



ENDANGERED SPECIES TECHNICAL BULLETIN

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

Colorado Squawfish Stolen From Hatchery

Recovery efforts for the Endangered Colorado squawfish (*Ptychocheilus lucius*) received a severe setback in late November when 14 of the 27 adult specimens held at Willow Beach National Fish Hatchery in Arizona were stolen and possibly eaten, according to special agent Bob Wright of the U.S. Fish and Wildlife Service.

Of special concern in the incident is the fact that 12 females were taken, leaving only two adult females alive from this year's wild-captured stock. Although other squawfish remain in captivity, this incident has diminished the divergent gene pool necessary for development of a healthy population.

Three Las Vegas men have been indicted by a Federal grand jury on felony charges of theft of government property, interstate transportation of stolen property, and possession of an Endangered species. The three face a possible \$20,000 fine and/or a year in prison for each stolen fish (under the Endangered Species Act).

The Colorado squawfish or "white salmon," a member of the minnow family, Cyprinidae, is the largest minnow in North America, once attaining lengths of over 5 feet and weights of more than 50 pounds. Impoundments along the Colorado River, starting with Hoover Dam in 1935, have resulted in the decline of this species. A recovery plan for the squawfish, approved by the Service in 1978, called for an extensive propagation program and reintroduction of the fish in parts of its historic range. According to Colorado

Squawfish Recovery Team leader, Kent Miller, recovery will be delayed because of the near elimination of the brood stock.

Recently Discovered Plant Proposed for Protection

A single population of the Heliotrope milk-vetch (*Astragalus montii*) is known to exist in the alpine Big Flat meadow area of Heliotrope Mountain, Sanpete County, Utah. The Service has proposed Endangered status with Critical Habitat for this plant (F.R. 1/13/81).

This small perennial belonging to the pea family (Fabaceae) was discovered in 1976 and was first described and recommended for Endangered status in 1978

by Dr. Stanley L. Welsh of Brigham Young University. In January 1980 the Utah Native Plant Society placed the milk-vetch as one of 14 plants on its highest priority for listing; the Service assigned it a category 1 rating in its recent native plant status notice (see January 1980 BULLETIN). The U.S. Forest Service, which manages its approximately 80-acre habitat in the Manti-LaSal National Forest, includes the plant on its official "sensitive plants" list.

Since the area proposed as Critical Habitat is relatively remote, few activities are likely to adversely modify it. Forest Service management plans for grazing and recreation in the area, however, may require modification. (This Federal agency and other interested parties or organizations are requested to submit information on economic or other impacts of the proposed action.)

The Heliotrope milk-vetch is characteristically slow growing and intolerant of habitat disturbance. Limited use of its habitat by sheep, which trample but do not eat the plant, threatens its continued existence. Motorcycle tracks observed at the summit of the proposed Critical

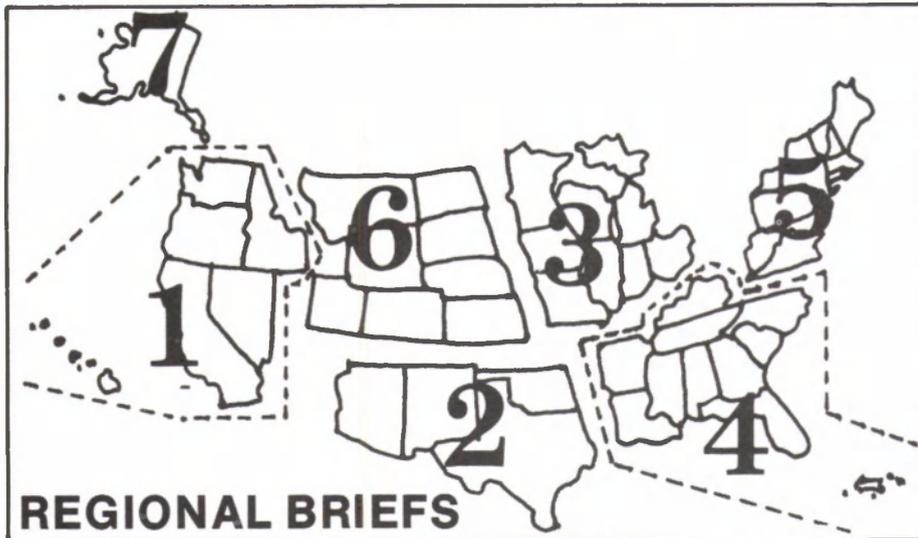
Continued on page 3



*Patagial
marked
Andean
condor in
flight over
Sechura
Peninsula.*

U.S. Fish & Wildlife
Service Photo by
Franz Camenzind

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

Region 1. Title was conveyed to the Service for 700 acres in Tulare County, California, which is a portion of the

Horse Pasture-Pixley blunt-nosed leopard lizard habitat unit. This area is one of several identified in the species' recovery plan as suffering loss of suitable habitat.

