

**Alaska Department of Fish and Game
Division of Sport Fish**

**Aquatic Resources Implementation Plan
for
Alaska's Comprehensive Wildlife Conservation Strategy**

September 2006 – 2011



AQUATIC RESOURCES IMPLEMENTATION PLAN FOR ALASKA'S COMPREHENSIVE WILDLIFE CONSERVATION STRATEGY, SEPTEMBER 2006-2011

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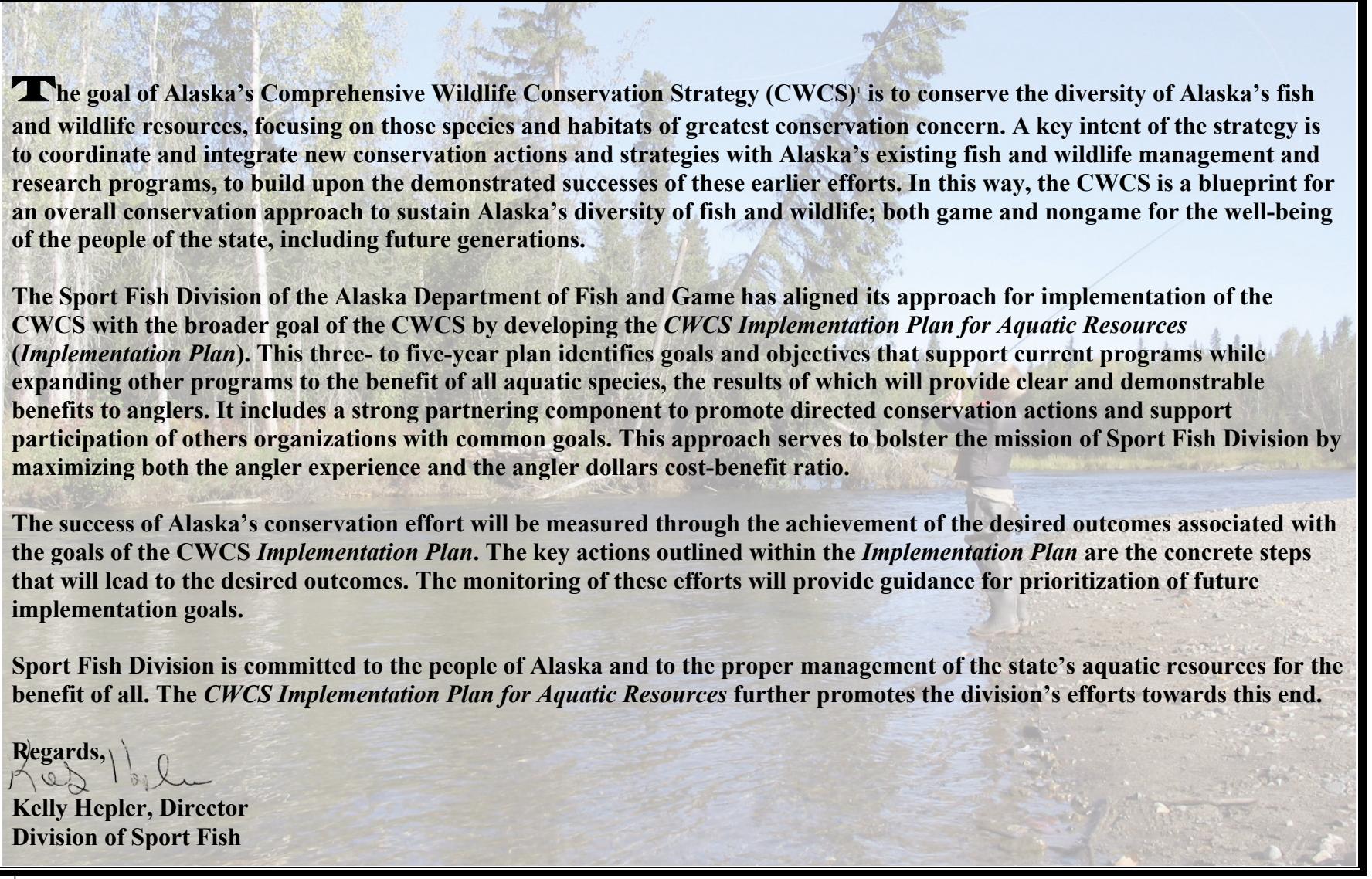
 **Director's Endorsement**

 **Alaska's Comprehensive Wildlife Conservation Implementation Mission for Aquatic Resources**

 **Goals, Strategies, and Key Actions**

 **Appendices**

- **Nominee Species List**
- **Key Habitats**
- **Glossary**



The goal of Alaska's Comprehensive Wildlife Conservation Strategy (CWCS)¹ is to conserve the diversity of Alaska's fish and wildlife resources, focusing on those species and habitats of greatest conservation concern. A key intent of the strategy is to coordinate and integrate new conservation actions and strategies with Alaska's existing fish and wildlife management and research programs, to build upon the demonstrated successes of these earlier efforts. In this way, the CWCS is a blueprint for an overall conservation approach to sustain Alaska's diversity of fish and wildlife; both game and nongame for the well-being of the people of the state, including future generations.

The Sport Fish Division of the Alaska Department of Fish and Game has aligned its approach for implementation of the CWCS with the broader goal of the CWCS by developing the *CWCS Implementation Plan for Aquatic Resources (Implementation Plan)*. This three- to five-year plan identifies goals and objectives that support current programs while expanding other programs to the benefit of all aquatic species, the results of which will provide clear and demonstrable benefits to anglers. It includes a strong partnering component to promote directed conservation actions and support participation of others organizations with common goals. This approach serves to bolster the mission of Sport Fish Division by maximizing both the angler experience and the angler dollars cost-benefit ratio.

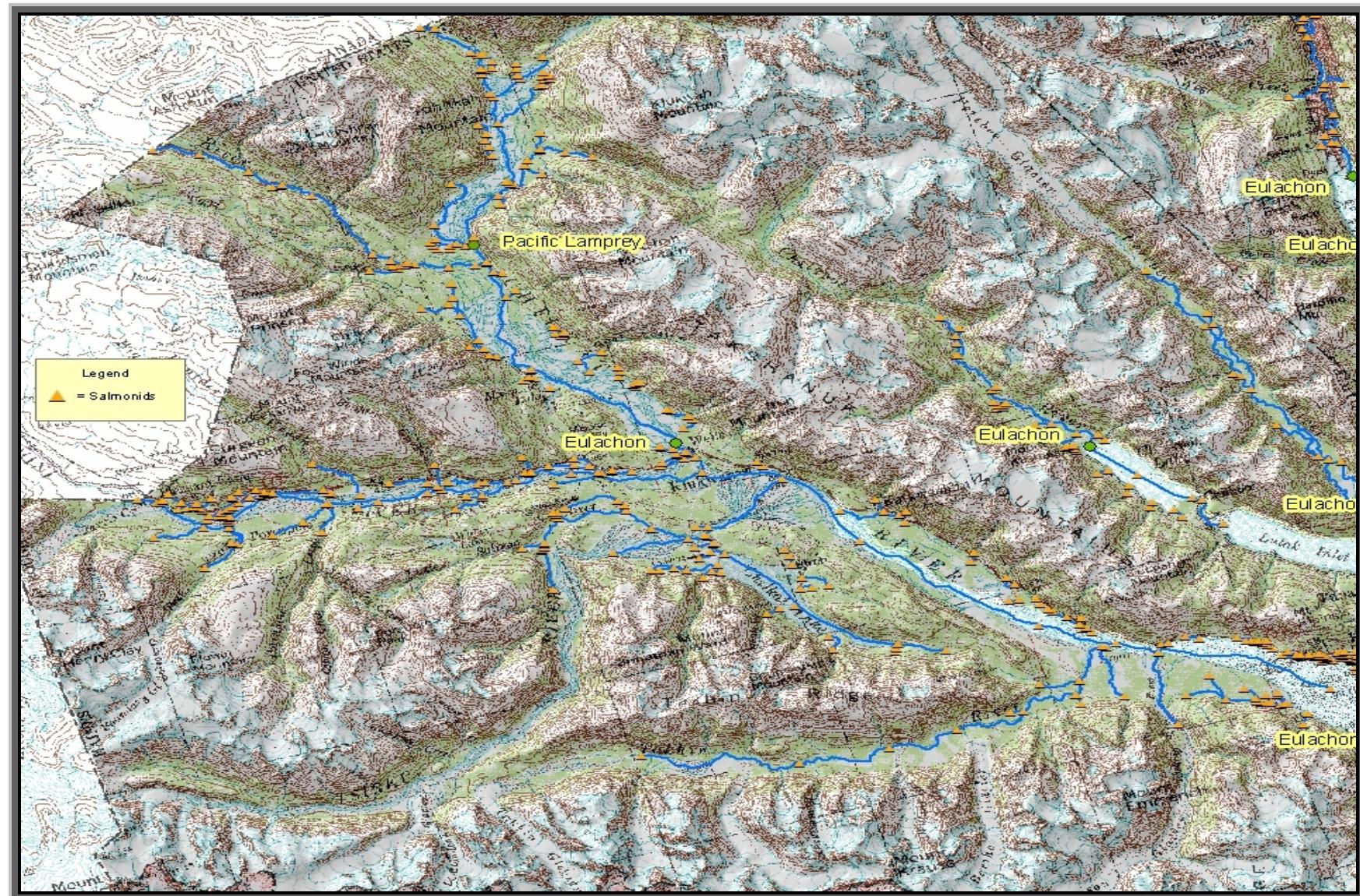
The success of Alaska's conservation effort will be measured through the achievement of the desired outcomes associated with the goals of the CWCS *Implementation Plan*. The key actions outlined within the *Implementation Plan* are the concrete steps that will lead to the desired outcomes. The monitoring of these efforts will provide guidance for prioritization of future implementation goals.

