.

### Reasons for Current Status

Causes of the decline of spectacled eiders are not well understood. Lead poisoning, caused by eiders ingesting spent lead shot as they feed, has been documented in spectacled eiders on the Yukon-Kuskokwim Delta. Hunting also poses a threat to spectacled eiders.

Predation by foxes, large gulls, and ravens on the breeding grounds may be increasing in areas where populations of these predators are enhanced by the year round food and shelter provided by

human activities and garbage dumps. Complex changes in fish and invertebrate populations in the Bering Sea may be affecting food availability for spectacled eiders during the 8 to 10 month non-breeding season. Disturbance of marine benthic feeding areas by commercial bottom-trawl fisheries, environmental contaminants at sea, and competition with bottom-feeding walrus and gray whales for food may also affect spectacled eider populations.

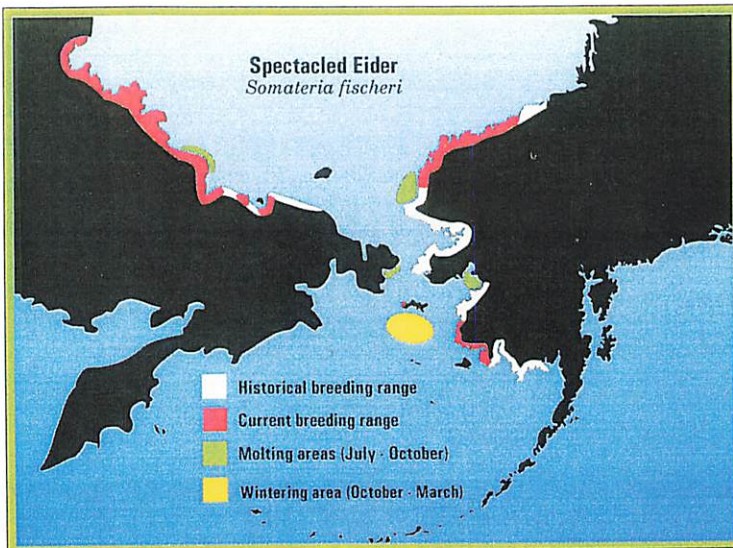
### Management and Protection

To protect spectacled eiders and their breeding, molting, and wintering habitat, the U.S. Fish & Wildlife Service recommends the guidelines below for projects and activities within the range of spectacled eiders. Adherence to these guidelines will help avoid the illegal take of spectacled eiders, and reduce the potential for adverse effects to the species. If these guidelines cannot be followed, consultation with the U.S. Fish & Wildlife Service is required. Under federal law, all federal agencies must consult with the U.S. Fish & Wildlife Service on any project they authorize, fund, or carry out that may affect spectacled eiders or other listed species.

For projects within the breeding range of spectacled eiders:

- Assess whether spectacled eiders are likely to use the project area for nesting or brood-rearing. Contact the U.S. Fish & Wildlife Service for assistance. For projects conducted during the breeding season, a Service-approved survey for spectacled eiders should be conducted in the year of construction, prior to initiation of activities.

- If spectacled eider nests are in the project area, the following activities require special permits within 200 meters (656 feet) of nest sites:



Distribution of spectacled eiders.

Vehicle and foot traffic from May 20 through August 1, except on existing roads.

Construction of permanent facilities, placement of fill, or alteration of habitat.

Introduction of high noise levels from May 20 through August 1, including but not limited to noise from airports, blasting, and compressor stations.

- Eiders are present on breeding grounds from mid-May through mid-September, but activities any time of year may affect them through habitat modification.

For projects in the marine waters of eastern Norton Sound, Ledyard Bay, and between St. Lawrence and St. Matthew islands, contact the U.S. Fish & Wildlife Service, Ecological Services Anchorage Field Office for guidelines and recommendations.

Hunting of eiders is regulated under the Migratory Bird Treaty Act. Sport and subsistence hunting of spectacled eiders has been closed in Alaska since 1991.

However, reported subsistence harvest on the Yukon-Kuskokwim Delta has averaged 255 spectacled eiders per year over the past ten years. Non-toxic shot must be used for all waterfowl hunting.

Use of lead shot for waterfowl hunting has been prohibited throughout the United States since 1991.

#### References

Dau, C.P. 1974. Nesting Biology of the Spectacled Eider *Somateria fischeri* (Brandt) on the Yukon-Kuskokwim Delta, Alaska. M.S. Thesis, University of Alaska, Fairbanks, Alaska. 72 pp.

