

CONSERVING ENDANGERED HUMPBAC CHUB

The conservation of native Colorado River fishes, such as the endangered humpback chub (*Gila cypha*), is a key element of the Glen Canyon Dam Adaptive Management Program. Federally listed as endangered since 1967, humpback chub populations have declined dramatically, likely due to dams on the Colorado River which have altered water flow and temperature, and allowed nonnative cold water fish to proliferate. The largest remaining population of humpback chub (6,000-10,000 adult fishes) is located in the Little Colorado River near the confluence with the Colorado River in Grand Canyon. Arizona Game & Fish has been conducting monitoring and research on these fish since 1987 as part of a long term monitoring project. This information is used to evaluate status and trends in humpback chub population size, necessary to further understand mechanisms controlling fish population dynamics, determine effects of dam operations, and identify threats presented by nonnative predators. Our goal is to monitor humpback chub and other native fish within the lower 1,200 m of the Little Colorado River.



OBJECTIVE

Evaluate trends in relative abundance and distribution of fishes in the lower 1,200 m of the Little Colorado River.

APPROACH

- We use hoop nets at 13 fixed locations in the lower 1,200 meters of the Little Colorado River.
- Research continues for 20 – 30 days during April and May while humpback chub and other native fishes such as bluehead sucker, flannelmouth sucker, and speckled dace are spawning.
- Nets are checked daily and information such as length, sex, reproductive status, and tag number are recorded for each captured fish before releasing alive.



UPDATE AND PRELIMINARY RESULTS

The Little Colorado River in Arizona is the spawning site for the largest population of humpback chub in the Colorado River Basin, the only place in the world this species is found. Analysis of data indicates that the number of adult humpback chub in the Little Colorado River has increased 50% between 2001 and 2008 and has remained stable since then.

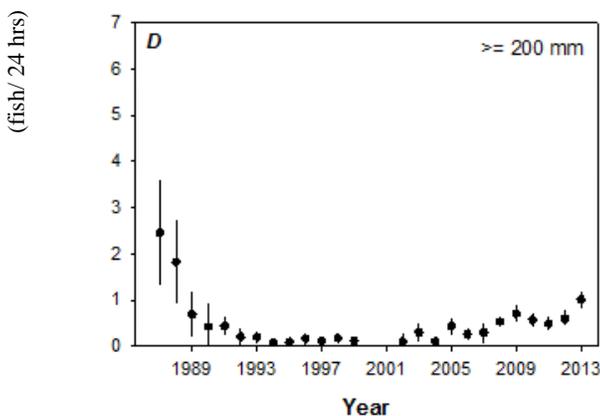


Figure 1. Catch per unit effort of adult humpback (> 8 inches total length) in the Little Colorado River from 1987 – 2013.

PROJECT CONTACTS

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MORE INFORMATION

Arizona Game & Fish: Wildlife Views

Little Colorado River
<https://www.youtube.com/watch?v=qaLyk5A6beU>

Arizona Game & Fish: Wildlife Views Field Note

Bluehead Sucker
http://www.azgfd.gov/i_e/ee/resources/field_notes/fish/bluehead_sucker.pdf

Flannelmouth Sucker
http://www.azgfd.gov/i_e/ee/resources/field_notes/fish/flannelmouth_sucker.pdf

Humpback Chub (coming January/February 2015 issue)

Collaborators:

Grand Canyon Monitoring and Research Center (USGS)	http://www.gcmrc.gov/
US Fish and Wildlife Service	http://www.fws.gov/southwest/fisheries/azfwco/index.html
National Park Service	http://www.nps.gov/grca/naturescience/fish.htm
Glen Canyon Dam Adaptive Management Program	http://www.gcdamp.gov/
Navajo Nation	

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