
DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****RIN 1018-AB67****Endangered and Threatened Wildlife and Plants; Proposal To List the Kanab Ambersnail as Endangered and Designate Critical Habitat****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes to determine the Kanab ambersnail (*Oxyloma haydeni* ssp. *kanabensis*) to be an endangered species and to designate critical habitat pursuant to the Endangered Species Act of 1973 (Act), as amended. Only two populations of this snail are known to exist, both on wetlands on private lands in Kane County, Utah. A status survey completed in 1991 discovered that one population is nearly extirpated, while the other population has been subjected to major habitat alteration and destruction. An emergency rule determining the Kanab ambersnail to be endangered was published on August 8, 1991 (56 FR 37668) and will expire on April 3, 1992. The Service seeks data and comments on this proposed rule.

DATES: Comments from all interested parties must be received by January 14, 1992. Public hearing requests must be received by December 30, 1991.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Fish and Wildlife Enhancement, U.S. Fish and Wildlife Service, 2078 Administration Building, 1745 West 1700 South, Salt Lake City, Utah 84104. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Clark D. Johnson at the above address, telephone 801/524-4430 or FTS 588-4430.

SUPPLEMENTARY INFORMATION:

Background

The Kanab ambersnail is a terrestrial snail in the family Succineidae. It has a mottled grayish-amber to yellowish-amber colored shell. The shell is dextral, thin-walled, with an elevated spire and a broad, patulous (expanded) aperture. Fully mature individuals are about 14 to 19 mm ($\frac{1}{2}$ to $\frac{3}{4}$ inch) long, 7 to 9 mm ($\frac{1}{4}$ to $\frac{1}{2}$ inch) in diameter, with $3\frac{1}{4}$ to $3\frac{3}{4}$ whorls in a drawn out spire. Its eyes are borne at the ends of long peduncles (stalks), while the tentacles are reduced to small protuberances at the base of the eye stalks (Pilsbry 1948, Clarke 1991).

Specimens of the Kanab ambersnail were first collected in 1909 by James Ferriss from "The Greens," 6 miles above Kanab, on Kanab Wash, on a wet ledge among moss and cypripediums" (Ferriss 1910, Pilsbry 1948). These specimens were originally placed in the species *Succinea hawkinsi* (Ferriss 1910, Chamberlin and Jones 1929). Henry Pilsbry (1948) transferred these specimens to the genus *Oxyloma* and erected the subspecies *kanabensis* in the species *haydeni* for them. Clarke (1991) notes that Pilsbry's decision to accord the Kanab ambersnail subspecific status was based on shell features alone, and that, as Pilsbry himself noted, its taxonomic status should be reevaluated. Clarke (1991) suggests that the Kanab ambersnail may deserve species status. For the purpose of this listing action, the Service will recognize this taxon at the subspecies level. If the Kanab ambersnail is later recognized as a species, this will not affect its designation as endangered.

The Kanab ambersnail lives in marshes watered by springs and seeps at the base of sandstone cliffs. It is absolutely associated with a perennially wet soil surface or shallow standing water. None are found in drier areas, even under logs or in other

microhabitats commonly frequented by other land snails (Clarke 1991).

The presence of cattail (*Typha domingensis*), or at least the permanently wet ground which cattail indicates, is believed to be a critical component of the species habitat. The Kanab ambersnail is most densely aggregated under fallen cattail stalks at the edges of thick cattail stands. Cattails may provide crucial vegetative cover for the snails. The American robin (*Turdus migratorius*) has been observed to feed on the Kanab ambersnail and may be the snail's principal natural predator (Clarke 1991). The snails are also frequently seen just within the mouths of vole burrows.

The Kanab ambersnail is known from two populations about 2.0 km (1.25 miles) apart. Both populations are on privately owned lands. Other likely sites in the area have been searched on foot by Blaine Lunceford, a knowledgeable local biologist from Kanab, Utah, and during the recent status survey effort (Clarke 1991), but no other Kanab ambersnail colonies have been discovered.

The larger Kanab ambersnail population is located in Three Lakes Canyon, a tributary drainage of Kanab Creek, about 10 km (6 miles) northwest of the town of Kanab, Utah. The Kanab ambersnail occurs throughout the marshes and wet meadows which surround the "Three Lakes" ponds, an area about 1.3 km (0.8 miles) long and up to 90 m (100 yards) wide.

