



ENDANGERED SPECIES TECHNICAL BULLETIN

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

Coachella Valley Fringe-Toed Lizard Threatened

Michael Bender

The Coachella Valley fringe-toed lizard (*Uma inornata*) has been listed by the Service as a Threatened species, and its Critical Habitat delineated (F.R. 9/25/80).

Background

In September 1978, the Service proposed the Coachella Valley fringe-toed lizard as Threatened with Critical Habitat, based on information from the California Department of Fish and Game, other State officials, and eight professional biologists. Later, to comply with subsequent amendments to the Endangered Species Act, the Critical Habitat portion of the proposal was withdrawn and repropoed after completion of an economic analysis and the addition of new biological information obtained subsequent to the original proposal (see the June 1980 *Technical Bulletin*). A public meeting and hearing were held in Palm Springs, California.

A total of 187 comments were received in response to the original proposal and reproposal of Critical Habitat. Twenty comments were formally presented for the record at the public hearing in Palm Springs. In addition, four petitions were submitted which supported the listing of the Coachella Valley fringe-toed lizard; these petitions contained a total of 105 signatures.

The 4- to 5-inch lizard is found only in the Coachella Valley, Riverside County, California. Named both for its home and the tiny projections on its toes which enable it to run easily over the sand, this

small reptile evades predators by "swimming" beneath the loose surface. The presence of wind-blown sand, therefore, is essential to the lizard's survival.

Agricultural and urban development have reduced the lizard's range from about 324 square miles historically to about 120 square miles today, of which 50-99 are considered suitable habitat. Permanent human residents in Coachella Valley, which numbered

about 12,000 in 1942, currently exceed 100,000, and are projected to reach up to 164,000 by 1990. (Seasonal residents may add another 40 percent or more to the current total.) At present, however, none of the lizard's habitat has been permanently preserved, and zoning plans indicate that all of its remaining range could eventually be developed.

The habitat is further threatened by an invasion of Russian thistle, an intro-

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The tiny Coachella Valley fringe-toed lizard has been listed as threatened.



REGIONAL BRIEFS

Endangered Species Program regional staffers have reported the following activities for the month of September.

Region 1. The single known population of *Stephanomeria malheurensis* has

been reduced to less than 12 plants according to a field report. The plant occurs south of Burns, Oregon.

In an effort to increase input from the botanical community in the listing process for plants, Technical Review Panels

made up of botanists will review the status of plants in Oregon, Nevada, Idaho, and Washington, and provide data to the Regional Office.

Region 2. A draft management plan has been developed for the aquatic habitats of San Bernadino Ranch in southeastern Arizona.

An *ad hoc* razorback sucker (*Xyrauchen texanus*) group met, and will circulate a draft management plan for updating.

Region 3. A meeting of regional Endangered Species Coordinators was held, with all States participating. Priorities were set for fiscal year 1981.

Regional staffers met with the Indiana/Gray Bat Recovery Team to discuss the species' status.

A two-part poster of Fresh-Water Mussels of the Upper Mississippi River, developed in conjunction with the Army Corps of Engineers, is available from the region on a limited basis.

Region 4. Presumed extinct for 23 years, the Smoky madtom (*Noturus baileyi*) was recently rediscovered in Citico Creek in the Cherokee National Forest in Tennessee. The fish was first discovered in nearby Abrams Creek in 1957, during preparations for the impoundment of Chilhowee Reservoir. Filling of the reservoir submerged lower Abrams Creek, destroying any possibility for survival of the species within the original area of collection. The Service will attempt to gain additional information on the status of the newly discovered population.

The Service has issued a contract for providing information on the feeding habits and movements of the Hobe Sound-Riviera Beach manatee (*Trichechus manatus*) population. Data is specifically being sought on the location and value of grassbeds as feeding areas and methods for their conservation.

Region 5. Rhode Island has signed Cooperative Agreements with our Service for conservation of Endangered fish and wildlife, and plants. The State may now receive two-thirds matching funds from our Service.

Region 6. A Cooperative Agreement for plants was signed by the Colorado Department of Natural Resources and the Service.

