September 1979, Vol. IV, No. 9

ENDANGERED SPECIES TECHNICAL BULLETIN

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

AMENDED ACT REQUIRES NEW REGULATIONS

Listing and Critical Habitat determination procedures were among those activities of the Endangered Species Program most substantially altered by the Endangered Species Act Amendments of 1978. The Service has now proposed regulations to formalize listing policies already established, and implement the changes brought by the Amendments (F.R. 8/15/79). When finalized, this will be the first set of official regulations to implement Section 4 of the Act.

Most of the newly introduced features revolve around the Critical Habitat determination process, including:

- guidelines for public meetings and hearings;
- publication of Critical Habitat proposals in local newspapers accessible to people in the affected area(s);
- establishment of the need for analysis of economic and other impacts of Critical Habitat designation.

Other aspects of the Amendments covered by the regulations include the requirement of public meetings in conjunction with listing actions, (when requested), procedures to receive and evaluate petitions to list species, and procedures for conducting periodic reviews of all listed species.

Listings to Include Critical Habitat

The Amendments require that Critical Habitat be specified at the same time that a species is listed, "to the

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Photo by Steve Hillebrand

A peregrine falcon soars by the Washington Monument—a sign of the successful release program in the Nation's Capital.

PEREGRINE'S PROGRESS— RELEASE PROJECT A SUCCESS

Four peregrine falcons (1 male and 3 females) are now on their own in Washington, D.C. and vicinity—the result of a release project conducted by the Service and the Peregrine Fund of Cornell University. The peregrines had been placed in a man-made nest on top of the Interior Department building in June, as month-old chicks (see the July 1979 BULLETIN), and were released on July 9, after they had fledged.

Under the watchful eyes of Sharon and Tom Allan, the birds made their initial flights and developed the skills necessary for hunting. On August 6, the Allans departed and the birds were completely self-sufficient.

The birds have been adjusting well to the urban environment and have been establishing territories throughout the area. One has been spotted near a suburban Virginia shopping center, and another has chosen to roost on the Department of Commerce building and use the Mall near the Smithsonian Institution as its territory.

It is not known whether any of the peregrines will stay in the Washington area during the winter, or choose to migrate south along the coast, or even if they will return to the area next year. It is hoped that these falcons will select mates within 2 years from other captive-bred peregrines released by Cornell in the East, and eventually produce young.

REGIONAL BRIEFS

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

Region 1. Peregrine falcon *(Falco peregrinus anatum)* surveys in Oregon have revealed a probable three nesting pairs in the State; none were known before this year.

A site was selected for the California condor *(Gymnogyps californianus)* breeding facility on the grounds of the San Diego Wild Animal Park. The Zoological Society of San Diego submitted a formal proposal for construction of the facility, meeting specifications called for by Service personnel. (A contract was awarded on September 30.)

Despite intense control efforts, which included the use of helicopters, a coyote took a whooping crane chick at Gray's Lake. Eight or possibly nine chicks from this year's cross-fostering program are alive, a better than average record. Seven sub-adults survive from previous years' transplants—2 in Wyoming, 1 at Bear Lake, Idaho, and 4 at Gray's Lake, Idaho.

Region 2. The Service met with the Mexican Department of Fisheries and the University of Mexico to discuss cooperative projects for the benefit of the Olive Ridley sea turtle *(Lepidochelys olivacea).* As a result of the meeting, arrangements will be made for two Mexican biologists to visit the National Marine Fisheries Service Laboratory in Galveston to observe the mariculture facilities and techniques applicable to raising sea turtles.

The Campeche oil spill has reached Texas shores, and attempts were made to assess the impact on Endangered species in the U.S. and Mexico. Most susceptible to the spill is the Kemp's Ridley sea turtle *(Lepidochelys kempii),* both young and adults. Full effect of the spill probably will not be known until the next nesting season. Contingency plans have been made to protect peregrine falcons, whooping cranes, brown pelicans, and sea turtles. A treatment center and bird cleaning operation has been set up.

Region 3. The Service initiated contracts to conduct plant surveys throughout the Region's six States.

Regional staffers met with the National Park Service in the Apostle Islands in Wisconsin to discuss procedures for Section 7 consultations and bald eagle *(Haliaeetus leucocephalus)* management.