Note: The estimated size of this habitat has increased relative to the habitat size estimated in the emergency rule as a result of more recent information.

This population was estimated to have as many as 100,000 individuals in June 1990. Soon thereafter, a significant portion of this habitat was destroyed by earth-moving equipment (Clarke 1991, U.S. Fish and Wildlife Service 1991). In February 1991, the landowners were alerted by a Service representative to the presence of this imperiled snail on their property. At that time, the owners indicated a willingness to conserve the Kanab ambersnail.

The smaller, nearly extirpated population occurs in a marsh, watered by a seep, at the foot of a cliff in Kanab Creek Canyon. The Kanab ambersnail was once common at this site. Though once larger, this habitat was discovered to have been reduced to a long narrow marsh measuring about 46 m (150 feet) long and 15 cm (6 inches) wide in 1990. The marsh had been partially dewatered by a ditch and drainpipe installed by the landowner to provide water for domestic livestock which graze in a field

between the marsh and Kanab Creek. An intensive search of this habitat in 1990 revealed only three live snails (Clarke 1991).

Federal action on this species began on May 22, 1984, when the Service published a notice of review of invertebrate wildlife for listing as endangered or threatened species, which included the Kanab ambersnail as a category 2 species (49 FR 21664). Category 2 comprises species for which the Service has information indicating the appropriateness of a proposal to list the species as endangered or threatened but for which more substantial data are needed on biological vulnerability and threats. On January 6, 1989, the Service published an updated notice of review of animals for listing as endangered or threatened which maintained the Kanab ambersnail as a category 2 species (54 FR 554).

In 1990, the Service commissioned a status survey of candidate Utah snails, including the Kanab ambersnail. The final report was completed in April 1991 and concluded that the Kanab ambersnail was in imminent danger of extinction and that immediate action should be taken to save it (Clarke 1991). The Service considers the information developed in the 1991 report sufficient to elevate the Kanab ambersnail from a category 2 to a category 1 species. The recent precipitous decline of the snail, combined with the species' extreme vulnerability to further habitat modification or other catastrophes prompted the Service to emergency list the Kanab ambersnail as endangered on August 8, 1991. This emergency protection expires on April 3, 1992.

Summary of Factors Affecting the Species

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 set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Kanab ambersnail (*Oxyloma haydeni* ssp. *kanabensis* Pilsbry) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* As noted previously, the Kanab ambersnail is absolutely associated with a perennially wet soil surface or shallow standing water at the two locations described

earlier. This habitat type is rare in extreme south-central Utah.

The smaller population in Kanab Creek Canyon was much bigger previously, but the recent dewatering of this habitat to provide water for livestock has nearly extirpated this population.

The larger population in Three Lakes Canyon was estimated to number 100,000 snails in June 1990. Early in 1991, the open marshy area above the uppermost of the three lakes was graded in an attempt to smooth its contours to improve its aesthetic appeal for future development purposes. The private landowner had seriously contemplated draining the largest pond, which could devastate the snail population, but appears to have abandoned the idea for the time being (U.S. Fish and Wildlife Service 1991). The private landowner also has plans for building a retirement home and/or developing a recreational vehicle park and campground in the Three Lakes area, which could result in further habitat alteration or destruction.

Historically, the snail's habitat has been used for grazing purposes, which could have impacted the snails in the past and may have been a factor in the species' current limited distribution. A low level of grazing continues in the species' known habitat.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Overutilization is not known to be a threat. However, the Kanab ambersnail may be vulnerable to collecting either for scientific or private shell collections. Due to its size, the smaller population is exceptionally vulnerable to extinction from collection.

C. Disease or predation. Disease and predation are not believed to be major problems affecting the continued survival of the Kanab ambersnail. The snail is preyed upon by the American robin (*Turdus migratorius*), but this is a natural condition. At present, predation is not thought to be significant to the species, provided crucial environmental factors that reduce the degree of predation are not significantly altered, such as loss of vegetative cover.

