

During December 1998 and January 1999, the Fish and Wildlife Service (FWS) published the following proposed and final Endangered Species Act (ESA) listing actions in the *Federal Register*:

Listing Proposals

Desert Yellowhead (*Yermo xanthocephalus*) As its name suggests, the desert yellowhead is a plant that grows in an arid environment and produces heads of numerous yellow flowers. It is a member of the aster family (Asteraceae). This species is known from only a 5-acre (2-hectare) site in the Beaver Rim area of southern Fremont County, Wyoming, administered by the Bureau of Land Management. The desert yellowhead was not discovered until 1990, and surveys conducted over past the 8 years have not located any additional populations.



Photo by Chuck Davis/USFWS

The area occupied by the desert yellowhead is potentially vulnerable to surface disturbances from such actions as oil and gas development, compaction by vehicles, and trampling by livestock. To ensure that this plant and its habitat are conserved, the FWS proposed on December 22 to list the desert yellowhead as a threatened species.

Nine Texas Invertebrates On December 30, the FWS proposed to list nine species of small, cave-dwelling invertebrates native to a few sites in Bexar County, Texas, as endangered. All nine species are adapted to an environment without light. Two of the species, *Rhadine*

exilis and *Rhadine infernalis* (no common name), are essentially eyeless ground beetles. Another, the Helotes mold beetle (*Batrissodes ventyivi*), is completely eyeless. The Robber Baron Cave harvestman (*Texella cokendolpheri*) is an eyeless form of "daddy-longlegs." The remaining five species—the Robber Baron Cave spider (*Cicurina baronia*), Madla's cave spider (*Cicurina madla*), *Cicurina venii*, vesper cave spider (*Cicurina vespera*), and Government Canyon cave spider (*Neoleptoneta microps*)—are eyeless, or essentially eyeless, spiders.

These creatures are known from karst features (limestone formations containing caves, sinks, and fissures) in north and northwest Bexar County. The health of karst environments depends in large part on the health of the surface environment within their recharge zone. Karst areas are known to have complex groundwater flow paths that are very sensitive to pollution. Contaminants that enter the aquifer can quickly degrade underground ecosystems.

Threats to the habitats of these species include both the direct and indirect effects of urbanization in this rapidly growing region. Caves and karst features are often filled in, and the aquatic cave environment can be degraded by septic effluents, sewer leaks, and pesticide runoff. Predation of the cave invertebrates by the non-native fire ant (*Solenopsis invicta*) is another serious threat. Some caves also have been vandalized or filled with trash.

Twenty-eight caves known to harbor one or more of the native invertebrates are on private lands, 21 are on Department of Defense lands, six are on State-owned land, and one is on a county right-of-way. The Defense Department is taking the conservation of occupied caves on its property into consideration, and some of the private landowners have already expressed a willingness to work with the FWS to develop land management practices that conserve karst habitats.

Santa Ana Sucker (*Catostomus santaanae*) Historically one of the most common fish in southern California, the Santa Ana sucker has a historic range that coincides with the Los Angeles metropolitan area. The Santa Ana sucker once occurred widely in the Los Angeles, San Gabriel, and Santa Ana River drainages of southern California. It is now restricted to the headwaters of the San Gabriel River system, the lower

part of Big Tujunga Creek in the Los Angeles River basin, and a lowland stretch of the Santa Ana River in Los Angeles, Orange, Riverside, and San Bernardino counties. Because of the danger of continuing habitat loss, the FWS proposed on January 26 to list the Santa Ana sucker as threatened. A non-native population introduced into the Santa Clara River system in Ventura and Los Angeles counties is not included in the listing proposal.

The Santa Ana sucker, typical of the sucker family, has large, thick lips and a small mouth used to "vacuum" algae and invertebrates from stream beds. It is about 6 inches (15 centimeters) long and has a dark, blotchy back and silvery underside. The sucker inhabits small, shallow streams and appears to be most abundant where the water is cool, clean, and clear, although the species can tolerate seasonally turbid water.

