



ENDANGERED SPECIES TECHNICAL BULLETIN

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

RECOVERY PLANNING

Strategy Prepared for Plymouth Red-bellied Turtle

This is part 1 of a 2-part series on recovery planning. The Service has placed an increased emphasis on recovery and has prepared new guidelines for the development of recovery plans. Part 1, written by Mr. Roger Hogan of the Service's Region 5 office, describes the method of preparation used by the Regional Office in developing the Plymouth Red-Bellied Turtle Recovery Plan.

Part 2 will be a discussion of the new guidelines and the new emphasis placed on recovery in the Endangered Species Program.

In 1869, Mr. Fred Lucas discovered the shell of a strange turtle at a place called Sparrow Hill in Plymouth, Massachusetts, a historic community located near Cape Cod. As it turned out, that shell belonged to a rare animal now known as the Plymouth red-bellied turtle (*Pseudemys* (= *Chrysemys*) *rubriventris bangsi*).

The Plymouth red-bellied turtle is found almost entirely in the Plymouth County, Massachusetts, area. Its designated Critical Habitat of 3,269 acres (F.R. 4/2/80) is near the town of Plymouth in pine barrens habitat, interspersed with small to moderate sized freshwater ponds. Population estimates for the turtle indicate that approximately 200 may exist. Based on evidence that the turtle's range once extended at least 50 miles further north to the Ipswich River in Essex County, Massachusetts, and south to Martha's Vineyard, Dukes County, Massachusetts, it has been con-

cluded that the red-belly was once more widespread in eastern Massachusetts.

The turtle's current Endangered status is due to its low numbers, restricted range, and vulnerability to the more obvious threats of harassment, poaching, shooting, and habitat modification or destruction. In view of this, it was determined that the most realistic initial objective of a recovery plan for the species should be to restore it to a point where it could be classified as Threatened instead of Endangered. Later recovery efforts were planned which ultimately would allow the species to be removed from protection.

Preparing the Recovery Plan

Once these objectives were set, the first step in writing the recovery plan for the Plymouth red-bellied turtle involved

an evaluation of the following questions:

1. What are the greatest threats facing the turtle and its habitat?
2. What do we know about the turtle, and what do we need to know in order to evolve a plan that would eventually have the potential for leading to a change of status (from Endangered to Threatened) for the species?

Consideration of the immediate threats to the turtle became of prime importance because a recovery plan has to deal with problems facing the species in priority order; the highest priority is placed on tasks which would prevent extinction. Therefore, we had to decide what to do in the early phases of the recovery activities to protect the existing turtles while we were learning more about the subtle elements essential to the species' long-term survival.

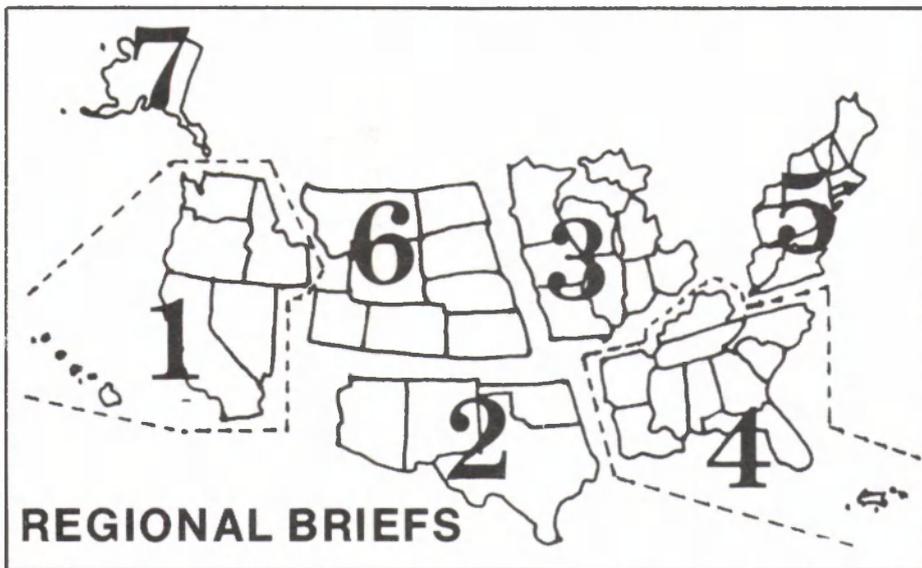
Habitat Protection

One recovery action that could be taken early was to protect an approximately 182-acre portion of the proposed Critical Habitat offered for sale by private landowners. The property, adjacent to Myles Standish State Forest, contained ponds that are largely un-

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The Plymouth red-bellied turtle, a colorful animal with a dark, humped back, is also large, weighing up to 10 or 11 pounds. The plastron (bottom shell) is coral red or pink, accented with gray or black markings near the seams, while the dark green head and neck have yellow stripes. It is noted for its shyness, which makes it difficult to capture in its pond habitat.



