



# ENDANGERED SPECIES TECHNICAL BULLETIN

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

## ALTERNATIVES TO GRAYROCKS MAY PRECLUDE JEOPARDY TO WHOOPING CRANE

In a December 8 biological opinion, the Service has concluded that the Grayrocks Dam and Reservoir Project, when considered along with other planned projects, is likely to jeopardize the continued existence of the whooping crane (*Grus americana*) and to destroy or adversely modify the crane's Critical Habitat.

The opinion followed consultation with the Rural Electrification Administration (REA) and the U.S. Army Corps of Engineers—the agencies respectively involved in funding and authorizing construction of the project—in compliance with Section 7 of the Endangered Species Act of 1973. (Section 7 requires all Federal agencies, in consultation with the Service, to insure that any actions they fund, authorize, or implement do not jeopardize the continued existence of an Endangered or Threatened species or result in the destruction or adverse modification of Critical Habitat.)

However, the Service document identifies two alternatives that could offset the impact of the project when completed—either by replacing the 23,000 acre-feet of cooling water the project will require each year, or by establishing an irrevocable trust that will generate income sufficient to insure maintenance and improvement of crane habitat on the Platte River. If adopted, the suggested alternatives would preclude jeopardy to the Endangered crane while permitting completion of the \$1.6 billion Missouri Basin Power Project, slated to provide electric power to more than a million people in eight Midwestern States.

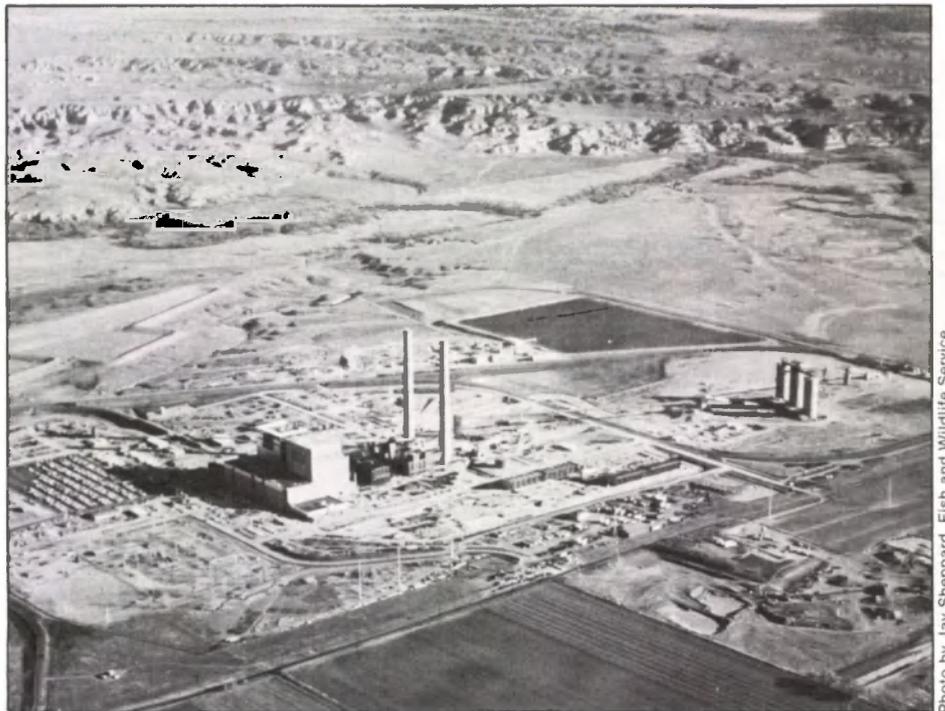
### Cumulative Effects

The partially completed Grayrocks project involves a dam on the Laramie River (near Wheatland, Wyoming), a

tributary of the Platte River System that lies 275 miles upstream from the Critical Habitat of the whooping crane. The dam would provide cooling water to a nearby electrical generating plant, thereby removing an estimated 23,000 acre-feet of water annually from the already depleted river flow. The entire Missouri Basin Power Project (including the Grayrocks Dam and Reservoir, the Laramie River Station (a coal-fired steam electric generating facility), and associated transmission facilities and pipelines) would provide electric power to the States of Colorado, Nebraska, North Dakota, South Dakota, Wyoming, Montana, Iowa, and Minnesota.