The sucker's decline was related to environmental impacts from the region's intense urban development. Water diversions, channelization, and concrete lining of streams, as well as erosion, debris torrents, and pollution, have destroyed or degraded the fish's habitat. Dams also have isolated and fragmented the remaining sucker populations. Impoundments provide habitat for introduced non-native fishes that prey on suckers or compete with them for habitat, which biologists believe also contributed to the species' decline. Approximately 35 percent of the current range of the Santa Ana sucker is on Angeles National Forest lands, including a small portion within the San Gabriel Wilderness.

Critical Habitat The FWS published proposals on December 30 to designate critical habitat in southern Arizona for two listed species, the cactus ferruginous pygmy owl (*Glaucidium brasilianum cactorum*) and a plant, the Huachuca water umbel (*Lilaeopsis schaffnerianasp. recurva*).

In southern Arizona, the pygmy owl nests within tree and cactus cavities. It is endangered by the loss or modification of habitat due to dams, water diversions, and urbanization. The proposed critical habitat for this species includes specific river flood plains and Sonoran desert scrub communities in Pima, Cochise, Pinal, and Maricopa counties. The Huachuca water umbel, a semi-aquatic plant, occurs in cienegas (desert marshes), springs, streams, and rivers. Threats to this

species include competition with non-native species, droughts, destructive floods, and habitat degradation caused by livestock overgrazing, water diversions, dredging, groundwater pumping, and certain recreational activities. Proposed critical habitat for the water umbel includes specific stream courses and adjacent riparian areas in Santa Cruz and Cochise counties.

Critical habitat designations do not affect private activities unless there is some Federal involvement. Federal agencies, however, must ensure that any actions they authorize, fund, or carry out do not adversely modify designated critical habitats. The required maps and detailed descriptions of the proposed critical habitats for the pygmy owl and water umbel were published in the December 30 *Federal Register*. When these species were originally given ESA protection, the FWS decided that taking the additional step of designating critical habitats would not be prudent because publishing specific locations could attract plant collectors and lead to harassment of the owl. However, on November 25, 1998, a district court judge ordered the FWS to issue proposed critical habitat designations with 30 days.

Final Listing Rules

Topeka Shiner (*Notropis topeka*) Historically, the Topeka shiner was a common fish in small prairie streams throughout Kansas, Iowa, Minnesota, Missouri, Nebraska, and South Dakota. Currently, however, it occurs in only about 20 percent of its former range due to widespread habitat modification and water quality degradation. Sedimentation, water di-



Photo by Garold Sheegus

versions, and the loss of riparian buffers damaged the aquatic habitat, and dam construction fragmented some of the remaining populations, restricting genetic interchange. The Topeka shiner is now restricted primarily to a few tributaries within the Mississippi

and Missouri river basins. The vulnerability of this small fish led the FWS to list the Topeka shiner on December 15 as endangered.

St. Andrew Beach Mouse (*Peromyscus polionotus peninsularis*) As their common name indicates, beach mice inhabit not houses and other structures but coastal sand dunes, where they excavate burrows and feed on plant seeds and insects. The St. Andrew beach mouse once lived along nearly 54 miles (87 km) of Florida's panhandle beaches from Gulf County to Crooked Island in Bay County. Over time, its habitat has been reduced by storms, non-storm related shoreline erosion, and coastal development. Other threats include predation by domestic cats and competition from house mice, both of which are associated with beachside development. An estimated 500 St. Andrew beach mice remain. On December 18, the FWS listed this subspecies as endangered.

Withdrawals

Harbor Porpoise (*Phocoena phocoena*) In 1993, the National Marine Fisheries Service (NMFS), which has primary ESA jurisdiction over most marine species, proposed to list the Gulf of Maine/Bay of Fundy population of the harbor porpoise as threatened due to the rate of porpoise bycatch in the area's gillnet fishery. Since that time, however, NMFS has received information regarding the population's status and fishery management actions that reduce bycatch. Because NMFS has determined that ESA protection for the Gulf of Maine/Bay of Fundy population is not warranted, it published a withdrawal of the listing proposal in the January 5, 1999, *Federal Register*.

