



ENDANGERED SPECIES TECHNICAL BULLETIN

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

Berne Meeting

Grizzly Critical Habitat Proposed

In a major step to protect remaining U.S. populations of the grizzly bear, 13 million acres of land in Montana, Wyoming, Idaho, and Washington have been proposed as Critical Habitat (F.R. 11/5/76). Five public hearings were held in December in Cody, Wyoming; Missoula and Kalispell, Montana; St. Anthony, Idaho; and Washington, D.C. These hearings provided a forum for public comments on the proposal.

The rulemaking represented the Service's preliminary judgment about which areas may be critical for the survival of the grizzly bear.

The rulemaking identifies four separate areas for consideration as Critical Habitat. These are the Bob Marshall Ecosystem in northern Montana, including Glacier National Park, the Bob Marshall Wilderness Area, and portions of the Flathead, Lewis and Clark, Helena, and Lolo national forests, and the Blackfeet and Flathead Indian reservations; the Yellowstone Ecosystem in Wyoming, Montana, and Idaho, including Yellowstone National Park and adjacent portions of Grand Teton National Park and the Custer, Shoshone, Teton, Beaverhead, and Gallatin national forests; the Cabinet Mountains of Montana and Idaho, including parts of the Kootanai, Kanku, and Lolo national forests; and part of the Kaniksu National Forest in Idaho and Washington. These areas together contain most, if not all, of the 600-1,200 grizzlies surviving in the lower 48 States.

A decision about how much of the proposed area should be included in a final rulemaking will not be made until the official comment period ends February 9 and all of the written and oral comments have been carefully reviewed. The Service also is participating in two major research efforts which should augment present knowledge of the grizzly's habitat needs and assist all Federal and State agencies in making decisions about grizzly management in the future (see accompanying article).

U.S. To Put International Treaty Into Effect In February; Listings Increase

The international treaty regulating commerce in Endangered wildlife is to be implemented by the United States in February.

The U.S. decision to move ahead with enforcement of the treaty followed the meeting of treaty nations in Berne, Switzerland, on November 2-6, 1976.

Final interim regulations governing the import and export of species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora were to be published by the Fish and Wildlife Service's Federal

Wildlife Permit Office (WPO) in February.

The regulations will take effect upon publication. WPO expects to issue its first Convention permits shortly thereafter (see box).

How to bring about rapid and effective implementation of the treaty (which was negotiated in 1973) was one of the major purposes of the Berne meeting. Implementation has already begun in some countries, with most of the others being expected to follow suit in 1977.

Decisions at BERNE

Participating nations at the conference also agreed to give protection to a number of additional species of wildlife by listing them in Appendix I of the Convention (species in danger of extinction that are prohibited in commercial trade and severely restricted for other purposes). These additions include sea turtles, rhinoceroses, and primates.

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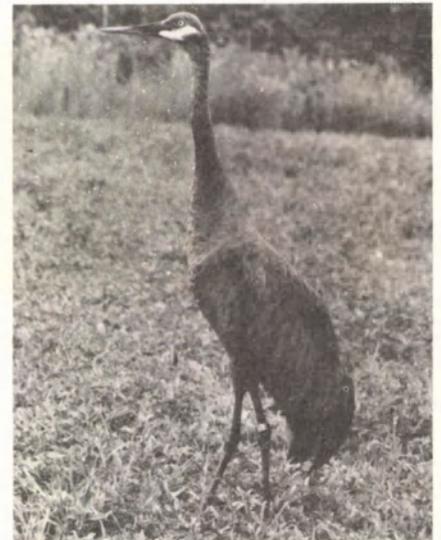
Convention Permits

In a recent statement, Richard Parsons, Chief of the Federal Wildlife Permit Office (U.S. management authority for the Convention) said that his office expects to begin issuance of the first Convention permits in February, as soon as final Convention regulations have been published and take effect.

Parsons went on to say that the procedure for applying for permits will be the same as for present Endangered Species Act permits, except that Convention permit applications will not be published in the *Federal Register* unless the species is also covered by the act. In that case, the requirements of both measures must be met in the application for and granting of permits.

He also added a word of caution: Although the lists of species covered by the act and the Convention are similar in some respects, they are not identical. Therefore, both lists must be checked to determine if either or both apply.

For the convenience of the public, Parsons expects to prepare a combined list of species covered by both measures soon after the final Convention regulations are published.



U.S. Fish and Wildlife Service Photo

Mississippi sandhill crane wins suit.
See story page 7.

Of the 33 nations that so far have ratified the Convention, 24 sent representatives to the meeting. In addition, 13 other nations had observers present, as did 12 international scientific, conservation, and economic organizations.

Many of the administrative and procedural decisions made at the meeting, in addition to changes in listed species, may have a significant effect upon U.S. interests. Moreover, they will aid law enforcement and provide increased monitoring of commerce in wildlife.

