November/December 1980 Vol. V, No. II

ENDANGERED SPECIES TECHNICAL BULLETIN

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

Snail Darter Discovered at a New Location

Michael Bender

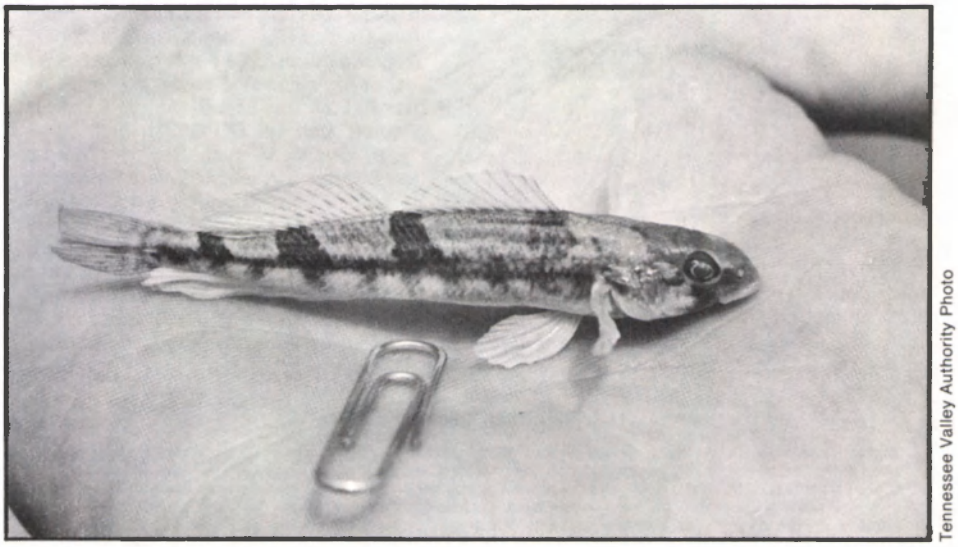
The tiny snail darter (*Percina tanasi*), an Endangered species of perch known historically from only a short section of the Little Tennessee River, has been found in a 10-15 mile stretch of South Chickamauga Creek straddling the Tennessee/Georgia border.

Dr. David Etnier, a University of Tennessee Ichthyologist who initially discovered the species, made the new find on November 1 of this year while seining a portion of the creek just inside the Tennessee border, together with graduate student Andy Haines. Several days later, Tennessee Valley Authority (TVA) biologist Charles Saylor accompanied several University of Georgia biologists to a site upstream and across the State line, where more darters were captured and released. Reliable population estimates for South Chickamauga Creek cannot yet be made, but Saylor suggests a minimum of about 200.

It is "extremely unlikely," Dr. Etnier says, that the newly found snail darters are migrants from a Hiwassee River transplant site some 80 miles downstream. The Chickamauga darters are apparently a natural population, and have always existed either in the creek or in nearby streams. They went undetected for a number of years despite an intensive search by TVA, which took samples from at least 134 localities on 35 streams throughout the Tennessee Valley which were thought to contain possible darter habitat. Further surveys will be conducted on Chickamauga and several other streams in the area.

Unfortunately, the snail darter is not yet out of danger. Chickamauga Creek has a long history of pollution problems from industrial and sewage wastes, resulting In frequent fish kills. In addition, biologists do not yet know whether or not the experimental transplantations of snail darters Into the Hiwassee and Holston Rivers will be a long-term success.

The only officially designated Critical Habitat for the snail darter was destroyed when Congress exempted TVA's Tellico Dam Project from the provisions of the Endangered Species Act (see October 1979 *Technical Bulletin*); however, the Service will now be studying Chickamauga Creek for suitability as additional Critical Habitat. According to TVA spokesman Louis Gwin, the agency has no plans for any future projects on the creek.



Tennessee Valley Authority Photo

The tiny snail darter, which became the focus of national attention when its presence in the Little Tennessee River temporarily halted construction of the Tellico Dam, was recently discovered at a new location.

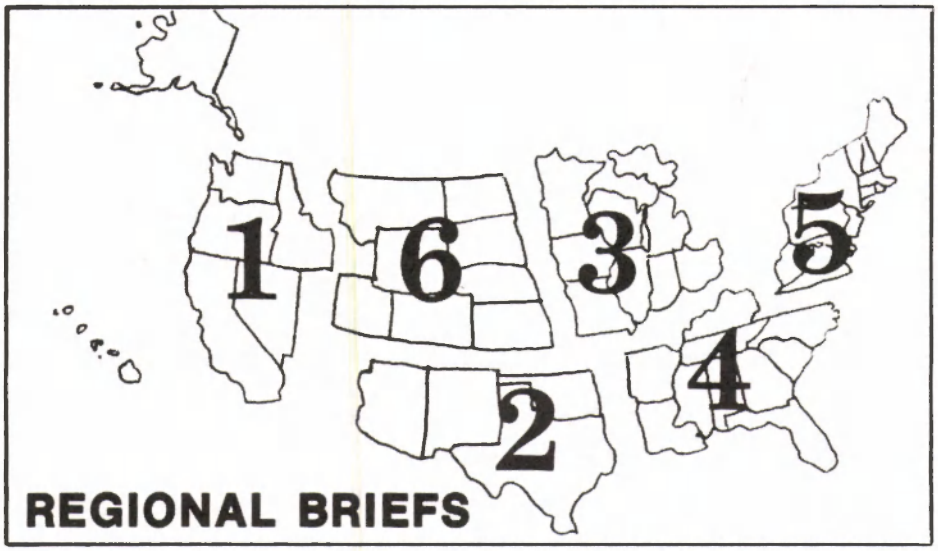
ABOUT THIS ISSUE

Dear Readers,

As you may have noticed, this issue of the BULLETIN is dated November-December 1980. The reason for this combined issue is twofold—(1) the BULLETIN is presently understaffed, making it difficult to come out with a timely finished product, and (2) November was a slow month for rulemaking activities, which means there would have been little to report in a separate December issue. Our next issue will be January 1981, Vol. VI, No. 1.

Have a happy and safe holiday season!

Morey Norkin
Acting Editor



REGIONAL BRIEFS

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

Region 3. A $3,000 reward is being offered for information leading to the arrest and conviction of the person or persons who shot and wounded a young bald eagle in late October in Pierce County, Wisconsin. The bird was treated for a wing fracture at the University of Minnesota's Raptor Rehabilitation Center, St. Paul. According to Dr. Patrick Redig of the Center, the fracture will take six to eight weeks to heal. When the bird is fully recovered it will be released in an area near the Mississippi River.

The U.S. Fish and Wildlife Service is paying $2,500 of the reward money, the remainder is from the National Wildlife Federation.