Flint, P.L., and J.B. Grand. 1997. Survival of spectacled eider adult females and ducklings during brood rearing. *Journal of Wildlife Management* 61(1):217-221.

Franson, J.C., M.R. Petersen, C.U. Meteyer, and M.R. Smith. 1995. Lead poisoning of spectacled eiders (*Somateria fischeri*) and of a common eider (*Somateria mollissima*) in Alaska. *Journal of Wildlife Disease* 31:268-271.

Grand, J.B., and P.L. Flint. 1997. Productivity of nesting spectacled eiders on the lower Kashunuk River, Alaska. *Condor* 99:926-932.

Petersen, M.R., D. Douglas, and B. Larned. *In prep.* At sea distribution and abundance of spectacled eiders.

Petersen, M.R., D. Douglas, and D.M. Mulcahy. 1995. Use of implanted satellite transmitters to locate spectacled eiders at-sea. *Condor* 97:276-278.

Stehn, R.A., C.P. Dau, B. Conant, and W.I. Butler, Jr. 1993. Decline of spectacled eiders nesting in western Alaska. *Arctic* 46:264-277.

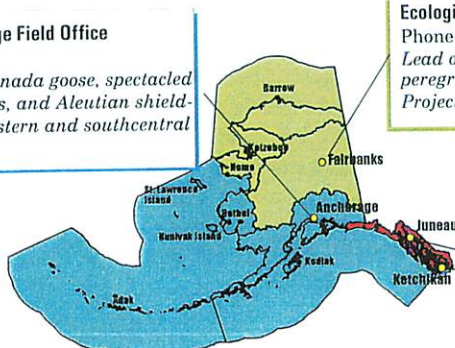
U.S. Fish and Wildlife Service. 1996. Spectacled Eider Recovery Plan. Anchorage, Alaska. 157 pp.

For more information on this and other threatened and endangered species, contact the U.S. Fish & Wildlife Service, Ecological Services Field Office near you.

**Ecological Services Anchorage Field Office**  
Phone (907)271-2888  
Lead office for Aleutian Canada goose, spectacled eider, short-tailed albatross, and Aleutian shield-fern. Project review for western and southcentral Alaska

**Ecological Services Fairbanks Field Office**  
Phone (907)456-0203  
Lead office for Steller's eider, American peregrine falcon, and Eskimo curlew  
Project review for northern Alaska

**Juneau Fish and Wildlife Service Office**  
Phone (907)586-7240  
Ketchikan Sub-office, phone (907)225-9691  
Status review for old-growth forest species in southeast Alaska  
Project review for southeast Alaska



U.S. Fish & Wildlife Service  
1 800/344 WILD  
<http://www.fws.gov>



# Threatened and Endangered Species Protecting Spectacled Eiders At Sea

**S**pectacled eiders (*Somateria fischeri*) were listed as threatened in 1993 under the U.S. Endangered Species Act (*Federal Register*, May 10, 1993) after the breeding population on the Yukon-Kuskokwim Delta, Alaska, declined 96% between the 1970's and the early 1990's. Since spectacled eiders spend most of their lives at sea, minimizing harm in marine habitats is crucial to the species survival and recovery.

## At Sea Distribution and Ecology

Until recently, little was known about the habits of spectacled eiders outside their summer breeding areas.

Researchers are using satellite telemetry and aerial surveys to find the birds at sea, from coastal fall molting areas to offshore wintering areas in the central Bering Sea.

In the late summer and fall after breeding in northern and western Alaska and arctic Russia, spectacled eiders gather in flocks in coastal waters to molt. During molt, the birds become flightless as their old, worn feathers are replaced with new ones.

Four principle molting areas have been identified. Two molting areas on the coast of Alaska are eastern Norton Sound and Ledyard Bay, between Cape Lisburne and Point Lay. On the coast of Russia, eiders molt in Mechigmenkiy Bay on the Chukotka Peninsula and an

USFWS photo by Bill Larned



*Wintering flocks of spectacled eiders, such as this flock of over 80,000 birds, gather in the pack ice southwest of St. Lawrence Island.*

area between the Indigirka and Kolyma river deltas. Molting areas are typically less than 36 meters deep.