The Service has acquired 505 acres

within the Tijuana Estuary from the Helix Corporation. This is the last major undeveloped estuary in southern California and is used by four Endangered species: light-footed clapper rail (*Rallus longirostris levipes*), California least tern (*Sterna albifrons browni*), Salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), and brown pelican (*Pelecanus occidentalis*).

Recovery plans for the Devil's Hole pupfish (*Cyprinodon diabolis*), blunt-nosed leopard lizard (*Crotaphytus silus*), and Pahrump killifish (*Empetrichthys latos*) have been printed and are available from the Fish and Wildlife Reference Service, 3840 York Street, Unit 1, Denver, Colorado 80205.

Region 2. The transfer of 137 razor-back suckers (*Xyrauchen texanus*) from Lake Mohave to Dexter National Fish Hatchery was successfully completed. Reproduction actually began the first day the fish arrived at Dexter and, despite the loss of a few individuals from the breeding stock, a good year-class has been started.

Region 3. The Service is involved in an informal consultation with the Army Corps of Engineers over possible emergency dredging of the east channel of the Mississippi River at Prairie du Chien, Wisconsin. This area is known to harbor the Endangered Higgln's eye pearly mussel (*Lampsilis higginsii*).

Region 4. An agreement signed between the Service and the City of Aniston, Alabama, has eliminated any immediate need to list the pygmy sculpin (*Cottus pygmaeus*) as an Endangered species. The pygmy sculpin, known only from a spring used as part of the city's water supply, was proposed for Endangered status on November 29, 1977, but the proposal expired two years later without completion of a final rule. Subsequent investigations by the Service led to the conclusion that the species does not face serious threats at this time, and in light of the cooperative attitude expressed by the city, the terms of the agreement should provide adequate protection for the species.

Completion of the 1980 Everglade kite (*Rohrstrhamus sociabilis plumbeus*) census reveals 651 birds, perhaps the largest number in Florida in over 50 years. The lowest levels reported were back in the 1950's and '60's when in some years the numbers were estimated at 50-70.

Region 5. On January 8, 1981, the administrative law judge reviewing the Pittston Company's Environmental Protection Agency permit case reversed EPA's decision to deny a Cleanwater Act permit, and directed that the permit be issued. Pittston plans to build a marine terminal and oil refinery at Eastport, Maine. The Interior Department has until February 27 to appeal to the Administrator of EPA. For more information

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

F. Eugene Hester, *Acting Director*
(202-343-4717)

Ronald E. Lambertson
Associate Director and

Endangered Species Program Manager
(202-343-4646)

Harold J. O'Connor
Deputy Associate Director
(202-343-4646)

John Spinks, *Chief,*
Office of Endangered Species
(703-235-2771)

Richard Parsons, *Chief,*
Federal Wildlife Permit Office
(703-235-1937)

Clark R. Bavin, *Chief,*
Division of Law Enforcement
(202-343-9242)

TECHNICAL BULLETIN STAFF

Clare Senecal, *Editor*
Morey Norkin, *Assistant Editor*
(703-235-2407)

Regional Offices

Region 1, Suite 1692, Lloyd 500 Bldg., 500 N.E. Multnomah St., Portland, OR 97232 (503-231-6118); R. Kahler Martinson, *Regional Director*; Edward B. Chamberlain, *Assistant Regional Director*; David B. Marshall, *Endangered Species Specialist*.

U.S. Fish and Wildlife Regions

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on this case, see the March 1979 BULLETIN.

A male peregrine falcon which was successfully paired with Scarlett atop Baltimore's tallest building, was found dead in early November, according to Dr. Tom Cade of Cornell University's Peregrine Fund. Rhett, as the bird was named, was found in the vicinity of some grain elevators in the Baltimore area. Cade said that a report from the Fish and Wildlife Service's Patuxent Wildlife Research Center indicated traces of strychnine in the bird. According to Cade, the bird apparently picked up the poison from a contaminated pigeon.

Rhett was brought to Baltimore this past spring, and together he and Scarlett raised chicks which were introduced by Cornell. Scarlett is still in Baltimore, and a female peregrine from a New Jersey release as well as an immature falcon have also been seen in the area.

Region 6. The U.S. Forest Service, National Park Service, Montana Department of Fish, Wildlife, and Parks, Wyoming Game and Fish Department, Idaho Fish and Game Department, and the Fish and Wildlife Service have finalized *Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area*. The guidelines will be used as a primary source for management decisions involving grizzly bears (*Ursus arctos horribilis*) and their habitat in the Greater Yellowstone Area. This area encompasses five national forests and two national parks.