In developing its opinion on anticipated project impacts, the Service's consultation team considered the cumulative effects of the Grayrocks project *in combination with* all related water development projects "reasonably expected to be completed during the life of the project." Together, estimated depletions as a result of the Grayrocks Dam and Reservoir, the Wildcat Reservoir-Pawnee Power Plant, the Gerald Gentlemen Power Plant, the planned Corn Creek Irrigation Project, and the projected agricultural ground water pumping (in Nebraska) are expected to reduce the flow of the Platte River by an average

*(continued on page 6)*



*The Laramie River Station, an electric generating facility expected to tap 23,000 acre-feet of cooling water annually from the Grayrocks Reservoir.*

## Regional Briefs

Endangered Species Program regional staffers have reported the following activities for the month of November:

**Region 1.** A recently completed interagency survey of the California condor (*Gymnogyps californianus*) indicates the species' numbers are continuing to decline. No more than 30 condors (adults and juveniles) are believed to survive.

This fall, approximately one-third of the entire remaining habitat of the San Diego pogogyne (*Pogogyne abramsii*) was lost to road expansion and housing development, prior to the initiation of Section 7 consultation with the Service by the Veterans Administration. About 250 acres in San Diego County (where this member of the mint family occurs in vernal pools) was cleaned of all vegetation.

**Region 2.** Regional Endangered Species and Federal Aid representatives met with the Texas Parks and Wildlife Department to evaluate Federal non-game projects, encourage the signing of a Section 6 (endangered species) cooperative agreement with the Service, and discuss other cooperative efforts within the State.

Regional personnel also met with representatives of the U.S. Forest Service's Forest Range and Experiment Station, the Bureau of Land Management, and the New Mexico Game and Fish Department to outline cooperative action plans for the bald eagle (*Haliaeetus leucocephalus*) and American peregrine falcon (*Falco peregrinus*) in New Mexico and Arizona in 1979.

**Region 4.** The pair of red wolves (*Canis rufus*) released this past Janu-

ary on Bulls Island, South Carolina (in the Cape Romain National Wildlife Refuge), was successfully recaptured in mid-October after more than 9 months of freedom. The wolves were found to be in excellent health at the time of recapture by project personnel from the Albuquerque Regional Office. Breeding by the pair was thought to be a possibility, but no firm evidence was found of any births. The Service believes the success of this translocation experiment indicates that handling and subsequent release into unfamiliar habitat will not be a barrier to future permanent reestablishment efforts in other southeastern locations.

**Region 5.** Endangered plant status surveys have been completed for all six New England States. (Listing recommendations will soon be forthcoming.)

The first request for reinitiation of consultation was received from the Army Corps of Engineers on possible impacts of the proposed relocation of 1.3 miles of the Clinch River on listed mussels.

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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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## Upcoming CITES Notices

To insure adequate time for comment, we would like to alert our readers to the imminent publication of notices relating to U.S. actions under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The Service's Wildlife Permit Office anticipates publication of three items in the *Federal Register* around the middle of January:

(1) Notice on the extension of public comment (for 30 additional days) on the procedures for changing the appendices to the Convention;

(2) Notice of potential rulemaking, summarizing foreign proposals to amend the Convention appendices, with provision for public comment; and

(3) Notice describing future actions to be taken by the U.S. and Convention parties, and plans for future public participation therein, regarding the status of native species protected by the Convention. (The Service also plans to publish a notice on or about January 25 stating its determinations concerning U.S. proposals to amend the Convention appendices.)

An additional notice will invite the public to meetings on several Convention issues on January 31, February 1, and March 8, 1979 (see November 1978 BULLETIN).

# CONSERVATION EFFORTS HELPING BALD EAGLE AND OTHER NEW YORK SPECIES

Department of  
Environmental  
Conservation

This past spring, a two and a half week old eaglet was placed in the sole remaining active bald eagle aerie in New York State in exchange for an egg which the breeding pair had been incubating. Within 45 minutes, "Tarzan" was adopted by the adult birds and, by early July, had successfully fledged.

