

Regional endangered species staffers have provided the following news:

## Region 1

**Applegate's Milk-vetch** Staff from the FWS Klamath Falls, Oregon, Office assisted the Oregon Department of Agriculture (ODA)'s Plant Conservation Program in planting nearly 900 Applegate's milk-vetch (*Astragalus applegatei*) seedlings. This species is one of Oregon's most endangered plants. Only a handful of populations remain, all located near Klamath Falls. The transplanted seedlings were grown at Oregon State University by ODA staff with FWS funding. The new population is located on Miller Island, a State-owned wildlife management area.



**Applegate's milk-vetch in bloom**  
Photo © Darren Borgias/The Nature Conservancy



**Volunteers assist in the transplanting and care of Applegate's milk-vetch seedlings at Miller's Island, Oregon.**

Photo © Darren Borgias/The Nature Conservancy

**Oregon spotted frog** Representatives of the Nisqually National Wildlife Refuge (NWR), Washington Department of Fish and Wildlife, Washington Department of Transportation, Thurston County Conservation District, and The Nature Conservancy met in fall 1999 to discuss conservation needs for Oregon spotted frogs (*Rana pretiosa*) in Thurston County, Washington. Potential actions by each party were discussed. A field trip included visits to the main population at Dempsey Creek and an adjacent dairy area where egg masses have been found. During the field trip, two adult female Oregon spotted frogs and at least five metamorphs were found on a 40-acre (16-hectare) parcel where they have not been previously documented. This parcel has some potential as a Washington Department of Transportation wildlife mitigation site.

**Oil Spill** One year to the day after oil spilled from the tanker vessel *Command* off the coast of San Mateo County, California, the U.S. Attorney's Office announced that it had agreed to settlement terms with the parties responsible for the spill. The vessel's owner and the operator agreed to pay approximately \$4 million in damages for natural resource injuries, primarily to seabirds, resulting from the incident. The money will be used by a Natural Resource Trustee Council, made up of members from the FWS, National Oceanic and Atmospheric Administration, California Department of Fish and Game, California State Lands Commission, and California Department of Parks and Recreation, to design and implement restoration projects. The settlement funds are expected to

be allocated to seabird restoration and additional projects to address shoreline habitat and lost human use. The FWS, represented by our Sacramento Fish and Wildlife Office, participated as the lead Federal trustee agency for the natural resource damage assessment activities. Working with the Department of the Interior Solicitor's Office, we were also instrumental in having an additional \$200,000 of settlement funds resulting from Endangered Species Act violations allocated to the Law Enforcement Rewards Fund.

**Summer Chum Salmon** The Washington State Ecosystems Conservation Program (WSECP) of the U.S. Fish and Wildlife Service's (FWS) Western Washington Office has completed renovation work on a spawning channel at the University of Washington's Big Beef Creek Research Station in Kitsap County. The renovated channel will provide stable spawning habitat and monitoring opportunities for Hood Canal summer chum salmon (*Oncorhynchus keta*), listed as threatened in March 1999. Hood Canal summer chum have been considered extirpated in the Big Beef Creek system since the late 1980's, but the nearby Quilcene National Fish Hatchery has been propagating summer chum, using brood stock from the Quilcene River, and reintroducing them to the system.



**FWS employee with chum salmon at Quilcene National Fish Hatchery**

Photo by Ron Wong

The WSECP in the Western Washington Office has also completed restoration of 4 acres (1.6 ha) of wetlands and 20 acres (8 ha) of juvenile salmon rearing habitat on the property of Walt Weber in Snohomish County. The restoration included construction of a series of weirs in an abandoned ditch to restore juvenile salmon access to a 16-acre (6.4 ha) wetland. The weirs also increase the wetland



**Bald eagle**  
Corel Corp. photo

acreage by 4 acres. The wetland and a 50-foot (15-meter) buffer on both sides of the ditch will be replanted with a mixture of native conifers and wetland shrubs in spring 2000. Project partners include the landowner, Adopt-a-Stream Foundation, Stilli-Snohomish Fisheries Enhancement Task Force, Stillaguamish Tribe, and Snohomish Conservation District.

