



## ENDANGERED SPECIES TECHNICAL BULLETIN

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

### Commercial Importation under Consideration for Three Threatened Kangaroos

Subsequent to a "5-year" review of the status of the red, eastern gray, and western gray kangaroos, the Service has proposed to permit commercial importation of the products of these animals from their native habitat in Australia for a trial period of two years (F.R. 6/16/80).

#### Background

All three species of kangaroos involved in the subject proposal were

listed as Threatened under the Endangered Species Act of 1973 on December 30, 1974, subsequent to an earlier notice proposing all three for listing as Endangered (F.R. 4/1/74).

Under the initial proposal, the Service believed that the status of the red kangaroo (*Megaleia rufa*), the eastern gray kangaroo (*Macropus giganteus*), and the western gray kangaroo (*Macropus fuliginosus*), and threats to their continued existence warranted the highly

protective Endangered classification. Upon the receipt of data and comments subsequent to its listing proposal, however, the Service determined that mortality factors (such as poaching, commercial and sport hunting, and excessive drought) were apparently not so substantial as to lead to the extinction of the three marsupials, and habitat losses were not as significant as once thought in light of the total range of the

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Photo courtesy of Lothar Schlawe

*If adopted, the Service proposal would allow for regulated import of kangaroo parts and products into the U.S. for a 2-year trial period.*



## REGIONAL BRIEFS

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

**Region 1.** Area Office boundaries will be realigned beginning October 1, 1980. The Sacramento Area Office will cover California, Boise will be responsible for Idaho and Nevada, the Olympia

office will have Washington and Oregon, and the Honolulu Area Office will cover Hawaii and the Pacific Islands, as it did previously.

A new population of *Mirabilis macfarlanei* has been found in Idaho's Salmon River drainage. This new population more than doubles the number of plants

from the three previously known populations.

**Region 2.** Jack Woody participated in a panel discussion conducted by the Southwestern Audubon Society. Representatives of the National Audubon Society and the New Mexico Department of Fish and Game met to discuss the ongoing Grays Lake program of establishing a new migratory flock of whooping cranes (*Grus americana*).

The bald eagle (*Haliaeetus leucocephalus*) nesting study on the Verde and Salt Rivers in Arizona began in March and has turned up five fledglings. A juvenile tagged last year has also apparently returned to the area.

**Region 3.** The 1980 census of the Kirtland's warbler (*Dendroica kirtlandii*) population in Michigan was up 30 pairs from last year's census. The inventory found 242 pairs in the six-county survey. The goal of recovery efforts for this species is a population of 1,000 pairs. A recent fire in the warbler's nesting habitat (see June 1980 BULLETIN) did not affect the population. The birds simply left the area for other sites.

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

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#### U.S. Fish and Wildlife Regions

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

The ENDANGERED SPECIES TECHNICAL BULLETIN is published monthly by the U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

**Region 5.** Service personnel met with the U.S. Forest Service, Appalachian Mountain Club, and University of New Hampshire representatives to discuss the Critical Habitat designation of Robbins' cinquefoil (*Potentilla robbinsiana*) and the relocation of segments of the Appalachian Trail. All parties agreed to the proposed route of the new trail which should help reduce the human impact on the existing population of the plant.

A U.S. Fish and Wildlife Service Certificate of Appreciation Award was presented to Professor Claude E. Phillips on June 13, 1980 at the Delaware Natural History Society banquet held in honor of his 80th birthday. Professor Phillips is recognized as the leading authority on the flora of the Delmarva Peninsula.

**Region 6.** The Service reports that humpback chubs (*Gila cypha*) captured from the Colorado River below Grand Junction, Colorado, have spawned successfully. A total of 18,000 eggs taken from wild females were fertilized on location with sperm from wild males. The eggs were air shipped to Willow Beach National Fish Hatchery in Arizona, where they were successfully hatched. Also this year, captive humpbacks at Willow Beach successfully spawned.

The Riverside Irrigation District and Public Service Company of Colorado have filed suit against the Service and the Army Corps of Engineers regarding the proposed Wildcat Reservoir on a tributary of the South Platte River. The

plaintiffs have requested \$181 million in damages. The Service issued a biological opinion which indicated that the operation of the reservoir would likely jeopardize the continued existence of

the whooping crane and adversely modify its Critical Habitat in Nebraska. (The cabinet-level Endangered Species Committee later conditionally exempted the "Greyrocks Project" from compli-

ance with Section 7 of the Endangered Species Act—see the December 1978 and January 1979 BULLETINS.) Jurisdiction for the case has not been determined.

## DEATH OF CALIFORNIA CONDOR CHICK UNDER INVESTIGATION

The Service has announced the results of an autopsy on the California condor chick that died during examination by a biologist on June 30, indicating the cause of death as "shock and acute heart failure." According to Service officials, the heart failure resulted in excess fluid in the lungs, depriving the

bird of adequate oxygen.

The San Diego Zoo's autopsy report said that moderate obesity—apparently common in wild baby chicks while they are still in the nest—could have contributed to the chick's death. Separate analyses were also conducted by the Service's Patuxent Wildlife Research Center, indicating only trace amounts of environmental contaminants in the

bird.

The Service is conducting a thorough review of the circumstances surrounding the condor's death, and will await these findings (along with the results of experiments with Andean condors and other vultures in South Africa and Peru) before reapplying for permits necessary to continue work as part of the California condor recovery program.



U.S. Fish & Wildlife Service Photo

*This 45-day old California condor was successfully examined prior to the older chick, which failed to survive the ordeal.*

# EAGLES ON THE UPSWING IN THE CHESAPEAKE

Our national symbol is holding its own here in the vicinity of the Nation's capitol, where the productivity of the bald eagle (*Haliaeetus leucocephalus*) is up again this year in the Chesapeake Bay.