Changes in Listed Species

Major actions taken at the Berne meeting included the following:

- Addition of all sea turtles, except Australian populations, to the strictly regulated Appendix I. Previously, only the Atlantic hawksbill (*Eretmochelys imbricata imbricata*) and the Mexican ridley (*Lepidochelys kempii*) were in this appendix. This action adds the Pacific hawksbill (*Eretmochelys imbricata bis-sa*), green turtle (*Chelonia mydas*), loggerhead (*Caretta caretta*), Pacific ridley (*Lepidochelys olivacea*), and leatherback (*Dermochelys coriacea*). These additions, prompted by strong statements by the International Union for the Conservation of Nature and Natural Resources (IUCN), the United Nations Environmental Programme



U.S. Fish and Wildlife Service Photo by Patrick Hagan

Loggerhead added to Appendix 1 of Convention

(UNEP), and various African and European nations, closes the door to all trade in sea turtle meat, skins, shells, and manufactured products, unless it can be documented that the product came from green sea turtles (*Chelonia mydas*) or flat back turtles (*Chelonia depressa*) originating in Australian waters or in captive mariculture.

- Addition of the black rhinoceros (*Diceros bicornis*) and southern white rhinoceros (*Ceratotherium s. simum*) to Appendix I (other rhinos were already listed in this appendix). Strongly supported by all African nations present at

the conference, this action will eliminate commercial trade in these animals, including importation of hunting trophies.

- Addition to Appendix I of five species of South American monkeys of the marmoset family (*Saguinis oedipus*, *S. leucopus*, *S. bicolor*, *Callithrix flaviceps*, and *C. aurita*) and the chimpanzees (*Pan spp.*). The United States also will conduct a further review to determine whether other members of the highly vulnerable marmoset family are in need of Appendix I protection.

- Addition of all other primates of the world to Appendix II of the Convention (except those already in Appendix I). This appendix, less restrictive than Appendix I, requires an export permit certifying that trade is legal and not detrimental to a species' survival. (Commercial trade is not automatically prohibited as it is in Appendix I.)

- Addition of the African elephant (*Loxodonta africana*) to Appendix II. This action was taken under a special provision of Appendix II (comparable to the "look-alike" provision of the Endangered Species Act of 1973), which states that species should be added to Appendix II if this will aid in controlling products from Endangered species. In this case, it is almost impossible to distinguish between ivory from the Endangered Asian elephant and the not-yet-Endangered, but declining, African species. The export permits required for African elephant ivory will help eliminate illegal Asian elephant ivory from the marketplace, and provide close monitoring of the African elephant trade.

- Addition of all timber wolves (*Canis lupus*), fur seals (*Arctocephalus spp.*), and wildcats (*Felidae spp.*) to Appendix II. This action was taken to help other nations control trade in wolves or wolf pelts from various Endangered Old World subspecies, although it was noted that Alaskan and Canadian wolves are not now considered Endangered or

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

Lynn A. Greenwalt, *Director*
(202-343-4717)

Keith M. Schreiner,
*Associate Director and Endangered
Species Program Manager*
(343-4646)

Harold J. O'Connor,
*Endangered Species Category
Coordinator*
(343-4646)

Clifford E. Ruhr, *Endangered Species
Program Coordinator* (343-7814)
Richard Parsons, *Chief, Federal
Wildlife Permit Office* (634-1496)

Editor, TECHNICAL BULLETIN:
Marshall P. Jones
Office of Endangered Species
U.S. Fish and Wildlife Service
(343-7814)

Regional Offices

Region 1, P.O. Box 3737, Portland OR 97208 (503-234-3361): R. Kahler Martinson, *Regional Director*; Edward B. Chamberlain, *Asst. Regional Director*; Philip A. Lehenbauer, *Endangered Species Specialist*.

Region 2, P.O. Box 1306, Albuquerque, NM 87103 (505-766-2321): W. O. Nelson, *Regional Director*; Robert F. Stephen, *Asst. Regional Director*; Jack B. Woody, *Endangered Species Specialist*.

Region 3, Federal Bldg. Fort Snelling, Twin Cities, MN 55111 (612-725-3500); Jack Hemphill, *Regional Director*; Delbert H. Rasmussen, *Asst. Regional Director*; James M. Engel, *Endangered Species Specialist*.

Region 4, 17 Executive Park Drive, NE, Atlanta, GA 30323 (404-526-4671); Kenneth E. Black, *Regional Director*; Harold W. Benson, *Asst. Regional Director*; Alex B. Montgomery, *Endangered Species Specialist*.

Region 5, McCormack P.O. and Courthouse, Boston MA 01209 (617-223-2961); Howard Larsen, *Regional Director*; James Shaw, *Asst. Regional Director*; Paul Nickerson, *Endangered Species Specialist*.

Region 6, P.O. Box 25486, Denver Federal Center, Denver CO 80225 (303-234-2209); Harvey Willoughby, *Regional Director*; Charles E. Lane, *Asst. Regional Director*; John R. Davis, *Endangered Species Specialist*.

Alaska Area, 813 D Street, Anchorage, AK 99501 (907-265-4864); Gordon W. Watson, *Area Director*; Henry A. Hansen, *Endangered Species Specialist*.

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GRIZZLY MANAGEMENT: Can Stable Populations Be Maintained in U.S.?

