

II. Methodology and Approach

A. Project Management Structure and Planning Focus

Alaska established its CWCS planning team in 2003. The team consisted of a Task Force of five staff from ADF&G's Wildlife Conservation and Sport Fish divisions and an Oversight Committee composed of an Assistant Director from each of these divisions. A written Charter spelled out the parties' respective roles and responsibilities. The Task Force developed and maintained a website (<http://www.sf.adfg.state.ak.us/statewide/ngplan/>) that included a flowchart with timeline and schedule for completing the Strategy.

The planning team recognized early on that little is known about many of Alaska's wildlife species. Past research and management has focused on developing sustainable management strategies for game resources (i.e., those that are commercially or recreationally hunted, trapped, or fished). Given this, the Task force focused much of our early planning effort on assessing the conservation status of Alaska's nongame wildlife resources. Only limited planning activities were directed at game resources because a regulatory framework based on the sustained yield principle exists with which to conserve these species and their uses.

B. Public and Agency Involvement

During summer 2003, the department made initial contacts with prospective partners to discuss their ongoing conservation planning efforts, options for sharing data, and ways to work together to benefit nongame species. These parties were informed about the CWCS and asked to provide comments on the proposed planning process. This initial effort resulted in strong support for the process and was a significant first step in developing working partnerships for the Strategy. Initial contacts included the Alaska Department of Natural Resources (DNR); U.S. Geological Survey (USGS); federal Bureau of Land Management (BLM); National Park Service (NPS); National Oceanic and Atmospheric Administration/Fisheries (NOAA Fisheries); the U.S. Forest Service (USFS); USFWS, including the National Wildlife Refuge System, Marine Mammals Management, and Ecological Services Unit; AKNHP; University of Alaska; The Nature Conservancy of Alaska (TNC); Audubon Alaska; U.S. Air Force; U.S. Army; and a variety of sportsmen's and other user groups.

The most active early partners in the CWCS planning process were the AKNHP/University of Alaska, TNC, Audubon Alaska, and the USFWS Federal Assistance Office. Drawing on their previous experiences with conservation planning efforts in Alaska, individuals from these organizations provided suggestions about process and draft products. The Task Force held several group meetings with these parties to review progress and seek their recommendations for completing the next steps of the process. The AKNHP was asked to assemble and summarize species information. TNC staff provided descriptions, maps, and photos for the 32 ecoregions in Alaska. The USFWS provided substantial support in the form of travel costs and

staff participation at the expert team meetings described elsewhere in this section. Staff from many agencies and organizations helped write sections of the CWCS. Biologists within ADF&G contributed to the CWCS effort by identifying species of concern, serving on expert groups, writing habitat descriptions and various other sections, and reviewing portions of the draft Strategy.

As the CWCS planning process got underway, the planning team developed a list of stakeholder groups and interested individuals to contact via direct mailings. In October 2003, the Task Force sent a letter and/or email to all ADF&G staff and over 350 members of the public, other agencies and organizations, announcing the start of the planning effort and asking for input about species in need of additional conservation effort. Organizations representing hunters, anglers, and other wildlife users, such as the state's local Fish and Game Advisory Committees and the Alaska Outdoor Council, were among the many entities contacted for their views. The outreach effort yielded comments regarding concerns for the conservation of Alaskan species and their habitats. Several organizations and agencies, including USFWS, Audubon Alaska, AKNHP, TNC, DNR, and the U.S. Army provided extensive comments. The department created a website that made the CWCS planning process open and accessible to agency staff, partners, and the public. The website allowed people to submit comments and concerns either online or via email.

In the fall and winter of 2003, the Task Force spoke with leaders in the Alaska Native community about the best ways to involve Native entities in the planning process. The planning team then contacted potentially interested parties, including several nonprofit Native organizations actively engaged in natural resource management, such as the Association of Village Council Presidents, the Indigenous Peoples Council on Marine Mammals, and the Bristol Bay Native Association. Task Force staff spoke or met with representatives of many of these groups and explained that the Strategy can provide new resources to help conserve species, including species used for subsistence, which have not been funded under other conservation programs. Staff also explained that major landholders play a critical role in the conservation of Alaska's wildlife and that it is important for landholders to be involved in developing and implementing the Strategy.