To learn more about Alaska and efforts to conserve, protect and enhance Arctic fish, wildlife and plants, start with a visit to these web sites:

U.S. Fish and Wildlife Service, Alaska Region
<http://www.r7.fws.gov>

This site is your gateway to Service programs in Alaska. Supporting pages include information about conservation for endangered species, fisheries, marine mammals, migratory birds, and other efforts to protect Alaska's wilderness. You can also learn about, and link to, a wide variety of international programs through which the Service is working with other Arctic nations to strengthen conservation of Arctic species.

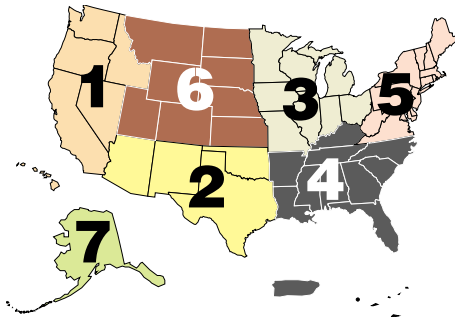
U.S. Fish and Wildlife Service, Canada/U.S. Framework for Cooperation between DOI and Canada
<http://www.fws.gov/r9endspp/canada/canada.htm>
From this site, you can view or print the signed April 1997 accord initiating this joint effort. Also available is the "Questions & Answers" related to the signed framework, and two species examples of the benefits of cooperation (the piping plover and the whooping crane). You can also link to the Canadian Wildlife Service's endangered species web page at http://www.cws-scf.ec.gc.ca/es/endan_e.html.

Conservation of Arctic Flora and Fauna (CAFF)
<http://www.grida.no/caff/>

Under the Arctic Council, CAFF focuses on a range of Arctic environmental issues such as biodiversity, habitat protection, and species conservation within an ecosystem approach. CAFF is also working with indigenous peoples to integrate their knowledge into Arctic environmental conservation.

Alaska Public Lands Information Center (APLIC)
<http://www.nps.gov/aplic/center/index.html>

Through this web site, APLIC offers a wealth of information for planning a visit to Alaska's State and Federal public lands. APLIC is a central point of contact for information on lands managed by the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, Alaska Division of Tourism, Alaska Department of Natural Resources, and Alaska Department of Fish and Game.



Regional endangered species contacts have reported the following news:

Region 1

Aleutian Canada Goose (*Branta canadensis leucopareia*) Avian cholera losses were significant this winter at Merced, San Luis, and San Joaquin River National Wildlife Refuges (NWR) in California. Until temperatures warmed up in late January, biologists at San Luis NWR collected 350 to 400 dead birds per day of various species. At San Joaquin River NWR, the endangered Aleutian Canada goose was the species most commonly killed by cholera, with approximately 800 lost this winter. Merced NWR biologists found moderate numbers of white geese (*Anser albifrons*) and large numbers of coots (*Fulica americana*). Refuge staff worked 7 days per week to keep wetland units as clean as possible in order to reduce the spread of the disease.



USFWS photo

Sacramento NWR Complex California's Sacramento NWR Complex did not escape what appears to have been a statewide outbreak of avian cholera in wintering waterfowl. During the abbreviated work week between Christmas and New Year Day, over 3,000 birds were picked up at Butte Sink NWR. All other refuges in the complex experienced varying degrees of mortality. Disease severity may have been the result of cold temperatures and ice the previous week, which concentrated birds on the remaining open water and restricted refuge staff's ability to complete routine airboat disease patrols.

