

DEPARTMENT OF THE INTERIOR

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Reproposal of Endangered Status for "Stygobromus Hayi" (Hay's Spring Amphipod)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine that Hay's spring amphipod (*Stygobromus hayi*) is an Endangered species. Survival of this aquatic crustacean is endangered by threatened modification of its habitat by flooding and construction activities and by overcollection for scientific purposes. Hay's spring amphipod occurs only in a single small spring within the National Zoological Park in Washington, D.C. The proposed rule would provide protection for wild populations of this species.

DATES: Comments from the public must be received by September 23, 1980. Comments from the Mayor of Washington, D.C. must be received by October 23, 1980.

ADDRESSES: Interested persons or organizations are requested to submit comments to Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. Comments and materials relating to this rule are available for public inspection during normal business hours at the Service's Office of Endangered Species, Suite 500, 1000 North Glebe Road, Arlington, Virginia.

FOR FURTHER INFORMATION CONTACT: For further information on the proposal, contact Mr. John L. Spinks, Jr., Chief, Office of Endangered Species (703/235-2771).

SUPPLEMENTARY INFORMATION:**Background**

Stygobromus (- *Synpleona*, - *Stygonectes*) *hayi* (Hubricht and Mackin, 1940) is an eyeless and unpigmented freshwater crustacean. Formerly considered a member of the family Gammaridae, Hay's spring amphipod is now placed in the Crangonyctidae (Holsinger, 1977). It is one of a number of species in this genus that occupy mud or leaf litter in cave streams and small springs (Holsinger, 1978). Its lack of pigment and eyes reflect its secretive habits and subterranean ancestry.

Hay's spring amphipod is found only in a small spring within the National Zoological Park. The spring emerges from the rocky western wall of Rock Creek Valley and flows about 35 m into

Rock Creek. The portion of the spring inhabited by Hay's spring amphipod is less than 1 meter wide. The extremely small size of this habitat makes the species exceptionally vulnerable to construction activities, which have drastically reduced the number of springs in Washington (Williams, 1977).

This species was proposed as Endangered on January 12, 1977 in the Federal Register (42 FR 2507-2515) under the common name "Hay's spring scud." That proposal was based on reports submitted by Dr. John R. Holsinger of Old Dominion University, Norfolk, Virginia dated January 15, 1973 and by Dr. Thomas E. Bowman of the U.S. National Museum dated January 23, 1973. Both of these reports indicated that this species was very rare, that it had not been collected in recent years, and that its habitat was threatened by groundwater pollution. They also suggested that the single known population was a remnant of a once larger species range. Comments on this original proposal are summarized below.

Dr. S. Dillon Ripley, Secretary of the Smithsonian Institution, commented that, since Hay's spring amphipod had not been collected and its locality not located since 1938, the existence of the species was questionable and its status should therefore be considered undetermined. A comment from Dr. John R. Holsinger, Old Dominion University, was in agreement with Dr. Ripley's comment that the status of the species was not determined. Dr. Bailus Walker, Administrator, District of Columbia Environmental Health Administration, commented that, even though the species' locality could not be located, the species should still be considered Endangered.

In a letter dated May 8, 1978 and report dated May 11, 1978, Dr. John R. Holsinger reported the rediscovery of the type locality and the collection of live Hay's spring amphipods. This discovery took place on April 7, 1978 at the National Zoological Park, Washington, D.C. Dr. Holsinger recommended in his report that the spring and surrounding recharge area be maintained in their natural state. He also stated that the species' small population size made the species vulnerable to collecting. The National Zoological Park subsequently constructed a small chain link fence around the spring to protect the habitat.

The proposed rulemaking that included proposed Endangered status for Hay's spring amphipod was withdrawn on December 10, 1979 (44 FR 70796-70797). This withdrawal was the result of the 1978 amendments to the Endangered Species Act of 1973 which

substantially modified procedures for listing Endangered and Threatened species.

Springs in the southernmost part of the National Zoological Park were examined by Service and National Zoological Park personnel on February 11, 1980. Spring No. 1 of Dr. Holsinger's May 11, 1978 report had been obliterated by a tree that had fallen when Hurricane David passed through the area in 1979. Several trees on the slope above the Hay's spring amphipod locality (Spring No. 2 of Dr. Holsinger's report) were also felled by Hurricane David. Although one tree had fallen on the fence surrounding the spring, the spring flow and substrate appeared to be undisturbed. This survey provides significant new information on which to base a reproposal of Endangered status for Hay's spring amphipod. Because of the threat of elimination of its only known habitat through pollution, construction activities, and other disruptions, Hay's spring amphipod is in danger of extinction.

Factors Affecting the Species

Section 4(a) of the Act (16 U.S.C. 1531 *et seq.*) states:

"General—(1) The Secretary shall by regulation determine whether any species is an endangered species or a threatened species because of any of the following factors:

- (1) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (2) Overutilization for commercial, sporting, scientific, or educational purposes;
- (3) Disease or predation;
- (4) The inadequacy of existing regulatory mechanisms; or
- (5) Other natural or man-made factors affecting its continued existence."