Milk-Vetch Proposed

Continued from page 1

Habitat signal another possible threat to the species.

Benefits derived from grazing in the milk-vetch habitat are very low, totalling less than 400 sheep days per year. Frequency of use and degree of damage by recreational vehicles, however, have not been evaluated.

The Fish and Wildlife Service invites additional data and comments from the public regarding this proposed rule. All submissions should be made, preferably in triplicate, to the Regional Director (SE), U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225, by April 13, 1981. Comments received will be considered along with those made at the public meeting, to be held in Manti, Utah, on March 18, 1981.

FOREIGN STUDIES YIELD DATA FOR CONDOR RECOVERY

Last Fall a team of biologists from the Condor Research Center, Ventura, California, embarked on two foreign trips to study the Endangered Andean condor (*Vultur gryphus*) and various African vultures. Information and experience gained during the six weeks of study will be used in planning and executing future recovery efforts on behalf of the Endangered California condor (*Gymnogyps californianus*).

STUDY GROUP-SOUTH AFRICA

In mid-September 1980, the timing recommended by African vulture experts, the team visited study sites of the Vulture Study Group (VSG) in South Africa. This group, chaired by John



One of the released Patuxent Andean condors suspiciously eyeing the clap-trap set up.

Photo by Noel F. R. Snyder

Ledger, has conducted a variety of research projects for a number of years, and have netted and handled well over 1,000 adult and nestling vultures, far more than any other team presently studying vultures. Current studies of the VSG are directed primarily towards two species, the Lappet-faced vulture (*Torgos tracheliotus*), a bird nearly as large as the California condor; and the colonial, cliff-nesting, Cape vulture (*Gyps coprotheres*), which has a 7 to 8 foot wing-span, somewhat smaller than the California condor's wing-span of 9 feet.

While in Southern Africa, team members handled nestlings of both the Lappet-faced and Cape vultures, and adults of three species—Lappet-faced, hooded (*Necrosyrtes monachus*), and white-backed (*Gyps africanus*). This experience afforded the team members the opportunity to observe for themselves handling techniques and various response characteristics of the different species of birds. They found that most adult vultures (with the exception of white-backed vultures) presented no handling difficulties. Some nestlings, however, did offer resistance; Lappet-faced vultures are nearly inert up until they are almost ready to fledge, at which time they begin to offer some resistance; nestling Cape vultures struggle in an attempt to stay in their nests. These conclusions were consistent with the experiences of the VSG over several years

of handling the birds.

All members of the VSG consider collection of data from nestling vultures to be an essential part of their studies, and a procedure which involves little risk to the bird. To date, no vultures have been lost during handling procedures by members of the VSG.

An expedition in a National Park in Zimbabwe helped clarify for the team the workings and possible risks of the cannon-netting capture techniques. Evidence from this experience, and the VSG's cumulative experience of several years trapping, indicate that injury or death due to the net or attached parts is extremely unlikely. Although, early in their trapping program, VSG lost 14 vultures (out of 700 netted)—two were

struck by missiles which carry the net over the birds, and 12 died of heat stress when large numbers of vultures were trapped at once and not removed immediately from under the net. Corrections made in positioning bait and the angle of the net, have eliminated these problems. African vulture workers have found other trapping methods to be less desirable.

A study recently initiated with the VSG staff involves a calcium problem in Cape vultures which manifests itself in severe feather deformities and twisted bones. This condition reflects a recent socio-ecological phenomenon in which food types available to foraging vultures have changed. Apparently, the diet of Cape vulture chicks must include bone fragments brought in from the carcasses by the adults. In South Africa today, where most carcasses are domestic livestock and where the bone-crushing hyenas have been eradicated, bone fragments are not available, seriously affecting the chicks. This problem has clear implications for similar studies of the California condor.

PERUVIAN WEEKS

In early October the team joined forces with the Stanley Temple group in the Sechura Peninsula of northwestern Peru. Prior to the team's arrival, the Temple group had successfully released

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PUBLIC COMMENT ON DRAFT PETITION GUIDELINES INVITED

Any individual or group may file a petition requesting that a species either be added to or removed from the official list of species protected under the Endangered Species Act of 1973, as amended. Draft guidelines for receiving and responding to such petitions were recently published by the Service (F.R. 1/13/81) as required by the 1979 Amendments to the Act.

