

# ENDANGERED SPECIES

## Technical Bulletin

Department of Interior, U.S. Fish and Wildlife Service  
Endangered Species Program, Washington, D.C. 20240

### Four Plants in Danger of Extinction

Four additional plants were proposed in July by the Fish and Wildlife Service for listing under the Endangered Species Act. If each of the proposals is approved, the conservation measures authorized under the Act will be available to protect the following species:

#### Blue Ridge Goldenrod

The Blue Ridge goldenrod (*Solidago spithamea*), endemic to high mountain peaks in North Carolina and Tennessee, has been reduced to only three populations. This plant's decline is the result of recreational development in the other mountain peaks where it once thrived. The survival of the Blue Ridge goldenrod is now in danger, due mostly to habitat disturbance by hikers, and the Service has proposed to implement protection for it as a Threatened species (F.R. 7/23/84).

*Solidago spithamea*, a perennial herb that belongs to the aster family, grows above 4600 feet in dry crevices of granite outcrops in the Blue Ridge Mountains. Of the three known populations, two are on private lands in Avery County, North Carolina, and the third grows in a National Forest on the border between Mitchell County, North Carolina, and Carter County, Tennessee. Two additional populations were known historically, but both sites have been developed and no Blue Ridge goldenrod have been found there during recent searches.

The greatest damage to *Solidago spithamea* in the past probably came from commercial development of the open mountain summits where it occurs. The construction of observation platforms, trails, parking lots, roads, suspension bridges, etc., have taken their toll on the species either through the actual construction process or through trampling by hikers and sightseers. An anticipated increase in recreational use at all three localities where the Blue Ridge goldenrod currently exists

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Photo by A. Robinson

The Blue Ridge goldenrod's yellow flowers are borne in heads arranged in a corymbiform (flattened cluster) inflorescence.

### Endangered Classification Proposed for Four Fishes in Southeast and Utah

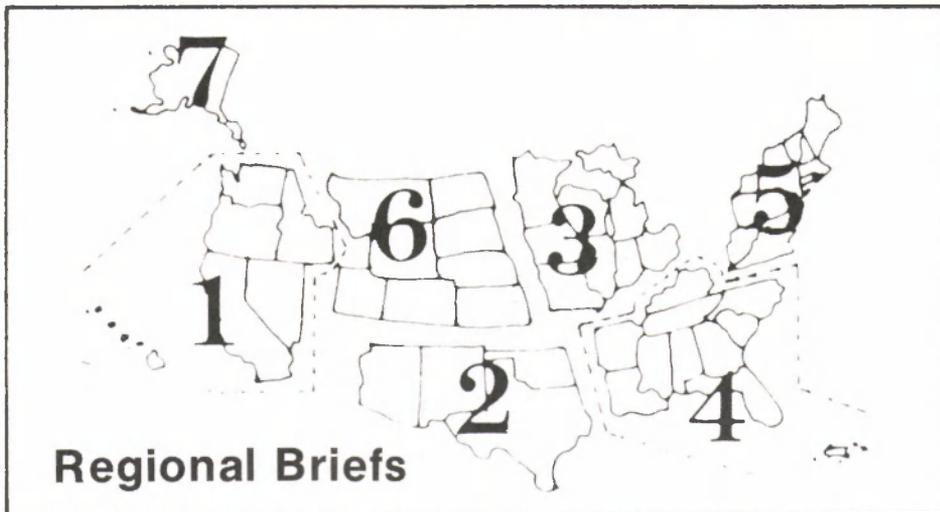
Three fish species from the southeastern United States and one from Utah were proposed during July for listing as Endangered. The amber darter (*Percina antesella*), trispot darter (*Etheostoma trisella*), and Conasauga logperch (*Percina* sp.), all known only from the upper Conasauga River basin in Georgia and Tennessee, face alteration of their habitat from pollution and water projects. A desert fish in north-central Utah, the June sucker (*Chasmistes liorus*), is also

threatened by habitat degradation, as well as by competition and predation from introduced fishes.

#### Conasauga Basin Fishes

Amber darters are slender fish generally less than 2½ inches in length. In color, they have a golden brown upper body, accented by dark saddle-like

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## Regional Briefs

**Endangered Species Program**  
Regional staffers have reported the following activities for the month of July:

**Region 1**—The Habitat Conservation Plan (HCP) being developed for the Coachella Valley fringe-toed lizard (*Uma inornata*) has reached the second draft stage. The HCP Steering Commit-

tee met on July 26 to review the plan, complete it, and send it out for review by the local government agencies. Funding levels for the developers and the boundaries of all three preserves have been agreed upon. Mr. Don Weaver, the local sand transport expert, appeared at the last meeting of the Steering Committee and presented data showing that all of

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### U.S. Fish and Wildlife Service Regions

**Region 1:** California, Hawaii, Idaho, Nevada, Oregon, Washington, and Pacific Trust Territories. **Region 2:** Arizona, New Mexico, Oklahoma, and Texas. **Region 3:** Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. **Region 4:** Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, and the Virgin Islands. **Region 5:** Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. **Region 6:** Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. **Region 7:** Alaska.

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the preserves as they are now designed have adequate sand sources. The Environmental Assessment for the FWS's land acquisition project in the Coachella Valley has been started.

Dr. Derral Herbst of the Honolulu, Hawai'i, Endangered Species Office completed an intensive survey of the plants of Truk, Ponape, Yap, and Kosrae in support of the Pacific Island Forest Birds Survey. Over 1,000 collections were made with triplicate specimens taken for each collection (3,000 specimens). Dr. Herbst is now in the process of preparing and identifying these specimens.

Millions of cui-ui (*Chasmistes cujus*) larvae emigrated this year from their river hatching grounds in the Truckee River to Pyramid Lake. Emigration began in early May, peaked during the first part of June, and terminated in the last week of June. There has always been a question, however, whether these larvae could survive the drop over Marble Bluff Dam. Experimental releases of hatchery-produced larvae above the dam this month indicated that most larvae can survive the plunge over the dam. In addition to this experiment, several attempts were made to find juvenile cui-ui in Pyramid Lake's littoral zone. Most of these attempts yielded numerous juvenile cui-ui that averaged 22-25 mm in length. This complemented earlier indications that an excellent spawn occurred this year.

A peregrine falcon (*Falco peregrinus*) pair found nesting on a building in Los Angeles represents the first time "hacked" peregrines are known to have nested in California.

The Sacramento Endangered Species Office staff provided the U.S. Coast Guard a report entitled "Study of the Effects of the Existing and Proposed Distress Channel Antenna at Point St. George on Aleutian Canada Goose," prepared under contract with the FWS. The study, funded by the Coast Guard under an interagency agreement, was conducted to determine the effects of the proposed 150-foot tower facility, since it would be located in goose flyways between Castle Rock and Lake Earl, near Crescent City, California. The report contained several recommendations to alleviate the collision hazard that would be posed to virtually the entire population of Aleutian Canada geese (*Branta canadensis leucopareia*) when they congregate at this major migratory staging area each fall and spring.

