Edwards Aquifer have been exempted by numerous grandfathering laws (Chapter 245 of the Texas Local Government Code as discussed in Service 2005, p. 1.6–17).

There are several State regulations, such as the Texas Commission on Environmental Quality’s (TCEQ) Edwards Rules, along with some municipal ordinances, that are designed to minimize water quality degradation from new development. The Edwards Rules regulate activities that may pollute the Edwards Aquifer. The Edwards Rules do not address land use, impervious cover limitations, nonpoint source pollution, or application of fertilizers and pesticides over the recharge zone (The Edwards Aquifer Rules as discussed in 62 FR 23389; The Edwards Aquifer Rules as discussed in Service 2005, p. 1.6–16). Based on trend data that shows degradation of water quality at Barton Springs over the years, existing regulations for maintaining water quality in the Edwards Aquifer may not adequately protect the salamander. City of Austin 2005b, p. 20 as cited in Service 2005, p. 1.6–16). Information provided by the petitioner on the inadequacies of existing regulatory mechanisms is corroborated by information in our files. Data indicate that water quality degradation in streams occupied by the Jollyville Plateau salamander and other areas in the Edwards Aquifer such as Barton Springs continue to occur despite the existence of current regulatory mechanisms. Therefore, we consider the petition to present substantial information that inadequacy of existing regulatory mechanisms poses a substantial threat to the Jollyville Plateau salamander.

E. Other Natural or Manmade Factors Affecting the Species’ Continued Existence

The petition states that natural factors negatively affecting the Jollyville Plateau salamander include its limited distribution and amphibians’ sensitivity to water quality degradation. Amphibians, especially their eggs and larvae, are sensitive to many pollutants including heavy metals, insecticides, nitrates, salts, and petroleum hydrocarbons (Harfenist et al. 1989, pp. 4–57). In addition, crustaceans on which the Jollyville Plateau salamander feeds are especially sensitive to water pollution (Phripps et al. 1995, p. 282). Information provided by the petitioner on the Jollyville Plateau salamander’s limited distribution and amphibian sensitivity to pollutants is corroborated by information in our files. As discussed under Factor A, the present or threatened destruction, modification, or curtailment of the species’ habitat or range, Jollyville Plateau salamanders exhibit potential sensitivities to certain aspects of water quality degradation such as increased sedimentation from construction events (O’Donnell 2006) and/or abnormal development in areas with high nitrate levels (O’Donnell et al. 2005, pp. 11–12). Thus, we find that the petition presents substantial information that natural factors may increase susceptibility to other threats.

Finding

We have reviewed the petition and literature cited in the petition, and evaluated that information we deemed reliable to make this finding. We used other reliable information that was readily available in our files or readily available to us at the time of the petition review to evaluate the reliability of information in the petition. The petition presents evidence of water quality degradation resulting in lower salamander abundances, a loss in salamander habitat, and possible salamander deformities within urbanized areas of their habitat. The petition also presents evidence of expanding urbanization throughout their range, including areas that are currently considered protected. The information in our files supports the petition’s statements regarding these threats to the salamander. Thus, we believe that the petition presents substantial information indicating water quality degradation combined with the species’ limited distribution may increase extinction risk. In addition, existing available regulatory mechanisms appear potentially insufficient to control water quality levels in salamander habitat and prevent the progressive decline of the habitat upon which the Jollyville Plateau salamander depends. On the basis of this review and evaluation, we find that the petition presents substantial information indicating that listing the Jollyville Plateau salamander may be warranted. As such, we are initiating a further status review of the Jollyville Plateau salamander to determine whether listing the species under the Act is warranted.

We have also reviewed the available information to determine if the existing and foreseeable threats pose an emergency to this species. The immediacy of the threats described in the petition do not appear to be so great to a significant portion of the total population that the routine listing process would not be sufficient to prevent large losses that could otherwise result in extinction. Furthermore, we do not believe that expected losses of the salamander during the normal listing process would risk the continued existence of the entire listed species. For these reasons, we have determined that an emergency listing is not warranted at this time. However, if at any time we determine that emergency listing of the Jollyville Plateau salamander is warranted, we will seek to initiate an emergency listing process.

References Cited

A complete list of all references cited herein is available, upon request, from the Austin Ecological Services Field Office (see ADDRESSES section).

Author

The primary author of this notice is the Austin Ecological Services Field Office (see ADDRESSES section).

Authority

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).