Salmon In an effort to reduce avian predation on listed salmon smolts, the U.S. Army Corps of Engineers has completed an Environmental Assessment (EA) designed to relocate Caspian terns (*Sterna caspia*) nesting on Rice Island in the Columbia River estuary to a different site, East Sand Island. Caspian terns currently breed on 8 acres (3.2 hectares) of habitat on Rice Island. Limited research indicates that the 10,000 pair colony is consuming between 6 and 25 million salmon smolts per year. Hatchery fish account for approximately 90 percent of the smolts taken. We hope that the relocation of terns to East Sand Island will reduce their predation of salmon smolts due to a larger variety of prey in this area. The EA calls for the creation of approximately 16 acres (6.5 ha) of tern habitat on East Sand Island near the mouth of the Columbia River, deployment of a sound system and decoys on East Sand Island to attract nesting terns, vegetation of Rice and Miller Sands Islands to discourage tern nesting, and potential harassment of terns on Rice and Miller Sands to encourage them to move to East Sand Island. One acre (0.4 ha) of tern nesting habitat will remain on Rice Island. Although small, this site is estimated to support 1,000 pairs.

Sonny Bono Salton Sea NWR Complex A section of the refuge near Bruchard Bay burned recently. The wildfire was extinguished by a U.S. Forest Service fire crew from the Cleveland National Forest. Approximately 7 to 10 acres (2.8 to 4 ha) were burned, with substantial loss of habitat for the endangered Yuma clapper rail (*Rallus longirostris yumanensis*).

Bitter Creek National Wildlife Refuge The decision document for an addition to Bitter Creek NWR was approved on December 28, 1998. CalTrans will donate the 40-acre (16-ha) Wilson tract containing

habitat for the endangered San Joaquin kit fox (*Vulpes macrotis mutica*) to the FWS as mitigation for improvements to State Route 33, which runs through the refuge.



San Joaquin kit fox

Corel Corp. photo

Lewis and Clark Commemoration Nearly 200 years ago, explorers Meriwether Lewis and William Clark opened a new frontier for the fledgling United States with their historic journey from St. Louis, Missouri, to the Pacific Ocean and back. In a way, they were western America's first wildlife biologists, and described 178 plants and 122 animals not previously recorded.

A 4-year-long bicentennial commemoration will begin in 2003, with 10 million visitors expected to visit at least one point on the Lewis and Clark National Historic Trail during that time. They will place heavy demands on refuges and hatcheries along the route as they seek information and access to Lewis and Clark sites. At the same time, this event will offer an unprecedented opportunity for the FWS to reach a new audience by reflecting on the past and future of the country's natural resources, including how plants and animals identified by Lewis and Clark are faring today.

The FWS has formed a national Lewis and Clark Bicentennial Team, which met for the first time in January in Portland, Oregon. Potential projects associated with the bicentennial include heritage protection measures such as land acquisition and habitat restoration. For more information, contact Susan Saul, the Region 1 Lewis and Clark Bicentennial Coordinator, at 503/231-2728.

Canada lynx (*Lynx canadensis*) A comprehensive survey by FWS, Forest Service, and Wildlife Conservation Society biologists in the area covered by the Northwest Forest Plan confirmed the presence of Canada lynx in the Oregon Cascades. On July 8, 1998, the FWS proposed to list the U.S. population of this elusive cat as threatened.



Canada lynx
Corel Corp. photo

Jobs-in-the-Woods Participants in the "Jobs-in-the-Woods" program, which provides training and employment in environmental restoration to dislocated timber workers in Oregon, completed the final inspection of the FY 1998 West Fork Agency Creek Culvert Replacement Project on lands owned by the Confederated Tribes of Grand Ronde in Yamhill County, Oregon. Failing, undersized, and poorly placed culverts at two locations were replaced by oversized bottomless arch culverts. The new culverts restored fish passage to 7.5 miles (12 kilometers) of suitable habitat for anadromous steelhead (*Oncorhynchus mykiss*) and coho salmon (*Oncorhynchus kisutch*). This project is featured on the Tribes' website, which can be accessed at www.grandronde.org (click on: natural resources, fish and wildlife, culvert project). The FWS contributed one-third of the \$88,374 project cost. This is the second successful fish passage collaboration between Jobs-In-The-Woods and the Tribe, which have reopened 18 miles (29 km) of suitable habitat.

