



## **Rio Grande Silvery Minnow Questions and Answers**

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**Southwest Region   P.O. Box 1306   Albuquerque, NM 87103**

**1.      What is the Rio Grande silvery minnow?**

The Rio Grande silvery minnow is a small fish listed as federally endangered. Adults may reach 3.5 inches in total length.

**2.      Where is the Rio Grande silvery minnow found?**

This species was historically one of the most abundant and widespread fishes in the Rio Grande Basin, occurring throughout the Rio Grande and the Pecos River all the way from Northern New Mexico to the Gulf of Mexico. In the 1950's, it was the most common fish in the Big Bend stretch of the Rio Grande. Now the silvery minnows are gone from Texas and only occur in central New Mexico.

**3.      What are the threats to the Rio Grande silvery minnow?**

Throughout much of its historic range, the silvery minnow's decline has been attributed to changes in stream flows and river habitat due to decreased and interrupted stream flows, dams, reservoirs, and stream channelization. This species may also be affected by water quality declines and interactions with non-native fish. Diversion dams on the middle Rio Grande in New Mexico act as barriers, preventing the silvery minnow from moving upstream. Historically, after periods of low or no flow the silvery minnow may have been able to repopulate downstream habitat the following year by the drift of eggs from upstream populations. However, when the present-day middle Rio Grande in New Mexico dries and dams prevent upstream movement, the silvery minnow can become trapped in some areas and die in isolated pools before the river becomes wetted again. The inability of the population to find adequate riverine habitat during prolonged periods of low or no flow, and to repopulate reaches where they may have disappeared, creates a very unstable population in the middle Rio Grande in New Mexico.

**4.      How does the Service intend to recover this endangered fish?**

We believe that the best way to achieve recovery will be to use the authorities under section 10(j) of the Act, to reintroduce experimental populations into the species' historic range. At this time, the Service believes that the Rio Grande in the Big Bend stretch and the Rio Grande Wild and Scenic River areas of Texas could contribute to the recovery of the silvery minnow. We are considering establishing a Nonessential Experimental Population of silvery minnow in the Big Bend stretch of the Rio Grande. We have not yet identified possible alternatives for accomplishing our recovery goals in the Rio Grande in Texas and we do not know what the preferred alternative (the proposed action) or other alternatives might entail. Exactly how that will be done will be decided only after extensive public involvement.

**5.      What is an experimental population?**

Under section 10(j), the Secretary of the Department of the Interior can designate reintroduced populations

established outside the species' current range, but within its historic range, as "experimental." Designating a population as experimental under section 10(j) increases management flexibility under the Act. On the basis of the best available information, we must determine whether an experimental population is "essential" or "nonessential" to the continued existence of the species.

The Service is proposing to establish a Nonessential Experimental Population of silvery minnow in the Big Bend stretch of the Rio Grande, because this experimental population would not be essential to the continued existence of the species for the following reasons: (a) an established population of Rio Grande silvery minnow exists in New Mexico; (b) captive propagation facilities produce enough offspring to maintain a captive population and provide silvery minnow for release; and (c) the possible failure of this action would not be likely to reduce the likelihood of survival of the species.

Experimental populations determined to be essential to the recovery of the species are treated as threatened under the Act. Nonessential Experimental Populations that are not located within a National Park or National Wildlife Refuge are treated as if they are proposed for listing as threatened. The regulatory restrictions of sections 7 and 9 of the Act are considerably reduced under a Nonessential Experimental Population designation for a listed species and are usually more compatible with routine human activities in the reintroduction area. Section 10(j)(2)(C)(ii)(B) of the Act states that critical habitat shall not be designated under the Act for any experimental population determined to be nonessential to the continued existence of a species.

**6. What are the water flow requirements for the Rio Grande silvery minnow?**

The silvery minnow does not need a large quantity of water to survive, but it does need a sufficient amount of flowing water to reduce prolonged periods of low or no flow, minimize the formation of isolated pools, and provide them with a continuous food supply. Additionally, a spike in flow in the spring or summer to trigger spawning and a relatively constant winter flow are required.