A solitary, often nomadic creature, the grizzly bear is an elusive prowler of forest and rocky ravine. For all of its great size, it is often difficult to detect on foot or from the air. From a distance, grizzlies look remarkably alike, making accurate counts very difficult.

Reflecting that difficulty, it is presently estimated that anywhere from 600 to 1,200 grizzlies roam the 20,000 square miles of wild country in Montana, Wyoming, Idaho, and Washington recently proposed as Critical Habitat. Whatever the exact total, so few bears spread over such a vast mountainous terrain pose complex management problems in trying to preserve the bears.

While the basic biology of the grizzly is known, many questions remain unresolved as to the type and amount of human activities the bear population can tolerate. The absence of accurate data has led to disagreements in the past among Federal and State agencies on the best methods for insuring the bears' long-term survival.

Research Projects

To help resolve the controversies and improve the data base, these agencies are cooperating in two major research efforts in the ecosystems supporting significant grizzly populations. The Yellowstone Interagency Grizzly Bear Study Team, a follow-on to the pioneering work of Drs. John and Frank Craighead, is composed of biologists from the National Park Service, Forest Service, Fish and Wildlife Service, and the States of Wyoming, Idaho, and Montana.

The team is trying to determine population status, habitat use patterns, and the effects of land development and other human pressures on the bear throughout the Yellowstone Ecosystem.

To the north, a second team has been formed by the same agencies, plus four Canadian provincial and federal agencies, four private conservation groups, and an Indian tribal council to conduct the Border Grizzly Project. This study, headed by Dr. Charles Jonkel of the University of Montana, is even more ambitious in that it covers a much larger area of northwestern Montana and adjacent states and provinces.

The goal of the study is to determine the status of grizzly bears in the area and other data which can provide management guidelines.

Both of the ecosystems under study are subject to increasing pressures of recreational, mineral, oil, and gas development. One of the present issues, for which research may provide some answers, is to what extent these human activities will affect bear populations, and what safeguards should be instituted.

Life History

From what is known, grizzlies are highly adaptable. This is evident in the size and variety of their former range, which once included all of the Western States and northern Mexico, as well as western Canada and Alaska. But because of their unpredictable temperament and inclination to become pests around human habitations, they cannot coexist with man. However, there are some activities which do not require large concentrations of humans, such as lumbering, that bears may adapt to.

One of the major management problems of the grizzly is that it does require large tracts of undisturbed range simply to find the food to support its giant bulk. Some bears have been known to weigh up to 1,200 pounds, but the average male is 400-to-600 pounds and females weigh somewhat less. They also need a relative amount of isolation at key times in their life cycle.

At birth, grizzlies weigh around one pound and are about 10 inches long. The common litter size is two cubs, but it can range from one to four. Born during

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National Park Service Photo

Ursus Arctos

Grizzly bears (*Ursus arctos*) come in different sizes and colors, but they can usually be identified by the prominent hump on their shoulders formed by muscles of their massive forelegs.

Other distinguishing features are a slightly dished face, extremely long claws, and large upper rear molars. Fur color varies from nearly white or ivory yellow to black. Commonly, grizzlies have light or grizzled fur on the head and shoulders, a dark body, and even darker legs and feet.

How big grizzlies grow is a matter of conjecture. Reports of grizzlies weighing 1,200-to-1,500 pounds or even more were common in older literature, but few of the authors making such reports actually weighed the bears. Twelve hundred pounds is probably close to the maximum, with 400-600 pounds the average for adult males; females are usually 25 percent lighter. There appear to be variations in size between different bear populations, further complicating the issue.

The grizzly was first described in the Lewis and Clark journals of 1805. For many years after that, American scientists debated about how many different species were involved in the grizzly-brown bear complex, and their relationship to Old World brown bears. The wide distribution of the species, combined with a perplexing amount of variation, prompted C. H. Merriam to recognize 86 different species and subspecies originally inhabiting North America.

However, more recent work by Robert Rausch of Alaska has led to a more reasonable classification identifying all of the world's brown bears as a single cosmopolitan species, *Ursus arctos*. Rausch's classification includes only two distinct North American races, *Ursus arctos horribilis* of most of North America, and *Ursus arctos middendorffi* (the Kodiak bear) of Kodiak and adjacent islands of Alaska. The dispute is not yet completely settled, for many scientists also recognize the relict Mexican population as *Ursus arctos nelsoni*. Also, the barren ground grizzly of the Alaskan and Canadian tundra may be distinct.

E. Raymond Hall of the University of Kansas is now undertaking a new, comprehensive effort to sort out the relationships of North American brown bears.

Grizzly (continued from page 3)

January-February in a winter den, the young rapidly gain weight and usually leave the den in the spring at about 10 pounds. They continue their rapid growth during the summer and, by the time they enter the winter den with their mother in October or November, they approach 100 pounds. Generally they remain with their mother through their second summer; siblings usually hibernate together, but separately from their mother, during their second winter.

Bears mate at most every other year in June or July, starting when they are three or four years old or older. Studies so far indicate a grizzly may live in the wild up to 25 years, which would allow females a maximum of about 10 breeding seasons; the average is probably considerably less.