Sport Fish Division is committed to the people of Alaska and to the proper management of the state's aquatic resources for the benefit of all. The *CWCS Implementation Plan for Aquatic Resources* further promotes the division's efforts towards this end.

Regards,
Kelly Hepler
Kelly Hepler, Director
Division of Sport Fish

¹ Alaska Department of Fish and Game. 2006. Our Wealth Maintained: A Strategy for Conserving Alaska's Diverse Wildlife and Fish Resources. Alaska Department of Fish and Game, Juneau, Alaska. xviii+824 p.

CWCS Aquatic Resources Implementation Mission: To conserve, manage and improve Alaska's diverse aquatic species populations and their habitats by filling gaps in our knowledge of these species and their habitats.





South Fork Kotuli River (ADFG)

Goal 1 Improve the conservation and management of Alaska's diverse aquatic species and their habitats in a manner that complements the core activities of the Division of Sport Fish.

Desired Outcomes

- Improved management of Legislatively Designated Special Areas (LDAs).
- Increased and expanded distribution data for aquatic species.
- Increased ability to sustain productivity of aquatic habitats.
- GIS capability for management and research of aquatic species and habitats.
- Informed permitting and project review.

Strategy A: Improve management of LD Special Areas and effectiveness of the Division's large-project coordinated reviews to protect species and habitats.

Key Actions:

- Develop an inventory and distribution database for aquatic species found in LDAs.
- Apply knowledge of CWCS aquatic species and their habitats in LDAs permitting processes and ADFG project reviews.
- Initiate or coordinate planning efforts for management of aquatic species and their habitats in LDAs.
- Develop measurable objectives that relate to the conservation and management of aquatic species and their habitats.

Strategy B: Increase current coverage of the Anadromous Waters Catalog (AWC) through the Fish Distribution Database (FDD).

Key Actions:

- Develop and integrate a distribution database for non-anadromous aquatic species in Alaska and integrate into the FDD.
- Identify priority watersheds to conduct new or expanded aquatic species inventories based on current survey efforts, production, and economic value of associated resources.
- Incorporate fish distribution surveys into existing divisional project and reporting procedures.

Strategy C: Identify and prioritize streams or waterbodies where instream flow reservations would ensure the sustainability of aquatic species populations.

Key Actions:

- Develop criteria to prioritize Alaska's watersheds for the development and submission of instream flow reservations for aquatic species.
- Provide technical assistance that enables community watershed groups to initiate, develop, and submit instream flow reservations.
- Identify threats to the quality and quantity of riparian and aquatic habitats and implement conservation actions to minimize those threats.

Strategy D: Develop GIS-based tools that inform the management and research of aquatic species and their habitats.

Key Actions:

- Convene a working group that will identify GIS-based tools that better inform and support the Department's:
 - Permitting and planning activities for LD Special Areas.
 - Instream flow reservation development, analyses and submission.
 - Reviews for large projects with the potential to impact aquatic species and /or their habitats.
 - Assimilation and analysis of life history, distribution, abundance, and habitat association data for eulachon, smelt, lamprey, and whitefish species.
- Develop a policy for GIS-based data collection, storage and retrieval, reporting, and metadata development that is complementary to the Southeast Alaska GIS Library Project and Federal Geographic Data Committee standards.



Lamprey, species unknown (ADFG)

Goal 2 Initiate or expand collection of biological information on featured CWCS aquatic species and their habitats.

Desired Outcomes

- Baseline inventory, distribution, life history, and population abundance data for aquatic CWCS species.
- Baseline habitat parameter requirements for identified aquatic species.
- Increased management capabilities for aquatic species and their habitats.

Strategy A: Collect life history, distribution, and habitat data for featured CWCS aquatic species.

Key Actions:

- Acquire existing information on life history, distribution, abundance, and habitat associations for eulachon, lamprey, smelt and whitefish species in priority watersheds.
- Collect and report data on life history, distribution, abundance, and habitat associations for eulachon, smelt, lamprey, and whitefish species in priority watersheds.
- Identify threats to the quality and quantity of riparian and aquatic habitats; prioritize research and management areas and actions.
- Collect and evaluate baseline information on predator-prey relationships with emphasis on sport and non-sport species interactions.

Strategy B: Analyze and synthesize CWCS aquatic species life history, distribution and habitat data into management objectives for CWCS species.

Key Actions:

- Report on life history, distribution, abundance, and habitat associations of eulachon, smelt, lamprey and whitefish species in priority watersheds.
- Develop and propagate management objectives for these species and their habitats based on scientific assessment of available information.



Interagency work group

Moose Creek, Matanuska Valley Moose Range (Photo courtesy of Chickaloon Village Traditional Council)

Goal 3 Improve collaboration and cooperation with other agencies and nongovernmental organizations (NGOs) to conserve, protect, and manage Alaska's aquatic species habitats.

Desired Outcomes

- Strategic identification of lands for acquisition to provide connectivity, scale and quality of habitat.
- Increased capability to monitor aquatic species and their habitats.
- Database of conservation actions performed by partners to document progress and identify gaps.
- Increased capability to provide partners and the public ready access to information on conservation of aquatic species and their habitats.

Strategy A: Initiate or expand partnerships with other agencies and NGO's to conserve, improve, and manage Alaska's habitats for aquatic species.

Key Actions:

- Identify and foster partnerships with entities interested in conserving, managing, and improving aquatic species and their habitats as it relates to the *CWCS Aquatic Resources Implementation Plan*.
- Develop agreed upon classifications for upland, riparian; and marine and freshwater habitats in Alaska.
- Initiate the coordination and development of scientifically-based habitat evaluation methodologies and aquatic species habitat conservation goals.
- Identify key departmental staff for internal coordination to facilitate cooperative partnering efforts.

Strategy B: Develop a partnership program to focus conservation efforts and leverage available funds.

Key Actions:

- Develop cost-sharing partnerships that directly contribute to the implementation of the *CWCS Aquatic Resources Implementation Plan*.
- Provide technical assistance regarding the *CWCS Aquatic Resources Implementation Plan* to partner organizations.

Strategy C: Develop education and outreach programs and materials related to Alaska's CWCS featured aquatic species and their habitats.

