

2023 Seabird Report to the North Pacific Fishery Management Council

April 2023

The NMFS Alaska Groundfish and Halibut Seabird Working Group (Working Group) did not meet in March 2023; however the Working Group is planning on meeting in November and did want to provide updates to the Council.

This report broadly summarizes 1) estimated 2022 seabird bycatch in Federal fisheries operating off Alaska, 2) fisheries take of Endangered Species Act (ESA) listed seabirds and the 2021 Biological Opinion, 3) USFWS update on seabird population status and trends in 2021 and an upcoming Migratory Bird Treaty Act rule to address the incidental take of seabirds in fisheries, and 4) other updates from the Working Group. This report includes contributions from NMFS (Alaska Regional Office, Alaska Fisheries Science Center) and U.S. Fish and Wildlife Service (USFWS).

Seabird Bycatch in Federal Fisheries off Alaska

Please note that all bycatch values are reported as estimates and not actual numbers of seabirds. For a detailed explanation of seabird bycatch estimation procedures please refer to the most recent NMFS annual seabird bycatch report:

<https://repository.library.noaa.gov/view/noaa/32076>.

The 2022 estimated seabird bycatch for the combined groundfish and halibut fisheries (4,620 birds) was less than the 2013 through 2021 annual average of 6,170 birds, but greater than the estimated seabird bycatch in 2021 (4,590 birds). Estimated bycatch of black-footed albatross (*Diomedea nigripes*) and Laysan albatross (*Phoebastria immutabilis*) was lower in 2022 than 2021, and well below the 2013 through 2021 annual average. In 2022, the estimated bycatch of black-footed albatross (251 birds) was 23% lower than the 2013-2021 average (327). The 2022 estimated bycatch of Laysan albatross (45 birds) was 62% lower than the 2013-2021 average (119). We did not have reported takes of ESA-listed seabirds (endangered short-tailed albatross (*Phoebastria albatrus*), threatened spectacled eider (*Somateria fischeri*), and threatened Alaska-breeding population of Steller's eider (*Polysticta stelleri*)) in 2022.

The increase in estimated seabird bycatch rate over 2021 levels can be seen as a return to pre-pandemic fishing effort and observer coverage. The overall seabird bycatch numbers continue to be driven by Northern fulmar (*Fulmarus glacialis*) bycatch. In 2022, an estimated 2,224 Northern fulmars were caught, almost twice that of 2021 (1,120) but well below the 2013 -2021 average of 3,041 birds.

As was noted in 2021, the sablefish IFQ fishery continued to expand the use of pot gear in 2022. This continued shift away from hook-and-line gear may partially explain the low seabird bycatch estimates in 2021 relative to the 2013-2021 average, particularly with lower albatross bycatch estimates as seen in 2022, even as fishing effort and observer coverage returned to pre-

pandemic levels. Seabird takes by pot gear are relatively rare compared to takes by hook-and-line gear. If the sablefish IFQ fishery continues to increase its use of pot gear over hook-and-line gear moving forward, we expect reduced take of seabirds in this fishery.

NMFS annually produces a comprehensive summary of seabird bycatch estimates for Alaska Groundfish and Halibut fisheries. Please refer to this report for a more detailed description of seabird bycatch estimates for Federal fisheries off Alaska. The 2021 bycatch report is available here: <https://repository.library.noaa.gov/view/noaa/46629>.

The 2022 report will be available on NMFS seabird bycatch webpage in June 2023: <https://www.fisheries.noaa.gov/alaska/bycatch/seabird-bycatch-alaska>.

ESA-Listed Seabirds and 2021 Biological Opinion

ESA-listed seabirds in the Alaska Region include the endangered short-tailed albatross (*Phoebastria albatrus*), the threatened spectacled eider (*Somateria fischeri*), and the threatened Alaska-breeding population of Steller's eider (*Polysticta stelleri*). Two other populations of Steller's eider occur in waters off Alaska but only the Alaska-breeding population is listed under the ESA.

The March 8, 2021 USFWS Biological Opinion ([2021 USFWS](#)) for Alaskan groundfish fisheries provides incidental take statements for ESA-listed seabirds:

- The reported take should not exceed six short-tailed albatrosses in a 2-year period.
- The reported take should not exceed 25 spectacled eiders in a floating 4-year period.
- The reported take should not exceed three Steller's eiders in a floating 4-year period.

These three incidental take statements for ESA-listed seabirds have not been exceeded at this time.

The prior interactions with ESA-listed eiders were due to vessel collisions, not direct gear interactions. To reduce vessel collisions, the 2021 USFWS Biological Opinion ([2021 USFWS](#)) provided the following recommendations:

- The NMFS will recommend that to the maximum extent practicable, vessels will minimize the use of external lighting at night and avoid the use of sodium lighting and other high-wattage light sources, except when necessary for vessel and crew safety.
- The NMFS will also recommend that all lights should be angled or shielded downward toward the surface of the water, except when necessary for safe vessel operation.

