

6. Section 80.953 is amended by redesignating the text as paragraph (a), revising the first sentence of paragraph (a), removing the second sentence of paragraph (a) and adding a new paragraph (b) to read as follows:

**§ 80.953 Inspection and certification.**

(a) Each U.S. flag vessel subject to the Great Lakes Agreement must have an inspection of the required radiotelephone installation at least once every 13 months. \* \* \*

(b) This inspection may be conducted by the FCC or by a classification society that is a member of the International Association of Classification Societies (IACS). A certificate issued by a classification society has the same standing as one issued by the FCC.

[FR Doc. 95-13491 Filed 6-2-95; 8:45 am]

BILLING CODE 6712-01-M

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

RIN 1018-AD28

**Endangered and Threatened Wildlife and Plants; Proposal To List Three Aquatic Invertebrates in Comal and Hays Counties, Texas, as Endangered**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** The Fish and Wildlife Service proposes to list three aquatic invertebrate species known only from Comal and Hays counties, Texas, as endangered species under the Endangered Species Act of 1973, as amended (Act). The primary threat to these species is a decrease in water quantity and quality as a result of water withdrawal and other activities by humans throughout the San Antonio segment of the Edwards Aquifer. This proposal, if made final, will implement Federal protection provided by the Act for the Peck's cave amphipod (*Stygobromus pecki*), Comal Springs riffle beetle (*Heterelmis comalensis*), and Comal Springs dryopid beetle (*Stygoparnus comalensis*).

**DATES:** Comments from all interested parties must be received by August 4, 1995. Public hearing requests must be received by July 20, 1995.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to the State Administrator, U.S. Fish and Wildlife Service, 10711 Burnet Road, Suite 200, Austin, Texas 78758.

Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Ruth Stanford, Ecologist, or Alisa Shull, Fish and Wildlife Biologist (see ADDRESSES section) (512/490-0057).

**SUPPLEMENTARY INFORMATION:**

**Background**

The U.S. Fish and Wildlife Service (Service) proposes to list as endangered under the Endangered Species Act of 1973, as amended (Act) three aquatic invertebrate animal species with a known distribution in spring sites in Comal and Hays counties, Texas; two of the species are subterranean. Peck's cave amphipod is known from Comal Springs and Hueco Springs, both in Comal County. The Comal Springs riffle beetle is known from Comal Springs and San Marcos Springs (Hays County). The Comal Springs dryopid beetle is known from Comal Springs and Fern Bank Springs (Hays County). The water flowing out of each of these springs comes from the Edwards Aquifer (Balcones Fault Zone—San Antonio Region), which extends from Hays County on the east to Kinney County on the west. Comal Springs are located in Landa Park, which is owned and operated by the City of New Braunfels, and on private property adjacent to Landa Park. Hueco Springs and Fern Bank Springs are located on private property. San Marcos Springs are located on the property of Aquarena Springs, formerly a privately owned resort facility. Southwest Texas State University purchased the facility in 1994. Aquarena Springs continues to operate as a resort, but the university plans to increase conference facilities and provide educational and interpretive displays and to increase availability of the springs for biological and ecological research (Billy Moore, Public Affairs Director, Southwest Texas State University, pers. comm., 1995).

Peck's cave amphipod is a subterranean, aquatic crustacean. The other two species are aquatic beetles. The families to which these beetles belong live primarily in flowing, uncontaminated waters. The Comal Springs riffle beetle is a surface species in the family Elmidae. The Comal Springs dryopid beetle is the only known subterranean member of the family Dryopidae.

The first recorded specimen of the amphipod *Stygobromus* (= *Stygonectes*) *pecki* (Holsinger 1967) was collected by Peck at Comal Springs in June, 1964. Reddell collected a second specimen at

the same place in May, 1965. In 1967, Holsinger named the species *Stygonectes pecki*, in Peck's honor; the 1965 specimen, an adult female 10.5 mm (about one half inch) long, served as the type specimen. Later he included all the nominal *Stygonectes* species in the synonymy of the large genus *Stygobromus*. The Service has used "cave amphipod" as a generic common name for members of this genus, and this name was simply translated as "Peck's cave amphipod" without reference to a particular cave. Other known springs and artesian wells of the Edwards Aquifer in central Texas have been extensively sampled for amphipod crustaceans; a single specimen of Peck's cave amphipod was collected at Hueco Springs by Barr in August, 1992.