The two mating bald eagles (*Haliaeetus leucocephalus*) have nested at this site just south of Rochester for at least the last 13 years, but managed to produce only one fledgling in all this time. Researchers in New York and at the Service's Patuxent Wildlife Research Center have found the shells of eggs produced by the pair to be as much as one-third thinner than normal—the result of persistent pesticide residues in the birds' tissues—often precluding normal incubation.

This last of 63 once-active bald eagle nests in New York is considered a great natural treasure by endangered species specialists from the State's Department of Environmental Conservation, who remain hopeful that a breeding eagle population may someday be restored to the area. After consultation with 22 eagle experts across the country, it was decided that, based on past reproductive failures, there was little chance of this eagle pair successfully hatching one of its own eggs. But the two were considered as excellent foster parents, and the Department's regional staff began setting the stage for an eagle-for-egg transfer early in April—one of the few times ever attempted in eagle research.

Tarzan, a 2-pound eaglet named and hatched from captive birds at the Service's Patuxent Wildlife Research Center in Maryland, was flown to New York aboard a United Airlines plane literally on the lap of specialist Michael Allen. The endangered species team later scaled a tall tree to reach the aerie for which Tarzan was destined on April 24, making the switch in a matter of minutes. (The incubating egg, although later found to have adled, was then taken in a portable incubator to Cornell University for attempted hatching.)

At the age of seven and a half weeks, when Tarzan was just begin-

ning to test his wings, project personnel climbed to the nest and fitted the eaglet with a Service aluminum legband as well as a bright plastic legband which can be read from a quarter-mile away. The activities of Tarzan and his foster parents were continuously monitored from a nearby blind, where biologists spent much of their time gathering data on feeding rates and food composition, and generally observing rearing activities up to the time of fledging.

### Well-rounded Program

Perhaps the most comprehensive endeavor of its kind, New York's bald eagle program (also involving "hacking" of eagles to the wild, habitat protection, monitoring of wintering eagles, and other activities) represents only a portion of the State's conservation efforts on behalf of a variety of endangered and threatened wildlife.

New York was among the first 11 States to sign cooperative agreements

with the Service in June 1976, making the State eligible to receive two-thirds matching fund assistance for the study and protection of endangered species. Now into its third year of program operation, New York's Endangered Species Unit—an arm of the Department of Environmental Conservation—is actively involved with some 30 species of wildlife. Fifteen of the species are officially protected under New York's endangered species legislation, enacted in 1970 and designed to provide for the establishment of a State endangered species list. Eight of the 15—the Indiana bat (*Myotis sodalis*), gray wolf (*Canis lupus*), bald eagle, peregrine falcon (*Falco peregrinus*), Chittenango ovate amber snail (*Succinea chittenangoensis*), longjaw cisco (*Coregonus alpenae*), blue pike (*Stizostedion vitreum*), and shortnose sturgeon (*Acipenser brevirostrum*)—are also federally listed.

While New York's endangered spe-  
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"Tarzan," attended by a foster parent in the last active bald eagle nest in New York State.

# State Report

(continued from page 3)

cies law presently concerns itself with protection of these species, it does not address the all important factor of habitat protection. Recognizing this deficiency, two separate legislative proposals have been submitted in hopes of authorizing needed habitat preservation measures in the coming year.

Headed by Peter Nye, the Endangered Species Unit also employs a professional staff divided according to the various species disciplines: mammals, birds, reptiles and amphibians, and invertebrates. Staff specialists located both at the Department's central office and at several regional points around the State round out the program.

The Unit's budget for operation of its many activities has increased from about \$80,000 the first year to approximately \$450,000 for the current fiscal year, about two-thirds of which is appropriated from Federal Endangered Species Grant-in-Aid funding. Most of the State's matching share is derived from the sale of hunting and fishing licenses.

While the Unit itself is involved in much of the species research, many additional projects are accomplished under contract to take full advantage of available expertise. About 25 percent of the entire budget is allotted to contract projects.