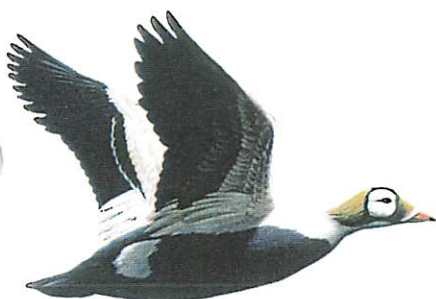
Eastern Norton Sound appears to be the primary molting area for females nesting on the Yukon-Kuskokwim Delta in Alaska, while females nesting in northern Alaska migrate to either Ledyard Bay or Mechigmenkiy Bay to molt. Males from all three breeding areas have been found molting in Ledyard Bay, Mechigmenkiy Bay, and in the area between the Indigirka and Kolyma river deltas.

Males reach molting areas first, beginning in late June, and may remain through mid-October. Females that did not breed or whose breeding efforts failed begin arriving in late July. Successfully breeding females

reach molting areas in late August or September, and may remain through October. Consequently, flightless eiders are present in molting areas from July to October.

By late October, spectacled eiders follow coastal and offshore migration corridors through the Bering and Chukchi seas to offshore wintering areas. The primary wintering area is in the central Bering Sea south and southwest of St. Lawrence Island. Additional wintering areas have not yet been identified.

In early winter, spectacled eiders have been seen within 50 kilometers of St. Lawrence Island, moving farther offshore as winter progresses. Their late winter location appears to move with annual ice coverage as the birds



*While in breeding plumage (October to June), adult male spectacled eiders have a black chest, white back, pale green head with a long sloping forehead, and white spectacle-like patches around the eyes. From July to September, males are entirely mottled brown. Females and juveniles are mottled brown year-round with pale brown eye patches. One of the largest sea ducks, spectacled eiders average 52-56 centimeters (20-22 inches) in length.*

search for open water. When ice cover is extensive, dense flocks of many thousands of eiders gather in small ice-free openings.

While at sea, spectacled eiders appear to be primarily bottom feeders, eating molluscs and crustaceans at depths of up to 70 meters in the wintering area. As spring approaches, food abundance is especially important as females accumulate nutrient reserves needed for egg-laying and incubation.

In March and April, spectacled eiders depart wintering areas. Breeding adults migrate to coastal nesting areas, arriving by mid-May or early June. Males remain on shore for just a few weeks, returning to sea by the end of June after eggs have been laid. Breeding females and their young remain on the nesting grounds until late August or early September. Most females whose nests have failed return to sea by late July.

The location of non-breeding spectacled eiders from May to October is not well known. They probably occur in shallow coastal areas throughout their range in the Bering and Chukchi Seas in scattered small flocks of less than a few hundred birds



*Distribution of spectacled eiders. Molting areas (green) are used July through October. Wintering areas (yellow) are used October through April. The full extent of molting and wintering areas is not yet known, and may extend beyond the boundaries shown.*

### Protecting Spectacled Eiders At Sea

The following measures are suggested to avoid harm to eiders in their molting and wintering areas:

- ☛ Comply with the Endangered Species Act, section 7 regulations; consult with the U.S. Fish & Wildlife Service prior to permitting, funding, participating in, or conducting any activities at sea that may affect spectacled eiders.
- ☛ Prevent oil spills. Even a small amount of oil destroys the insulating properties of feathers and can weaken or kill an eider.

- ☛ Always use absorbent booms when transferring fuel to shore-based facilities.
- ☛ Store adequate oil and fuel clean-up equipment on-site at fuel transfer locations.
- ☛ Do not discharge oily bilge water near molting areas during summer or fall.
- ☛ Avoid disturbing or harvesting benthic communities in eider molting and wintering areas during any time of year.

### References

Federal Register. 1993. Final rule to list the spectacled eider as threatened. Federal Register 58(88):27474-27480.

Petersen, M.R., W.W. Larned, and D.C. Douglas. 1999. At-sea distribution of spectacled eiders (*Somateria fischeri*): 120 year-old mystery resolved. Auk 116: in press.

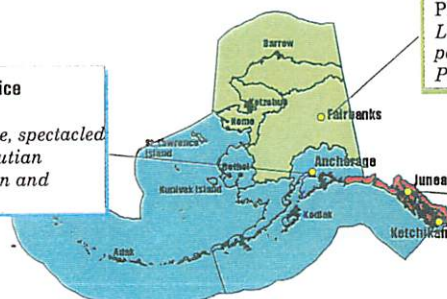
Petersen, M.R., J.F. Piatt, and K.A. Trust. 1998. Foods of spectacled eiders *Somateria fischeri* in the Bering Sea, Alaska. Wildfowl 49:124-128.

U.S. Fish & Wildlife Service. 1996. Spectacled eider recovery plan. Anchorage, Alaska, 157 pp.