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

Region 1. Several hundred Borax Lake chubs (*Gila boraxobius*) were found dead around the fringes of Borax Lake in southeastern Oregon in late

April. This 10-acre hot springs lake is the only habitat of the newly described species. (The Borax Lake chub was listed as Endangered with Critical Habitat in an emergency rule on May 28, 1980. The fish was proposed for permanent protection on October 16, 1980). The cause of the die-off is unknown and

several thousand live fish remain in the lake. Samples of the dead fish were collected and are being analyzed to determine the cause of death.

The State of Oregon has successfully intervened in the only known active peregrine falcon (*Falco peregrinus anatum*) nest in the State. In cooperation with the falcon propagation facility at the University of California at Santa Cruz, two badly dehydrated eggs were removed from the nest and replaced by two chicks from the Santa Cruz facility. A third egg was beyond recovery. The chicks were well received by the adult pair, and the two eggs were placed in an incubator at Santa Cruz. Both eggs hatched in late May.

Region 2. The first captive bonytail chubs (*Gila elegans*) were produced at the Willow Beach National Fish Hatchery; 80,000 young survived. Of these, 30,000 were moved to the Dexter Fish Hatchery where they are reportedly doing well.

The highest number of young bald eagles (*Haliaeetus leucocephalus*) fledged in central Arizona occurred this spring. Eleven young eagles were observed in known eyries.

The highly Endangered Mexican wolf (*Canis lupus baileyi*) bred in captivity for the first time this spring at the Wild Canid Survival and Research Center in St. Louis. The only female in captivity produced a litter of four pups on May 20, 1981. Wildlife biologists were pleased that three of the pups were females. As a precaution, two of the pups were moved to the St. Louis Zoological Park which has special facilities and experienced personnel for hand-rearing the young animals. The other two are being cared for by the mother in an isolated den. It is hoped that these new females, along with the six males in captivity, will form the nucleus of a captive breeding program.

Region 3. The Technical Review Draft of the Northern Wild Monkshood (*Aconitum noveboracense*) Recovery Plan has been completed.

Region 4. The Tennessee Valley Authority (TVA), in coordination with the Service's Asheville Area Office, is currently working with a private firm regarding development of telemetry equipment for mussels. This is possibly the only such equipment ever developed for invertebrates. The device eventually selected will be implanted internally in the cavity between the shell and the mantle of the mussel. The device will hopefully last for several years and allow TVA to monitor the survival of transplanted mussels without hampering the success of the transplant due to disturbance from sampling. TVA's immediate objective is to establish new populations of two mussel species that would otherwise be jeopardized by the completion of the Columbia Dam Project.

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U.S. Fish and Wildlife Regions

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Region 4's publication, *Management Guidelines for the Bald Eagle in the Southeast Region*, has been completed, and preliminary copies have been mailed to selected State and Federal personnel for review and use as needed.

Region 5. The West Virginia report on rare and endangered plants has been submitted, completing a region-wide project. Copies will be available from the Regional Office in the future.

The Appalachian Mountain Club, U.S. Forest Service, and Fish and Wildlife Service have initiated an intensive conservation/education program in the White Mountains of New Hampshire to protect the Endangered Robbins' cinquefoil (*Potentilla robbinsiana*). The program began Memorial Day weekend and will continue through September 15, 1981.

Maine has reported the highest num-

ber of young bald eagles since records have been kept in the State. At least 45 young have been produced in Maine this year.

Based on the successes during a five-year bald eagle hacking program, the New York State Department of Environmental Conservation (DEC) has developed a second five-year plan. Approved by the Fish and Wildlife Service, the plan calls for 21 birds to be released at a single hacking site in 1981, and a total of 129 birds to be hacked through 1985.

During the last five years, 22 eagles were released resulting in two breeding pairs. Project personnel believe it is possible that up to 50 additional nesting pairs can be established during the next decade due to large numbers of released young and their increasing wild progeny.

The eaglets to be used in the project will be transported in mid-July from Alaska, where they are not listed as an Endangered species. The release is expected to occur in mid-August in the DEC's Oak Orchard Wildlife Management Area in Genesee County in western New York.

Region 6. On June 15, approximately 900 greenback cutthroat trout (*Salmo clarki stomias*) will be transferred from the Service's Fish Cultural Development Center, Bozeman, Montana, to Rocky Mountain National Park in Colorado. These are the first hatchery reared greenbacks to be released in the wild. They will be released in two areas within the historic range of the fish.

The Grizzly Bear (*Ursus arctos horribilis*) Recovery Plan has been submitted to the Service's Director for approval.

Recovery Planning

Continued from page 1

touched by development and have the potential to be used for restoration efforts. The property was purchased by the Nature Conservancy to be held until the Service can obtain it as part of the recovery process, as funds become available.