## Bald Eagle Activities

The most active effort since inception of the State's endangered species program has involved the bald eagle. In a separate attempt to increase the number of breeding eagles in the State, specialists have also been hacking eagle fledglings back into the wild—an activity similar to that being conducted with peregrines through much of the east. New York's eagle hacking program was designed in 1976, with the assistance of Dr. Tom Cade of Cornell University's Peregrine Fund, in an attempt to bypass reproductive difficulties normally experienced as the result of pesticide contamination. Now in its third year, 11 young eagles have been successfully raised and released from the State's hacking towers in the only project of its kind involving bald eagles. Montezuma National Wildlife Refuge in Central New York was selected as the ideal hacking site for its abundant fish supplies, limited disturbance, vast suitable habitat, and historical bald eagle breeding activity.

"We believe we have demonstrated



Bald eagle hacking tower within the Montezuma National Wildlife Refuge.



Two of four bald eaglets reared in a manmade nest at Montezuma this year.

that bald eagle nestlings can be successfully reared in the wild in this manner," Nye explains. "Our first attempt was in 1976 when two bald eagles were successfully hacked. Last summer, we reared five more and had the unexpected bonus of having one of our first-year birds return to the area late in the summer, confirming the fact that these birds could survive a winter and learn to feed on their own."

All four of the immature eagles hacked at Montezuma this past summer were offspring of captive eagles from the Patuxent Wildlife Research Center.

The eaglets were housed in two man-made nests atop adjacent 35-foot towers during the hacking period, while observers kept watch over the birds through a closed circuit video system. Project assistants scaled the tower only to provide food—carp and bullheads caught nearby and small road-killed animals such as squirrels and rabbits, found to contain low levels of pesticides and other contaminants.

Birds hacked at the Montezuma site probably follow the pattern of other immature eagles, spending several years in apparent random wandering after fledging. The birds develop the familiar white heads and tails by the time they reach sexual maturity at about age 5, when it is believed that they return to the general area of their birth to nest.

The monitoring of wintering bald eagles, especially the concentration of birds that winters in southeastern New York, constitutes the third major segment of the State's eagle program. The Sullivan County area may well be the largest single bald eagle wintering convocation in the northeastern U.S., supporting a population of over 30 birds from November through March. Each winter, the arrival and dispersal dates, overall numbers of adult and immature eagles, roosting and feeding locations, prey base and chemical contamination levels, and disturbing influences are monitored. Efforts begun last winter are continuing to live capture a small portion of the wintering birds and fit them with radio telemetric devices to ascertain their movement patterns and utilization areas. (No one is certain as to where these birds come from, but this knowledge is important to gaining an overall understanding of the "fluid" north Atlantic bald eagle population in order to promote its protection.)

Endangered species specialists are also collecting eagle carcasses to determine mortality causes and toxicant levels. One eagle found dead last year was extremely emaciated, and—although drowning was determined to be the primary cause of death—the high levels of DDT, PCB's, dieldrin, and chlordane evident in the bird's tissues were thought to have contributed to its demise.

Other State efforts on behalf of the eagle include habitat protection through cooperation and written agreements with the City of Rochester (establishing the 100-acre tract surrounding the only active nest as a sanctuary) and with the Orange and Rockland Utilities Company in Sullivan County, where certain areas have been restricted from public access. Management plans are also being developed for the protection of eagles and their

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habitats, and the State has also submitted recommendations to the Service for bald eagle Critical Habitat designation.

### Other Bird Work

In consultation with the Service's Eastern Peregrine Falcon Recovery Team (of which Eugene McCaffrey, the supervisor of New York's nongame section, is a member), 32 historic peregrine nesting sites are now being examined to determine their feasibility as hacking sites. The State is assisting in the funding of the ongoing releases of the Peregrine Fund in New York. Two hacking stations were operated this summer, resulting in two fledgling peregrines being successfully released. Unfortunately, particular problems with great horned owls (*Bubo virginianus*) occurred at these sites, and owl control efforts are now being pursued by the Department as groundwork for the anticipated releases in 1979.

The monitoring and management of New York's two osprey (*Pandion haliaetus*) populations—centered within the Adirondack Mountains and the eastern end of Long Island—is continuing. Specialists have counted 97 active osprey nests in the State which this year produced 105 young. (Due to its precarious status, the osprey has been listed as endangered by New York.)