A record total of 72 eagles fledged this spring from 49 successful nests in Maryland, Virginia, and Delaware—actually exceeding the previous known high of 1936, when 71 eagles were hatched in 35 nests in the Bay area.

The 1980 tallies are especially significant for Virginia, where an unprece-

dent 35 chicks were produced from 23 nests within the study area—possibly a sign that the birds are on the rebound from declines in the 1960's likely due to environmental contamination.

## Tri-State Banding Project

Almost all of the active nests were visited and climbed to by members of the Chesapeake Bay Bald Eagle Banding Team, a project of the National Wildlife Federation's Raptor Information Center (RIC), organized in 1977 to assess the

status, life history, productivity, and problems of nesting bald eagles in the Bay area. Banding efforts and associated studies are sponsored by the Maryland, Virginia, and Delaware wildlife agencies, with 3-to-1 matching fund assistance from the Service through the Federal endangered species grant-in-aid program. (See our feature in the August 1977 BULLETIN.)

The RIC team began 1980 field work around May 1, visiting almost all 85 active eagle nests (and scaling 45 of the 49 successful nest trees) to band young birds and collect data important to the study effort. By mid-June, U.S. Fish and Wildlife Service bands and special triple thickness color vinyl tags had been placed on 63 eaglets (30 in Maryland, 31 in Virginia, and 2 in Delaware), promoting their visual identification throughout the Bay area. (Four of the successful nests could not be visited when landowners failed to permit entry onto their properties, while another three chicks were approaching fledging and deemed too old to attempt banding.)

With an overall nest success rate of 58 percent, productivity is up this year to an encouraging .85 young per active nest, compared with .71 in 1979, .65 in 1978, and .82 in 1977 (the first year of the banding project, when 63 eaglets were fledged in and around the Chesapeake).

While this year's productivity in the Chesapeake was true to "Mother Nature," Virginia's eagle population had been bolstered by human hands during the past 3 years of the banding project. In cooperation with the Service's Patuxent Wildlife Research Center in Laurel, Maryland, two captive-produced eggs were placed in a previously unproductive nest near the Mason Neck National Wildlife Refuge in 1977. One hatched, and the eaglet successfully fledged (although transplant efforts the following year proved unsuccessful). Two additional eaglets born in captivity at the Patuxent Center were successfully introduced to a Virginia nest in 1978, with another three chicks adopted at two Virginia nests in 1979. (See our feature on Virginia's endangered species activities in the February 1979 BULLETIN.)

Since the project's inception, co-operators have learned a great deal about the life history of Chesapeake Bay bald eagles—all of which should better equip them to protect essential nesting habitat, determine probable

Photo by Craig Kopple



This year's Chesapeake Bay eaglets have been titted with orange vinyl triangular tags with symbols denoting different nest locations.



*Bander Keith Cline is about to fit this young eagle with a radio transmitter, so that specialists may track its movements after fledging (Designed to signal whether the bird is moving or inactive, the unit amounts to no more than 2 percent of the eagle's body weight.)*

Photo courtesy of the Raptor Information Center

sources of contamination and disturbance that may inhibit reproduction, and learn the migratory habits of the eaglets once they have fledged.

For example, we know that the loblolly pine (with trees approaching 100 feet in height) is the eagle's favorite nest tree in the Chesapeake. A surprising array of prey items has been found in and around eagle nests, including the remains of turtles (especially diamond-backs), eels, a variety of fish species, muskrat and other small mammals (last year accounting for the loss of a do-

mestic cat), various waterfowl and even raptors (with evidence of a red-tailed hawk, merlin, and great-horned owl found in 1979).

#### **Watching the Birds**

Under contract to the Virginia Commission of Game and Inland Fisheries (utilizing Federal aid assistance from the Service), Dr. Mitchell Byrd and a graduate student at the College of William and Mary have initiated a monitoring program designed to learn more about the habitat needs, range, and

feeding and nesting habits of bald eagles in the Bay area.

Seven eaglets in nests along the Rappahannock River in Virginia were fitted this year with radio transmitters to better understand their movement patterns upon fledging. David Wallin, who coordinates the project as part of his graduate work at William and Mary, says the information gained from tracking efforts should prove valuable in identifying foraging sites to pinpoint possible sources of contamination.

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## Chesapeake Eagles

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Results from the 7 birds radio-tagged by Wallin last year (3 near the Potomac, 3 from the Rappahanock, and 1 from the first known nest along the James River since 1973) indicate that the eaglets stay in the vicinity of their nests for about two months after fledging, moving to isolated shore lines where they spend 40 to 70 percent of their time. The biologists were able to follow the birds for some two and a half months before they began to disperse apparently beyond the range of the transmitters. (The use of fixed-wing aircraft with special antennas should prolong monitoring this year.)

Wallin is also studying sibling interactions and feeding activities with the aid of two remote video cameras, placed in trees near two active Virginia nests this year by the banding crew. (There appears to be a fair amount of aggression between the young eagles, with older birds generally more successful in obtaining food items.) The cameras also permit the collection of data on prey items, the frequency of food deliveries, weather conditions, and other factors that could affect nesting success.

### Pesticide Analyses

For the past 4 years, RIC climbers have not only banded chicks but have also visited abandoned eagle nests throughout the Bay, collecting eggs and eggshell fragments for analysis at the Service's Patuxent Center. Of the 36 nests found abandoned this year, 35 were visited from which 8 eggs were salvaged along with 10 collections of eggshell fragments.