All injured and dead ESA-listed seabird species must be reported and carcasses retained to confirm proper species identification. In addition, the USFWS has asked NMFS to engage with fishing vessels operating in the northern Bering Sea to help document the occurrence of spectacled eider on the fishing grounds. The USFWS requests vessels voluntarily report other sightings of listed eiders using the *Threatened and Endangered Bird Species Encounter and Reporting Form* found here:

<https://www.fisheries.noaa.gov/alaska/bycatch/seabird-avoidance-gear-and-methods>.

U.S. Fish and Wildlife Service Update – Seabird Population Status and Trends in 2022; Migratory Bird Treaty Act Incidental Take Regulatory Process

The U.S. Fish and Wildlife Service (USFWS) annually monitors select representative seabird species and colonies across Alaska. In 2022 seabird colonies were monitored in the Bering Sea, Aleutian Islands, Alaska Peninsula, and Gulf of Alaska (Figure 1). The results from monitored colony sites show reproductive success generally improved in 2022 with the majority of seabird species showing average or above average reproductive success across Alaska. Thick-billed murres on the Pribilof Islands were the exception where reproductive success was below average at monitored colony sites on St. George and St. Paul Islands. In the Gulf of Alaska, parakeet auklets also indicated below average reproductive success at Chowiet Island.

In 2022 seabird mortality events were reported in the Chukchi and Bering seas, and the Gulf of Alaska. The USFWS received reports of ~450 seabird carcasses primarily from the Bering Strait region and the Aleutian Islands. The majority of species reported included: murres, puffins, auklets, gulls, and shearwaters. Necropsy results determined starvation was the primary cause of death. Highly pathogenic avian influenza (HPAI) was also detected in Alaska in early 2022. Initial results indicate that seabirds were minimally impacted by the HPAI event. The USFWS will continue to work with partners, including local community representatives, the State of Alaska, National Park Service, U.S. Geological Survey, National Oceanic and Atmospheric Administration, and the Coastal Observation and Seabird Survey Team to regionally monitor and respond to potential future seabird health and mortality events.

The USFWS is in the process of proposing a Migratory Bird Treaty Act (MBTA) rule to address the incidental take of birds including fisheries. The proposed rule is currently undergoing development and an internal review process. The rule will include permit exceptions by regulatory authority, general permits, and specific permits to address seabird bycatch. We anticipate the draft rule being published in Summer 2023 where it will be open for public comments. Additional information on the Migratory Bird Treaty Act (<https://fws.gov/law/migratory-bird-treaty-act-1918>) and Incidental Take (<https://fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>) are provided on the U.S. Fish and Wildlife website.