An additional requirement of the amendments is that criteria for making findings on petitions also be published. Such criteria were published in 50 CFR 424.14(b) in the February 27, 1980, *Federal Register*. Comments on the guidelines must be received by March 16, 1981, and should be sent to the Director (FWS/OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. Serious consideration will be given to all comments and information received; final guidelines may, therefore, differ from those proposed.

Condor Recovery

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5 captive-bred Andean condors, flown in from the Service's Patuxent Wildlife Research Center in Laurel, Maryland. These birds, all wearing patagial tags and patagial-mounted radio transmitters, were moving freely around the eastern edge of the Illescas Mountains and were associating in apparently normal fashion with wild Andean condors. The remarkable transition of these birds to wild existence was regarded by the team as a very encouraging development with respect to the future of a captive-breeding and release program for the California condor.

During their month stay, the team was able to evaluate the efficacy and risks involved with the following major procedures on wild Andean condors: (1) capture techniques—rocket-net, clap-trap, and walk-in trap; (2) patagial-mounted radio transmitters; (3) laparoscopy; (4) blood, feather, fecal, and tracheal sampling; and (5) various handling methods.

The team's radio-telemetry activities went extremely well. They received signals from all 11 Andean condors (including 5 released captives) currently carrying transmitters in the wild. Reception was achieved both from their mobile

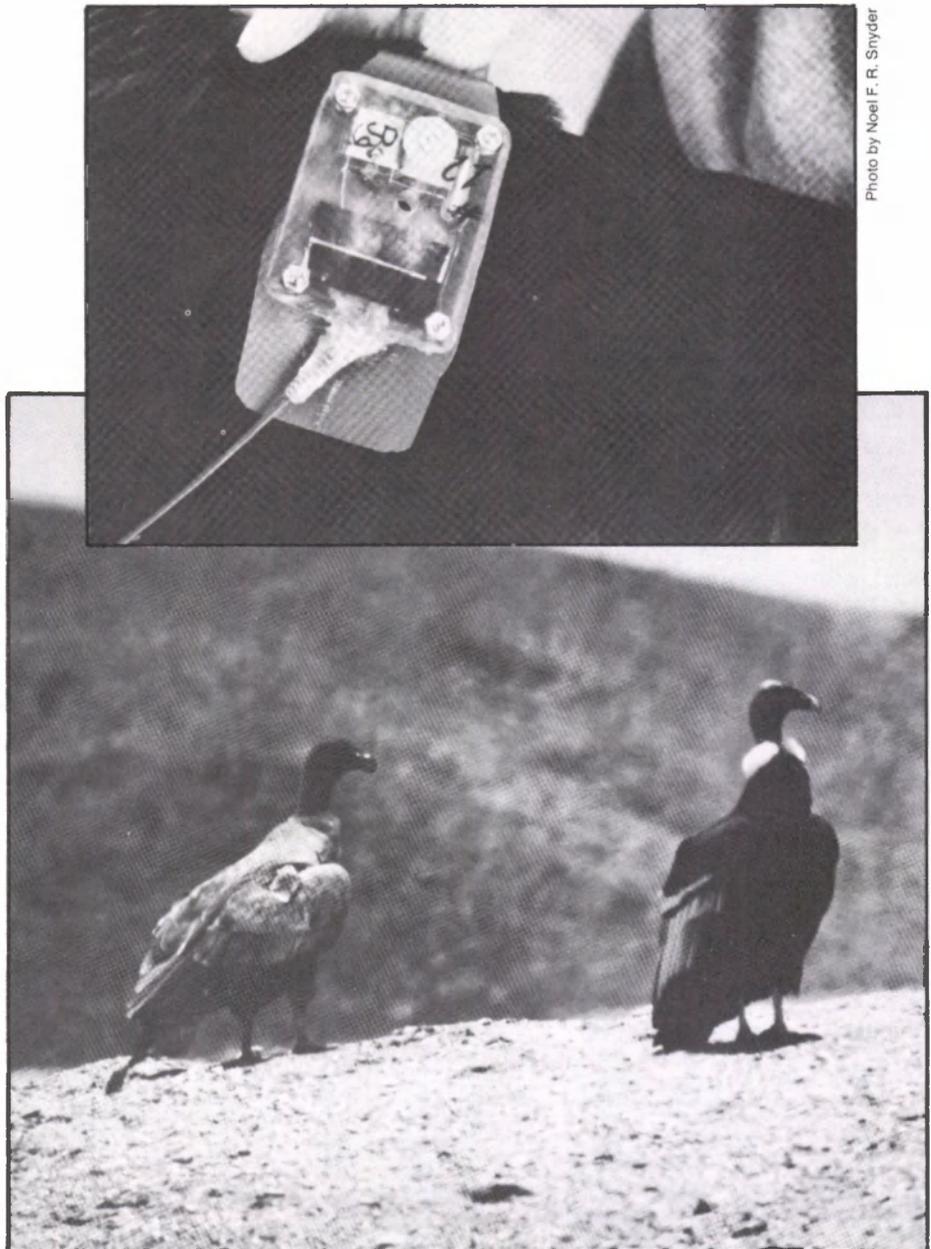


Photo by Noel F. R. Snyder

Photo by Noel F. R. Snyder

Released-captive and wild female Andean condors inspecting rocket net scene from the side. (*inset above*) Closeup view of a radio transmitter attached to the patagium of an Andean condor.

ground stations and from a tracking plane.