Region 4. In the absence of any known dusky seaside sparrow (*Ammospiza maritima nigrescens*) females, all plans for a captive breeding program have been cancelled. Another survey for remaining birds will be conducted in 1981, but only one presumed male is currently known to be left in the wild. A cooperative agreement has been signed with the Santa Fe Community College at Gainesville, Florida, to provide captive care for the five males now being held by the Florida Game and Fresh Water Fish Commission.

Service and State of Louisiana personnel have recently completed a cooperative project involving development of an alligator population model to aid in reassessing the status of the alligator in Louisiana and possibly other parts of its range. Use of this method to provide more accurate population estimates should facilitate further delisting of the species.

Region 5. A draft recovery plan for the Virginia round-leaf birch (*Betula uber*) is being reviewed by the Regional Office.

Region 6. In 1980, attempts were made to release 58 American peregrine falcons (*Falco peregrinus anatum*) reared by the Peregrine Fund (Fort Collins, Colorado) into the wild in five western States. Problems with predators at two sites resulted in 52 peregrines being released. It is believed that 43 birds survived to independence.

An *Illustrated Guide to Special Interest Vascular Plants of Wyoming* has been printed. Copies are available from the Regional Office.

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Region 1: California, Hawaii, Idaho, Nevada, Oregon, Washington, and Pacific Trust Territories. **Region 2:** Arizona, New Mexico, Oklahoma, and Texas. **Region 3:** Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. **Region 4:** Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, and the Virgin Islands. **Region 5:** Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. **Region 6:** Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. **Alaska Area:** Alaska.

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Hudsonia Protection Fostered By Local Cooperation

Marshall P. Jones

A successful public meeting and the support of local community leaders contributed to the speedy adoption of a final rule listing mountain golden heather (*Hudsonia montana*) as a Threatened species and designated its Critical Habitat in North Carolina's Pisgah National Forest (F.R. 10/20/80).

In a way, *Hudsonia's* problems seem to symbolize a great irony in today's natural resource conservation—an ever increasing crush of outdoor admirers

Photo by E. Laverne Smith

Fish and Wildlife Service botanists, Nora Murdock and Ben Sanders, examine a population of Hudsonia montana.

who threaten to smother fragile natural areas with their love.

Thus the public support for *Hudsonia's* listing is especially Important. It began with a letter from the Burke County Manager, Kenneth R. Thompson, endorsing the proposal. Subsequently, the County Board of Commissioners, after receiving a visit from Area Office staff to explain the effects of the proposal, adopted a resolution endorsing the action.

The State of North Carolina also gave its support to the listing. At the July 1, 1980, public meeting a representative of the State Department of Agriculture's Plant Protection Program announced that on that very day, the State had adopted its first official list of Endangered and Threatened Plants, and *Hudsonia* was included on it. In a written comment, the State Department of Natural Resources and Community Development's Natural Heritage Program also favored the listing. (Since that time, a Cooperative Agreement for Plants has taken effect between the State and the Service, enhancing the State's capability for undertaking programs for listed plants.)

Questions about possible closures of areas were brought up at the meeting by the North Carolina Bowhunters Association and a local rock climbing group. This would be a Forest Service decision which the Fish and Wildlife Service could not officially address, but it was pointed out that *Hudsonia* conservation can likely be achieved by trail rerouting and activity restrictions affecting only the actual ledges where the plant grows.

A climbing group suggested it might be able to assist by publicizing the need for protecting the plant in its newsletter. Furthermore, the Outward Bound program, which runs a rock climbing school on leased land near the Critical Habitat, volunteered to assist in monitoring the plant.

The Forest Service has already initiated actions to conserve the plant. Although the Forest Service's official comment on the proposal expressed its view that listing is not necessary at this time, they have no quarrel with the importance of protecting the plant. A monitoring program on Table Rock initiated this spring will hopefully provide data for development of a management plan. *Hudsonia* is one of many resource management problems the Forest Service must address in attempting to strike a balance between legitimate use and abuse of wilderness area.

Protecting *Hudsonia* may not always be easy, but consensus among affected agencies and individuals is that it is definitely worthwhile. As County Manager Thompson said in his letter,

> Since Burke County is the only known locality in which this species grows, protecting it is very important and will help Burke County maintain its uniqueness. The County is proud of its mountainous regions, especially the Table Rock area, and wishes to maintain the area in its natural state. Protecting this plant from possible extinction is in accordance with County policy.

It is gratifying to see that sometimes in the turbulent world of Endangered Species, County, State, and National policy can indeed coincide. Now the real work of insuring a piece of the rock for this tiny wilderness creature can begin.

STATE REPORT

Nebraska Game and Parks Commision

BLACK-FOOTED FERRET, WHOOPING CRANE, AND BALD EAGLE PROTECTED IN NEBRASKA

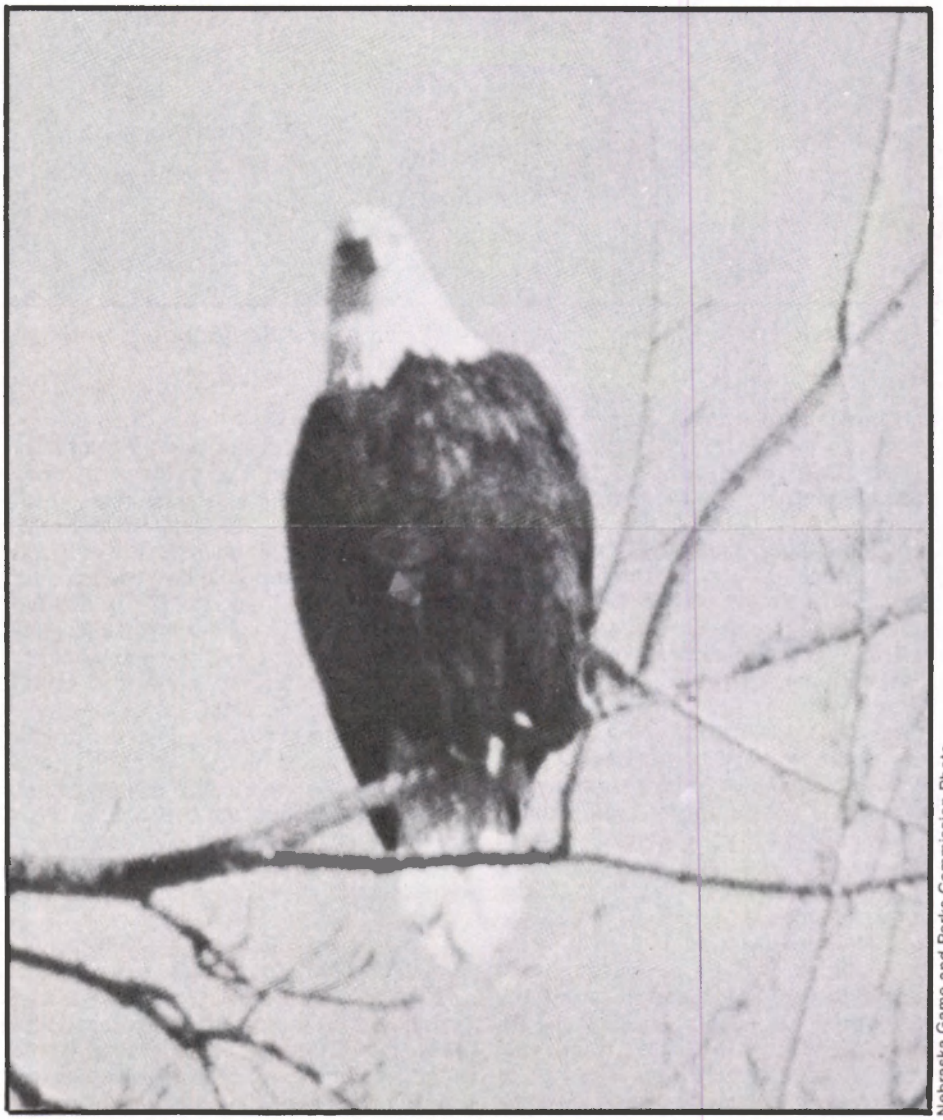
Submitted by Ross A. Lock
Nebraska Game and Parks Commission

