

# 10 | Alaska Priorities



*Pelagic Cormorants and gulls. J. Jenniges, used with permission.*

In a review of the original State Wildlife Action Plans (SWAP), the Association of Fish and Wildlife Agencies (AFWA) recommended greater prioritization of “species of greatest conservation need” (SGCN), habitats, threats, and conservation actions in plan revisions (AFWA 2012). There is a rich literature on the need for and the approaches to setting conservation priorities (Margules and Pressey 2000, Bunnell et al. 2004, Joseph et al. 2009, Arponen 2012). In addition to extinction risk, other factors such as ecological, cultural, and economic importance may be considered (AFWA 2012). Conservation priorities can also include subjective factors such as threats (Master 1991), available remedies, costs (Hughey et al. 2003), and prospects for a given project’s success (Wilson et al. 2009). Broadly, Alaska Department of Fish and Game’s (ADF&G’s) goal is to manage fish and wildlife species according to the sustained yield principle, to ensure maximal long-term use of natural resources across the state, while simultaneously avoiding the need to list species as threatened or endangered under the Endangered Species Act (ESA). In this chapter, we focus on priority species, habitats, and threats, as well as priority conservation and management actions to achieve that goal.

## **Species Priorities**

The intentionally large list of SGCN reflects the inherent uncertainty surrounding the status of these species in Alaska, where the landscapes are expansive, rugged, and remote; ecosystems remain largely intact; and data on populations are sparse. The scope of species on the SGCN list is important

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for proactive conservation aimed at avoiding the need to list species as threatened or endangered under the ESA. For example, monitoring a variety of SGCN enables earlier detection of (and appropriate responses to) unanticipated declines. However, due to limited funding and capacity, ADF&G chooses to undertake research projects based on species priorities. As an initial screening step, we assigned the highest priority to SGCN with documented conservation and management concerns, such as a steep population decline (e.g., negative trend) or a small population size, and for which Alaska has high stewardship responsibility. Examples of high-priority taxa on this basis are shown in Table 10.1.

The highest priority species logically include those that meet multiple criteria for inclusion as SGCN. For example, a stewardship species, an ecologically important aquatic or invertebrate species, or a culturally and/or economically important species with a small, declining (at risk) population would naturally rank high. Our initial efforts to develop a list of priority species were hampered by the lack of information on the conservation status of many taxa (e.g., unknown population size, trend, and percentage of population in Alaska) and the lack of clear guidelines for defining ecologically important species.

Using the conservation priority criteria described above, the highest priority SGCN are those that are relatively well recognized across agencies and working groups and on which more research has been, or is currently being, conducted. For example, there is much more population status information on birds and marine mammals than on small mammals and marine invertebrates. Additional attempts to prioritize SGCN using these conservation criteria were met with objections from those whose interests and concerns are on data-deficient taxa. In this 2025 version of the SWAP, we have adopted the Alaska Species Ranking System as an objective method to rank and identify at-risk species and to assist in setting wildlife conservation and management priorities for terrestrial vertebrates and marine mammals. This system recognizes not only species in decline but also the importance of filling information gaps, which is included as a criterion for inclusion as SGCN.



*King Eider. A. Bankert, ABR, used with permission.*

The list in Table 10.1 represents one set of SGCN priorities for Alaska. We refer the reader to Appendices A through C, which list the reasons for including each SGCN in this action plan. Different taxa will rise or fall in priority depending on the categories of conservation need that one chooses to prioritize, whether it be an “at-risk” species in steep decline, a data-deficient species, a culturally important species, or a stewardship species.

In addition to assessing the perceived need for work on a given species, other factors such as feasibility, affordability, and utility of expected results should be considered before any State Wildlife Grant (SWG) project is proposed and approved. The process for considering these additional factors is covered in the “Funding Decisions” section in Chapter 11.