According to Stanley Wiemeyer, who coordinates eagle egg pesticide analyses for the Center, some breeding eagles in the Chesapeake are still contaminated with fairly excessive levels of chlorinated hydrocarbons like PCBs, dieldrin, and DDE (a breakdown product of DDT). But, because of the small and biased nature of the samples collected, it is still too early to establish a trend with regard to the impacts of environmental contamination on eagle productivity in the Bay.

Wiemeyer is now in the process of computerizing data on approximately 100 eggs collected between 1971 and 1979 from nests throughout the country in an attempt to determine relationships between contaminant levels, territory productivity, and shell thickness in bald eagles.

Pesticides may not be the only cause of nest failures in the Bay area, unfortunately, as evidence of human disturbance is often linked with nest

abandonment. The researchers have noted population increases in remote or protected areas, while there has been a corresponding decline in breeding pairs where the human population is increasing. A large portion of the Bay's eagle nests occur on private property, possibly leaving them vulnerable to adverse land management practices.

Gary Taylor (Maryland Department of

Natural Resources), leader of the Service-appointed recovery team for Chesapeake Bay eagles, reports that the recovery plan for this population should be in final draft form by the end of the summer. In the meantime, RIC plans to continue banding efforts through 1981, in the hope that sufficient data may be gathered to help restore the Chesapeake Bay bald eagle.

## EAGLE COUNTS UP 30 PERCENT

A second annual mid-winter survey of bald eagles in the lower 48 States sponsored by the National Wildlife Federation in January has produced a preliminary total of 12,199 eagles—some 3,000 more birds than were sighted during the 1979 survey.

Taken during January 2-20 by some 2,900 counters representing 47 State, 7 Federal, and numerous private organizations, this year's census revealed the highest eagle population in Washington State, with 1,623 sightings. (Runners-up were Missouri, California, Utah, Oregon, Illinois, Colorado, and Oklahoma.)

William S. Clark, director of the Federation's Raptor Information Center, cautions that we should not look to the 30 percent increase as positive evidence that the bald eagle is making a comeback in the U.S. "We attribute the higher count mostly to the fact that our survey was more intensive this year, with more participants, better coordination, and coverage of more area." But Clark believes this year's figures do seem to show that we are not losing ground in our effort to save the bald eagle, with the number of young and immature birds especially encouraging.

Mike Pramstaller, who coordinated the survey effort, explains that "our survey is much more than just a bird count. State and Federal wildlife officials also learn a lot about the movements of wintering eagles and their habitat, so that they may determine which areas should be better protected."

Survey results are available from the Raptor Information Center, National Wildlife Federation, 1412 - 16th Street, N.W., Washington, D.C. 20036.



# HACKED EAGLES NEST IN NEW YORK

Endangered species specialists in New York have announced an unexpected victory: Two bald eagles have been hatched in the wild by birds that were themselves reared at a hack site in the State in 1976.

Biologists first noticed the pair of 4-year old birds attempting to establish a home territory and nest earlier this spring, but were unable to confirm the presence of an egg. A ground check

around the 1st of July, however, revealed two eaglets in the nest. Both appear healthy, and are expected to fledge around the end of July.

Peter Nye, coordinator of the State's endangered species program, called the event "truly historic," demonstrating that eagles in the wild in New York can now produce viable eggs with shells strong enough to withstand incubation. "It is a significant step toward our goal

of restoring a breeding population of bald eagles in New York State," Nye said. Until this year, only a single active bald eagle nest remained in New York (from which a transplanted chick was successfully fledged in 1978—see the December 1978 BULLETIN on New York's program).

In the first 4 years of the program, 15 eagles were hacked at the Montezuma National Wildlife Refuge in central New York (where 5 more birds are being reared this season).

Unfortunately, biologists have been unable to band the eaglets because of an active honeybee hive directly under the nest.



*New York biologists were happily surprised to discover these two eaglets, produced by adults that were themselves "hacked" in the wild only 4 years ago. (Prior to this year's creation, only one active bald eagle nest had been known in the State for 15 years.)*

photo by Peter E. Nye

## Bald Eagle Honored In Manhattan

Over 5,000 people paused to view this exhibit, organized by a group of private citizens as part of the First American Bald Eagle Festival in Manhattan on June 20-22.

Situated at the Castle Clinton National Monument, the festival commemorated the 198th anniversary of Congressional designation of the bald eagle as our national emblem.



U.S. Fish and Wildlife Service photo

## ARKANSAS PROMOTES EAGLE AWARENESS



photo courtesy of Arkansas Zoo

"Martha one-wing," a juvenile bald eagle, is shown here greeting Arkansas Governor Bill Clinton (right) as he proclaims Eagle Awareness Week (January 19-27, 1980) in the State. Arkansas recently became active in a campaign to educate the public about the need to conserve bald eagles and other endangered species, and next year plans to host an Eagle Awareness Month.

The State has asked us to share with the public its appreciation for the commendable efforts of Mr. Andrew Pursley (above, center), U.S. Fish and Wildlife Service special agent, in helping found the awareness program, which has generated needed public and financial support for eagle protection throughout the State.

## RECOVERY SLATED FOR WATERCRESS DARTER

The Service has approved a recovery plan for the watercress darter (*Etheostoma nuchale*), an Endangered fish occurring in three springs in Jefferson County, Alabama.

At the time the watercress darter was listed as Endangered in 1970, the species was known from only Glenn Springs, which is located within 20 yards of Route 20, a highway with locally heavy traffic. Estimates of the numbers of individuals in this population have ranged from 400-700. Subsequent

surveys turned up two new populations of watercress darters—one in Thomas Spring and the other in Roebuck Spring.

The primary threats to the existence of the watercress darter are habitat modification and degradation, a limited range, and gas bubble disease. The recent growth of shopping and residential zones in the Birmingham-Bessemer area has led to the paving of acres of land. (Rainfall cannot continue to recharge the springs when it is carried off parking lots into drains and gutters.)