D. The inadequacy of existing regulatory mechanisms. No Federal or State laws or regulations mandate protection of the Kanab ambersnail or its habitat. The known populations occur on private lands managed primarily for commercial or agricultural uses.

E. Other natural or manmade factors affecting its continued existence. Almost all known individuals of the Kanab ambersnail are found in the Three Lakes Canyon population. This extremely localized population may be

vulnerable to natural disasters such as extreme drought, flood, fire, or disease. It can also be jeopardized by human activities such as periodic burning to improve the area for cattle grazing or other economic activity, or poisoning of the ponds so that more desirable sportfish might thrive (Clarke 1991). The Kanab Creek population may be nearly extirpated, but is potentially important as a source of genetic diversity (Clarke 1991).

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 propose this rule. Based on this evaluation, the preferred action is to list the Kanab ambersnail as an endangered species. It is restricted to two known populations. Habitat loss and degradation have already drastically reduced population levels at the Kanab Creek Canyon site and may have significantly reduced population numbers at the Three Lakes Canyon site. Planned development in the Three Lakes Canyon site could result in further habitat loss and degradation. Without the protections of the Act, the Kanab ambersnail is highly susceptible to additional habitat and population losses. Endangered status, which means that the snail is in danger of extinction throughout a significant portion of its range, is a more accurate assessment of the species' status than threatened status.

Critical Habitat

Critical habitat, as defined by section 3 of the Act means:

(i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and

(ii) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(a)(3) of the Act, as amended, requires that critical habitat be designated to the maximum extent prudent and determinable with the determination that a species is endangered or threatened. The Service believes that it is not prudent to determine critical habitat for the smaller population due to the relatively greater threat posed by possible overcollection for this population. The rulemaking identifies the smaller population's

habitat as being adjacent to sandstone cliffs in Kanab Creek Canyon. If the general area was clearly delineated in a critical habitat map, it would be a simple matter to locate the smaller population by walking along the foot of the cliffs. It would take only one instance of collection to completely eliminate the smaller population, which contained three live individuals in 1990. If the smaller population was genetically different from the larger population, this would be a significant loss to the subspecies' gene pool.

Though it also would be a simple matter to find the larger population if a critical habitat map was published, the relative threat posed by collection is significantly smaller. Collection is unlikely to result in the extermination of a population estimated to number 100,000 individuals in 1990. Therefore, critical habitat is being proposed for the Kanab ambersnail to include the site containing the Three Lakes Canyon population, located approximately 6 miles north northwest of the town of Kanab, Utah, in the wet meadows and marshes surrounding the "Three Lakes" ponds between U.S. Highway 89 and the sandstone cliffs west of the highway. This habitat is watered by seeps from the adjacent sandstone cliffs. This area is about 1.3 km (0.8 miles) long and up to 90 m (100 yards) wide, comprising an area of up to 12 hectares (29 acres), including the "Three Lakes" ponds. Its precise location may be found in the "Proposed Regulations Promulgation" section of this rulemaking.

It is crucial that these seeps and their associated wetlands be maintained in a natural condition in order to preserve the Kanab ambersnail. The Kanab ambersnail is absolutely associated with a perennially abundant wet soil surface or shallow standing water, and is most abundant at the base of cattail stalks. This microhabitat provides the species food and shelter and is necessary to enable the species to complete its life-cycle events of growth, breeding, reproduction, and wintering with protection from biotic and abiotic environmental factors such as predators, and temperature and moisture extremes.

Section 4(b)(8) requires, for any proposed or final regulation that designates critical habitat, a brief description and evaluation of those activities (public or private) that may adversely modify such habitat or may be affected by such designation. Activities which may adversely affect proposed critical habitat include: (1) Surface disturbance of the occupied wet meadow and marsh habitat of the species, (2) dewatering of the species

habitat, and (3) water quality impacts from human activities. The first two activities already have affected the habitat of the Kanab ambersnail; the third is a potential threat to the habitat of the Kanab ambersnail.