CWCS planning team members also contacted nearly two dozen entities with a potential interest in particular species that are not commercially or recreationally hunted, trapped, or fished. For example, the USFWS-sponsored Alaska Migratory Bird Co-Management Council was invited to provide expert peer review because several of the waterbird and seabird species included in the Strategy are listed on the Alaska Migratory Bird Co-Management Council's website.

During the planning process, various state and national organizations indicated their interest in assisting with preparation, review and/or implementation of Alaska's CWCS. These include NatureServe, the International Association of Fish and Wildlife Agencies (IAFWA), Partners in Amphibian and Reptile Conservation (PARC), the Natural Areas Association, the Ornithological Council, and local or

regional land trusts in Alaska, such as the Kachemak Heritage Land Trust. Relationships with these and other parties will continue to evolve as we learn more about mutual interests and opportunities for collaboration.

The department conducted an extensive public and experts' review of the draft Strategy document from February to April 2005. This review opportunity was announced via email or letter to a mailing list of nearly 2,000 organizations and individuals and through a press release, selected newsletters, the state's CWCS website, letters to state/federal agency heads, a national CWCS ListServe, and a notice published in major in-state newspapers. Appendix 6 summarizes and presents results of Alaska's CWCS public scoping and review efforts.

C. Strategy Development

Review of Existing Plans and Efforts

Partners and agency staff advised the CWCS planning team not to "reinvent the wheel." From the outset, the Task Force sought to ensure that the state's process built on foundations already laid during meetings in 2001 of nongame specialists from around the state and in strategic plans completed in 2002 by the department's Sport Fish and Wildlife Conservation divisions. We also got input and advice from other states and U.S. possessions, including at three national or regional workshops of CWCS planners and biologists held between May 2003 and August 2004.

In addition, the Task Force assembled a list of more than 275 plans that may contain information relating to the Strategy's target species, species groups, or assemblages. Relatively few of these plans are strategic plans, ecoregional plans, or multipartner bird plans such as by Partners in Flight. Most are land management plans produced by the USFWS, Alaska Coastal Management Program (ACMP), NPS, DNR, U.S. Department of Defense (DOD), USFS, and ADF&G. After scanning a number of these products, we found that, other than particular species or species group recovery or management plans, few plans on the list address nongame species in any substantive way.

Nominee Species List

The Task Force prepared a nominee list (Appendix 7) containing over 300 species, by taxonomic group, to be considered for initial selection as potential planning targets. For all taxa, this list was primarily a compilation of species identified as "at risk" by various conservation plans and organizations. These included the Alaska Bird Conservancy, American Fisheries Society (AFS), Audubon Alaska, Alaska Shorebird Conservation Plan, British Columbia Provincial Red and Blue Lists (2002), Boreal Partners in Flight, BLM, Convention on International Trade in Endangered Species (CITES), Committee on the Status of Endangered Wildlife in Canada (COSEWIC), National Heritage Program, The World Conservation Union (IUCN), North American Wetlands Conservation Plan, NOAA Fisheries, State of Alaska, USFS, and USFWS. Several other species were added to various taxa lists based on staff and public

comment. The sources of other agencies' "at-risk" species and detailed rationales for their designations were posted on our website throughout the planning process.

Species Selection Criteria

Using standard references on conservation planning (e.g., Groves 2003), together with partner and public comments, the planning team developed 11 criteria with which to select from among the Nominee Species those species that should appear in the Strategy (see below):

Species Selection Criteria

- Species has noticeably declined in abundance or productivity from historical levels outside the range of natural variability.
- Species has an unusual incidence of deformity, disease, malnutrition, or pollutant-caused mortality.
- Species is rare (i.e., small/low overall population size/density).
- Species is designated as at risk (threatened, candidate, or endangered under the federal Endangered Species Act; state endangered or species of concern; depleted under the federal Marine Mammal Protection Act).
- Species is endemic (i.e., occurs primarily in Alaska or occurs entirely within an ecoregion found in Alaska).
- Species makes seasonal use of a restricted local range (breeding, wintering, migration).
- Species is sensitive to environmental disturbance.
- Species is disjunct (i.e., isolated from other populations or occurrences in adjacent ecoregions).
- Species status is unknown (e.g., population information is unknown, or taxonomy is questionable).
- Species is representative of broad array of other species found in a particular habitat type.
- Species is important internationally (e.g., targeted for cross-jurisdictional action and/or recognized in bi- or multi-lateral agreements; or useful for cross-jurisdictional monitoring).

