

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Magazine Mountain Shagreen (*Mesodon magazinensis*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines the Magazine Mountain shagreen (*Mesodon magazinensis*) to be a threatened species. The snail is found only on Magazine Mountain in Logan County, Arkansas, in a very restricted area and is vulnerable to any land use changes or management activities that may have an adverse effect on it or its habitat. This determination implements the protections provided by the Endangered Species Act (Act) of 1973, as amended.

EFFECTIVE DATE: May 17, 1989.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Jackson, Mississippi, Field Office, U.S. Fish and Wildlife Service, Jackson Mall Office Center, Suite 316, 300 Woodrow Wilson Avenue, Jackson, Mississippi 39213.

FOR FURTHER INFORMATION CONTACT: Mr. John J. Pulliam at the above address (601/965-4900 or FTS 490-4900).

SUPPLEMENTARY INFORMATION:

Background

The Magazine Mountain shagreen (*Mesodon magazinensis*) is a dusky brown, or buff colored, medium-sized snail, approximately 13 millimeters (mm) (0.5 inches) wide and 7 mm (0.3 inches) high. The rough shell surface is covered with half-moon, scale-like processes that can be seen with a hand lens. The outer lip of the aperture has a small triangular shaped tooth, the inner side has a blade-like tooth, and there is a small swelling on the basal lip near the center of the shell (Pilsbry and Ferriss 1906).

The Magazine Mountain shagreen was originally described as a subspecies of *Polygyra edentatus* (Pilsbry and Ferriss 1906). Pilsbry (1940) subsequently placed this snail into the genus *Mesodon* and elevated it to specific status. This species can be separated from *M. infectus*, a similar but widespread species also found on Magazine Mountain, by genitalia differences (Hubricht 1972) and a large maximum diameter of 12.7-14.0 mm

(0.50-0.55 inches) for the former and 8.3-13.8 mm (0.33-0.54 inches) for the latter (R.S. Caldwell, Lincoln Memorial University, personal communication).

This snail is known only from rock slides on the north slope of Magazine Mountain in Logan County, Arkansas. A single dead specimen was found on the south slope of Magazine Mountain in 1903 (Pilsbry and Ferriss 1906), but this population has not been verified since that time (Caldwell 1986). Preferred habitat is found on approximately 60 percent slope between 600 meters (2,000 feet) and 790 meters (2,600 feet) elevation. Apparently this species prefers cool moist conditions. Therefore, the species moves deeper into the rock crevasses and becomes inaccessible for collection during the warm dry weather in July and August (Caldwell 1986). Because of its limited range, this snail would be vulnerable to any land use change or activities that would have an adverse effect on these rock slides. The species' entire range is within the Ozark National Forest and is classified as a Special Interest Area. The Mountain is being considered as a candidate for a Research Natural Area.

On April 28, 1976, the Service published a proposed rule (41 FR 17742) to determine 32 species of snails as endangered or threatened, including *Mesodon magazinensis*. The 1978 amendments to the Act required that all proposals over 2 years old be withdrawn if not finalized by November 1979. On December 10, 1979, the Service published a notice (44 FR 70796) withdrawing the proposal of April 28, 1976.

The Magazine Mountain middle-toothed snail (recently changed to Magazine Mountain shagreen) was included as a category 2 species in a notice of review of invertebrate wildlife for listing as endangered or threatened species on May 22, 1984 (49 FR 21664). Category 2 included taxa for which information then in possession of the Service indicated that proposing to list the species was possibly appropriate, but for which available data were not judged sufficient to support a proposed rule. In 1986, Dr. Ronald S. Caldwell completed a status survey on this species under contract to the Arkansas Nongame Species Preservation Program. The U.S. Forest Service, the U.S. Army Corps of Engineers, the Arkansas Game and Fish Commission, the Arkansas Division of State Parks, and the Logan County government are all aware of the rarity of this snail and are supportive of the proposal. There is a local concern for the effect listing the snail would have on the proposed development of a State Park on top of the Mountain.

Certainly, the effect on the snail's habitat would have to be considered during any future developments or land use changes.