U.S. Fish and Wildlife Service Washington, D.C. 20240

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U.S. Fish and Wildlife 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. **Alaska Area:** Alaska.

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CORRECTION

Credit for the photograph of the California condor chick on page 3 of the July 1980 BULLETIN should have been given to Tupper Ansel Blake. We regret the error.

Fringe-Toed Lizard

Continued from page 1

duced shrub that is spreading throughout the West, and by stands of Tamarisk trees planted as windbreaks. Both plants are stabilizing sand deposits. Increasing use of off-road vehicles is yet another danger to the fragile desert ecosystem.

Protective Measures

Under the threatened classification, it is illegal to take Coachella Valley fringe-toed lizards (except under permit for approved conservation purposes), and to sell them in interstate or foreign commerce. The lizard is also protected under California's endangered species legislation.

About 12,000 acres (18.5 square miles), which include both the areas of highest lizard concentration and a source of blow sand, have been designated Critical Habitat. Such a determination does not create a sanctuary or wilderness area, nor does it represent Federal intent to control purely private land use; rather, it complements the protection already given a species at the time of its listing by requiring Federal agencies to ensure that actions they fund, authorize, or carry out will not likely jeopardize the habitat of the protected species.

A Critical Habitat designation will not necessarily block flood and blow sand control, a major concern of Valley residents. Close consultation between project sponsoring agencies and the Service often averts conflicts through mitigation or design modifications. The Service will cooperate with other Federal agencies to minimize any impacts on local residents, and to maintain the lizard as a viable part of the fauna of the Coachella Valley.

Although almost none of the Critical Habitat is currently under Federal protection, the Bureau of Land Management is negotiating with several landowners in the area for possible land exchanges. One corporation alone, Dart Industries, is expected to exchange approximately 20,000 acres in the Coachella Valley, including 5,000 acres of Critical Habitat. In addition, listing the lizard as a Threatened species makes it possible for the Service to negotiate for land acquisition with money from the Land and Water Conservation Fund as part of a multi-faceted recovery plan to be prepared on behalf of the lizard. This property could then be preserved from future development, and managed instead for the lizard's needs.

ENDANGERED HUMPBAC CHUB RANGE EXTENSION DOCUMENTED

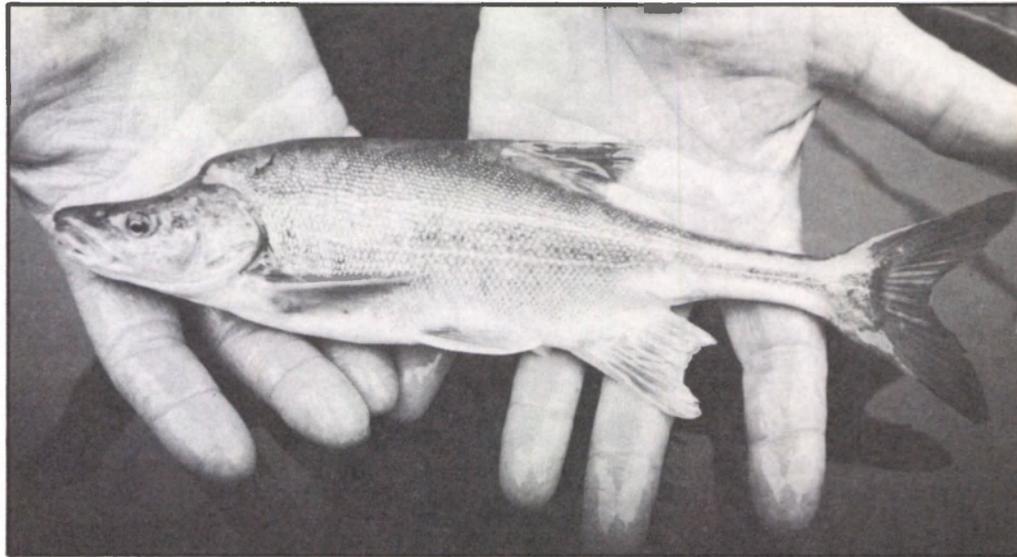
In late August, Colorado Division of Wildlife and U.S. Fish and Wildlife Service biologists collected a single humpback chub (*Gila cypha*) in the Yampa River in northwest Colorado. Until now, the species was known to be present in Colorado only in the mainstream of the Colorado River a short distance east of the State line. It had apparently disappeared from the Yampa and Green Rivers following the closure of Flaming Gorge Dam in 1962.