After breeding, the bears become less active and fatten up on abundant summer foods, enabling them to survive the winter in their dens with no food. Grizzlies are not true hibernators. They become lethargic, sleeping much of the time, but their respiration rate and body temperature drop only slightly below normal. They can easily be routed from their dens; some actually remain active throughout the winter.

While denning, the grizzly's digestive system is inactive. As a result, the bear will lose tape worms and other intestinal parasites picked up during the summer.

Food Habits

The grizzly is omnivorous. In the spring, the bear eats early plants and digs for roots. It will feed on winter-killed game and prey upon young elk, moose, and deer.

In the summer, the main staple is a variety of leafy forest plants and berries. Grizzlies occasionally kill full-grown deer, moose, and other forest animals, when they can catch them. They will go to great lengths to dig ground squirrels and marmots from their burrows; in Alaska they are avid salmon fishers during the spawning season.

They also can become addicted to garbage dumps, and some turn into predators on cattle and other livestock. Such predation is relatively infrequent. When a bear develops the garbage or livestock habit, live capture and removal, or in the extreme case, killing the bear, are the only solutions.

Bear-Man Relations

In the wild, grizzlies tend to steer clear of man. Some authorities claim a grizzly will not attack a man unless provoked to defend itself or its young. An exception appears to be some bears in national parks. One theory explaining periodic grizzly attacks on campers in parks, which have resulted in maulings and fatalities, is that these bears may have been garbage feeders and, protected from hunting, have lost their fear of man. The occasional attacks have persisted despite the closing of garbage pits in 1971. Arguments for permitting grizzly hunting have been based, in part, on the idea that it will make the powerful animals fearful of man and make them keep their distance.

Hunting of grizzlies for sport in Idaho has been prohibited since 1947 because so few bears remain. Montana stopped it within the Yellowstone Ecosystem outside Yellowstone National Park in 1974, and Wyoming prohibited it in 1975, again because of the small grizzly population.

At present, the only sport hunting is in the Bob Marshall Ecosystem outside Glacier National Park, an area believed to contain about 600 grizzlies, and the kill is restricted.

Under Fish and Wildlife Service regulations, Montana has established an annual quota of 25 grizzlies, which can be killed for any reason in the area. A hunting season is allowed for a number of bears that is set by subtracting from the 25 limit those already taken as livestock predators or as a threat to human life, together with those that have died in accidents.

Future Management Issues

Biologists see a number of compatibility problems if grizzly habitat becomes more accessible to leisure and other pursuits. Campers and other recreational users, for example, may have to be trained in bear avoidance techniques, or perhaps denied entry to some areas during certain seasons. (Parts of Yellowstone National Park already are being closed at certain times of the year.)

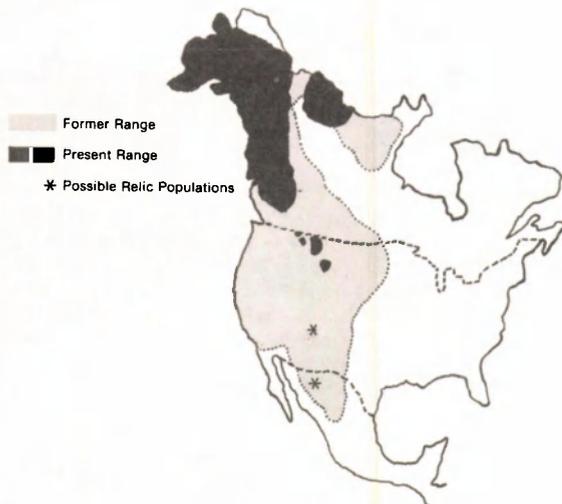
The harvesting of timber within grizzly habitat needs to be examined to avoid adverse effects. It may be possible to institute practices which improve the habitat, such as leaving stands of whitebark pine as a grizzly food source. Reforestation could help reduce the bears' visibility and exposure to man.

Research needs to be conducted into the grizzly's tolerance for oil and mineral development. As with logging, seasonal adjustments may be indicated as to when particular areas can be explored, and the amount of land disturbance which should be allowed.

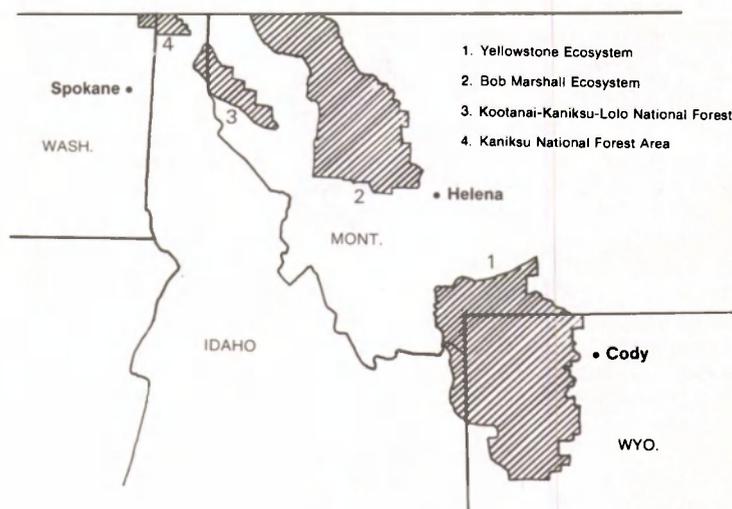
Roads built for logging and mineral

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Grizzly Bear Habitat



IN 100 YEARS, the grizzly bear has been all but eliminated from the lower 48 states. But substantial populations remain in Western Canada and Alaska.