### **Bald Eagle (*Haliaeetus leucocephalus*)**

FWS staff biologist Doug Laye assisted the fire crew from the Klamath Basin NWR Complex with the first prescribed fires in almost a decade at Bear Valley NWR in Oregon. This refuge was designated specifically for its value as a winter roost for bald eagles and is host to hundreds of bald eagles in the winter and early spring. A total of 40 acres (16 ha) were under-burned in an area that had been thinned by timber operations last year. The thinning was designed specifically to benefit the growth and maintenance of large trees used by the eagles for roosting and nesting.

*Reported by LaRee Brosseau of the FWS Portland, Oregon, Regional Office.*

## Region 5

**Endangered Bats** The FWS West Virginia Field Office, Canaan Valley NWR, and West Virginia Division of Natural Resources' Non-Game Wildlife and Natural Heritage Program joined to construct a large angle-iron gate at the entrance of Schoolhouse Cave in Germany Valley, Pendleton County, West Virginia. The gate, which is the largest of its kind in the world, will permanently protect a large summer and winter colony of the endangered Virginia big-eared bat (*Corynorhinus townsendii virginianus*). A small number of Indiana bats (*Myotis sodalis*) and two species of concern, the Eastern woodrat (*Neotoma floridana*) and the small-footed bat (*Myotis subulatus*), will also be protected by the gate.



**Bat gate at Schoolhouse Cave**  
USFWS photo

The gating project was partially funded by the FWS Chesapeake Bay/Susquehanna River Ecosystem program. Our West Virginia Field Office contracted with Roy Powers of the American Cave Conservation Association to design and direct the construction. Other FWS personnel key to completion of the project came from the Ohio River Islands NWR, FWS Pennsylvania Field Office, and Patuxent NWR. Participants in the project also included The Nature Conservancy, U.S. Forest Service, and National Speleological Society chapters (or Grottoes) from Ohio, Virginia, West Virginia, and Maryland. Forty-six people participated in the effort.

*Reported by William A. Tolin, Endangered Species Specialist in the FWS West Virginia Field Office in Elkins.*

**The Fish and Wildlife Service's Endangered Species Homepage provides a wealth of information on our Endangered Species Program:**

### **Listing Web Page**

<http://endangered.fws.gov/listing>

View or download recent listing notices or actions published in the *Federal Register*; find out which animals and plants are protected by viewing species lists; visit the frequently asked questions to learn more about the listing process, petition management, listing candidates, "candidate conservation agreements with assurances" for private property owners, and critical habitat designations.

### **Habitat Conservation Planning Web Page**

<http://endangered.fws.gov/hcp>

Go to this website for details on the habitat conservation planning process, download the HCP Handbook, and view a list of HCPs and the species they address.

### **Recovery Web Page**

<http://endangered.fws.gov/recovery>

An overview of the recovery program and reclassification and delisting activities and more is provided on the recovery program's web page. Recovery plans approved during 1994-1998 are available online at <http://endangered.fws.gov/recovery/recplans/>.

### **Law Enforcement**

<http://www.le.fws.gov/>

Learn about our nation's wildlife laws and take a virtual tour of the National Fish and Wildlife Forensics Laboratory. Information on wildlife permits is also available.

### **Listing Actions**

<http://endangered.fws.gov/frpubs/00fedreg.htm>

View or download new listing actions, policies, and other announcements as published in the *Federal Register*.

*Prepared by Julia Bumbaca of the FWS Division of Endangered Species, Branch of Information Management, at the Service's Arlington, Virginia, headquarters office.*

During August and September 1999, the Fish and Wildlife Service and National Marine Fisheries Service (NMFS) published the following Endangered Species Act (ESA) listing actions in the *Federal Register*. The full text of each proposed and final rule can be accessed through our website: <http://endangered.fws.gov>.

### Proposed Rules

**Aleutian Canada Goose (*Branta canadensis leucopareia*)** This unique subspecies nests only on a few of Alaska's remote Aleutian Islands and winters in areas of California and Oregon. It was originally listed as endangered after an introduced predator, the arctic fox, almost eliminated the geese from their nesting grounds. By the mid-1970's, the Aleutian Canada goose population numbered only in the hundreds.



**Aleutian Canada goose**  
Photo by Glen Smart/USFWS

For the past several decades, biologists have worked intensively to remove the non-native foxes, reintroduce geese back onto the fox-free islands, research migration routes, and protect wintering habitat. Today, we estimate that the Aleutian Canada goose numbers more than 32,000 birds and is no longer in danger of extinction. On August 3, we proposed to recognize the bird's recovery by removing it from the list of threatened and endangered species. (See "A Spectacular Summer for Birds" in *Bulletin* Vol. XXIV, No. 4.)