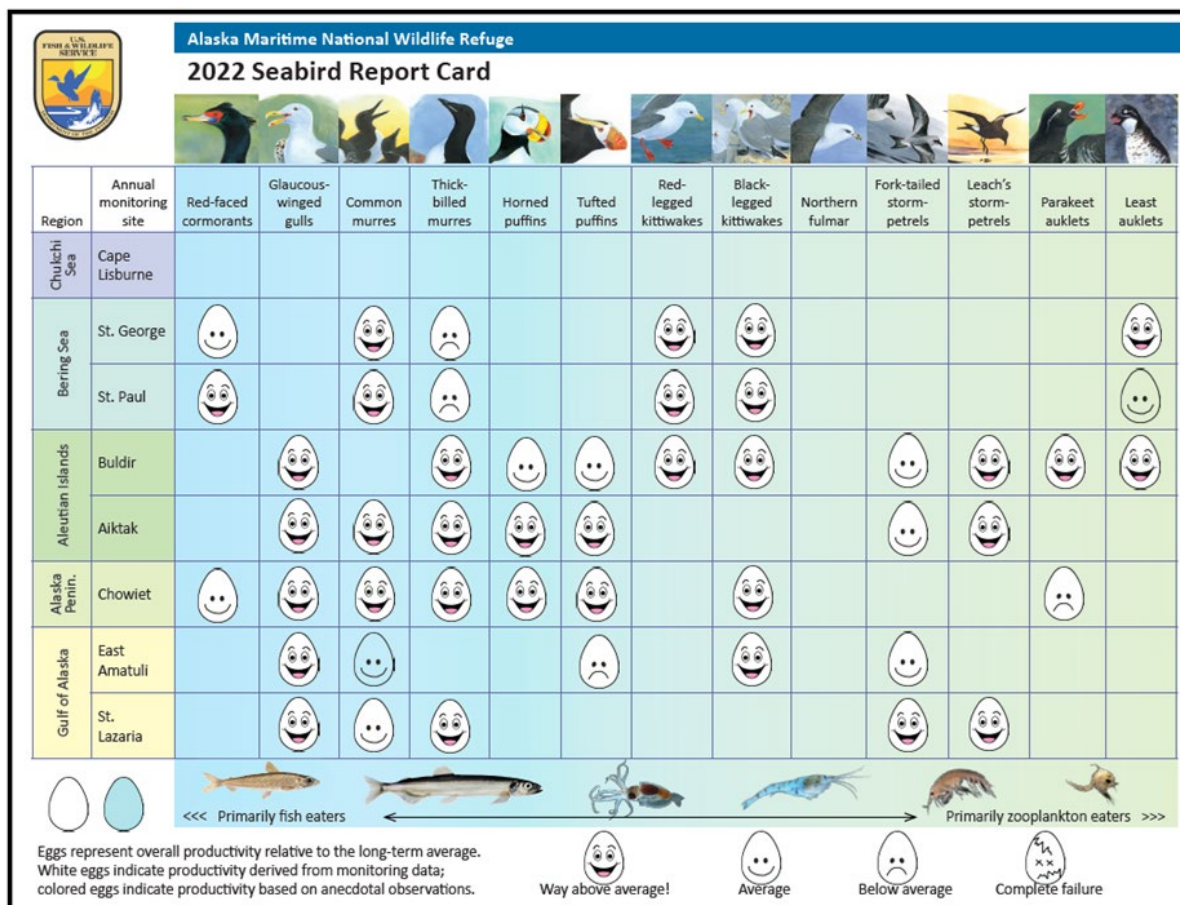


Figure 1. The 2022 Alaska Seabird Report Card summarizing seabird productivity at colony sites monitored by the U.S. Fish and Wildlife Service Alaska Maritime Refuge. "Way above average" means more than 1 standard deviation above the long term mean at that site. "Below average" means more than 1 standard deviation below the long term mean.

Other Updates

Alaska Fisheries Science Center Seabird Studies Planning

During May-July 2021, a broad suite of stakeholders, partners, and collaborators participated in feedback sessions regarding a strategic plan for the Alaska Fisheries Science Center's Coordinated Seabird Studies group (CSS). We compiled feedback from 20 listening sessions and written responses, from 37 individuals, representing 22 different groups. The AFSC Science Plan and the National Seabird Program Strategic Plan were among the important reference documents used in support of this effort. This feedback supported development of a strategic plan for seabird related activities at the AFSC and was approved by AFSC leadership in December, 2021.

The goals of this plan are:

1. Monitor, assess, and respond to seabird bycatch trends.

2. Co-create and implement mitigation measures to reduce seabird bycatch.
3. Integrate and synthesize seabird data for ecosystem-based fisheries management (EBFM) efforts.
4. Contribute to, and summarize basin-wide seabird trends in support of EBFM.
5. Represent CSS initiatives and results nationally and internationally.

The challenges identified are:

1. Changes in the timing, distribution, and abundance of seabirds and their prey.
2. Changes in the timing and distribution of fishing effort.
3. Changes to fishing gear and/or fishing methods.

The full strategic plan is available at <https://doi.org/10.25923/wxtz-q514>. We thank all listening session participants for their valuable feedback and ideas for future work and foci. Staff involved in seabird-related activities at the AFSC will use the annual Activity Plan Prioritization process, continued outreach to clients and end-users, and available resources to determine specific work during each performance year.

Trawl/Seabird Cable Interactions

AFSC staff are completing several documents based on observer data collection of seabird mortalities related to trawl 3rd-wire, warp, and net entanglements that occur outside of the species composition sampling. These seabird mortalities do not get reported in the Annual Seabird Report, which provides estimates based on observer species composition sampling. Collecting data on these additional mortalities pose some difficulties with randomized data collection, so a report summarizing just the mortalities observers have noted since 2010 is being prepared to be used in concert with the annual report.

Seabird Mitigation Measure Research

AFSC staff are coordinating with the National Seabird Program to implement a proof-of-concept trial to determine if UV-phased lighting could be a deterrent to procellariid (albatross, fulmar, and shearwater) interactions with vessels. This technology has been tested on airport runways with success. If the technology works on seabirds it could have wide application to reducing seabird mortalities and a follow-up collaborative study would be implemented.

Seabird Observer Notes

We previously reported that we are exploring the Seabird Observer Notes which address seabird/fishery interactions other than the direct mortalities reported by observers during their species composition sampling. Staff are currently using the vessel collision information component of these notes to summarize interactions by species, regions, and other factors. This work helps identify next steps in data quality control and other measures to make full use of this source of information.

Outreach

The USFWS has developed draft materials for fishing vessels to help fishers both identify seabirds of special interest (ESA-listed) and to know what to do should they encounter or see ESA-listed seabirds or should they witness or experience an extraordinary seabird event (e.g., a bird storm involving an ESA-listed species). Please see the outreach materials at the end of this report.