Various research and management projects are currently underway in Nebraska for the benefit of the federally Endangered bald eagle (*Haiiaeetus leucocephaius*), black-footed ferret (*Musteia nigripes*), peregrine falcon (*Faico peregrinus anatum*), and whooping crane (*Grus americana*). The swift fox (*Vulpes velox hebes*), a State endangered species, is also under investigation. (The northern swift fox is listed by the U.S. Fish and Wildlife Service as Endangered in Canada.) The Nebraska program is being conducted under a Cooperative Agreement with the U.S. Fish and Wildlife Service. Under this agreement, Nebraska expects to receive over $34,000 in matching Federal funds this fiscal year.

Nebraska's endangered species program was initiated in 1971 with the creation of one full-time biologist position. Early efforts, however, were meager due to limited funding derived mainly from hunting license revenues. In addition, the State's endangered species law was far from adequate as it granted the Nebraska Game and Parks Commission the authority to only list species as endangered and to protect them from taking or hunting. While the law permitted the Commission to carry out a program for the conservation of wildlife threatened with extinction, it did not establish a funding base.

In 1975, the Nebraska State Legislature passed the Nongame and Endangered Species Conservation Act that closely resembled the Model Law developed by the International Association of Game, Fish, and Conservation Commissioners. The act not only broadened the authority and responsibility of the Commission with respect to endangered and threatened species and nongame animals deemed in need of conservation, but it authorized general fund tax dollars to be made available to the Commission. Following enactment of Nebraska's Nongame and Endangered Species Conservation Act, activities in this area have increased and the program has slowly expanded.

Endangered and threatened species lists, along with regulations that specified management policy, were developed by the Commission in late 1975. A publication on the *Endangered and*



Nebraska Game and Parks Commission Photo

Nebraska is an important wintering area for bald eagles.

Threatened Wildlife of Nebraska was also prepared and made available to the public.

In 1977, Nebraska entered into a Cooperative Agreement with the U.S. Fish and Wildlife Service qualifying the State for matching fund assistance. One new nongame and endangered species biologist position was added to the staff during the same year. The State budget was recently increased to allow for two additional staff positions.

The nongame and endangered species staff is performing research, surveys and inventories, and management activities on species listed as endangered or threatened and nongame species determined to be in need of conservation, as well as monitoring the status of other nongame birds, mammals, and reptiles. Most of the intensive research is being conducted through contracts with universities and colleges. Consultation services are also provided to other State departments in Nebraska so that they may utilize their authorities in carrying out programs for the conservation of endangered and threatened species.

Bald Eagle

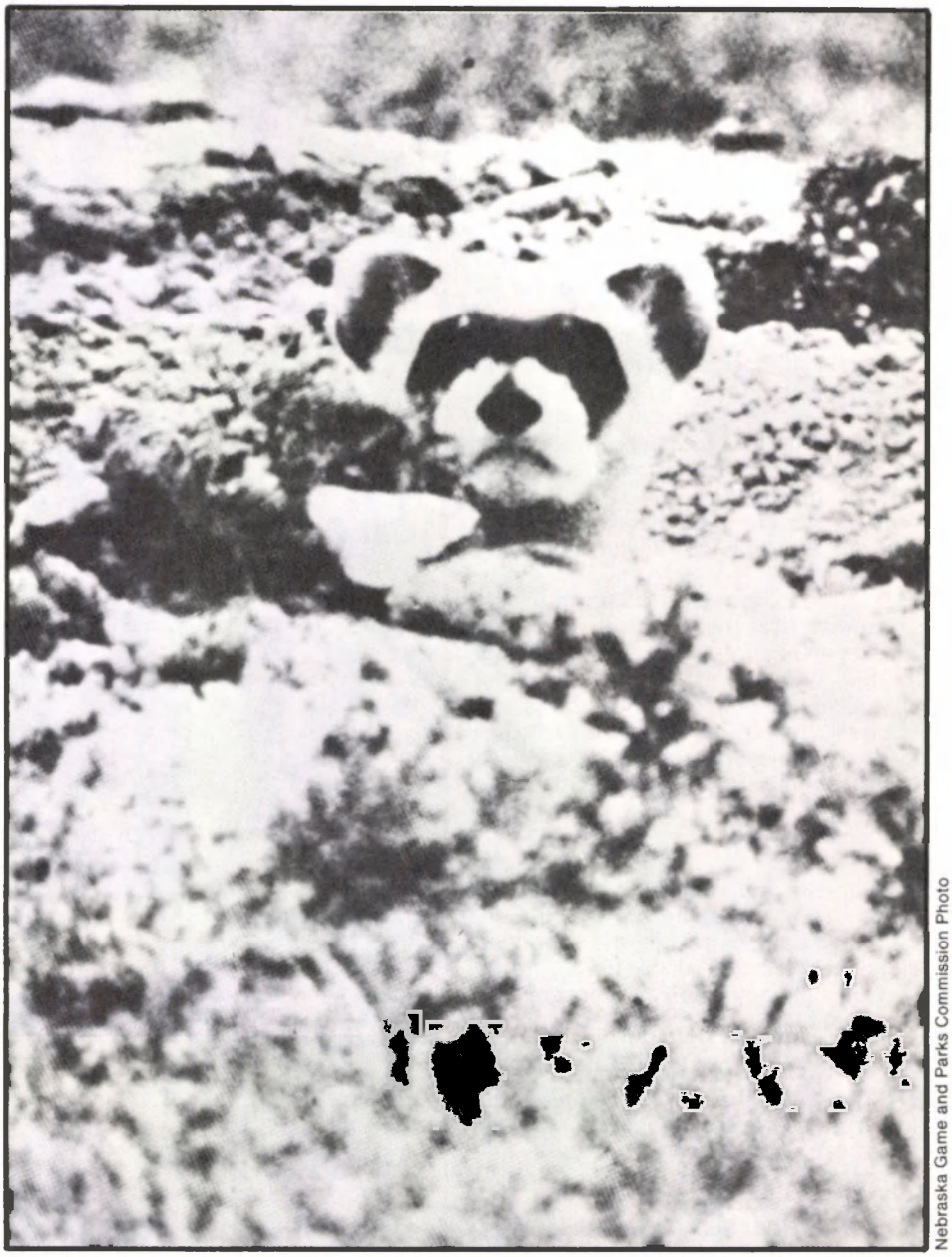
Nebraska currently ranks 13th among States harboring wintering bald eagles, according to the latest National Wildlife Federation sponsored survey. (A Commission biologist, Greg Wingfield, is the State coordinator for the survey.) Information on the biological characteristics and status of habitat utilized by these birds is being collected. Food habits and behaviorial patterns are also being examined. Three areas believed to contain the major bald eagle roosting and feeding sites in the State are under investigation. In an effort to determine roost and feeding area fidelity and other survival requirements, behavior patterns will be studied this winter through observation of color-marked birds. Several eagles will be live-trapped in primary feeding areas for color marking with acrylic paint.

