

Researchers Study Effects of Trout Removal and Fluctuating Flows on Native Fishes in the Grand Canyon

Scientists with the Grand Canyon Monitoring and Research Center of the U.S. Geological Survey will be conducting three research trips in the Grand Canyon on Jan. 15-31st, Feb 12-28, and Mar. 12-28, 2003. Three additional trips are planned this summer. The objective of these trips is to remove non-native fishes (primarily rainbow and brown trout) from the Colorado River near the confluence of the Little Colorado River (LCR). This area is the most critical habitat for the federally-endangered humpback chub (*Gila cypha*). The Grand Canyon population of this unique fish has been declining to dangerously low levels in recent years. Biologists believe trout--which have reached very high population levels in Grand Canyon due to cold water and stable habitat conditions--are contributing to the decline of humpback chub.

The biologists will be electrofishing at night in areas near RM 44-52 and the Little Colorado River confluence, RM 56-65. Electrofishing stuns, but does not kill the fish. Once collected by electrofishing, all non-native fishes will be euthanized using procedures approved by the American Veterinary Medical Association. Non-native fish will then be processed for vital statistics and stomachs removed for later processing in the laboratory to determine the composition of their food items and their incidence of predation on native fishes. Fish remains will be provided to the Hualapai Indian Tribe for use as organic fertilizer in tribal garden plots. All native fish will be tagged and released alive.

Scientists are also implementing experimental fluctuating river flows from 5,000-20,000 cfs each day from January through March to disrupt spawning activities and reduce survival of young trout during a portion of the spawning season. Reduction of young fish at Lees Ferry is intended to increase the growth of remaining fish in a portion of the river where trout are experiencing reduced growth. Downstream from Lees Ferry this reduction should help reduce predation and competition from trout with native fish.

Reduction of non-native fishes to benefit the humpback chub has been recommended by the Glen Canyon Dam Adaptive Management Program and approved by the Secretary of the Interior. This recommendation is part of a larger, two-year plan to manipulate dam releases to conserve sediment in the Grand Canyon and improve habitat conditions for native fish. Contact the Grand Canyon Monitoring and Research Center, 2255 N. Gemini Drive, Flagstaff, AZ 86001; 928-556-7094 or <http://www.gcmrc.gov>.



Can reducing trout numbers in the Grand Canyon help save the unique humpback chub?

Researchers hope to find out.