Dr. Terry Graham, who studied the species for the Service, was contacted for his assistance in writing the recovery plan, as was Brad Blodget, Assistant Director of Non-game and Endangered Species for the Massachusetts Division of Fisheries and Wildlife. Both agreed that habitat destruction, shooting, and harassment were problems that required early action, concurrent with gathering data on the species' distribution, life history, and habitat requirements.

Public Information Program

Because of his interactions with the residents of Plymouth County, Dr. Graham was acutely aware of the need for a public information program. This program would inform residents of the presence of the turtle, its sensitivity to harassment, the need for protecting the species and its habitat, and would encourage the reporting of turtle sightings. Residents were extremely helpful to Dr. Graham during his past studies, supplying valuable information on turtle habitats and sightings. Indications of the degree of interest in the turtle shown by some local residents included the appearance of a red-bellied turtle t-shirt and a red-bellied button worn by concerned students from an area school to promote additional protection for the turtle through State action. The public information program then became an important item in the recovery plan due to its potential for multiple benefits.

Additional field surveys to further define existing populations of the Plymouth turtle, and studies to supplement life history and habitat data were listed as tasks in the recovery process. Additional habitat preservation activities included the possible use of land easements to protect important habitat and possible fee acquisition should critical parcels of land become available.

Each activity or task was assigned a priority to allow the most vital to be accomplished early. These tasks and their priorities were then listed in the implementation schedule which is the primary "action portion" of the recovery plan.

Several drafts of the completed recovery plan were circulated to in-

terested parties and to the cooperating agency, the Massachusetts Division of Fisheries and Wildlife, for their biological and agency comments. The plan was modified based on their suggestions and comments and approved by the Service Director on March 26, 1981.

A recovery plan, it should be noted, is not a static document, but will continue to be modified as individual tasks are completed and as new needs become evident. It can only be considered to be a final document, in the true sense of the word, when the objectives of the plan have been reached, and the Plymouth red-bellied turtle and its habitat have been afforded the protection mandated under the Endangered Species Act.



The Plymouth red-bellied turtle feeds primarily on aquatic vegetation and may wander considerable distances over land during the year. Much of the red-belly's habitat requirements and life history remain to be determined.

Photo by Dr. Terry Graham

STATE REPORT:

MICHIGAN'S ENDANGERED SPECIES PROGRAM

Michigan
Department
of Natural
Resources



by Richard Block

Michigan's dynamic and multifaceted endangered species program is founded on a long history of protecting and preserving rare and endangered species. In the 1950's, the State's Department of Natural Resources (DNR) acquired habitat to protect the Kirtland's warbler and the prairie chicken, and passed legislative acts to protect the State's other important nongame species. In 1970, Michigan recognized the importance of protecting those species which were on the Federal lists of Endangered species by passing Public Act 210 (P.A. 210, 1970). The Act did not provide for the management and restoration of Endangered populations, but it did provide for their protection.

In September, 1974, Michigan enacted its "Endangered Species Act" (P.A. 203, 1974), a law designed to complement the Federal Endangered Species Act of 1973 and provide an effective base for a State program.

Michigan Program

The Endangered Species Program, charged with the administration of Michigan's Endangered Species Act, is within the Wildlife Division's "Nongame Unit" in the DNR. Although the program sounds as though it is buried away under a hierarchy of bureaucratic departments, the Michigan program exercises a dynamic approach, reaching all Divisions of the DNR, other State and Federal agencies, and the private sector.

Dr. Sylvia Taylor, the Endangered Species Coordinator, heads the multifaceted State program. Assisted by Mr. John Lerg, Dr. Taylor works with such State Divisions as Waterways, Environmental Enforcement, Land Resource Programs, Law Enforcement, Forest Management, Parks, Water Quality, and Administrative Services which all have incorporated some aspect of the program.

The Land Resource Program's Natural Features Inventory, initiated under Michigan's Wilderness and Natural Areas Act, collects and stores much useful data on endangered and threatened species. The inventory, funded by the DNR and the Nature Conservancy, is