Over 300 specimens of Peck's cave amphipod have been collected since its description. Most documented specimens were netted from crevices in rock and gravel near the orifices of the three largest Comal Springs on the west side of Landa Park in Comal County, Texas. Barr collected one specimen from a fourth Comal spring run on private property adjacent to Landa Park and one specimen from Hueco Springs, about 7 km (4 miles) north of Comal Springs (Barr 1993). However, like all members of the exclusively subterranean genus *Stygobromus*, this species is eyeless and unpigmented, indicating that its primary habitat is a zone of permanent darkness in the underground aquifer feeding the springs. Above ground, individuals are easy prey for predators, but they usually take shelter in the rock and gravel crevices and may succeed in reentering the spring orifice. Barr (1993) got most specimens in drift nets at spring orifices and found them less often as she moved downstream, supporting the notion that they may be easy prey and do not likely survive for long outside the aquifer.

The Comal Springs riffle beetle is a small, aquatic beetle known from Comal Springs and San Marcos Springs. It was first collected by Bosse in 1976 and was described in 1988 by Bosse *et al.* The closest relative of *H. comalensis* appears to be a species that occurs farther to the west (Bosse *et al.* 1988).

Adult Comal Springs riffle beetles are about 2 mm (1/10 inch) long, with females slightly larger than males. Unlike the other two organisms proposed here, the Comal Springs riffle beetle is not a subterranean species. It occurs in the gravel substrate and shallow riffles in spring runs. Some riffle beetle species can fly, but the hind wings of *Heterelmis comalensis* are short and almost certainly non-functional, making the species

incapable of this mode of dispersal (Bosse *et al.* 1988). The larvae have been collected with adults in the gravel substrate of the spring headwaters and not on submerged wood as is typical of most *Heterelmis* species (Brown and Barr 1988). Usual water depth in occupied habitat is 2 to 10 cm (1 to 4 inches) although the beetle may also occur in slightly deeper areas within the spring runs. Populations are reported to reach their greatest densities from February to April (Bosse *et al.* 1988). The Comal Springs riffle beetle has been collected from spring runs 1, 2, and 3 at Comal Springs in Landa Park, and a single specimen was collected from San Marcos Springs 32 km (20 miles) to the northeast.

The Comal Springs dryopid beetle is a recently discovered species. It was first collected in 1987 and described as a new genus and species in 1992 by Barr (California State University) and Spangler (National Museum of Natural History, Smithsonian Institution). Adult Comal Springs dryopid beetles are about 3.0–3.7 mm ( $\frac{1}{8}$  inch) long. They have vestigial (non-functional) eyes and are weakly pigmented, translucent, and thin-skinned. The species is the first stygobiontic (subterranean aquatic) member of its family to be discovered (Brown and Barr 1988, Barr, *in litt.* 1990, Barr and Spangler 1992). Collection records for the Comal Springs dryopid beetle are primarily from spring run 2 at Comal Springs, but they have also been collected from runs 3 and 4 at Comal Springs and from Fern Bank Springs about 32 km (20 miles) to the northeast in Hays County. Specimens have been collected in April, May, June, July, and August. Most of the specimens have been taken from drift nets or from inside the spring orifices. Although the larvae of the Comal Springs dryopid beetle have been collected in drift nets positioned over the spring openings, they are presumed to be associated with air-filled voids inside the spring orifices since all other known dryopid beetle larvae are terrestrial. Unlike Peck's cave amphipod, the Comal Springs dryopid beetle does not swim, and it may have a smaller range within the aquifer.