The specimen was collected in a gill net in an isolated area known as Cross Mountain Canyon, a short distance upstream from Dinosaur National Monument. The specimen, which was released in good condition, measured approximately 10½ inches (267 mm)

and was probably between 4 and 5 years old. [Captured in the same net was an Endangered Colorado squawfish (*Ptychocheilus lucius*).]

The presence of the Endangered humpback chub in Cross Mountain Canyon was suggested two years ago from a fisherman's report. Habitat conditions in the area have been found to be similar in nature to the other few remaining areas where this rare fish is still present. This capture suggests the possibility that Cross Mountain Canyon, a largely unmodified section of the Yampa River, may serve as a natural refuge for this declining species.

The Colorado Division of Wildlife will begin intensive efforts to determine the size and natural history of any potential humpback chub population in this area.



This humpback chub is the first specimen found in the Yampa River since the closing of Flaming Gorge Dam in 1962.

Photo by Charles Haynes

NMFS Establishes Sea Turtle Resuscitation Procedures

The National Marine Fisheries Service (NMFS) has established emergency regulations to modify procedures for resuscitating threatened sea turtles (F.R. 10/7/80). These regulations will remain in effect for 240 days from the date of publication in the *Federal Register*, unless they are extended through normal rulemaking procedures before the 240-day period is over.

Under procedures established in 1979 in 50 CFR 227.72 (e) (1) (i), the resuscitation technique for a comatose turtle incidentally caught in commercial fishing

operations was to turn it on its back and pump the breastplate by hand or foot. The emergency regulations allow for an alternate resuscitation technique, relocation of turtles to non-shrimping areas, and a method of releasing turtles from vessels.

According to NMFS, the emergency regulations are necessary to mitigate sea turtle losses which occur when the turtles are caught in shrimp trawls. This past summer, approximately 1,850 sea turtle carcasses were reportedly

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NMFS Establishes Sea Turtle Resuscitation Procedures

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washed ashore on southeast U.S. beaches. These incidents prompted a meeting of conservationists, shrimp industry representatives, and State and NMFS officials in Charleston, South Carolina, on September 18, 1980. The group agreed that the procedures for resuscitating sea turtles caught in trawls needed to be broadened.

Specifically, the emergency regulations state that specimens caught in trawls must be handled with due care to prevent injury to live specimens, observed briefly for activity, and returned to the water according to these procedures:

(1) Sea turtles that are unquestionably dead or actively moving must be released over the stern of the boat. They must be released only when trawls are not in use, when the engine gears are in neutral, and in areas where they are unlikely to be recaptured or injured by vessels.

(2) For sea turtles that are comatose or inactive but not unquestionably dead, resuscitation must be attempted by either (a) placing the turtle on its back (carapace) and pumping its breastplate (plastron) with hand or foot, or (b) placing the turtle on its breastplate and elevating its hindquarter several inches for a period of 1 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles.

Sea turtles being resuscitated must be kept wet or moist. If they revive and become active, the turtles must be returned to the water in the manner described above. Similarly, if they fail to move within several hours (up to 24 if possible) they must be released in the same way.

Written comments on the desirability of extending or modifying these regulations must be received on or before December 8, 1980. They should be sent to the Regional Director, National Marine Fisheries Service, 9450 Koger Boulevard, St. Petersburg, Florida 33702.

—Rulemaking Actions—

September 1980

ROBBINS' CINQUEFOIL ENDANGERED

Robbins' cinquefoil (*Potentilla robbinsiana*), a plant occurring in New Hampshire only on land administered by the U.S. Forest Service, has been listed by the Fish and Wildlife Service as Endangered with Critical Habitat (F.R. 9/17/80).