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# Protection Becomes Final for Four Plants

Final rules listing four species of plants as Endangered were published during July by the Fish and Wildlife Service. One of the plants occurs in Costa Rica and the other three are from the United States. They now receive protection under the Endangered Species Act of 1973, as amended, and bring the total number of plants listed as Endangered or Threatened to 80 species.

## ***Jatropha costaricensis* (Costa Rican jatropha)**

The only known population of *Jatropha costaricensis* consists of fewer than 50 individual plants on a steep, rocky limestone slope along the Pacific Coast of Costa Rica. Playas del Coco, a village and resort area, is within one quarter mile of the small site, and housing development could modify the already limited habitat. Dry season fires, often kindled by vandals, are frequent in the area, and a single blaze could destroy the entire known population of the species. Local woodgatherers also may be damaging *Jatropha costaricensis*. Trampling of small plants by cattle is another threat since several livestock trails run directly through the area. One individual of *Jatropha costaricensis* was known from a second site 20 miles to the north in Santa Rosa National Park, but it was lost to erosion of its habitat.

*Jatropha costaricensis* was proposed by the Service for listing as Endangered on July 8, 1983 (see feature in BULLETIN Vol. VIII No. 8). Five comments on the proposal were received; four supported the action, the other indicated no position. These responses, along with additional supporting data, are summarized in the July 27, 1984, *Federal Register* notice that made the listing rule final.

As an Endangered species, *Jatropha costaricensis* will receive the protection authorized under the Endangered Species Act for foreign plants. (The species is only the third plant listed under the Act that occurs completely outside U.S. territory, and the first such plant to be listed as Endangered.) The regulations for foreign plants differ from those protecting U.S. species in that the Service lacks the legal authority to prohibit taking or to enforce habitat conservation under Section 7 of the Act. However, under 50 CFR 17.61, it is illegal for anyone under U.S. jurisdiction to engage in interstate/international trafficking in this plant without a permit.

The Service will seek to use its international assistance programs to encourage the conservation of *Jatropha costaricensis*. If the plant is added to the Annex of the Convention on Nature Pro-



Photo by C. E. Nauman

*The cylindrical stems of the Key tree cactus are spiny, sometimes branched, and grow up to about 25 feet high.*

tection and Wildlife Preservation in the Western Hemisphere, as the U.S. has recommended, the Service could provide personnel, conservation training, and, possibly, limited financial support for Costa Rican programs.

## ***Cereus robinii* (Key tree-cactus)**

The largest of Florida's native cacti, *Cereus robinii*, stands erect in clumps of cylindrical stems that can reach heights of up to 8 meters (about 25 feet). Its attractive flowers are 5 to 6 centimeters

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## **Updated List Available**

A new comprehensive List of Endangered and Threatened Wildlife and Plants, updated through July 20, 1984, is now available. This 24-page document contains the names of all organisms currently protected by the United States under the Endangered Species Act of 1973, as amended. It also contains a section on those species that have been removed from the list since 1973. Copies of the list can be requested from the Publications Unit, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

# Protection

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long, varying from white to green or purplish in color, and the fruit is a dark red berry. Due to its striking ornamental value, and to its increasing rarity, *Cereus robinii* is subject to overcollection by hobbyists and to commercial exploitation by plant dealers. An even greater threat is habitat destruction. The Florida Keys, where most of the surviving cacti are found, are experiencing rapid residential and recreational development. This results not only in the loss of *Cereus robinii* populations, but also of the entire tropical hardwood hammock habitats where they once grew. Such habitats are a unique ecosystem type in the U.S. that is quickly disappearing, and their decline is directly responsible for the Endangered or Threatened status of a number of other species in the Florida Keys.

Historically, *Cereus robinii* was known from at least 11 sites in the Florida Keys and 2 in Cuba. Today, however, the plant has been reduced to five areas in the Keys, only two of which are on Federal or State lands. In Cuba, it has suffered a similar decline. Because of the increasing threats from habitat loss and collecting, the Service proposed in the July 29, 1983, *Federal Register* to list *Cereus robinii* as an Endangered species (BULLETIN Vol. VIII No. 8). Of the 10 letters received in response to the proposal, most were in favor of listing, including several from State conservation agencies, and none opposed the action. The final rule listing *Cereus robinii* as an Endangered species was published on July 19, 1984.

Because *Cereus robinii* is an attractive plant with high horticultural potential, a designation of Critical Habitat was not included in the rule. Publishing the required maps and detailed habitat description would make this distinctive cactus more vulnerable to collectors and vandals. (At least one population has already been vandalized.) Since three of the five remaining U.S. populations are on private lands, such problems are particularly hard to control. Even on public lands, prohibitions against taking are difficult to enforce. Nevertheless, without a formal designation of Critical Habitat, *Cereus robinii* and its habitat will receive protection under Section 7 of the Act. Except for Service management of Key Deer National Wildlife Refuge (NWR), no Federal effects on the cactus are foreseen.

The Endangered classification makes interstate and international trafficking in *Cereus robinii* illegal except under permit. Section 9(a)(2)(B) of the Act prohibits the removal and reduction to possession of Endangered plants from areas under Federal jurisdiction, and this provision now applies to the cacti on

Key Deer NWR. These measures complement the protection already given *Cereus robinii* under the State of Florida's own endangered species legislation, which offers some controls on taking, intrastate transport, and sale, but does not address habitat conservation. A recovery plan will now be developed for the species.

## *Dyssodia tephroleuca* (ashy dogweed)

A southwestern Texas plant, *Dyssodia tephroleuca*, survives with other relict grassland species on a single acre of private land in Zapata County. This plant is an erect perennial herb with stems up to 30 centimeters in height. Its leaves are covered with soft, woolly, ashy-white hairs and emit a pungent odor when crushed.

Approximately 1,300 individuals of *Dyssodia tephroleuca* occur at the small population site, most of which are found on a brushy section of ranchland used for grazing and deer hunting. Cattle grazing and brush clearing have severely reduced the habitat of this plant, and undisturbed climax grassland habitat now exists in southwestern Texas only as scattered remnants. The only other historical population of *Dyssodia tephroleuca*, which occurred in another county, apparently has disappeared. About 300 plants of the remaining population are on a State highway right-of-way, where they are vulnerable to roadside maintenance activities such as blading and brush clearing.

Due to these threats and its extremely restricted range, the species was proposed for listing on July 22, 1983, in the *Federal Register* (BULLETIN No. VIII No. 8). Five comments were received in response to the proposal, none of which opposed the action. Among the agencies writing in support was the Texas Department of Parks and Wildlife, which pointed out that a Federal listing would lead to the plant being added to the State's own endangered species list. The final rule classifying *Dyssodia tephroleuca* as an Endangered species was published by the Service on July 19, 1984.

Critical Habitat was not designated in the listing rule because publishing the location would make the small population, which is easily accessible by highway, extremely vulnerable to vandals and collectors. Nevertheless, the habitat will be covered under Section 7 of the Endangered Species Act, which protects listed species and their habitats from the adverse effects of Federal activities. Other benefits of the listing include prohibitions in interstate or international trafficking and the development of a recovery plan. Such a plan should

address ways to develop roadside maintenance procedures that are compatible with the conservation of the species.