The exact depth and subterranean extent of the ranges of the two subterranean species (Comal Springs dryopid beetle and Peck's cave amphipod) are not precisely known because of a lack of methodologies available for studying karst aquifer systems and the organisms that inhabit such systems. The subterranean portion of this habitat may be a single, interconnected system that provides the area necessary for the feeding, growth, survival, and reproduction of the Comal

Springs dryopid beetle and Peck's cave amphipod, which are obligate aquatic stygobiontic species. However, no specimens of *Stygoparnus comalensis* or *Stygobromus pecki* have appeared in collections from 22 artesian and pumped wells flowing from the Edwards Aquifer (Barr 1993), suggesting that these species may be confined to small areas surrounding the spring openings and are not distributed throughout the aquifer. Barr (1993) also surveyed nine springs in Bexar, Comal, and Hays counties considered most likely to provide habitat for endemic invertebrates and found *Stygoparnus comalensis* only at Comal and Fern Bank springs and *Stygobromus pecki* only at Comal and Hueco springs.

The low water limits for survival are not known for any of these three invertebrate species. At least a single population of each species survived the drought of the middle 1950's, which resulted in cessation of flow at Comal Springs from June 13 through November 3, 1956. Hueco springs is documented to have gone dry in the past (Brune 1981; Barr 1993), and although no information is available for Fern Bank Springs, it has probably gone dry as well given its higher elevation (Glenn Longley, Edwards Aquifer Research and Data Center, pers. comm., 1993). San Marcos Springs has not gone dry in recorded history.

Although these invertebrates were not entirely extirpated by the temporary cessation of spring flow, they may have been adversely affected and are not expected to be able to survive long periods of drying (up to several years in duration) that may occur in the absence of an adequate water management plan for the Edwards Aquifer. Stagnation of water may be a limiting condition, particularly for the two stygobiontic invertebrates. Stagnation of water and/or drying within the spring runs and the photic (lighted) zone of the spring orifices would probably be limiting for the Comal Springs riffle beetle. Natural water flow is considered important to the respiration and therefore survival of these species. The two beetle species have a mass of tiny, hydrophobic (unwetable) hairs on their underside where they maintain a thin bubble of air through which gas exchange occurs (Chapman 1982). This method of respiration loses its effectiveness as the level of dissolved oxygen in the water decreases. A number of aquatic insects that use dissolved oxygen rely on flowing water to obtain oxygen from the water.

In a petition dated September 9, 1974, the Conservation Committee of the National Speleological Society

requested the Service to list Peck's cave amphipod. The species was included in a notice of review published on April 28, 1975 (40 FR 18476). A "warranted but precluded" finding regarding several species in that petition was made October 12, 1983, and published January 20, 1984 (49 FR 2485). The same petition determination has been repeated for Peck's cave amphipod in subsequent years. The species was included as a category 2 candidate in comprehensive notices of review published May 22, 1984 (49 FR 21664), January 6, 1989 (54 FR 554), and November 21, 1991 (56 FR 58804). In the latest notice of review of November 15, 1994 (59 FR 58982), it was included as a category 1 candidate.

In a petition dated June 20, 1990, and received June 21, 1990, Mr. David Whatley, Director of the City of New Braunfels Parks and Recreation Department, requested the Service to list five invertebrate taxa, including Peck's cave amphipod and four insects. The Service treated this as a second petition for the amphipod. A notice of 90-day petition finding published April 29, 1991 (56 FR 19632) announced that the petition had presented substantial information indicating that listing the Comal Springs riffle beetle and the Comal Springs dryopid beetle may be warranted, and initiated a formal status review for those species. Taxonomic uncertainties about the Comal Springs *Microcylolepus* riffle beetle and *Hexagenia* mayfly, also included in the June 21, 1990, petition, led to 90-day petition findings that were negative for those insects. The *Heterelmis* was recognized as a category 2 candidate in the November 21, 1989, notice of review, and both it and the *Stygoparnus* were recognized as category 1 candidates in the 1994 notice of review.

The present proposal constitutes a positive 1-year finding for the petitions to list the Comal Springs riffle beetle, Comal Springs dryopid beetle, and Peck's cave amphipod.

#### Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (50 CFR Part 424) 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 Peck's cave amphipod (*Stygobromus pecki*), Comal Springs riffle beetle (*Heterelmis comalensis*), and Comal Springs dryopid

beetle (*Stygoparnus comalensis*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of their habitat or range.* The main threat to the habitat of these aquatic invertebrates is a reduction or loss of water of adequate quantity and quality, due primarily to human withdrawal of water from the Edwards Aquifer and other activities. Total withdrawal from the San Antonio region of the Edwards Aquifer has been increasing since at least 1934, when the total well discharge was 101,900 acre-feet (Edwards Underground Water District 1989). In 1989, the total well discharge was slightly more than 542,000 acre-feet (Longley 1991; Edwards Underground Water District 1992a).

There is an integral connection between the waters in the aquifer west of the springs and the waters serving as habitat for these species at the springs. Water entering the Edwards Aquifer as far west as Kinney County would eventually exit at springs were it not for withdrawal of groundwater from wells. Water in the Edwards Aquifer flows from west to east or northeast, and withdrawal or contamination of water in the western part of the aquifer can have a direct effect on the quantity and quality of water flowing toward the springs and at the spring openings.

Prior to wells being drilled into the aquifer, the average springflow from Comal and San Marcos springs was equal to the average annual recharge. That is, almost all of the water entering the aquifer eventually exited at the springs. At present, much of the recharge is pumped out of the aquifer, and most of what is left becomes the average springflow (Guadalupe-Blanco River Authority 1988). The amount of water removed by wells is therefore a direct, one-for-one depletion of water that would otherwise exit through the springs (Guadalupe-Blanco River Authority 1988) and provide habitat for the proposed invertebrates.

The Texas Water Commission (TWC) (1989) classified the San Antonio segment of the Edwards Aquifer as a critical area in terms of its potential for groundwater problems related to overdrafting. The Commission also ranked Bexar, Comal, and Hays counties among the top 23 counties in Texas for number of active groundwater public supply systems. Human population in the region is expected to increase (Technical Advisory Panel 1990; Edwards Underground Water District 1993), which will result in increased demand for water from the aquifer.

The Texas Water Development Board has applied its model of the Edwards Aquifer to determine the maximum pumping level that would allow Comal Springs to continue to flow (Technical Advisory Panel 1990). The Board found that during a drought similar to that of the 1950's, the maximum pumpage that would allow spring flow at Comal Springs is about 250,000 acre-feet per year (less than half the current pumping rate). "At this pumping level, Comal Springs could be expected to maintain some annual flow although they may flow on an intermittent basis during a recurrence of the drought of record" (Technical Advisory Panel 1990). The Panel also stated that in the year 2000, if pumping continues to grow at historical rates and a drought of record were to occur, Comal Springs would go dry for a number of years (Technical Advisory Panel 1990). Wanakule (1990) states: "The present problem facing the Edwards Aquifer is the threat of overdrafting of the annual average recharge rate (1934-1988) of approximately 635,500 acre-feet. McKinney and Watkins (1993) evaluated the Texas Water Development Board model and other models and concluded that, without limiting withdrawal to about 200,000 acre-feet per year, Comal Springs will likely go dry for extended periods during even a minor drought. The creation of the Edwards Aquifer Authority may help to alleviate this threat to some degree (see Factor D for further discussion). The Edwards Aquifer Authority is currently subject to litigation regarding violation of the Voting Rights Act in its formation. The Texas Legislature is now considering bills designed to bring the Authority into compliance, but the outcome of this effort remains to be determined.

In 1984 and 1990, some of the higher-elevation Comal Springs ceased flowing and water levels in the index well (J-17) in San Antonio dropped to within twelve feet of the historic low of 612.5 ft that occurred in 1956 (Wanakule 1990). Because these invertebrates require relatively well-oxygenated water, a reduction or cessation of spring flows, even if standing water remained around the spring orifices, may adversely affect the species. Loss of water entirely within their habitat would result in the extirpation of these aquatic species from their native habitat.

In addition to a loss of water, a decrease in the water level in the aquifer could lead to a decreased quality of water at the springs. The Balcones Fault Zone—San Antonio Region is bounded on the south and east by a "bad water" line across which the groundwater

quality abruptly deteriorates to greater than 1000 mg/l total dissolved solids (TDS). In other words, at the bad water line, there is a transition in groundwater from fresh to saline or brackish.