Prior to the team's tracking flights, it had been thought that the Illescas Mountain condors represented an isolated population. Aerial monitoring, however, revealed that condors were crossing the 75-mile-wide Secura Desert between the Illescas and the Andean foothills. It appears that condor movement across the desert and back again may be regular and frequent.

In recent weeks, Temple researchers have found two condors, wearing patagial markers, at two different nesting sites, each with an unmarked companion. These nests will be watched to see whether normal nesting behavior ensues.

The radioed birds have led the Temple researchers to previously unknown feeding sites, an undiscovered nest site, and areas where predator poisoning was taking place. Apart from radio-telemetry, there is no other way to gather such information.

Data gathered through these studies are vital to California condor recovery efforts since the Andean condor is the closest surrogate species available for such testing. Once radio-telemetry can be used as part of field studies in California, it will be possible to get badly needed habitat utilization information. (For more information on the Patuxent Wildlife Research Center's captive breeding program with Andean condors, see the August 1980 BULLETIN.)

Rulemaking Actions

January 1981

ENDANGERED PLANT OF MOKOLI'I ISLAND PROPOSED

Carter's panicgrass (*Panicum carteri* Hosaka), an annual grass found only on Mokoli'i Island, Hawaii, was recently proposed for Endangered status. The entire island, which totals approximately 4 acres, was also proposed as Critical Habitat.

This species fluctuates considerably in numbers from year to year, apparently in response to the amount of winter rainfall. The largest number of individuals ever observed was slightly over 200 and in some years observers have failed to find the species at all. Until recently, the species was thought to be extinct.

Although the plant is now known only to occur in two restricted areas of the small island, activities anywhere on the island could be significant to the conservation of the species. As an example, a fire set virtually anywhere on the island during drought conditions might spread to the area in which the *Panicum* grows. Therefore, the Service believes the entire island to be an area essential to the plant's survival. Threats to the species' survival other than vandalism, such as fires, are trampling by visitors to Mokoli'i Island, and possible environmental alterations resulting from the recent planting of coconut trees in the area in which it grows.

Habitat Accessible

Even though the habitat is part of Kualoa Regional Park, and the master plan of that park designates the island as a wildlife sanctuary, it will be difficult to control access to the island. The island can be reached by wading during low tide and by small boats at other times. Additionally, it is inevitable that traffic on Mokoli'i will become heavier as development plans are implemented and more people are attracted to the park. Although the effect of pedestrian traffic on the species is not known, some effect on the plant can be anticipated since its entire population ranges along a foot trail. A report received by the

Service indicates that recent planting of coconut trees on Mokoli'i may already have had an impact on the area from which the panicgrass is known.

The Service believes this proposal to be without significant economic or other impacts in the foreseeable future. However, Federal listing of the species should reinforce the local government's compatible designation of the area as a wildlife sanctuary.

A public meeting concerning this proposed rule will be held at Kahalu'u Elementary School Cafeteria, 47-280 Waihe's Road, Kaneohe, Hawaii, on Thursday, March 5, 1981, at 7:30 p.m. Written comments from the public on this proposal must be received by April 30, 1981, and should be sent to the Director (FWS/OES), U.S. Fish and Wildlife Service, Washington, D.C. 20240.

Texas Poppy-Mallow Added to Endangered Species List

Described by the Garden Club of America as one of the most beautiful wild flowers in Texas, the Texas poppy-mallow (*Callirhoe scabriuscula*) has been listed by the Service as an Endangered species (F.R. 1/13/81).

Occurring in a small area of deep sandy soil blown from alluvial deposits along the Colorado River, the Texas poppy-mallow and its habitat are being threatened by taking, sand mining, and trampling. The plant's range is limited to a small area in Texas. The species is imminently threatened by commercial sand mining in the plant's habitat.

According to observers, numbers of individuals in areas under grazing pressure have been declining, and there is a marked reduction in plant vigor. The erect habit and single main stem of the plant make it especially vulnerable to trampling by grazing animals.