## *Eriogonum pelinophilum* (clay-loving wild-buckwheat)

The largest known population of *Eriogonum pelinophilum*, a small shrub, is restricted to an outcrop of alkaline clay soil in the sparsely vegetated, dry badlands of Delta County in west-central Colorado. The plants are found at two sites about 3/4 of a mile apart, and they total approximately 10,000 individuals over about 150 acres of privately owned property.

The land between the two sites has been fenced off and used for grazing domestic livestock, primarily horses, and this land use may have been what originally split the population into two groups. Habitat that appears comparable to that where the surviving *Eriogonum pelinophilum* now occur can be found within the fenced area, but all of the remaining plants are outside the fence. The livestock have consumed all native vegetation from within the enclosure, and it has been replaced by weedy species. If the fenced pasture is expanded in the direction of the remaining *Eriogonum pelinophilum*, they also could become lost. Additional field work conducted by the Colorado Natural Heritage Inventory during late July 1984 resulted in the discovery of a half-dozen other smaller occurrences in the Delta-Montrose region. Plants and their habitat at these other sites have been reduced and isolated due to land conversion for agriculture, and all of the small groups are considerably vulnerable to extinction.

The Service proposed in the June 22, 1983, *Federal Register* to list *Eriogonum pelinophilum* as Endangered and to designate its Critical Habitat (BULLETIN Vol. VIII No. 7). Comments supporting the listing proposal were received from the Governor of Colorado, the Colorado Department of Natural Resources (Natural Areas Program), the Colorado National Heritage Inventory, and the Montrose District Office of the Bureau of Land Management. There were no responses in opposition to the proposal. The only change in the July 13, 1983, final rule from the proposed version was that, on the basis of new information provided by Colorado authorities, the area designated as Critical Habitat was expanded from 100 to 175 acres. Under Section 7 of the Endangered Species Act, *Eriogonum pelinophilum* and its Critical Habitat will be protected from any adverse actions involving a Federal agency; however, no such actions are anticipated. The Endangered classification also prohibits

interstate and international trafficking in the plant, although this has not been a factor in the species' decline.

Habitat conservation is the key to the survival of *Eriogonum pelinophilum*, and it is hoped that the listing might enhance the possibility of acquiring the population sites for the plant's protection. The landowner of the largest occurrence has already offered acreage for sale in a local newspaper under the heading, "Own a Rare and Endangered Species." The Nature Conservancy is currently working with the landowner to conserve the remaining habitat. In addition, since Colorado has a cooperative agreement with the Service on endangered plant conservation, it is possible that Federal contributions could become available to State programs for preservation of the species. A recovery plan for the return of *Eriogonum pelinophilum* to a secure status also will be developed.

## Four Plants in Danger

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could cause further significant impacts on the species if protection is not provided. Likewise, additional development, such as expansion of trails or sidewalks, could further threaten the species if its needs are not considered during the planning process. To quote one botanist, *Solidago spithamaea* "...seems to have an instinct for growing in the most scenic sites, thus coming underfoot and underseat."

During 1979, North Carolina passed legislation to protect its rare plants. The Blue Ridge goldenrod is protected under that State law as an endangered species, but the law offers protection only from intrastate trade and includes provisions for management. Tennessee does not have any State legislation to protect its endangered plants. A listing under the Federal Endangered Species Act could offer the additional protection needed to recover this species to a secure status once again. Because of potential threats from vandals or curiosity seekers, a designation of Critical Habitat for the easily accessible populations was not included in the listing proposal; however, all habitat protection measures authorized under the Endangered Species Act will apply.

Comments concerning this proposal are invited and should be sent by September 21, 1984, to the Field Supervisor, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801.

## Lakela's Mint

A small plant in the mint family, Lakela's mint (*Dicerandra immaculata*) is a low-growing, dome-shaped shrub endemic to a very small area of ancient dunes near the Atlantic Coast in St. Lucie and Indian River Counties, Florida, between the cities of Vero Beach and Fort Pierce. The plants reach 15 inches in height and bear erect lavender-rose to purplish flowers in small cymes at the tips of the stems. Only 10 colonies of *Dicerandra immaculata* are currently known to exist and these plants are now in danger of extinction from sand mining, commercial and residential development, and a fungal disease which affects the seeds. To give this species the protection it needs to survive, the Service has proposed to list Lakela's mint as an Endangered species (F.R. 7/23/84).

The 10 existing colonies of *Dicerandra immaculata* are considered to represent a single population. All of the colonies occur on private land that is subject to residential and commercial development. Most of one colony was recently destroyed by commercial development; another has been partially destroyed by clearing and construction of houses. These development activities have occurred over the last 2 years and are expected to continue in the near future, affecting most or all of the remaining colonies of the species. Two colonies also are threatened by sand mining activities, and another major threat to the species is its vulnerability to mildew. This fungus destroys the viability of its seeds before they are dispersed.

There are currently no Federal, State, or local laws or regulations to protect Lakela's mint and its habitat. Because the few remaining colonies of this species are continuing to decline, the Service believes that immediate action to list *Dicerandra immaculata* as Endangered is necessary to ensure its survival. Although a formal designation of Critical Habitat is not a part of this proposal, due to potential threats from vandalism, adequate protection will be given to the species and its habitat if the proposal is made final.

Comments on this proposed rule are welcome and should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207, by September 21, 1984.

## Vahl's Boxwood

Vahl's boxwood (*Buxus vahlia*) is found only in the semi-evergreen seasonal forests that occur in northern and northwestern Puerto Rico. Approximately 40 individuals of the species are

known to exist. The survival of *Buxus vahlia* is being threatened, because of its very limited numbers, by potential habitat modification or destruction due to limestone mining and urbanization, and by possible construction of a power plant. To aid in the survival of this species, the Service has proposed to determine it as Endangered (F.R. 7/13/84).

*Buxus vahlia* is an evergreen shrub that can grow up to 15 feet tall and has 3-inch thick stems and dark, shiny, green, oblong leaves that measure about 1.5 inches long and 3/4 of an inch wide. Flowering occurs in December through early April. The species has a very narrow ecological niche, and is restricted to ravines and ledges in semi-evergreen forests.

Vahl's boxwood occurs at two sites, one in Hato Tejas (Bayamon) and the other about 70 miles away in Punta Higuero (Rincon). The Rincon site, owned by the Commonwealth of Puerto Rico, has been proposed as a locale for the construction of a coal-fueled power plant to be constructed by the Puerto Rico Electrical Power Authority and the Federal Rural Electrification Administration. To make space for the power plant, part of the property might be converted, which could either destroy the 12-20 plants existing there or degrade the habitat. Air pollution from the power plant could also affect the species. If the listing proposal becomes final, the only Federal involvement that could be affected is that of the Rural Electrification Administration.