Lowered water levels resulting from groundwater pumpage or decreased recharge may result in deterioration of water quality in the fresh water section of the aquifer through movement of the bad water line. The Comal and San Marcos Springs are very close to the bad water line (TWC 1989; Edwards Underground Water District 1992b) and although the data are inconclusive at present, these springs may be sensitive to intrusion of saline waters at low aquifer levels. Other possible effects of reduced springflow levels include changes in the chemical composition of the water in the aquifer and at the springs, a decrease in current velocity and corresponding increase in siltation, and increase in temperature and temperature fluctuations in the aquatic habitat (McKinney and Watkins 1993).

Another threat to the habitat of these species is the potential for groundwater contamination. Pollutants of concern include those associated with human sewage (particularly septic tanks), animal/feedlot waste, agricultural chemicals (especially insecticides, herbicides, and fertilizers) and urban runoff (including pesticides, fertilizers, and detergents). Pipeline, highway, and railway transportation of potentially harmful materials in the Edwards Aquifer recharge zone and its watershed with the attendant possibility of accidents presents a particular risk to water quality in Comal and San Marcos springs. Comal and San Marcos springs are both located in highly urbanized areas. Hueco Springs is located alongside River Road, which is heavily travelled for recreation on the Guadalupe River, and may be susceptible to road runoff and spills related to traffic. Fern Bank Springs is in a relatively remote, rural location and its principal vulnerability is probably to contaminants associated with leaking septic tanks, animal/feedlot wastes, and agricultural chemicals.

Of the counties containing portions of the San Antonio segment of the Edwards Aquifer, the potential for acute, catastrophic contamination of the aquifer is greatest in Bexar, Hays, and Comal counties because of the higher density of urbanization compared to the western counties. Although spill or contamination events that could affect water quality may occur to the west of Bexar County, dilution and the time required for the water to reach the springs may lessen the threat from that area. As aquifer levels decrease,

however, dilution of contaminants moving through the aquifer may also decrease.

The TWC reported that in 1988 within the San Antonio segment of the Edwards Aquifer, Bexar, Hays, and Comal counties had the greatest number of land-based oil and chemical spills in central Texas that affect surface and/or groundwater with 28, 6, and 4 spills, respectively (TWC 1989). As of July, 1988, Bexar County had between 26 and 50 confirmed leaking underground storage tanks, Hays County had between 6 and 10, and Comal County had between 2 and 5 (TWC 1989), putting these counties among the top five counties in central Texas for confirmed underground storage tank leaks. The TWC estimates that, on average, every leaking underground storage tank will leak about 500 gallons per year of contaminants before the leak is detected. These tanks are considered one of the most significant sources of groundwater contamination in the State (TWC 1989).

A TWC project, using the DRASTIC methodology/tool (Aller, *et al.* 1987) classified Texas aquifers statewide according to their pollution potential. The Edwards Aquifer (Balcones Fault Zone—Austin and San Antonio Regions) was ranked among the highest in pollution potential of all major Texas aquifers (TWC 1989). The project's objective was to identify areas sensitive to groundwater pollution from a contaminated land surface. The project modelled both point source and non-point source types of contamination. The area of particular concern is the Edwards Aquifer recharge zone and its watershed. The TWC (1989) also reviewed and reported on the risk to Texas aquifers from sanitary landfills, hazardous waste disposal facilities, industrial waste and sewage disposal wells, commercial feedlots, and graveyards.

The DRASTIC methodology may underestimate the importance of faults and fractures, which affect the movement of groundwater and pollutants. Faults and fractures may act as conduits and/or barriers to groundwater flow and, in the vicinity of springs, could facilitate movement of contaminants. The Comal Springs fault facilitates the movement of groundwater (and potentially pollutants) towards Comal Springs. Hueco Springs has a large local recharge component (Brune 1981) and may be more susceptible to contamination via polluted runoff than Comal or San Marcos Springs. Little information is available on the relative contribution of groundwater and local recharge to the water emerging at Fern

Bank Springs, although the temporary increase in discharge seen after storm events indicates a local recharge component (Barr 1993).