The listing of *Callirhoe scabriuscula* would not create a conflict with the State's wildlife resources, nor would the

proposed Stacey Reservoir have a negative impact on the plant or its habitat, according to the Governor of Texas and the Service.

Because of the existing threat of taking, which is not prohibited under the Endangered Species Act with respect to plants, Critical Habitat has not been determined for the Texas poppy-mallow. It is believed that publication of Critical Habitat maps, detailing the plant's location, would tend to make the species more vulnerable.

EFFECTIVE DATES DELAYED

In compliance with a recent Presidential directive, the effective dates of final rulemakings published prior to January 30, 1981, but not yet in effect, have been extended for a 60-day period. The effective dates of all final rulemakings featured in this issue of the BULLETIN are therefore extended until March 30, 1981. (See the February 4, 1981, *Federal Register* for additional information.)

GENUS OF HAWAIIAN TREE SNAILS LISTED AS ENDANGERED

Michael Bender

All species of the genus *Achatinella*, a group of colorful and extremely rare Hawaiian tree snails, have been listed recently by the Fish and Wildlife Service as Endangered (F.R. 1/13/81). The protective action was taken because habitat destruction, excessive collection, and predation by introduced animals has led to a precipitous decline in these species, a number of which are thought to be already extinct. Critical Habitat was not designated in this case because it would have pinpointed the location of the snails and made them more vulnerable to collection.

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TWO NEW MEXICAN PLANTS LISTED WITH CRITICAL HABITAT

Gypsum wild buckwheat (*Eriogonum gypsophilum*) and Todsens pennyroyal (*Hedeoma todsenii*) were listed by the Service as Threatened and Endangered species, respectively (F.R. 1/19/81). Critical Habitat was also determined for both species.

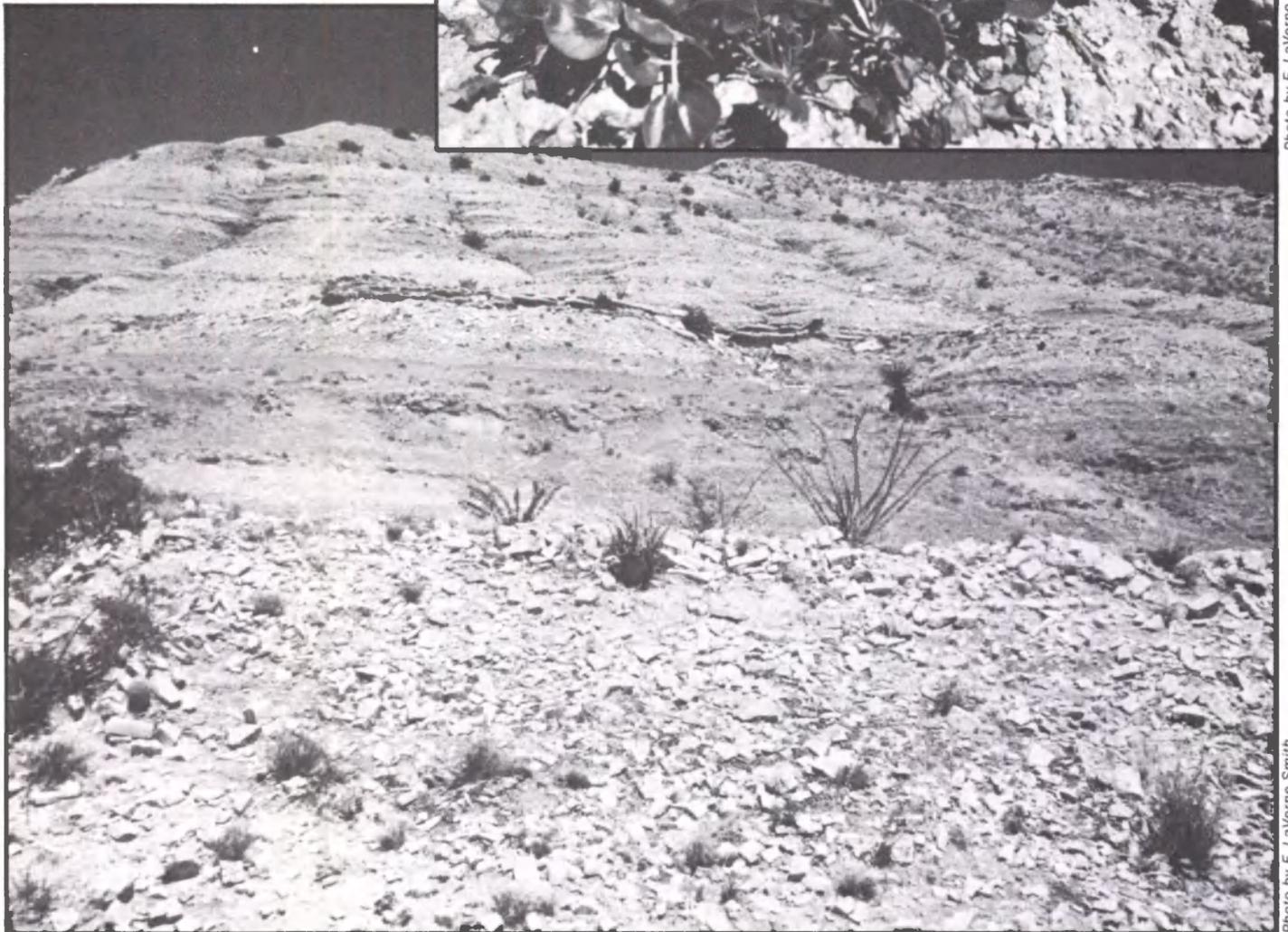
The range of gypsum wild buckwheat is limited to approximately 130 acres in the Seven River Hills of Eddy County, New Mexico, at elevations from 3,290 to 3,450 feet. The area designated as its Critical Habitat is public land administered by the Bureau of Land Management (BLM). The continued existence of gypsum wild buckwheat and its semiarid fragil habitat are being threatened by off-road vehicles, grazing, and possibly by the Brantley Dam Project (Water and Power Resources Ser-