These criteria assess the level of vulnerability of a species, subspecies, or distinct population to declines that would adversely affect Alaska's biodiversity. They address such factors as abundance, incidence of deformity or disease, rarity, isolation, endemism, sensitivity to environmental disturbance, representation, international importance, and formal designation as at risk (e.g., threatened or endangered).

Draft "Featured Species" List

The Task Force applied the species selection criteria above against the Nominee Species List and, from that, prepared an initial *draft* "featured species" list for each taxonomic group. In this early phase of the planning process, the team excluded from consideration: a) all species whose occurrence in Alaska is believed to be only accidental or incidental (e.g., several marine turtle, fish, and migratory bird species); and b) most of the state's species that are commercially or recreationally hunted,

trapped, or fished—i.e., species whose conservation actions are directed through an existing management mechanism or process, such as the Alaska Boards of Fisheries or Game, or a species management plan. We later learned from taxa experts about a few game species or populations warranting inclusion in the Strategy.

Although the primary focus of Alaska’s Strategy is on species not commercially or recreationally hunted, trapped, or fished, our planning process allowed for the inclusion of any species with high priority conservation issues, if the species or population is believed to be at risk and met one of two criteria:

- If an “at risk” species or population has no management or recovery plan/strategy, that species or population was selected and addressed as a featured species, with a conservation action plan, in the CWCS.
- If a species or population has an applicable plan or strategy but scientists believe the plan/strategy does not adequately address long-term conservation needs, that species or population was instead highlighted elsewhere in the Strategy.

Based on this second criterion, the conservation needs for five species or populations—Tule White-fronted Goose, Spectacled and Steller’s eiders, the Chisana caribou herd, and the Kenai Peninsula population of brown bear—are included in the Strategy. Information about each appears in the waterfowl and terrestrial mammals sections of Appendix 4.



Spectacled eider

C.Dau, USFWS

Expert Group Meetings and Products

Conducting face-to-face expert meetings was chosen as the method likely to be most effective in gathering available species and habitat information. The Task Force located experts in 14 taxa subgroupings who were willing to serve on a species expert group or a follow-up peer review group. These experts came from organizations and communities around the state and from some out-of-state academic institutions. The taxa subgroupings were amphibians and reptiles (results presented separately), marine fish, marine invertebrates, seabirds, marine mammals, terrestrial mammals, landbirds, raptors, terrestrial invertebrates, waterbirds, shorebirds, freshwater fish, and freshwater invertebrates.

In March and April 2004, the planning team held expert group meetings for all taxa except waterfowl and terrestrial invertebrates; these were addressed later in the planning process. To encourage interdisciplinary review of species assemblage and habitat issues, individual taxa expert group meetings were scheduled to occur with those of experts for other taxa in the same ecosystem. For example, all of the “marine ecosystem” experts (i.e., on invertebrates, fish, mammals, and seabirds) met jointly, as well as in separate breakout sessions.

The Task Force distributed the draft featured species list at the species expert meetings and asked for deletions or additions. Expert groups also received the draft products from a Candidate Conservation Workshop that USFWS sponsored in May 2003. In recommending a final suite of CWCS featured species, most experts applied the 11 criteria shown on the preceding page; any additional criteria used were described in the expert group's meeting products. The experts and Task Force used their best professional judgment when applying criteria.

After selecting featured species, experts provided information on the distribution and abundance of species, described key habitats and threats or concerns associated with those habitats, developed objectives with performance measures, and crafted specific conservation actions, including priority research and survey needs. The experts also identified the most important recovery or management plans (see "Review of Existing Plans and Efforts" above) and extracted findings and conservation actions relating to featured species. An expert team's final products typically consisted of an introduction about the taxonomic group and detailed conservation action plans on anywhere from two to 14 species or species assemblages. These are described in Section V. In total, the expert process generated information and recommendations for 74 featured species or species groups and five game species or populations.