Other Jobs-In-The-Woods personnel completed the final inspection of the FY 1998 Nelson's Checker-mallow Habitat Enhancement Project on lands owned by the Confederated Tribes of Grand Ronde in Polk County, Oregon. The site is one of four areas protected by a conservation easement between the Tribes and FWS for the management of Nelson's checker-mallow (*Sidalcea nelsoniana*), a plant listed as threatened. Approximately 10 acres (4 ha) of upland and wetland habitat dominated by invasive vegetative species were chemically and mechanically cleared, then seeded with native grass species. The Tribes also transplanted 90 checker-mallow plants, salvaged from another location, into an existing population. A new gate and cattle guard were installed to prevent cattle access from an adjoining landowner. At the same time, the Tribes also carried out a wetland mitigation project on an area adjacent to the enhancement/transplant location. This project required close coordination between FWS Oregon State Office contaminants, endangered species, and Jobs-In-The-Woods personnel. Nine partners contributed funds or technical assistance, or participated in the planning process to ensure successful implementation of this project. The FWS contributed \$7,815 of the \$18,382 project cost.

Reported by LaRee Brosseau of the FWS Portland Regional Office.

Region 4

Florida Black Bear (*Ursus americanus floridanus*) The FWS has removed the Florida black bear from the list of candidates for Endangered Species Act (ESA) protection because four healthy populations remain on protected lands in Florida and Georgia. Collectively, these four publicly-owned areas support 1,000 to 2,200 black bears over 3 million acres (1.2 million ha). According to a 1998 status review, which led to the decision, Apalachicola National Forest and adjacent lands support an estimated 400 bears; Okefenokee National Wildlife Refuge, Osceola National Forest, and adjacent lands together contain an estimated 1,200 bears; Ocala National Forest and adjacent lands are estimated to have over 200 bears; and Big Cypress National Preserve and adjacent lands have about 400 bears. In addition, a stable population of 60 to 200 black bears exists on Eglin Air Force Base and its surrounding area in the Florida Panhandle. Isolated populations are also found on private lands or

small tracts of public land. Altogether, the status review concluded that an estimated 1,600-3,000 bears occur in Florida and along the coastal plain of Georgia and southern Alabama. Past land clearing and development have reduced the distribution of the Florida black bear to 25 percent of its historic range.

Reported by Elsie Davis, Southeast Regional Office in Atlanta, Georgia.

Region Five

Swamp Pink (*Helonias bullata*) The FWS New Jersey Field Office contracted a biological consultant to initiate a pilot program that involved contacting 10 private landowners whose property contained populations of the swamp pink, a threatened wildflower. In cooperation with the FWS, the biological consultant also developed a habitat protection agreement that provides an opportunity for private landowners to voluntarily agree to protect and conserve swamp pink and its habitat on private property. Such agreements may significantly contribute to the recovery of swamp pink since many populations of this species occur on private land. As the Swamp Pink Recovery Plan states, "Cooperation from landowners is an extremely important facet of protection for sites located on private lands.... Individual landowners will be contacted regarding the presence of *Helonias* on their property and the significance of this species. Management agreements and deed covenants will be established when

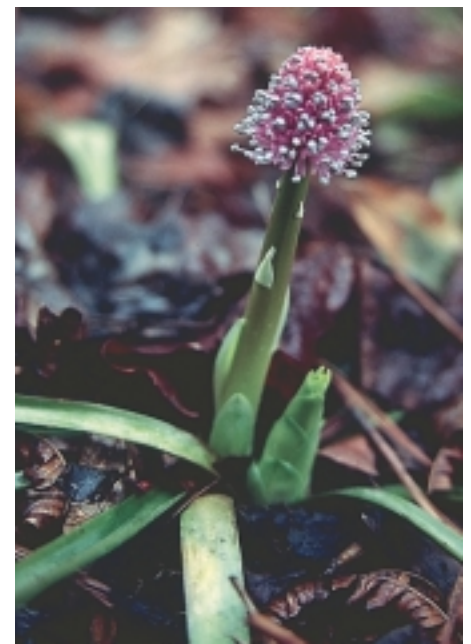


Photo by Judy Jacobs/USFWS

ever possible to protect the natural attributes of the property from disturbance." Many landowners responded positively during the pilot program and are expected to enter into habitat protection agreements following further coordination with FWS biologists.