Kenneth Stansell, Acting Director, U.S. Fish and Wildlife Service.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the San Felipe Gambusia as Threatened or Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 90-day petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the San Felipe gambusia (Gambusia clarkhubbsi) as threatened or endangered under the Endangered Species Act of 1973, as amended (Act). We find that the petition does not present substantial information indicating that listing the San Felipe gambusia may be warranted. Therefore, we will not initiate a further status review in response to this petition. We ask the public to submit to us any new information that becomes available.
concerning the status of the San Felipe gambusia or threats to it or its habitat at any time. This information will help us monitor and encourage the conservation of this species.

DATES: The finding announced in this document was made on February 13, 2007. You may submit new information concerning this species for our consideration at any time.

ADDRESSES: The complete supporting file for this finding is available for public inspection, by appointment, during normal business hours at the Austin Ecological Services Field Office, U.S. Fish and Wildlife Service, 10711 Burnet Road, Suite 200, Austin, TX 78758. Submit new information, materials, comments, or questions concerning this subspecies to us at the above address.


SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information to indicate that the petitioned action may be warranted. We base this finding on information submitted with the petition, referenced in the petition, and determined to be reliable after review, as well as information available in our files or otherwise available to us at the time of the petition review. To the maximum extent practicable, we make this finding within 90 days of receipt of the petition, and publish our notice of this finding promptly in the Federal Register. Our standard for substantial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)). If we find that substantial information was presented, we are required to promptly commence a review of the status of the species.

We base this finding on information provided by the petitioner that we determined to be reliable after reviewing sources referenced in the petition and information available in our files at the time of the petition review. We evaluated that information in accordance with 50 CFR 424.14(b). Our process for making this 90-day finding under section 4(b)(3)(A) of the Act and section 424.14(b) of our regulations is limited to a determination of whether the information in the petition meets the “substantial information” threshold. The substantiality test is applied only to the reliable information supporting the petition.

On June 13, 2005, we received a formal petition, dated June 10, 2005, from Save Our Springs Alliance (SOSA) requesting that the San Felipe gambusia (Gambusia clarkhubbsi) be listed as an endangered species in accordance with section 4 of the Act. The West Texas Springs Alliance was also listed as a petitioner, but did not provide a representative’s signature. The petition is available at http://www.fws.gov/southwest/es/Library/.

Action on this petition was precluded by court orders and settlement agreements for other listing actions that required all of our listing funds for fiscal year 2005 and a substantial portion of our listing funds for fiscal year 2006. On September 29, 2005, we received a 60-day notice of intent to sue from SOSA for failing to make a timely 90-day finding. On December 1, 2005, we sent a letter to SOSA informing them that we would likely not make a petition finding during the fiscal year 2006 due to funding limitations. Subsequently, funding became available to act on the petition. On August 10, 2006, SOSA filed a complaint against the Service for failure to issue a 90-day petition finding on the San Felipe gambusia under section 4 of the Act. In our December 18, 2006, motion for summary judgment, we informed the court that, based on current funding and workload projections, we believed that we could complete a 90-day finding by February 6, 2007, and if we determined in the 90-day finding that the petition provided substantial scientific and commercial information, we could make a 12-month finding by February 6, 2008. This notice constitutes our 90-day finding for the petition to list the San Felipe gambusia.

Species Information

The San Felipe gambusia is a fish that was first discovered in 1997. It was described as Gambusia clarkhubbsi by Gary Garrett and Robert Edwards (2003, pp. 783–788) based on morphology. Genetic information has not been published on the San Felipe gambusia. The San Felipe gambusia is a member of the subgenus Gambusia and a member of the nobilis species group (Garrett and Edwards 2003, p. 784). At maturity, the San Felipe gambusia’s standard length averages 1.07 inches (27.18 millimeters (mm)) for males and 1.39 in (35.22 mm) for females (Garrett and Edwards 2003, p. 786).

The San Felipe gambusia is most similar morphologically to the spotfin gambusia (Gambusia krumholzi) from northern Mexico, but differs in a number of morphological characteristics. The San Felipe gambusia’s ground color is light overall with tan overtones, whereas the spotfin gambusia is silvery or yellow white with blue overtones (Garrett and Edwards 2003, p. 784). The San Felipe gambusia has a broader lateral stripe with more prominent spotting along its sides. It also has a broader streak in front of its vertebral column on its back. In addition, it has no streak behind its anus. The spotfin gambusia has, in contrast, a distinct, thin streak behind the anus. The back and tail fins are dusky to colorless in the San Felipe gambusia, whereas these fins are blackened near the margins on spotfin gambusia. The anal fin, also dusky to colorless on the San Felipe gambusia, is darkened on female spotfin gambusia (Garrett and Edwards 2003, p. 785).