Key Actions:

- Develop curricula and supporting material that describes the relationship between CWCS aquatic species, sport-fished species, and the importance of aquatic habitats.
- Provide educational programming that focuses on aquatic resource-based stewardship principles and encourages active stewardship practices to targeted audiences.
- Develop a CWCS aquatic species notebook series.
- Publish articles regarding the implementation of CWCS for aquatic species in the *Otolith* and *Alaska Wildlife News*.

Appendix 1. CWCS Nominee Species List

This list of species nominated for consideration as potential planning targets was derived from various conservation plans, lists, and organizations, as well as expert and public comments. For the purposes of developing a Comprehensive Wildlife Conservation Strategy for the State of Alaska, this list is considered to represent Alaska's species of greatest conservation need. Nominee species may be added and/or deleted as plans and lists of other organizations are updated. The active list of nominee species and their associated habitats will help to prioritize the Sport Fish Division's conservation efforts.

| Fish Nominees | | |
|----------------------|------------------------|-----------------------------------|
| Group | Common Name | Scientific Name |
| Freshwater Fish | Pacific lamprey | <i>Entosphenus tridentatus</i> |
| Freshwater Fish | river lamprey | <i>Lampetra ayresi</i> |
| Freshwater Fish | western brook lamprey | <i>Lampetra richardsoni</i> |
| Freshwater Fish | Alaskan brook lamprey | <i>Lampetra alaskense</i> |
| Freshwater Fish | Siberian brook lamprey | <i>Lampetra kessleri</i> |
| Freshwater Fish | Arctic lamprey | <i>Lampetra japonica</i> |
| Saltwater Fish | big skate | <i>Raja (Dipturus) binoculata</i> |
| Freshwater Fish | green sturgeon | <i>Acipenser medirostris</i> |
| Freshwater Fish | white sturgeon | <i>Acipenser transmontanus</i> |
| Freshwater Fish | lake chub | <i>Couesius plumbeus</i> |
| Freshwater Fish | longnose sucker | <i>Catostomus catostomus</i> |
| Freshwater Fish | Alaska blackfish | <i>Dallia pectoralis</i> |
| Freshwater Fish | pond smelt | <i>Hypomesus olidus</i> |
| Saltwater Fish | surf smelt | <i>Hypomesus pretiosus</i> |
| Saltwater Fish | capelin | <i>Mallotus villosus</i> |
| Saltwater Fish | rainbow smelt | <i>Omersus mordax</i> |
| Saltwater Fish | longfin smelt | <i>Spirinchus thaleichthys</i> |
| Saltwater Fish | eulachon | <i>Thaleichthys pacificus</i> |
| Freshwater Fish | Bering cisco | <i>Coregonus laurettae</i> |
| Freshwater Fish | broad whitefish | <i>Coregonus nasus</i> |
| Freshwater Fish | humpback whitefish | <i>Coregonus pidschian</i> |
| Freshwater Fish | pygmy whitefish | <i>Prosopium coulteri</i> |

Fish Nominees (continued)

| Group | Common Name | Scientific Name |
|-----------------|------------------------------------|-----------------------------------|
| Freshwater Fish | round whitefish | <i>Prosopium cylindraceum</i> |
| Freshwater Fish | trout-perch | <i>Percopsis omiscomaycus</i> |
| Saltwater Fish | Arctic cod | <i>Boreogadus saida</i> |
| Freshwater Fish | threespine stickleback | <i>Gasterosteus aculeatus</i> |
| Freshwater Fish | threespine stickleback, Cook Inlet | <i>Gasterosteus aculeatus</i> |
| Freshwater Fish | ninespine stickleback | <i>Pungitius pungitius</i> |
| Saltwater Fish | sharpnose sculpin | <i>Clinocottus acuticeps</i> |
| Freshwater Fish | coastrange sculpin | <i>Cottus aleuticus</i> |
| Freshwater Fish | prickly sculpin | <i>Cottus asper</i> |
| Freshwater Fish | slimy sculpin | <i>Cottus cognatus</i> |
| Freshwater Fish | Pacific staghorn sculpin | <i>Leptocottus armatus</i> |
| Saltwater Fish | fourhorn sculpin | <i>Myoxocephalus quadricornis</i> |
| Freshwater Fish | shiner perch | <i>Cymatogaster aggregata</i> |
| Saltwater Fish | prowfish | <i>Zaprora silenus</i> |
| Saltwater Fish | Pacific sandfish | <i>Trichodon trichodon</i> |
| Saltwater Fish | Pacific sand lance | <i>Ammodytes hexapterus</i> |
| Saltwater Fish | Forage fish | Cottid Family |
| Saltwater Fish | Forage fish | Hemipterid Family |
| Saltwater Fish | Forage fish | Rhamphocottid Family |
| Saltwater Fish | Forage fish | Stichaeid Family |
| Saltwater Fish | Forage fish | Pholid Family |
| Saltwater Fish | Forage fish | Myctophidae |

| Amphibian Nominees | | |
|---------------------------|-------------------------|--------------------------------|
| Group | Common Name | Scientific Name |
| Amphibian | Columbia spotted frog | <i>Rana luteiventris</i> |
| Amphibian | Long-toed salamander | <i>Ambystoma macrodactylum</i> |
| Amphibian | Northwestern salamander | <i>Ambystoma gracile</i> |
| Amphibian | Rough-skinned newt | <i>Taricha granulosa</i> |
| Amphibian | Western toad | <i>Bufo boreas</i> |
| Amphibian | Wood frog | <i>Rana sylvatica</i> |

| Reptile Nominees | | |
|-------------------------|-------------------------|------------------------------|
| Group | Common Name | Scientific Name |
| Sea turtle | Green sea turtle | <i>Chelonia mydas</i> |
| Sea turtle | Leatherback sea turtle | <i>Dermochelys coriacea</i> |
| Sea turtle | Loggerhead sea turtle | <i>Caretta caretta</i> |
| Sea turtle | Olive Ridley sea turtle | <i>Lepidochelys olivacea</i> |

| Bird Nominees | | |
|-------------------------|----------------------------|------------------------------------|
| Group | Common Name | Scientific Name |
| Loons | Red-throated Loon | <i>Gavia stellata</i> |
| Loons | Arctic Loon | <i>Gavia arctica</i> |
| Loons | Green-throated Arctic Loon | <i>Gavia arctica viridigularis</i> |
| Loons | Pacific Loon | <i>Gavia pacifica</i> |
| Loons | Common Loon | <i>Gavia immer</i> |
| Loons | Yellow-billed Loon | <i>Gavia adamsii</i> |
| Grebes | Pied-billed Grebe | <i>Podilymbus podiceps</i> |
| Grebes | Horned Grebe | <i>Podiceps auritus</i> |
| Grebes | Red-necked Grebe | <i>Podiceps grisegena</i> |
| Albatrosses | Laysan Albatross | <i>Phoebastria immutabilis</i> |
| Albatrosses | Black-footed Albatross | <i>Phoebastria nigripes</i> |
| Albatrosses | Short-tailed Albatross | <i>Phoebastria albatrus</i> |
| Shearwaters and Petrels | Pink-footed Shearwater | <i>Puffinus creatopus</i> |
| Shearwaters and Petrels | Buller's Shearwater | <i>Puffinus bulleri</i> |

