



Questions and Answers: Proposed Texas Hornshell Critical Habitat

June 9, 2021

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Q: What action is the U.S. Fish and Wildlife Service (Service) taking?

A: The Service is proposing to designate 463.6 river miles of critical habitat for the Texas hornshell, a freshwater mussel found in Texas and New Mexico. The Service listed the Texas hornshell as endangered on February 9, 2018.

The proposed Texas hornshell critical habitat is located in five units in the Rio Grande (304.1 river miles), Black River (9.7 river miles), Delaware River (31.1 river miles), Pecos River (85.7 river miles), and Devils River (33 river miles). The units are located in Eddy County, New Mexico and in Culberson, Brewster, Terrell, Pecos, Val Verde, Kinney, Maverick and Webb Counties, Texas. The Service is considering excluding Unit 1 (Black and Delaware Rivers) due to the Candidate Conservation Agreement (CCA) and Candidate Conservation Agreement with Assurances (CCAA) in place. In total, the Service is considering excluding 40.8 river miles of the proposed critical habitat designation.

We are making available for public review and comment the proposed rule, a draft economic analysis and draft environmental assessment. Publishing the proposed critical habitat begins a 60-day public comment period on the proposed rule and supporting documents. The Service will hold a virtual informational meeting followed by a public hearing on Tuesday, June 29, 2021.

Q: What is the Texas hornshell?

A: The Texas hornshell is a medium-sized freshwater mussel native to the Rio Grande Basin in Texas, New Mexico, and Mexico. Its outer shell surface appears olive green to dark brown. Texas hornshells may grow to more than 4.5 inches long and live up to 20 years. Inside their shell are a muscular foot for movement, siphons for water exchange, gills, and the viscera.

Texas hornshells have an interesting life history. Fertilized eggs develop into mollusk larvae (glochidia) and are released from the adults into water where they attach to the host fish's gills, face, or fins. There they transform into the juvenile form and are released, hopefully into suitable rocky substrate in high quality water, where they can burrow to complete their development to eventually become reproductive adult mussels.

Q: Where is the Texas hornshell found?

A: Historically, the Texas hornshell occurred in New Mexico, Texas and Mexico. However, the population has declined notably throughout its range and it currently occupies about 15 percent of its historical range. In New Mexico, it is now confirmed only in the Black River (a Pecos River tributary) in Eddy County, New Mexico. It is the last remaining native mussel in New Mexico; the other seven species have been extirpated. In the Rio Grande, the species is known to be present downstream of Big Bend National Park and near Laredo in Webb County, Texas, and the Devil's River in Val Verde County, Texas. Texas hornshells were thought to historically be widely distributed in Gulf Coast rivers in Mexico. The Texas hornshell's status in Mexico is becoming clearer; the Service funded population surveys and genetic work to gather more information, and genetic results show that mussel populations along Mexico's Gulf Coast are not Texas hornshell as previously thought.

Texas hornshell typically occur in narrow areas of rivers and streams with travertine bedrock and fine-grained sand, clay or gravel in the crevices. They prefer undercut banks, crevices and bases of big boulders where the current is slowed, allowing the mussels to get a safe foothold and not be washed away during high water flow.

Q: What is critical habitat?

A: Critical habitat is an Endangered Species Act (ESA) term that identifies geographic areas occupied at the time a species is listed that contain the physical or biological features essential to the species' conservation. Critical habitat may also include areas outside the geographic area the species occupied when listed that are essential for conserving the species. The ESA defines "conservation" as the actions leading to a species' eventual recovery so that it no longer requires ESA protections.

Critical habitat provides protection against "destruction or adverse modification" from actions carried out, funded, or authorized by a federal agency and carried out through required consultation under the ESA, section 7. Under such consultations, the Service reviews federal actions for how they affect the "physical or biological features essential to conserving a listed species," and that habitat's ability to support the species throughout its life cycle, and to meet the species' recovery needs.

Designating critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. A critical habitat designation identifies areas that are important to conserving federally listed threatened or endangered species. A critical habitat designation requires federal agencies to consult with the Service on any of their actions that may affect designated critical habitat. The Service can then recommend ways to minimize any adverse effects. It imposes no requirements on state or private actions on state or private lands where no federal funding, permits or approvals are required.

Critical habitat designation has several benefits including: (1) Triggering consultation under section 7 of the ESA in designated areas for actions in which there may be a federal nexus and where it would not otherwise occur. For example, the area has become unoccupied or the

occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to state or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

Q: What is the purpose of designating critical habitat?