- Identification of Short-tailed Albatross, Steller's Eiders and Spectacled Eiders (pg 7-17)
- Bird Vessel Strike Avoidance Measures (pg 18-19)

These materials will also be available on the NMFS seabird bycatch webpage soon:

<https://www.fisheries.noaa.gov/alaska/bycatch/seabird-bycatch-alaska>.

During the 2021 discussion with stakeholders at the Working Group meeting, individuals representing various trawl fleet operations pointed out that they were not familiar with seabird outreach materials. This is likely because regulations around seabird bycatch mitigation are generally focused on the use of streamer lines in hook-and-line fisheries to avoid bycatch. The vast majority of seabird bycatch comes from the hook-and-line fisheries. However, the Working Group agreed efforts to engage the fisheries to help mitigate seabird interaction would be worthwhile. As such, NMFS will plan to disseminate draft seabird identification and vessel strike avoidance mitigation materials to vessels and will begin coordinating the development of new outreach materials for these fisheries.

A limited number of streamer lines continue to be available for free to fishermen using hook-and-line gear in Federal groundfish and halibut fisheries off Alaska. Contact Josh Moffi (joshua.moffi@noaa.gov) for more information.

Both NMFS and the USFWS are hoping to collaborate with industry stakeholders on these efforts to ensure these outreach materials are effective and useful. Staff from both agencies are ready to begin to engage with industry stakeholders to elicit input and feedback.

IDENTIFICATION OF SHORT-TAILED ALBATROSS, STELLER'S EIDERS AND SPECTACLED EIDERS

U.S. Fish and Wildlife Service, Alaska

Identification tips to help you distinguish ESA-listed birds from other commonly seen bird species
in marine areas around Alaska

Think you may have encountered an ESA-listed bird?

Below are tips to help you identify Short-tailed albatross, Steller's eiders and spectacled eiders

- Don't rely on feather color! Color can vary with age, sex and season.
- Examine the **head** and **bill**
 - Compare the **head** and **bill** of the encountered bird, to details and photos in this packet.
- Call the USFWS anytime for help with bird identification.

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SHORT-TAILED ALBATROSS

- There are **three species of albatross** commonly seen at sea around Alaska. One species, the **short-tailed albatross**, is **protected** under the Endangered Species Act.
- **Don't rely on feather color to identify short-tailed albatross.**
 - May appear similar in color to other species of albatross
 - Change colors as they age

SIZE REFERENCE



Short-tailed albatross can be distinguished from all other albatross by one defining characteristic: a bubblegum - pink bill

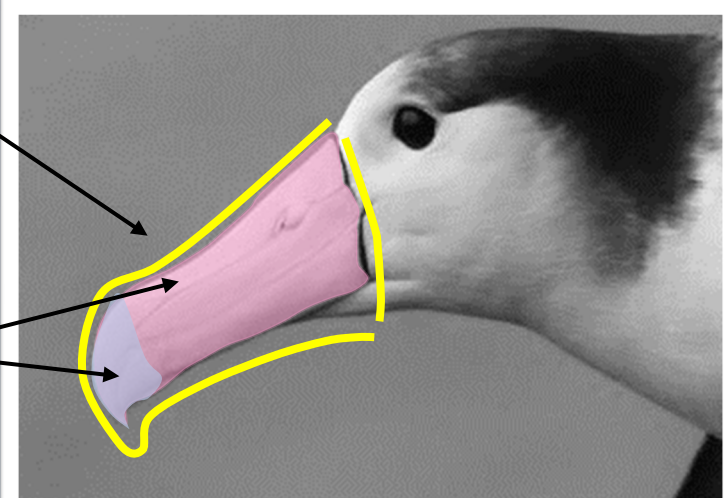
- Does the shape of the bill look like this?

- Large
- Thick, rectangular in shape
- Small hook at end of bill

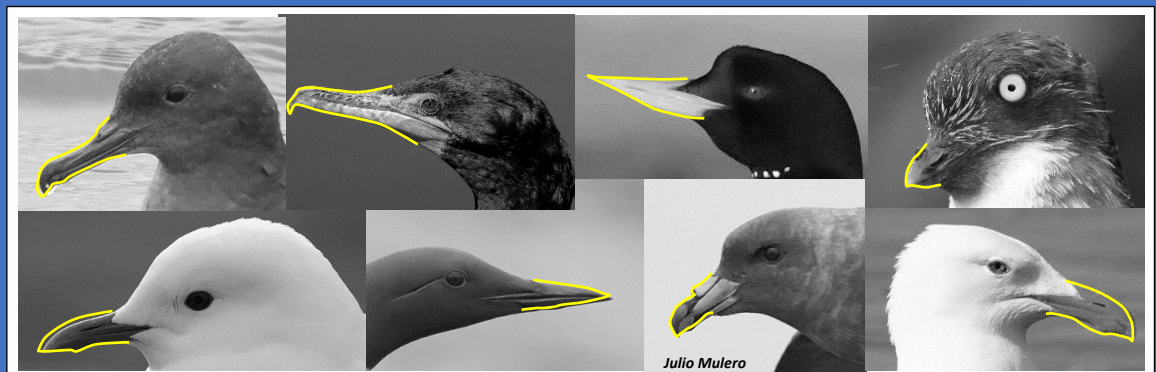
If so, you are likely looking at an albatross.