Summary of Comments and Recommendations

In the July 5, 1988, proposed rule (53 FR 25179) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published in the *Southwest Times Record*, Ft. Smith, Arkansas, on July 16, 1988, the *Booneville Democrat*, Booneville, Arkansas, on July 20, 1988, the *Paris Express-Progress*, Paris, Arkansas, on July 21, 1988, and the *Arkansas Gazette*, Little Rock, Arkansas, on July 25, 1988, which invited general public comment. Comments were received from only three parties, the Arkansas Natural Heritage Commission, the Arkansas Nature Conservancy, and the Arkansas Game and Fish Commission, all in support of the proposal. No public hearing was requested and none was held.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Magazine Mountain shagreen should be classified as a threatened species. Procedures found at Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be endangered or threatened due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the Magazine Mountain shagreen (*Mesodon magazinensis*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Because of the restricted range of the Magazine Mountain shagreen, it is vulnerable to any land use change or activity that would have an adverse effect on the rock slides where it is found. The Arkansas Department of Parks and Tourism has applied for a Special Use Permit from the Forest Service to develop a State Park on Magazine Mountain. Any construction or recreational activities, such as buildings, roads, pipelines, or trails, could have an

adverse effect on the snail if the rock slides on the north slope are disturbed. The U.S. Army would like to use the National Forest in this area for training exercises. If any troop movements, vehicle movements, or artillery operations affected the north slope, they also could have a negative impact on the snail. These activities, as well as forestry and recreational activities, represent potential threats, unless such activities are planned and conducted with the protection of the north slope of Magazine Mountain in mind. The Service has contacted the U.S. Forest Service, the Arkansas Department of Parks and Tourism, and the U.S. Army regarding protection needs of the Magazine Mountain shagreen.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Although it is difficult to collect this species during hot, dry periods, a knowledgeable collector could damage the population during a cool period following a rain. Therefore, collecting should be carefully controlled because of this species' rarity and limited range.

C. Disease or predation. There are no known diseases or predators that pose a significant threat to the snail.

D. The inadequacy of existing regulatory mechanisms. Other than the Special Interest Area designation by the U.S. Forest Service, there are no regulations in effect that provide protection for this species.

E. Other natural or manmade factors affecting its continued existence. The Magazine Mountain shagreen is a very rare snail, being found only on the north slope of Magazine Mountain where it is limited to rockslides at the foot of the cliff. It occurs in small numbers and is dependent on a cool, moist microhabitat.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list the Magazine Mountain shagreen as threatened. Since the species has a very restricted range, it is vulnerable to collecting and to any adverse habitat modification. Therefore, it seems appropriate to list the snail as threatened, defined as likely to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range. Critical habitat is not being designated for the reasons discussed below.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary

designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. As discussed under Factor B in the "Summary of Factors Affecting the Species," uncontrolled collecting could be a problem. Publication of critical habitat descriptions would make this species even more vulnerable and increase enforcement problems. In addition, the entire range is in the Ozark National Forest and the U.S. Forest Service is aware of its presence. Protection of this species' habitat will also be addressed through the recovery process and through the Section 7 jeopardy standard. Therefore it would not be prudent to determine critical habitat for the Magazine Mountain shagreen at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. The only Federal activities that may affect this species are any land use changes or activities adversely affecting the habitat, which is exclusively found on U.S. Forest Service land. The U.S. Army is interested in the area for

training exercises. However, the north slope could be excluded from this activity.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, 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 in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

The Service will review this species to determine whether it should be considered for placement on the appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and on the Annex of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

Caldwell, R.S. 1986. Status of *Mesodon magazinensis* (Pilsbry and Ferriss), the Magazine Mountain Middle-toothed Snail.

Grant Number 84-1 for Arkansas Nongame Species Preservation Program. 18 pp.
 Hubricht, L. 1972. The Land Snails of Arkansas. *Sterkiana* 46:15-16.
 Pilsbry, H.A., and J. Ferriss. 1906. Mollusca of the Ozarkian Fauna. *Proc. Acad. Nat. Sci., Philadelphia*. 1906:529-567.
 Pilsbry, H.A. 1940. Land Mollusca of North America (North of Mexico). *Acad. Nat. Sci., Philadelphia, Monog.* 3, 1(2):575-994.

Author

The primary author of this proposed rule is Mr. John J. Pulliam III (see ADDRESSES Section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411; Pub. L. 100-478, 102 Stat. 2306; Pub. L. 100-653, 102 Stat. 3825 (16 U.S.C. 1531 *et seq.*); Pub. L. 99-625, 100 Stat. 3500 unless otherwise noted.

2. Amend § 17.11(h) by adding the following, in alphabetical order under "SNAILS", to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

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Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
SNAILS							
Shagreen, Magazine Mountain.	<i>Mesodon magazinensis</i>	U.S.A. (AR)	NA	T	348	NA	NA

Dated: March 16, 1989.

Becky Norton Dunlop,

Assistant Secretary for Fish and Wildlife and Parks.

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