| Bird Nominees (continued) | | |
|----------------------------------|--------------------------------|--|
| Group | Common Name | Scientific Name |
| Storm-Petrels | Fork-tailed Storm-Petrel | <i>Oceanodroma furcata</i> |
| Storm-Petrels | Fork-tailed Storm-Petrel | <i>Oceanodroma furcata furcata</i> |
| Storm-Petrels | Fork-tailed Storm-Petrel | <i>Oceanodroma furcata plumbea</i> |
| Storm-Petrels | Leach's Storm-Petrel | <i>Oceanodroma leucorhoa</i> |
| Storm-Petrels | Leach's Storm-Petrel | <i>Oceanodroma leucorhoa leucorhoa</i> |
| Cormorants | Brandt's Cormorant | <i>Phalacrocorax penicillatus</i> |
| Cormorants | Double-crested Cormorant | <i>Phalacrocorax auritus</i> |
| Cormorants | Red-faced Cormorant | <i>Phalacrocorax urile</i> |
| Cormorants | Pelagic Cormorant | <i>Phalacrocorax pelagicus</i> |
| Frigatebirds | Magnificent Frigatebird | <i>Fregata magnificens</i> |
| Herons and Bitterns | American Bittern | <i>Botaurus lentiginosus</i> |
| Herons and Bitterns | Pacific Great Blue Heron | <i>Ardea herodias fannini</i> |
| Ducks, Geese and Swans | Tule White-fronted Goose | <i>Anser albifrons elegans</i> |
| Ducks, Geese and Swans | Aleutian Canada Goose | <i>Branta canadensis leucopareia</i> |
| Ducks, Geese and Swans | Steller's Eider | <i>Polysticta stelleri</i> |
| Ducks, Geese and Swans | Spectacled Eider | <i>Somateria fischeri</i> |
| Ducks, Geese and Swans | King Eider | <i>Somateria spectabilis</i> |
| Ducks, Geese and Swans | Pacific Common Eider | <i>Somateria mollissima v-nigra</i> |
| Ducks, Geese and Swans | Surf Scoter | <i>Melanitta perspicillata</i> |
| Ducks, Geese and Swans | White-winged Scoter | <i>Melanitta fusca deglandi</i> |
| Ducks, Geese and Swans | Black Scoter | <i>Melanitta nigra americana</i> |
| Ducks, Geese and Swans | Long-tailed Duck | <i>Clangula hyemalis</i> |
| Grouse and Ptarmigan | Prince of Wales Spruce Grouse, | <i>Falcipennis canadensis isleibi</i> |
| Grouse and Ptarmigan | Evermann's Rock Ptarmigan | <i>Lagopus mutus evermanni</i> |
| Grouse and Ptarmigan | Townsend's Rock Ptarmigan | <i>Lagopus mutus townsendi</i> |

| Bird Nominees (continued) | | |
|---------------------------|----------------------------------|---|
| Group | Common Name | Scientific Name |
| Grouse and Ptarmigan | Turners Rock Ptarmigan | <i>Lagopus mutus atkhensis</i> |
| Grouse and Ptarmigan | Blue Grouse | <i>Dendragapus obscurus</i> |
| Hawks and Eagles | Osprey | <i>Pandion haliaetus</i> |
| Hawks and Eagles | Osprey | <i>Pandion haliaetus carolinensis</i> |
| Hawks and Eagles | Bald Eagle | <i>Haliaeetus leucocephalus</i> |
| Hawks and Eagles | Northern Bald Eagle | <i>Haliaeetus leucocephalus alascanus</i> |
| Hawks and Eagles | White-tailed Eagle | <i>Haliaeetus albicilla</i> |
| Hawks and Eagles | Northern Harrier | <i>Circus cyaneus</i> |
| Hawks and Eagles | Sharp-shinned Hawk | <i>Accipiter striatus</i> |
| Hawks and Eagles | Northern Goshawk | <i>Accipiter gentilis</i> |
| Hawks and Eagles | Northern Goshawk | <i>Accipiter gentilis atricapillus</i> |
| Hawks and Eagles | Queen Charlotte Northern Goshawk | <i>Accipiter gentilis laingi</i> |
| Hawks and Eagles | Swainson's Hawk | <i>Buteo swainsoni</i> |
| Hawks and Eagles | Red-tailed Hawk | <i>Buteo jamaicensis alascensis</i> |
| Hawks and Eagles | Rough-legged Hawk | <i>Buteo lagopus</i> |
| Hawks and Eagles | Golden Eagle | <i>Aquila chrysaetos</i> |
| Falcons | Merlin | <i>Falco columbarius</i> |
| Falcons | Black Merlin | <i>Falco columbarius suckleyi</i> |
| Falcons | Gyrfalcon | <i>Falco rusticolus</i> |
| Falcons | Peregrine Falcon | <i>Falco peregrinus</i> |
| Falcons | American Peregrine Falcon | <i>Falco peregrinus anatum</i> |
| Falcons | Peale's Peregrine Falcon | <i>Falco peregrinus pealei</i> |
| Falcons | Arctic Peregrine Falcon | <i>Falco peregrinus tundrius</i> |
| Rails and Coots | Sora | <i>Porzana carolina</i> |
| Rails and Coots | American Coot | <i>Fulica americana</i> |
| Plovers | Black-bellied Plover | <i>Pluvialis squatarola</i> |
| Plovers | American Golden-Plover | <i>Pluvialis dominica</i> |
| Plovers | Pacific Golden-Plover | <i>Pluvialis fulva</i> |
| Plovers | Mongolian Plover | <i>Charadrius mongolus</i> |
| Plovers | Eastern Mongolian Plover | <i>Charadrius mongolus stegmanni</i> |
| Plovers | Killdeer | <i>Charadrius vociferous</i> |

| Bird Nominees (continued) | | |
|----------------------------------|---------------------------|------------------------------------|
| Group | Common Name | Scientific Name |
| Plovers | Eurasian Dotterel | <i>Charadrius morinellus</i> |
| Oystercatchers | Black Oystercatcher | <i>Haematopus bachmani</i> |
| Sandpipers | Common Greenshank | <i>Tringa nebularia</i> |
| Sandpipers | Lesser Yellowlegs | <i>Tringa flavipes</i> |
| Sandpipers | Solitary Sandpiper | <i>Tringa solitaria</i> |
| Sandpipers | Solitary Sandpiper | <i>Tringa solitaria cinnamomea</i> |
| Sandpipers | Wandering Tattler | <i>Heteroscelus incanus</i> |
| Sandpipers | Gray-tailed Tattler | <i>Heteroscelus brevipes</i> |
| Sandpipers | Common Sandpiper | <i>Actitis hypoleucos</i> |
| Sandpipers | Upland Sandpiper | <i>Bartramia longicauda</i> |
| Sandpipers | Eskimo Curlew | <i>Numenius borealis</i> |
| Sandpipers | Whimbrel | <i>Numenius phaeopus</i> |
| Sandpipers | Bristle-thighed Curlew | <i>Numenius tahitiensis</i> |
| Sandpipers | Black-tailed Godwit | <i>Limosa limosa</i> |
| Sandpipers | Hudsonian Godwit | <i>Limosa haemastica</i> |
| Sandpipers | Bar-tailed Godwit | <i>Limosa lapponica</i> |
| Sandpipers | Bar-tailed Godwit | <i>Limosa lapponica baueri</i> |
| Sandpipers | Marbled Godwit | <i>Limosa fedoa</i> |
| Sandpipers | Beringian Marbled Godwit | <i>Limosa fedoa beringiae</i> |
| Sandpipers | Black Turnstone | <i>Arenaria melanocephala</i> |
| Sandpipers | Surfbird | <i>Aphriza virgata</i> |
| Sandpipers | Red Knot | <i>Calidris canutus</i> |
| Sandpipers | Red Knot | <i>Calidris canutus roselaari</i> |
| Sandpipers | Sanderling | <i>Calidris alba</i> |
| Sandpipers | Semipalmated Sandpiper | <i>Calidris pusilla</i> |
| Sandpipers | Western Sandpiper | <i>Calidris mauri</i> |
| Sandpipers | Temminck's Stint | <i>Calidris temminckii</i> |
| Sandpipers | Long-toed Stint | <i>Calidris subminuta</i> |
| Sandpipers | White-rumped Sandpiper | <i>Calidris fuscicollis</i> |
| Sandpipers | Baird's Sandpiper | <i>Calidris bairdii</i> |
| Sandpipers | Sharp-tailed Sandpiper | <i>Calidris acuminata</i> |
| Sandpipers | Rock Sandpiper, Aleutians | <i>Calidris ptilocnemis couesi</i> |