The Hato Tejas population of approximately 24 individuals is located in a haystack hill group that is surrounded by a large shopping center and other commercial and industrial lots. If this area is further developed, complete destruction of the boxwood's habitat would result. This *Buxus vahlia* population is located on the edge of an old limestone quarry and past mining activities in the area have resulted in the destruction of more than half of the boxwood population since the 1950's. Although the quarry is inactive at this time, the remaining plants could be destroyed if such activities are resumed.

Several species of boxwoods are grown in cultivation around the world—there is even a society devoted to the genus. Because of the species' ornamental value, another potential threat to its existence is collecting. Boxwoods are beautiful shrubs and taking could easily become a problem because both populations are accessible by road and trail. The extreme vulnerability of *Buxus vahlia* to any collecting would be detrimental to its survival. For this reason, the Service has not proposed a formal designation of Critical Habitat, which would require publication of maps and a detailed habitat description.

The Commonwealth of Puerto Rico does not have specific legislation or

rules to protect its endangered or threatened plants, although a list of vulnerable species does exist. With so few individuals known to exist, the protection provided by the Endangered Species Act would encourage the conservation of this diminishing species and its habitat.

Comments concerning this proposal are invited, and should be sent to the Ecological Services Field Supervisor, U.S. Fish and Wildlife Service, P.O. Box 3005—Marina Station, Mayagüez, Puerto Rico 00709-3005, by September 11, 1984.

## Maguire Daisy

Also proposed for listing as Endangered (F.R. 7/27/84) is the Maguire daisy (*Erigeron maguirei* var. *maguirei*), a small perennial that grows up to 5 inches tall and blooms in mid-June. It is one of the rarest plant taxa in Utah.

The daisy was first discovered in 1940 by Dr. Bassett Maguire. It appears to have become extirpated at its two historical sites in Calf and Pine Canyons. At its only current site, on land administered by the Bureau of Land Management (BLM) in Emery County, Utah, only seven plants are known to exist. In this area, as in much of this part of Utah, there are mineral claims for uranium, and oil and gas leases. Even minor habitat disturbance associated with exploration or assessment of these claims and leases could result in the species' extinction.

Another threat to the Maguire daisy is grazing, which seems to have extirpated the plants in the canyon bottoms where the species was originally found. Further studies are needed to determine the actual impact of cattle grazing and its compatibility with the daisy's survival, but, presumably, this small herbaceous plant is palatable to cattle. Two of the existing seven plants were found to show some grazing damage thought to be caused by deer.

There are currently no Federal or State laws to protect the Maguire daisy. Because of its extremely low numbers, this species' vulnerability is greatly magnified by any inadvertent human impacts. If the proposal to list the daisy as an Endangered species becomes final, awareness of its vulnerability will increase, and provisions could be made for its proper management and eventual recovery.

The Service finds that designating Critical Habitat for the Maguire daisy is not prudent because there are no benefits that would outweigh the potential threat of vandalism which could be prompted by publication of a Critical Habitat map. The BLM has been informed of this proposed action, has acknowledged the threats to the daisy,



*The Maguire daisy is characterized by leafy, hairy stems and up to five flower heads with white-to-pinkish ray flowers around a yellow center.*

and is considering the taxon in its planning and management.

Comments concerning this proposal are due by September 25, 1984, to the Region 1 Director (address on page 2).

### Effects of the Listings if Approved

If the proposals are made final, all four plants will receive protection under the

Endangered Species Act of 1973, as amended. Conservation measures provided to species listed as Endangered under the Act include recognition of its vulnerable status, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Under Section 7 of the Act, Federal agencies would be required to consult with the Fish and Wildlife Service to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the survival of the listed species or adversely modify their habitats. Until a

final decision on the listing proposal is reached, Federal agencies are required only to "confer" with the Service, a non-binding procedure.

Interstate and international trafficking in these plants without a permit will be prohibited, with certain exceptions, if they are listed. In addition, Section 9 of

the Act makes it unlawful to remove and reduce to possession Endangered plants from lands under Federal jurisdiction.

## CITES News

The Endangered Species Act of 1973, as amended in 1979, designates the Secretary of the Interior as both the Management Authority and the Scientific Authority of the United States, for the purposes of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Management Authority responsibilities are delegated to the Associate Director—Federal Assistance; Scientific Authority responsibilities are delegated to the Associate Director—Research.

The Service's Wildlife Permit Office (WPO) functions as staff to the U.S. Management Authority for CITES, ensuring that wildlife and plants are exported or imported in compliance with laws for their protection and issuing permits for legal trade of these species. The Service's Office of the Scientific Authority (OSA) functions as staff to the U.S. Scientific Authority for CITES. OSA reviews applications to export and import species protected under CITES, reviews the status of wild animals and plants impacted by trade, makes certain findings concerning housing and care of protected specimens, and advises on trade controls.

## Wider Ginseng Export Approvals Proposed

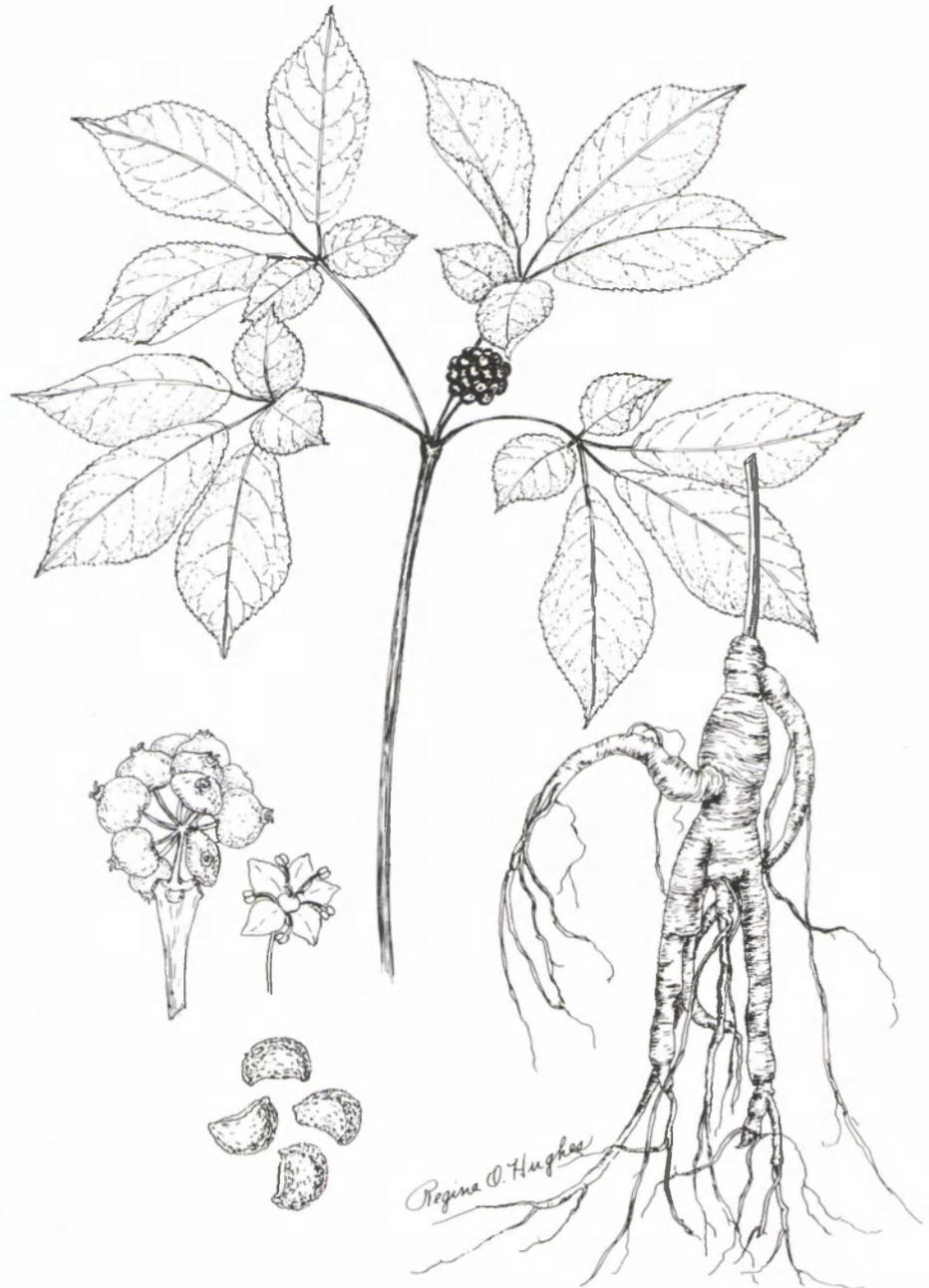
The Service has published proposed findings by the U.S. CITES Scientific (SA) and Management (MA) Authorities that would, if made final, allow the export of American ginseng (*Panax quinquefolius*) from several States that have not yet received export approval for the 1984 season (F.R. 7/23/84).