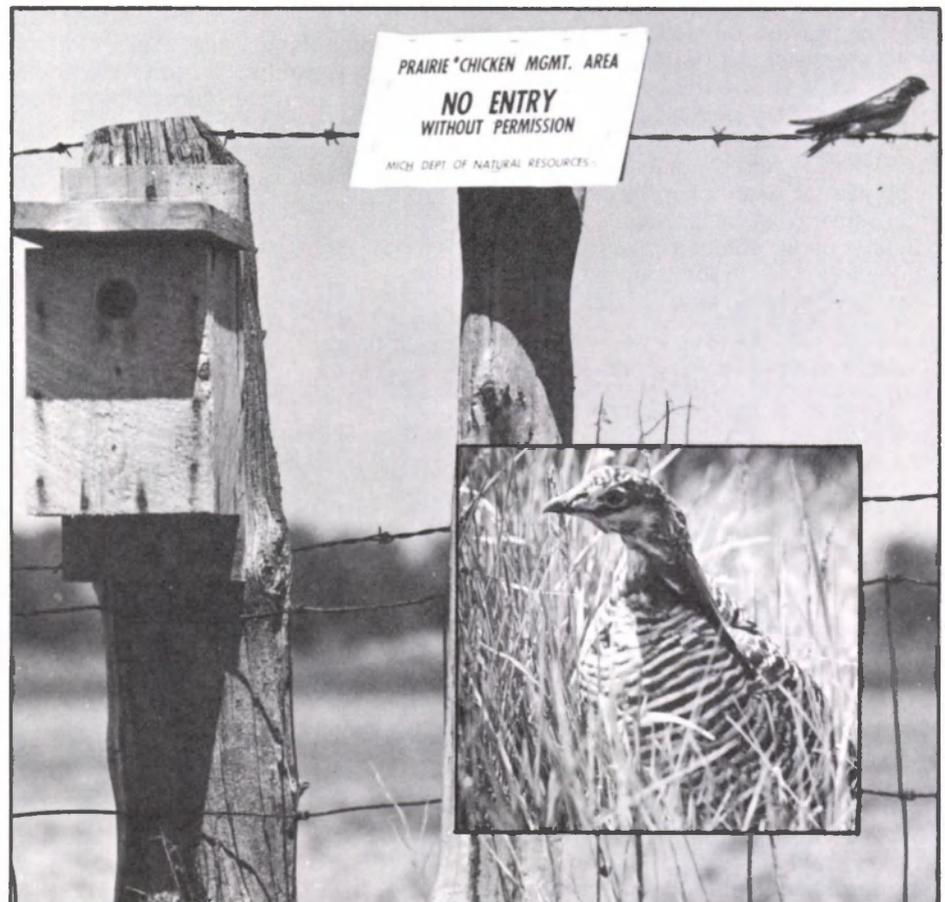
evaluating areas within Michigan for future preservation. Dr. Taylor and Mr. Lerg work closely with the inventory staff in identifying important habitats recorded in the survey.

The first State lists of endangered and threatened species, authorized by the 1974 act, were put together by committees of specialists in the areas of fishes, amphibians and reptiles, invertebrates, birds, mammals, and plants. These technical committees proposed species for possible inclusion on the State lists according to the definitions of the 1974 act. The species proposed were then open to citizen and Departmental comment, before being sent to the Natural Resources Commission. Now, one of the major activities of the program is the biennial review of these State lists.

Crossing State Boundaries

Dr. Taylor and Mr. Lerg must also coordinate activities which extend beyond Michigan. The endangered species staffs in Wisconsin, Minnesota, Illinois, and Ontario, Canada, regularly exchange information and discuss management plans for species whose ranges intersect the western Great Lakes region. Employees of Michigan's DNR serve on the recovery teams for the Kirtland's warbler and eastern timber wolf. The Michigan program is also implementing recommendations from the recovery plans for the bald eagle, Indiana bat, and peregrine falcon.

Federal aid in wildlife restoration projects funded and coordinated through the State Endangered Species Program



Michigan Department of Natural Resources Photo

A State listed species, the greater prairie chicken numbers less than 25 individuals in Michigan. Management efforts on behalf of the greater prairie chicken include restricting public access to habitat to minimize disturbance.

have included both federally listed species and State listed species. The Kirtland's warbler (see BULLETIN, April 1981), bald eagle, eastern timber wolf, Indiana bat, and peregrine falcon have all received funding under the cooperative agreement signed in June 1976 by Michigan and the U.S. Fish and Wildlife Service.

Osprey/Bald Eagle Research

Osprey (*Pandion haliaetus*) research and management has benefited from the annual eagle surveys. Because of the osprey's similar food habits and habitat utilization, osprey surveys have been included with eagle surveys. Bald eagle (*Haliaeetus leucocephalus*) nesting surveys have been conducted annually since 1961, and the osprey survey has been underway since 1965.

In the past year, surveys of both bald eagles and osprey were completed during the spring and summer to determine reproductive success of the birds. A winter survey of bald eagles was also conducted to determine the wintering population within Michigan.

Aircraft, flying 300 to 400 feet above the ground, were used to conduct the nesting survey. Ground checks were made to supplement the aerial survey which had located pairs on active nests. Later in the nesting season, a second aerial survey was conducted to determine the number of young produced in each nest. In all, 83 active nests were identified in Michigan in 1980. Fifty-two pairs of eagles successfully bred and raised a total of 80 young for an average of 0.99 young produced per occupied nest. The 1980 figures are a near perfect match to the encouraging 1979 survey results.