A member of the rose family (Rosaceae), *Potentilla robbinsiana* historically occurred in alpine areas of New Hampshire and Vermont. Survival of the plant and its habitat are being threatened by trampling and natural factors.

Robbins' cinquefoil was part of a proposed rule (F.R. 6/16/76) which was subsequently withdrawn (F.R. 12/10/79) in accordance with 1978 amendments to the Endangered Species Act. The plant was repropose, with Critical Habitat included for the first time, on March 24, 1980.

Historically, this species has been known from two locales in the White Mountains of New Hampshire, and one locale in Vermont. Currently, the species is known from only one locale in New Hampshire, where it has been severely impacted by man.

Located along the Appalachian Trail in the Presidential Range of the White Mountains, the area now occupied by Robbins' cinquefoil is about one-fourth the territory occupied by this species in 1934. Expansion of the trail for a bridle path and widening of the hiker travel zone at this site have greatly reduced the population. The plant was found on either side of the trail as recently as 1965, but by 1972 it was totally absent from the west side. Along the east side, most plants within 8 meters of the trail have been destroyed.

The other New Hampshire location where the plant was once known to occur was on the Franconia Ridge of the White Mountains. The two populations that occurred there are now thought to have been extirpated.

The major cause for the decline at both New Hampshire locations has been hiker traffic. The nearly barren, fell-field habitat of Robbins' cinquefoil offers no obstacle to hikers wandering off the trail, to groups walking abreast, or to illegal campers. Hiking causes shifting and dislodging of the stony, pavement-like surface. Once this surface is disturbed, the loosened soil is blown or washed away. These fragile alpine habitats and plant communities take many years to recover from this type of disturbance.

Another threat to the species is over-collection, which has been suggested as part of the probable cause for the extirpation of the species at one of the Franconia sites.

Natural factors also play a role in plant mortality. Because of the harsh climate above timberline, only 40 percent of the seedlings survive each year, and during the first few years after germination, the mortality rate of the plants is very high. Frost heaving during the spring and fall is the most frequent natural cause of plant death. Many seedlings also die during the hot, dry periods from what is believed to be drought stress.

Critical Habitat for Robbins' cinquefoil has been determined to include the area in New Hampshire where the species currently occurs, a strip of land 4,066 feet long and 450 feet wide.

Our Service, the Forest Service, the Appalachian Mountain Club, and local botanists are cooperating in a study to determine if and how the Crawford Path should be relocated to protect the Robbins' cinquefoil. The Forest Service is also conducting studies to determine which areas are most suitable for transplanting.

PHACELIA FORMOSULA PROPOSED AS ENDANGERED

Phacelia formosula, a plant occurring at only one known location in Colorado, has been proposed by the Service as an Endangered species (F.R. 9/2/80). A member of the waterleaf family (Hydrophyllaceae), *Phacelia formosula* is threatened by habitat destruction from motorcycle traffic on the Jackson County-owned portion of the habitat.

On July 25, 1980, a field survey of the plant's habitat indicated that despite excellent conditions this growing season, only 117 mature specimens and 3 seedlings were found in four small patches. These individuals were localized on a sandstone bluff above the Michigan River, the only known location of *Phacelia formosula* since its discovery in 1918.

This species' limited habitat (about ¼ mile of the sandstone bluff) is being destroyed because of heavy use by off-road motorcyclists. There are no obstacles to motorcyclists, subjecting the fragile habitat to erosion from continual disturbance.



Photo by Irene M. Storks

Robbins' cinquefoil has declined primarily from habitat disturbance caused by hiker traffic.

Phacelia formosula was originally proposed for listing on July 16, 1976, but was subsequently withdrawn on December 10, 1979, along with other proposals which had expired. The Service now repropose this species based on sufficient new information which indicates that *Phacelia formosula* is in danger of extinction.

Critical Habitat is not being proposed for the species at this time because publication of Critical Habitat maps would make the species more vulnerable to taking and vandalism, activities not directly prohibited for plants by the Endangered Species Act of 1973, as amended.