vice, WPRS), if proper protection planning for the plant does not continue to occur. Both BLM and WPRS are cooperating to insure the continued existence of this plant; WPRS has revised plans for the Brantley Dam Project in order to assist in the conservation of this species.

Todsens pennyroyal, a member of the mint family occurs on steep, gravelly gypsum limestones on the White Sands Missile Range in Sierra County, New Mexico, on public lands administered by the Department of the Army. The

remoteness of this plant's populations and the restricted nature of the White Sands Missile Range afford it considerable protection. Yet its fragile habitat and the small number of known populations and individuals which comprise them combine to leave the species particularly vulnerable and in need of protection. The Army has stated its willingness to cooperate in efforts to protect this species.

Please consult the August 1980 BULLETIN for additional information on these two species.



Gypsum wild buckwheat, a member of the knotweed family (Polygonaceae), measures about 8 inches high and is restricted to gypsum soils. Historically, gypsum wild buckwheat has been known from this locality for nearly 70 years.

Photo by E. LaVerne Smith

Photo by E. LaVerne Smith

HAWAIIAN TREE SNAILS

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Background

In response to a petition from Mr. Alan D. Hart, the Service published a notice of review on *Achatinella* in the September 17, 1979, *Federal Register*. After additional data were received and analyzed, the genus was formally proposed as Endangered on June 28, 1980. Most agencies and individuals responding to the proposal, including the Governor of Hawaii, endorsed the listing action. Additional comments, mostly supportive, were received at a public meeting held in Honolulu on August 19, 1980.

This genus of tree snails, endemic to the island of Oahu, is known for its beauty, variability, and extreme localization among the different species. They are highly vulnerable to human activities because of their small geographic ranges, low reproductive rates, lack of defense mechanisms, and dependence on native forest conditions. Although *Achatinella* formerly occurred throughout the island's lowland valleys and coastal plains, live snails are now found only at higher elevations along the ridgetops of the Koolau and Waianae mountain ranges. It is believed that only 19 of the 41 *Achatinella* species still exist.

The most geographically isolated island group in the world, the Hawaiian archipelago comprises a unique but delicate ecosystem which has been drastically altered by human activity. One of the major factors in the decline of *Achatinella* has been the loss of suitable habitat. Because they are associated with particular plant species, these snails depend on relatively intact native habitat, which is rapidly diminishing in quality. Approximately 85 percent of the original forest cover has been destroyed or radically altered, primarily due to deforestation and the introduction of exotic plants. Most of the remaining native forest occurs at an altitude above 1,200 feet at the heads of ravines and upper valleys, and above 1,500 feet on the Koolau and Waianae ranges. The *Achatinella* below these areas have disappeared.

Even much of the remaining 15 percent of native forest habitat has been affected by occasional fires and the presence of feral mammals, especially pigs, which disturb the natural vegetation and encourage the spread of exotic plants. There are indications that predation by the introduced arboreal roof rat

(*Rattus rattus*) poses an additional threat to *Achatinella*. Many rat-gnawed shells have been found throughout the Waianae range.

is exposing remnant *Achatinella* colonies to more people.