The Northern States Bald Eagle Recovery Team met in Milwaukee and reviewed the initial draft of the recovery plan.

A compendium of surveys of clams of the upper Mississippi River has been finalized.

Region 4. Nine contracts were negotiated to provide status information on 123 species. This brings the number of plant species under contract to 228, covering all of the region including Puerto Rico and the Virgin Islands.

Region 5. The first Endangered Species Cooperative Agreement to specifically authorize conservation activities for plants was signed with Connecticut on August 8, 1979. Plant agreements were authorized by the

U.S. Fish and Wildlife Service
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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, Michigan, Minnesota, 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, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. **Alaska Area:** Alaska.

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Rulemaking Actions

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and reproduction, and it is intolerant of human presence. When disturbed, the big-eared bat will abandon its roost, resulting in a population reduction. Their dependence on the few remaining nursery caves and the ease with which they are disturbed make the entire population subject to extermination under certain conditions.

The West Virginia population of big-eared bat, numbering 2,500–3,000, is the largest of the three existing populations; the other two are in eastern Kentucky and southwestern Virginia. In West Virginia, at least five wintering colonies have disappeared in the last 15 years and only three known nursery colonies still remain. The numbers in these nursery colonies have declined considerably because of disturbances from spelunkers and vandals.

As required by the 1978 amendments, this Critical Habitat proposal includes a discussion of activities which may adversely modify the habitat, or which may be affected by the designation. According to the proposal, these activities would include any action which would substantially alter the physical structure, temperature, humidity, or air flow of the designated caves, or any action (such as blasting or construction near designated caves, or increased human access to the caves) which might disturb the bats in their hibernating or nursery caves.

Comments on this proposal should be submitted by November 1, 1979, to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

BOX SCORE OF SPECIES LISTINGS

Category	Number of Endangered Species			Number of Threatened Species		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Mammals	33	251	284	3	21	24
Birds	67	145	212	3		3
Reptiles	11	48	59	10		10
Amphibians	5	9	14	2		2
Fishes	29	11	40	12		12
Snails	2	1	3	5		5
Clams	23	2	25			
Crustaceans	1		1			
Insects	6		6	2		2
Plants	23		23	2		2
Total	200	467	667	39	21	60

Number of species currently proposed: 160 animals
1,850 plants (approx.)
Number of Critical Habitats listed: 34
Number of Recovery Teams appointed: 66
Number of Recovery Plans approved: 29
Number of Cooperative Agreements signed with States: 24

August 31, 1979

NEW PUBLICATIONS

The American Society of Mammologists has issued a Special Publication entitled *Ecology and Behavior of the Manatee in Florida*. Written by Daniel S. Hartman of Cornell University, this book chronicles the author's research conducted primarily in Citrus County, Florida. The book is priced at $10.00 for non-members of the Society and $8.00 for members. Copies may be ordered from Duane A. Schlitter, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213.

The first in a three-part series called *Life Tracks* is now available upon request from the Wisconsin Office of Endangered and Nongame Species, Department of Natural Resources, P.O. Box 7921, Madison, Wisconsin 53707. Eleven of the State's endangered birds and mammals are discussed.

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Endangered Species Act Amendments of 1978.

The Service conducted a three-day workshop on New England's Endangered and Threatened flora at Waterville Valley, New Hampshire August 3–5, to consolidate State reports prepared in 1978 and formulate a New England Regional Report. Next year's field activities will emphasize candidate species which were not recognized in the Smithsonian Institution's initial list.

Region 6. The Indiana/Gray Bat Recovery Team, led by Dr. Richard LaVal, Missouri Department of Conservation, met in Washington, D.C. to begin drafting a recovery plan for the gray bat *(Myotis grisescens)* and revising the plan for the Indiana bat *(Myotis sodalis).*

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extent prudent." The regulations make this provision and also require that biological and physical constituent elements essential to the species (e.g. nesting grounds, water quality, pollinator, etc.) be pointed out in the Critical Habitat descriptions. They further provide that geographical areas not currently occupied by the species may be included in Critical Habitat determinations, but only when limiting the determination to the species' occupied range would not be adequate to ensure the survival and recovery of the species.