*For more information on this and other threatened and endangered species, contact the U.S. Fish & Wildlife Service, Ecological Services Field Office near you.*

**U.S. Fish & Wildlife Service**  
1 800/344 WILD  
<http://www.fws.gov>

**Ecological Services Anchorage Field Office**  
Phone (907)271-2888  
Lead office for Aleutian Canada goose, spectacled eider, short-tailed albatross, and Aleutian shield-fern. Project review for western and southcentral Alaska



**Ecological Services Fairbanks Field Office**  
Phone (907)456-0203  
Lead office for Steller's eider, American peregrine falcon, and Eskimo curlew  
Project review for northern Alaska

**Juneau Fish and Wildlife Service Office**  
Phone (907)586-7240  
Ketchikan Sub-office, phone (907)220-9691  
Status review for old-growth forest species in southeast Alaska



# **U.S. FISH AND WILDLIFE SERVICE**

## **CRITICAL HABITAT FACT SHEET**

### **WHAT IS CRITICAL HABITAT?**

Critical habitat is a term used in the Endangered Species Act. It refers to specific geographic areas that are essential for the conservation of a threatened or endangered species and which may require special management considerations. These areas do not necessarily have to be occupied by the species at the time of designation.

### **DO LISTED SPECIES IN CRITICAL HABITAT AREAS RECEIVE MORE PROTECTION?**

An area designated as critical habitat is not a federally established special conservation area. Listed species and their habitat are protected by the Endangered Species Act whether or not they are in an area designated as critical habitat.

### **WHAT IS THE PURPOSE OF DESIGNATING CRITICAL HABITAT?**

Federal agencies are required to consult with the Service on actions they carry out, fund, or authorize that might destroy or adversely modify critical habitat. A critical habitat designation has no effect on situations where a Federal agency is not involved -- for example, a landowner undertaking a project on private land that involves no Federal funding or permit.

### **DO FEDERAL AGENCIES HAVE TO CONSULT WITH THE SERVICE OUTSIDE CRITICAL HABITAT AREAS?**

Yes, even when there is no critical habitat designation, Federal agencies must consult with the Service to ensure any action they carry out, fund, or authorize is not likely to jeopardize the continued existence of a listed species.

### **WHAT IS THE IMPACT OF A CRITICAL HABITAT DESIGNATION ON ECONOMIC DEVELOPMENT?**

The vast majority of human activities that require a consultation with the U.S. Fish and Wildlife Service proceed with little or no modification.

## **HOW DOES THE SERVICE DETERMINE WHAT AREAS TO DESIGNATE?**

Biologists consider physical or biological habitat features needed for life and successful reproduction of the species. These include, but are not limited to:

- space for individual and population growth and for normal behavior;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- cover or shelter;
- sites for breeding and rearing offspring;
- habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

## **DOES THE ACT REQUIRE AN ECONOMIC ANALYSIS AS PART OF DESIGNATING CRITICAL HABITAT?**

Yes. The Service must take into account the economic impact of specifying any particular area as critical habitat. The Service may exclude any area from critical habitat if it determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of critical habitat, unless it determines based on the best scientific and commercial data available, that the failure to designate the area as critical habitat will result in the extinction of the species.

## **DOES THIS ECONOMIC ANALYSIS HAVE ANY EFFECT ON THE DECISION TO LIST A SPECIES?**

No, under the Act, a decision to list a species is made solely on the basis of scientific data and analysis.

## **FOR HOW MANY SPECIES HAS THE SERVICE DESIGNATED CRITICAL HABITAT?**

To date, the Service has designated critical habitat for 113 of the 1,168 species listed as threatened or endangered.

## **WHY HASN'T THE SERVICE DESIGNATED CRITICAL HABITAT FOR MORE SPECIES?**

The Service in the past assigned a relatively low priority to designating critical habitat because it has believed that a more effective use of limited resources has been to place imperiled species on the threatened and endangered species list.

N:hannan/crithab.fac

## **PROPOSED CRITICAL HABITAT: MOLTING AND WINTERING AREAS**

- Proposed critical habitat for molting and wintering is based on known distribution of spectacled eiders and adequate marine habitat around these documented spectacled eider distributions to allow for seasonal shifts in bird distribution resulting from factors such as weather and changing prey abundance.
- Proposed critical habitat at sea is described by geographic coordinates, shoreline, and the international boundary with Russia.