Other bird conservation efforts involve the collection of baseline data in order to determine the status of the common loon (*Gavia immer*), northern harrier (*Circus cyaneus*), golden eagle (*Aquila chrysaetos*) bluebird (*Sialia sialia*), logger-head shrike (*Lianeus ludovicianus*), Ipswich sparrow (*Passerulus princeps*), roseate tern (*Sterna dougalli dougalli*), and least tern (*Sterna albifrons*). The status and distribution of the common raven (*Corvus corax*) and the spruce grouse (*Canachites canadensis*) are being investigated by researchers at New York's College of Environmental Science and Forestry (ESF), under contract through New York's endangered species program.

### Mammal Studies

Similar baseline work is also being conducted by the Unit's mammal specialist on the eastern woodrat (*Neotoma floridana*), and yellow-nosed (or rock) vole (*Microtis chrotorrhinus*) whose status has not yet been determined in the State. Other mammal species of interest being investigated are the pigmy shrew (*Microsorex hoyi*), long-tail (or rock) shrew (*Sorex dispar*), and northern bog lemming (*Synaptomys borealis*).

In the forefront of the mammal work,

however, is the Indiana bat whose occurrence in a series of caves in northern New York presently appears to be its only known location in the northeast, and the northernmost location for this bat species. The cave complex and associated Indiana bat populations are monitored during the winter hibernation period to determine the dates of their arrival and dispersal, overall number of resident bats, and location of typical bat clusters. Over 600 individuals were found in four separate hibernacula sites this past spring, with two of the bats bearing Service wing bands. Already this winter, over 1000 Indiana bats have been observed here; two banded individuals were determined to be 14 years old, apparently the record for known longevity of the species so far. (New York has asked the Service to designate the Glen Park Cave complex as Critical Habitat for the bat.) Attempts are actively being made to protect this important area through an agreement with the landowner or possible acquisition. Statewide investigation of other likely cave locations where bats have been reported is ongoing. A strong possibility exists that other locations containing social bats (as Indiana bats are sometimes called) will be revealed.

The ecology, status, and distribution of the bobcat (*Lynx rufus*) in New York remains under investigation under a contract with Dr. Reiner Brocke of the College of ESF. The Unit has also retained Dr. Brocke and the College in an attempt to determine the feasibility of reestablishing the puma (*Felis concolor*) to New York State, where a viable breeding population may someday be restored. Studies are also being pursued which will determine the feasibility of restoring populations of the lynx, gray wolf, and certain large herbivores such as moose and elk to the State.

### Amphibians and Reptiles

The bog turtle (*Clemmys muhlenbergi*) is the leader in this category. A statewide survey of all historical and present bog turtle habitat has been completed, and 62 historical sites have been mapped for the species in New York. (Sixteen percent were found to contain bog turtles.) The State is now in the process of acquiring prime turtle habitat and is developing a management plan for the species on that area. A comprehensive bibliography on the species has also been prepared by the herptile specialist, and should be available shortly through the Smithsonian Institution's bibliographic series.

The eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*), timber rattlesnake (*Crotalus horribilis*), blanding's turtle (*Emydoidea blandingi*),



Department of Environmental Conservation

A bog turtle (Millerton Dutchess County).

red-bellied turtle (*Pseudemys rubriventris*), and five species of sea turtles (*Chelonia mydas*, *Eretmochelys imbricata*, *Caretta caretta*, *Lepidochelys kempfi*, and *Dermochelys coriacea*) are also under investigation, particularly in relation to occurrence and possible negative influences. The massasauga rattlesnake has been found (historically and currently) in two locations, with one additional potential site now being surveyed (all in central and western New York). Both known locations are protected by their owners, but the snake is thought to be on the decline in the State.

Information is also being gathered on the Jefferson salamander (*Ambystoma jeffersonianum*), eastern tiger salamander (*Ambystoma tigrinum*), spotted salamander (*Ambystoma maculatum*), and the cricket frog (*Acris crepitans*).

### Fish

Although no active endangered fish program presently exists within the Department, plans are under way to get this segment of New York's effort activated during fiscal year 1979-80. Contractual work with the Boyce Thompson Institute involving the Endangered shortnose sturgeon in the lower Hudson River has been conducted. (with Federal assistance through the anadromous fish program).

New York representatives are also members of the Shortnose Sturgeon and Blue Pike Recovery Teams.