- Is the bill **bubblegum-pink with a blue tip?**

If so, you are looking at a short-tailed albatross.



Compare bill shape to other commonly seen birds at sea around Alaska



SPECTACLED & STELLER'S EIDERS

- There are **four species of eider** commonly seen in marine areas around Alaska. **Two species, spectacled and Steller's eiders** are **protected** under the Endangered Species Act.
- Don't rely on color to identify listed eiders:

MALES AND FEMALES CAN LOOK DIFFERENT



FEATHER COLOR VARIES WITH AGE, SEX AND SEASON

- In the fall, male and female spectacled and Steller's eiders may appear drab in color

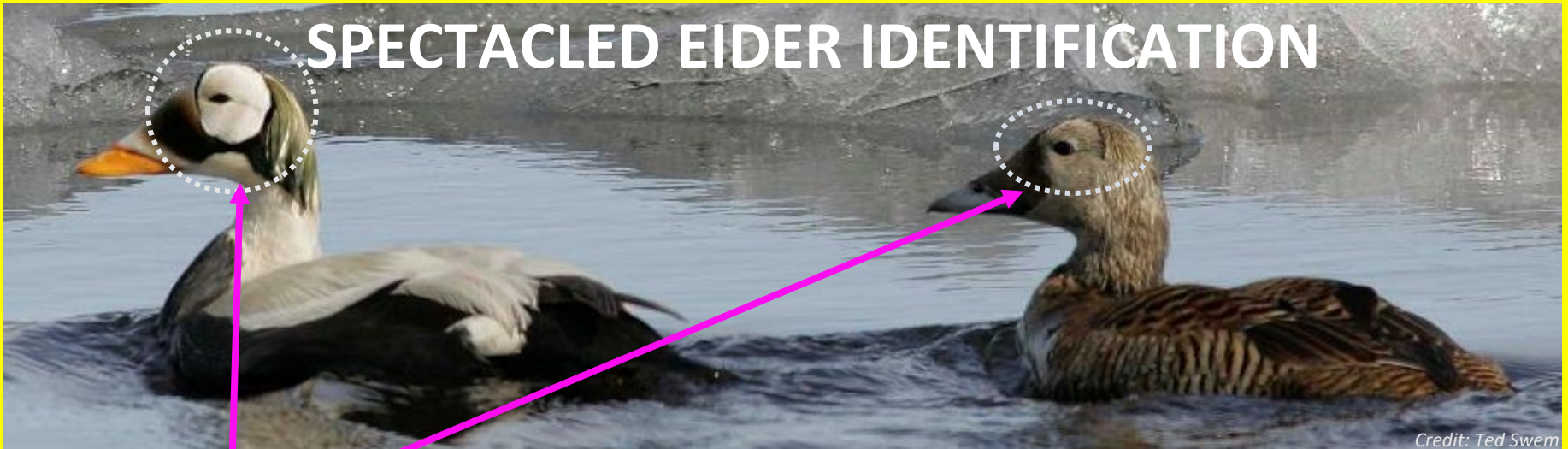
Steller's eiders with drab feather color



Spectacled eiders with drab feather color



SPECTACLED EIDER IDENTIFICATION



Credit: Ted Swern

Look for "spectacles"



- Subtle but still apparent on female and nonbreeding birds



USFWS, YKD Refuge



Wildfowl & Wetlands Trust, Washington Center

Compare the bill of spectacled eiders to that of other eiders

- **Head feathers of spectacled eiders extend far down bill, appearing to overlay bill**



Nick Athanas

SPECTACLED EIDERS



USFWS, YKD Refuge



COMMON EIDER



KING EIDER

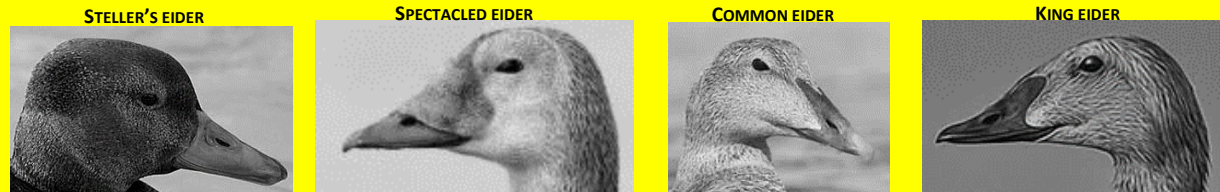
Mike Thompson

STELLER'S EIDER IDENTIFICATION



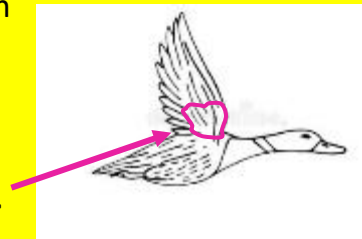
Credit: Ted Swem

- Look quite different than the other three species of eider
 - Smallest of the eider species
 - Head/bill shape is different



Steller's eiders of varying sex and age but all showing white armpit feathers

- May be hard to distinguish from other, non-eider, sea duck species.