### **Norton Sound (~6755 mi<sup>2</sup>)**

- Norton Sound is located along the western coast of Alaska between the YKD and the Seward Peninsula. It is the principal molting and staging area for females nesting on the YKD, probably the most imperiled of the three breeding populations. As many as 4,030 spectacled eiders have been observed in one portion of eastern Norton Sound at one time. Spectacled eiders arrive in eastern Norton Sound at the end of July and depart in mid-October. Primary constituent elements of this habitat include the marine waters, associated marine aquatic flora and fauna in the water column, and the underlying marine benthic community. Area: ~6755 mi<sup>2</sup> or 4,323,200 acres.

### **Ledyard Bay (~8370 mi<sup>2</sup>)**

- Ledyard Bay is located along the western coast of Alaska between Cape Lisburne and Point Lay. It is one of the primary molting grounds for female spectacled eiders breeding on the North Slope. Aerial surveys in September 1995 found 33,192 spectacled eiders using Ledyard Bay. Most were concentrated in a 37-km (23-mi) diameter circle with their distribution centered 67 km (42 mi) southwest of Point Lay and 41 km (25 mi) offshore. Primary constituent elements of this habitat include the marine waters, associated marine aquatic flora and fauna in the water column, and the underlying marine benthic community. Area: ~8370 mi<sup>2</sup> or 5,356,800 acres.

### **Wintering Area (~28,535 mi<sup>2</sup>)**

- During winter, spectacled eiders congregate in exceedingly large and dense flocks in openings in the pack ice in the central Bering Sea between St. Lawrence and St. Matthew Islands. Spectacled eiders from all three known breeding populations use this wintering area; no other wintering areas are currently known. Scientists have estimated the entire wintering population, and perhaps the worldwide population, of spectacled eiders at 374,792 birds. Because nearly all individuals of this species may spend each winter occupying an area of ocean less than 50 km (31 mi) in diameter, they may be particularly vulnerable to chance events during this time. Primary constituent elements of this habitat include the marine waters, associated marine aquatic flora and fauna in the water column, and the underlying marine benthic community. Area: ~28,535 mi<sup>2</sup> or 18,262,400 acres.

## **NEXT STEPS**

- The proposed rule is to be signed by February 1, 2000. A 90-day public comment period will open when proposed rule is published. Public comments will be accepted during this period and scientific peer review will be sought on the proposal. Requests for public hearings will be accepted.

- The Service will initiate and publish for public comment an analysis of the potential economic effects of the proposal to designated critical habitat for the spectacled eider.
- After considering all comments on the proposal and any economic effects, the Service must complete a final rule designating critical habitat by December 1, 2000.

**CONTACT**

- David B. Allen, Regional Director, (907) 786-3542, or LaVerne Smith, Assistant Regional Director for Fisheries, Ecological Services, and Marine Mammals (907) 786-3493.

N:\hannanr\speceiderch\chbriefsum

## BRIEFING PAPER

### CRITICAL HABITAT FOR SPECTACLED EIDERS

January 26, 2000

#### ISSUE

- The Fish and Wildlife Service is proposing to designate critical habitat for the spectacled eider. Proposed designation of critical habitat for the spectacled eider includes nesting areas on Alaska's North Slope and the Yukon-Kuskokwim Delta (YKD) and adjacent marine waters; molting areas on Norton Sound and Ledyard Bay; and the only known wintering area in the Bering Sea between St. Lawrence and St. Matthew Islands. These areas total 74,607 square miles or 47,748,469 acres.

#### BACKGROUND

- Spectacled eiders are diving ducks that spend most of the year in marine waters where they primarily feed on bottom-dwelling molluscs and crustaceans. In the United States, spectacled eiders historically nested from the Nushagak Peninsula of southwestern Alaska north to Barrow and east nearly to the Canadian border. Today two breeding populations remain in Alaska. The remainder of the species breeds in Arctic Russia.
- Between the 1970s and 1990s, spectacled eiders on the YKD declined by 96 percent, from 48,000 pairs to fewer than 2,500 pairs in 1992. Based upon surveys conducted during the past few years, the YKD breeding population is estimated to be about 4,000 pairs. The most recent population estimate on the North Slope is currently 9,488 (+/- 1,814 birds). North Slope eiders have no clear population trend.