Comments on this proposal were due on November 3, 1980.

Service Accepts Petition to Deist Merriam's Montezuma Quail

The Service has accepted a petition to remove the Merriam's Montezuma quail (*Cyrtonyx montezumae merriami*) from the List of Endangered and Threatened

Wildlife (F.R. 9/26/80). This petition, submitted by Mr. Jerome J. Pratt of Sierra Vista, Arizona, was supported with substantial evidence as determined by the Service Director.

Under regulations implementing Section 4 of the Endangered Species Act (F.R. 2/27/80), a species may be removed from the U.S. List based on the best available data indicating either its (1) extinction, (2) recovery, or (3) a finding that original data for classification were in error.

Merriam's Montezuma quail was described in 1897 from a single male specimen from Mount Orizaba, State of Vera Cruz, Mexico. A taxonomic review of this quail concluded that the single type specimen represented an uncommon plumage pattern found in specimens from nearby localities. Also, the type locality is in the narrow zone of intergradation between two well recognized subspecies, *C. m. montezumae* and *C. m. sallei*. No other series of specimens from the general area of Mount Orizaba is known.

Merriam's Montezuma quail was listed in the original Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, but was subsequently removed at

the March 1979 Conference of the Parties for the same reasons expressed in the Pratt petition: the unique type specimen does not represent a recognized subspecies (or any higher taxonomic group) or a distinct geographic population of a vertebrate. Therefore, it no longer meets the definition of a "species."

The public is invited to submit data or other relevant information to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240 by November 25, 1980. An additional comment period will be provided for any proposed rule.

'EWA PLAINS 'AKOKO PROPOSED AS ENDANGERED

The Service has proposed a native Hawaiian shrub, the 'Ewa Plains 'akoko (*Euphorbia skottsbergii* var. *kalaeloana*), for listing as an Endangered species. Development of dockside facilities in connection with the construction of a

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'EWA PLAINS 'AKOKO

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proposed deep-draft harbor poses the principal danger to the existence of this taxon, the only known survivor of three plant taxa originally endemic to the 'Ewa Plains, Oahu, Hawaii.

Another variety of the same species, *Euphorbia skottsbergii* var. *skottsbergii*, which formerly was found closer to the shoreline in the same area, was last seen in 1932 and is presumed extinct.

The 'Ewa Plains 'akoko was previously proposed for Endangered status on June 16, 1976, along with approximately 1,700 other plant species which were identified in a petition prepared by the Smithsonian Institution, although it was considered extinct at the time. This present proposal is based on information available at the time of the 1976 proposal and information gathered between then and the time of withdrawal (F.R. 12/10/79), as well as significant new information.

The exact natural range of this plant is unknown, but it probably did not exceed beyond the coralline plains of the 'Ewa area. Loss of native habitat in this area, which began with polynesian settlement of the islands, has been so thorough that no predominately native habitat can be said to be present any longer.

Another factor threatening the survival of the species has been competition from aggressive weedy species that now dominate vegetation in the area. It is also possible that decline of native pollinating insects has affected the 'akoko's reproductive success.

Although the species survives in non-native vegetation, the greatly altered ecosystem in which it occurs cannot reasonably be said to be essential to its conservation and probably is incapable of conversion back to anything even approaching its original composition. Therefore, no Critical Habitat has been proposed.

Comments from the public regarding this proposed rule were due by November 3, 1980.



Photo by Irene H. Stuckey

Isotria medeoloides, one of the rarest orchids in America.

ENDANGERED STATUS SOUGHT FOR SMALL WHORLED POGONIA

Often referred to as the rarest orchid in America, the small whorled pogonia (*Isotria medeoloides*) has been proposed by the Service for listing as an Endangered species. There are only 16 known populations in the eastern United States and Canada numbering 150-175 individual plants.

Isotria medeoloides is being threatened by the inadvertent loss of populations to habitat alteration, such as golf courses and housing complexes, and taking by collectors for non-commercial purposes. Today, there are nearly as many, if not more, dried specimens of *Isotria medeoloides* in herbaria than are known to exist in the wild.