Table 10.1. Examples of high-priority “species of greatest conservation need” (SGCN) from several taxonomic groups. Each is notable for its relatively small, declining, or vulnerable population that heavily depends on habitats in Alaska. The list is not ordered by priority.

| Species                                     | Population Size or Index                     | Percent in Alaska | Trend                  | Status  | Reference                |
|---|--|-------------------|------------------------|---|--------------------------|
| North Pacific right whale (East population) | 31   | 100%              | Stable                 | Endangered. Very small, depleted population.                              | Young et al. (2024: 327) |
| Beluga whale (Cook Inlet)                   | 279  | 100%              | Stable                 | Endangered. Declined, depleted population.                                | Young et al. (2024: 327) |
| Alaska hare                                 | Unknown                                      | 100%              | Unknown                | Endemic species, hunted, suspected decline.                               | ADF&G studies underway   |
| Emperor Goose                               | 18,788 <sup>a</sup>                          | >80–90%           | Declining              | Small population, below management threshold.                             | Frost et al. (2024)      |
| Spectacled Eider                            | ~369,000                                     | >90%              | Declining <sup>b</sup> | Threatened. Vulnerable to sea ice conditions.                             | USFWS (2021)             |
| Marbled Godwit ( <i>beringiae</i> )         | 2,000  | 100%              | Declining              | Small population, declining, vulnerable.                                  | ASG (2019)               |
| Aleutian Tern                               | 5,529  | 100%              | Declining              | Small population, declining.  | Renner et al. (2015)     |
| McKay’s Bunting                             | 19,481                                       | 100%              | Declining              | Small population, endemic.  | Richardson et al. (2024) |
| Rock Sandpiper ( <i>ptilocnemis</i> )       | 19,800                                       | 100%              | Unknown                | Small population, restricted breeding range.                              | ASG (2019)               |
| Gray-headed Chickadee                       | Unknown, likely not more than a few thousand | ~90%              | Unknown                | Suspected decline, small population, declining range in North America.    | Booms et al. (2020)      |
| Pacific Black Brant <sup>c</sup>            | ~245,000                                     | 100%              | Stable                 | Vulnerable during migratory staging in Alaska, recent population decline. | USFWS (2025)             |
| Bristle-thighed Curlew                      | 10,000                                       | 100%              | Stable                 | Small population, vulnerable.   | ASG (2019)               |

<sup>a</sup> Survey index from the Yukon-Kuskokwim Delta only (not a total population count).

<sup>b</sup> Alaska breeding population is declining. Winter surveys of the global population are apparently stable.

<sup>c</sup> Pacific Brant Fall Photographic Survey at Izembek Lagoon, estimate of Brant in fall including breeders from Russia and Canada

The selection and prioritization of aquatic SGCN has been and will continue to be handled differently from terrestrial species. Large, ongoing shifts in aquatic ecosystems due to climate change, high levels of interdependence among species, and lack of knowledge about individual species status necessitate addressing aquatic issues on higher taxa or ecosystem levels (ADF&G 2025). Additionally, the existing SWG funding mechanism is inadequate for managing some exploited aquatic species and stocks. Therefore, the ADF&G's Division of Sport Fish has increasingly directed SWG funding for the conservation and management of aquatic species more strongly towards species fished for sport, subsistence, or commercial uses and those that are highly vulnerable to impacts from aquatic invasive species. Conserving the habitats of these exploited species not only aids in their conservation and management but also promotes the conservation of many other aquatic species that use similar habitats. Aquatic species, including those that are culturally and economically important (Appendices B and C), remain an important focus of the 2025 SWAP.

## Partnership and Outreach Priorities

In a state the size of Alaska, partnering is essential for the efficient use of funds and labor. Partnerships offer various benefits and efficiencies at all management stages, including identifying areas of concern, sharing information, leveraging resources, and disseminating results. For example, over the past 10 years, ADF&G's Threatened, Endangered, and Diversity (TED) Program alone has partnered with nearly 150 groups to meet the conservation and management needs of SGCN. Partnerships include programs within state and federal agencies, Alaska Native and First Nations organizations, academic institutions, conservation and management working groups,



*Emperor Geese on Adak Island. ADF&G.*

species recovery teams, nongovernmental organizations and environmental consultants. At the agency level, ADF&G has also partnered with U.S. Fish and Wildlife Service (USFWS) and Alaska Native representatives from 10 subsistence regions in Alaska to form the Alaska Migratory Bird Co-Management Council (AMBCC) Harvest Assessment Program, which monitors harvest and engages subsistence users in management and bird conservation. The Emperor Goose (Table 10.1) is one priority species that is a focus of the AMBCC.