In certain situations designation of Critical Habitat would not be prudent. The proposed rules provide that Critical Habitat not be determined when a species needs immediate listing protection, and delay caused by the preparation of a Critical Habitat rule would have a detrimental effect on it; when identification of the Critical Habitat would make the species more vulnerable to taking; or when Critical Habitat determination would not be beneficial to the species.

Economic Analysis

The new requirement for an economic analysis of the effects of Critical Habitat determination, coupled with the requirement that each listing include Critical Habitat, when prudent, has produced a significant slowdown in the Program's accomplishment of final actions of either type. Mechanics for implementing this portion of the Amendments are yet to be completely

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ENDANGERED SPECIES SCIENTIFIC AUTHORITY

Notices—August 1979

Composed of representatives from seven Federal agencies, the Endangered Species Scientific Authority (ESSA) was established by Executive order to insure the scientific soundness of governmental decisions concerning trade in endangered species of animals and plants. As the U.S. Scientific Authority for the Convention on International Trade in Endangered Species of Wild Fauna and Flora, ESSA reviews applications to export and import species protected under the Convention, reviews the status of wild animals and plants impacted by trade, monitors their trade, makes certain findings concerning housing and care of protected specimens, and advises on trade controls.

American ginseng. Photo by J. Dan Pittilo

GINSENG FINDING FINALIZED

The ESSA has established final findings for ginseng roots harvested in 1979. ESSA's "approval" of export from 14 States indicates that harvest in those areas will not be detrimental to the survival of the species, and that the ESSA has no objection to issuance of export permits from those States (F.R. 8/15/79). Such approval does not, however, limit the Management Authority's (MA) right to withhold permits on other grounds.

Federal export permits may be issued only for ginseng roots harvested in the States for which the MA (U.S. Fish and Wildlife Service) is satisfied the State ginseng management and control programs assure that the roots to be harvested will be legally obtained and certified. States approved by the MA are: Arkansas, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Minnesota, Missouri, North Carolina, Tennessee, Virginia, West Virginia, and Wisconsin.

Effective October 1, 1979, State certification of artificially propagated ginseng will also be a condition of the CITES export document. This means that any artificially propagated ginseng leaving a State must be certified by weight, just as wild ginseng is certified.

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established and are not specifically provided for in the proposed rules.

The regulations do provide that certain areas may be excluded from Critical Habitat determinations if the benefits of doing so outweigh the benefits of including such areas. They further provide, however, that no exclusion would be allowed if, as a result, extinction of a species would occur.

Petition and Review Requirements

Examples of evidence required to petition the Service to review the status of species for protection under the Act are clearly enumerated in the proposed rules. The Service's responsibilities for acknowledging petitions and conducting reviews are spelled out. Procedures for notification of Federal, State, and local governments regarding listing activities plus time allotments for comment periods, are specified. Additionally, the regulations propose a review, once every five years, to determine whether any species should be reclassified or removed from the list.

Emergency Rules

When significant immediate risks to the well-being of an animal species develop, procedural requirements for listing may be waived temporarily. Publication of an emergency listing in the *Federal Register* can immediately place a species under the Act's protection. Such a listing, however, would expire after 120 days unless ordinary procedural requirements had been complied with during that period.

New Format for Official List

The official U.S. List, published annually in the *Federal Register,* contains all the animals and plants protected under the Act. Several changes in the format of the list are proposed: Both lists (animals and plants) will include a column describing "Historic Range" (for information purposes only) as well as a column indicating the "Population where Endangered or Threatened." (A column entitiled "Known Distribution," currently used in the lists, will be eliminated.) A new column will indicate whether or not Critical Habitat has been determined for the species. The plant portion of the list will give "Historic Range," but will not specify "Populations," since individual plant populations cannot be listed under the Act.

The complete text of the proposed regulations are found on pages 47862–47868 of the August 15, 1979, *Federal Register.* (Comments were invited through October 15, 1979).

Rulemaking Actions

August 1979

TWO ZEBRAS LISTED AS THREATENED

In a final rulemaking, the Service has given Threatened status to both Grevy's zebra *(Equus grevyi)* and Hartmann's mountain zebra (*Equus zebra hartmannae)* (F.R. 8/21/79). These species were proposed for Endangered status (F.R. 12/23/77). However, data received during the comment period indicated that neither animal is in immediate danger of extinction, although each does face serious threats to its long-term survival. The rulemaking will increase the protection already provided for these species by the Convention on International Trade in Endangered Species of Wild Fauna and Flora by requiring permits for importation and other activities involving the species or their parts or products.