The osprey survey results are equally



Courtesy of Michigan Natural Features Inventory

Iris lacustris (dwarf lake iris) is listed as a threatened species in the State of Michigan. It grows in alkaline gravel or sand exclusively along the northern shores of Lakes Michigan and Huron. The species occurs only in Michigan, Wisconsin, and Ontario, with the majority of its range along Michigan's coastlines. The plants are only 3-4 inches tall when in flower.

as favorable as the eagle survey results. In all, 117 active nests were identified in 1980 with 50 pairs breeding successfully. The successful pairs raised 104 young, a slight decline over the 1979 survey results. As a whole, Michigan's osprey population continues to expand. New pairs continue to appear and occupy new natural nest sites as well as man-made platforms. Annual fluctuations in reproductive success probably result from varying weather conditions.

Timber Wolf Research

Research and survey work on the eastern timber wolf (*Canis lupus*) is carried out on Isle Royale and Michigan's Upper Peninsula. In 1980, the 22nd year of research on the Isle Royale wolves, a record high 50 wolves was reported. During the winter of 1980-81, however, the wolf population fell by 40 percent. This decline came roughly a decade after a major drop in the island's moose population, which had numbered over 1,100 animals. The 1980 census indicated that there were 650 to 700 moose on the island. The dynamics of the predator-prey relationship between the wolves and moose has been the focal point of the years of study and has contributed much to the understanding of the ecology of the wolf. Additional funding for the important research on Isle Royale comes from the National Park Service, the Wildlife Management Institute, the American Petroleum Institute, other foundations, organizations, and individuals.

Peregrine Falcon Survey

Despite timing problems in funding, a historical survey of American peregrine falcon (*Falco peregrinus anatum*) eyries was completed in the Upper Peninsula. Kent Christopher, a graduate student at Michigan Technological University, submitted the work as his Master's thesis (*A Survey of Peregrine Falcon Habitat in Upper Michigan with Emphasis on Reintroduction Potential*). There are records of 20 nestings at 13 different sites (eyries) in Michigan's Upper Peninsula, including an eyrie active in 1971. Historic eyries and potential sites were evaluated as a preliminary survey for possible reintroduction, an activity which would be coordinated through the American Peregrine Falcon Recovery Team (Eastern Population).

Indiana Bat Survey

The Indiana bat (*Myotis sodalis*) received some survey attention even though there were only two historical records of the bats in Michigan. Survey results produced evidence of at least one breeding colony and the collection of a surprising number of individuals

from many southern Michigan counties. These results, combined with an assessment of potential habitat, indicate that habitat for the Indiana bat is not a limiting factor in Michigan. The bats' main problems appear to lie in the wintering caves in more southerly States.

State Listed Species

These long-term research efforts on federally listed species have been going on in Michigan for many years, but several State listed species have also been receiving much attention. Farming practices which changed the nature of the prairies and forest fire control which allowed the expansion of forested areas, have almost caused the extinction of the greater prairie chicken (*Tympanuchus cupido*) in Michigan. Now reduced to a population of less than 25 individuals, these birds once flourished in the fire-swept native grasslands of the State. Remnant flocks are found in Illinois and Wisconsin, and the birds are still fairly common in some areas of the Great Plains.

Management efforts to date have included the purchase of 815 acres of land, working with share-croppers on methods of farming conducive to prairie chicken populations, and posting portions of habitat against public entry to minimize disturbance of the birds. Limited funding has been the greatest single barrier to the furtherance of a prairie chicken management program for Michigan. One thing which might be of benefit to the dwindling population is the gradual change from corn cropland to pastureland.

Pine Marten Reintroduction

Once common, the pine marten (*Martes americana*) was thought to be locally extinct by 1929. In 1980, 38 pine martens were released into the Upper Peninsula, the third such attempt to reintroduce this species to a portion of its former range. The previous two releases met with questionable success because, although there have been sightings of pine martens, the population density appears to be too low for breeding and relatively few females were released.

Plant Program

Michigan has 16 endangered and 197 threatened native plants on its State list of protected species. American ginseng (*Panax quinquefolius*), which is controlled in trade by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, is a State threatened species. The small whorled pogonia (*Isotria medeoloides*), currently proposed for Federal Endangered status, is listed as a State endan-

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gered plant. Most of the State's protected plants are confined to very small areas which occur in four major community types: (1) Great Lakes beach communities; (2) wetland communities; (3) wet prairie communities; and (4) dry prairie communities.

The State is currently conducting an extensive survey which includes a study of herbaria records, visits to recorded habitat sites, and checks on other existing type habitats for possible previously unknown plant occurrence. This work will be completed by October 1981.

The Michigan Nature Association (MNA) has been quite active in land acquisition efforts, having acquired many small parcels of land throughout the State which contain State listed species. In 1979, the MNA purchased an area in Berrien County which contains the only known site in Michigan of the small whorled pogonia. This acquisition was made solely to protect *Isotria medeoloides*; other lands, acquired by the State for various purposes, also contain State endangered plants.

