

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Listing With Endangered Status and Critical Habitat for the Monito Gecko

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines that the Monito gecko, *Sphaerodactylus micropithecus*, known only from Isla Monito in the Commonwealth of Puerto Rico, is an Endangered Species under provisions of the Endangered Species Act of 1973, as amended. This action is being taken because of the extremely small population size coupled with suspected predation by rats. In addition, the Service determines that the entire island of Monito be declared Critical Habitat. All provisions of Sections 7 and 9 of the Act would now apply to this species.

DATES: This rule becomes effective on November 15, 1982.

ADDRESSES: Questions concerning this action may be addressed to Director (OES), U.S. Fish and Wildlife Service, Washington, D.C. 20240. Comments and materials relating to the rule are available for public inspection during normal business hours at the Service's Office of Endangered Species, Suite 500, 1000 N. Glebe Road, Arlington, Virginia.

FOR FURTHER INFORMATION CONTACT: Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240 (703/235-2771) or the Endangered Species Staff of the Service's Regional Office, Richard B. Russell Federal Building, 75 Spring Street, S.W., Atlanta, Georgia 30303 (404/221-3583).

SUPPLEMENTARY INFORMATION:
Background. The Monito gecko was discovered on Isla Monito, 5 km. northwest of Mona Island in the Mona Passage, in May of 1974. Until recently, only one adult had been collected in spite of intensive survey by several investigators. (Schwartz, 1977) In addition, an egg was collected at the same time which later hatched in the laboratory; both specimens were deposited at the Florida State Museum. Dr. Howard W. Campbell, who collected the gecko and egg during a two day visit, reported that "An ecological factor of considerable concern on Monito is the dense population of introduced rats. 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. The apparent low number of *Ameiva* (a type of lizard) and *Sphaerodactylus* might be the result of rat predation. If the *Sphaerodactylus*, turns out to be an endemic species or subspecies and if its numbers are as low as our data indicate, a rat removal program may be necessary for its preservation." The rat involved is *Rattus rattus*.

Previous surveys of Monito had not revealed the presence of any lizards of the genus *Sphaerodactylus*, which are normally abundant members of a herpetofauna when present (Rolle et al., 1964). Schwartz (1977) described the gecko as a distinct species and noted that the Monito *Sphaerodactylus* was difficult to ally with any geographically proximate species, including *S. monensis* residing only 5 km. away. Monito is a very small island (only about 300 x 500 meters) with steep sides; the presence of an endemic lizard so distinct from nearby forms makes the island and its lizard unique. The rarity of this species, coupled with an abundance of rats (which are known predators on lizards and their eggs), is of concern to herpetologists. Kepler (1978), in his studies of Monito's sea birds, also noted an abundance of rats on the island and speculated that the absence of Audubon's shearwater on Monito might be the result of rat predation.

On August 24-25, 1982, personnel from the Service and the Puerto Rico Department of Natural Resources, using transect survey techniques, searched for the Monito gecko. A total of 56 man hours were spent on the island during the course of the survey and the entire island was thoroughly covered. A total of 18 geckos were observed and eight were captured and photographed; four were preserved and have been deposited in the collections of the U.S. National Museum of Natural History and the Puerto Rico Department of Natural Resources. Geckos were concentrated in two populations, one on the northeast cliff and the other in the northwest. Thus, the survey confirmed that geckos are rare on Monito, unlike *S. monensis* which is abundant on nearby Mona. Details of this survey are in Dodd (1982). A total of 24 rats were also observed during the survey and they were active island wide at all times of day.

On October 22, 1980, the Service proposed Endangered status and Critical Habitat for this species (see the Federal Register 45 FR 70192-70195, for details).

In conjunction with the proposal for Endangered status and Critical Habitat, the Service held informal public meetings in Mayaguez, Puerto Rico, on December 2, 1980, and in San Juan on December 3, 1980, to explain the proposal, answer public questions, and to solicit additional information on the biology of the lizard and the economic effects of a Critical Habitat designation on federally authorized and funded projects in the area. All public comment periods were closed on January 21, 1981.