Essential roosting and feeding habitat will be delineated and management plans will be prepared and implemented for those habitats requiring protection.

Black-Footed Ferret

The black-footed ferret, one of the Nation's most Endangered animals, continues to be searched for in Nebraska. For the past seven and one half years, sightings of ferrets have been solicited annually from the public. Over 100 reports have been received to date. Location of all reliable reports are checked for signs of ferrets, and prairie dog towns are spotlighted for ferrets where warranted.

None of the reported sightings have been verified to date. In addition, no sign or other positive evidence of ferrets has been found in the State since 1949. However, several sightings are reported each year that cannot be discredited.



Nebraska Game and Parks Commission Photo

The elusive black-footed ferret continues to be searched for in Nebraska.

Peregrine Falcon

Nebraska is one of several western States cooperating in an attempt to reestablish breeding populations of peregrines. In 1979, Nebraska was one of

three States selected to test the reintroduction technique of cross fostering. Through a cooperative agreement with the U.S. Forest Service and the Peregrine Fund, three peregrine falcon nestlings were placed in a prairie falcon nest located on Federal Government land in the northwest part of the State. Five young prairie falcons in the nest were relocated in other active prairie falcon nests. The adult prairie falcons accepted the peregrine nestlings as their own, taking excellent care of them for 10 days. However, on the 11th day, two of the three peregrine nestlings had to be removed following predation on the other by a golden eagle. Reintroduction efforts in 1980 had to be aborted on the day peregrines were to be placed in a prairie falcon nest due to suspected avian predation.

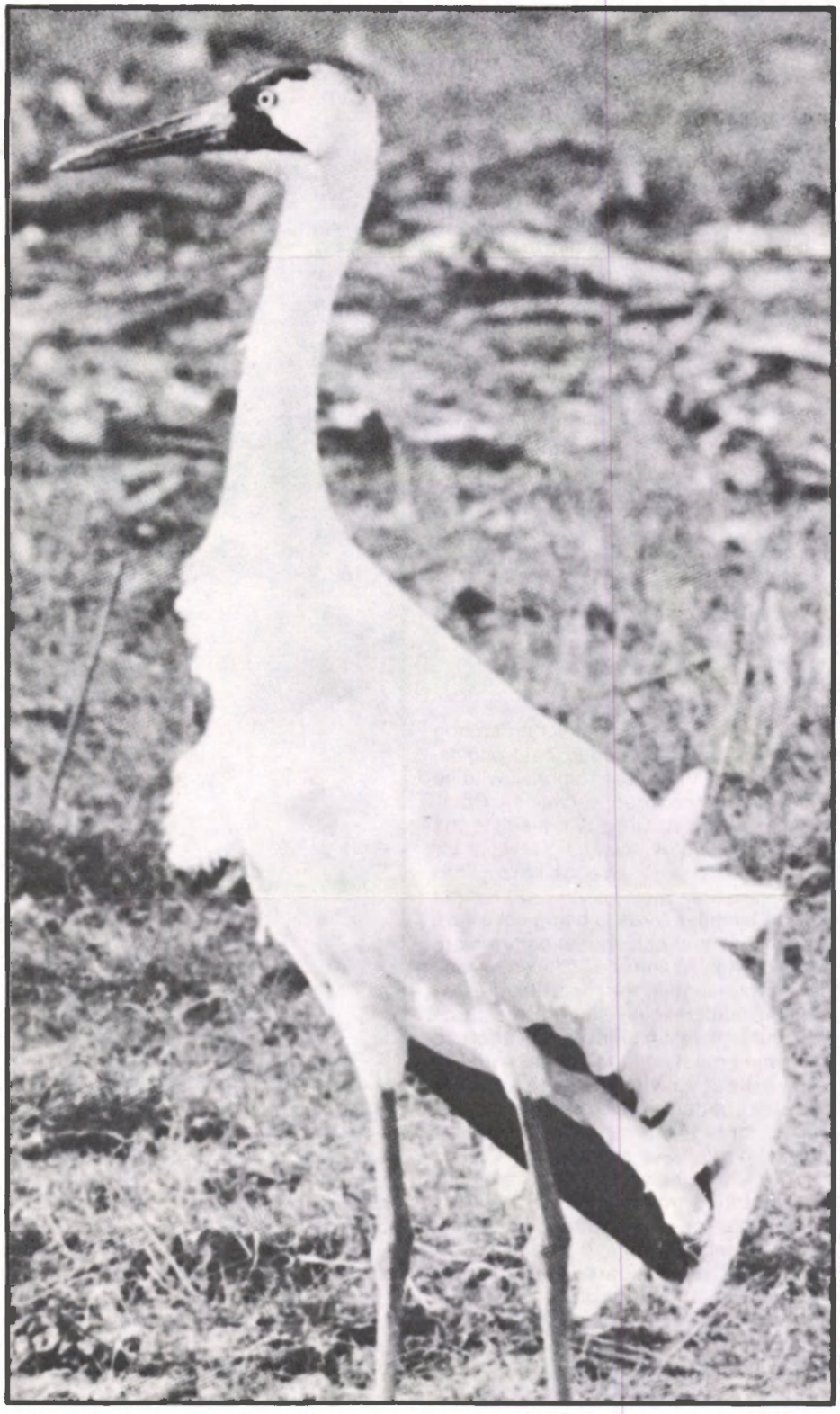
One breeding record is known for the northwestern corner of the State, where old and young peregrines were observed in mid-August 1903, flying about the cliffs. The eyrie used by these birds was not described in the literature. No other evidence of nesting peregrines is known from Nebraska.