### Invertebrates

The existence of the Chittenango ovate amber snail has been confirmed in only one location in the world—a very limited talus-spray zone area surrounding a waterfall in central New York. Recently federally listed as a Threatened species, this land snail has been characterized as a "living fossil" (a relic of the pleistocene era).

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# ALTERNATIVES

(continued from page 1)

of 172,000 acre-feet annually by the year 2,000. Based on anticipated water usage, depletions are likely to increase to more than 300,000 acre-feet annually by the year 2020, a 35 percent loss from present conditions.

[Based in part on the intent of the Endangered Species Act of 1973 and "the need to take an ecosystem approach in dealing with environmental matters," the Department of the Interior Solicitor determined in a July 19, 1978, opinion that the 1973 Act requires the "consideration of cumulative impacts on an endangered or threatened species' ecosystem before determining whether a particular Federal project will violate the prohibitions of Section 7." The Solicitor further indicated the need for applying a "rule of reason" in determining which possible impacts should be considered, based on the likelihood of their completion.]

## Expected Impacts

Specifically, the Service has found that the anticipated reduction in river flow may actually benefit bald eagles (*Haliaeetus leucocephalus*) in areas where depletions will result in narrowing river channels and increasing vegetation. Wintering eagles should also be attracted to the increased fishery and waterfowl habitat produced by the Grayrocks Dam and Reservoir.

But the Service believes the decrease in wetland areas in the Platte River associated with reduced stream flows will have a significant adverse impact on the crane and its habitat. Biologists estimate there has already been a 60-65 percent loss of sandbar and wet meadow areas in the past 40 years within the designated Critical Habitat, and a continued trend of decreasing river flows through the area would likely reduce channel widths, possibly resulting in the destruction of a significant portion if not all of these essential stopover points.

The Platte River is one of the principal resting and feeding areas for 75 of the world's remaining 100 wild whooping cranes during their spring and winter migration between Canada and the Aransas National Wildlife Refuge in Texas. (Although the cranes numbered only 13 adults and 2 young as a result of illegal shooting and habitat destruction in 1941, efforts by both the Canadian Wildlife Service and the Fish and Wildlife Service to boost hatching success and to breed the birds in captivity for release to the wild have been largely responsible



Photo by Harold O'Connor, Fish and Wildlife Service

for their comeback.) The Platte is an especially important stopover area during the cranes' spring migration when they need open, undisturbed expanses devoid of significant vegetation for a radius of 75-100 yards for roosting. The sand and gravel bars and shallow waters within the designated Critical Habitat are among the last suitable points for the cranes to rest and feed before the last leg of their journey to Canada's Wood Buffalo Park, where they begin to lay eggs almost as soon as they arrive.

With the continuing loss of wetland habitat, it is feared that—in years of poor rainfall—the Platte River may offer the only remaining feeding and roosting sites for the cranes along the Central Flyway.

## Background

In accordance with Section 7, the Corps initially requested consultation on the Grayrocks Dam and Reservoir project in October 1977 (under existing Section 7 "guidelines"), prior to issuance of a permit under Section 404 of the Federal Water Pollution Control Act. At that time, the Service's Denver Regional Director determined that a 3-year study would be required to measure the effects of water depletion on the crane's habitat before an opinion could be rendered. A Corps construction permit was subsequently issued in March 1978, although construction on Grayrocks actually began in July 1976.

The Service's Interagency Cooperation Regulations, officially implementing Section 7 and making consultation mandatory, were finalized in January 1978 and, in April 1978, REA requested consultation under the new regulations. (REA had previously granted a loan guarantee to Basin Electric for project construction in December 1976). However, while a consultation team was appointed to consider the impacts of the project at that time, a question on the need to consider the cumulative effects of other actions impacting the Platte River System became an issue during a similar consultation. Further action was therefore suspended until an opinion on the appropriateness of considering cumu-

**TOP LEFT:** Narrowing channel widths and increasing vegetation evident in this photo of the Platte River are the result of continuing water depletion. **TOP RIGHT:** Grayrock Dam Construction Site. **BELOW:** The remaining sandbar and wet meadow areas shown within the designated Critical Habitat are vital stopover points along the crane's migration corridor.



Photo by Jay Sheppard, Fish and Wildlife Service

lative effects could be obtained from the Department's Solicitor.

