MEMORANDUM

SUBJECT: Special Local Needs Registration [Section 24(c)] for Fipronil (Topchoice®) Use to Control Fire Ants in Arizona (PC Code 129121; DP Barcode D311943)

FROM: James A. Hetrick, Ph. D., Soil Chemist
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TO: Marion Johnson, Acting Branch Chief
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This memorandum provides an ecological risk assessment to support the Section 24(c) for use of fipronil (Topchoice®) to control fire ants. Based on the proposed Section 24(c) label, the maximum fipronil application rate cannot exceed 0.01244 lbs ai/A. Higher fipronil application rates of up to 0.02488 lbs ai/A for sod farm use have been removed from the label. The risk assessment for granule fipronil applications at 0.0125 lbs ai/A indicates risk presumptions are exceeded for acute risk to endangered freshwater aquatic invertebrates (RQ=0.453) and estuarine invertebrates (RQ=1.393) (D26067, D273236, D2732241, D273375, D274014). There is no risk concern for impacts to estuarine invertebrates because there are no coastal boundaries or estuarine areas in Arizona. A critical risk issue, however, are acute effects to aquatic invertebrates.

An analysis of endangered aquatic invertebrates, birds, fish, amphibians, and insects was conducted for the State of Arizona (Table 1). This analysis was conducted using LOCATES for all use sites in Arizona.
Table 1: List of Endangered Invertebrates, Birds, Fish, Amphibians, and Insects in the State of Arizona.

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMBERSNAIL, KANAB</td>
<td>Oxyloba haydeni kanabensis</td>
</tr>
<tr>
<td>BOBWHITE, MASKED</td>
<td>Colinus virginianus ridgwayi</td>
</tr>
<tr>
<td>CHUB, BONYTAIL</td>
<td>Gila elegans</td>
</tr>
<tr>
<td>CHUB, HUMBACK</td>
<td>Gila cypha</td>
</tr>
<tr>
<td>CHUB, VIRGIN RIVER</td>
<td>Gila seminuda (= robusta)</td>
</tr>
<tr>
<td>CHUB, YAQUI</td>
<td>Gila purpurea</td>
</tr>
<tr>
<td>FALCON, NORTHERN APLOMADO</td>
<td>Falco femoralis septentrionalis</td>
</tr>
<tr>
<td>FLYCATCHER, SOUTHWESTERN WILLOW</td>
<td>Empidonax traillii extimus</td>
</tr>
<tr>
<td>PELICAN, BROWN</td>
<td>Pelecanus occidentalis</td>
</tr>
<tr>
<td>PUPFISH, DESERT</td>
<td>Cyprinodon macularius</td>
</tr>
<tr>
<td>PYGMY-OWL, CACTUS</td>
<td>Glaucidium brasilianum cactorum</td>
</tr>
<tr>
<td>FERRUGINOUS</td>
<td></td>
</tr>
<tr>
<td>RAIL, YUMA CLAPPER</td>
<td>Rallus longirostris yumanensis</td>
</tr>
<tr>
<td>SALAMANDER, SONORA TIGER</td>
<td>Ambystoma tigrinum stebbinsi</td>
</tr>
<tr>
<td>SQUAWFISH, COLORADO</td>
<td>Ptychocheilus lucius</td>
</tr>
<tr>
<td>Sucker, Razorback</td>
<td>Xyrauchen texanus</td>
</tr>
<tr>
<td>TOPMINNOW, GILA (YAQUI)</td>
<td>Poeciliopsis occidentalis</td>
</tr>
<tr>
<td>TROUT, GILA</td>
<td>Oncorhyncus gilae</td>
</tr>
</tbody>
</table>

Of the species listed, the bobwhite quail, falcon, pygmy -owl (bolded) would not be expected to be directly affected from fipronil application. In addition, indirect effects from fipronil effects on aquatic invertebrate prey base would not be expected for these species. With the exception of the Kanab ambersnail, indirect effects are possible from fipronil effects on aquatic invertebrate prey base. The Kanab ambersnail is the only species which may be directly affected from fipronil use. The Kanab ambersnail was discovered in the Grand Canyon National Park (Federal Register 50 CFR Part 12 RIN 1018-AB67, Vol. 57, No. 75, April 17, 1992). It is located in a wetland spring (100 x 30 meter area) fed by springs cascading down the cliffs of the canyon wall within the gorge of the Grand Canyon.
DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB57

Endangered and Threatened Wildlife and Plants; Final Rule To List the Kanab Amber Sanul as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) determines the Kanab amber snail (Oxyloma haydeni sp. kanabensis) to be an endangered species pursuant to the Endangered Species Act of 1973, as amended (Act). Critical habitat is not being designated at this time. Three populations of this snail are known to exist: Two in wetlands in private ownership in Kane County, Utah; and one in Grand Canyon National Park in Coconino County, Arizona. A status survey conducted in 1990 discovered that one Utah population was nearly extirpated, while the other Utah population was subjected to major habitat alteration and destruction. The Arizona population was discovered in 1991. An emergency rule determining the Kanab amber snail to be endangered was published on August 8, 1991, and expired on April 3, 1992.

EFFECTIVE DATE: April 17, 1992.

ADDRESSES: The complete file for this rule is available for inspection by appointment, during normal business hours, at the Fish and Wildlife Enhancement Office, U.S. Fish and Wildlife Service, 2000 Administration Building, 1745 West 1700 South, Salt Lake City, Utah 84104.

FOR FURTHER INFORMATION CONTACT: John L. England at the above address, telephone (801) 524-4430 or FTS 588-4430.

SUPPLEMENTARY INFORMATION:

Background

The Kanab amber snail is a terrestrial snail in the family Succineidae. It has a mottled grayish-amber to yellowish-amber colored shell. The shell is dextral (right-handed spiral), thin-walled, with an elevated spire and a broad, patulous (expanded) aperture. Fully mature individuals are about 14 to 19 mm (½ to ¾ inch) long, 7 to 9 mm (¼ to ½ inch) in diameter, with 3⅓ to 3⅙ 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 (Pilsby 1948, Clarke 1991).

Specimens of the Kanab amber snail were first collected in 1909 by James Ferris from "The Greens," 6 miles above Kanab, on Kanab Wash, on a wet ledge among moss and cypripedias" (Ferris 1910, Pilsby 1948). These specimens were originally placed in the species Succinea bowkinst (Ferris 1910, Chamberlin and Jones 1929). Henry Pilsby (1948) transferred these specimens to the genus Oxyloma and erected the subspecies kanabensis in the species haydeni for them. Clarke (1991) notes that Pilsby's decision to accord the Kanab amber snail subspecific status was preliminary, and that, as Pilsby himself noted, its taxonomic status should be reevaluated. Clarke (1991) and Wu (Colorado Museum of Natural History, Boulder, pers. comm., 1992) suggest that the Kanab amber snail may deserve full species status. For the purpose of this
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 is 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 22203 (telephone 703/358-2083; FTS 821-2083).

National Environmental Policy Act

The Service determines 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 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


Author

The primary author of this proposed rule is John L. Englund, U.S. Fish and Wildlife Service (see ADDRESSES above). Telephone 801/524-4430 or FTS 588-4490.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, part 17, subpart B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

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


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.

(h) * * * * * SNAILS

* * * * * (h)

Na * * * * * .

Snails

Ambersnail, Kanab (Oxychilus haydeni) USA (AZ, UT) NA E 431,459 NA NA

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 663

Pacific Coast Groundfish Fishery

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.