Grevy's zebra, the largest of the zebras, occurs in northern Kenya, and has apparently been extirpated from southern Ethiopia and Somalia where it formerly occurred. At the time this species was proposed as Endangered, it was thought that less than 1,500 individuals existed. However, a survey conducted by the Kenya Rangeland Ecological Monitoring Unit turned up close to 14,000 individuals. This new and more accurate data combined with Kenya's conservation efforts on behalf of the species (such as a ban on hunting since May 1977) has led to the determination that a Threatened listing is more appropriate. In spite of these larger figures, the species is still in need of protection, according to the Kenya Minister for Tourism and Wildlife. He said that in the Samburu District, a key portion of the Grevy's range, the species had declined from 7,000 in 1976 to 2,500 in 1977.

Hartmann's mountain zebra occurs, in part, on large tracts of privately owned ranches in Southwest Africa/Namibia. The Service believes that controlled sport hunting of this species on Southwest African/Namibian ranches has aided the species' conservation. According to the Southwest African/Namibian Government, ranchers would destroy these zebras on sight were it not for their economic value. Currently, ranchers have been supplementing their incomes by allowing sportsmen to hunt zebras on their property. These hunts are strictly controlled by the Southwest African/Namibian Government, which will only issue a permit for such hunts if a rancher can demonstrate that excessive populations are damaging his property. Although the Hartmann's population has remained stable for the past decade, the current numbers (7,000 individuals) are quite small considering the population once numbered between 50,000 and 75,000.

Because both of these species are foreign, Critical Habitat is not proposed.

CRITICAL HABITAT REPROPOSED FOR VIRGINIA BIG-EARED BAT

The Service has reproposed the Critical Habitat for the Virginia big-eared bat *(Plecotus townsendii virginianus)* to meet the requirements of the Endangered Species Act Amendments of 1978 (F.R. 8/30/79). A proposal for Endangered status with Critical Habitat was made for the species on December 2, 1977, but the Critical Habitat portion was subsequently withdrawn on March 6, 1979, because of the procedural and substantive changes in making such a designation brought about by the amendments. (See October 1978 BULLETIN for a discussion on the amendments.)

Several caves in Pendleton and Tucker Counties in West Virginia would be affected by the proposal. The big-eared bat is dependent on a few specific kinds of caves for hibernation