Program Funding/Cooperation Needed

The biggest cloud shadowing Michigan's Endangered Species Program is funding. Even though many of the different Division activities related to endangered and threatened species have been incorporated into the normal division operations, the completion of specific management plans, research, and habitat acquisition hang on the balance.

A tax check-off system was defeated in the State Legislature in 1980, but it may once again make it to the floor for a vote and prove to be a significant contributor to easing fiscal restraints. Since the tax return check-off system would provide taxpayers with the option of donating a portion of their tax return to nongame wildlife programs, endangered and threatened plants and animals would benefit by it.

As the DNR tightens its belt, the contributions and efforts of private organizations and individuals will play an increasingly important role. After all, it has been this combination of State and private organization activities and commitment which has made Michigan's program so dynamic.

The author of the Michigan State Report, Mr. Richard Block, is the Associate Director of the Integrative Studies Center of the School of Natural Resources at the University of Michigan, Ann Arbor. Mr. Block has designed and taught several classes on endangered species and has also lectured quite widely on the topic.

COURT UPHOLDS KANGAROO IMPORTS

On May 28, 1981, a Federal judge upheld the Service's lifting of the ban on kangaroo imports, which become effective on May 29 (F.R. 4/29/81). In *Defenders of Wildlife, Inc. v. James G. Watt, et al.*, United States District Judge Aubrey E. Robinson, Jr. stated that, "Because lifting the import ban was essential in order to encourage the Australian States to implement measures deemed necessary by defendants (Service), and because those measures were in fact adopted by the States, those measures in conjunction with the lifting of the ban must be viewed together. As such, the lifting of the ban fulfilled the conservation objectives of the Endangered Species Act."

Defenders of Wildlife, inc. contended that the lifting of the import ban is equivalent to an unregulated taking and a violation of the Endangered Species Act. An appeal has been filed by Defenders, however, pending any appellate court order to the contrary, imports of kangaroos and their parts or products into the U.S. are now allowed.

CITES NEWS

May 1981

The Service's Office of the Scientific Authority (OSA)—replacing the Endangered Species Scientific Authority (ESSA)—functions as staff to the U.S. Scientific Authority for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). OSA 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.

OSA To Develop 1981-82 Export Findings

The Service announced its intention to develop findings on export of bobcat, lynx, river otter, Alaskan gray wolf, Alaskan brown bear, American alligator, and American ginseng taken in the 1981-82 season (F.R. May 26, 1981).

Rulemaking Actions

May 1981

SERVICE REVIEWS 77 BIRDS

The Service has accepted a petition from the International Council for Bird Preservation, U.S. Section, Inc., to list 77 birds as Endangered or Threatened species (F.R. 5/12/81). Additional data are required before the Service can consider proposals to list any of these species.

The Service is seeking the most recent data on the status of any of these species and the degree and types of threats to their continued existence. Also, the Service is requesting information on environmental and economic impacts and effects of small entities that would result from listing these birds, and information on possible alternatives to the listing of any of these species.

Information should be submitted by September 9, 1981, to the Director (OES), U.S. Fish and Wildlife Service, Washington, D.C. 20240.

The 77 species, 19 native (including Pacific Trust Territories) and 58 foreign, are listed in the table below along with their approximate historic distribution.

Findings that trade will not be detrimental to these species (all on Appendix II of the Convention) must be made in order to allow export.

A notice of proposed findings on the export of American alligator and American ginseng is planned for publication in the June 26, 1981, *Federal Register*. A notice of proposed findings on the export of furbearing species (bobcat, lynx, river otter, Alaskan gray wolf, and Alaskan brown bear) is planned for the July 20, 1981, *Federal Register*. Com-

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SERVICE TO PUBLISH REVISED CITES LISTS

Revised appendices to the CITES will be published in the *Federal Register* in early July. This revision will include the amendments to the species lists which were adopted by the CITES Parties at the New Delhi meeting in March 1981.