The Department of the Interior has determined that this document is not a major rule under Executive Order 12291. Monito Island is a small (300 m. x 500 m.) island located 5 km. northwest of Mona Island almost midway between Puerto Rico and the Dominican Republic. It is a very steep-walled island and, as such, is virtually inaccessible. The island is owned by the Commonwealth of Puerto Rico and is managed as a reserve for seabirds. There are no federally authorized or funded projects ongoing or planned for Monito. Therefore, it is not anticipated that such a designation for the Monito gecko should have any annual economic effects. Because of the remoteness of Monito and its present management as a Natural Reserve by the Commonwealth of Puerto Rico, no increased costs and prices are to be expected. No commercial trade exists for the species.

Because this rule was proposed before January 1, 1981, a determination of effects on small entities is not required by the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This rule does not contain information collection requirements that require approval by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3507).

Summary of Comments and Recommendations

Section 4(b)(1)(C) of the Act requires that a summary of all comments and recommendations received be published in the **Federal Register** prior to adding any species to the list of Endangered and Threatened Wildlife and Plants. In the October 22, 1980, **Federal Register** (45 FR 70192-70195) the Service proposed to list the Monito gecko (*Sphaerodactylus micropithecus*) as Endangered with Critical Habitat. A total of 12 comments were received during the public comment period, two of which were from Commonwealth agencies and one from a Federal agency.

Mr. Fredrick E. Rushford responded on behalf of Governor Carlos Romero Barcelo and acknowledged receipt of notification of the proposal but offered no comments on it. Dr. F. V. Soltero

Harrington (then Secretary, Department of Natural Resources) stated that the "Department feels that this designation is a necessary step that must be taken to protect this species" and that no socio-economic impact was foreseen in designating Monito as Critical Habitat.

Mr. H. R. Richard (U.S. Navy) noted that the Navy had no holdings on Monito and had no objection to either the listing or the Critical Habitat designation.

Of the remaining comments, six expressed unqualified support based on information contained in the original proposal. One additional comment expressed support stating that considering the small size of the island, the rat problem is a menace to the gecko but man's activities probably have not contributed to the present status of the species. The Service agrees. The commenter worried however, that the proposal could be interpreted as an attempt to thwart military attempts to use Monito as a target. The Service notes, however, that Monito is owned by the Commonwealth of Puerto Rico which is opposed to Monito being used for such purposes. In any case contacts with military concerns indicate that Monito is not being considered for bombing practice.

Dr. Howard Campbell, who collected the only specimens, stated:

Sphaerodactylus are generally abundant lizards in all habitats in which they occur throughout the Caribbean and Latin America. On Monito Island, intensive collection by several experienced herpetologists, on several different trips, has resulted in only one successful collection of this species. I, and several others who have collected the area and who were with me on the original trip when I collected the type specimens, were quite convinced that the scarcity of this species was an artifact of the intense predation on the species by the black rat on the island. Small land snails and other prey-sized species of invertebrates and vertebrates on the island in this area, also were very scarce and we suspect that the general scarcity of small invertebrates and vertebrates on the island is due to rat predation. The species may turn out to be somewhat more abundant than present knowledge indicates, however, the continual pressure by predation by these rats and the potential for habitat damage on such a small piece of habitat cannot be disregarded, and I fear with all these considerations that the species should be listed as threatened and the island be established as Critical Habitat.

He concluded:

It is critical that additional work be conducted to determine in fact whether the species is as rare as presently indicated and if it is in any immediate threat by predation from the black rat. If the black rat predation is as severe as present indications suggest

then some control program should be initiated on the island.

The Service notes that the August, 1982, survey did indeed confirm the rarity of this species.