B. *Overutilization for commercial, recreational, scientific or educational purposes.* No threat from overutilization of these species is known to exist.

C. *Disease or predation.* While individuals of these three species may be preyed upon by various predatory insects or fishes, no information indicates that this is a substantial threat to any of the three species.

D. *The inadequacy of existing regulatory mechanisms.* Invertebrates are not included on the Texas Parks and Wildlife Department's (TPWD) list of threatened and endangered species and are provided no protection by the State. Nor do the TPWD regulations contain provisions for protecting habitat of any listed species.

Traditionally, the State of Texas has had no authority to regulate withdrawal of groundwater from an aquifer. In response to a lawsuit filed against the Service by the Sierra Club (Sierra Club v. Babbitt, formerly Sierra Club v. Lujan), the Texas State Legislature passed a bill (S.B. 1477) authorizing the creation of the Edwards Aquifer Authority (Authority) and granting the Authority the power to regulate groundwater withdrawal from the Edwards Aquifer. The bill recommends limiting groundwater withdrawal from the aquifer to 450,000 acre-feet per year initially, then reducing it to 400,000 acre-feet per year by January 1, 2008, based on a model developed by the TWC. One stated goal of the bill is to provide continuous minimum springflow of at least 100 cfs at Comal and San Marcos Springs by the year 2012 to protect species that are designated as threatened or endangered under Federal or State law. However, some researchers have maintained that, even with such pumping limits, flow at Comal Springs will drop below 100 cfs, and the springs will likely go dry for extended periods in time of severe drought and probably during minor droughts (McKinney and Watkins 1993).

The bill creating the Authority gives consideration in setting minimum springflow requirements only to those species protected under Federal or State law. These invertebrates would receive no consideration under the current plan until they are listed. In addition, Comal and San Marcos Springs are the lowest elevation springs in which these invertebrates are found, and maintaining flow at Fern Bank and Hueco Springs is not a stated goal of the water withdrawal limitations. Efforts to maintain minimum springflow at Comal

and San Marcos Springs would not necessarily be sufficient to maintain flow at Hueco and Fern Bank Springs, which lie at higher elevations.

Although creation of the Edwards Aquifer Authority and development of regulations for limiting withdrawal of groundwater from the Edwards Aquifer is a positive step toward protecting the Comal and San Marcos spring ecosystems, creation of the Authority is currently a matter in litigation regarding compliance with the Voting Rights Act. It is uncertain if or when the Authority will be empowered to enforce the pumping limits dictated by the legislation, and thus whether it will be able to protect these aquatic invertebrates and other threatened and endangered species dependent upon water from the aquifer.

The major regulations affecting water quality in the San Antonio segment of the Edwards Aquifer are the Edwards Rules (31 Texas Administrative Code, Chapter 313), promulgated and enforced by the TWC (recently renamed as the Texas Natural Resource Conservation Commission). The Edwards Rules regulate construction-related activities on the recharge zone that may "alter or disturb the topographic, geologic, or existing recharge characteristics of the site" as well as any other activity "which may pose a potential for contaminating the Edwards Aquifer." The Edwards Rules regulate construction activities through review of Water Pollution Abatement Plans (WPAPs). The WPAPs do not require site-specific water quality performance standards for developments over the recharge zone nor do they address land use or impervious cover limitations. The WPAPs do not regulate activities in the aquifer contributing zone and, as yet, the Edwards Rules do not include a comprehensive plan to address the effects of cumulative impacts on water quality in the aquifer (Edwards Underground Water District 1993).

E. *Other natural or manmade factors affecting its continued existence.* The effect of droughts in south central Texas will be much more severe than previously was the case, due to the large increase in groundwater withdrawals (Wanakule 1990). These species' very limited habitat is likely to be lost through drying or decreased volume of springflow during minor or severe drought.

At present, competition is not known to be a significant threat to these species. However, two exotic snail species, *Thiara granifera* and *Thiara tuberculata* are common in the spring runs and, as grazers, may compete for food. Another exotic, the giant ramshorn

snail (*Marisa cornuarietis*), is present in two of the spring runs and may colonize the other runs at low flow levels or through transfer by humans.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to propose this rule. Based on this evaluation the preferred action is to list the Peck's cave amphipod (*Stygobromus pecki*), Comal Springs riffle beetle (*Heterelmis comalensis*), and Comal Springs dryopid beetle as endangered.