Common Name	Scientific Name	Historic Range
NATIVE BIRDS		
Tule white-fronted goose	<i>Anser albifrons elgasi</i>	Alaska, California
Puerto Rican sharp-shinned hawk	<i>Accipiter striatus venator</i>	Puerto Rico
Puerto Rican broad-winged hawk	<i>Buteo platypterus brunnescens</i>	Puerto Rico
*Marianas gallinule	<i>Gallinula chloropus guami</i>	Mariana Islands
*Guam rail	<i>Rallus oustoni</i>	Guam, Mariana Islands
Palau Nicobar pigeon	<i>Caloenas nicobarica pelewensis</i>	Pacific Trust Territories, Palau Island group
Radak Micronesian pigeon	<i>Ducula oenaica ratakensis</i>	Marshall Islands
Truk Micronesian pigeon	<i>Ducula oceanica teraoki</i>	Caroline Islands
*Marianas fruit dove	<i>Ptilinopus roseicapillus</i>	Mariana Islands
Ponape short-eared owl	<i>Asio flameus ponapensis</i>	Ponape, Caroline Islands
Virgin Islands screech owl	<i>Otus nudipes newtoni</i>	St. Croix, St. Thomas, St. Johns, Vieques Islands
*Guam Micronesian kingfisher	<i>Halcyon cinnomomina cinnamomina</i>	Guam, Mariana Islands
Truk monarch	<i>Metabolus rugensis</i>	Truk group, Caroline Islands
Rota bridled white-eye	<i>Zosterops conspicillata rotensis</i>	Rota, Mariana Islands
Truk greater white-eye	<i>Rukia ruki</i>	Tol, Truk Islands
Amak song sparrow	<i>Melospiza melodia amaka</i>	Amak Island, Aleutians
Palau blue-faced parrotfinch	<i>Erythrura trichroa pelewensis</i>	Palau group
Palau white-breasted woodswallow	<i>Artamus leucorhynchus pelewensis</i>	Palau group
*Marianas crow	<i>Corvus kubaryi</i>	Guam, Rota
FOREIGN BIRDS		
Colombian grebe	<i>Podiceps andinus</i>	Colombia
Black petrel	<i>Procellaria parkinsoni</i>	New Zealand
Reunion petrel	<i>Pterodroma aterrima</i>	Reunion Island, Indian Ocean
New Zealand Cook's petrel	<i>Pterodroma cookii cookii</i>	New Zealand
Chatham Island petrel	<i>Pterodroma hypoleuca axillaris</i>	Chatham Islands
Magenta petrel	<i>Pterodroma magentae</i>	Chatham Island
Galapagos dark-rumped petrel	<i>Pterodroma phaeopygia</i>	Galapagos Islands
Hermit ibis	<i>Geronticus eremita</i>	eastern Europe to central Africa
Madagascar serpent eagle	<i>Eutriorchis astur</i>	Madagascar
Madagascar sea eagle	<i>Haliaeetus vociferoides</i>	Madagascar
Utila chachalaca	<i>Ortalis vetula deschauenseei</i>	Honduras
White-winged guan	<i>Penelope albipennis</i>	Peru
Cauca guan	<i>Penelope perspicax</i>	Colombia
Cantabrian capercaillie	<i>Tetrao urogallus cantabricus</i>	Spain, Portugal
Cheer pheasant	<i>Catreus wallichii</i>	Pakistan to Nepal
Gorgeted wood-quail	<i>Odontophorus strophium</i>	Colombia
Italian grey partridge	<i>Perdix perdix italica</i>	Italy
Takahe (rail)	<i>Notornis mantelli</i>	New Zealand
Barred-wing rail	<i>Rallus poecilopterus</i>	Fiji
Chatham Island oystercatcher	<i>Haematopus chathamensis</i>	Chatham Islands
Canarian black oystercatcher	<i>Haematopus moquini meadewaldoi</i>	Canary Islands
Black stilt	<i>Himantopus novaezelandiae</i>	New Zealand
Laurel pigeon	<i>Columba junoniae</i>	Canary Islands
Marquesas pigeon	<i>Ducula galeata</i>	Marquesas Islands
Pink pigeon	<i>Nesoenas mayeri</i>	Mauritius
Seychelles turtle dove	<i>Streptopelia picturata rostrata</i>	Seychelles Islands
Red-tailed parrot	<i>Amazona brasiliensis</i>	Brazil
Seychelles lesser vasa parrot	<i>Coracopsis nigra barklyi</i>	Seychelles Islands
Orange-fronted parakeet	<i>Cyanoramphus malherbi</i>	New Zealand
Norfolk Island parakeet	<i>Cyanoramphus novaezelandiae cookii</i>	Norfolk Island
Uvea horned parakeet	<i>Eunymphicus cornutus uvaeensis</i>	Loyalty Islands
Southeastern rufous-vented ground cuckoo	<i>Neomorphus geoffroyi dulcis</i>	Brazil
Soumagne's owl	<i>Tyto soumagnei</i>	Madagascar
Lanyu scops owl	<i>Otus elegans botelensis</i>	Taiwan
Chilean woodstar	<i>Eulidia yarrellii</i>	Chile
Klabin farm long-tailed hermit	<i>Phaethornis margarettae</i>	Brazil
Black barthrothroat (hummingbird)	<i>Threnetes grzimcki</i>	Brazil
Okinawa woodpecker	<i>Sapheopipo noguchii</i>	Okinawa
Black-headed antwren	<i>Myrmotherula erythronotos</i>	Brazil
Fringe-backed fire-eye (antbird)	<i>Pyriglena atra</i>	Brazil
Black-capped bush shrike	<i>Malaconotus alius</i>	Tanzania
Van Dam's vanga	<i>Xenopirostris damii</i>	Madagascar
Pollen's vanga	<i>Xenopirostris polleni</i>	Madagascar
St. Lucia forest thrush	<i>Cichlherminia lherminieri santaeluciaae</i>	St. Lucia
Southern Ryukyu robin	<i>Erithacus komadori subrufa</i>	Ryukyu Islands
Dappled mountain-robin	<i>Modulatrix o. orostruthus</i> and <i>M. o. amani</i>	Mozambique, Tanzania
Grey-headed blackbird	<i>Turdus poliocephalus poliocephalus</i>	Norfolk Island
Eiao Polynesian warbler	<i>Acrocephalus caffer aquilonis</i>	Eiao, Marguesas Islands
Moorea Polynesian warbler	<i>Acrocephalus caffer longirostris</i>	Society Islands
Long-legged warbler	<i>Trichocinchla rufa</i>	Fiji
Codfish Island fernbird	<i>Bowdleria punctata wilsoni</i>	New Zealand
Uapou flycatcher	<i>Pomarea mendozae mira</i>	Marguesas Islands
Kabylian nuthatch	<i>Sitta ledanti</i>	Algeria
Gizo white-eye	<i>Zosterops luteirostris luteirostris</i>	Solomon Islands
Cherry-throated tanager	<i>Nemosia rourei</i>	Brazil
Rodrigues fody	<i>Foudia flavicans</i>	Mascarene Islands
Mauritius fody	<i>Foudia rubra</i>	Mauritius
Lord Howe currawong	<i>Stephanomaria graculina crissalis</i>	Lord Howe Island