A CLOSER VIEW of the four areas proposed as grizzly bear Critical Habitat. These ecosystems contain an estimated 600-1,200 grizzlies in an area totaling 20,000 square miles.

Colorado Transplanting River Otters; ES Program Expands

The river otter (*Lutra canadensis*) is returning to Colorado after a 75-year absence—thanks to a Colorado Division of Wildlife transplant project.

This is just one of approximately twenty projects that make up Colorado's program for Endangered and Threatened species. With a \$140,000 annual budget and a staff of five full-time biologists, this endeavor ranks as one of the most active State programs in the country.

The Division of Wildlife's Nongame Section, supervised by John Torres, is in charge of the program. The Nongame Section also has responsibility for the Federally listed Endangered species projects being funded by a \$100,000 Endangered Species Program grant awarded to the State.

The River Otter Project

In August 1976, six otters imported from Newfoundland—three adults and three juveniles—were released along the Gunnison River. In addition, three juvenile otters obtained from a fish hatchery in Oregon were transplanted to Chessman Lake in the upper part of the South Platte river basin.

Steven Bissell, a mammal specialist in the Nongame Section, says he hopes to import 250 river otters over the next four years and reestablish a viable otter population. The otter was extirpated in Colorado around the turn of the century, and currently it is listed as Endangered by the State.

At present the river otter program receives the bulk of its money from general revenue funds.

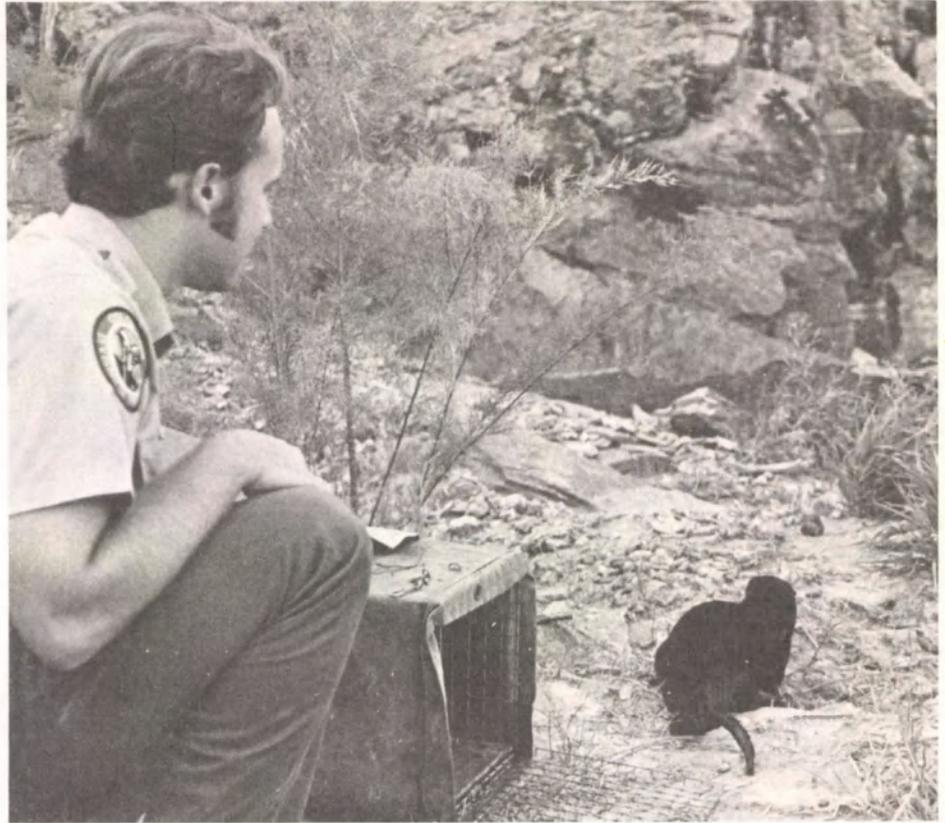
It is also being supported in part by the sale of 25-cent stickers to the public in cooperation with the Seven-Eleven Corporation (more than \$4,000 was raised in a few months during 1976). The program also raises funds through the sale of a \$5 conservation stamp.

An attempt is being made to enlarge the program by getting the State to place a check-off blank on state income tax returns so that citizens can designate \$1 to go toward nongame funding.

Other Mammal Projects

Biologists currently are setting up a statewide survey of nongame mammals. Areas on the west and east slopes of the Rockies already have been selected for studying small animals.

Special photographic and other sensing equipment is being acquired to study four substantial prairie dog colonies on the east slope to assist the search for the rarely seen blackfooted ferret (*Mustela nigripes*). Bissell says there have been some recent sightings of this Federally listed Endangered species by competent observers, but they have not been authenticated. Aerial photos are being used to assist in mapping the reported sightings.