A: A critical habitat designation is a tool used to identify areas that are important to the recovery of a species. It is also a tool used to notify federal agencies of areas that must be given special consideration when they are planning, implementing, or funding activities. Federal agencies are required to consult with the Service on their actions that may affect critical habitat. A critical habitat designation has no effect when a federal agency is not involved. For example, a private landowner undertaking a project that involves no federal funding or permit has no additional responsibilities if his or her property falls within critical habitat boundaries.

Q: Do listed species with designated critical habitat receive more protection than listed species without it?

A: A critical habitat designation does not set up a preserve or refuge. It only affects activities with federal involvement, such as federal funding or a federal permit. Listed species and their habitats are protected by the ESA whether or not they are in areas designated as critical habitat.

Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for the conservation of that species. Critical habitat also alerts the public as well as land management agencies to the importance of these areas.

Q: Do federal agencies have to consult with the Service outside critical habitat areas?

A: Even when there is no critical habitat designation, federal agencies must consult with the Service, if an action that they fund, or authorize, or permit may affect listed species.

Q: How did the Service determine which areas to propose as critical habitat?

A: All areas proposed as critical habitat for the Texas hornshell contain one or more of the features essential to the conservation of the species. When determining critical habitat, biologists considered physical and biological habitat features needed to support the life history functions of the species. All of the areas proposed for Texas hornshell critical habitat are currently occupied by the species. Habitat areas essential to Texas hornshell conservation are those that provide the biological needs of reproducing, feeding, sheltering, dispersal, and genetic exchange.

The Service is considering excluding Unit 1 (Black and Delaware Rivers) due to the Candidate Conservation Agreement (CCA) and Candidate Conservation Agreement with Assurances (CCAA) that are in place.

Q: What are the threats to the Texas hornshell?

A: The primary factors affecting the current and future conditions of the Texas hornshell are river fragmentation due to habitat inundation by impoundments and alterations of the natural streamflow regime (by impoundments, drought, groundwater withdrawal and resultant mussel-smothering sediment accumulation) and degradation of water quality within its range.

Q: What information is the Service requesting?

A: Any final actions resulting from the proposed rule will be based on the best scientific data available and will be as accurate and as effective as possible. With respect to the critical habitat proposal for the Texas hornshell the Service is seeking information regarding:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*) including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of Texas hornshell habitat,

(b) What areas, that were occupied at the time of listing and that contain the physical or biological features essential to the conservation of the species, should be included in the designation and why,

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change, and

(d) What areas not occupied at the time of listing are essential for the conservation of the species and why.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the Texas hornshell and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the benefits of including or excluding areas that may be impacted.

(6) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts and the description of the environmental impacts in the draft environmental assessment is complete and accurate.

(7) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of

the Act, in particular for those covered by the Candidate Conservation Agreement (CCA) and Candidate Conservation Agreement with Assurances (CCAA) for the Texas hornshell in the Black and Delaware Rivers in New Mexico and Texas.

(8) Although we are not considering for exclusion lands along the U.S.-Mexico border in this proposed rule (Subunits 4a, 4b, 5a, and 5b), we seek comments on whether or not these lands should be considered for exclusion under section 4(b)(2) of the Act for national security reasons, whether such exclusion is or is not appropriate, and whether the benefits of excluding any specific area outweigh the benefits of including that area as critical habitat and why.

(9) The likelihood of adverse social reactions to the designation of critical habitat, as discussed in the associated documents of the draft economic analysis, and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

(10) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(11) Additional information concerning the historical and current status, range, distribution, and population size of this species, including the locations of any additional populations of this species, particularly in Mexico.

Q: How can the public submit information on the proposal?

A: Written comments and information concerning the proposed critical habitat rule will be accepted until August 9, 2021, and may be submitted by one of the following methods:

- **Electronically:** Go to the federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box, enter FWS–R2–ES–2018–0021, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”
- **By hard copy:** Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R2–ES–2018–0021; U.S. Fish & Wildlife Headquarters, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

The Service will post all comments on <http://www.regulations.gov>. This generally means the agency will post any personal information provided through the process. The Service is not able to accept email or faxes.

On Tuesday, June 29, the Service will hold a virtual informational meeting from 5:00 p.m. – 6:00 p.m. MT, followed by a public hearing from 6:30 p.m. -8:30 p.m. MT. Anyone wishing to make an oral statement at the public hearing must register before the hearing. Please visit: <https://zoom.us/meeting/register/tJcpfu6vrDIsg9V8ggbwWStJJz5umZ2DJmVi>, to register for the hearing. The use of a virtual public hearing is consistent with our regulations at 50 CFR 424.16(c)(3).