The first habitat protection agreement was signed in January 1999 by Richard and Mary Blake of Cape May County, New Jersey. They contacted the FWS after reading an article about the swamp pink in their local newspaper. Biologists from the New Jersey Field Office met with Mrs. Blake and discussed swamp pink protection strategies, including entering into a voluntary agreement with the FWS to protect and conserve the swamp pink site and a surrounding buffer area on their property. Additional private landowners have also expressed interest in protecting the swamp pink and are expected to sign habitat protection agreements in the near future. Each landowner will receive a framed certificate in recognition of the agreement.

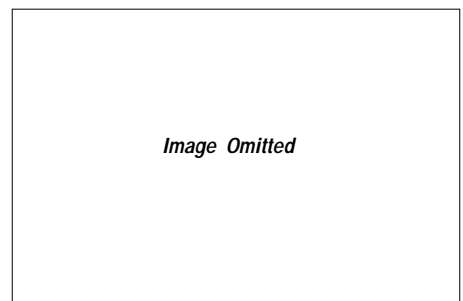
Indiana Bat (*Myotis sodalis*) Biologists in the FWS New England Field Office in Concord, New Hampshire, are conducting ESA-section 7 consultations with the U.S. Forest Service on 20 active timber sales in the Green Mountain National Forest for potential impacts on the endangered Indiana bat. The FWS is also assisting the Forest Service in developing a biological evaluation of forest activities on a programmatic level. In the White Mountains National Forest, all timber sales that have received FWS review resulted in findings that the sales are "not likely to adversely affect" the Indiana bat.

Indiana bats are considered to be at the northeastern edge of their range in New England. New Hampshire was not considered to be within the species' range until 1992, when a roosting bat was discovered during a summer research project in the White Mountain National Forest. New England has only three known active Indiana bat hibernacula (two in Vermont and one in Connecticut), and they harbor fewer than 10 individuals combined.

Piping Plover (*Charadrius melodus*) The FWS Long Island Field Office has been building partnerships with New York State Department of Environmental Conservation; New York State Office of Parks, Recreation, and Historical Preservation; Citizens Campaign for the Environment; Suffolk County; Nassau

County; The Nature Conservancy; and other groups to restore early successional beach habitat at sites used by the threatened piping plover and New York State-listed least tern (*Sterna antillarum*). Due to years of shoreline management efforts, including beach "nourishment," dune construction, dune grass plantings, and fencing, early successional beach habitat is degraded or in short supply on Long Island. Plans are being developed to ensure post-restoration monitoring surveys.

The Long Island Office also has been working with New York State Department of Environmental Conservation and The Nature Conservancy to educate stewards and land managers about piping plover biology, ecology, behavior, and management. Participants include Federal, State, county, and town representatives, as well as representatives from several not-for-profit organizations such as the National Audubon Society, Krusos Foundation, and Long Island Beach Buggy Association. Although this program was initiated by The Nature Conservancy several years ago, the FWS and the State have since assumed planning and coordination for the training program.



Virginia Big-eared Bat (*Corynorhinus townsendii virginianus*) In the fall of 1998, the FWS West Virginia Field Office assisted in the construction of state-of-the-art angle iron gates in the two entrances of the Sinnitt/Thorn Cave system in Pendleton County, West Virginia, to prevent the disturbance of endangered Virginia big-eared bats. With the assistance of the West Virginia Non-Game Wildlife and Natural Heritage Program and the Canaan Valley

National Wildlife Refuge, the FWS prepared for the project by providing construction material (steel, acetylene, oxygen, welding rods, etc.). The project was accomplished through a cave gating workshop put on by the American Cave Conservation Association and sponsored by the FWS Asheville, North Carolina, Field Office, with funding from the FWS Southern Appalachian Ecosystem and the Chesapeake Bay/Susquehanna River Ecosystem offices. Participants in the project included the FWS (West Virginia Field Office, Canaan Valley National Wildlife Refuge, and Asheville Field Office), West Virginia Division of Natural Resources, American Cave Conservation Association, U.S. Forest Service (Jefferson and George Washington National Forests and Mount St. Helens National Monument), National Speleological Society, National Park Service (Mammoth Cave National Park), West Virginia Chapter of The Nature Conservancy, and Bat Conservation International.

