

Water suppliers may need to consider the health of mussels

Federal agency considers listing 11 species found in Texas waterways as endangered.

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A federal ruling on the well-being of freshwater mussels might set off statewide legal battles and change how water all across Texas is allocated.

The U.S. Fish and Wildlife Service may decide by the end of the year whether 11 species of mussels are endangered. If the answer is yes, the state's river authorities might have to recalculate how much water they can distribute to industry, farmers and growing cities and still leave enough in Texas' already stressed rivers to keep mussels healthy.

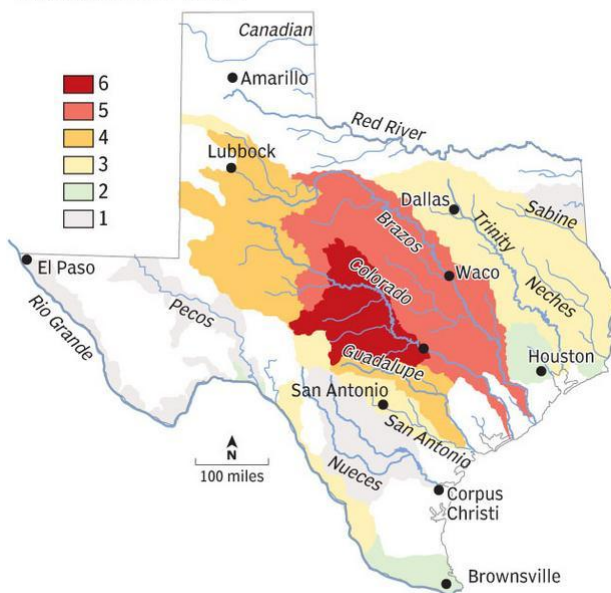
The mussels have colorful names, like the fatmucket , the heelsplitter , the golden orb , the smooth pimpleback and the false spike .

More are found in the basin of the Colorado River, which runs through Austin, than any other part of Texas.

Living as long as 50 years, they are sensitive to water degradation because they act as filters, absorbing harmful impurities along with bacteria and nutrients, like phosphorous.

Range of freshwater mussels found in Texas

A federal proposal would list 11 mussel species in Texas under the Endangered Species Act. The areas below show where those species have been known to live.



Source: Texas A&M University

Roberto Villalpando AMERICAN-STATESMAN

Since they serve as food for aquatic animals and insects, what they absorb can harm other wildlife as well.

"I think of them as the whole foundation of the aquatic food chain," said Marsha May, who heads the Mussel Watch program for the Texas Parks and Wildlife Department.

Mussels are also vulnerable because they typically attach themselves to a single spot for their entire lives.

An endangered listing could lead to lawsuits between environmental groups, property owners and river authorities, said Bill West, general manager of the Guadalupe-Blanco River Authority.

"It would put in doubt all existing water rights heretofore issued by the State of Texas," West said.

The Guadalupe-Blanco River Authority has commissioned its own surveys of the mussels and is trying to "convince (the Fish and Wildlife Service) that these mussels are everywhere, that there's an abundance of these little rascals," West said.

Until federal authorities decide whether to designate the mussels and researchers determine where in the river they can be found, the Lower Colorado River Authority won't know how much water it needs to set aside for the species, said Bryan Cook, supervisor of water quality at the LCRA.

Current releases of water from the Highland Lakes to satisfy downriver wildlife demands might meet the needs of the mussels, he said.

The population of each of the potentially endangered species ranges from a hundred to several thousand, according to May.

In early November, the department listed 15 species of mussels as threatened.

"No one is allowed to even pick up a shell," Wendy Gordon, leader of the nongame and rare species program at the department.

But the state designation carries no mandate on habitat protection. A federal listing would mean that the habitat of the mussels would have to be preserved and restored.

In its listing in the fall, the state found that the mussels had declined because of changes in flow rates linked to droughts, floods or building of dams; contamination of rivers and streams; and the introduction of competitive, exotic species, among other things. Some species are no longer found in previously located habitats.

Wildlife experts say the mussels are the underwater version of the proverbial canary in the coal mine.

"Mussels are often the first species to vanish when environmental conditions change or decline," state literature on the mussels says. "Healthy mussel populations mean purer water for humans and countless aquatic plants and animals."

"Nationwide, more species of freshwater mussels are listed as threatened and endangered than any other group of animals," said a statement in November about the state-threatened species.

"Of the nearly 300 species known to have lived in the U.S., 18 are believed to be extinct, and 60 are currently listed as federally endangered or threatened."

The likelihood of an endangered designation is an open question.

"We know that these species are much reduced over what they have been in past, but part of what we'll be looking at ... is just how reduced and get a better idea of how many remain and where they are," said Steve Parris, a field supervisor for the Clear Lake office of the U.S. Fish and Wildlife Service.

The federal examination was prompted by a petition by an environmental group, Sante Fe, N.M.-based WildEarth Guardians, to list hundreds of species across the country.

The 11 mussels have already cleared a 90-day federal examination that suggested they might be considered for listing.

Though the wildlife service is due to make a decision by year's end, it might not come for years. First, the agency has a backlog of other species to get through. In addition, an endangered listing requires the federal government to provide money and staff to restore the species, Gordon said.

"They don't have the resources to do that right now," she said.

Already the potential mussel listing is coloring disputes around the state.

Hill Country property owners opposed to proposed wind power lines, for example, are arguing that the construction of the lines could endanger mussels.

Lawyers for the property owners in Gillespie County have sent letters to the LCRA, which is charged with building a line through the county. A possible route crosses an area that is designated as a freshwater mussel sanctuary, one of the few known habitats of the Texas fatmucket.

"Construction, vegetative clearing, pesticides and fertilizers and pollution can all negatively impact the mussel habitat," said a Feb. 16 letter by Drew Miller.

"Construction of the transmission line towers, similar to other construction activities, may negatively impact the Texas fatmucket's habitat by causing increasing siltation and runoff into Live Oak Creek."

Meanwhile, the potential listing has thrown doubt into delicate deal-making among water users in the San Antonio area and environmental groups to ensure that Comal and San Marcos springs have enough flow to preserve species in those areas that are already listed as endangered.

Over the rest of the year, researchers will examine whether the mussels deserve threatened or endangered designation.

"It's like looking for a needle in a haystack," said Gordon, who said there are tens of thousands of miles of rivers in Texas. "We just survey one stretch of a river, but they could be a foot away from you."

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