#### LISTING AND LITIGATION HISTORY

- On December 10, 1990, the Service received a petition from James G. King to list the spectacled eider as an endangered species and to designate critical habitat on the Yukon Delta National Wildlife Refuge and the National Petroleum Reserve-Alaska. On April 25, 1991, the Service published a 90-day finding, that the petition had presented substantial information indicating that listing may be warranted (56 FR 19073). On February 12, 1992, a 12-month finding was signed, determining that listing was warranted. On May 8, 1992, a proposed rule to list the spectacled eider as a threatened species throughout its range was published (57 FR 19852). The Service determined that it was not prudent to designate critical habitat for the spectacled eider because there was no demonstrable benefit that could be shown at that time. Comments were solicited from all interested parties during an extended comment period (160 days). After a review of all comments received in response to the proposed rule, the final rule listing the spectacled eider as threatened without critical habitat was published on May 10, 1993 (58 FR 27474).
- On March 10, 1999, the Southwest Center for Biological Diversity and the Christians Caring for Creation filed a lawsuit in Federal District Court in the Northern District of California against the Secretary of the Department of the Interior for failure to designate critical habitat for five California species and Alaska's spectacled and Steller's eiders.

- In September 1999, the plaintiffs and the Departments of Justice and Interior entered into an agreement in which Interior agreed to re-evaluate its critical habitat determinations for spectacled and Steller's eiders. The government took this action because over the last few years, a series of court decisions have overturned previous Service determinations regarding a variety of species that designation of critical habitat was not prudent (e.g., Natural Resources Defense Council v. U.S. Department of the Interior 113 F. 3d 1121 (9th Cir. 1997); Conservation Council for Hawaii v. Babbitt, 2 F. Supp. 2d 1280 (D. Hawaii 1998)).