Colorado Division of Wildlife Photo

A female river otter heads for the Gunnison River

Two verified observations of the lynx (*Lynx canadensis*), a State-listed Endangered species, have been made near Vail in central Colorado. Sparse populations of wolverine (*Gulo gulo*), another State-listed Endangered species, are believed to exist in the mountains along the Continental Divide. Reports of such observations, while not confirmed, are being recorded and mapped.

A survey of the San Juan Mountains in southern Colorado in 1970-72 failed to reveal the presence of the grizzly bear (*Ursus arctos horribilis*), but there are occasional unconfirmed sightings, Bissell says. There have also been increased reports of the gray wolf (*Canis lupus*), but again no verified sightings.

Birds: Mapping All Species

Distributional data have been compiled in a latilong mapping system for 112 species of birds. The project is now being expanded to cover all birds in Colorado, and will show their distribution, habitat, and relative abundance at various seasons.

One major bird project is enhancement of the white pelican (*Pelecanus erythrorhynchos*), a State-listed Threatened species. Efforts are underway to preserve a small island in Riverside Reservoir, near Greeley, where there is a colony of 200 breeding birds. The island has been badly damaged by erosion.

Another island has been constructed in a nearby reservoir, and large juvenile

pelicans have been transplanted there in an attempt to establish a new breeding population.

The State is concerned about the status of the greater prairie chicken (*Tympanuchus cupido*) and the prairie sharp-tailed grouse (*Pediacetes phasianellus jamesii*), which are both listed as Endangered in Colorado. There are less than 2,000 greater prairie chickens and only about 200 of the grouse. The chickens are being censused annually, and the State program hopes to acquire land to preserve their habitat.

The lesser prairie chicken (*T. pallidicinctus*), listed as Threatened by the State, is in better shape because its range lies on the Comanche National Grassland, which is under the jurisdiction of the U.S. Forest Service.

Three Federally listed Endangered species—the American peregrine falcon (*Falco peregrinus anatum*), the Arctic peregrine falcon (*F.p. tundris*), and the whooping crane (*Crus americana*)—are found in the State and are part of the Colorado program.

Fish Recovery Plans

An inventory under the direction of David Langlois has been made of potential backwater nursery areas for the Colorado River squawfish (*Ptychocheilus lucius*) and humpback chub (*Gila cypha*), both Federally listed as

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Colorado (continued from page 5)

Endangered. The State also has completed habitat and population monitoring projects in the Gunnison, Colorado, and Yampa rivers, as part of the recovery plan for these two species.

Colorado has submitted a revised recovery plan on the greenback cutthroat trout (*Salmo clarki stomias*) to the Fish and Wildlife Service and is preparing to request that the species be reclassified from Endangered to Threatened status. State officials say the trout has a "good potential" for recovery and restoration as a game fish. Part of the Federal Endangered Species grant money is earmarked for more population inventories to track how the trout is progressing.

Community Projects

Because the Colorado program is dependent upon the public for support, it is making efforts to establish projects in urban areas that will benefit the public. Currently, consideration is being given to managing a 7.5-acre site in the Denver suburbs as a waterfowl viewing area. The person who maintained the site as a private refuge has donated it to the State. Steps also have been taken to establish an urban wildlife interpretive center in the Denver area.

The Colorado program is distributing a publication, *Cities & Birds*, by Non-game Section bird specialist Walter D. Graul to help city dwellers enjoy birds that visit their neighborhoods and to instruct them on how to cope with problems that may arise with woodpeckers, blackbirds, and other species.

Treaty (continued from page 2)

Threatened. Similarly, the wildcat addition will assist in conservation of the many smaller cats now in the fur trade. Where implemented, these actions will require export permit documentation for bobcat, lynx, and wolf pelt shipments leaving the United States. (Internal U.S. management practices for these species are *not* under the jurisdiction of the Convention.)

- Deletion of the glacier bear from Appendix I. This bear was determined not to qualify for the list, because it is only a color form of the black bear (*Ursus americanus*).

Other Major Actions

Among the other major actions decided upon at the conference were the following:

- Passage of a resolution urging that trade in wild animals as pets gradually be restricted, with the objective of eventually limiting pets to those species bred in captivity.

- Recognition of the biological significance and vulnerability of island plants and animals; governments were urged to



Colorado Division of Wildlife Photo

Juvenile white pelicans enroute to form new breeding colony.

protect such rare species and their habitats.

- A decision to treat all nations not party to the Convention as if they did belong, and thereby require the same documentation from them as from signatory nations. This will make law enforcement much easier and will help eliminate the problem of smuggling wildlife to "laundry countries" not requiring permits.

- Adoption of a recommendation that inventories be taken of Endangered plant and animal specimens already in museums and herbaria, so as to reduce demand for additional scientific specimens from the wild.

- Adoption of a recommendation that the Convention secretariat, which is provided by the IUCN, be expanded from its current one-man staff. As implementation of the Convention proceeds, Secretariat responsibilities will grow far beyond present capabilities. The signatory nations explore various ways of funding a larger staff over the next six months.