High bacteriological counts have been made in water samples from Glenn Springs and Roebuck Spring. On August 25, 1977, a bacterial count was made from Glenn Springs that turned up 350 coliform per 100 ml. of water. The presence of coliform organisms in water indicates contamination from some source such as surface water or fecal material from man or animals. (A count of more than 4 coliform per 100 ml. is

considered contaminating.) Samples from the Roebuck Spring basin, Roebuck Spring creek, and Roebuck Recreation Center resulted in readings of 490, 440, and 3,600 coliform per 100 ml. respectively. The high bacterial count apparently has its origin in sewage from septic tanks seeping into the ground water and surfacing at Roebuck Spring, especially after heavy rains.

Gas bubble disease can be caused by either high concentrations of nitrogen gas or high levels of bacteria in the water. A study of the Roebuck Spring population found that 15 of 30 adult specimens from the Roebuck Spring basin were affected by gas bubble disease. Seven of 30 adults were affected in the spring outflow creek immediately below the spring basin, and at the Roebuck Recreation Center (a little further downstream) no evidence of gas bubble disease was found. The study concluded that there is a progressive decrease in the disease with increasing distances from the spring basin.

The objective of the recovery plan is to prevent the extinction of the watercress darter by preserving, protecting, and enhancing its habitat; increasing darter populations within the species' present range; and establishing new populations, by transplantations within Jefferson County.

It is important, according to the Service-appointed recovery team, that preferred habitat and ecological requirements be strictly defined. The watercress darter appears to thrive in deeper, slow-moving backwaters of springs choked with aquatic vegetation such as watercress (*Nasturtium*), *Chara*, and *Spirogyra*. These allow for large populations of aquatic insects, crustaceans, and snails—the watercress darter's diet.

For all three populations, the recovery plan calls for the construction of low level dams to create spring-pond habitats, which are desirable for the species.

As for the gas bubble disease problem, the recovery team is unable to offer a solution. Replacement of the septic tanks by a sewage system might help, but it is possible that the disease is being caused by natural factors which have saturated the spring water with nitrogen gas.

Transplants are recommended by the team once the present populations have increased to the point where large numbers of individuals abound. Then transplants should be made from the healthiest population into suitable nearby springs within the Black Warrior River system in Jefferson County. Should the transplant populations thrive and reproduce, they should receive the same monitoring and protection afforded the now existent populations.

## KEY DEER RECOVERY APPROVED

A recovery plan which has as its objective the stabilization of the Florida Key deer (*Odocoileus virginianus clavium*) population, as opposed to an effort to boost its numbers, has been approved by the Service. Although the population has apparently stabilized at around 350-400 deer, high mortality from road kills and a limited range keep this species in jeopardy.

A distinct geographical race of the Virginia white-tailed deer (*Odocoileus virginianus*), the key deer is the smallest race found in the United States. The average weight of an adult male is 80 pounds and an adult female weighs about 63 pounds. The average shoulder height ranges from 24 to 26 inches.

The center of the Key deer population is Big Pine Key, Florida, with an estimated 200-250 deer. Road kills by automobiles are the most serious threat to the deer on Big Pine Key, accounting for 76 percent of known mortalities of key deer from 1968 to 1973. (Other mortalities were caused by drowning, combat between males, capture for tagging, and unknown factors.)

Key deer are strongly attracted to newly burned areas, and will feed extensively on new woody and herbaceous growth for up to 6-9 months. Availability of drinking water seems to influence the distribution of Key deer throughout their range. Periods of drought find the deer utilizing the larger keys, with water, in favor of the smaller keys without drinking water.

To preserve the Key deer, the plan not only emphasizes the importance of maintaining the population level and available habitat, but also the integrity of the subspecies. According to the plan, because the Key deer are the product of a unique system of selective forces (a restrictive, insular environment with no natural predators), management should involve the retention of those natural selection factors that influenced their evolution. Under no circumstances, according to the plan, should a captive, zoo-bred herd be considered for re-stocking purposes.

What the plan does call for, among other things, is the acquisition of more land for the Key Deer National Wildlife Refuge, established in 1957. Key deer habitat is being developed rapidly, and their range is already extremely limited. The only way to insure adequate protection of this habitat is to incorporate it into the National Wildlife Refuge System.

Efforts to protect the herd and the integrity of the subspecies would include prohibition of hunting, restricting dogs from refuge lands, reducing speed limits, posting deer warning signs, and

fencing highways except at trail crossing points.

Other items covered in the plan are public awareness, monitoring the deer

population, experimenting with habitat manipulation, and conducting studies on the natural history and population dynamics of the Key deer herd.