This authority has been delegated to the Director.

These findings are summarized herein under each of the five criteria of Section 4(a) of the Act. These factors, and their application to Hay's spring amphipod, are as follows:

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Unusually high flood levels from Rock Creek reach the level of the spring habitat of Hay's spring amphipod. This level has been flooded with increasing frequency in recent years (CH₂M Hill, 1979). Flood waters adversely affect the spring habitat by removing individual amphipods, as well as the leaves and soft bottom sediments that form their microhabitat, from the spring.

Construction activities, if not carefully carried out, could adversely affect or eliminate the spring habitat. Such

activities have eliminated most of Washington's springs during the last 100 years (Williams, 1977). Possible use of the level area just below the spring for parking or equipment storage is now in advanced planning. Although a small fence now surrounds the spring, the significance of this structure could easily be overlooked during parking lot construction. The spring is so small that careless movement of equipment slightly onto the hillside from which the spring flows could have a catastrophic effect on the habitat.

2. *Overutilization for commercial, sporting, scientific or educational purposes.* Only a few scientific specialists are potential collectors of Hay's spring amphipod. Dr. John R. Holsinger (unpublished report; May 11, 1978) has expressed concern about future collecting. Even this modest collecting pressure presents a danger to this extremely rare species.

3. *Disease of predation.* NOT APPLICABLE

4. *The inadequacy of existing regulatory mechanisms.* Although the National Zoological Park has voluntarily fenced the habitat of this species and alerted personnel to its significance, there is no legal protection for the species.

5. *Other natural or man-made factors affecting its continued existence.* NOT APPLICABLE

Critical Habitat

Designation of Critical Habitat for Hay's spring amphipod would not be prudent. Publication of a map and description of the exact locality, which is required for Critical Habitat designation, could expose the species to destruction of its habitat by vandalism and unauthorized taking. The habitat is within a densely populated urban area. The small size of the species' population and habitat, as well as the fragile nature of the habitat, makes the species vulnerable to isolated acts of vandalism.

Effect of This Proposal if Published as a Final Rule

Endangered species regulations already published in Title 50 § 17.21 of the Code of Federal Regulations set forth a series of general prohibitions and

exceptions which apply to all Endangered species. 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.

Permits may be issued to carry out otherwise prohibited activities involving Endangered species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23. Such permits 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.

If published as a final rule this proposal would require Federal agencies to insure that activities they authorize, fund, or carry out, are not likely to jeopardize the continued existence of Hay's spring amphipod. Provisions for Interagency Cooperation are codified at 50 CFR Part 402.

Public Comments Solicited

The Director intends that the rules finally adopted will be as accurate and effective as possible in the conservation of any Endangered or Threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial, or other relevant data concerning any threat (or the lack thereof) to the species included in this proposal;

(2) The location of and the reasons why any habitat of this species should or should not be determined to be Critical Habitat as provided for by Section 7 of the Act;

(4) Current or planned activities which may adversely modify any areas being recommended for Critical Habitat; and
(5) The foreseeable economic and other impacts of any recommended Critical Habitat designation on federally funded or authorized projects.

National Environmental Policy Act

A draft environmental assessment has been prepared in conjunction with this proposal. It is on file in the Service's Office of Endangered Species, 1000 North Glebe Road, Arlington, Virginia, and may be examined by appointment during regular business hours. A determination will be made at the time of final rulemaking as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

Primary Author

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

Literature Cited

- CH₂M Hill. 1979. *Draft Rock Creek Watershed Conservation Study*. Prepared for Department of the Interior, National Park Service.
- Holsinger, J. R. 1977. A review of the systematics of the holarctic amphipod family Crangonyctidae. *Proceedings of the 3rd International Colloquium on Gammarus and Niphargus*, Schlitz, West Germany, 1975. *Crustaceana* (supplement), 4: 244-281.
- Holsinger, J. R. 1978. Systematics of the subterranean amphipod genus *Stygobromus* (Crangonyctidae), Part II: Species of the Eastern United States. *Smithsonian Contributions to Zoology* No. 286. 144 pp.
- Hubricht, L. and J. G. Macklin. 1940. Descriptions of nine new species of freshwater crustaceans, with notes and new localities for other species. *American Midland Naturalist* 23: 187-218.
- Williams, G. P. 1977. Washington, D.C.'s vanishing springs and waterways. *Geological Survey Circular* 752.

Regulations Promulgation

1. It is proposed to amend § 17.11 by adding, in alphabetical order, the following to the list of animals:

§ 17.11 Endangered and Threatened Wildlife.

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rule
Common name	Scientific name						
Crustaceans:							
Amphipod, Hay's spring.....	<i>Stygobromus hayi</i>	U.S.A. (DC).....	NA	E	NA	

Note.—The Department of the Interior has determined that this rule is not a significant rule and does not require preparation of a regulatory analysis under Executive Order 12044 and 43 CFR 14.

Date: July 15, 1980.

Robert S. Cook,

Acting Director, Fish and Wildlife Service.

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