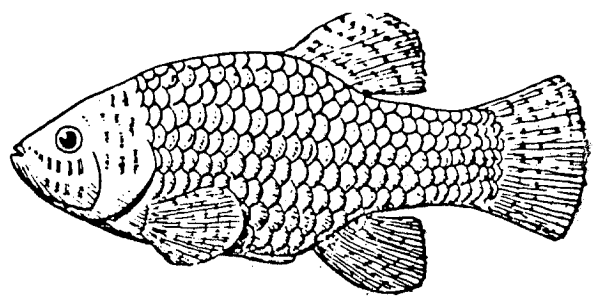


*Desert Fishes Council*



---

*"Dedicated to the Preservation of America's Desert Fishes"*

***Proceedings of the  
Desert Fishes Council***

**VOLUMES III - IX**

**Edited by  
Edwin P. Pister**

**The Third - Ninth Annual Symposia**

Produced in cooperation with the University of Nevada, Las Vegas

Desert Fishes Council  
407 West Line Street  
Bishop, California 93514

December, 1983

## Appendix 1971-4

REPORT ON REESTABLISHMENT OF THE MOHAVE CHUB  
Gila mohavensis (SNYDER), AN ENDANGERED SPECIES

by

Jim St. Amant

The mohave chub, Gila mohavensis, once found extensively in the Mohave River and its tributaries, is the only native fish known to the Mohave River drainage (Hubbs and Miller, 1943). Pure strains of these chubs have steadily declined since about 1938, with the introduction of the coastal California chub, Gila orcutti, which resulted in competition and hybridization between the two species. They had been completely eliminated in the river proper by 1967 (Miller, 1967). Until recently the mohave chub was found only in Lake Tuendae at Zzyzx Resort south of Baker, California.

The population in Lake Tuendae is flourishing, but is in a precarious condition due to the present undetermined ownership of the property on which the lake is located. In 1969, following the recommendations of Miller (1967), the California Department of Fish and Game began transplanting the chubs to additional refugia from Lake Tuendae. Five locations, Piute Springs, South Coast Botanic Garden Ponds, Two Hole Spring, Lark Seep, and Lion Country Safari have been planted to date. A brief summary of the introductions follows:

Piute Springs

Piute Springs, San Bernardino County, is located on Bureau of Land Management land northwest of the town of Needles, California. The spring lies at the bottom of a canyon and is sometimes subject to flashfloods. On December 18 and 19, 1969, Leonard Fisk, Ernest Lesh, David Frye, and Robert Winn, all with the California Department of Fish and Game, introduced 150 Mohave chubs into Piute Springs. The chubs averaged about 3.5 inches in length. Lou Jurs, Bureau of Land Management, reports he found live fish present during an inspection of the springs in September, 1971.

South Coast Botanic Garden Pond

This two acre pond constructed at the South Coast Botanic Garden in Palos Verdes, Los Angeles County, California, is managed by the Los Angeles County Department of Arboretum and Botanic Gardens. Jim St. Amant and Shoken Sasaki introduced 147 Mohave chubs into the pond on January 27, 1970. The chubs measured approximately 1.5 to 2 inches with the exception of 5 fish that measured 4 to 7 inches in length.

On July 2, 1970, Sasaki and the author observed that 3 different spawnings had apparently occurred.

In July 1971, the pond was drained to repair excessive leakage. On July 7, 1971, 300 chubs were removed. Approximately 5,000 chubs were collected from the pond on July 13, 1971. Both collections were taken to the Chino Fish and Wildlife Base.

At this time, November, 1971, the pond at the South Coast Botanic Gardens is dry. Repair of the pond and refilling is delayed due to budgetary limitations.

#### Paradise Spa, Las Vegas, Nevada

Jim Deacon reports that the population existing in this water is thriving.

#### Two Hole Springs

The spring is located in San Bernardino County on Bureau of Land Management land, 1 to 2 miles south of highway 95 east of Lucern Valley, California. Maximum depth of the pool formed by the spring is two feet. On August 20, 1970, St. Amant, Ernest Lesh, and Bureau of Land Management personnel, Bill Templeton and Dick Manus, planted 41 chubs into the pool. Average length of the chubs measured approximately 2 inches; several measured approximately 4 inches. Bill Templeton, prior to the introduction, constructed a fence surrounding the 30 by 40 foot pool to keep cattle out.

Joe Lesh inspected the pool in the spring of 1971 and found no live fish. An extensive growth of Chara sp. existed in the pool which probably resulted in insufficient dissolved oxygen. The Chara sp. was removed from the pool and 150 chubs were introduced. The pond was inspected again on July 28, 1971. Dead chubs were found throughout the pond. Two seine hauls did not produce any live fish.

#### Lark Seep

On July 12, 1971, 400 chubs were introduced into Lark Seep Lagoon located on the United States Naval Weapons Station, China Lake, near Ridgecrest, Kern and Inyo counties by Joe Lesh and Phil Pister of California Fish and Game. Mrs. Tilly Barling, Natural Resources Specialist, has observed chubs in the Lagoon since the introduction.

#### Lion Country Safari

In July, 1971, 150 chubs were introduced into ponds located at Lion Country Safari, Orange County. The fish were released into several ponds and a 55 acre lake. Survival of the chubs is not known at this time.