Whooping Crane

Nebraska ranks 3rd out of 7 States, found in the whooping crane's primary migration path, in the number of verified sightings recorded since 1960. The 40 verified sightings made in Nebraska over the past 20 years represents approximately 14 percent of the total number recorded for the entire migration path.

Since Nebraska represents one of the major stopover areas for whoopers, efforts are being made to verify all reported observations and to determine biological characteristics and status of habitat utilized. Such information is essential to the proper delineation of Critical Habitat, and to recommending needed habitat protection and enhancement programs.

Protective surveillance of whooping cranes known to be on the ground is provided by Game and Parks Commission personnel. Migrations are closely followed through the U.S. Fish and Wildlife Service monitoring system to assist efforts in determining possible occurrence in the State. This is especially important in preventing exposure of the whoopers to fowl cholera, which occurs each spring in the south central portion of the State, a prime stopover area. Any



U.S. Fish and Wildlife Service Photo

Nebraska is one of the major stopover areas in the migration path of the Endangered whooping crane.

whoopers found on the ground where an epizootic of fowl cholera is occurring are hazed out immediately.

Swift Fox

An in-depth ecological study of the swift fox has been completed recently under a research contract with the University of Nebraska. The study identified food habits, home range, mortality factors, and habitat requirements. This information will be used to prepare a plan that will delineate measures needed to restore these animals to the prairies. Public education will be an essential part of this plan.

Other Studies on Nongame And Endangered Species

The State is concerned about the status of nine species which are listed as threatened in Nebraska: the least tern, mountain plover, southern flying squirrel, lake sturgeon, pallid sturgeon, northern redbeily dace, pearl dace, finescale dace, and the brook stickleback. Investigations are underway to determine their distribution and habitat requirements.

A variety of nongame species, although not listed as endangered or threatened, are receiving considerable attention because of suspected declining populations, small nesting areas subject to decimation, or because an opportunity exists to maintain a population at an existing level, thus preventing the need for future listing. Several raptors are included in this category: the ferruginous hawk, coopers hawk, prairie falcon, golden eagle, burrowing owl, and barn owl. Other bird species of interest are the piping plover, black tern, Forster's tern, black-crowned night heron, double-crested cormorant, and great blue heron.

The status and occurrence of certain mammals such as the bobcat, black-tailed and white-tailed jackrabbit, red fox, badger, and spotted skunk are being evaluated.

During the next year, Statewide surveys will be initiated on all nongame birds, mammals, reptiles, and amphibians to determine habitat, distribution, and relative abundance. Programs are being developed to acquire natural or unique habitat and to coordinate enhancement and protection of urban bird habitats with cities and towns.

Rulemaking Actions

October, 1980

Service Withdraws Proposed Beetles

The Service has withdrawn proposals to list eight North American beetles as Threatened and Endangered species in line with 1978 amendments to the Endangered Species Act (F.R. 10/1/80). The species for which the two-year time limit has expired are Beller's ground beetle (*Agonum belleri*) (Endangered), Sacramento anthicid beetle (*Anthicus sacramento*) (Threatened), globose dune beetle (*Coelus globosus*) (Threatened), San Joaquin dune beetle (*Coelus gracilis*) (Threatened), Majave rabbitbrush longhorn beetle (*Crossidius majavensis majavensis*) (Endangered), Robinson's rain scarab beetle (*Phobetus robinsoni* (Threatened), Andrews' dune scarab beetle (*Pseudocotalpa andrewsi*) (Threatened), and Giuliani's dune scarab beetle (*Pseudocotalpa giulianil*) (Threatened).

These species were proposed for listing on August 10, 1978, along with the Delta green ground beetle (*Elaphrus viridis*) and the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) which were determined to be Threatened species with Critical Habitat (F.R. 8/8/80).

Service Proposes Kentucky Cave Shrimp

The service has proposed a blind crustacean, the Kentucky cave shrimp (*Palemonias ganteri*), as an Endangered species with Critical Habitat (F.R. 10/17/80). Known to occur only in the Roaring River passage of the Flint Mammoth Cave System, Mammoth Cave National Park, Edmonson County, Kentucky, this species is threatened by unseasonal flooding of its limited habitat, and also groundwater contamination.

The Kentucky cave shrimp was originally proposed as a Threatened species on January 12, 1977. That proposal was withdrawn on December 10, 1979, in line with 1978 amendments to the Endangered Species Act. The Service has since received a petition to list this species, which it has determined contains sufficient new information to warrant this reproposal.

A member of the family Atydae, of which three existing species are known from North America north of Mexico, the Kentucky cave shrimp's preferred habitats are pools exposed to seasonal floodings. The species has not been found in recent years in areas where it was formerly abundant. An impoundment on the Green River resulted in year-round flooding and the elimination of much of the shrimp's former habitats.

On September 1, 1979, a single dead specimen was found in the shrimp pools of the Roaring River passage. Previously, the last find there was recorded in 1967.

Groundwater contamination might also be affecting the species' habitat. Recently, an incident of groundwater contamination caused a kill of crayfish and other animals in part of the cave system.

The proposed Critical Habitat area for the Kentucky cave shrimp is the Roaring River passage of the Flint Mammoth Cave System. This area contains the last preferred habitat of this species, and is the only remaining area where the species is known to occur and all of the physical and biological constituents necessary for its survival can be found.

A public meeting on the proposal was held on December 10, 1980 (see the October 1980 BULLETIN). Comments from the public on this proposal must be received by January 15, 1981. They should be submitted to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

RED LECHWE RECLASSIFIED AS THREATENED

Because its populations are stable or increasing over much of its range, the red lechwe (*Kobus leche*) has been reclassified by the Service from Endangered to Threatened status (F.R. 10/1/80).

Although the red lechwe does not appear to be Endangered throughout a significant portion of its range, the Service believes the species still qualifies for Threatened status. Many thousands of square miles of wetlands habitat favored by the red lechwe have been lost because of development, which has been continually increasing in Africa. The species is also threatened by uncontrolled local hunting.

The red lechwe was proposed for reclassification on November 27, 1979. For more information on that proposal and the status of the lechwe see the December 1979 BULLETIN.

Rulemaking Actions Continued on page 8

MALHEUR WIRE-LETTUCE PROPOSED AS ENDANGERED

Known only from one small population in Harney County, Oregon, Malheur wire-lettuce (*Stephanomeria malheurensis*) has been proposed by the Service as an Endangered species with Critical Habitat (F.R. 10/31/80). The extremely restricted range of this species makes it vulnerable to even small land disturbances in and around its habitat.

The Bureau of Land Management (BLM) administers all of the land supporting *Stephanomeria malheurensis*. it is likely that zeolite mining will occur in the area in the near future since mining claims cover the entire area of the species' habitat as well as all adjacent areas. Although a 160-acre area, which includes the entire population of *Stephanomeria malheurensis*, has been fenced to protect the species from grazing, zeolite is a locatable mineral under mining law.

if this proposed rule should become final, BLM would be responsible for carrying out the intentions of the Endangered Species Act on this land. However, the Mining Law of 1872 may restrict BLM's authority to regulate mining activities of locatable minerals, including zeolite. Successful protection of the species and its habitat will require cooperation between BLM, the private mining interests, and our Service.