For additional information, contact Chuck Ardizzone, U.S. Fish and Wildlife Service, Texas Coastal Ecological Services Field Office, 17629 El Camino Real #211, Houston, TX 77058,

by telephone 281-286-8282 or by fax 281-488-5882. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

Q: Will a critical habitat designation affect use of my personal property? Will this result in any taking of my property?

A: Federal agencies must ensure, in consultation with the Service that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-federal landowners. Where a landowner requests federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the ESA would apply, but even in the event of a destruction or adverse modification finding, the obligation of the federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Q: Would water management, construction, recreational use, grazing or oil and gas activities in the rivers and streams where the hornshell is found be affected by the proposed critical habitat?

A: If after reviewing the best available science the Service designates critical habitat for the Texas hornshell, it is possible some water management (reservoir release strategies, water conservation measures, avoidance of further habitat fragmentation, etc.) will be required to ensure long-term survival of this species. The Service does not expect that livestock grazing or oil and gas development would be impacted, especially in areas of the Black River where a Candidate Conservation Agreement with Assurances is in place.

Q: Did the ESA require an economic analysis be prepared for the proposed critical habitat?

A: Yes. A draft economic analysis was prepared for the proposed critical habitat that estimates the incremental costs associated with the proposed designation. Based on the economic analysis, critical habitat designation for the Texas hornshell is unlikely to generate costs exceeding the rule-making benchmark of \$100 million in a single year. The economic analysis forecasts that for the proposed critical habitat no more than eight consultations are likely to occur in any given year and that the incremental costs of designating critical habitat are likely to be limited to additional administrative efforts. These costs are estimated to be \$72k per year, borne by federal action agencies. Moreover, the economic analysis found it is

unlikely that critical habitat would generate additional requests for conservation efforts beyond what would be required as a result of the February 2018 listing determination.

The Service took into account the economic and other relevant impacts of specifying any particular areas as critical habitat.

The draft economic analysis and other information about the Texas hornshell are available online at <https://www.fws.gov/southwest/es/TexasCoastal/>, at <http://www.regulations.gov> in Docket No. FWS-R2-ES-2018-0021 or by contacting the Texas Coastal Ecological Services Field Office, 281-286-8282.

Q: What conservation efforts are currently being undertaken for the Texas hornshell?

A: In New Mexico, the Service is working with landowners, the State, the Bureau of Land Management (BLM) and industry through a Candidate Conservation Agreement (for federal lands) and Candidate Conservation Agreements with Assurances (for state and private lands) to provide a the groundwork for conservation for the Black and Delaware Rivers in New Mexico and Texas. The goal of these voluntary agreements is to engage all partners in specific conservation actions to improve habitat and secure flows in these rivers. Participants in these agreements include the Carlsbad Irrigation District, BLM, New Mexico Interstate Stream Commission, oil and gas industry, private landowners, counties, water pumpers and others. By the effective date of the listing, March 12, 2018, 45 companies and 70 ranchers had applied to participate in the agreements. For additional information on the Texas hornshell CCA/A please contact Chuck Hayes, New Mexico Ecological Services Field Office, (505) 761-4754.

Candidate Conservation Agreements with Assurances are voluntary agreements that provide non-federal landowners and developers the opportunity to implement conservation practices that address specific threats. Cooperating non-federal landowners and developers receive assurances that, if the species is listed, they can continue to manage their land as outlined in their agreements with no additional requirements. Resulting demonstrated and committed conservation gains were considered by the Service when considering a final listing determination and are being considered during this proposed critical habitat designation. For those landowners, oil and gas companies, irrigation districts, and others enrolled in the CCAA, they will not be required to do more than they have agreed to do under the agreements.

In Texas, The Nature Conservancy and Texas Parks and Wildlife Department are managing their lands in the Devils River watershed to reduce sediment inputs and contaminants thereby benefitting the Texas hornshell and other aquatic species. Research focused on helping improve the understanding of the species is being funded by the Office of the Texas Comptroller.

Q: Why are freshwater mussels important?

A: Mussels are monitors of aquatic health: the presence of diverse and reproducing populations of mussels indicates a healthy aquatic system, which means good fishing, good water quality for waterfowl and other wildlife species, as well as assurance that our water is safe. When mussel populations are at risk, it indicates problems for other fish and wildlife species, and people too.

Mussels perform important ecological functions. They are natural filters, and by feeding on

algae, plankton and silts, they help purify the aquatic system. Mussels are also an important food source for many species of wildlife including otters, raccoon, muskrat, herons, egrets and some fish.

Mussels depend on the same waterways that people value, whether as a water source, favorite fishing spot, recreation area, or for their scenic qualities. Maintaining a healthy environment for mussels helps ensure these areas are available to people as well.