| Bird Nominees (continued) | | |
|----------------------------------|----------------------------|--|
| Group | Common Name | Scientific Name |
| Sandpipers | Rock Sandpiper, Pribilofs | <i>Calidris ptilocnemis ptilocnemis</i> |
| Sandpipers | Rock Sandpiper, Bering Sea | <i>Calidris ptilocnemis tschuktschorum</i> |
| Sandpipers | Dunlin | <i>Calidris alpina</i> |
| Sandpipers | Arctic Dunlin | <i>Calidris alpina articola</i> |
| Sandpipers | Pacific Dunlin | <i>Calidris alpina pacifica</i> |
| Sandpipers | Curlew sandpiper | <i>Calidris ferruginea</i> |
| Sandpipers | Stilt Sandpiper | <i>Calidris himantopus</i> |
| Sandpipers | Buff-breasted Sandpiper | <i>Tryngites subruficollis</i> |
| Sandpipers | Ruff | <i>Philomachus pugnax</i> |
| Sandpipers | Short-billed Dowitcher | <i>Limnodromus griseus</i> |
| Sandpipers | Short-billed Dowitcher | <i>Limnodromus griseus caurinus</i> |
| Sandpipers | Common Snipe | <i>Gallinago gallinago</i> |
| Sandpipers | Wilson's Snipe | <i>Gallinago delicata</i> |
| Sandpipers | Red-necked Phalarope | <i>Phalaropus lobatus</i> |
| Sandpipers | Red Phalarope | <i>Phalaropus fulicarius</i> |
| Skuas, Gulls, Terns | South Polar Skua | <i>Stercorarius maccormicki</i> |
| Skuas, Gulls, Terns | Black-headed Gull | <i>Larus ridibundus</i> |
| Skuas, Gulls, Terns | California Gull | <i>Larus californicus</i> |
| Skuas, Gulls, Terns | Glaucous Gull | <i>Larus hyperboreus</i> |
| Skuas, Gulls, Terns | Ring-billed Gull | <i>Larus delawarensis</i> |
| Skuas, Gulls, Terns | Ross's Gull | <i>Rhodostethia rosea</i> |
| Skuas, Gulls, Terns | Slaty-backed Gull | <i>Larus schistisagus</i> |
| Skuas, Gulls, Terns | Black-legged Kittiwake | <i>Rissa tridactyla</i> |
| Skuas, Gulls, Terns | Black-legged Kittiwake | <i>Rissa tridactyla pollicaris</i> |
| Skuas, Gulls, Terns | Red-legged Kittiwake | <i>Rissa brevirostris</i> |
| Skuas, Gulls, Terns | Aleutian Tern | <i>Sterna aleutica</i> |

| Bird Nominees (continued) | | |
|----------------------------------|---------------------|-----------------------------------|
| Group | Common Name | Scientific Name |
| Skuas, Gulls, Terns | Arctic Tern | <i>Sterna paradisaea</i> |
| Skuas, Gulls, Terns | Caspian Tern | <i>Sterna caspia</i> |
| Skuas, Gulls, Terns | Common Tern | <i>Sterna hirundo</i> |
| Auks, Murres, Puffins | Dovekie | <i>Alle alle</i> |
| Auks, Murres, Puffins | Common Murre | <i>Uria aalge</i> |
| Auks, Murres, Puffins | Thick-billed Murre | <i>Uria lomvia</i> |
| Auks, Murres, Puffins | Black Guillemot | <i>Cephus grylle</i> |
| Auks, Murres, Puffins | Pigeon Guillemot | <i>Cephus columba</i> |
| Auks, Murres, Puffins | Marbled Murrelet | <i>Brachyranphus marmoratus</i> |
| Auks, Murres, Puffins | Kittlitz's Murrelet | <i>Brachyranphus brevirostris</i> |
| Auks, Murres, Puffins | Ancient Murrelet | <i>Synthliboramphus antiquus</i> |
| Auks, Murres, Puffins | Least Auklet | <i>Aethia pusilla</i> |
| Auks, Murres, Puffins | Whiskered Auklet | <i>Aethia pygmaea</i> |
| Auks, Murres, Puffins | Crested Auklet | <i>Aethia cristatella</i> |
| Pigeons | Band-tailed Pigeon | <i>Columba fasciata</i> |
| Owls | Western Screech-Owl | <i>Megascops kennicottii</i> |
| Owls | Great Horned Owl | <i>Bubo virginianus</i> |
| Owls | Snowy Owl | <i>Bubo scandiacus</i> |
| Owls | Northern Hawk Owl | <i>Surnia ulula</i> |
| Owls | Northern Pygmy-Owl | <i>Glaucidium gnoma</i> |
| Owls | Barred Owl | <i>Strix varia</i> |
| Owls | Great Gray Owl | <i>Strix nebulosa</i> |
| Owls | Short-eared Owl | <i>Asio flammeus</i> |
| Owls | Boreal Owl | <i>Aegolius funereus</i> |
| Owls | Northern Saw-Whet | <i>Aegolius acadicus</i> |

| Bird Nominees (continued) | | |
|----------------------------------|--------------------------------|-----------------------------------|
| Group | Common Name | Scientific Name |
| Owls | Western Screech-Owl | <i>Megascops kennicottii</i> |
| Swifts | Black Swift | <i>Cypseloides niger</i> |
| Swifts | Black Swift | <i>Cypseloides niger borealis</i> |
| Swifts | Vaux's Swift | <i>Chaetura vauxi</i> |
| Hummingbirds | Anna's Hummingbird | <i>Calypte anna</i> |
| Hummingbirds | Rufous Hummingbird | <i>Selasphorus rufus</i> |
| Kingfishers | Belted Kingfisher | <i>Ceryle alcyon</i> |
| Woodpeckers | Yellow-bellied Sapsucker | <i>Sphyrapicus varius</i> |
| Woodpeckers | Red-breasted Sapsucker | <i>Sphyrapicus ruber</i> |
| Woodpeckers | Hairy Woodpecker | <i>Picoides villosus</i> |
| Woodpeckers | American Three-toed Woodpecker | <i>Picoides dorsalis</i> |
| Woodpeckers | Black-backed Woodpecker | <i>Picoides arcticus</i> |
| Woodpeckers | Northern Flicker | <i>Colaptes auratus</i> |
| Flycatchers | Eastern Kingbird | <i>Tyrannus tyrannus</i> |
| Flycatchers | Hammond's Flycatcher | <i>Empidonax hammondi</i> |
| Flycatchers | Olive-sided Flycatcher | <i>Contopus cooperi</i> |
| Flycatchers | Pacific-slope Flycatcher | <i>Empidonax difficilis</i> |
| Flycatchers | Western Wood-Pewee | <i>Contopus sordidulus</i> |
| Shrikes | Northern Shrike | <i>Lanius excubitor</i> |
| Vireos | Cassin's Vireo | <i>Vireo cassinii</i> |
| Vireos | Red-eyed Vireo | <i>Vireo olivaceus</i> |
| Jays | Steller's Jay | <i>Cyanocitta stelleri</i> |
| Crows | American Crow | <i>Corvus brachyrhynchos</i> |
| Crows | Northwestern Crow | <i>Corvus caurinus</i> |
| Larks | Sky Lark | <i>Alauda arvensis</i> |
| Swallows | Violet-green Swallow | <i>Tachycineta thalassina</i> |
| Swallows | Northern Rough-winged Swallow | <i>Stelgidopteryx ruficollis</i> |
| Swallows | Bank Swallow | <i>Riparia riparia</i> |
| Swallows | Cliff Swallow | <i>Petrochelidon pyrrhonota</i> |
| Swallow | Barn Swallow | <i>Hirundo rustica</i> |
| Chickadees | Chestnut-backed Chickadee | <i>Poecile rufescens</i> |
| Chickadees | Boreal Chickadee | <i>Poecile hudsonica</i> |