The Service then scheduled a meeting with both agencies on the consultation request in October. But when authorization of appropriations for the Endangered Species Act expired as of September 30, consultation activities were again suspended.

## Exemption Under Consideration

Upon enactment of the 1978 Amendments to the 1973 Act (see October 1978 BULLETIN), the Secretary was directed to render a biological opinion on Grayrocks and, subsequently, the newly established Endangered Species Committee was to proceed to consider exempting the project from the requirements of Section 7. (As provided in the new legislation, the seven-member Committee is to consider exemption of both the Grayrocks Dam and Reservoir and TVA's Tellico dam within 90 days of enactment of the Amendments. Both projects could be automatically exempted if no decision is forthcoming at the end of this speci-



fied period.)

In addition, as mandated by the 95th Congress, the Secretary of the Interior, the Administrator of REA, and the Secretary of the Army—upon issuance of the Service's biological opinion—are to require "... such modifications in the operation or design of the [Grayrocks] project as they may determine are required to insure that actions authorized, funded, or carried out by them ..." do not jeopardize the crane or its Critical Habitat.

On January 8, the Committee scheduled public hearings on the Grayrocks and Tellico' issues (F.R. 12/22/78) in Cheyenne, Wyoming (on Grayrocks), in Knoxville, Tennessee (on Tellico),

and in Washington, D.C. (on both projects) to provide all interested parties an opportunity to submit their views and recommendations for consideration as part of the public record.

At the time of this writing, Interior officials were working to finalize the Department's recommendations on both the Grayrocks and Tellico projects for consideration by the Endangered Species Committee. Reasonable and prudent alternatives to the projects, suggested mitigation and enhancement measures, and economic impact considerations are to be discussed in the Departmental document, all for review by the Committee before the February 8 exemption deadline.

### SETTLEMENT PENDING ON GRAYROCKS SUIT

Just prior to issuance of the Service's biological opinion on the impacts of the Grayrocks project (see accompanying story), parties to a suit surrounding the issue arrived at an "out-of-court" agreement which would also involve the creation of a special trust fund for whooping crane conservation.

The agreement followed allegations by the National Wildlife Federation, National Audubon Society, and the State of Nebraska that two Federal agencies involved in the Grayrocks Dam and Reservoir project had failed to comply with several environmental laws in authorizing the construction project. Among other things, the three parties charged the Rural Electrification Administration (REA) and the Army Corps of Engineers with (1) failure to prepare an adequate Environmental Impact Statement addressing the cumulative impacts of Grayrocks and associated projects on the crane's Critical Habitat as well as downstream fish and wildlife impacts, (2) failure to consult with the Secretary, to insure that the project will not jeopardize the continued existence of a listed species or its Critical Habitat, as

required under Section 7 of the Endangered Species Act, and (3) violation of Interior's regulations in making irreversible and irretrievable commitments of resources prior to completion of consultation.

In an October 1978 decision, the Federal District Court for the Nebraska District held that REA (in granting the loan guarantee for the project) and the Corps (in issuing a 404 permit for construction) had indeed violated certain provisions of both the National Environmental Policy Act (NEPA) and the Endangered Species Act, and ordered construction on the Grayrocks dam and reservoir halted. In an attempt to reach out-of-court settlement, the Basin Electric Power Cooperative—project manager for the Missouri Basin Power Project and a party in the litigation—subsequently agreed to limit consumptive use of water to 23,500 acre-feet annually and to put \$7.5 Million in trust expressly for preservation and maintenance of the affected whooping crane habitat. The trust fund concept along with its associated provisions received the support of all parties in the suit.

## RECOVERY TEAM FOR SEA TURTLES

The National Marine Fisheries Service, in cooperation and consultation with our Service's Atlanta Regional Office, has appointed a Sea Turtle Recovery Team.

The team held its first meeting in December, and plans to meet again on January 23rd. This second meeting will be followed with a public meeting in Tampa on January 24th to report on progress in sea turtle program planning (as a follow-up to last year's open meeting in Tampa).