- Adoption of standardized criteria for adding or deleting species from the appendixes. These criteria should ensure that only species deserving trade regulations are included, while at the same time also ensuring that no species will lose such protection unless it has been clearly shown that the species will not suffer harm from the deletion.

Conference Difficulties

Two major problems arose during the conference. First, many key developing countries were absent. However, this problem is expected to be solved as additional nations ratify the Convention and join in its implementation.

A second problem was the lack of time for consideration of all the complex biological, administrative, and legal issues. Consequently, the conference decided that a technical meeting of key administrators and scientists would be desirable in the spring of 1977. A steering committee consisting of the United States, Canada, Ecuador, Ghana, and Switzerland was set up to coordinate this technical meeting and a subsequent full conference of the parties to be held in 1978.

U.S. Representation in Berne

The U.S. delegation was headed by Deputy Assistant Secretary of the Interior Curtis Bohlen and Fish and Wildlife Service Director Lynn Greenwalt. The delegation also included representatives of the Endangered Species Program and Federal Wildlife Permit Office. Also attending were members of the International Association of Fish and Wildlife Agencies, National Oceanic and Atmospheric Administration, Council on Environmental Quality, Department of State, and New York Zoological Society.

Areas in Palm Beach, Broward, and Dade counties; and a portion of Everglades National Park in Dade County.

These areas are being considered for Critical Habitat status because the kite depends upon apple snails (*Pomacea paludosa*) for food, and the snails, in turn, are dependent upon the maintenance of suitable water levels in the marshes. The areas currently have adequate water levels or have the potential for being managed to provide a maximum snail population.

The world's entire population of dusky sparrows lives in two areas of Brevard County that have been proposed for Critical Habitat status. The sparrows appear to be fully adapted to this habitat, which consists of cordgrass (*Spartina bakerii*) savannas that lie about 10-15 feet above sea level.

Comments on both the kite and the sparrow habitat considerations are due by January 31, 1977.

Totoaba

In a move to protect the totoaba, or MacDonald weakfish (*Cynoscion macdonaldi*), from extinction, the National Marine Fisheries Service has proposed it for Endangered status (F.R. 12/30/76). This marine fish has suffered a severe decline in recent years because of heavy overfishing and deterioration of its only spawning grounds (in Mexican waters at the mouth of the Colorado River).

Comments are due by March 1, 1977. They should be addressed to the Director, National Marine Fisheries Service, U.S. Department of Commerce, Washington, D.C. 20230.

Falcon Hearing Denied

The Fish and Wildlife Service has denied a request by the Pacific Gas and Electric Company for a public hearing on the proposed Critical Habitat determination for the American Peregrine falcon (*Falco peregrinus anatum*).

The company requested the hearing solely on the grounds that potentially such a determination could adversely affect several hundred megawatts of geothermal generating capacity.

In denying the request (F.R. 12/22/76), the service pointed out that a Critical Habitat designation only notifies Federal agencies that they are required to ensure that their activities do not adversely affect an Endangered or Threatened species. Moreover, the Service said, questions concerning what types of activity may be detrimental to a species should be considered after—not before—a Critical Habitat determination has been made, because such questions are not a factor in the actual delineation of Critical Habitat.

Jacobsen Named Management Chief

A key position in the Endangered Species Program's Washington office was filled recently when Bob Jacobsen was named chief of its Branch of Management Operations, following the retirement of Curt Hammit.

As branch chief, Jacobsen will supervise four major activities: negotiation of cooperative agreements with the States

and review of grant-in-aid requests; consultation with Federal and other agencies for Section 7 and Critical Habitat responsibilities; appointment of recovery teams and implementation of recovery plans; and land acquisition recommendations.

High Court Acts to Save Sandhill Crane Habitat

In the first test of the 1973 Endangered Species Act to reach the U.S. Supreme Court, the Mississippi sandhill crane (*Grus canadensis pulla*) has emerged the winner.

On November 30, the High Court upheld a Fifth U.S. Circuit Court of Appeals decision that had stopped construction of an interchange and borrow pits on Interstate Highway 10 near the birds' home territory in Jackson County, Miss.

This area contains the last 40 of the nonmigratory birds. The National Wildlife Federation had brought the suit to block construction on grounds that it would create commercial development that would destroy the cranes' habitat and jeopardize their survival.

The appeals court directed the Department of Transportation and the Department of the Interior to work out a joint plan for completing the highway. As of January 1977, no final agreement had been reached by the agencies. However, the Fish and Wildlife Service already has acquired 2,300 acres of habitat, including areas adjacent to the highway right-of-way, as a crane refuge.

Grizzly (continued from page 4)

development may have to be controlled to restrict unauthorized access to good grizzly habitat.

Wildlife managers responsible for grizzly conservation hope the research efforts now underway will greatly enhance the understanding of the bear's needs and ease future decisionmaking. On the other hand, they are aware that there also is a danger in relying on promises of better data in the future, if it leads to a total suspension of conservation efforts. There may be some hard decisions which cannot or should not be postponed.

New Publication Available on Alabama

The Alabama Museum of Natural History has recently published a bulletin entitled *Endangered and Threatened Plants of Alabama*. This 93-page illustrated report contains the results of a 1972 symposium sponsored by the Alabama Game and Fish Division and the University of Alabama. It is available for \$5 from the Alabama Museum of Natural History, P.O. Box 5897, University, Alabama 35486.