**Golden Sedge (*Carex lutea*)** A perennial in the family Cyperaceae, the golden sedge has yellowish green, grass-like leaves and produces stems that may reach 3 feet (0.9 meter) or more with many flowers. This plant is native to the coastal plain of North Carolina, where it is associated with wet pine savannas on sites underlain with calcareous (chalky) deposits. Historically, its open habitat was maintained by periodic wildfires.

The golden sedge currently is known only from eight populations in Pender and Onslow counties. Most of the populations are small, and seven are on privately owned lands vulnerable to draining, development, mining, fire suppression, and a variety of other changes in habitat management. On August 16, we proposed to list this rare plant as endangered. We are also working with the State of North Carolina (which already considers the plant endangered), The Nature Conservancy, and landowners on cooperative protection and management plans.

### Scaleshell Mussel (*Leptodea leptodon*)

A freshwater mollusk, the scaleshell mussel has a thin, fragile shell that measures up to about 4 inches (10 centimeters) in width and is marked with faint green rays. It once inhabited 53 rivers or streams throughout most of the eastern United States, with populations found as far west as Oklahoma. Like many other native mussels, however, the scaleshell has declined drastically in range and numbers. Today, populations of this species are known in only 13 rivers in Missouri, Arkansas, and Oklahoma, and we believe 10 of these populations are continuing to decline. Accordingly, on August 13, we proposed to list the scaleshell mussel as endangered.

Threats to the scaleshell, as with many other mussels species, include degraded water quality due to pollution and sedimentation; alteration of habitat through the damming, dredging, or channelizing of waterways; and competition with non-native species like the zebra mussel (*Dreissena polymorpha*). Because the range of the scaleshell overlaps those of several other endangered or threatened mussel species, we do not expect that a decision to list the scaleshell would have any significant additional impacts on river use.



**Scaleshell mussel**  
USFWS photo

**Critical Habitat** On August 3, we proposed to designate Critical Habitat in parts of Orange and San Diego counties, California, for the tidewater goby (*Eucyclogobius newberryi*), a small endangered fish. Such a designation requires Federal agencies to ensure that any actions they fund, authorize, or carry out are not likely to adversely modify the Critical Habitat. Descriptions and maps of the proposed Critical Habitat areas were published as part of the proposal.

### Final Rules

**Ten Hawaiian Plants** The following plant taxa native to the Maui Nui group of Hawaiian islands (Maui, Moloka'i, Lana'i, and Kaho'olawe) were listed on September 3 as endangered:

- *Clermontia samuelii* or (in Hawaiian) 'ohawai, a shrub in the bellflower family (Campanulaceae);
- *Cyanea copelandii* ssp. *haleakalaensis* or *haha*, a vine-like shrub in the bellflower family;
- *Cyanea glabra* or *haha*, a branched shrub;
- *Cyanea hamatiflora* ssp. *hamatiflora* or *haha*, a palm-like tree;
- *Dubautia plantaginea* ssp. *humilis*, or *na'ena'e*, a dwarfed shrub in the sunflower family (Asteraceae);
- *Hedyotis schlechtendahlia* var. *remyi* or *kopa*, a subshrub in the coffee family (Rubiaceae);
- *Kanaloa kahoalawensis*, a densely branched shrub in the legume family (Fabaceae);
- *Labordia tinifolia* var. *lanaiensis* or *kamakahala*, an erect shrub or small tree in the logan family (Loganaceae);
- *Labordia triflora* or *kamakahala*, a climbing plant; and
- *Melicope munroi* or *alani*, a sprawling shrub in the citrus family (Rutaceae).



**Cyanea copelandii ssp. haleakalaensis**

Illustration by Yevonn Wilson-Ramsey, reprinted from Manual of the Flowering Plants of Hawai'i ©, courtesy of the University of Hawaii Press

The 10 plants and their habitats have declined drastically as a result of competition from non-native plants and/or predation or habitat degradation by non-native animals (primarily goats, pigs, and deer). Such chance events as fires and hurricanes, which may not have jeopardized the survival of these species before they reached the brink of extinction, have become additional threats. For example, one species, *K. kahoolawensis*, now exists as only two known individuals.