Partnerships are also invaluable opportunities for addressing cross-border concerns. For the 2025 revision of wildlife action plans, states increasingly focus on landscape-level strategies that support multistate conservation and management activities and coordinated SGCN lists (Hamilton et al. 2024). Examples of cross-border cooperation include ADF&G participation in the Pacific Flyway Council and the Southern Wings program; the latter



*An Arctic fox on the Pribilofs. ADF&G.*

is a collaborative effort among state wildlife agencies and other partners to study, conserve, and manage migratory bird species that spend a significant portion of their life cycle in Central and South America (Southern Wings 2025).

In addition, ADF&G developed several specific outreach programs, including citizen science programs and community engagement activities, to promote awareness of SGCN and collect monitoring data in Alaska (see the “Awareness Raising” section of Chapter 8). Additional outreach activities to gather input on the content and use of the material presented in the SWAP, as well as outreach efforts to understand the cultural importance of shorebirds and the magnitude of subsistence shorebird harvests in Alaska Native communities on the Yukon-Kuskokwim Delta

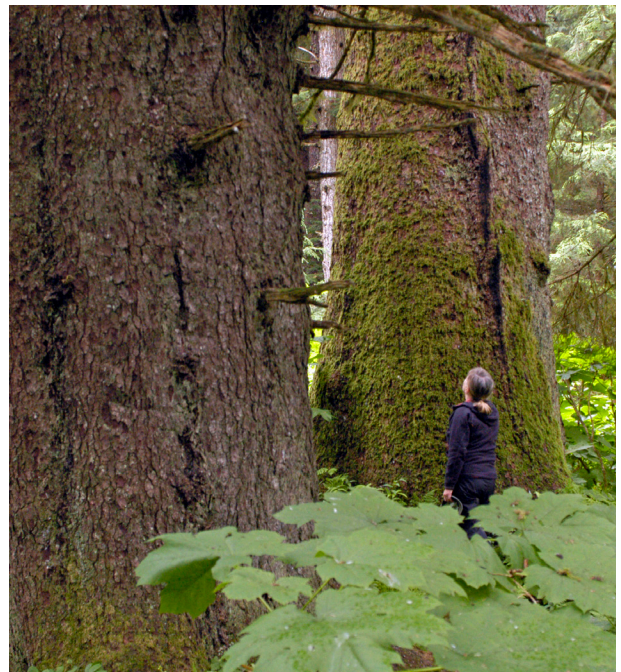
are described in Chapter 11. Both partnership and outreach efforts will continue to be a priority in implementing the SWAP over the next 10 years.

## Habitat Priorities

Habitats essential to rare and declining species are themselves priorities to conserve and manage. If the important habitat types are unknown, habitats that naturally have high species richness (see Chapter 6) and are expected to diminish with potential climate change effects or other broad-scale threats may be conservation and management priorities.

Chapter 5 describes an initial analysis of distributional hotspots, or areas at the statewide scale where multiple SGCN taxa are predicted to co-occur. Studying these potential biodiverse areas will help managers prioritize the use of limited funds, collect data on multiple SGCN taxa at once, describe habitat factors that produce high levels of biodiversity, and, where needed and possible, develop practical and applied solutions.

An example of a rare habitat with relatively high biodiversity is the beach-fringe forest habitat in Southeast Alaska. This habitat is far rarer than upland forest habitat and supports relatively more species per unit area because it represents an ecotone, or edge, between closed forest and open beach. Moreover, the beach-fringe forest has been



*Saook Bay, Baranof, Alaska. ADF&G.*

subject to a high level of historical logging because it is accessible, flat, and supports (as a rule) larger, more valuable trees compared to average forest stands. Knowing nothing about the requirements of a specific SGCN, in this case, it would be logical to prioritize beach-fringe habitat over upland forest habitat for conservation and management.