The San Felipe gambusia is known only from San Felipe Creek, Val Verde County, Texas (Garrett and Edwards 2003, p. 783). San Felipe Creek emanates from the San Felipe Springs segment of the Edwards-Trinity (Plateau) Aquifer. The creek is a Rio Grande tributary, which flows through the City of Del Rio (Garrett and Edwards 2003, p. 785). Preliminary observations indicate that the San Felipe gambusia’s habitat is characterized by edge or quiet water in close association with significant spring flows found in the upper portions of the creek. Garrett and Edwards (2003, p. 787) suggest that low numbers of San Felipe gambusia were long present in San Felipe Creek where they are dependent upon rare, specific portions of spring-associated habitat. The Tex-Mex gambusia (Gambusia speciosa) is the only other Gambusia occurring in San Felipe Creek. Since its discovery, San Felipe gambusia “often have comprised 50 percent of the Gambusia in collections of 30 to several hundred individuals” (Garrett and Edwards 2003, p. 787).

Threats Analysis

Section 4 of the Act and its implementing regulations (50 CFR 424) set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4 of the Act, we may list a species, subspecies, or
Both San Antonio and San Angelo have generating business of water ranching. County Center for Policy Studies 2001, p. 1). ranching to sustain their water demands. This transport water from Cal Verde County elsewhere in Texas are in the market to presented by a strong local reliance on pumped from the aquifer, to irrigate from San Felipe Creek, as well as water presented no references for this information. Additionally, according to the petitioner, area ranchers and farmers use diverted water from San Felipe Creek, as well as water pumped from the aquifer, to irrigate their crops, although the petitioner presented no references for this statement. In addition to potential problems presented by a strong local reliance on aquifer water, rapidly growing cities elsewhere in Texas are in the market to transport water from Cal Verde County to sustain their water demands. This practice is often referred to as “water ranching” or “water mining” (Texas Center for Policy Studies 2001, p. 1). The petition states that Val Verde County’s proximity to San Antonio and San Angelo makes it ideal for the profit-generating business of water ranching. Both San Antonio and San Angelo have established plans to transport water from certain rural areas located over the Edwards-Trinity (Plateau) Aquifer. readily available information in our files indicates that several private water development projects have been evaluated to mine water into San Antonio from Val Verde, Kinney, and Edwards counties (HDR 2001, p. 1–1). Sustaining spring flows in San Felipe Creek is highly dependent upon maintaining groundwater levels above a certain elevation within the San Felipe portion of the Edwards-Trinity (Plateau) Aquifer. Information from the Texas Center for Policy Studies (2001, p. 2), which was cited by the petitioner, indicates that if several large-scale water ranchers withdraw water from this portion of the aquifer simultaneously, the area could experience aquifer depletion. The petition states that because the San Felipe gambusia occupies rare portions of spring outlets with significant spring flow, reduced spring flow could potentially eliminate much of its habitat (Edwards et al. 2004, p. 254). Information provided by the petitioner regarding the semi-arid climatic conditions of the region, the local and regional desire to pump groundwater, and the San Felipe gambusia’s dependence upon significant spring flows is supported by information in our files. However, the petitioner did not provide information to show that the flow levels at San Felipe Creek in particular have been or are likely to be reduced by groundwater pumping to an extent that may threaten the species. Thus, the petition does not provide scientific or commercial information that aquifer depletion and subsequent springflow depletion is threatening San Felipe gambusia at this time. The majority of San Felipe Springs, which feeds San Felipe Creek, emanates within a golf course inside the City of Del Rio. The creek has been modified over the years to accommodate urban expansion, including activities such as the building of roads and bridges, public access, irrigation diversion, and bank stabilization (Garrett and Edwards 2003, pp. 785–786). The petition reports that the creek has been repeatedly exposed to pollution. A source cited in the petition (Garrett and Edwards 2003, p. 786) states that prior to 1994, the Texas Commission on Environmental Quality (TCEQ) documented elevated levels of nitrates, phosphates, and orthophosphates in San Felipe Creek. It is hypothesized that land use practices in the watershed, such as runoff from the municipal golf course, may have contributed to the elevated levels of pollutants (Garrett and Edwards 2003, p. 786). The petition also states that current creek management strategies employed by the San Felipe Country Club and the City of Del Rio have improved creek habitat, resulting in positive effects for the San Felipe gambusia. Information provided by the petitioner regarding urban expansion, subsequent water quality degradation, and recently implemented, creek-friendly management practices is supported by information in our files. Because the petitioner does not provide information that urban expansion and water quality degradation have been or are likely to affect the San Felipe gambusia, and provides information that current creek management practices are having a positive impact on the fish, we have determined that the petition does not present scientific or commercial information that urbanization is threatening the San Felipe gambusia. B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes The petition did not contain information suggesting that overutilization for commercial, recreational, scientific, or educational purposes is a threat to the San Felipe gambusia. C. Disease or Predation According to the petition, neither disease nor predation is a threat to the San Felipe gambusia. D. Inadequacy of Existing Regulatory Mechanisms The petition states that Texas laws regarding groundwater ownership and private pumping are inadequate for preventing aquifer depletion. The petition includes this information under listing Factor A, the present or threatened destruction, modification, or curtailment of its habitat or range, but we find that it falls under listing Factor D, the inadequacy of existing regulatory mechanisms. The petition states that, in the absence of a groundwater conservation district, the Texas “rule of capture,” established in 1904, gives landowners the right to withdraw unlimited amounts of water from their property for sale or personal use. Groundwater conservation districts (e.g., the Kinney County Groundwater Conservation District) provide for regulation of the spacing and production of water wells (Texas Center for Policy Studies 2001, p. 1). Information in our files supports this claim and indicates groundwater conservation districts have a narrow ability to restrict the transport of groundwater outside the boundaries of
the conservation district (House Research Organization 2006, p. 4). Additionally, there is no groundwater conservation district in Val Verde County (Marbury and Kelly 2005, p. 8). This information was provided by the petitioner, but the petitioner did not supply a reference to support the claim.