The Sinnitt/Thorn Cave system is designated critical habitat for the endangered Virginia big-eared bat and supports both summer and winter colonies. The large summer maternity colony is considered critical to the species' survival. The old-style round bar gate at the Sinnitt entrance enabled the predation of bats leaving the small cave opening by local cats and (probably) raccoons. Bats also had difficulty negotiating the Thorn entrance gate, which requires the bats to enter and exit vertically. These problems should be corrected by the new gates.

With the help of the West Virginia Non-Game Wildlife and Natural Heritage Program, the West Virginia Field Office also delivered construction steel last fall to Schoolhouse Cave in West Virginia's Germany Valley. Schoolhouse Cave provides habitat for a large summer and winter colony of Virginia big-eared bats. The fence that controls human access to the cave had been vandalized several times in the past few years. Construction of a state-of-the-art angle iron gate at the cave entrance should preclude human disturbance of the bats and allow the population to flourish. Construction is scheduled for August 1999.

Reported by Lisa Arroyo of the FWS New Jersey Field Office, Linda Morse of the FWS New England Field Office, and Andy Moser of the Annapolis, Maryland, Field Office.

In the quarter century since passage of the Endangered Species Act (ESA) Alaskan wildlife has undergone both tremendous gains and perplexing losses. On one hand, some animals that were on the endangered species list in 1973 have fared well. On the other hand, declining seabird, marine mammal and some fish species in the Bering Sea ecosystem are an increasingly widespread public concern. The cause and effects of these ecosystem declines are complex and poorly understood. The Service and many partners are working to unravel the mystery, but it is a huge task. For example, Steller's sea lions, which were the primary prey of killer whales, have virtually disappeared from the Aleutians. Is it possible that the decline of one species can cause predator pressure to shift to another species? In observed areas of the Aleutian Islands, sea otters are declining precipitously; evidence and observations point to predation by killer whales. Except for the Aleutians, sea otter populations are stable or growing elsewhere in Alaska.

On the positive side, the arctic peregrine falcon (*Falco peregrinus tundrius*) recovered thanks to the 1972 ban on DDT, protection of its habitat, and prohibitions on taking birds out of the wild for falconry. The Aleutian Canada goose (*Branta canadensis leucopareia*) also falls into the good news category. It was down to about 500 individuals in 1973, due to predation by non-native foxes (*Alopex lagopus*) which were introduced to its nesting islands by fur farmers. After passage of the ESA, the foxes were removed, geese were captive-bred in the Aleutians and reintroduced to fox-free islands, and wintering habitat in Oregon and California was protected. Restoration of the Aleutian Canada

goose has proceeded so well that its status was upgraded in 1990 from endangered to the less critical category of threatened, and it may soon be delisted altogether.

But not all wildlife news from Alaska over the past 25 years has been good. Even as some endangered and threatened species were recovering, others, such as spectacled and Steller's eiders (*Somateria fischeri* and *Polysticta stelleri*, respectively), were added to the threatened and endangered list.

Spectacled eiders were listed as threatened in May, 1993 following a 95% decline of the Yukon-Kuskokwim Delta (Y-K Delta) breeding population in the previous two decades. But then came the spectacular discovery of the spectacled eider wintering grounds within the pack ice of the Bering Sea south of St. Lawrence Island. The global population estimate was revised up from 50,000 to more than 350,000 birds (presumably, mostly Russian breeders). The spectacled eider recovery plan states that a population can be considered for delisting if a single survey yields a minimum population estimate of more than 25,000 breeding pairs. The Arctic Russian population satisfies this delisting criterion, but spectacled eider populations on the Y-K Delta and North Slope remain threatened.