Another threat to this plant is the invasion of its habitat by cheat grass (*Bromus pectorum*). The cheat grass invaded the burnt area that resulted from a 1972 fire which swept much of the colony area. Fieldwork during August 1980 showed only a few dozen individuals of *Stephanomeria malheurensis* remaining. A September 1980 report indicated that the plant is threatened with extinction unless immediate action is taken to control the cheat grass invasion.

Critical Habitat is included in this proposal and has been designated to include the 160-acre Scientific Study Area on BLM land, 27 miles south of Burns in Harney County, Oregon. This area includes a buffer zone to protect the species from adverse indirect impacts and is considered essential for the species' conservation.

A public meeting and a public hearing on this proposal were held on November 13 and December 2, 1980, respectively. Comments should be received on or before January 29, 1981. Submit comments or materials to the Regional Director (SE), Department of the interior, U.S. Fish and Wildlife Service, 500 N.E. Multnomah Street, Suite 1692, Portland, Oregon 97232.

Threatened Status Proposed For Madison Cave Isopod

The Madison Cave isopod (*Antrolana lira*), an eyeless and unpigmented crustacean, has been proposed by the Service to be a Threatened species (F.R. 10/6/80). Found only in three small pools of water in Augusta County, Virginia, the Madison Cave isopod is threatened by vandalism and mercury pollution.

Two of the pools in which the species is found are in Madison Cave, the other is in a nearby fissure. The species is of great scientific interest because of its uniqueness and its relationship to ocean-living members of the same family (*Cirolanidae*).

The very limited habitat of the isopod has been reduced and degraded by unauthorized visitors to Madison Cave. Trash accumulation and siltation in the pools of water have resulted from persons visiting the cave. The owner of the cave has gated the entrance to discourage visitation.

Another factor affecting the species and its habitat is mercury contamination from the nearby South River. There is apparently a subterranean connection between the pools and the river. The original source of the mercury pollution was an E. i. du Pont de Nemours and Company factory at Waynesboro, Virginia.

Critical Habitat has not been proposed for the Madison Cave isopod because of the threat created by visitation to the cave. Publication of a map and precise location of the cave would only increase the incidence of unauthorized visitation.

Comments on this proposal must be received by January 5, 1981, and should be submitted to the Director (OES), U.S. Fish and Wildlife Service, Department of the interior, Washington, D.C. 20240.

SERVICE PROPOSES PERMANENT PROTECTION FOR BORAX LAKE CHUB

Protected as an Endangered species with Critical Habitat designated under an emergency rule, which expires on January 23, 1981 (F.R. 5/28/80), the Borax Lake chub (*Gila boraxobius*) is now being proposed by the Service for permanent protection (F.R. 10/16/80).

Emergency listing of the Borax Lake chub was initiated because of existing threats to its only known habitat. The fish is found in Borax Lake (a small, 10.2-acre, natural thermal lake), its outflow, and Lower Borax Lake located in the Alvord Basin in Harney County, Oregon. The chub has become isolated from the surrounding watershed because the lake's perimeter has risen from mineral precipitation. The perched nature of the lake, compared to the surrounding land, makes it extremely susceptible to human disturbance. Alteration of the lake's perimeter is lowering the water level, which adversely affects the chub by decreasing habitat and increasing water temperature.

Another threat to the Borax Lake chub is geothermal development. The entire Alvord Basin is a Known Geothermal Resource Area in which the Bureau of Land Management has already leased rights for geothermal exploration to private oil and geothermal companies. Exploratory drilling could create interconnecting aquifers or springs, which could result in Borax Lake being drained. Drilling might also disrupt the hot water aquifer feeding the lake, thereby changing the aquifer pressure or temperature.

Critical Habitat is proposed for Borax Lake and the acquatic environments associated with its outflow. Most of the area is owned by the Bureau of Land Management, which (in the event of a final rulemaking) would have to insure that activities it authorizes, funds, or carries out are not likely to jeopardize the continued existence of the Borax Lake chub. BLM will also have to insure that their activities will not result in the destruction or adverse modification of the Critical Habitat.

A public meeting and a public hearing were held on this proposal on November 13 and December 2, 1980, respectively. Comments were due by December 15, 1980.

Threatened Status Proposed For Silverling

The Service proposes the silverling (*Paronychia Argyrocoma* var. *albimontana*), a plant occurring in Maine, New Hampshire, and Massachusetts, to be a Threatened species (F.R. 10/27/80). Historically, this plant has been documented from approximately 27 locations in New England since it was first collected in the early 1800's. The plant is currently known to occur at only 13 of these sites.

A member of the carnation family (*Caryophyllaceae*), the silverling is threatened by heavy hiker traffic, overcollecting, a highly restricted range, and small population sizes. in New Hampshire, most of the nine sites where the plant occurs are in the White Mountain National Forest and are heavily used by hikers. Damage has occurred to plants located along trails. Because all of

Photo by Irene M. Storks

Paronychia argyrocoma *var.* albimontana, *a proposed Threatened species, occurs on the tops of mountains and ledges (generally below 4,000 feet) and along rocky stream shores or on riverside ledges.*

the New Hampshire silverling populations range in size from 1 to 60 tufts or individuals (colonies) per population and occupy small areas, they are extremely vulnerable to trampling and natural factors.

In Massachusetts, where a single population of *Paronychia argyrocoma* var. *albimontana* occurs, this plant's numbers have fluctuated since a description of the site in 1945. At that time, 196 colonies of the plant were reported on a small ledge on an island in the Merrimack River, Essex County. In 1978, 56 colonies were reported at the site. A 1980 census found 104 mature colonies, 93 seedlings, and 10 dead or nearly dead colonies. The cause of this fluctuation is unknown, but it may be due to human disturbance or natural population fluctuations.

Although seven sites have been reported in Maine, only three are known to exist. Little is known about the plant's status in the State.

Collecting of silverlings for scientific purposes has removed a significant number of plants from the wild. This is a serious threat, as several of the smallest populations consist of only one plant.

Because taking is such a serious threat and the plants occur in open, exposed areas near hiking trails, the Service feels that designation of Critical Habitat would not be in the best interest of the species, but would in fact place the species in greater jeopardy.

Comments on this proposal were due by December 26, 1980.

MONITO GECKO PROPOSED AS ENDANGERED

Known only from Isia Monito in the Commonwealth of Puerto Rico, the Monito gecko (*Sphaerodactylus micropithecus*) has been proposed by the Service as an Endangered species with its Critical Habitat delineated (F.R. 10/22/80).