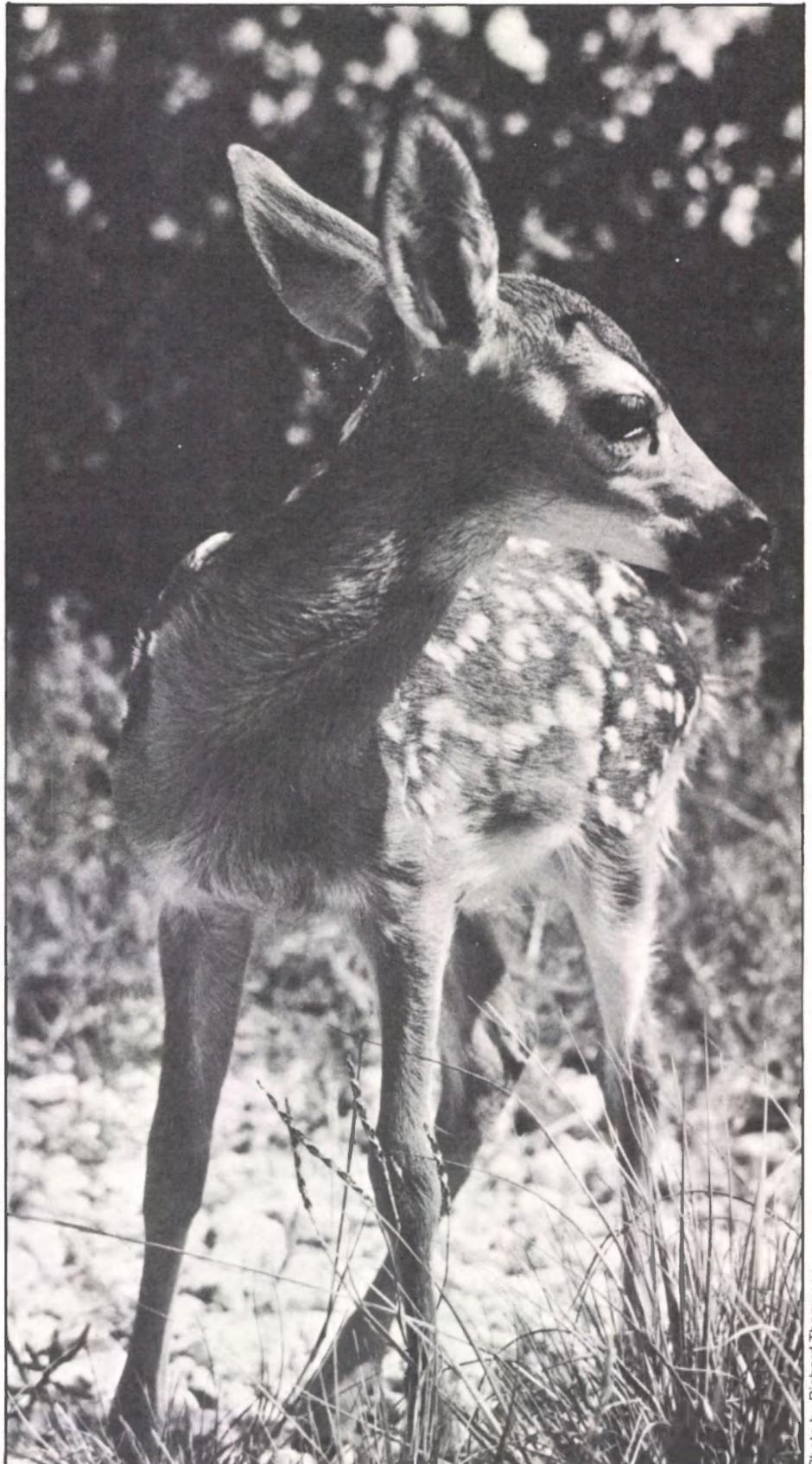


Photo by Richard Thompson

Automobile collisions have taken their toll on key deer population numbers.

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# Rulemaking Actions

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June 1980

## TWO TEXAS PLANTS PROPOSED AS ENDANGERED

Two rare plants—the Texas poppy-mallow and Navasota ladies' tresses—threatened by the possible destruction of their native habitats have been proposed by the Service for listing as Endangered species (F.R. 6/18/80).

### Navasota ladies' tresses

Possibly North America's rarest orchid, the Navasota ladies' tresses (*Spiranthes parksii*), was first collected in 1945, but was later thought extinct until its rediscovery in 1978. Subsequent searches resulted in the location of a second population near the species' type locality in Brazos County, Texas. However, in 1979, only nine individuals could be located at these two sites.

Due to its limited occurrence and extraordinary distinctiveness, the species is extremely vulnerable to extinction due to habitat destruction and collecting. One of the two populations occurs adjacent to an urban area, where land development is inevitable, while the other population is on ranch land now used for deer hunting. (Any change in land management practices in this latter area could destroy the few individuals remaining.)

### Poppy-mallow

Confined to a small area of deep sandy soil blown from alluvial deposits along the Colorado River, the Texas poppy-mallow (*Callirhoe scabriuscula*) is threatened by sand mining and other factors. Averaging 2 to 4 feet in height, this member of the mallow family is an erect, simple (or basically branched) perennial herb bearing wine-purple petals in an open cup.

Because of its erect habit, grazing and associated trampling have seriously reduced the species' number in some areas, where there has also been a marked reduction in plant vigor. Cultivation, rural development, and road construction have also reduced the size and range of remaining populations, all of which occur on private land where they are vulnerable to habitat alteration and collection. Sand mining poses an imminent threat to all existing popula-

tions within their habitat in only one Texas county.

### Background/Comments Solicited

Both of the subject species were included in a July 1, 1975, notice of review on the basis of the Smithsonian Report to Congress listing these plants as two of those considered to be endangered, threatened, or extinct. Subsequently, the species were among approximately 1,700 vascular plants proposed for listing as Endangered on June 16, 1976. (This proposal was later withdrawn, as it was not finalized within

time limits imposed under 1978 amendments to the Act.)

Because the publication of descriptive maps outlining their essential habitats would make these rare plants even more vulnerable to taking, the Service has determined that the designation of Critical Habitat is not prudent for either of these species at this time.

Comments as well as biological data in response to these proposals should be submitted by August 18, 1980, to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.



Photo by Bonnie Amos

*Proposed as an Endangered species, the Texas poppy-mallow is imminently threatened by sand mining operations.*

## Amargosa Vole Under Review

Acting in response to a petition submitted by Mr. Earl Baysinger of the Service, the Service is reviewing the status of the Amargosa vole (*Microtus californicus scirpensis*)—a small rodent once considered extinct—to determine if it qualifies for listing under the Endangered Species Act (F.R. 6/18/80).