Peer and Technical Review

The Task Force coordinated a peer review of products from each of the species expert groups, including the descriptions of game species with special conservation needs. Selected leaders in the Native community were also contacted to request comments from subsistence users of many of the species included in the Strategy. The experts' input and subsequent peer and technical review processes were key in determining which species to include in the CWCS. The planning team received extensive peer review comments and incorporated this input into the draft conservation action plans with assistance from the chair of each taxa expert group.

Habitats Review

Congress directed that each state identify key habitats associated with the species presented in its Strategy. From the beginning, Alaska's CWCS team and partners were concerned that the planning effort's short time frame precluded initiating a comprehensive analysis to identify Alaska's key habitats. Currently, there is only one statewide ecosystem map available from the USGS (Nowacki et al. 2001). This map describes 32 ecoregional landscapes, is very coarse, and is not intended to present specific habitat classifications of fish and wildlife. Alaska also lacks statewide aquatic classifications for lake, river, stream, and marine habitats.

To meet this Strategy requirement, the planning team did an initial habitat assessment by asking species experts and peers to describe the location and relative condition of key habitats associated with featured species or species groups, and to note threats associated with those habitats. In addition, the species experts sometimes proposed conservation actions relating to the habitats used by featured species. This

information is captured in the conservation action plans for each species, located in Appendix 4. During CWCS development, experts regularly noted habitats that fell into the following categories:

- 1) Habitats used by a species that is: a) federal T&E, state Endangered or state Species of Concern, b) proposed for federal or state listing, c) officially considered a candidate for listing, or d) has undergone a significant verifiable but unexplained population decline but has not yet been officially recognized in category a–c.
- 2) Habitats in need of restoration, and research and survey efforts that may be needed to identify which factors relating to that habitat type are most important for its restoration.
- 3) Habitats facing imminent threat of loss or degradation from human activities.

The Task Force consulted additional specialists with species assemblage and/or habitat expertise to review results of the expert and peer review processes, evaluate in greater depth the types and locations of habitats at risk in Alaska, and recommend how they should be addressed in the CWCS.

Experts agreed that Alaska needs to develop a statewide habitat classification system that incorporates both aquatic and terrestrial parameters and provides utility for quantifying and qualifying the State's expanse of biological resources. Only then can the state's biodiversity be uniformly monitored, managed for sustainable use, and conserved using a scientifically based approach. Lacking such a tool for this iteration of the CWCS, we used the experts' input to help identify key habitats associated with the featured species and species groups. Section VI highlights these habitats and makes a preliminary assessment concerning habitats at particular risk of adverse impact.

In coming years, the CWCS planning process will be updated to highlight additional and more specific habitats. This flexibility is needed to support and complement other conservation planning efforts, e.g., those conducted by state, national, or international ornithological organizations.

D. Development of Summary Products

Species of Greatest Conservation Need

For CWCS planning purposes, Alaska intends to use the Nominee Species List in Appendix 7, described above on page 9, as its list of species of greatest conservation need. This list contains within it all species for which experts raised conservation concerns during our process.

List of Primary Recommendations

In developing the Strategy, experts evaluated and discussed both the broad-scale needs relative to Alaska's wildlife and species- or group-specific needs. Experts generated hundreds of proposed conservation actions. Not surprisingly, many of the needs identified apply to all wildlife in the state, and common themes to conserve and sustain Alaska's diverse wildlife resources emerged. These were summarized into the list of CWCS primary recommendations found in Section VII.

E. Participants

Appendix 8 lists the more than 250 individuals who participated in the CWCS planning process as experts, reviewers, and support staff, or by contributing text or photographs.

Literature Cited

Groves, C.R. 2003. Drafting a Conservation Blueprint: A Practitioner's Guide to Planning for Biodiversity. Island Press, Washington.

Nowacki, G., P. Spencer, M. Fleming, T. Brock, and T. Jorgenson. Ecoregions of Alaska: 2001. USGS Open-File Report 02-297 (map).