* Data in this petition for these five birds are considered as comments to an earlier notice (F.R. 5/18/79).

Export Findings

Continued from page 6

ments on both sets of proposed findings will be solicited by the Service.

OSA Criteria Challenged

The criteria used by OSA in advising whether export will not be detrimental to the survival of the species (summarized in F.R. July 10, 1980) were challenged by the Defenders of Wildlife, Inc. with regard to bobcat exports resulting from the 1979-80 harvest season. On February 3, 1981, the United States Court of Appeals for the District of Columbia Circuit held that the findings set forth by OSA are invalid and are set aside to the extent that they are not based on reliable estimates of the bobcat population and data showing the total number of bobcats to be killed in each of the States involved.

The Service finds the courts requirements to be a departure from wildlife management as it has traditionally been practiced in almost all States. Such requirements have not been used in managing elusive widespread species such as the bobcat, which are very difficult to census. The Service believes that findings based solely on the court's requirements would not be meaningful and that it is important to consider certain other types of information that the Service has sought in the past.

The court gave "the Scientific Authority considerable discretion to determine the method by which that estimate may be made and in evaluating its reliability." Accordingly, the Service intends to allow States the greatest possible latitude in selecting methods of estimating their bobcat population, to the

Category	ENDANGERED			THREATENED			SPECIES * TOTAL
	U.S. Only	U.S. & Foreign	Foreign Only	U.S. Only	U.S. & Foreign	Foreign Only	
Mammals	15	17	224	3	0	21	280
Birds	52	14	144	3	0	0	213
Reptiles	7	6	55	8	4	0	80
Amphibians	5	0	8	3	0	0	16
Fishes	29	4	11	12	0	0	56
Snails	2	0	1	5	0	0	8
Clams	23	0	2	0	0	0	25
Crustaceans	1	0	0	0	0	0	1
Insects	7	0	0	4	2	0	13
Plants	48	2	0	7	1	2	60
TOTAL	189	43	445	45	7	23	752

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

Number of species currently proposed: 18 animals
11 plants

Number of Critical Habitats listed: 48
Number of Recovery Teams appointed: 68
Number of Recovery Plans approved: 41
Number of Cooperative Agreements signed with States:
38 fish & wildlife
10 plants

May 31, 1981

extent that they are able to make such estimates.

The Service regards the court's second requirement (information regarding the total number of animals to be harvested in a particular season) to be very similar to one of OSA's previous minimum requirements for a management program, which is that States must determine their harvest level objective annually. Additionally each State will be asked to submit an estimate of its current total bobcat population, to the extent it is able to make such an estimate.

The intervenors have asked the

Supreme Court to review the decision. However, because resolution of this legal issue might not be reached before the next bobcat harvest season, the Service has initiated interim measures to attempt to meet the court's requirements.

Although the court's decision concerns only bobcats, OSA findings on lynx, river otter and American alligator could also be subject to legal challenges if they do not meet the court's requirements. Therefore, the Service has requested that each State submit the same types of information on these species as for bobcat.



ENDANGERED SPECIES TECHNICAL BULLETIN

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



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