Long thought to have vanished from its native habitat, this marsh vole was rediscovered in 1973 in southeastern Inyo County, California, where a popu-

lation now thrives in the marsh community along the Amargosa River. Unfortunately, the known survivors are now subject to natural and human-related threats, including grazing and the burning of marshes.

Data on the status of and threats to the Amargosa meadow vole should be submitted to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

## ENDANGERED STATUS PROPOSED FOR OAHU TREE SNAILS

Surviving members of *Achatinella*, an entire genus of tree snails nearly extinct from their Hawaiian habitat, have been proposed by the Service for listing as Endangered species (F.R. 6/26/80).

Known for its beauty, variability, and extreme localization, *Achatinella* formerly occurred throughout the forests of Oahu, once thought to cover most of the island. But by 1978, approximately 85 percent of the island's forest cover had been destroyed or altered. Fast-growing exotics were introduced, diluting *Achatinella's* natural habitat. Forest fires and human disturbance opened up mountain slopes to non-native ferns and other plants. Since the turn of the century, most native woodlands below 1,200 feet—and with them more than 20 species of *Achatinella*—have disappeared from Oahu.

Due to their small geographical ranges, low reproductive rates, lack of defense mechanisms, and dependency on natural forest conditions, species of *Achatinella* remain highly vulnerable to human activities.

The genus has been seriously impacted by human-introduced predators (rodents like the arboreal roof rat (*Rattus rattus*) and *Euglandina rosea*, a carnivorous snail imported to control *Achatina fulica*, the giant African snail—also introduced to the island).

Overcollection is another major threat to the tree snails, prized for their beautiful, varied, and often rare shells. (Probably millions of snails have been collected since the 1800's.)

Of the 41 known *Achatinella* species, it is now believed that only the following exist:

<i>Achatinella apextulva</i>	
<i>A. bellula</i>	<i>A. lila</i>
<i>A. bulimoides</i>	<i>A. lorata</i>
<i>A. byronii</i>	<i>A. mustelina</i>
<i>A. concavospira</i>	<i>A. pulcherrima</i>
<i>A. curta</i>	<i>A. pupukanioe</i>
<i>A. decipiens</i>	<i>A. sowerbyana</i>
<i>A. fulgens</i>	<i>A. swiftii</i>
<i>A. fuscobasis</i>	<i>A. toeniolata</i>
<i>A. leucorraphe</i>	<i>A. turgida</i>

The remainder are believed extinct.

Comments on the subject proposal, and any additional data on the status of and threats to species of *Achatinella*, should be submitted by August 25, 1980, to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

A public meeting on the subject proposal has been scheduled for Tuesday, August 19, at 8:30 a.m. in Conference Room 7322 in the Federal Building, 300 Ala Moana Blvd., in Honolulu, Hawaii.

(Critical Habitat has not been proposed for these species, as publication of definitive maps would make *Achatinella* more vulnerable to taking.)

## KANGAROOS

*Continued from page 1*

species. All species were considered in need of protection from commercial interests, however, due to potential population reductions without adequate regulatory measures and because of the lack of specific data on the species' numbers.

To insure adequate protection of the three kangaroos, the Service imposed through special rules within the final listing rule (F.R. 12/30/74) a ban on the importation of the species' products and parts, stating that:

Upon receiving from the Australian Government a certificate that (1) a particular Australian State has developed an effective sustained-yield program for such wildlife and (2) the taking of such wildlife in that State will not be detrimental to the survival of the species or subspecies of which such wildlife is a part, the Director may . . . permit by publication in the *Federal Register* the commercial importation of any such wildlife originating from the State. . . . Prior to this time, the United States was the largest worldwide importer of kangaroo leather.

On May 21, 1979, the Service announced the review (in line with the required "5-year review" stipulated under 1978 Amendments to the Endangered Species Act) of a number of species listed prior to 1975, including the three kangaroos in question. In the process of collecting information subsequent to its notice, the Service also sent Dr. David Anderson of the Service's Utah Wildlife Cooperative Unit to Australia to obtain first-hand data on the status, threats to, and trends of the kangaroo populations in their respective Australian States.

### Current Proposal Rationale

On the basis of aerial surveys and/or extrapolation techniques, estimates of kangaroo populations (all three species) in the Australian States expecting to export hides to the United States are as follows: New South Wales, 5,000,000; Queensland, 25,000,000; South Australia, 1,400,000; and Western Australia, 1,250,000 (for a total of 32 million). Based on population estimates through-

*Continued on page 16*

# Confiscated Wildlife on

The Cleveland Museum of Natural History in cooperation with the U.S. Fish and Wildlife Service has mounted "Confiscated!", an exhibit which dramatizes the worldwide problem of illegal trafficking in endangered species. This exhibit marks the first time that the Federal

Government has allowed confiscated materials held in government warehouses to be exhibited by a museum.

Included in the exhibit are mounted specimens of endangered wildlife as well as products made from their skins

which entered the United States illegally and were seized by Service agents at ports of entry in New York and Chicago. Among the items on display are ivory carvings and jewelry fashioned from the tusks of marine mammals and East African elephants, coats and other cloth-



*The green sea turtle (Chelonia mydas), considered one of the world's most commercially valuable reptiles, is prized for its meat, eggs, oil, hide, and shell products which are increasingly sought after in the fashion world.*

Photo courtesy of the Cleveland Museum of Natural History

# Display

ing made from threatened cats such as the jaguar, ocelot, and margay, as well as thousands of dollars worth of shoes, belts, purses, and other accessories made from the skins of endangered lizards, caimans, crocodiles, and sea turtles.

"Confiscated!" also traces the development of laws and international agreements designed to protect endangered wildlife from commercial exploitation.