Members of the recovery team, which intends to plan comprehensively for the recovery of all six listed sea turtles, are:

- Ron Odom, Georgia Department of Natural Resources
- Glen Ulrich, South Carolina Marine Resources Division
- Charles Futch, Florida Department of Natural Resources
- A. E. Dammann, Caribbean Fishery Management Council (Puerto Rico)
- Bill Hillestad, Southeastern Wildlife Services (Georgia)
- Larry Ogren, National Marine Fisheries Service
- Otto Florschutz, Fish and Wildlife Service
- Milton Kaufmann, Monitor International, Inc.
- Robert Jones, Southeastern Fisheries Association
- Donald Geagan, National Marine Fisheries Service

## NMFS Proposes Critical Habitat for Leatherback

The National Marine Fisheries Service has proposed a companion ruling (to that finalized by our Service on September 26, 1978) to designate Critical Habitat for the leatherback sea turtle (*Dermochelys coriacea*) in waters adjacent to Sandy Point Beach on St. Croix, U.S. Virgin Islands.

For details on the subject proposal, kindly consult the November 29, 1978, *Federal Register*, or contact the Office of Marine Mammals and Endangered Species, NMFS, National Oceanic and Atmospheric Administration (U.S. Department of Commerce), Washington, D.C. 20235.

Comments on the proposal are due by January 29, 1979.

# State Report

(continued from page 5)

Efforts are now being directed at assessing its present status, and identifying and evaluating any limiting factors. (The Service has been petitioned to designate Critical Habitat for this land snail in New York.)



Department of Environmental Conservation

A rare photo of *Chittenango ovate* amber snails.

The Karner blue butterfly (*Lycaeides melissa samuelis*), associated with the sandy, pine barren areas of New York has continued to suffer from great developmental pressures resulting in a consistent decline in available habitat. (The Service has proposed listing of the butterfly as Threatened and designation of its Critical Habitat in New York.) Following surveys conducted under contract by two expert lepidop-

terists, ten New York populations of Karner blues have been identified (nine of which are presently threatened by human development).

Two additional lepidopterans, the buck moth (*Hemileuca maia*) and Hessel's hairstreak butterfly (*Mitoura hesseli*) were revealed as possible endangered species during the survey effort and are now being investigated.

The Endangered Species Unit has prepared a pamphlet on the State's threatened, endangered, and extirpated wildlife in addition to several slide-tape presentations and display panels concerning the program effort in New York.

## BOX SCORE OF SPECIES LISTINGS

| Category           | Number of Endangered Species |            |            | Number of Threatened Species |           |           |
|--------------------|------------------------------|------------|------------|------------------------------|-----------|-----------|
|                    | U.S.                         | Foreign    | Total      | U.S.                         | Foreign   | Total     |
| Mammals .....      | 33                           | 227        | 260        | 3                            | 18        | 21        |
| Birds .....        | 67                           | 144        | 211        | 3                            |           | 3         |
| Reptiles .....     | 11                           | 47         | 58         | 10                           |           | 10        |
| Amphibians .....   | 5                            | 9          | 14         | 2                            |           | 2         |
| Fishes .....       | 29                           | 10         | 39         | 12                           |           | 12        |
| Snails .....       | 2                            | 1          | 3          | 5                            |           | 5         |
| Clams .....        | 23                           | 2          | 25         |                              |           |           |
| Crustaceans .....  | 1                            |            | 1          |                              |           |           |
| Insects .....      | 6                            |            | 6          | 2                            |           | 2         |
| Plants .....       | 20                           |            | 20         | 2                            |           | 2         |
| <b>Total .....</b> | <b>197</b>                   | <b>440</b> | <b>637</b> | <b>39</b>                    | <b>18</b> | <b>57</b> |

Number of species currently proposed: 158 animals  
1,850 plants (approx.)

Number of Critical Habitats proposed: 73

Number of Critical Habitats listed: 33

Number of Recovery Teams appointed: 65

Number of Recovery Plans approved: 18

Number of Cooperative Agreements signed with States: 22

November 30, 1978

### CORRECTION

In our November report on Florida's endangered species activities, new information on the status of the Silver rice rat was received too late for inclusion. On the basis of recently published identification parameters, Florida researchers now believe that the specimens observed in this year's study were not *Oryzomys argentatus*. To date, only two individuals of this species have been seen, and the current study has thus far failed to confirm the survival of the rodent.



## 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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