Information provided by the petitioner regarding the inadequacy of existing regulatory mechanisms to protect aquifer levels is supported by information in our files. However, we believe that the petition does not present scientific or commercial information indicating that inadequate regulatory mechanisms to protect aquifer levels are a threat to the San Felipe gambusia. As stated earlier, the petition does not present information demonstrating that aquifer and springflow depletion is a threat to the species.

E. Other Natural or Mannmade Factors Affecting the Species’ Continued Existence

According to the petition, there are three natural factors that render the San Felipe gambusia vulnerable to extinction. The first factor is the species’ extremely limited distribution. The San Felipe gambusia is found only in San Felipe Creek (Garrett and Edwards 2003, p. 785). Thus, the petitioner suggests that localized disruptions affecting the San Felipe gambusia or its habitat could increase the species’ vulnerability to extinction.

Secondly, the petition suggests that not only is the San Felipe gambusia limited to San Felipe Creek, but is probably even more restricted to rare, specific portions of the creek and associated spring outlets (Garrett and Edwards 2003, p. 787). The petitioner contends that if this is true, the creek could appear healthy at the same time this specific habitat is lost. Information provided by the petitioner regarding the San Felipe gambusia’s limited distribution and rare habitat requirements is supported by information in our files. However, the petitioner did not provide information to show that the limited distribution and rare habitat requirements of the San Felipe gambusia have been or are likely to threaten the species in terms of aquifer depletion and subsequent springflow depletion, as discussed in factor A above.

Lastly, the petition states that because the San Felipe gambusia evolved sympatrically with the Tex-Mex gambusia, negative impacts to the San Felipe gambusia’s habitat or niche could put this species at a competitive disadvantage. The petitioner also suggest’s that either the introduction of nonnative Gambusia or an overlap in habitat between the two native, sympatrically occurring Gambusia, species could lead to hybridization. Sources cited in the petition document incidents of hybridization among co-occurring Gambusia species (Edwards et al. 2004, p. 258). We suspect that the new species has long been present is San Felipe Creek but in low numbers and perhaps associated with an as yet unidentified, specific, rare habitat.

Information provided by the petitioner regarding the occurrence of co-existing Gambusia and the history of co-existing Gambusia to compete and hybridize when forced into the same habitat, is supported by information in our files. However, the petitioner does not provide information that co-existing Gambusia species are threatening the San Felipe gambusia at this time because there is no information indicating that aquifer depletion and subsequent springflow depletion will cause these species to utilize the same habitat, and the petitioner did not provide information about nonnative Gambusia occurring in the same habitats as San Felipe gambusia despite the fact that it has likely been long present in the creek.