The exhibit, funded by the Cleveland Foundation, will be on view in Cleveland through October 15, 1980, and

will then tour the country with stops in Cincinnati, Denver, New York, Dallas, Philadelphia, and other cities.

Admission to the Cleveland exhibition is free with regular Museum admission. Hours are Monday through Saturday, 10:00 a.m. - 5:00 p.m., and Sunday, 1:00 p.m. - 5:30 p.m.



Photo courtesy of the Cleveland Museum of Natural History

*These luxury coats made from the skins of the Endangered margay, ocelot, cheetah, and leopard are just a few of the examples of illegal trafficking in endangered wildlife on display at the Cleveland Museum of Natural History.*

# SERVICE ANNOUNCES POTENTIAL PROPOSALS TO AMEND APPENDICES LISTS

The Office of Scientific Authority—acting through the Service as U.S. Scientific Authority for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)—has published preliminary proposals in preparation for the submission of formal U.S. proposals to amend the CITES Appendices lists of protected species (F.R. 7/21/80).

Data had been solicited in an earlier notice (F.R. 4/4/80) to guide development of U.S. proposals for consideration at the third meeting of CITES parties to be held in February 1981 in New Delhi, India. The Scientific Authority is now preparing to finalize proposed revisions, which must be sub-

mitted to the Convention Secretariat by September 5, 1980.

The July notice contains more than 100 potential revisions, including a number of suggested additions, transfers from one appendix to another (according to the status of the species and the degree of threat by trade), and several proposed deletions from the protective lists. A number of whales, primates, birds, reptiles, and plants have been recommended for additional protection, while certain other species (including the bobcat, lynx, and river otter) have been suggested for removal from Appendix II (although the latter recommendation did not emanate from the Service). Proposed Service decisions

are provided in the July notice. (We regret that space limitations preclude our publication of the entire list in this issue, although we will attempt to carry final U.S. proposals in next month's BULLETIN.)

Comments and data on the potential proposals were to be submitted no later than August 20, 1980.

## OSA DEVELOPING PROCEDURAL REGS; PREPARING EXPORT FINDINGS FOR 1980-81

### U.S. TO COMMENT ON AUSTRALIAN AND SOUTH AFRICAN PROPOSALS TO AMEND THE APPENDICES

As announced in the July 21, 1980, *Federal Register*, the Office of the Scientific Authority intends to support a proposal by Australia to list the parson finch (*Poephila cincta cincta*) on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and is seeking comments and data in response to several South African proposals.

The finch was the subject of a previous notice (F.R. 5/16/80) soliciting information on the status of and trade in the species. No comments were received, however, and the Service has since submitted formal notice to the Convention Secretariat of U.S. intent to support the proposed addition, also suggesting that the other subspecies (*P. c. atropygialis*) be included on Appendix II for control purposes.

The Republic of South Africa recently submitted proposals to the Secretariat concerning a number of species and subspecies with recommended revisions as follows:

- Bontebok (*Damaliscus dorcas dorcas*)—Transfer from Appendix I to Appendix II.

- Roan antelope (*Hippotragus equinus*)—Add to Appendix II.

- Ruppell's parrot (*Poicephalus rueppelli*)—Add to Appendix II.

- Geometric turtle—Include the scientific name *Psammobates* (= *Tesudo*) *geometricus* in Appendix I in lieu of *Psammobates geometrica* to avoid taxonomic confusion.

- Girdled lizards and crag lizards (*Cordylus* spp. and *Pseudocordylus* spp.)—Add to Appendix II.

- Cape clawed or Gill's clawed toad (*Xenopus gilli*)—Add to Appendix I.

- Elephant's trunk plant (*Pacchypodium namaquanum*)—Transfer from Appendix II to Appendix I.

Comments and data in response to the South African proposals were to be submitted by August 20, 1980. Kindly consult the *Federal Register* for details on the subject proposals.

The Service's Office of the Scientific Authority (OSA) has published a notice of intent to propose procedures it will follow in carrying out its responsibilities as U.S. Scientific Authority for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)—(F.R. 7/10/80).

While the former Endangered Species Scientific Authority (ESSA) had previously published proposed operating procedures for it to follow as U.S. Scientific Authority (F.R. 7/11/79), 1979 amendments to the Endangered Species Act reassigned Scientific Authority responsibilities to the Secretary of the Interior, at the same time establishing a commission to serve in an advisory capacity to the Secretary (see the accompanying article on ICAC). To promote public comment in the process of developing procedural regulations, OSA is now soliciting public input which

may help finalize OSA policies on the following:

(1) Circumstances under which the Scientific Authority would advise that exports of specimens of species included in Appendix I or II are not detrimental to the survival of the species; (2) Circumstances under which the Scientific Authority would advise that imports of specimens of species included in Appendix I are for purposes not detrimental to the survival of the species; (3) Whether findings on export permits should be made with respect to its component subspecies or geographically separate populations, in cases where an entire species is included in Appendix I or II; (4) Whether findings on export permits should be made with respect to impact of trade on the species involved, or with respect to some other species, in those cases where a species was listed to effectively control trade in another species; (5) Formulation of advice on steps to limit export permits so as to insure that the species will be maintained at a level consistent with its role in the ecosystem in which it occurs and well above the level at which it might become eligible for inclusion in Appendix I; and (6) Standards to be used in determining if an importer is suitably equipped to house and care for the living specimens.

Comments on policies and procedures that will aid in effective implementation of the Convention with regard to Scientific Authority responsibilities should be submitted to the Office of Scientific Authority, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240, by August 18, 1980.

### Now Formulating Export Findings

The same notice also announced OSA's progress in developing findings regarding the export of the bobcat (*Lynx rufus*), (*Lynx canadensis*), American Ginseng (*Panax quinquefolius*), Alaskan brown bear (*Ursos arctos*), Alaskan gray wolf (*Canis lupus*), and American alligator (*Alligator mississippiensis*) taken in the 1980-81 season.