An extremely rare lizard, only one adult Monito gecko has ever been collected in spite of intensive surveys. An egg was collected at the same time (May 1974) and both specimens were placed in the Florida State Museum. According to Dr. Howard W. Campbell who, with Dr. Fred G. Thompson, collected the gecko and egg, predation from introduced rats (*Rattus rattus*) may be the major factor contributing to the species' rarity. Dr. Campbell's trip report stated, "No quantitative estimate is available for their numbers, but it should be noted that, at night, one is never out of sight of at least one foraging rat and frequently several will be in sight at any given moment."

Previous surveys of Monito failed to turn up any lizards of the genus *Sphaerodactylus*, which are normally abundant when present. The gecko was described as a distinct species in 1977 and the Monito *Sphaerodactylus* has been difficult to ally taxonomically with any species nearby, including *S. monensis* of Mona Island only 5 kilometers away.

The Service believes that because the Monito gecko is known to occur only on the tiny (300 x 500 meters) Isia Monito, the entire island should be designated as Critical Habitat. If the area were destroyed, the gecko would become extinct. Also, the rat problem is such that the island must be carefully managed to insure the continued existence of the lizard as well as its extensive sea bird colony.

Activities which might be detrimental to the environment of this species and lead to further reduction of its range include using Monito as a target for Naval bombing practice, as was considred in the past, and other types of physical alteration of the island.

Public meetings were held on this proposal in the Commonwealth of Puerto Rico (see the October 1980 BULLETIN).

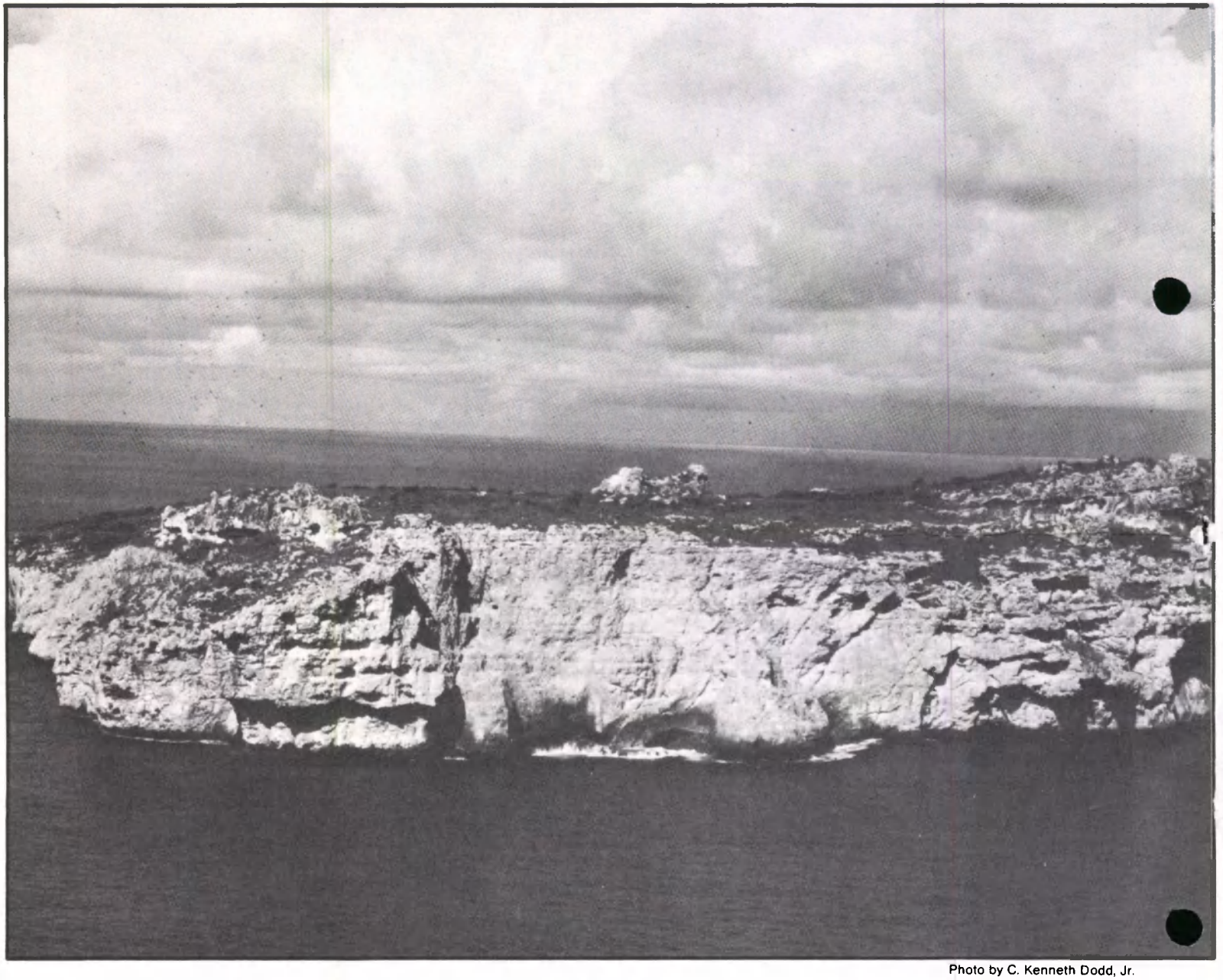


Photo by C. Kenneth Dodd, Jr.

Proposed as Critical Habitat for the Monito gecko, Isla Monito is the only area where the species is known to occur.

Comments from the public must be received by January 21, 1981, and should be sent to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

PUERTO RICAN BEACHES PROPOSED AS CRITICAL HABITAT FOR HAWKSBILL TURTLE

The Service has proposed to designate Critical Habitat for the hawksbill sea turtle (*Eretmochelys imbricata*) in the Commonwealth of Puerto Rico (F.R. 10/22/80). Protected as an Endangered species since 1970, much hope for the survival and recovery of this species depends upon the maintenance and protection of suitable, undisturbed nesting beaches.

One area included in the proposal, the beaches of Mona Island, was cited as being of major importance as a nesting area for the hawksbill at the World Conference on Sea Turtle Conservation held in November 1979, in Washington, D.C. Designation of Mona Island as Critical Habitat for the species was one recommendation made at the 1979 Conference.

Hawksbill sea turtle populations are apparently declining worldwide because of commercial trade in tortoise-shell items and stuffed specimens, human consumption of eggs or destruction of eggs by predators, and destruction or alteration of nesting beaches. Other threats to the hawksbill include killing for meat (this only happens occasionally because hawksbill meat is considered poisonous in many parts of the world), accidental entanglement in fishing nets, incidental catches in trawls, pollution and destruction of nesting and feeding reefs, and harassment while nesting and swimming.

Critical Habitat for the hawksbill sea turtle in the Commonwealth of Puerto Rico was originally proposed on May 24, 1978. That proposal was withdrawn on March 6, 1979, because of substantive changes made in the requirements for determining Critical Habitat by the Endangered Species Act Amendments of 1978. The areas in the present proposal are essentially the same as those in the original proposal.