**7. What habitat elements are needed for the Rio Grande Silvery Minnow?**

The silvery minnow needs sufficient flowing water with low to moderate currents capable of forming and maintaining a diversity of aquatic habitats, such as, but not limited to: backwaters, shallow side channels, pools, eddies, and runs of varying depth and velocity. These habitats are necessary to provide food, shelter, and conditions that allow the silvery minnow to reproduce and are usually found in areas with riverbed material made up of predominantly sand or silt. The silvery minnow also needs water of sufficient quality to maintain adequate water temperatures and water quality conditions.

**8. What area is being proposed for experimental populations?**

Portions of the Rio Grande and Pecos Rivers that may be proposed for inclusion in the 10(j) rule to establish a nonessential experimental population of silvery minnow are located in Hudspeth, Presidio, Brewster, Terrell, Val Verde, and Crockett Counties in Texas. The area in which Rio Grande silvery minnow are most likely to become established after potential reintroduction is the Rio Grande from Mulato Dam near Presidio, Texas to Foster's Weir near the Terrell/Val Verde County line. However, the geographic extent being considered for designation is larger and includes the Rio Grande from Little Box Canyon downstream of Ft. Quitman, Hudspeth County, TX, through Big Bend National Park and the Rio Grande Wild and Scenic River, to Amistad Dam and the Railroad Bridge at Diablo East, Amistad Reservoir and the Pecos River from its confluence with Independence Creek to its confluence with the Rio Grande. Although only the portions of this area described above contain suitable habitat, this area represents the maximum geographic extent to which the fish could move if released in the Big Bend stretch of the Rio Grande. We are considering

designation of a nonessential experimental population of silvery minnow for maximum extent that fish might move to minimize regulatory burdens and restrictions for landowners and water users in areas adjacent to the expected reestablishment area.

## **9. How might this proposal affect landowners and water users?**

We believe that the species' habitat needs are compatible with human activities within the Big Bend stretch of the Rio Grande. Because of the flexibility allowed under section 10(j), this proposal will not negatively affect landowners, water users, recreationists, nor other partners who live and work along the Rio Grande. Nothing in this proposal will result in a taking of water rights. There are likely to be positive effects of this proposal for landowners and water users. The silvery minnow depends on low velocity and backwater areas. These features of the ecosystem have been reduced as a result of the invasion of non-native plant species in the riparian corridor, such salt cedar and giant river cane. If we decide to move forward after completing the planning process, this reintroduction will encourage and provide an incentive for funding efforts for voluntary restoration of the Rio Grande by controlling salt cedar and other invasive species on both public and private lands to improve the aquatic environment.

## **10. What is the process for making a decision on reintroducing the Rio Grande silvery minnow?**

Any process to release silvery minnow as "experimental" will require that we:

- (1) Compile and analyze all new biological information on the species;
- (2) review and update the administrative record;
- (3) review the overall approach to the conservation and recovery of the silvery minnow in the United States;
- (4) review available information that pertains to the habitat requirements of this species, including material received during the public comment period from this notice and comments on the listing;
- (5) review actions identified in the Rio Grande Silvery Minnow Recovery Plan;
- (6) determine what areas, if any, might require special management or areas that should be excluded from the experimental population area;
- (7) write a draft environmental assessment and present alternatives to the public for review and comment;
- (8) incorporate public input and use current knowledge of silvery minnow habitat use and availability to precisely map a proposed experimental population area;
- (9) present this proposal in a proposed rule for publication in the **Federal Register** and solicit comments from the public; and
- (10) finalize the environmental assessment and the rule designating an experimental population, identifying an experimental population area, and authorizing the release of silvery minnow as experimental in Texas, or adopt the no action alternative and not permit the release of silvery minnow as experimental in these areas.

Write or call:

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