Ginseng was originally placed on CITES Appendix II by a vote of Party Nations as a conservation measure in order to provide a means of properly controlling exports of this commercially valuable plant. Export of any Appendix II species is legal only if the SA advises the MA that such export will not jeopardize the species' survival, and if the MA is satisfied that the listed plants or animals

being exported were not obtained in violation of laws for their protection. The criteria used in making these determinations for ginseng export, along with the lists of States with current export approval, are in the July 23, 1984, *Federal Register* notice.

If the proposed findings are made

final, cultivated and wild ginseng collected in Indiana and Wisconsin during the 1982-1984 seasons will be approved for export. In addition, export of wild ginseng collected in Vermont during the 1984 season will be approved. (Vermont already has approval for 1982-1984 cultivated ginseng.)



*ginseng*

Drawing courtesy of U.S. Department of Agriculture

## Regional Briefs

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**Region 2**—Two thousand eggs of the Endangered Kemp's ridley sea turtle (*Lepidochelys kempii*) were donated by the Mexican Secretary of Fisheries to the U.S. Fish and Wildlife Service for establishment of a nesting colony at Padre Island National Seashore, Padre Island, Texas. The eggs were transferred by personnel of the Gladys Porter Zoo in Brownsville, Texas, to personnel of the National Park Service. Hatchlings on the beach at Padre Island National Seashore will be marked with "living" and "imprinted" tags. Following imprinting, the hatchlings will be transferred to the National Marine Fisheries Service's Galveston, Texas, laboratory where they will be "headstarted" for 1 year and then released into the Gulf of Mexico at Padre Island.

The Phoenix District of the Bureau of Land Management (BLM), in cooperation with the Fish and Wildlife Service and the Arizona Game and Fish Department (AGFD), stocked two sites in Arizona with Endangered Gila topminnows (*Poeciliopsis occidentalis*). The sites, Peoples Canyon and Tres Alamos, were stocked with approximately 1,800 fish taken from a population which has been established in Tule Creek. The two sites were selected by BLM biologist Bill Kepner because they met the Gila topminnow introduction site criteria developed by AGFD biologist Jim Brooks. Two television stations and a reporter with the Phoenix Gazette took part in the introductions, including transporting the fish to the sites with a TV station helicopter. If the introductions are successful, they will greatly assist in recovery of the species.

**Region 4**—The Jackson, Mississippi, Endangered Species Field Office is conducting status reviews on the Cahaba shiner (*Notropis simus*) and goldline darter (*Percina aurolineata*), both Category 2 candidate species, to determine if they should be proposed for listing. Copies of status reports and other pertinent information, along with the results of staff analysis of this information, will be sent to selected ichthyologists for their review and comment.

Field work was conducted in June on *Sarracenia rubra* ssp. *alabamensis* (Alabama cane-brake pitcher plant), a Category 2 candidate species, by the Jackson Field Station. Four of the seven known extant populations were visited and all showed a significant decrease in numbers and vigor. This decline is prim-

arily due to the loss of habitat through succession, which results from the suppression of fire and the lack of management. Overcollecting for commercial purposes also contributes to the species' decline. Despite the obvious threats to the Alabama cane-brake pitcher plant, a further assessment of its range is necessary before listing can be proposed. Potential habitat is presently being surveyed in search of new populations.

Charles Cook of Discovery Island Zoological Park at Walt Disney World in Lake Buena Vista, Florida, recently notified the Service that "Abraham," one of the four remaining dusky seaside sparrows (*Ammodramus maritima nigrescens*), died on June 24, 1984. A necropsy was performed that same day and it was determined that kidney failure, probably brought on by advanced age, was the cause of death. The male dusky was banded on private property near the St. Johns National Wildlife Refuge, Florida, on July 29, 1980.

As a result of the dusky's death, only three "pure" duskies survive. All are in captivity at Discovery Island. They have each paired with intergrade females of dusky/Scott's (*A. m. peninsulæ*) lineage, and are engaged in varying stages of breeding activity. One of the pairs (with a 50-percent dusky female) hatched out two chicks on June 30,

1984. Another pair (with a 75-percent dusky female) is currently incubating a two-egg clutch, and the third pair (with a 25-percent dusky female) has constructed a nest, but has as yet laid no eggs.

**Region 5**—On July 8, Roger Hogan, endangered species biologist, traveled to an area 200 miles north of Winnipeg, Manitoba, Canada, to collect bald eagles (*Haliaeetus leucocephalus*) for translocation to the State of New Jersey. Accompanied by climbers Craig Koppie and Keith Cline, and Provincial biologist Bill Koontz, Roger collected 10 young bald eagles at remote sites in the Lake Winnipegosis area and they were subsequently flown to holding facilities using a float-equipped aircraft. Upon return to Winnipeg on July 11, a press conference was held on the grounds of the Provincial legislature. Hogan and Koppie briefed news media and the Manitoba Minister of Natural Resources, Al MacKling, on the Canadian-U.S. project. The eagles reached their New Jersey hack site on July 12, following a final interaction with the news media in Philadelphia during which Hogan briefed Canadian Consul Irene Johnson on the cooperative project.

