A Spring Conservation Trip to Nevada

~~~~~~~

by

Peter Unmack

P. O. Box 1454, Tempe, AZ 85280, peter.unmack@asu.edu

Several members of the Bay Area Killifish Association, North American Native Fishes Association, Northern California Killifish Club, and Tropical FishKeepers Exchange, participated in a survey of fish populations in southeastern Nevada. The trip, from March 19th to the 22nd, was organized in conjunction with the Nevada Division of Wildlife.

Our first effort was concentrated on the Moapa River near Glendale. Tilapia (*Oreochromis aureus*), an illegal introduction in the area, had recently invaded parts of the upper springhead near the Fish and Wildlife Service Refuge. Great schools of tilapia were found throughout the spring outflow along with good numbers of mollies (*Poecilia mexicana*) and "damnbusia" (*Gambusia affinis*). A few native springfish (*Crenichthys baileyi moapae*) and Moapa dace (*Moapa coriacea*) were also seen. But their numbers were considerably lower here, compared to populations in an adjacent spring that had a barrier to exclude non-native fish.

Further downstream near an old power station diversion dam, fish were virtually non-existent. Electrofishing revealed virtually no fish except for a couple of exotics. Gill nets were set overnight in the ponds near the power plant. Last year, Jim Heinrich of the Nevada Division of Wildlife caught good numbers of Virgin River chubs (*Gila seminuda*) here. However, the only fish caught by us were more tilapia (some up to 16 inches). A few baby mollies were also observed. The Moapa is indeed a pretty sick system at this point in time.

Our second destination was the Virgin River at Mesquite. Both woundfin (*Plagopterus argentissimus*) and Virgin River chubs had been released here from hatchery stocks. These fish have small metal tags, injected into the body just in front of and below the dorsal fin, that allow them to be distinguished from wild fish. Good numbers of other native fish were found, including speckled dace (*Rhinichthys osculus*), flannelmouth sucker (*Catostomus latipinnis*), and desert sucker (*Pantosteus clark*i). Red shiners (*Cyprinella lutrensis*) were also present, but in lower numbers than usual. Although the riverine environment appeared healthy, it doesn't stay that way for long. According to Jim Heinrich, water diversions during the summer virtually dry this stretch of river, leaving the fish with little suitable habitat and elevated water temperatures.

We moved upstream into Arizona to the mouth of Beaver Dam Wash, primarily to collect desert suckers for genetic work by Carol Secor, a graduate student at Arizona State University. Fortunately, good numbers of suckers were found along with hundreds of speckled dace! That evening, we camped further upstream at a delightful campground. There we finally saw some Virgin River spinedace (*Lepidomeda mollispinis*), the rarest native fish in this drainage.

All in all, a great time was had by all participants. I'd like to thank everyone who made the effort to come along and help. Special thanks go to Ellen Siegal, who did a fantastic job feeding the group. Also, thanks again to Jim Heinrich for allowing us the opportunity to get involved and for making the arrangements. All collecting in Nevada was done under his supervision, and collecting in Arizona was conducted under state and federal permits.

Opposite page: Here is a slightly revised version of the form I fill out whenever I go collecting. Please feel free to photocopy it and use it during your own fish collections.
~~~~~~~

North American Native Fishes Association

Collection Data Sheet

LOCATION_____TRIBUTARY OF_____
DRAINAGE DIVISION_____RIVER SYSTEM _____ALTITUDE_____
MAP NAME_____PAGE NO_____GRID REF_____
TOWN/AREA_____ROAD X'ING_____
OTHER DETAILS_____

_____

DATE_____**TIME**_____**METHOD OF COLLECTION**_____
COLLECTED BY_____

SPECIES	ABUNDANCE	SPECIES	ABUNDANCE

COMMENTS_____

_____

WATER TEMPERATURE_____pH_____HARDNESS_____
LENGTH OF STREAM SAMPLE_____TIME SPENT_____

* STREAM TYPE: * headwaters * mid-reaches * lowlands
* estuary * lake/dam * pond
* backwater (connected to mainstream) * spring
Comments _____

* DOMINANT SUBSTRATE * gravel (small rocks) * rocky (med. rocks) * boulders (large rocks)
* clay * sand * earthen (firm mud)
* silt (soft mud)
Comments _____

* TURBIDITY * clear * cloudy * muddy *very muddy
Comments _____

* WATER LEVEL * flood * high * normal * low
* isolated pools * flowing *non-flowing
Comments _____

WEATHER_____
LOCAL LAND USE_____ RIPARIAN VEGETATION (%)_____
DOMINANT INSTREAM COVER_____
AQUATIC VEGETATION SPECIES _____

_____

(* circle answer and add comments if necessary)