With these general rules in mind, the following habitats rise as priorities (with the main reason in parentheses):

- Sea ice (diminishing with climate change and important for wildlife populations, including ice seal species, walrus, and polar bear).
- Alpine and Arctic tundra (changing with evolving climate patterns).
- Rivers, streams, and fjords dependent on ice-melt flow (influenced by climate variability).
- Palustrine wetlands underlain by permafrost (shifting with climate change and productive for many breeding waterbirds).
- Beaches and sea cliffs, especially mudflats and eelgrass beds (these support high numbers of invertebrates, waterfowl, and shorebirds).
- Temperate rainforest (old growth), especially stands with large trees (beach-fringe old growth and stands with unique structural and functional attributes).
- Nearshore and continental shelf marine (highly productive habitats important for at-risk species, including whales, eiders, fish, and many commercially exploited populations).

This could be further enhanced through ADF&G-led interagency discussions that aim to identify common habitat monitoring priorities. Please note that the SWAP provides key habitat information, such as Appendix F, which contains descriptions and distribution maps for terrestrial habitats.



*Polar bears (permit 6862203253). G. Kramer, USFWS, used with permission.*

Chapter 5 also identifies promising terrestrial regions at the statewide scale where we might expect to find higher species richness of terrestrial vertebrate SGCN.

### Threat Priorities

Factors that are considered when prioritizing among potential threats to Alaska fish and wildlife include the magnitude of the threat to populations, geographic extent (including number of species, population size, or habitats involved), the potential for prevention or mitigation, public concern, and the

financial cost of addressing the problem. The primary purpose of Alaska's SWAP is to avoid the need to list species as threatened or endangered under the ESA; therefore, those threats that may negatively affect broad areas of Alaska are top priorities.

Climate change is likely the most impactful threat to wildlife in Alaska because it affects habitats across the state and, for migratory species, where those species migrate and overwinter outside the state. Species that inhabit the northern edge of the continent or depend on sea ice are likely to be the



*Harbor seal on ice floe in Prince William Sound. ADF&G.*

most vulnerable to climate change because their niche is both shifting and disappearing. Climate change has been the principal driver of ESA listing petitions in Alaska in the last 20 years; it is the basis for positive findings concerning ice seal species and polar bears. Also, it was cited as an important driver of declines in the sunflower sea star, which was proposed as an ESA-threatened species in 2023 (NOAA 2023). However, the high uncertainty and long time-horizon before ice seal populations are likely to decline make ESA listings of those species inappropriate (State of Alaska 2019). Oceanographic effects

of climate change (e.g., current patterns, acidification, temperature rise) have altered marine ecosystems; these shifts are ongoing, and affected marine systems are unlikely to return to historical conditions (NOAA 2021, Overland et al. 2024). However, other expected climate change impacts to wildlife, especially for terrestrial species, will likely be slow to occur or will have delayed measurable impacts, and may affect fewer Alaska species. We also expect some species to benefit from climate change as some terrestrial habitats and wildlife species ranges expand in Alaska. Therefore, although climate change is considered to be a high-priority threat, with limited potential for mitigation, effects on individual species may be inconsistent and difficult to predict. Ongoing and future research and monitoring is needed to determine which species are likely to be resilient to the effects of climate change and which will need additional management to support their resilience.