- The agreement stipulates that if a "prudent" determination is made, proposals for critical habitat for spectacled eiders and Steller's eiders would be published on February 1, 2000, and March 1, 2000, respectively. Final rules designating critical habitat would subsequently be published December 1, 2000, for spectacled eiders and January 5, 2001, for Steller's eiders. Final "not prudent" determinations would be published by August 1, 2000, for spectacled eider and September 1, 2000, for Steller's eider.

#### **PROPOSED CRITICAL HABITAT: NESTING AREAS**

- Nesting areas on the YKD and North Slope are proposed as critical habitat. Identification of critical habitat for nesting is based on the known distribution of spectacled eiders from aerial survey information and presence of nesting habitat with primary constituent elements.
- Proposed critical habitat on the YKD and North Slope is delineated by township.

#### **North Slope Nesting Unit (~22,558 mi<sup>2</sup>)**

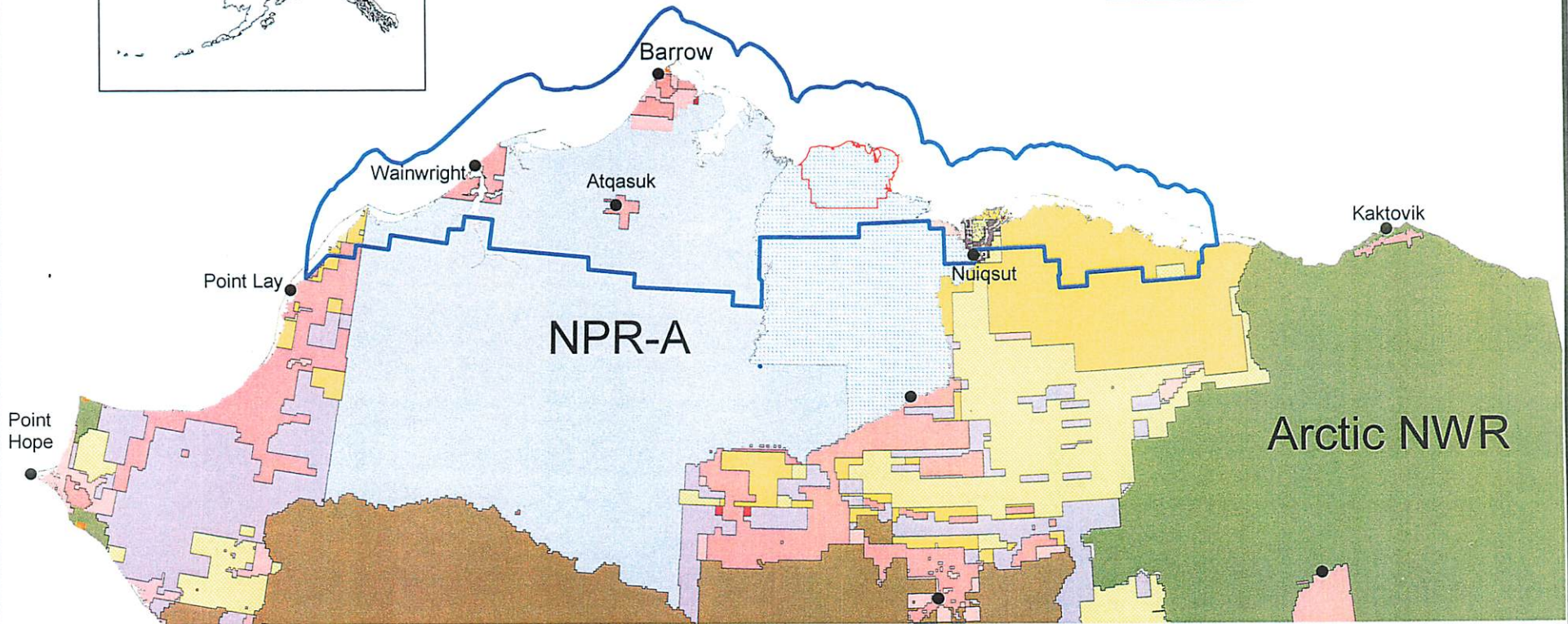
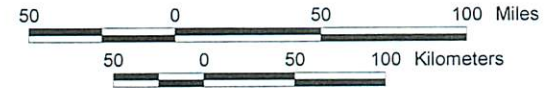
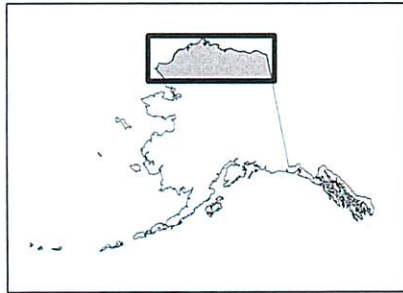
- Primary constituent elements of spectacled eider nesting habitat on the North Slope are described as follows: all deep water bodies; all water bodies that are part of basin wetland complexes; all permanently flooded wetlands and waterbodies containing either *Carex aquatilis*, *Arctophila fulva*, or both; all habitat immediately adjacent to these habitat types; and all marine waters out to 25 miles from shore, its associated aquatic flora and fauna in the water column, and the underlying benthic community. Area: ~22,558 mi<sup>2</sup> or 14,437,120 acres.