Five eagles collected in Nova Scotia in June 1984 and held in hack towers at Quabbin Reservoir, Massachusetts, fledged on July 26. In total, 28 bald



Alabama cane-brake pitcher plant

Photo by Randy Troup

eagles were collected this year from Nova Scotia, Saskatchewan, and Manitoba, and were provided to the States of Massachusetts, Pennsylvania, and New Jersey.

The second year of a survey of Virginia big-eared bat (*Plecotus townsendii virginianus*) maternity colonies was conducted in West Virginia during June by Judy Jacobs of the Endangered Species Field Office in Annapolis, Maryland, and Ken Knight of the West Virginia Department of Natural Resources. Eight caves were surveyed using night-vision scopes and infra-red lighting. Data analysis from the surveys indicates a 9-percent increase in populations over last year.

The Defenders of Wildlife, with an increasing interest in plant conservation, has established a reward fund to assist the Service in investigating the recent vandalism of the Virginia round-leaf birch (*Betula uber*). The Defenders are offering a \$500 reward for information leading to the arrest and conviction of those responsible for vandalizing the single remaining wild population of this Endangered tree. The vandalism was discovered in May 1984 when all but 5 of 30 healthy, two-year old seedlings were found to have been dug up and removed or cut off at the ground. The Service and the Virginia Department of Agriculture and Consumer Services are presently investigating the incident. Anyone with information that might be helpful is asked to contact the Service's law enforcement office in Richmond, Virginia, at 804-771-2481.

**Region 6**—Recovery efforts continue for the peregrine falcon in the Rocky Mountains. As of July, all eggs produced at the Rocky Mountain facility of the Peregrine Fund, Inc., have hatched. Of the 134 young hatched, 131 birds survived. To date, young have been released into 8 eyries and 21 hack sites in Colorado, Idaho, Montana, Utah, and Wyoming.

**Region 7**—This summer's peregrine falcon surveys along the Upper Yukon River located 27 occupied sites. A total of 46 young was observed, of which 40 were banded. Also, 15 adult birds were trapped. Ten of them had been previously banded, seven as adults at nest sites and three as nestlings, and all were banded along the Upper Yukon between 1979-1983. The remaining five adults were banded for the first time.

Peregrine surveys along the Middle and Lower Yukon, Colville, Tanana, and Porcupine Rivers also were completed this month. The survey results will be ready for publication soon.



Teresa Nelson, New England Field Representative for Defenders of Wildlife, presents a \$500 check to the Service's Region 5 Deputy Director, William Ashe, for establishment of a reward fund.

Photo by Roger Hogan

## Snail Darter Reclassified

The snail darter (*Percina tanasi*), a small species of the perch family that occurs in parts of the Tennessee River system, has been reclassified under the Endangered Species Act from Endangered to Threatened (F.R. 7/5/84). Scientists who have been studying this fish and its habitat believe that the Threatened category more accurately reflects the species' current biological status.

In 1975, the snail darter was known only from a 16.5 mile stretch of the Little Tennessee River in Loudon County, Tennessee. When the gravel shoal areas needed by the species to spawn were threatened with inundation by the Tellico Dam and Reservoir Project, the snail darter was listed as an Endangered species (F.R. 9/9/75) and its known range was designated as Critical Habitat (F.R. 4/1/76). However, in 1979, Congress passed a law exempting the dam and reservoir project from the provisions of the Endangered Species Act. As a result, the project was completed and the snail darter no longer exists in the Little Tennessee River as a reproducing population. Before the fish were lost, some

were placed into the Hiwassee River in Polk County, Tennessee, where they appear to have established a self-sustaining population.

In recent years, more intensive surveys have located snail darters in short segments of six Tennessee River tributaries and the main channel of the Tennessee near the mouths of two of the tributaries. Based on this new information, the Snail Darter Recovery Team recommended that the species be reclassified from Endangered to Threatened. Neither the recovery team nor the Service felt there was enough evidence to remove the snail darter completely from Endangered Species Act protection at this time. Most of the populations are extremely small, restricted in range, and vulnerable to water pollution and habitat alteration.

On July 21, 1983, the Service published an advance notice of its plans to propose a reclassification. After further consideration, the actual reclassification proposal was published (F.R. 2/21/84), and it included a removal of the Critical Habitat designation for the original site on the Little Tennessee River

## Snail Darter

continued from page 9

since flooding behind the dam had destroyed its value to the species. New designations of Critical Habitat were not proposed for the more recently discovered populations since it was feared that pinpointing their locations might lead to vandalism of this controversial species. Comments received in response to the advance notice and the reclassification proposal are summarized in the July 5, 1984, final rule.

Since there are no special rules associated with the snail darter reclassification, the species generally will continue to receive the same Endangered Species Act protection against taking under the Threatened classification that it received while listed as Endangered. There is, however, a slightly broader range of permits available for activities involving Threatened species, as outlined in 50 CFR 17.32. Moreover, even without designated Critical Habitat, the species and its habitat will receive protection under Section 7 of the Act from the adverse effects of actions involving Federal agencies.

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## Four Fishes

continued from page 1

markings, and a yellowish belly; breeding males also have a blue throat. The species appears to be restricted to shallow streams in gentle riffle areas over sand and gravel substrate, since none have been found in stretches with slack current and a silty bottom. Amber darters currently are known from only a 33.5-mile section of the Conasauga River crossing the Tennessee/Georgia border. One amber darter was collected in 1980 from a site on the Etowah River in Georgia, but subsequent surveys in that area were unsuccessful in relocating the species. A population that once existed in Shoal Creek, a tributary of the Etowah, is believed to have become extirpated in the 1950s when Allatoona Reservoir inundated its riffle habitat.

**Trispot darters** are slightly shorter and darker brown in color than amber darters, although they have three similar saddle markings on their backs. Breeding males are set apart by distinctive green and orange coloration along their sides. Unlike amber darters, trispots prefer slack water along stream margins over detritus, sand, and silt substrates. In late winter/early spring, they ascend small streams to spawn in shallow, marshy areas in fields and woods. Cur-

rently, the trispot darter is known from only two populations. The largest occurs in 38 miles of the Conasauga River, about the same stretch as that inhabited by the amber darter, although usually in a different section of the channel. The second is found in about 8.5 miles of Coahulla Creek, a Conasauga tributary in Georgia, and a small population may still exist in Sugar Creek. Two apparent population sites in Alabama, where the species was collected in 1947 and 1958, have been flooded by reservoirs.

The **Conasauga logperch**, formerly referred to as the reticulate logperch, is an undescribed species of the genus *Percina*. (A scientific description of the fish is being prepared by Dr. Bruce Thompson). The fish reaches lengths of 6 inches, and is characterized by the numerous tiger-like, vertical, dark stripes on its yellow background. Conasauga logperch spawn in the spring in fast riffle areas over gravel substrate, and have been observed hunting aquatic invertebrates by flipping over stones with their pig-like snouts. The species apparently is restricted to about 11 miles of the upper Conasauga River in Tennessee and Georgia, a stretch partly overlapping the upper ranges of the two darters discussed above.