| Bird Nominees (continued) | | |
|----------------------------------|-------------------------|--|
| Group | Common Name | Scientific Name |
| Chickadees | Gray-headed Chickadee | <i>Poecile cincta</i> |
| Nuthatches | Red-breasted Nuthatch | <i>Sitta canadensis</i> |
| Creepers | Brown Creeper | <i>Certhia americana</i> |
| Wrens | Pribilof Winter Wren | <i>Troglodytes troglodytes alascensis</i> |
| Wrens | Kodiak Winter Wren | <i>Troglodytes troglodytes helleri</i> |
| Wrens | Kiska Winter Wren | <i>Troglodytes troglodytes kiskensis</i> |
| Wrens | Attu Winter Wren | <i>Troglodytes troglodytes meligerus</i> |
| Wrens | Unalaska Winter Wren | <i>Troglodytes troglodytes petrophilus</i> |
| Wrens | Sedimi Winter Wren | <i>Troglodytes troglodytes semidiensis</i> |
| Wrens | Stevenson's Winter Wren | <i>Troglodytes troglodytes stevensoni</i> |
| Wrens | Tanaga Winter Wren | <i>Troglodytes troglodytes tanagensis</i> |
| Dippers | American Dipper | <i>Cinclus mexicanus</i> |
| Kinglets | Golden-crowned Kinglet | <i>Regulus satrapa</i> |
| Thrushes | Arctic Warbler | <i>Phylloscopus borealis</i> |
| Thrushes | Siberian Rubythroat | <i>Luscinia calliope</i> |
| Thrushes | Bluethroat | <i>Luscinia svecica</i> |
| Thrushes | Mountain Bluebird | <i>Sialia currucoides</i> |
| Thrushes | Townsend's Solitaire | <i>Myadestes townsendi</i> |
| Thrushes | Gray-cheeked Thrush | <i>Catharus minimus</i> |
| Thrushes | Swainson's Thrush | <i>Catharus ustulatus</i> |
| Thrushes | Hermit Thrush | <i>Catharus guttatus</i> |
| Thrushes | Eyebrowed Thrush | <i>Turdus obscurus</i> |
| Thrushes | American Robin | <i>Turdus migratorius</i> |
| Thrushes | Varied Thrush | <i>Ixoreus naevius</i> |
| Wagtails, Pipits | Black-backed Wagtail | <i>Motacilla lugens</i> |
| Wagtails, Pipits | White Wagtail | <i>Motacilla alba</i> |
| Wagtails, Pipits | Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> |
| Waxwings | Bohemian Waxwing | <i>Bombycilla garrulus</i> |
| Wood Warblers | Blackpoll Warbler | <i>Dendroica striata</i> |
| Wood Warblers | MacGillivray's Warbler | <i>Oporornis tolmiei</i> |
| Wood Warblers | Tennessee Warbler | <i>Vermivora peregrina</i> |
| Wood Warblers | Townsend's Warbler | <i>Dendroica townsendi</i> |

| Bird Nominees (continued) | | |
|----------------------------------|--------------------------|----------------------------------|
| Group | Common Name | Scientific Name |
| Wood Warblers | Wilson's Warbler | <i>Wilsonia pusilla</i> |
| Wood Warblers | American Redstart | <i>Setophaga ruticilla</i> |
| Wood Warblers | Northern Waterthrush | <i>Seiurus noveboracensis</i> |
| Tanagers | Western Tanager | <i>Piranga ludoviciana</i> |
| Sparrows | American Tree Sparrow | <i>Spizella arborea</i> |
| Sparrows | Fox Sparrow | <i>Passerella iliaca</i> |
| Sparrows | Giant Song Sparrow | <i>Melospiza melodia maxima</i> |
| Sparrows | Amak Island Song Sparrow | <i>Melospiza melodia amaka</i> |
| Sparrows | Harris's Sparrow | <i>Zonotrichia querula</i> |
| Sparrows | White-crowned Sparrow | <i>Zonotrichia leucophrys</i> |
| Sparrows | Golden-crowned Sparrow | <i>Zonotrichia atricapilla</i> |
| Sparrows | Dark-eyed Junco | <i>Junco hyemalis</i> |
| Sparrows | Smith's Longspur | <i>Calcarius pictus</i> |
| Sparrows | Rustic Bunting | <i>Emberiza rustica</i> |
| Sparrows | McKay's Bunting | <i>Plectrophenax hyperboreus</i> |
| Grosbeaks | Pine Grosbeak | <i>Pinicola enucleator</i> |
| Blackbirds | Brown-headed Cowbird | <i>Molothrus ater</i> |
| Blackbirds | Red-winged Blackbird | <i>Agelaius phoeniceus</i> |
| Blackbirds | Rusty Blackbird | <i>Euphagus carolinus</i> |
| Finches | Brambling | <i>Fringilla montifringilla</i> |
| Finches | Gray-crowned Rosy-Finch | <i>Leucosticte tephrocotis</i> |
| Finches | Red Crossbill | <i>Loxia curvirostra</i> |
| Finches | White-winged Crossbill | <i>Loxia leucoptera</i> |
| Finches | Hoary Redpoll | <i>Carduelis hornemannii</i> |
| Finches | Pine Siskin | <i>Carduelis pinus</i> |

| Mammal Nominees | | |
|-----------------|---|--|
| Group | Common Name | Scientific Name |
| Shrews | dusky shrew | <i>Sorex monticolus</i> |
| Shrews | dusky shrew, Yakutat | <i>Sorex monticolus alascensis</i> |
| Shrews | dusky shrew, Queen Charlotte Islands | <i>Sorex monticolus ellassodon</i> |
| Shrews | dusky shrew, Warren Island | <i>Sorex monticolus malitiosus</i> |
| Shrews | Pribilof Island shrew | <i>Sorex pribilofensis (hydrodromus)</i> |
| Shrews | pygmy shrew | <i>Sorex hoyi</i> |
| Shrews | St. Lawrence Island shrew | <i>Sorex jacksoni</i> |
| Shrews | tiny shrew | <i>Sorex yukonicus</i> |
| Shrews | tundra shrew | <i>Sorex tundrensis</i> |
| Shrews | water shrew | <i>Sorex palustris</i> |
| Shrews | Glacier Bay water shrew | <i>Sorex alaskanus</i> |
| Bats | big brown bat | <i>Eptesicus fuscus</i> |
| Bats | California myotis | <i>Myotis californicus</i> |
| Bats | Keen's myotis | <i>Myotis keenii</i> |
| Bats | little brown myotis | <i>Myotis lucifugus</i> |
| Bats | long-legged myotis | <i>Myotis volans (longicrus)</i> |
| Bats | silver-haired bat | <i>Lasionycteris noctivagans</i> |
| Canids | gray wolf, Alexander Archipelago | <i>Canis lupus ligoni</i> |
| Mustelids | sea otter | <i>Enhydra lutris</i> |
| Mustelids | northern sea otter, Southwest Alaska population | <i>Enhydra lutris kenyonii</i> |
| Mustelids | river otter, Prince of Wales | <i>Lontra canadensis mira</i> |
| Mustelids | wolverine, Kenai | <i>Gulo gulo katschemakensis</i> |
| Mustelids | marten, Kenai | <i>Martes americana kenaiensis</i> |
| Mustelids | marten | <i>Martes caurina caurina</i> |
| Mustelids | ermine | <i>Mustela erminea alascensis</i> |
| Mustelids | ermine, Prince of Wales | <i>Mustela erminea celenda</i> |
| Mustelids | ermine | <i>Mustela erminea initis</i> |
| Mustelids | ermine, Kodiak | <i>Mustela erminea kadiacensis</i> |
| Mustelids | ermine | <i>Mustela erminea salva</i> |
| Mustelids | ermine, Suemez Island | <i>Mustela erminea seclusa</i> |