### Critical Habitat

Critical habitat is defined by Section 3 of the Act as— (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. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for Peck's cave amphipod, the Comal Springs riffle beetle, and the Comal Springs dryopid beetle at this time. Service regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist— (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

The Service finds that designation of critical habitat for these three species would not be prudent because it would not provide a conservation benefit to them, and would actually be detrimental by suggesting a misleadingly restricted view of their conservation needs.

Designation of critical habitat would not be beneficial to these species

beyond the benefits provided by listing and the subsequent evaluation of activities under section 7 of the Act for possible jeopardy. In the Service's section 7 regulations at 50 CFR Part 402, the definition of "jeopardize the continued existence of" includes "to reduce appreciably the likelihood of both the survival and recovery of the listed species," and "adverse modification" is defined as "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." Because these species are endemic to such highly localized areas, actions that apparently diminish water quality and quantity at the springs would be fully evaluated for their effects on the three species through analysis of whether the actions would be likely to jeopardize their continued existence. Any action that would appreciably diminish the value, in quality or quantity, of spring flows on which they depend would also reduce appreciably the likelihood of survival and recovery of the three species. The analysis for possible jeopardy applied to these species would therefore be identical to the section 7 analysis for determining adverse modification or destruction of critical habitat; no distinction between jeopardy and adverse modification for activities impacting the springs on which these species depend can be made at this time. Application of section 7 relative to critical habitat would therefore not add measurable protection to these species beyond what is achievable through review for jeopardy.

Designation of the springs and their immediate environment as critical habitat would actually be detrimental to conservation efforts for these species because it would promote the misconception that the springs are the only areas important to their conservation. Conservation efforts for these species must address a wide variety of federally funded or authorized activities (summarized in the "Available Conservation Measures" section of this proposed rule) that affect the quality and quantity of water available to these species through effects on the recharge sources and aquifer that supply water to their habitats. Nearly all of these activities will occur beyond the immediate vicinity of the springs, and some will occur many miles away. Designation of the springs as critical habitat would be misleading in implying to Federal agencies whose activities may affect these species that the Service's concern is limited only to activities taking place at the springs

occupied by the species. Designation of critical habitat for these species would therefore not be prudent.

### 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 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.

Conservation and management of the Peck's cave amphipod, Comal Springs riffle beetle, and Comal Springs dryopid beetle are likely to involve protection and conservation of the Edwards Aquifer and spring flow at Comal Springs, Hueco Springs, San Marcos Springs, and Fern Bank Springs. It is also anticipated that listing will encourage research on critical aspects of the species' population biology.

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)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species. If a species is listed subsequently, 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 such 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. Federal actions that could affect the Peck's cave amphipod, Comal Springs riffle beetle, and/or Comal Springs dryopid beetle include the funding, authorization, and implementation of projects that would reduce the quantity or quality of water within the San Antonio segment of the Edwards Aquifer or otherwise significantly affect the outlets or water output of Comal Springs in New Braunfels, Texas; San Marcos Springs in

San Marcos, Texas; Hueco Springs in Comal County, Texas; and Fern Bank Springs in Hays County, Texas. Examples of these types of activities include projects that would involve withdrawal of water from the aquifer; permits for municipal wastewater discharge; agricultural irrigation; use of pesticides and herbicides; Environmental Protection Agency National Pollutant Discharge Elimination System permits; section 18 exemptions under the Federal Insecticide, Fungicide, and Rodenticide Act; and Corps of Engineers permits for stream crossings.

The Act and 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 is also illegal to possess, sell, deliver, carry, transport, or ship any 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. It is anticipated that few trade permits would ever be sought or issued because these species are not known to be in trade.