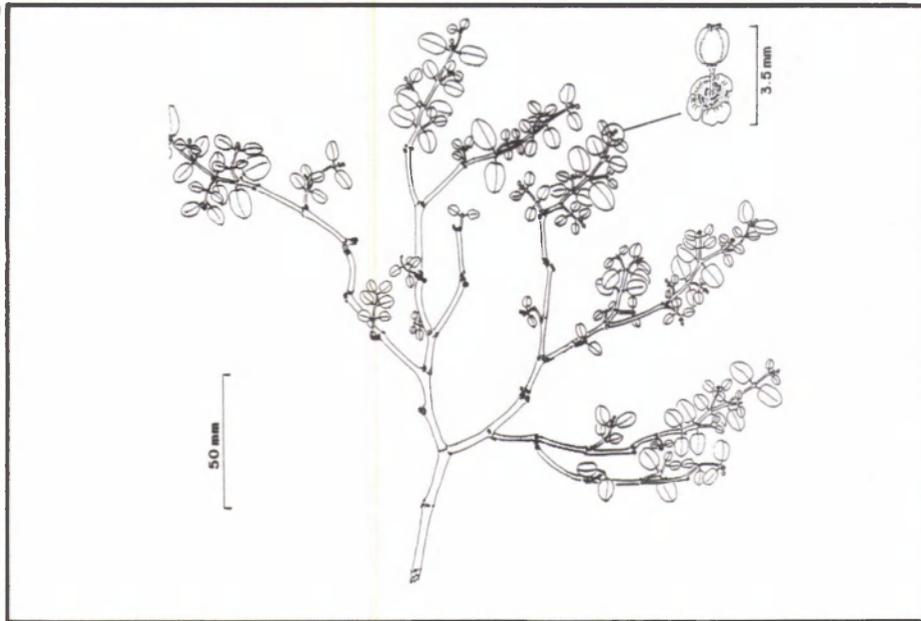
Historically, this plant has been known to occur in 49 counties in 17 eastern States and Canada. In 1979, *Isotria medeoloides* was known to occur in only 12 counties in 11 different States and 1 county in Ontario, Canada. The plant is most often associated with relatively open areas in deciduous hardwoods; either beech-birch-maple or oak-hickory. Suitable habitats range from dry, rocky, wooded slopes to moist streambanks.

The Service is not proposing Critical Habitat for this species because of its history of taking and the lack of prohibitions against taking of plants in the Endangered Species Act. Designation of Critical Habitat would only call further attention to existing populations.

Official listing under the Endangered Species Act of 1973, as amended, would allow for the implementation of various conservation and recovery activities aimed at insuring the continued existence of this plant throughout its range.

Comments on this proposal were due November 10, 1980.

Reprinted from 'Ewa Plains Botanical Survey



'Ewa Plains 'akoko

Service Withdraws Callippe Silverspot Butterfly

The proposal to list the Callippe silverspot butterfly (*Speyeria callippe callippe*) as an Endangered species with Critical Habitat has been withdrawn by the Service (F.R. 9/30/80). The Service Director decided not to list this species, which inhabits essentially the same area as the federally protected mission blue butterfly (*Icaricia icarioides missionensis*), at the present time. The Director also determined that insuffi-

cient data was available on the effects of potential housing development in the area occupied by the species. One of the main considerations bearing on the Director's decision was the fact that the County of San Mateo, California, is conducting ongoing studies on the species' biology and on the effects of potential housing development on the species.

When it is available, the Service will consider the information from these studies, as well as other available information, in deciding whether to repropose this butterfly as a Threatened or Endangered species.