| Mammal Nominees (continued) | | |
|-----------------------------|---|--|
| Group | Common Name | Scientific Name |
| Walrus | walrus | <i>Odobenus rosmarus</i> |
| Seals | bearded seal | <i>Erignathus barbatus</i> |
| Seals | elephant seal | <i>Mirounga angustirostris</i> |
| Seals | northern fur seal | <i>Callorhinus ursinus</i> |
| Seals | harbor seal , Pacific | <i>Phoca vitulina richardsi</i> |
| Seals | ribbon seal | <i>Phoca fasciata</i> |
| Seals | ringed seal | <i>Phoca hispida</i> |
| Seals | spotted seal | <i>Phoca largha</i> |
| Seals | Steller's sea lion, Western Alaska Population | <i>Eumetopias jubatus</i> |
| Seals | Steller's sea lion, Eastern Alaska Population | <i>Eumetopias jubatus</i> |
| Bears | brown bear, Kenai population | <i>Ursus arctos kenai</i> |
| Bears | polar bear | <i>Ursus maritimus</i> |
| Whales | beluga whale, Cook Inlet | <i>Delphinapterus leucas</i> , pop. 4 |
| Whales | blue whale, North Pacific | <i>Balaenoptera musculus</i> , pop. 2 |
| Whales | bowhead, Western Arctic | <i>Balaena mysticetus</i> , pop. 2 |
| Whales | fin whale, Northeast Pacific | <i>Balaenoptera physalus</i> , pop. 2 |
| Whales | gray whale, Eastern Pacific | <i>Eschrichtius robustus</i> , pop. 4 |
| Whales | humpback whale, Western and Central North Pacific | <i>Megaptera novaeangliae</i> , pop. 1 |
| Whales | minke whale, Northern | <i>Balaenoptera acutorostrata</i> |
| Whales | northern right whale, North Pacific | <i>Eubalaena glacialis</i> , pop. 2 |
| Whales | sei whale, North Pacific | <i>Balaenoptera borealis</i> |
| Whales | sperm whale, North Pacific | <i>Physeter catodon</i> |
| Whales | Baird's beaked whale | <i>Berardius bairdii</i> |
| Whales | Stejneger's beaked whale | <i>Mesoplodon stejnegeri</i> |
| Whales | Cuvier's beaked whale | <i>Ziphius cavirostris</i> |
| Whales | killer whale | <i>Orcinus orca</i> |
| Porpoises | harbor porpoise | <i>Phocoena phocoena</i> |
| Deer | woodland caribou, Chisana herd | <i>Rangifer tarandus caribou</i> |
| Rodents | Alaska marmot | <i>Marmota broweri</i> |
| Rodents | hoary marmot, Glacier Bay | <i>Marmota caligata vigilis</i> |

| Mammal Nominees (continued) | | |
|-----------------------------|--|---|
| Group | Common Name | Scientific Name |
| Rodents | hoary marmot, Montague Island | <i>Marmota caligata sheldoni</i> |
| Rodents | arctic ground squirrel | <i>Spermophilus parryi</i> |
| Rodents | arctic ground squirrel | <i>Spermophilus parryi ablusus</i> |
| Rodent | arctic ground squirrel, Barrow | <i>Spermophilus parryi kennicottii</i> |
| Rodents | arctic ground squirrel, Kodiak Island | <i>Spermophilus parryi kodiacensis</i> |
| Rodents | arctic ground squirrel, St. Lawrence Island | <i>Spermophilus parryi lyratus</i> |
| Rodents | arctic ground squirrel, Shumagin Islands | <i>Spermophilus parryi nebulicola</i> |
| Rodents | arctic ground squirrel, Osgood's | <i>Spermophilus parryi osgoodi</i> |
| Rodents | red squirrel, Kupreanof | <i>Tamiasciurus hudsonicus picatus</i> |
| Rodents | red squirrel, Kenai | <i>Tamiasciurus hudsonicus kenaiensis</i> |
| Rodents | northern flying squirrel | <i>Glaucomys sabrinus alpinus</i> |
| Rodents | northern flying squirrel, Prince of Wales | <i>Glaucomys sabrinus griseifrons</i> |
| Rodents | beaver, Admiralty | <i>Castor canadensis phaeus</i> |
| Rodents | meadow jumping mouse | <i>Zapus hudsonius</i> |
| Rodents | southern red-backed vole | <i>Clethrionomys gapperi</i> |
| Rodents | southern red-backed vole | <i>Clethrionomys gapperi phaeus</i> |
| Rodents | southern red-backed vole, Revillagigedo Island | <i>Clethrionomys gapperi solus</i> |
| Rodents | southern red-backed vole, Gapper's | <i>Clethrionomys gapperi stikinensis</i> |
| Rodents | southern red-backed vole, Wrangell Island | <i>Clethrionomys gapperi wrangeli</i> |
| Rodents | northern red-backed vole | <i>Clethrionomys rutilus</i> |
| Rodents | northern red-backed vole | <i>Clethrionomys rutilus insularis</i> |
| Rodents | northern red-backed vole | <i>Clethrionomys rutilus orca</i> |
| Rodents | northern red-backed vole, Glacier Bay | <i>Clethrionomys rutilus glacialis</i> |
| Rodents | Island northern red-backed vole, Island | <i>Clethrionomys rutilus insularis</i> |
| Rodents | Orca northern red-backed vole, Orca | <i>Clethrionomys rutilus orca</i> |
| Rodents | northern red-backed vole, St. Lawrence Island | <i>Clethrionomys rutilus albiventer</i> |
| Rodents | brown lemming | <i>Lemmus trimucronatus</i> |
| Rodents | brown lemming, Nunivak Island | <i>Lemmus trimucronatus harroldi</i> |
| Rodents | brown lemming, black-footed | <i>Lemmus trimucronatus nigripes</i> |
| Rodents | northern bog lemming | <i>Synaptomys borealis</i> |

| Mammal Nominees (continued) | | |
|------------------------------------|---------------------------------------|---|
| Group | Common Name | Scientific Name |
| Rodents | collared lemming | <i>Dicrostonyx groenlandicus</i> |
| Rodents | collared lemming, St. Lawrence Island | <i>Dicrostonyx groenlandicus exsul</i> |
| Rodents | collared lemming | <i>Dicrostonyx groenlandicus peninsulae</i> |
| Rodents | collared lemming, Stevenson's | <i>Dicrostonyx groenlandicus stevensoni</i> |
| Rodents | collared lemming, Unalaska | <i>Dicrostonyx groenlandicus unalascensis</i> |
| Rodents | insular vole | <i>Microtus abbreviatus</i> |
| Rodents | insular vole, Hall Island | <i>Microtus abbreviatus abbreviatus</i> |
| Rodents | insular vole, St. Matthew Island | <i>Microtus abbreviatus fisheri</i> |
| Rodents | long-tailed vole | <i>Microtus longicaudus</i> |
| Rodents | long-tailed vole, Coronation Island | <i>Microtus longicaudus coronarius</i> |
| Rodents | long-tailed vole | <i>Microtus longicaudus littoralis</i> |
| Rodents | singing vole | <i>Microtus miurus</i> |
| Rodents | tundra vole | <i>Microtus oeconomus</i> |
| Rodents | tundra vole, Amak Island | <i>Microtus oeconomus amakensis</i> |
| Rodents | tundra vole, Montague Island | <i>Microtus oeconomus elymocetes</i> |
| Rodents | tundra vole, Punuk Island | <i>Microtus oeconomus punukensis</i> |
| Rodents | tundra vole, St. Lawrence Island | <i>Microtus oeconomus innuitus</i> |
| Rodents | tundra vole, Shumagin Island | <i>Microtus oeconomus popofensis</i> |
| Rodents | tundra vole, Sitka | <i>Microtus oeconomus sitkensis</i> |
| Rodents | tundra vole, Unalaska | <i>Microtus oeconomus unalascensis</i> |
| Rodents | tundra vole, Yakutat | <i>Microtus oeconomus yakutatensis</i> |
| Rodents | meadow vole | <i>Microtus pennsylvanicus</i> |
| Rodents | meadow vole, Admiralty Island | <i>Microtus pennsylvanicus admiraltiae</i> |
| Rodents | yellow-cheeked vole (Taiga vole) | <i>Microtus xanthognathus</i> |
| Rodents | forest deer mouse, Keen's mouse | <i>Peromyscus keeni</i> |
| Rodents | forest deer mouse | <i>Peromyscus keeni algidus</i> |
| Rodents | forest deer mouse | <i>Peromyscus keeni hylaeus</i> |
| Rodents | forest deer mouse | <i>Peromyscus keeni macrorhinus</i> |
| Rodents | forest deer mouse | <i>Peromyscus keeni oceanicus</i> |
| Rodents | forest deer mouse | <i>Peromyscus keeni sitkensis</i> |

