

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: AFCJC02020

Data Sensitivity: NO

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Catostomus bernardini*
COMMON NAME: Yaqui Sucker
SYNONYMS: *Catostomus sonoriensis*, *Catostomus insignis*
FAMILY: Catostomidae

AUTHOR, PLACE OF PUBLICATION: Girard, 1857.

TYPE LOCALITY: Rio San Bernardino Creek, Sonora, Mexico.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Nine fish varieties from Arizona are included in this genus. Closely related to the Sonora sucker (*Catostomus insignis*) both ecologically and morphologically, possibly a well-marked subspecies of the Gila form.

DESCRIPTION: Body fusiform, somewhat elongated. Head relatively large. Eye large. Lips not overly fleshy. Dorsal fin high; somewhat falcate, generally with 12 fin rays. Anal, pelvic, and pectoral fins greatly expanded in breeding male. Scales moderately large, typically between 62 and 73 in lateral line. Head sharply bicolor, light below, olivaceous above. Body with darker pigmentation of dorsum grading into lighter body, rarely with a sharp lateral demarcation of pigment. Scales sometimes with a discrete spot, as in *Catostomus insignis*, but generally obscure. Interradials of dorsal and caudal fins dark, other fins transparent to yellow or whitened (Minckley 1973).

AIDS TO IDENTIFICATION: Distinguished from *Catostomus insignis* in that it has 12 fin rays, and *C. insignis* has 11 fin rays.

ILLUSTRATIONS: B&W photo (Minckley 1973:163)
Color photo (Rinne and Minckley 1991:21)
B&W photo (Wildlife Habitat Management Staff Group 1975:149)

TOTAL RANGE: Widely distributed in the Rio Yaqui river system of Mexico. Found in Cajon Bonito just south of Douglas in 1978. Found before 1968 in San Bernardino Creek, Cochise County, Arizona.

RANGE WITHIN ARIZONA: Formerly, only in San Bernardino Creek, Cochise County. Disappeared sometime after 1967.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Believed very similar to *Catostomus insignis*.

REPRODUCTION:

FOOD HABITS:

HABITAT: In Arizona, was restricted to one shallow, mud-bottomed pool surrounded by riparian vegetation. In Mexico, apparently occurs in clear, cool gravel-bottomed streams well-vegetated with aquatic plants (Minckley 1973). In Rio Yaqui system in many types of aquatic habitat.

ELEVATION: Widespread from the lowest elevations (on and near the river's delta) to higher than 2000 meters (6500 feet) in mountain streams of the Rio Yaqui basin (Rinne and Minckley 1991).

PLANT COMMUNITY: Chihuahuan desert scrub and semidesert grassland.

POPULATION TRENDS: Common in Rio Yaqui drainages of Mexico in 1978, but thought to be extirpated from Arizona by 1968.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

STATE STATUS:

WC (AGFD, WSCA in prep)

[State Endangered AGFD, TNW 1988]

OTHER STATUS:

No FS Status (USDA, FS Region 3 1999)

[Forest Service Sensitive USDA, FS Region 3 1988]

Determined Subject to Special Protection (Secretaría de Medio Ambiente 2000)

[Listed Rare, Secretaría de Desarrollo Social 1994]

MANAGEMENT FACTORS: **Threats:** aquifer pumping; reduction in stream flows; water diversion; drought; predation by nonnative fishes. **Management needs:** protect San Bernardino aquifers, and Leslie and San Bernardino watersheds to ensure adequate perennial flow; ameliorate impacts from nonnative fishes; establish self-sustaining populations on San Bernardino and Leslie Canyon NWRs, and in West Turkey Creek.

PROTECTIVE MEASURES TAKEN: Considered for reintroduction into pond or streams at San Bernardino Ranch, once introduced fish are removed and habitat is restored. A captive population is being maintained at Dexter National Fish Hatchery (New Mexico).

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: USFWS San Bernardino National Refuge, State Trust, Private.

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

Arizona Game and Fish Department. 1988. Threatened Native Wildlife in Arizona. p. 6.

Arizona Game and Fish Department. In prep. Wildlife of special concern in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32 pp.

Hendrickson, D.A., et al. 1980. Fishes of the Rio Yaqui Basin, Mexico and United States. Journal of the Arizona-Nevada Academy of Science 15(3):75-77.

Lowe, C.H., Editor. 1964. The vertebrates of Arizona. University of Arizona Press, Tucson. p. 144.

Minckley, W.L. 1973. Fishes of Arizona. Arizona Game and Fish Department, Phoenix. pp. 163-164.

Page, L.M., and B.M. Burr. 1991. A field guide to freshwater fishes: North America, north of Mexico. Houghton Mifflin Co., Boston. p. 171.

Rinne, J.N., and W.L. Minckley. 1991. Native fishes of arid lands: a dwindling resource of the desert southwest.

U.S. Department of Agriculture, Forest Service, General Technical Report RM-206. Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado. pp. 19-21.

Secretaría de Desarrollo Social. 1994. Diario Oficial de la Federación. p. 50.

Secretaría de Medio Ambiente. 2000. Diario Oficial de la Federacion. p. 44.
USDA, Forest Service Region 3. 1988. Regional Forester's Sensitive Species List.
USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
Wildlife Habitat Management Staff Group. 1975. Endangered and unique fish and wildlife of the southwestern national forests. U.S. Department of Agriculture, Forest Service, Southwestern Region. p. 149.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

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