It is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable at the time a species is listed or proposed to be listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a listing on proposed and ongoing activities within a species' range. The Service emphasizes that this action is a proposed listing, and that the guidelines presented herein are for use in the event that the listing becomes final. Should the listing become final, the discussion and outline presented here should assist landowners and managers in avoiding violation of section 9 of the Act. The Service believes that, based on the best available information, activities that

could potentially harm the Comal invertebrates and result in "take" include, but are not limited to—

- (1) Collecting or handling of the species;
- (2) Activities that may result in destruction or alteration of the species' habitat (including, but not limited to withdrawal of water from the aquifer to the point at which habitat becomes unsuitable for the species, alteration of the physical habitat within the spring runs, or physical alteration of the spring orifices or of the subsurface pathways providing water to the springs);
- (3) Discharge or dumping of chemicals, silt, pollutants, household or industrial waste, or other material into the springs or into areas that provide access to the aquifer and where such discharge or dumping could affect water quality; or
- (4) Herbicide, pesticide, or fertilizer application in or near springs containing the species or areas that drain into the aquifer. Careful use of pesticides in the vicinity of the springs may be necessary in some instances.

The Service believes that a wide variety of activities would not harm these species if undertaken in the vicinity of their habitats and thus would not constitute taking. In general, any activity in the contributing, recharge, or artesian zones of the Edwards aquifer that would not have potential for cumulative or acute/catastrophic decrease in water quality within the aquifer and would not involve use of water from the aquifer should not harm these species. Inquiries concerning the possible effects of specific activities should be directed to the Service's Texas State Office (see ADDRESSES, above).

#### 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 are particularly sought concerning:

- (1) Biological, commercial trade, or relevant data concerning any threat (or lack thereof) to Peck's cave amphipod, the Comal Springs riffle beetle, and Comal Springs dryopid beetle;
- (2) The location of any additional populations of these species 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 ranges, distributions, and population sizes of these species;

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

Final promulgation of the regulations on these species 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 publication of the proposal. Such requests must be made in writing and addressed to State Administrator, U.S. Fish and Wildlife Service (see ADDRESSES section).

#### 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).

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 Authors: The primary authors of this rule are Ruth Stanford and Alisa Shull (see ADDRESSES section) and George Drewry, Division of Endangered Species, U.S. Fish and Wildlife Service, 452 ARLSQ, Washington DC 20240.

recordkeeping requirements, Transportation.

**Proposed Regulations Promulgation**

**PART 17—[AMENDED]**

Accordingly, the Service hereby proposes 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. Section 17.11(h) is amended by adding the following, in alphabetical order under Crustaceans and Insects, respectively, to the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
 (h) \* \* \*

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
CRUSTACEANS:							
* Amphipod, Peck's cave.	* <i>Stygobromus</i> (= <i>Stygonectes</i> ) <i>pecki</i> .	* U.S.A. (TX) .....	* NA .....	* E	* .....	* NA	* NA
INSECTS:							
* Beetle, Comal Springs dryopid.	* <i>Stygoparnus comalensis</i> .	* U.S.A. (TX) .....	* NA .....	* E	* .....	* NA	* NA
* Beetle, Comal Springs riffle.	* <i>Heterelmis comalensis</i> .	* U.S.A. (TX) .....	* NA .....	* E	* .....	* NA	* NA

Dated: May 23, 1995.  
**Mollie H. Beattie,**  
 Director, U.S. Fish and Wildlife Service.  
 [FR Doc. 95-13457 Filed 6-1-95; 8:45 am]  
 BILLING CODE 4310-55-P

**DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**50 CFR Part 630**

[Docket No. 950522139-5139-01; I.D. 042495B]

RIN 0648-AH75

**Atlantic Swordfish Fishery; 1995 Quotas**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration, Commerce.

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS proposes to change the total allowable catch (TAC) for the Atlantic swordfish fishery in accordance with the framework procedure of the regulations. This rule proposes a reduction of the directed-fishery TAC to 1,365 metric tons (mt) dressed weight for each of two semiannual periods, each of which would be divided into a drift gillnet quota of 27 mt and a longline and harpoon quota of 1,338 mt. The amount of the semi-annual longline and harpoon quota allowed to be landed would be 1,225 mt—the semi-annual quota amount less 113 mt, the estimated weight of undersized swordfish that