| Mammal Nominees (continued) | | |
|------------------------------------|---------------|------------------------------|
| Group | Common Name | Scientific Name |
| Pikas | collared pika | <i>Ochotona collaris</i> |
| Hares | tundra hare | <i>Lepus othus</i> |
| Hares | tundra hare | <i>Lepus othus othus</i> |
| Hares | tundra hare | <i>Lepus othus poadromus</i> |

| Invertebrate Nominees | | |
|------------------------------|---|------------------------------------|
| Group | Common Name | Scientific Name |
| Worms | Round, whip, lung, hook, and eel ¹ | Nematoda |
| Worms | Leeches, earthworms, bristle worms ¹ | Annelida |
| Amphipod | A cave obligate amphipod | <i>Stygobromus quatsinensis</i> |
| Arthropoda | Crustaceans, Spiders, Insects ¹ | Arthropoda |
| Insect | Mayflies | Ephemeroptera |
| Insect | A mayfly | <i>Brachycercus arcticus</i> |
| Insect | A mayfly | <i>Ephemerella lacustris</i> |
| Insect | A mayfly | <i>Acentrella feropagus</i> |
| Insect | A stonefly | <i>Isoperla katmaiensis</i> |
| Insect | Stoneflies | Plecoptera |
| Insect | A stonefly | <i>Mesocapnia bergi</i> |
| Insect | A stonefly | <i>Nemoura normani</i> |
| Insect | A stonefly | <i>Isocapnia agassizi</i> |
| Insect | A stonefly | <i>Podmosta weberi</i> |
| Insect | A stonefly | <i>Alaskaperla ovibovis</i> |
| Insect | A stonefly | <i>Isoperla decolorata</i> |
| Insect | A stonefly | <i>Isoperla sordida</i> |
| Insect | A stonefly | <i>Pteronarcella regularis</i> |
| Insect | Caddisflies | Trichoptera |
| Insect | Eskimo arctic | <i>Oeneis alpina</i> |
| Insect | Alaskan orange tip | <i>Anthocharis sara alaskensis</i> |
| Insect | Bog fritillary | <i>Boloria eunomia denali</i> |
| Insect | Uhler's arctic | <i>Oeneis uhleri cairnesi</i> |

| Invertebrate Nominees (continued) | | |
|-----------------------------------|---|-------------------------------------|
| Group | Common Name | Scientific Name |
| Insect | Astarte fritillary | <i>Boloria astarte distincta</i> |
| Insect | Field crescent | <i>Phyciodes pratensis totchone</i> |
| Insect | Western bumblebee | <i>Bombus occidentalis</i> |
| Insect | Dragonflies and Damselflies ² | Odonata |
| Insect | Water fleas | Cladocera |
| Mollusc | Clams and Mussels ³ | Pelecypoda |
| Mollusc | Western pearl shell | <i>Margaritifera falcata</i> |
| Mollusc | Yukon floater | <i>Anodonta beringiana</i> |
| Mollusc | Western floater | <i>Anodonta kennerlyi</i> |
| Mollusc | Snails, Slugs, Limpets ^{1, 4, 8} | Gastropoda |
| Mollusc | Attenuate fossaria | <i>Fossaria truncatula</i> |
| Mollusc | Rams-horn valvata | <i>Valvata mergella</i> |
| Mollusc | Fringed valvata | <i>Valvata lewisi</i> |
| Mollusc | Frigid lymnaea | <i>Lymnaea atkaensis</i> |
| Mollusc | Hanna's vertigo | <i>Vertigo hannai</i> |
| Mollusc | Undescribed snail | <i>Vertigo</i> sp. nov |
| Mollusc | Black Katy chiton | <i>Katharina tunicata</i> |
| Mollusc | Gumboot chiton | <i>Cryptochiton stelleri</i> |
| Mollusc | Pinto (Northern) abalone | <i>Haliotis kamtschatkana</i> |
| Mollusc | Intertidal and shallow subtidal bivalves ⁴ | various |
| Various | Eelgrass-associated invertebrates ⁴ | various |
| Various | Corals, tunicates, sponges ⁵ | various |
| Various | Salt marsh-associated invertebrates ⁶ | various |
| Various | Zooplankton ⁷ | various |
| Various | Benthic grazers ⁸ | various |
| Various | Cave-dwelling species ⁹ | various |

¹ See Terrestrial Invertebrates Introduction in Appendix 4 of CWCS for complete list of orders

² See Freshwater Invertebrates: Dragonflies and Damselflies template in Appendix 4 of CWCS for complete list of species

³ See Freshwater Invertebrates: Mollusca in Appendix 4 of CWCS

⁴ See Nearshore Soft Benthic Ecosystems template in Appendix 4 of CWCS

⁵ See Deep Benthic Ecosystems template in Appendix 4 of CWCS

⁶ See Salt Marsh Ecosystems template in Appendix 4 of CWCS

⁷ See Pelagic Ecosystems template in Appendix 4 of CWCS

⁸ See Nearshore Rocky Reef Ecosystems template in Appendix 4 of CWCS

⁹ See Karst Cave Dwelling Aquatic Invertebrates template in Appendix 4 of CWCS

Appendix 2. CWCS Key Habitats

Forests

Boreal
Coastal Temperate Rain forest

Tundra

Alpine
Arctic
Maritime

Freshwater Aquatic

Glacial systems
Lakes and Ponds
Rivers and Streams
Non-glacial systems
Lakes and Ponds
Rivers and Streams
Riparian Zones

Wetlands

Grass
Sedge
Bog
Salt marsh

Marine and Coastline

Intertidal
Rocky Intertidal
Mudflats and Beaches
Eelgrass Beds
Marine waters
Nearshore
Shelf
Oceanic
Benthic
Coastal Islands and Sea Cliffs

Sea Ice

Fast
Pack

Karst Caves

Entrance Zone
Twilight Zone
Deep Cave Zone

Appendix 3. Glossary

Aquatic Species- means any species of aquatic finfish, invertebrate, or amphibian, in any stage of its life cycle, found in or introduced into the state, and includes any part of such aquatic finfish, invertebrate, or amphibian.

Conservation action- a method or procedure necessary or desirable to sustain healthy populations of wildlife, including all activities associated with scientific resources management, such as research, census, monitoring of populations; acquisition, improvement and management of habitat; live trapping and transportation.

Legislatively Designated Special Area (LDA)- Areas classified by the Alaska State Legislature as being essential to the protection of fish and wildlife habitat. These areas are designated as either a refuge, critical habitat area, or sanctuary.

Anadromous Waters Catalog (AWC)- The regulatory publication that contains streams, rivers and lakes around the state which have been specified as being important for the spawning, rearing or migration of anadromous fish, and thereby afforded protection under AS 41.14.870. To be documented in the catalogue and protected under AS 14.41.870, water bodies must be documented as supporting some life function of an anadromous fish species.

Fish distribution database (FDD)- The housing database of the AWC specified waters.

Instream Flow- The quantity of water flowing in a natural stream channel at any time of year. The quantity may or may

not be adequate to sustain natural ecological processes, and may or may not be protected or administered under a permit, water right, or other legally recognized means.

Featured Species- The species, species groups and/or species assemblages listed in Appendix 3 of Alaska's CWCS. Featured species are a subset of the Nominee Species List for which the CWCS provides information and measurable conservation goals and strategies.

Federal Geographic Data Committee (FGDC)- The interagency committee originally established in 1990 by the Office of Management and Budget that promotes the coordinated development, use, sharing, and dissemination of geospatial data on a national basis.

Nominee Species- The species considered to be of greatest conservation need in Alaska and listed in Appendix 7 of the CWCS.

Southeast Alaska GIS Library- The Southeast Alaska GIS Library is an interagency project sponsored by the US Fish & Wildlife Service, Juneau Field Office, the Alaska Department of Fish and Game, and the US Forest Service, Tongass National Forest. The project is based at the US Forest Service Supervisor's office in Petersburg, Alaska. Information regarding the Southeast Alaska GIS library can be found at <http://www.fs.fed.us/r10/tongass/gisinfo/pages/about.html>

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