Invasive species represent another high-priority threat due to the potential for widespread effects on native fish and wildlife populations and their habitats. They have elevated priority because of their contribution to worldwide biodiversity loss (Pysek and Richardson 2010), and since relatively few invasive species are widely established in Alaska, some eradication and control efforts are feasible and potentially cost-effective. On the other hand, climate change, especially climate warming, has led to environmental changes that can allow harmful nonindigenous species from lower latitudes to become established in Alaska. For example, in the past two decades, Alaska has seen the arrival of non-native ticks (Hahn and George 2019), and a northward shift of marine species has been observed and is projected to increase (Morley et al. 2018). Some invasive species that have been present in small numbers for decades, such as the European Starling (Kessel 1979), have increased in recent years. The likelihood of invasive species establishment in Alaska and the possible efficacy of control efforts make this a high-priority threat.

Wildlife diseases are another potential threat to wildlife. With climate change, Alaska may see an expansion of disease vectors, such as



*Horned Puffin. ADF&G.*

ticks and host animals, that could increase zoonotic diseases (Hueffer et al. 2013), avian malaria, and avian influenza. In the marine environment, warming has increased the prevalence of harmful algal blooms (Van Hemert et al. 2021), which can harm people, wildlife, and ecosystems.

Another threat priority is the low-probability but high-impact possibility of a major oil spill in Arctic waters. Although redundant measures are in place to minimize the risk of catastrophic accidents, such as the Exxon Valdez spill in Prince William Sound, the impact of such an accident on the Arctic region's wildlife could be serious. Most of coastal Alaska is far from the resources required for oil spill response such as ships and personnel, and there is limited experience in containment and cleanup under arctic conditions, such as ice cover and prolonged darkness (O'Rourke 2010: 62). For example, the USFWS Spectacled Eider recovery team predicted that a large oil spill in the species' winter habitat could have "catastrophic" consequences due to the lack of response capabilities in Arctic waters (USFWS 2010). Unlike many threats we identified, a major oil spill is a low-likelihood potential occurrence, not an ongoing one, and is thus preventable. Both the potential severity and the preventability of a major oil spill in Arctic waters combine to make this a high-priority threat.

Another threat that can operate at the species level and threaten population persistence is overharvest by humans. While overharvest is exceedingly rare in Alaska due to the constitutional mandate to manage natural resources for sustained yield and the various state promulgated statutes, regulations, and policies, overharvest of Alaska species does frequently occur outside of Alaska. This was the basis for dramatic declines in several listed species in Alaska, including the great whales, and Short-tailed and Laysan albatrosses (Hasegawa and DeGange 1982). Extinctions or near-extinctions of species occurring in Alaska in the nineteenth century (prior to statehood) have also been attributed to overharvesting (e.g., Eskimo Curlew and elephant seal). Many once-threatened species have now

### Species of Conservation Need: Collared Pika (*Ochotona collaris*)



Collared pika. A. Underwood, ADF&G.

The collared pika is a cold-adapted lagomorph found only in northwestern Canada and Alaska, inhabiting alpine boulder fields. Pikas do not hibernate but remain active under the snow-covered boulder fields throughout winter. During the summer, pikas collect alpine vegetation and store it in "haypiles" beneath large boulders, relying on this stored food throughout the colder months. Pikas are alpine specialists that occur most often in places with milder summer temperatures and colder winter temperatures with heavy snowpack. Pikas depend on a consistent snowpack to provide insulation during winter, which can buffer external temperatures

in their dens by up to 30 degrees. As a result, collared pikas are considered a sensitive indicator species for the effects of climate change on alpine ecosystems, and continued monitoring is important to ensure their resilience.



*Frosted landscape in the Alaska Range. ADF&G.*

recovered or are recovering through conservative harvest management and the implementation of various science-based conservation actions taken by coalitions of state and federal agencies, various hunting conservation organizations, and other conservation organizations and interested parties. For example, Alaska is working with a broad coalition to reestablish wood bison in Alaska. State and federal statutes now prohibit overharvest, and well-designed population monitoring programs to inform management strategies have been highly successful at conserving harvested populations. However, uncertainty and unanticipated environmental variability from other factors (e.g., reduced ocean productivity) can still lead to lower-than-anticipated abundance of harvested species.