Look for white underwing or "armpit" feathers



Ted Swem

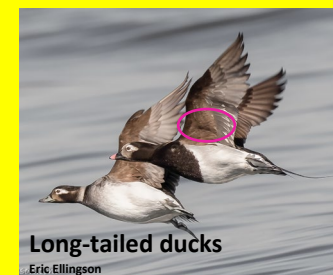
Tim Melling

- Other, similar sized, sea duck species overlap in range with Steller's eiders, but lack white underwings.

Two other commonly seen species of sea duck, similar in size to Steller's eiders, but without white armpit feathers



Harlequin ducks
Chad Goddard



Long-tailed ducks
Eric Ellingson

TIPS TO HELP YOU DISTINGUISH ESA-LISTED EIDERS FROM OTHER EIDERS

ESA-listed eiders

Not ESA-listed eiders



FEMALE EIDERS MAY BE PARTICULARLY DIFFICULT TO TELL APART

FEMALE SPECTACLED EIDER

FEMALE COMMON EIDER

FEMALE KING EIDER

FEMALE STELLER'S EIDER

★ *ESA-Listed*



Not ESA-Listed



Not ESA-Listed



★ *ESA-Listed*



Note details of the head and bill of an encountered duck. Refer to the head shots below to help determine if the duck is an eider, and if so, if it's an ESA-listed eider.

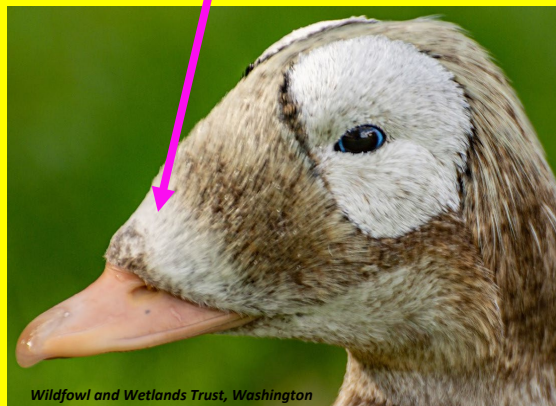
****Remember, don't rely on color! Feather and bill color can vary with age, sex and time of year.***