Mona Island

Mona Island is owned by the Commonwealth fo Puerto Rico and is managed as a Natural Reserve. The island is uninhabited except for Puerto Rico Conservation Rangers who enforce wildlife laws. The entire 7.2 kilometers of beaches on Mona Island, to a point 150 meters from shore, are proposed as Critical Habitat for the hawksbill sea turtle. Mona Island is already Critical Habitat for the federally-listed yellow-shouldered blackbird (*Agelaius xanthomus*), Mona ground iguana (*Cyclura stejnegeri*), and Mona boa (*Epicrates monensis monensis*).

Culebra Island

The areas proposed as Critical Habitat include nearly all the major sand beaches on the north shore of the island. These areas (Playa Resaca, Playa Brava, and Playa Larga) are currently owned by the U.S. Navy, but are scheduled to be transferred to the Commonwealth of Puerto Rico sometime in 1981. Under draft agreements, the beaches will not be further developed and will be managed by the Commonwealth as marine turtle nesting beaches with numerous conditions on human use and activities.

Isla Culebrita

A part of the National Wildlife Refuge system, this island is uninhabited with virtually no public access. This island may be transferred to the Commonwealth of Puerto Rico, pending Congressional approval, although this has not yet been decided. If transfer is completed, restrictions on human activities would be the same as on Culebra. Critical Habitat would include all beachfront areas on the southwest facing shore, east facing shore, and northwest facing shore from mean high tide insland to a point 150 meters from shore.

Cayo Norte

Cayo Norte is privately owned in two separate parcels. No one presently lives on the island, although there are reportedly some unoccupied dwellings. The beach may be visited occasionally by boaters, but the remoteness of the island makes such visits rare. Critical Habitat would include south beach from mean high tide inland to a point 150 meters from shore.

If published as a final rule, this proposal would require Federal agencies not only to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the hawksbill sea turtle, but also requires them to insure their actions are not likely to result in the destruction or adverse modification of their Critical Habitat.

Public meetings on this proposal were held in the Commonwealth of Puerto Rico (see October 1980 BULLETIN). Further comments must be received by January 21, 1981. Comments should be submitted to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

SERVICE ISSUES ALLIGATOR, GINSENG FINDINGS

The Service has issued final findings in favor of the export of American ginseng (*Panax Quinquefollus*) and American alligators (*Alligator mlssisslp-plensis*) harvested during the 1980 season (F.R. 10/21/80). Under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), export of wildlife or plants listed in Appendix I or II requires a finding by the Scientific Authority that such exports will not be detrimental to the survival of the species, and Management Authority satisfaction that the wildlife or plants were not obtained in violation of the law.

American Ginseng

Export of wild or artifically propagated 1980 season ginseng has been approved for Arkansas, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Minnesota, Missouri, New York, North Carolina, Ohio, Tennessee, Virginia, West Virginia, and Wisconsin. The Management Authority will approve export of wild or artificially propagated ginseng only from these States because they have the mandatory or voluntary programs necessary to document the source of the plants.

American Alligator

Because of increasing alligator populations in Louisiana and Florida, and because these States have programs to monitor populations and control harvests, the Service has approved alligator exports from these areas. The finding for Louisiana applies to alligators taken in the State during the 1980 commercial harvest season, and in Florida, export is approved under the "nuisance" alligator control program during 1980 and 1981.

Provided that any export of American alligators is in accordance with the Service's regulations (50 CFR 17.42), which require the licensing of foreign buyers and tanners, and provided that hides are properly tagged, there is assurance that their export would not diminish the effectiveness of the CITES in controlling trade in other crocodilians.

Manatee Sancturaries Established in Florida

William Gill

On November 12, 1980, the Service established the first permanent manatee sanctuaries (45 FR 74880) under Section 17.108 of 50 CFR Part 17, Subpart J (44 FR 60962) which provides the means for establishing West Indian manatee (*Trichechus manatus*) protection areas (see the November 1979 BULLETIN). The three sanctuaries, designated in Kings Bay, Crystal River, Florida, prohibit all waterborne activity within them between November 15 and March 31 of each year. They are known as the Banana Island Sanctuaries, Sunset Shores Sanctuary, and Magnolia Springs Sanctuary. Boat access to residences, boat houses, and boat docks in the sanctuaries will be permitted by residents and their authorized guests by obtaining and displaying stickers provided by the Service. They will be required to maintain idle speed within the sanctuary.

The regulation which allowed the Service to designate these permanent manatee protection areas also provided for the emergency establishment of such areas. On January 11, 1980, approximately 2 acres adjacent to Warden Key on Kings Bay were established under this emergency provision as a manatee refuge. This designation expired March 31, 1980 (see the January 1980 BULLETIN).

Following the expiration of the emergency designation, the three areas in Kings Bay were proposed as manatee sanctuaries (see the August 1980 BULLETIN). The Warden Key area was deleted from the proposal because it lacked a warm water source which limited its effectiveness as a sanctuary. The area did, however, effectively demonstrate the need to provide habitat free from disturbance from waterborne activities.

The Banana Island and Sunset Shores Sanctuaries are adjacent to, but do not include, the main spring. However, they do include secondary springs. Diving activities will still be allowed at the main spring providing recreational opportunity to observe and interact with those manatees that are tolerant of human presence. The Magnolia Springs Sanctuary contains a warm water spring known as Magnolia Spring or "Alligator Hole." This area is located in a section of canal within the Springs O'Paradise subdivision.

The warm springs provide manatees with areas where water temperatures are moderated during cold weather periods. Manatees tend to "congregate" around the warm springs during these critical periods. In an effort to observe and interact with manatees, human activity increases at these manatee "congregations." This disturbance causes manatees to flee these warm spring areas subjecting them to physiological stress and increasing the potential for mortality. Disruption of normal mating or calf rearing behavior may also result.

The sanctuaries are intended to provide areas free of disturbance to manatees. Over 100 individuals out of an estimated population of 1,000 animals have been known to use the Kings Bay-Crystal River area.

BOX SCORE OF SPECIES LISTINGS

Category	Endangered U.S.	Endangered Foreign	Threatened U.S.	Threatened Foreign	Species Total
Mammals	32	241	3	21	279
Birds	66	159	3	0	214
Reptiles	13	61	10	4	75
Amphibians	5	8	3	0	16
Fishes	34	15	12	0	57
Snails	2	1	5	0	8
Clams	23	2	0	0	25
Crustaceans	1	0	0	0	1
Insects	7	0	6	1	13
Plants	51	2	8	3	60
TOTAL	234	489	50	29	750

Number of species currently proposed: 17 animals
10 plants
Number of Critical Habitats listed: 48
Number of Recovery Teams appointed: 68
Number of Recovery Plans approved: 39
Number of Cooperative Agreements signed with States:
37 (fish & wildlife)
8 (plants)

November 30, 1980

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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