Threats to migratory species that spend long periods outside Alaska are also a high priority. The hazards faced by wintering and migrating birds when they are outside of Alaska include habitat loss, collisions with infrastructure, harvest in the winter range, predation by domestic cats, and poisoning. Over the last several decades, evidence has been accumulating indicating that among the top threats to neotropical migrant birds are ongoing habitat loss, conversion to agriculture, and other uses on the wintering grounds (Terborgh 1989, Curtis et al. 2018, Negret et al. 2021). Threats of this kind cross state boundaries and occur on land administered by municipal, state, and federal agencies, neighboring countries, private landowners, and corporations. Threats to SGCN outside Alaska's borders are a high priority, and solutions will require innovative partnering and outreach to collectively solve problems in a manner that mitigates or reverses declines. One example is the Conserva Aves initiative that aims to recover, manage, and restore millions of acres of degraded habitat in Latin America (Conserva Aves 2025), including areas where many Alaska migratory birds spend the winter months and are vulnerable to habitat losses. Canada, which shares many

overlapping conservation and management interests with Alaska regarding reducing declines in boreal migratory birds, is one of several partners with the Conserva Aves initiative (Birds Canada 2025).

## Priority Conservation and Management Actions

Over the next 10 years, ADF&G will flexibly engage in priority conservation and management actions through individual projects and partnerships. This plan describes the overall strategy for conserving all SGCN and informs more detailed proposals that include specific projects, species, and conservation actions. We expect the highest priority conservation actions to be directed to the highest priority SGCN and threats. Still, other important factors will be considered in the implementation of conservation actions (see the “Funding Decisions” section in Chapter 11). For example, it might be clear that habitat loss and degradation in the Yellow Sea during nonbreeding is the preeminent threat to many of Alaska’s breeding shorebirds (Piersma et al. 2016, Studds et al. 2017). If those are the causes of population decline, conservation and management actions aimed at improving breeding habitat in Alaska might be ineffective. Identifying a conservation challenge is an important first step; applying timely and effective conservation and management actions is often more difficult, especially for threats that we may have limited ability to control at a landscape scale.

To meet these challenges, the ADF&G TED Program has identified three priority objectives, including 1) identify drivers of population declines, 2) work with partners to identify, prioritize, and implement actions that benefit high-priority SGCN across their annual life cycle, and 3) implement projects that mitigate threats in an effort to slow or reverse declines.



*Long-tailed Jaeger hovering over the Arctic tundra. A. Bankert, ABR, used with permission.*



*Spectacled Eider. A. Bankert, ABR, used with permission.*

Achieving these objectives generally involves three elements. First data on demographics and threats to SGCN (first element) must be applied to fish and wildlife management decisions (2nd element). These two actions prioritize public engagement, including the potential creation of management plans and maps of diversity hotspots or culturally and publicly valued resources. Equipped with these two elements, ADF&G can implement direct conservation actions (3rd element) to a) mitigate threats, b) maintain or increase survival, reproduction, and abundance of SGCN populations, and c) maintain, restore, and conserve SGCN habitat when it is limiting.



*Cliffs adjacent to the Tanana River, interior Alaska, used by raptors for nesting. ABR, used with permission.*

The list of possible and potentially valuable conservation and management actions is long and varied. With the above factors and objectives in mind, the types of conservation and management actions that we believe will emerge as priorities over the next 10 years include, but are not limited to, the actions described below.

### **Monitoring Vulnerable Populations**

Identifying a population that could benefit from conservation and management actions requires basic information on trends in the population size or changes in the available habitat for a given species if the habitat is believed to be limiting. Having quantitative information on population size and rate of decline allows evaluation of the severity of the concern and the type of conservation action needed. Once a population has been identified as declining, acquiring information on reproductive success, mortality, movements, and habitat use is a conservation action priority, since this information is essential for identifying sources of decline.