Spectacled eiders

- Look for spectacle pattern around eyes

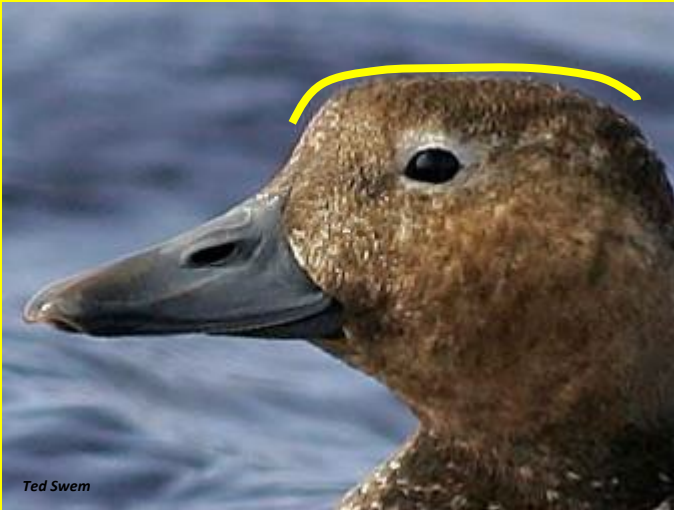


- Head feathers extend far down bill



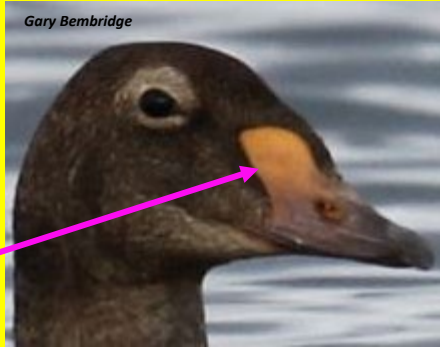
Steller's eiders

- Long, heavy bill
- Top of head appears flattened



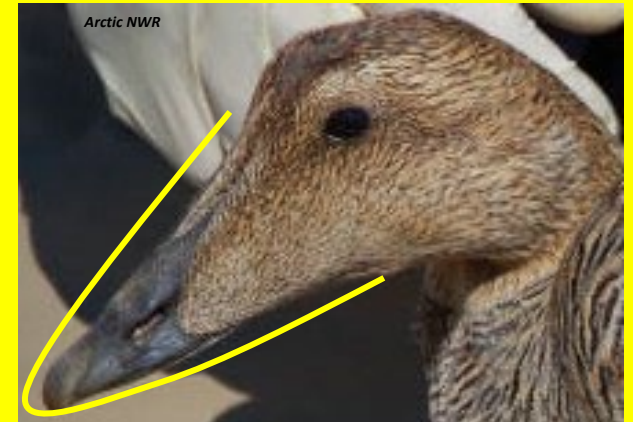
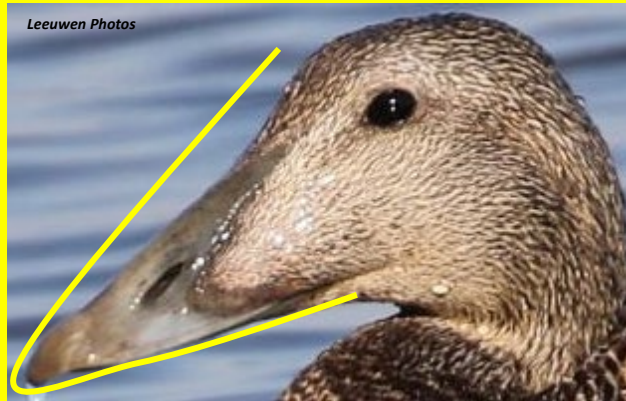
King eiders

- Notice the enlarged frontal region or knob on bill
- Reduced in females and young birds



Common eiders

- Long, wedge shaped head and bill



Bird Vessel Strike Avoidance Measures

It is the Service's intent that mariners be cognizant of these recommendations, although we recognize that they may not always be suitable or practicable to implement. Health and human safety is always the first priority.

Factors identified to increase the risk of bird – vessel strikes/collisions include:

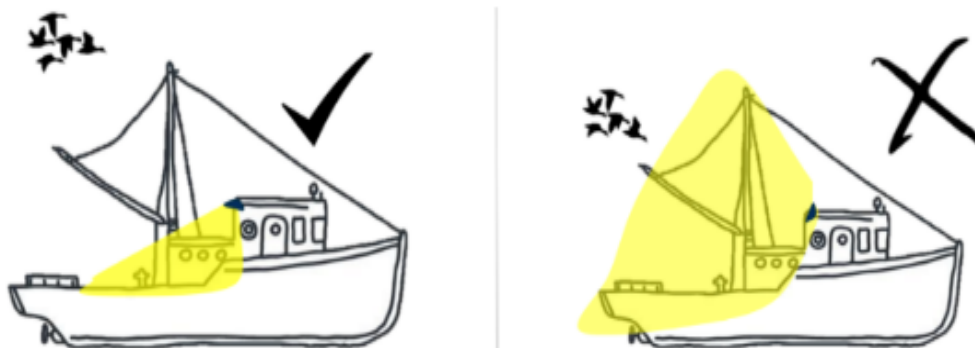
1. **Vessel lighting** (may confuse and can even attract birds)
2. **Impaired visibility** (i.e., night or during inclement weather)
3. **Vessel gear** (gear that may not be visible to birds, such as lines and towing equipment.)
4. **Seasonal timing** (during bird migration and molt)

Vessel Lighting

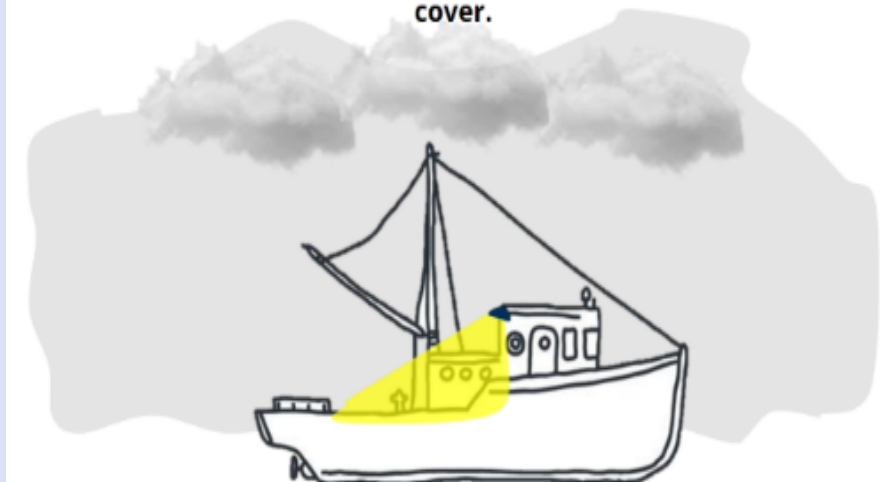
To reduce light distraction/attraction to birds, the Service recommends:

- Mariners attempt to keep deck lighting to a minimum, and **shield lights to direct illumination inboard and downward** to the extent possible while still maintaining compliance with navigation rules.
- If **red lighting** is used, lights be **limited to interior spaces**.
- **Windows be shaded** to the extent practicable when indoor spaces are lit.