We don't know how many Steller's eiders exist, but there are at least 150,000, with nearly all of the breeding population in Arctic Russia. A few dozen pairs nest some years near Barrow, Alaska, but their status on the North Slope is unclear. We don't have enough information available to adequately document either local or global population trends for Steller's eiders, but they have nearly disappeared as a breeder from the Y-K Delta, and it appears that their breeding

distribution has also contracted on the North Slope.














Ten years after the Exxon Valdez spilled eleven million gallons of crude oil into Prince William Sound, substantive progress is being made toward recovery objectives. The amount of progress and time needed to achieve objectives varies widely, however; recovery for thirteen species is either not happening or data are inconclusive.

On the botanical front, the Aleutian shield fern (*Polystichum aleuticum*) became Alaska's first, and so far only, listed plant in 1988. Although this small plant has probably long been rare, the introduction of grazing animals (reindeer and caribou) onto Adak Island, the only place where it occurs, has taken a toll on fragile alpine habitat near where the fern is found. The Fish and Wildlife Service is working with the Navy, which manages part of the habitat, to fence the remaining ferns. Scientists have tried but so far failed to develop cultivation techniques for use in the propagation of Aleutian shield ferns for eventual reintroduction into native habitat.

Like the state itself, endangered species issues here are unique. While the Service manages relatively few listed species here compared to most other states, the challenges to managing and recovering them are often greater because of unusual factors that occur Alaska. (Discussed in this issue.) Figuring out the complex reasons for ecosystem-scale declines such as the Bering Sea is going to require continued effort by Federal, State, private, corporate, and international partners.

BOX SCORE

Listings and Recovery Plans as of April 30, 1999

GROUP	ENDANGERED		THREATENED		TOTAL LISTINGS	U.S. SPECIES W/ PLANS**
	U.S.	FOREIGN	U.S.	FOREIGN		
 MAMMALS	61	251	8	16	336	49
 BIRDS	75	178	15	6	274	77
 REPTILES	14	65	21	14	114	30
 AMPHIBIANS	9	8	8	1	26	11
 FISHES	69	11	41	0	121	88
 SNAILS	18	1	10	0	29	20
 CLAMS	61	2	8	0	71	45
 CRUSTACEANS	17	0	3	0	20	12
 INSECTS	28	4	9	0	41	27
 ARACHNIDS	5	0	0	0	5	5
ANIMAL SUBTOTAL	357	520	123	37	1,037	364
 FLOWERING PLANTS	540	1	132	0	673	494
 CONIFERS	2	0	1	2	5	2
 FERNS AND OTHERS	26	0	2	0	28	26
PLANT SUBTOTAL	568	1	135	2	706	522
GRAND TOTAL	925	521	258	39	1,743*	886

TOTAL U.S. ENDANGERED: 924 (357 animals, 567 plants)
 TOTAL U.S. THREATENED: 256 (121 animals, 135 plants)
 TOTAL U.S. LISTED: 1180 (478 animals***, 702 plants)

*Separate populations of a species listed both as Endangered and Threatened are tallied once, for the endangered population only. Those species are the argali, chimpanzee, leopard, Stellar sea lion, gray wolf, piping plover, roseate tern, green sea turtle, saltwater crocodile, and olive ridley sea turtle. For the

purposes of the Endangered Species Act, the term "species" can mean a species, subspecies, or distinct vertebrate population. Several entries also represent entire genera or even families.

**There are 517 approved recovery plans. Some recovery plans cover more than one species, and a few species have separate plans covering different parts of their ranges. Recovery plans are drawn up only for listed species that occur in the United States.

***Nine animal species have dual status in the U.S.

ENDANGERED
Species
BULLETIN

*U.S. Department of the Interior
 Fish and Wildlife Service
 Washington, D.C. 20240*

FIRST CLASS
 POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF THE INTERIOR
 PERMIT NO. G-77