All three of these species require clean, free-flowing streams, a limited habitat type that is in considerable jeopardy within the Conasauga Basin. Siltation, which often results when lands are cleared for agriculture and other uses, is a major threat to the water quality. Agricultural and urban runoff from developed parts of the watershed could further pollute the habitat, and a toxic chemical spill could lead to the extinction of any of these fishes. Still another serious threat could come from a U.S. Army Corps of Engineers water supply

and flood control project being planned for the Conasauga River near Dalton, Georgia. Depending on its location and design, such a project could have a severe impact on the three fishes if their biological needs are not considered during the planning process.

Fish and Wildlife Service interest in the Conasauga fishes has been growing since 1975 when the Service published a Notice of Review on the trispot darter. In the November 4, 1983, *Federal Register*, the Service announced that a status review was being conducted specifically for the amber darter, trispot darter, and Conasauga logperch to determine if they required protection under the Endangered Species Act. The responses gathered during the preliminary review are summarized in the July 13, 1984, *Federal Register* notice that proposes these fishes for listing as Endangered species. Included in the notice is a proposed designation of Critical Habitat for most of the fishes' known range. Only the two known spawning sites of the trispot darter were deleted because of their localized and fragile nature; trispots could be particularly vulnerable to vandalism and illegal collecting while spawning. The landowners involved have been made aware of the uniqueness of this habitat, and they do not anticipate any changes in land use at the sites. Further, even though they were not proposed as Critical Habitat, both spawning sites will receive the protection authorized under Section 7 of the Act.

Comments on the listing proposal are welcome from all interested agencies, organizations, and individuals, and are due to the Field Supervisor, Endangered Species Field Station, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801 by September 11, 1984.

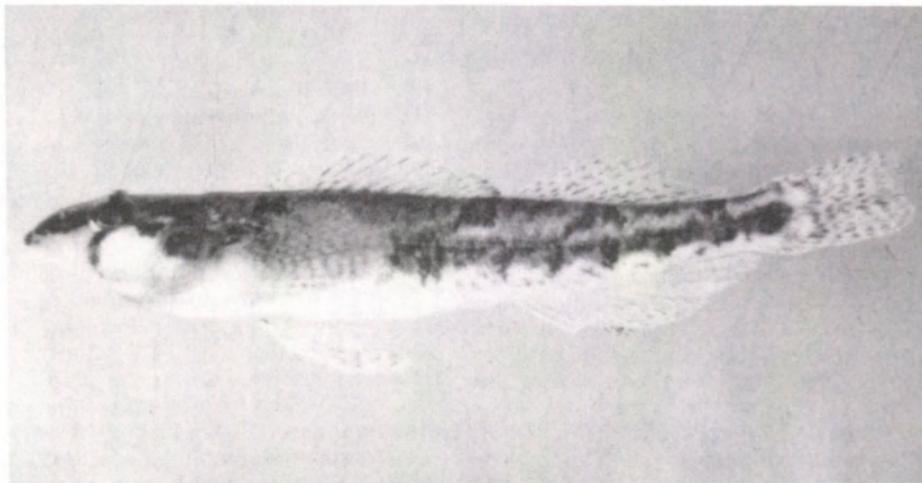
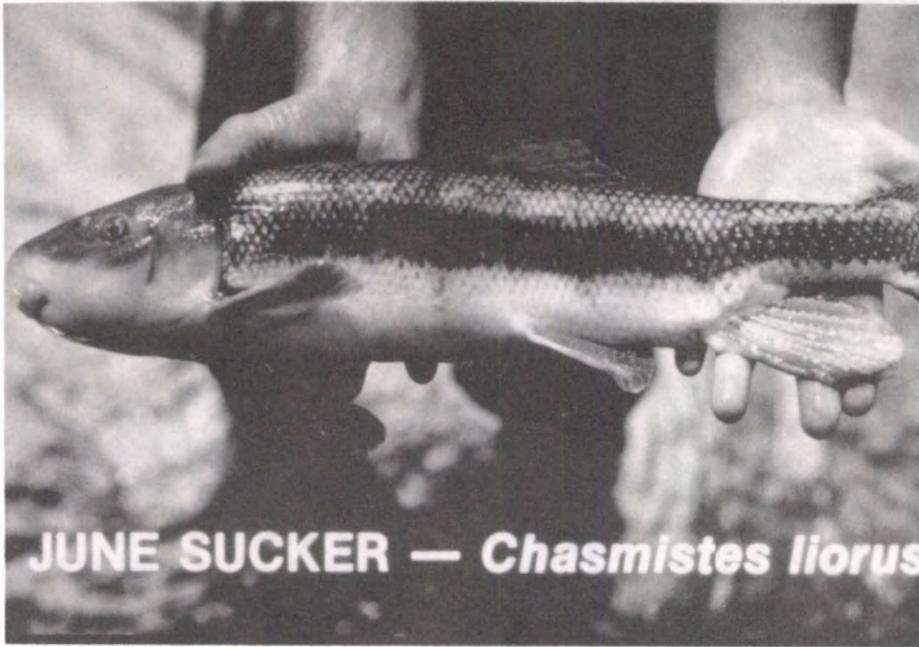


Photo: John Harris

*Amber darter, one of three Conasauga River Basin fishes proposed for listing as Endangered*



Although it once was extremely abundant and commercially important in the local fishery, the June sucker has become one of Utah's rarest fishes.

## June Sucker

This large Utah fish also has been proposed for listing as Endangered (F.R. 7/2/84). It gets its common name from the month in which its peak spawning occurs. The June sucker is endemic to Utah Lake, in the north-central part of the State, and lower portions of its two largest tributaries, the Provo and Spanish Fork Rivers, where the fish spawns. Utah Lake is shallow (average depth only 2.9 meters), turbid, highly eutrophic, and, though slightly saline, is considered the largest freshwater lake located entirely within the State. Another native fish, the Utah sucker (*Catostomus ardens*), shares the lake with the June sucker, and apparently is not in danger of extinction at this time.

Historically, the June sucker was very abundant in Utah Lake. David S. Jordan, who is generally regarded as the father of North American ichthyology, first collected the fish in 1878. After revisiting the area in 1889, he reported huge numbers of suckers in the lake and enthusiastically proclaimed it as "the greatest sucker pond in the universe." Utah Lake suckers made up an important part of early commercial fish harvests, and were netted by the hundreds of metric tons annually before their numbers became low. As recently as the early 1950s, up to 1,350 suckers could

still be taken in a single day of commercial seining. Today, however, few if any suckers are captured in commercial nets at Utah Lake.

Commercial overfishing was one of the original causes for the decline of the June sucker, although few are now taken in this way because there are so few remaining. There have been other contributing factors. Water diversion for irrigation, municipal, and industrial uses is a continuing threat to both the lake and the spawning streams. An example of what can happen came during the 1932-1935 drought, when withdrawals for irrigation almost drained Utah Lake dry. Hundreds of tons of suckers were lost due to freezing and overcrowding in the little remaining water, and in 1935 there were no suckers running up Provo River to spawn. Today, when June suckers do spawn, they are highly vulnerable to illegal killing. Concentrated in clear, shallow streams, their backs often out of the water during low-water years as they make their way upstream, June suckers are easy prey for guns, arrows, rocks, and nets.