PROPOSALS FOR 8 SPECIES WITHDRAWN

The Service has withdrawn proposals to list eight arthropod species as either Endangered or Threatened in compliance with 1978 amendments to the Endangered Species Act (F.R. 9/2/80). The proposals to list the Kauai cave wolf spider (*Adelocosa anops*), Kauai cave amphipod (*Spelaeorchestia koloana*), blue-black silverspot butterfly (*Speyeria nokomis nigrocaerulea*), Dakota Skipper butterfly (*Hesperia dacotae*), Great Basin silverspot butterfly (*Speyeria nokomis nokomis*), Karner blue butterfly (*Lycaeides melissa samuelis*), Pawnee montane skipper butterfly (*Hesperia pawnee montana*), and San Francisco tree lupine moth (*Graphoilita edwardsiana*) have expired because they were not made final within the prescribed two years from the proposal dates (F.R. 6/16/78 and F.R. 7/3/78).

These species may be repropoed for listing if it is determined that sufficient new information is available to warrant such a proposal.

Devil's River Minnow, Virgin River Chub Proposals Withdrawn

Proposals to list the Devil's River minnow (*Dionda diaboli*) and Virgin River chub (*Gila robusta seminuda*) as Threatened (F.R. 8/15/78) and Endangered (F.R. 8/23/78) species, respectively, have been withdrawn. The Service decided not to list the Devil's River minnow because it was felt that the local affected communities needed more time to fully understand the impact of this proposed listing. Confusion apparently arose because of the public's belief that the Service was unable to offer conclusive data on the numbers and distribution of this fish. Accordingly, it was thought by many members of the public in the locally affected area that the Service had not adequately presented its case for listing the species. Also, the local communities expressed an interest in managing the species, and the Fish and Wildlife Service Director wanted to afford them that opportunity.

The proposed listing action for the Devil's River minnow, occurring in the Devil's River and San Felipe Creek in Val Verde County, Texas, and the Virgin River chub, occurring in the Virgin River in southwest Utah, northwest Arizona, and southern Nevada, has been withdrawn. The Virgin River chub was withdrawn in compliance with 1978 amendments to the Endangered Species Act which require proposals to be withdrawn if they are not made final within

two years of publication in the *Federal Register*. Notice of the withdrawal was published in the September 30, 1980, *Federal Register*.

These species may be repropoed for listing on a determination by the Secretary (of the Interior) that sufficient new information is available to warrant such a proposal.

STATUS REVIEW OF 3 FISHES

The Service is reviewing the status of the Alabama shovelnose sturgeon (*Scaphirhynchus* sp.), frecklebelly madtom (*Noturus munitus*), and freckled darter (*Percina lenticula*) to determine if any, or all of these species should be

proposed for listing as Endangered or Threatened species (F.R. 9/2/80).

All three species generally require the same type of habitat, i.e. sand and/or gravel substrate with moderate to swift current in large, free-flowing rivers.

The Service is seeking the views of the Governors of Alabama, Georgia, Louisiana, Mississippi, and Tennessee, as well as other Federal agencies and interested parties, and is requesting from them any data relative to these species. Information is also solicited on any areas that may qualify for Critical Habitat designation.

Information should be submitted on or before December 1, 1980, to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

PUBLIC MEETINGS/HEARINGS

Due to the often unavoidable short notice in scheduling public meetings and hearings (in compliance with 1978 amendments to the Endangered Species Act) for certain listing and Critical Habitat proposals, we regret that we cannot always relay adequate notice to our readers. Until further notice, we

will attempt to provide available information through this column. Due to space limitations and uncertainty of *Federal Register* publication dates, summaries of pertinent proposed rulemakings may not necessarily accompany meeting notices, but may be included in a subsequent issue of the BULLETIN.

| Species/Action | Affected States(s) | Location of Meetings/Hearings | Date | Time |
|-------------------------------------|--------------------|--|----------|------------|
| Kentucky cave shrimp: proposed C.H. | KY | Meeting: Downing University Center, Room 305, Western Kentucky University, Bowling Green, KY | 12/10/80 | 7:00 p.m. |
| Monito gecko: proposed E/C.H. | PR | Meeting: Amphitheater/General Studies, University of Puerto Rico, Mayaguez, PR | 12/2/80 | 10:00 a.m. |
| | | Conference Room, Dept. of Natural Resources, Puerta de Tierra (San Juan), PR | 12/3/80 | 10:00 a.m. |
| Hawksbill sea turtle: proposed C.H. | PR | Meeting: Amphitheater/General Studies, University of Puerto Rico, Mayaguez, PR | 12/2/80 | 10:00 a.m. |
| | | Conference Room, Dept. of Natural Resources, Puerta de Tierra (San Juan), PR | 12/3/80 | 10:00 a.m. |
| | | Conference Room, Dept. of Natural Resources Headquarters, Isia Culebra, PR | 12/4/80 | 10:00 a.m. |