#### **Yukon-Kuskokwim Delta (YKD) Nesting Unit (~8367 mi<sup>2</sup>)**




- Primary constituent elements of spectacled eider nesting habitat on the YKD are described as follows: spectacled eiders occupy YKD coastal fringe habitat, and a swath along the YKD coast. Within the coastal fringe, spectacled eiders use open water, low wet sedge, grass marsh, dwarf shrub/graminoid meadow, high and intermediate graminoid meadow, mixed high graminoid meadow/dwarf shrub uplands, and areas adjacent to open water, low wet sedge and grass marsh. The habitat also includes all marine waters out to 25 miles from shore, its associated aquatic flora and fauna in the water column, and the underlying benthic community. Area: ~8367 mi<sup>2</sup> or 5,354,880 acres.

# Spectacled Eider Critical Habitat and Land Status

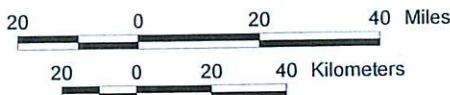
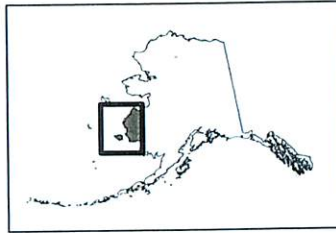
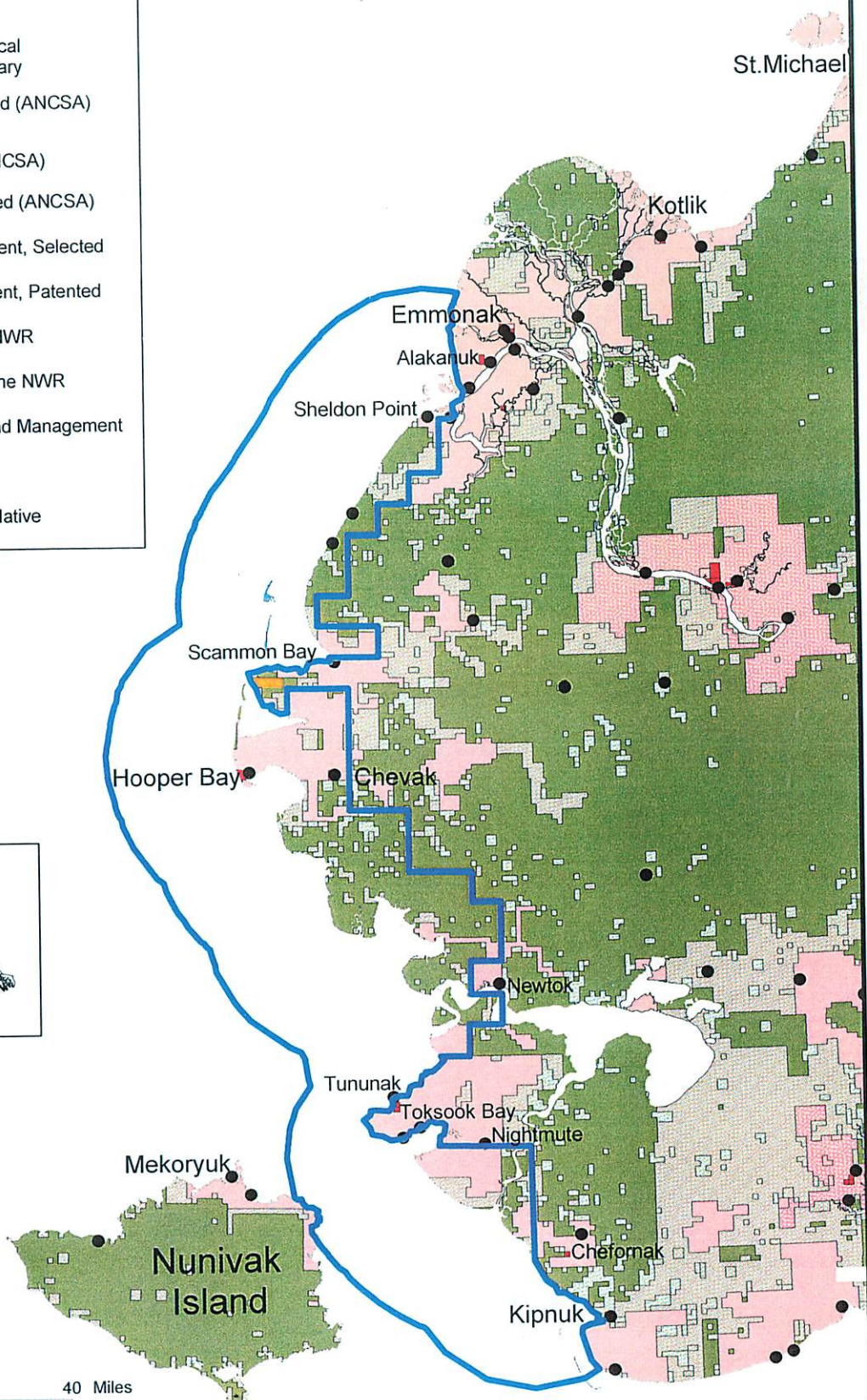
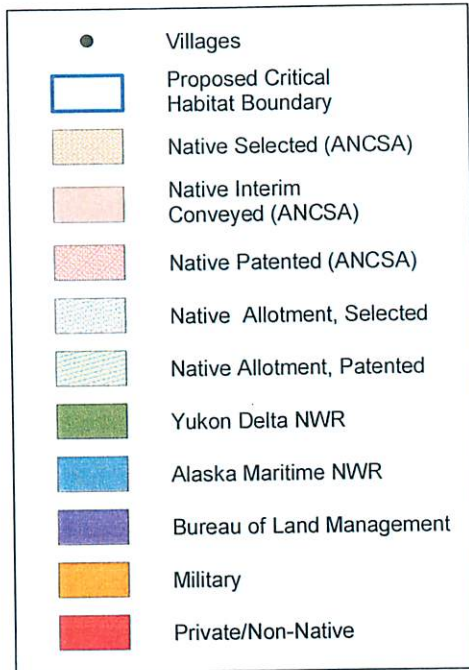
## North Slope Breeding Habitat



### Land Status

	Proposed Critical Habitat Boundary		Bureau of Land Management (non-NPRA)		Joint Native/State
	Villages		National Park		State Patented
	National Petroleum Reserve-Alaska (NPR-A)		National Wildlife Refuge		State Tentatively Approved
	Northeast Planning Area (NPR-A)		Native Patented		Private/Non-Native
	Teshekpuk Lake Surface Protection Area		Native Interim Conveyed		Military

# Spectacled Eider Critical Habitat and Land Status Yukon-Kuskokwim Delta Breeding Habitat





# Spectacled Eider Proposed Critical Habitat Molting and Wintering Habitats at Sea