A recovery plan will be developed for all 10 species. Under State contract, the National Tropical Botanical Garden on the island of Kaua'i has collected seeds of *K. kahoolawensis* and is propagating plants. The habitats of some of the species, particularly those occurring on Federal and State lands, already have been fenced for protection from pigs and goats.

**Salmon** On August 2, we listed nine "Evolutionary Significant Units" or ESUs of chinook salmon (*Oncorhynchus tshawytscha*), chum salmon (*Oncorhynchus keta*), sockeye salmon (*Oncorhynchus nerka*), and steelhead (*Oncorhynchus mykiss*) in Washington and Oregon as (depending on their location) endangered or threatened. This listing action was based on status determinations by the NMFS, which has primary ESA jurisdiction for most marine species.

On September 16, we listed two ESUs of chinook



**Chinook salmon**

USFWS photo

salmon in California as threatened, again based on NMFS findings. Like the other Pacific salmon taxa already listed under the ESA, they have been reduced greatly by widespread habitat modification and other factors.

**Lake Erie Water Snake (*Nerodia sipedon insularum*)** Populations of this non-venomous snake found among the western Lake Erie islands and adjacent waters in Ohio and Canada were listed on August 30 as threatened. The Lake Erie water snake is distinguished from the related northern water snake (*N. s. sipedon*) by differences in habitat, behavior, and morphology. Lake Erie water snakes use habitat composed of shorelines that are rocky or contain limestone/dolomite shelves and ledges for sunning and shelter.



**Lake Erie water snake**

Photo by Dr. Richard King/Northern Illinois University, De Kalb

Loss of this habitat, along with persecution by people who dislike or fear snakes generally, are the main reasons for its decline.

When approached by people, Lake Erie water snakes usually flee into the water or take cover. Certain activities, such as brief handling of the snakes to disentangle them from fishing gear or to transfer them from yards and roads into adjacent natural habitats, would not violate the ESA. (See the August 30 *Federal Register* for details.)
















Corel Corp. photo

**American Peregrine Falcon (*Falco peregrinus anatum*)** On August 25, we celebrated the recovery of the American peregrine falcon by removing it from the list of threatened and endangered species. The primary cause for its decline was contamination by the pesticide DDT, which interfered with the peregrine's reproduction. The 1972 Environmental Protection Agency ban on DDT made falcon recovery possible. However, ESA protection and partnerships with State agencies, universities, and organizations like The Peregrine Fund accelerated the pace of recovery through captive breeding, the release of over 6,000 peregrines into the wild, and preservation of nest sites. Similar efforts took place in Canada, where the Canadian Wildlife Service and provincial agencies took the lead in a major captive breeding and reintroduction program. Currently, at least 1,650 pairs of peregrine falcons fly the skies of the U.S. and Canada. The species will continue to receive protection under the Migratory Bird Treaty Act.

# BOX SCORE

Listings and Recovery Plans as of December 31, 1999

GROUP	ENDANGERED		THREATENED		TOTAL LISTINGS	U.S. SPECIES W/ PLANS**
	U.S.	FOREIGN	U.S.	FOREIGN		
 MAMMALS	61	248	8	16	333	49
 BIRDS	74	178	15	6	273	77
 REPTILES	14	65	22	14	115	30
 AMPHIBIANS	9	8	8	1	26	12
 FISHES	69	11	44	0	124	91
 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
<b>ANIMAL SUBTOTAL</b>	<b>356</b>	<b>517</b>	<b>127</b>	<b>37</b>	<b>1,037</b>	<b>368</b>
 FLOWERING PLANTS	553	1	137	0	691	534
 CONIFERS	2	0	1	2	5	2
 FERNS AND OTHERS	26	0	2	0	28	28
<b>PLANT SUBTOTAL</b>	<b>581</b>	<b>1</b>	<b>140</b>	<b>2</b>	<b>724</b>	<b>564</b>
<b>GRAND TOTAL</b>	<b>937</b>	<b>518</b>	<b>267</b>	<b>39</b>	<b>1,761*</b>	<b>932</b>

TOTAL U.S. ENDANGERED: 937 (356 animals, 581 plants)

TOTAL U.S. THREATENED: 267 (127 animals, 140 plants)

TOTAL U.S. LISTED: 1,204 (483 animals\*\*\*, 721 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 530 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