The activities which may be affected by the designation of critical habitat would be those actions authorized, funded, or carried out by a Federal Agency which may affect critical habitat. If the private landowners applied for a 404 permit issued by the Corps of Engineers under the authority of the Clean Water Act to dredge or fill the wetlands comprising critical habitat, then the proposed activity would need to be reviewed to determine if it would destroy or adversely modify the critical habitat. In addition, if the private landowners avail themselves of assistance offered by the Soil Conservation Service, then the assistance may need to be reviewed if it may affect critical habitat.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating a particular area as critical habitat. The Service will consider the critical habitat designation in light of all additional relevant information obtained before making a decision on whether to issue a final rule.

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. 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 insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a 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. Because the Kanab ambersnail was emergency listed on August 8, 1991, the requirement for consultation under section 7(a)(2) of the Act applies to this subspecies until the emergency rule expires on April 3, 1992.

All known populations of the Kanab ambersnail are on private lands. The Federal Government may have programs or regulatory authority capable of influencing privately undertaken activities in the habitat of the Kanab ambersnail. Private activities involving dredge and fill of wetlands would be required to have a 404 permit. In addition, the landowners may avail themselves of technical assistance offered by the Soil Conservation Service for onfarm soil and water conservation programs which may affect the snail.

The Act and its implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), 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 endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. 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. Requests for copies of the regulations on animals and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, room 432, 4401 North Fairfax Drive, Arlington, Virginia (telephone 703/358-2093; FTS 921-2093).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the

scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the Kanab ambersnail;

(2) The location of any additional populations of the Kanab ambersnail and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of this species;

(4) Current or planned activities in the subject area and their possible impacts on the Kanab ambersnail; and

(5) Any foreseeable economic and other impacts resulting from the proposed designation of critical habitat.

Final promulgation of the regulations on the Kanab ambersnail will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of the publication of the proposal. Such requests must be made in writing and addressed to the Field Supervisor, Fish and Wildlife Enhancement, U.S. Fish and Wildlife Service (see ADDRESSES above).

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 (49 FR 49244).

References Cited

- Chamberlin, R.V. and D.T. Jones. 1929. A descriptive catalog of the Mollusca of Utah. Bull. of the Univ. of Utah 19(4):i-x + 1-263.
- Clarke, A.H. 1991. Status survey of selected land and freshwater gastropods in Utah. Unpublished report prepared for the U.S. Fish and Wildlife Service, Denver, Colorado. 70 pp + cxii.
- Ferriss, J.H. 1910. A collecting excursion north of the Grand Canyon of the Colorado. The Nautilus 23:109-112.

Pilsbry, H.A. 1948. Land Mollusca of North America. The Acad. of Nat. Sci. of Philadelphia Monographs. Vol. II (Part 2): 797-798.

U.S. Fish and Wildlife Service. 1991. Supplemental status report for the Kanab ambersnail (*Oxyloma haydeni kanabensis*). U.S. Fish and Wildlife Service. Salt Lake City, Utah. 3 pp.

Author

The primary author of this proposed rule is John L. England, U.S. Fish and Wildlife Service (see ADDRESSES above, telephone 801/524-4430 or FTS 588-4430).

List of Subjects in 50 CFR Part 17

Endangered and threatened species. Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulations Promulgation

PART 17--[AMENDED]

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

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

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. It is proposed to 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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[h] * * *

Species		Range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
SNAILS							
Snail, Kanab amber	<i>Oxyloma haydeni kanabensis</i>	U.S.A. (UT)	NA	E	431		NA

3. It is proposed to amend § 17.95 by adding a new section (f) and adding critical habitat of the Kanab ambersnail (*Oxyloma haydeni kanabensis*).

§ 17.95 Critical habitat—fish and wildlife.

* * * * *
(f) *Snails*

Kanab Ambersnail (*Oxyloma haydeni kanabensis*)

Utah, Kane County: Three Lakes Canyon, the "Three Lakes" ponds and adjacent wetlands and seeps in the E½ SE¼ SW¼ Sec. 19, E½ NE¼ NW¼ Sec. 30, E½ SE¼ NW¼ Sec. 30, and W½ SW¼ NE¼ Sec. 30, T. 42 S., R. 6 W., of the Salt Lake Meridian between U.S.

Highway 89 and the sandstone cliffs west of the highway.

Constituent elements include: Wetlands adjacent to water seeps in sandstone cliffs and surrounding the "Three Lakes" ponds, and water seeps in sandstone cliffs.

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