Only one comment from Dr. Albert Schwartz opposed the listing, stating that although he had no personal knowledge of the habitat of the gecko or the ecology of Monito, the gecko may have been merely overlooked because of lack of interest or collecting techniques. He also stated that he doubted rats could have any effect on the gecko or its eggs (because of their small size). He did concede that bombing the island could have detrimental impacts and that rat removal "might" make a difference. He concluded that *S. micropithecus* is probably neither endangered nor threatened by present circumstances and that he remained "unconvinced" of the species' rarity. The Service disagrees and points out that those who have collected the gecko and are familiar with the ecology of Monito, including the August, 1982 survey team (Dodd, 1982) and biologists with the Puerto Rico Department of Natural Resources, believe that the species is threatened with extinction. The Service does acknowledge the need for additional work on the effects of rat predation but believes that competent collectors have visited the island. The gecko has not been overlooked merely because of lack of interest or lack of knowledge of collecting techniques.

The summary of factors affecting the species, as required by Section 4(a) of the Act and published in the **Federal Register** of October 22, 1980 (45 FR 70192-70195) are reprinted below. These factors are as follows:

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* In the past, Monito has been considered as a target for Naval bombing practice. While there are no such plans at present, any major alteration of Monito could be detrimental to the continued survival of this species.

2. *Overutilization for commercial, sporting, scientific, or educational purposes.* While there are no data on population size, the rarity of this species indicates that removal of specimens could be detrimental.

3. *Disease or predation.* The presence of large numbers of introduced rats on Monito is thought to be the major factor in the current precarious status of this species.

Rats are predaceous and are known to feed on both lizards and lizard eggs.

4. *The inadequacy of existing regulatory mechanisms.* The Monito gecko currently receives no protection.

5. *Other natural or man-made factors affecting its continued existence.* None known.

Effects of the Final Rule

Endangered species regulations already published in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all Endangered species. The regulations referred to above, which pertain to Endangered species, are found at Section 17.21 of Title 50, and are summarized below.

With respect to the Monito gecko, all prohibitions of Section 9(a)(1) of the Act, as implemented by 50 CFR 17.21, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. It also would be illegal to possess, sell, deliver, carry, transport, or ship any such wildlife which was illegally taken. Certain exceptions would apply to agents of the Service and State conservation agencies.

Regulations published in the **Federal Register** of September 26, 1975 (40 FR 44412, codified at 50 CFR 17.22 and 17.23, provided for the issuance of permits to carry out otherwise prohibited activities involving Endangered or Threatened species under certain circumstances. Such permits involving Endangered species are available for scientific purposes or to enhance the propagation or survival of the species. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship which would be suffered if such relief were not available.

Section 7(a) of the Act provides (in part):

(1) The Secretary shall review other programs administered by him and utilize such programs in furtherance of the Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of Endangered species and Threatened species listed pursuant to Section 4 of the Act.

(2) Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as "agency action") is not likely to jeopardize the continued existence of any Endangered species or Threatened species or result in the destruction or adverse modification of

habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to Subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

Provisions for Interagency Cooperation are codified at 50 CFR Part 402. This final rule 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 Monito gecko but also to insure that their actions are not likely to result in the destruction or adverse modification of this Critical Habitat which has been determined by the Secretary.

Critical Habitat

The Act defines "Critical Habitat" as (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

The Service believes that, since the Monito gecko is known to occur only on tiny Monito Island, this area should be designated Critical Habitat. If this area were to be destroyed, the gecko would become extinct. In addition, the rat problem is such that the island needs to be carefully managed to insure the continued existence of the lizard.

Section 424.12(b) of 50 CFR further states that, when considering the designation of Critical Habitat, the Director shall focus on the biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the Critical Habitat description. The following elements are known or believed to be constituent elements of the habitat of the Monito gecko.

1. Cover. The habitat for the Monito gecko must provide sufficient cover to, hide from predators and from unfavorable environmental conditions.

2. Disturbance. The habitat must be spared from extreme disturbance, such

as from bombing practice as was proposed in the past. This is not being considered at present.