E—Endangered
C.H.—Critical Habitat

NEW PUBLICATIONS

An 854-page *Atlas of North American Freshwater Fishes*, prepared jointly by the North Carolina State Museum of Natural History and the U.S. Fish and Wildlife Service, will be published by the museum. This volume, a collection of accounts of the 777 species known to occur in the fresh waters of Canada and the United States, was written by some of the most active fish researchers in the two nations. Cost is \$20 (\$22.50 Canadian), plus \$3 for postage and handling. Send orders to the North Carolina State Museum of Natural History, P.O. Box 27647, Raleigh, North Carolina 27611, Attention: Fish Atlas.

The *New England State Reports on Rare, Threatened, and Endangered Plants*, prepared by the New England Botanical Club in cooperation with the U.S. Fish and Wildlife Service, are now available through the National Technical Information Service (NTIS). Report order numbers and prices are as follows:

| REPORT | ORDER NUMBER | PRICE |
|---------------|--------------|--------|
| New Hampshire | PB 80168933 | \$8.00 |
| Massachusetts | PB 80176126 | \$7.00 |
| Rhode Island | PB 80176159 | \$5.00 |
| Maine | PB 80176167 | \$6.00 |
| Connecticut | PB 80176175 | \$6.00 |
| Vermont | PB 81106734 | \$7.00 |

Reports may be obtained by writing to the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161, and including a check payable to "National Technical Information Service."

The Service has published a booklet

BOX SCORE OF SPECIES LISTINGS

| Category | Endangered | | Threatened | | Species Total |
|--------------|------------|------------|------------|-----------|---------------|
| | U.S. | Foreign | U.S. | Foreign | |
| Mammals | 32 | 242 | 3 | 20 | 279 |
| Birds | 66 | 159 | 3 | 0 | 214 |
| Reptiles | 13 | 61 | 10 | 4 | 75 |
| Amphibians | 5 | 8 | 3 | 0 | 16 |
| Fishes | 34 | 15 | 12 | 0 | 57 |
| Snails | 2 | 1 | 5 | 0 | 8 |
| Clams | 23 | 2 | 0 | 0 | 25 |
| Crustaceans | 1 | 0 | 0 | 0 | 1 |
| Insects | 7 | 0 | 6 | 1 | 13 |
| Plants | 51 | 2 | 7 | 3 | 60 |
| TOTAL | 234 | 490 | 49 | 28 | 748 |

Number of species currently proposed: 44 animals
9 plants

Number of Critical Habitats listed: 47

Number of Recovery Teams appointed: 68

Number of Recovery Plans approved: 39

Number of Cooperative Agreements signed with States:

37 (fish & wildlife)

8 (plants)

September 30, 1980

which examines the status of 39 species and subspecies of amphibians. *Conservation of the Amphibia of the United States: A Review* (U.S. Fish and Wildlife Service Resource Publication 134) was prepared by R. Bruce Bury and C. Kenneth Dodd, Jr. of our Service, and Gary M. Fellers of the National Park Service. Included in the account of each species is a description, range map, discussion of habitat, status, and recommendations for protection. Free copies are available

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

Vascular Plants of Restricted Range in the Continental Northwest Territories, Canada (Syllogeus No. 23) has been published by the Canadian National Museum of Natural Sciences. This publication describes the distribution of 530 species. Copies are available by mail from the National Museum of Natural Sciences, Ottawa, Canada K1A 0M8.



ENDANGERED SPECIES TECHNICAL BULLETIN

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