Effects of the Rulemaking

With regard to all species of the genus *Achatinella*, all prohibitions of Section 9(a)(1) of the Endangered Species Act will apply. Any taking of live *Achatinella* or their empty shells, except under permit for approved conservation purposes, will be illegal, as will be interstate and foreign trade in these snails. Further, although Critical Habitat was not designated, Federal agencies nevertheless will be required by Section 7 to insure that any actions they fund, authorize, or carry out will not be likely to jeopardize these species or their habitat.

Since the snails are found in rugged, often inaccessible terrain, it is possible that some individuals of those species thought to be extinct may still exist. If any are found, they will be automatically protected because the entire genus is classified as Endangered.

Introduced Species Affect

Another serious threat to this genus is a carnivorous snail, *Euglandina rosea*, which in turn was introduced to control another imported species, the giant African snail, *Achatina tulica*. Since its introduction, *Euglandina* has increased dramatically in numbers and spread to the mountain forests where it preys on Oahu's native land snails. Associated with the presence of this exotic snail has been an increase in the native predatory flatworm *Geoplana* sp., which could cause yet further damage. Consequently, in areas where *Euglandina* is well established, *Achatinella* are usually very rare or absent.

Excessive human collection of *Achatinella* snails for their beautiful, varied, and often rare shells has also contributed to the decline of these species. Since each shell is unique in shape, size, color, and pattern, collectors took many of each variety. The most intense period of collecting was from 1830 to 1940. Two private collections alone, out of many made at the turn of the century, contain more than 100,000 shells. Some collecting of live snails for shell leis and other non-scientific purposes still takes place, and the growing popularity of hiking in Oahu's mountains

Reference Note

All Service notices and proposed and final rulemakings are published in the *Federal Register* in full detail. The parenthetical references given in the BULLETIN—for example: (F.R. 1/30/81—identify the month, day, and year on which the relevant notice or rulemaking was published in the *Federal Register*).

PUBLIC MEETINGS/HEARINGS

Species/Action	Affected State(s)	Location of Meeting/Hearing	Date	Time
Heliotrope milk-vetch (<i>Astragalus montii</i>): proposed E/C.H.	UT	Meeting: Courtroom County Courthouse 160 N. Main Street (Enter North Door) Manti, Utah	3/18/81	7:00 p.m.
Carter's panicgrass (<i>Panicum carteri</i>): proposed E/C.H.	HI	Meeting: Kahalu'u Elementary School Cafeteria, 47-280 Waihe'e Road Kaneohe, Hawaii	3/5/81	7:30 p.m.

E—Endangered
C.H.—Critical Habitat

DISCUSSION OF CITES MEETING SET

A public discussion of the events that occurred at the New Delhi meeting (February 28-March 9, 1981) and decisions taken by the Parties to the Convention will be held on March 13, 1981. The meeting is scheduled to take place from 1:30-4:00 p.m. in Rooms 7000 A and B in the Main Interior Building, 18th and C Streets, N.W., Washington, D.C.

SERVICE CORRECTS OVERSIGHT

Comments received from Monitor, a Washington based environmental organization, were inadvertently omitted from the Service's final rulemaking on the reclassification of the red lechwe (*Kobus leche*) as a Threatened species (F.R. 10/1/80). The Service regrets this oversight and published a summary of Monitor's comments in the January 14, 1981, *Federal Register*. The Service found that no change in its final rule is warranted by the comments.

NEW PUBLICATIONS

Insect Conservation, reprinted from the *Annual Review of Entomology*, Vol. 26, 1981, is available in a limited supply

BOX SCORE OF SPECIES LISTINGS

Category	Endangered		Threatened		Species Total
	U.S.	Foreign	U.S.	Foreign	
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	61
TOTAL	234	489	50	29	749

Number of species currently proposed: 18 animals
11 plants

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

January 31, 1981

The Box Score does not reflect the listings of the genus Achatinella, gypsum wild buckwheat, Todsen's pennyroyal, or Texas poppy-mallow because of the delay in the effective dates for these rulemakings.

from the Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240. This paper examines the history of insect conservation awareness and efforts, the causes of insect losses and declines, recent conservation measures, and the outlook for future insect protection.

Hawaii's Vanishing Flora, First Edition, December 1980, by Bert Y. Kimura and Kenneth M. Negata was recently published. For information on its availability contact The Oriental Publishing Co., P.O. Box 22162, Honolulu, Hawaii 96822.

Copies of *The Administration of the Marine Mammal Protection Act of 1972* are available by writing the Director (PUB), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. This report reviews Service activities conducted with eight species of marine mammals under the jurisdiction of the Department of the Interior, as assigned by the Marine Mammal Protection Act of 1972. Endangered and Threatened marine mammal species (specifically the West Indian manatee and the sea otter in California) are discussed in the report.



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