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PEREGRINE FALCON, HUMPBACK CHUB RECOVERY PLANS APPROVED

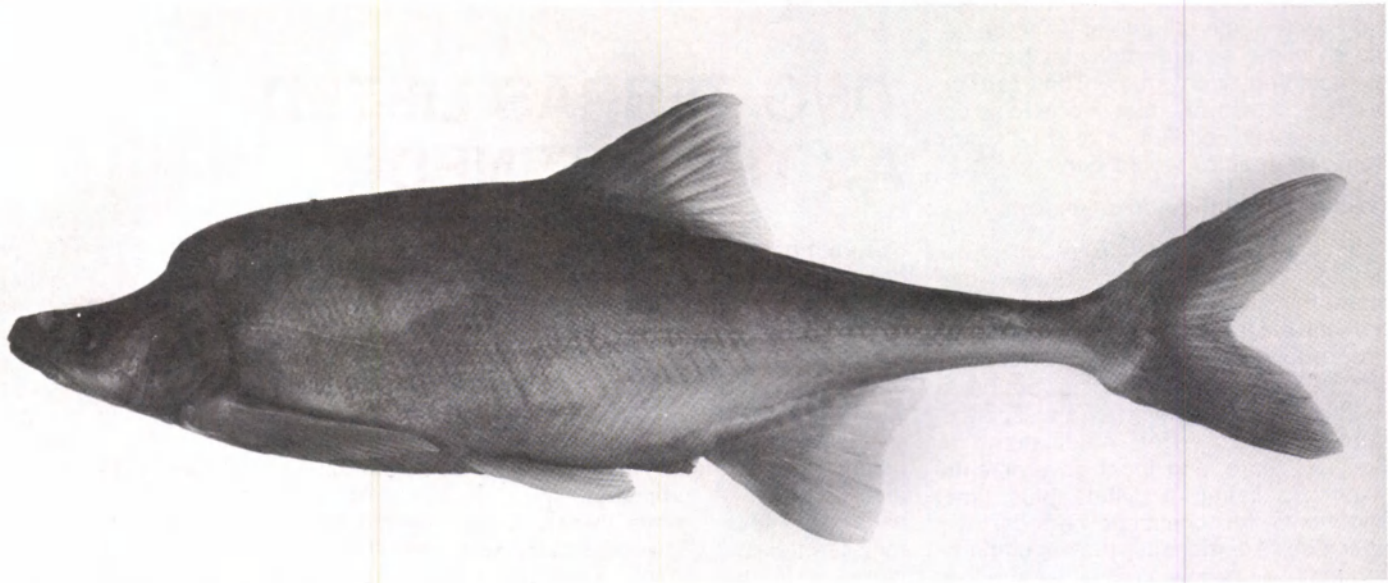

Photo by J. Suttkus

Its distinctive features—prominent hump, flattened head, long fleshy snout, and small eye—combine to enable the humpback chub to survive in the Colorado River.

The Service recently approved recovery plans for the Eastern population of peregrine falcon *(Faico peregrinus)* and the humpback chub, *(Gila cypha)* one of the last large fish species to be discovered in North America.

Restoring the peregrine falcon to the Eastern United States, where the species has been extirpated as a breeding bird since the 1950's, is the objective of one of the four recovery plans being prepared for this widespread species. (The plan for the Rocky Mountain/Southwest population of peregrine falcons was approved in August 1977.) The specific goal of the plan is to restore an estimated 350 pairs, or 50 percent of the numbers that ocurred in the East in the 1940's. To achieve this goal, the plan recommends a recovery program based on preserving and providing nesting habitat, introducing captive-produced birds to the wild, preserving migration and wintering habitat, and providing protection for the birds.

An inventory of peregrine nest sites has indicated historic and potential sites in the southern Appalachians, the Susquehanna River Valley, Finger Lakes, Hudson River Valley, Catskill and Adirondack Mountains, Green Mountains, Connecticut River basin, White Mountains, and the upper Mississippi River in Minnesota and Wisconsin. The recovery team has recommended locations which it considers to be suitable for falcon "occupancy" and for "occupancy and release" of captive-raised birds. Management plans would be developed for individual sites with initial priority for those found suitable for "occupancy and release."

The primary facility for captive breeding of peregrines in the East is at Cornell University. This facility will have approximately 30 egg laying falcons by 1980. With a maximum of 30 breeding females, each producing two clutches, the yield should total 240 eggs per year. Allowing for predictable infertility, hatching losses, and for some birds to be held in captivity, the Cornell facility should produce 100–150 peregrines per year.

In June of this year, a peregrine release project was launched from the roof of the Interior Building in Washington, D.C. (See box). This release project, and others like it, have become necessary to reverse the damage to the peregrine caused by DDT contamination. DDE, a metabolite of DDT, causes eggshell thinning resulting in eggs breaking during normal incubation. Eggshell thinning substantially lowered the breeding success of the peregrine and led to its demise in the East.

Humpback Chub

The humpback chub occurs in the Colorado River basin. Its existence was not known until the 1940's because of its restriction to canyon areas that were inaccessible to early researchers. Because of man-made alterations that occurred on the Colorado River before the 1940's, it is possible that populations of the species were lost even before its existence was known. Impoundments and cold tailwaters created by the operation of Flaming Gorge and Glen Canyon Dams, and perhaps Hoover Dam, are the major reasons for the humpback chub's decline. Other possible reasons are predation and hybridization.

To assist this species, the recovery plan has outlined steps to achieve the goal of establishing and maintaining a minimum of five self-sustaining humpback chub populations in the Colorado River system by 1990. The plan calls for identification of essential habitat and limiting factors. According to the plan, for the recovery program to work some populations and habitats will have to be stabilized while others will have to be increased.

All existing populations must be located. There are currently four known populations, but others may exist in inaccessible locations. If necessary, the plan suggests restoring humpback chub populations through transplants. These should occur in habitats where natural reproduction is possible. The plan recommends that reintroductions be made in areas which are geographically isolated from existing populations to avoid destruction of several humpback chub populations by a single natural or man-made biological disaster.

GPO 311-311