3. Predators. The habitat must be free from introduced predators, such as the black rat.

Section 4(f)(4) of the Act requires, to the maximum extent practicable that any determination of Critical Habitat be accompanied by a brief description and evaluation of those activities which, in the opinion of the Secretary, may adversely modify such habitat if undertaken, or may be impacted by such designation. Such activities are identified below for this species. It should be emphasized that Critical Habitat designation may not affect each of the activities listed below, as Critical Habitat designation only affects activities authorized, funded, or carried out by Federal agencies. At this time, no Federal activities are known which would be affected by this action.

Examples of activities that could be detrimental to the environment of this species and lead to further reduction of its range include:

1. The use of Monito as a bombing range as has been considered in the past.

2. The physical alteration of the island, including the mining of guano.

Section 4(b)(4) of the Act requires the Service to consider economic and other impacts of specifying a particular area as Critical Habitat. The Service has prepared an impact analysis and believes at this time that economic and other impacts of this section are not significant in the foreseeable future. The Service is notifying Federal and Commonwealth agencies that may have jurisdiction over the land and water under consideration in this action.

National Environmental Policy Act

A final environmental assessment has been prepared and is on file in the Service's Office of Endangered Species. This assessment is the basis for a decision that this rule is not a major Federal action that significantly affects the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, implemented at 40 CFR 1500-1508.

These determinations are discussed in more detail in a Determination of Effects which has been prepared by the U.S. Fish and Wildlife Service.

References

Dodd, C. K., Jr. 1982. A report on the status and distribution of the Monito gecko, *Sphaerodactylus micropithecus* Schwartz. Report to U.S. Fish and Wildlife Service, Washington D.C. 7pp.

Kepler, C. B. 1978. The breeding ecology of sea birds on Monito Island, Puerto Rico. *Condor* 80:72-87.

Rolle, F. J., H. Heatwole, R. Levins, and F. Torres. 1964. Faunal notes on Monito Island, Puerto Rico. *Carib. J. Sci.* 4(1):321-322.

Schwartz, A. 1977. A new species of *Sphaerodactylus* (Sauria, Gekkonidae) from Isla Monito, West Indies. *Proc. Biol. Soc. Wash.* 90(4):985-992.

Author

The primary author of this rule is Dr. C. Kenneth Dodd, Jr., Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1975).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulations Promulgation

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the U.S. Code of Federal Regulations is amended as follows:

1. By adding the Monito gecko herein considered to the list in § 17.11(h), alphabetically under "Reptiles" as indicated below:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Gecko, Monito.....	<i>Sphaerodactylus micropithecus</i> .	U.S.A. (Puerto Rico).	Entire.....	E.....	124	17.95(c)	NA.

2. Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations is further amended as set forth below:

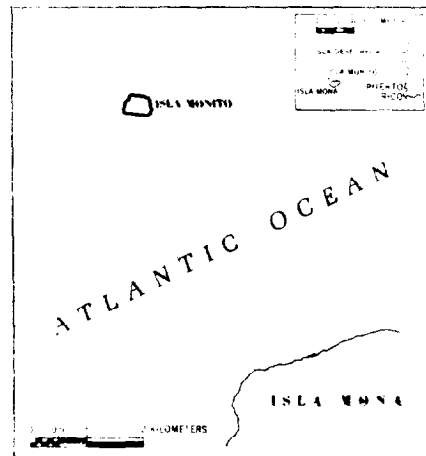
§ 17.95 [Amended]

(a) Section 17.95(c), Reptiles, is amended by adding Critical Habitat of the Monito gecko before that of the Culebra Island giant anole as follows:

MONITO GECKO

Sphaerodactylus micropithecus

Puerto Rico—Isla Monito, entire island.



Dated: September 22, 1982.

J. Craig Potter,
Acting Assistant Secretary for Fish and Wildlife and Parks.

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