### **Removing Invasive Species**

An example of an effective and achievable conservation action is removing invasive species from places they colonized (e.g., rats and Arctic fox from islands where they are not native, northern pike from waters in Southcentral Alaska). When successful, this one-time action can have profound and potentially permanent effects on native flora and fauna (Ebbert and Byrd 2002, Dunker et al. 2018). Invasive species management actions are determined in part by existing state statutes and regulations, as well as guidance in management plans such as the Alaska Aquatic Nuisance

Species Management Plan (ADF&G 2002), the Rapid Response Plan for Invasive Rodents in Alaska (USFWS 2020), the Early Detection and Rapid Response Plan for Invasive European Green Crab (*Carcinus maenas*) in Alaska, 2023–2028 (DeBruyckere et al 2023), and the Technical Guidance and Management Plan for Invasive Northern Pike in Southcentral Alaska: 2022–2030 (Dunker et al. 2022). Because invasive species are especially problematic on islands, we stand to improve and restore centers of island endemism, including places where Alaska has high stewardship responsibility. Compared to other parts of North America, invasive species have not spread as widely in Alaska, which provides a better chance for successful eradication. Collectively, invasive species removal or eradication is a priority conservation action in Alaska since it confers a direct benefit to SGCN and promotes ecosystem health.

### **Mitigating Losses in High-Use Terrestrial and Marine Areas**

Not all areas are equal in value to wildlife. Knowing what areas and habitats support the greatest wildlife resources provides important information that can facilitate multiple-use strategies without unnecessarily restricting human access and activities in regions that are also valuable to wildlife. For example, understanding seabird and marine mammal distribution in space and time, shipping through the Arctic Ocean might be guided to travel corridors to avoid most breeding and foraging areas for birds and mammals (Lovvorn et al. 2009). Similarly, based on knowledge of the timing and flight patterns of migrating bats and raptors, wind turbines can be placed in optimal locations, and the blades feathered under certain conditions to avoid wildlife collisions (Martin et al. 2017, Murgatroyd et al. 2021). With robust data addressing likely tradeoffs between human development and wildlife resources, implementing wildlife mitigation and management plans are important high-priority conservation actions in Alaska.



Sea otters at Resurrection Bay, Alaska. A. Underwood, ADF&G.

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*Walrus at Round Island. ADF&G.*

## **Informing the Alaska Boards of Game and Fisheries Processes**

The Alaska Board of Game and Board of Fisheries are charged with making allocative and regulatory decisions on game and fish species to ensure management under the sustained yield principle. Therefore, studies that inform their decision-making process while also addressing SGCN conservation and management are high priorities. Examples include Alaska hare and raptor research and monitoring to inform the implementation of sustained yield limits on hare harvest and trapping of falconry species. Similarly, Chinook salmon research informs revisions to management plans.

## **Informing Federal Regulations and Permits**

Addressing issues with a direct population management nexus at the federal level is a high priority because a lack of information can result in precautionary federal management decisions. Collecting additional information that indicates healthy populations can enable ongoing and additional human use activities while ensuring sustained yield of fish and wildlife populations. Examples include research and monitoring of subsistence species, marine mammals, migratory birds, and Bald and Golden Eagles by providing better estimates of population size and threats in Alaska (Booms et al. 2021) to inform take limits under federal statutes. Providing accurate information on the status of these species is a shared priority among state, federal, local, and Tribal stakeholders, since these federal regulations directly affect resource use in Alaska.

## **Reducing Known Sources of Mortality and Morbidity**

Activities beneficial to wildlife that can be supported by ADF&G programs, especially through partnerships, are a high priority. Possible examples include the installation of powerline diverters or window decals to avoid bird collisions (Ferrer et al. 2020, Underwood 2024) and modified lighting to reduce bird attraction to artificial light sources (Rebke et al. 2019). Recently, ADF&G partnered



Arctic fox. ADF&G.

with the Alaska Falconers Association, Alaska Backcountry Hunters and Anglers, and Conservation Science Global to launch the “Alaska Copper Ammo Challenge,” a rebate program designed to replace lead ammunition with lead-free alternatives (ACAC 2024). Programs such as these serve the three-fold purposes of directly addressing threats, educating the public on important wildlife issues, and engaging Alaskans in conservation efforts.

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