BOX SCORE OF SPECIES LISTINGS

| Category | Number of Endangered Species | | | Number of Threatened Species | | |
|--------------------|------------------------------|------------|------------|------------------------------|-----------|-----------|
| | U.S. | Foreign | Total | U.S. | Foreign | Total |
| Mammals | 36 | 227 | 263 | 1 | 17 | 18 |
| Birds | 66 | 144 | 210 | 1 | | 1 |
| Reptiles | 8 | 46 | 54 | 1 | | 1 |
| Amphibians | 4 | 9 | 13 | | | |
| Fishes | 30 | 10 | 40 | 4 | | 4 |
| Snails | | 1 | 1 | | | |
| Clams | 22 | 2 | 24 | | | |
| Crustaceans | | | | | | |
| Insects | 6 | | 6 | 2 | | 2 |
| Plants | | | | | | |
| Total | 172 | 439 | 611 | 9 | 17 | 26 |

Number of species currently proposed: 47 animals
1850 plants (approx.)

Number of Critical Habitats proposed: 10
Number of Critical Habitats listed: 6
Number of Recovery Teams appointed: 57
Number of Recovery Plans approved: 4
Number of Cooperative Agreements signed with States: 15

December 31, 1976

Rulemaking Actions November-December 1976

Final Rulemakings

Yellow-Shouldered Blackbird

The yellow-shouldered blackbird (*Agelaius xanthomus*) has been listed as Endangered and areas of its native Puerto Rico have been designated as Critical Habitat (F.R. 11/19/76).

Once abundant throughout coastal mangroves, the species has gone into decline because of parasitism by the shiny cowbird (*Molothrus bonariensis*), avian diseases, and destruction of its habitat. It now numbers only 2,500.

Areas listed as Critical Habitat include Puerto Rico's southwestern coast from Cabo Rojo to Guanica, a one-mile circle around the town of San German, Roosevelt Roads Naval Station, and Mona Island (off the western coast).

Hawaiian Monk Seal

In order to afford greater protection for the nearly extinct Hawaiian monk seal (*Monachus schauinslandi*), the species has been listed as Endangered in a joint rulemaking by the National Marine Fisheries Service and the Fish and Wildlife Service (F.R. 11/23/76).

The seal has declined because of intrusion on its beach rookeries by people and dogs, which has curtailed breeding, as well as because sharks have decimated weaned seal pups. The species is known to breed only on the islands of the Hawaiian Islands National Wildlife Refuge, which is administered by the Fish and Wildlife Service. Since the area already is a refuge, no Critical Habitat was designated in the final rulemaking. However, all dogs have

been removed from Kure Atoll, one of the breeding grounds, since the listing was proposed in August 1976.

Red Hills Salamander

The Red Hills salamander (*Phaeognathus hubrichti*), which ranges over 60,000 acres of hardwood forest in south-central Alabama, has been listed as Threatened (F.R. 12/3/76). The dark-brown, seven-inch-long amphibian had been proposed for Endangered status on October 1, 1975, because its numbers appeared to be declining as a

result of timber clear-cutting and the over-collecting of specimens for commercial and scientific purposes.

New information assembled in a 1976 study for the Service, however, shows that certain areas inhabited by the salamander—bluffs and steep ravines shaded by tree canopy—are being "marked out" by timber companies, leaving most of the habitat intact. The Service has determined that, while the new data indicate a less severe threat to the salamander than was originally believed, the situation is still serious enough to warrant Threatened status.

Proposed Rulemakings

Palila

Forests of māmane and naio trees around Mauna Kea on the island of Hawaii have been proposed as Critical Habitat for the Endangered palila (*Psittrostra baillieui*), a small bird that is classified within the Hawaiian honeycreeper family (F.R. 12/22/76).

The bird is dependent upon these trees for food, shelter, and nesting sites, and it cannot survive in any other natural environment. At one time, the bird ranged across the slopes of Mauna Kea from the 4,000-foot level to the 10,000-foot level. Now it is confined to a relatively small area above the 7,000-foot mark, as a result of the destruction of much of its habitat by agriculture, feral sheep grazing, and forest clearing.

Comments are due by April 18, 1977.

Florida Everglade Kite Dusky Seaside Sparrow.

Sections of Florida have been proposed for determination as Critical Habitat for the Florida Everglade kite (*Rostrhamus sociabilis plumbeus*) and the dusky seaside sparrow (*Ammospiza maritima nigrescens*) in a Service rulemaking action (F.R. 12/3/76).

Proposed as Critical Habitat for the kite are marshlands in seven counties. These areas include the St. Johns Reservoir in Indian River County; Cloud Lake and Strazzulla reservoirs in St. Lucie County; western portions of Lake Okeechobee in Glades and Hendry counties; Loxahatchee National Wildlife Refuge in Palm Beach County; portions of Central and Southern Florida Flood Control District Water Conservation

(continued on page 7)

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ENDANGERED SPECIES TECHNICAL BULLETIN



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