The petition also reports that an exotic species, Armadillo Del Rio (Hypostomus sp.) or “armored catfish,” has recently become established in San Felipe Creek and has expanded rapidly. The petition did not present references for this statement, although information in our files supports this claim. Readily available information in our files indicates that the armored catfish is a popular aquarium fish that feeds on algae and is known for having a dramatic impact on stream ecosystems. They remove algal cover, destroy aquatic plants, and alter bank topography. The petition stated, but did not provide a reference, that armored catfish are also known to directly compete with native fishes as well as prey upon them by accidental ingestion of their eggs. The petition suggests that the endangered Devils River minnow has become extirpated within San Felipe Creek due to the introduction of this catfish. Information in our files indicates that this information is unreliable and that the Devils River minnow is still found in San Felipe Creek (Lopez-Fernandez and Winemiller 2005, p. 250). We recognize that the armored catfish may modify the ecosystem of San Felipe Creek, although the petitioner does not provide information on the negative impacts caused by the armored catfish within the San Felipe Creek ecosystem, nor does the petitioner describe how such impacts could threaten the survival of the San Felipe gambusia despite the fact that the armored catfish is present and known to be abundant in the creek. The petitioner therefore does not provide scientific or commercial information that the exotic armored catfish is a threat to the San Felipe gambusia at this time.

Finding

We evaluated each of the five listing factors individually. The petition focuses primarily on three listing factors: The present or threatened destruction, modification, or curtailment of the species’ habitat or range; the inadequacy of existing regulatory mechanisms; and other natural or manmade factors affecting the continued existence of the species. The petition and information in our files suggest that the combination of the species’ extremely limited distribution, reliance on springflows within semi-arid climatic conditions, and unregulated plans to pump water from the Edwards-Trinity (Plateau) Aquifer may be a concern for the San Felipe gambusia. Because the petition does not provide scientific or commercial information to show that the flow levels at San Felipe Creek in particular have been or are likely to be reduced by groundwater pumping, we find that the information presented in the petition regarding the threat of springflow depletion was not substantial. The petition also presents information about water quality degradation due to land uses associated with urbanization. Because the petition does not provide evidence that land use practices have been or are likely to degrade water quality in San Felipe Creek, we do not believe that the petition presents substantial information that water quality degradation is a threat. In addition, the petition suggests that an introduced armored catfish could have a dramatic impact on the ecosystem of San Felipe Creek based on the effects documented on other aquatic systems. However, the petition does not provide scientific or commercial information that indicates the armored catfish is negatively impacting San Felipe Creek or the San Felipe gambusia. Thus, we believe that the petition does not present scientific or commercial information that the armored catfish is a threat to the species. The petition presents information about possible competition with other native or nonnative Gambusia. The petition, however, does not provide scientific or commercial information that
competition with other Gambusia species is occurring or likely to occur.

The petition suggests that the San Felipe gambusia’s naturally limited distribution and habitat specificity are a threat. We find, however, that the petition does present substantial scientific or commercial information indicating that the species’ limited range and habitat specificity are natural factors that make the species vulnerable, but we do not believe that this information alone indicates that the petitioned action may be warranted. It appears that the San Felipe gambusia has always been a localized species with small population numbers.

We have reviewed and evaluated the petition and assessed the reliability of the information presented by reviewing literature cited in the petition and information in our files or otherwise readily available at the time of the petition review. On the basis of this review and evaluation, we find that the petition does not present substantial scientific or commercial information to indicate that listing the San Felipe gambusia may be warranted. Although we will not commence a status review in response to this petition, we will continue to monitor the San Felipe gambusia’s population status and trends, potential threats, and ongoing management actions that might be important with regard to the conservation of the San Felipe gambusia across its range. We encourage interested parties to continue to gather data that will assist with the conservation of the species. If you wish to provide information regarding the San Felipe gambusia, you may submit your information or materials to the Field Supervisor, Austin Ecological Services Field Office (see ADDRESSES).

References Cited
A complete list of all references cited herein is available, upon request, from the Austin Ecological Services Field Office (see ADDRESSES).

Author
The primary author of this notice is the Austin Ecological Services Field Office (see ADDRESSES).

Authority
The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Kenneth Stansell,
Acting Director, U.S. Fish and Wildlife Service.
[FR Doc. E7–2292 Filed 2–12–07; 8:45 am]