Like many other native fishes, the June sucker has not escaped the problems of predation and competition from exotic species. Its steep decline in recent decades appears to correspond closely with the introduction of white bass (*Morone chrysops*) and walleye (*Stizostedion vitreum vitreum*) in the

mid-1950s. Over 20 exotic fish species have been introduced into Utah Lake during the past 100 years, and the dominant fishes today are white bass, walleye, channel catfish (*Ictalurus punctatus*), and carp (*Cyprinus carpio*)—all exotic species.

Although it is difficult to give accurate figures for the current June sucker population, spawning run estimates lead to suspicions that there are fewer than 1,000 adults remaining, most if not all apparently over 15 years in age. No young-of-the-year or juvenile suckers are known to have been collected from Utah Lake in recent years, and it is possible that little or no recruitment to the June sucker population is occurring.

Fish and Wildlife Service concern about the status of the June sucker was first expressed in the December 30, 1982, notice of review on vertebrate species for possible listing under the Endangered Species Act (F.R. 12/30/82). The Desert Fishes Council subsequently petitioned the Service to list the June sucker as an Endangered species and to designate its Critical Habitat.

The areas proposed as Critical Habitat include the lowest sections of two major tributaries of Utah Lake: 7.4 kilometers of the Provo River and 3 kilometers of the Spanish Fork River. Although the June sucker is found in Utah Lake, the rivers are vital to spawning and, being a more vulnerable habitat type, need special management consideration. If later found necessary for the conservation of the species, Utah Lake and other areas in the two spawning rivers could be proposed as additional Critical Habitat.

Comments on the proposal to list the June sucker were due to the Regional Director, Region 6, by August 31, 1984.

## Available Conservation Measures

If the listing proposals are made final, the three Conasauga Basin fishes and the June sucker will receive protection under the Endangered Species Act. The Endangered classification would give greater recognition of their precarious status, authorize possible Federal aid to State conservation efforts, and mandate the development of recovery plans for the four fishes. Under Section 7 of the Act, Federal agencies would be required to ensure that any actions they fund, authorize, or carry out are not likely to jeopardize the survival of the fishes or adversely modify their habitats. Among other benefits of listing are prohibitions, set forth in 50 CFR 17.21, making it illegal to take, possess, transport, and engage in interstate/international trafficking in Endangered species without the proper permits.

## New Publications

The 1982 annual report on United States implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), published in September 1983, is now available. This report summarizes such information as the numbers and types of CITES permits granted, the states with which trade occurred, and the names of the species involved. Copies of annual reports from 1977-1981 also are available. Orders should be addressed to the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, U.S.A., or telephone (703)487-4650 - Sales Desk. Please include the following information with orders:

- 1977 Report No. PB 84 146133  
\$11.50 - printed (A05)  
\$ 4.50 - microfiche (A01)
- 1978 Report No. PB 84 146141  
\$14.50 - printed (A07)  
\$ 4.50 - microfiche (A01)
- 1979 Report No. PB 82 128646  
\$19.00 - printed (A10)  
\$ 4.50 - microfiche (A01)
- 1980 Report No. PB 83 143198  
\$22.00 - printed (A12)  
\$ 4.50 - microfiche (A01)
- 1981 Report No. PB 83 188524  
\$40.00 - printed (A24)  
\$ 4.50 - microfiche (A01)
- 1982 Report No. PB 84 146158  
\$23.50 - printed (A13)  
\$ 4.50 - microfiche (A01)

Copies of *An Atlas and Illustrated Guide to the Threatened and Endangered Vascular Plants of the Mountains of North Carolina and Virginia*, General Technical Report SE-20, can be obtained free from the U.S. Department of Agricul-

## BOX SCORE OF LISTINGS/RECOVERY PLANS

Category	ENDANGERED			THREATENED			SPECIES* TOTAL	SPECIES HAVING PLANS
	U.S. Only	U.S. & Foreign	Foreign Only	U.S. Only	U.S. & Foreign	Foreign Only		
Mammals	14	19	233	4	0	22	292	21
Birds	52	13	144	3	1	0	213	50
Reptiles	8	6	60	8	4	13	99	10
Amphibians	5	0	8	3	0	0	16	4
Fishes	29	3	11	13	1	0	57	30
Snails	3	0	1	5	0	0	9	6
Clams	22	0	2	0	0	0	24	1
Crustaceans	3	0	0	1	0	0	4	1
Insects	7	0	0	4	2	0	13	5
Plants	62	4	1	9	2	2	80	27
<b>TOTAL</b>	<b>205</b>	<b>45</b>	<b>460</b>	<b>50</b>	<b>10</b>	<b>37</b>	<b>807</b>	<b>155**</b>

\*Separate populations of a species, listed both as Endangered and Threatened, are tallied twice. Species which are thus accounted for are the gray wolf, bald eagle, American alligator, green sea turtle, Olive ridley sea turtle, and leopard.

\*\*More than one species may be covered by some plans, and a few species have more than one plan covering different parts of their ranges.

Number of Recovery Plans approved: 133

Number of species currently proposed for listing: 41 animals  
34 plants

Number of Species with Critical Habitats determined: 64

Number of Cooperative Agreements signed with States: 40 fish & wildlife  
13 plants

July 31, 1984

ture, U.S. Forest Service, Southeastern Forest Experiment Station, Asheville, North Carolina 28801.

Some of Canada's vulnerable plant species are discussed in two 1983 publications that are now available: *The Rare Vascular Plants of Quebec*, Syllogeus No. 48, by Andre Bouchard, Denis Barabe, Madeleine Dumais, and Stuart Hay; and *The Rare Vascular Plants of New Brunswick*, Syllogeus No. 50, by Harold R. Hinds. Individual copies of both publications and a list of previous titles in the Rare Plant series are available, in either English or French, from the National Museum of Natural Sciences, Ottawa, Ontario, Canada K1A 0M8.

The Massachusetts Department of Environmental Quality Engineering has available part II of its *Selected Freshwater Invertebrates Proposed for Special Concern Status in Massachusetts*. Copies may be obtained by sending 75 cents in stamps to: Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control, Westborough, Massachusetts 01581 (Attention: Arthur Screpets).

*An Atlas and Illustrated Guide to the Threatened and Endangered Vascular Plants of the Mountains of North Carolina and Virginia* is available from the U.S. Forest Service. Copies may be obtained by writing to the Southwestern Forest Experiment Station, 200 Weaver Boulevard, Asheville, North Carolina 28804.

August 1984

Vol. IX No. 8

# ENDANGERED SPECIES

## Technical Bulletin

Department of Interior, U.S. Fish and Wildlife Service  
Endangered Species Program, Washington, D.C. 20240

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