Management and harvest reports, populations assessments, and other appropriate data have been requested from the States on these Appendix II species on which OSA will base proposed export findings for the coming taking season (likely to be published in the *Federal Register* in mid-August). Public comment will then be invited on the Service's proposed findings prior to the publication of final export findings in September.

## ICAC: GEARING UP FOR ACTIVE U.S. ROLE IN CITES

Created under 1979 amendments to the Endangered Species Act, the International Convention Advisory Commission (ICAC) is nearly fully staffed and preparing to meet its recently mandated responsibilities with respect to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Composed of representatives from the Departments of Interior, Agriculture, Commerce, the National Science Foundation, the Council on Environmental Quality (CEQ), and the Smithsonian Institution, as well as an Interior-appointed member representing the State fish and game agencies (he is Dr. Douglas Crowe of Wyoming), the Commission elected Jane Yarn of CEQ as its chairperson in February. William Y. Brown, formerly of the Endangered Species Scientific Authority (previously functioning as the U.S. Scientific Authority for the Convention), has been selected as ICAC's executive secretary. (See summary of the 1979 Amendments in the January 1980 BULLETIN.)

In signing P.L. 96-159 last December 28, President Carter said, "The scientific integrity of the Convention will be preserved by the Commission's advice on the effects of trade, the listing of species on the Convention appendices, and the interpretation and implementation of the Convention." Charged with making recommendations to the Secretary of the Interior on "all matters pertaining to the responsibilities of the Scientific Authority under the terms of the Convention," the Commission signed a Memorandum of Understanding with Interior Secretary Andrus (acting as the U.S. Scientific Authority) in June

1980 setting forth policies for permit review, for making recommendations on revisions to the appendices lists, and on other matters regarding the implementation of CITES.

ICAC recently issued its work plan for the next fiscal year, setting objectives and "target dates" for discharging its new responsibilities, to include:

- refining procedures for the review of import and export applications.
- development of questionnaires and prototype forms to facilitate the review of permit applications.
- development of standards for determinations required of the Scientific Authority (addressing exports and introductions from the sea, and detriment with regard to Appendix I imports; developing a report on the biology and management of the bobcat, lynx, river otter, and ginseng with recommendations to guide export findings; and recommending suitable housing and care for the most heavily traded species).
- development of a system for evaluating trade in wild animals and plants (with a report soon to be published on 1977 trade).
- development of recommendations concerning appendices lists of protected species.
- development of papers/recommendations preparatory to CITES conferences.
- consultation to improve trade controls, and in other areas of international wildlife conservation.

ICAC meets monthly, with sessions open to the public. (For information on meeting dates phone 202/343-7407.)

## Rulemaking Actions

### KANGEROOS

Continued from page 11

out the various States, the nationwide kill quota for Australia has been set at 2.8 million kangaroos for 1980. According to data contained in Anderson's report, the Service believes that kangaroo species could sustain themselves at that level of take, barring any new unforeseen human or natural pressures.

Since enactment of the final rule imposing the importation ban, the Australian States have established mechanisms to regulate trade in kangaroo parts and products, involving tagging and recordkeeping that allow the States to trace parts or products throughout the commercial chain. The sustained-yield programs developed in Australia should effectively guard against overexploitation of the red, eastern gray, and western gray kangaroos for commercial purposes, and may actually benefit these species by creating monies for their research and management as well as an incentive to maintain their numbers in areas where they have in the past been treated as vermin.

Unfortunately, the illegal, often indiscriminate killing of kangaroos is almost impossible to prevent because of the task of enforcing protective laws throughout the vast Australian continent. The Service therefore finds that the "Threatened" status is still warranted for the three species, because of continued threats to their existence.

In line with existing plans and available population data, the Service feels it reasonable at this time to propose lifting the ban on importation of kangaroo products for 2 years, when trade and its impacts will be closely monitored to insure that taking for commercial purposes does not pose a threat to the continued survival of the large kangaroos in Australia. Should this proposal be adopted (at which time notice will appear in the *Federal Register*), the importation of kangaroo parts and products tagged or otherwise identified as removed from the wild in accord with the management plans of the approved Australian States will be permitted into the United States for a 2-year period during which time the situation will be reviewed to determine the appropriateness of future importation policies.

(Comments on the subject action were due July 16, 1980.)

## BOX SCORE OF SPECIES LISTINGS

Category	Number of Endangered Species			Number of Threatened Species		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Mammals .....	35	251	286	3	21	24
Birds .....	67	145	212	3		3
Reptiles .....	12	55	67	10		10
Amphibians .....	5	9	14	2		2
Fishes .....	31	11	42	12		12
Snails .....	2	1	3	5		5
Clams .....	23	2	25			
Crustaceans .....	1		1			
Insects .....	6		6	3		2
Plants .....	49		49	7	2	9
<b>Total .....</b>	<b>231</b>	<b>474</b>	<b>705</b>	<b>45</b>	<b>23</b>	<b>68</b>

Number of species currently proposed: 54 animals  
(2 plants)

Number of Critical Habitats listed: 36

Number of Recovery Teams appointed: 68

Number of Recovery Plans approved: 38

Number of Cooperative Agreements signed with States:  
36 (fish & wildlife)  
6 (plants)

June 30, 1980

#### CORRECTION

In the June 1980 BULLETIN, credit for the photograph of the Coachella Valley fringe-toed lizard (*Uma inornata*) was incorrectly given to Wilbur W. Mayhew. Credit should have been given to Philip A. Medica. We regret the error.



### 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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Int 423

July 1980, Vol. V, No. 7