Shield lights to direct illumination inboard and downward to the extent possible

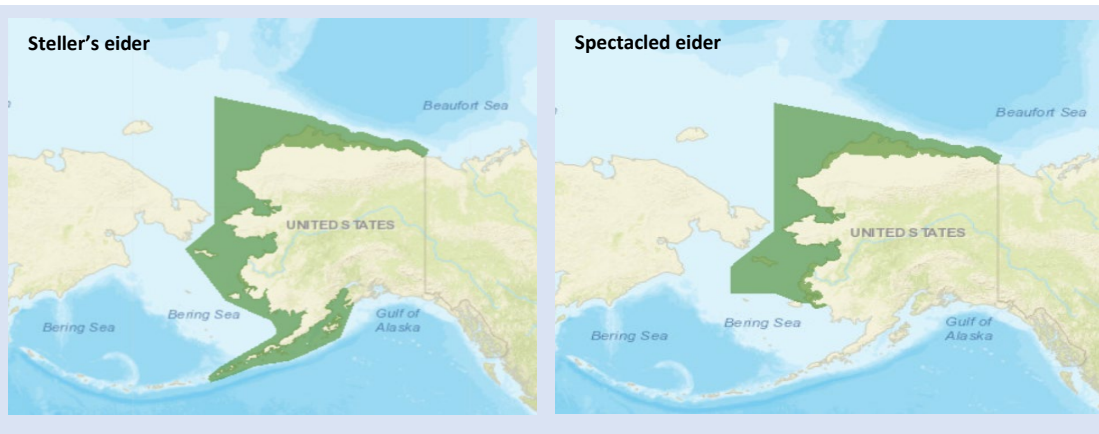
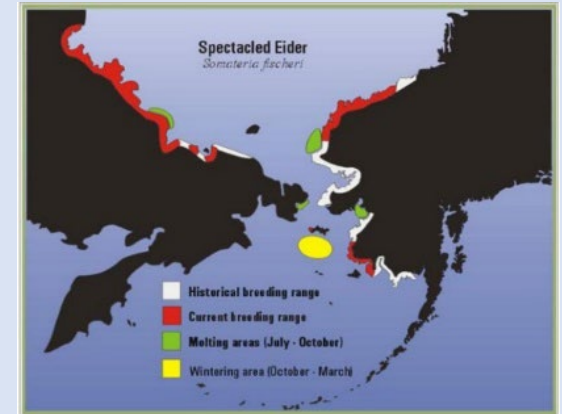
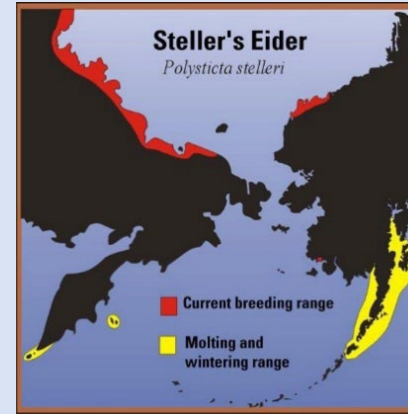


Be particularly mindful of vessel lighting when visibility is impaired, such as during periods of increased fog or cloud cover.



Eider Timing Considerations

1. Concern for eider- vessel collision risk is particularly high between August and November, during which time Steller’s and spectacled eiders frequently fly in large groups between nesting, molting and wintering areas. This timing coincides with decreasing hours of daylight and a high potential for inclement weather, both of which may impair eider visibility and increase the likelihood that birds may become disoriented by ship lighting. We can predict where spectacled and Steller’s eiders are likely to nest, molt and spend winter months.



2. Less is understood about the path’s that eiders take between these locations. Factors such as weather, food availability and annual variation in breeding success, likely contribute to route selection. Therefore, there is the potential to encounter Steller’s and spectacled eiders over large regions of the Beaufort, Chukchi, Bering seas and in the Gulf of Alaska, including along shipping lanes. Vessels moving in these areas after daylight may encounter flocks of migrating eiders.

3. Areas have been designated as critical habitat for both spectacled and Steller’s eiders. These areas are critically important to each species during seasonal timing of molt and winter feeding. Individuals are particularly vulnerable to disturbance in these areas.

We ask that mariners are cognizant of the importance of these locations to each species; please avoid and/or limit transit and activities (research, fishing, etc.), and habitat disturbance, in these areas. Additionally, always avoid congregations of eiders within these areas as they may be flightless and unable to move away from vessels.

