

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

Animal Abstract

Element Code: AFCQL02010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Mugil cephalus*

COMMON NAME: Striped Mullet

SYNONYMS:

FAMILY: Mugilidae

AUTHOR, PLACE OF PUBLICATION: Linnaeus 1758

TYPE LOCALITY:

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: In North America there are 5 species in the genus; only one exists in Arizona. Striped Mullet is one of the two saltwater fish that are endemic to the state of Arizona.

DESCRIPTION: Striped Mullet have oblong, more or less compressed bodies, which are covered with large, cycloid scales. The head and predorsal area flattened, belly and lower part of head rounded, posterior part of body laterally compressed. Pectoral fins positioned high on sides; anal and second dorsal fins falcate. Mouth dorsally located. Inguinal scale and nictitating membranes highly developed (Minckley 1973).

Coloration blue-black dorsally, silvery on sides and silvery-white on belly. Dark spot on body at base of pectoral fin, almost ocellate in some individuals. Dorsal fins sometimes dark; caudal, anal, and pelvic fins whitish, sometimes yellowed in large adults (Minckley 1973). Scales along flanks have dark centers which give the appearance of a series (6-7) of dark horizontal stripes. They grow to lengths up to 60.0 cm (23.6 in.) with weights as high as 4.0 kg (8.75 lbs.).

AIDS TO IDENTIFICATION: Their mouth is small, and the jaws bear tiny teeth or are toothless. They have large, well developed pseudobranchiae, and elongated, slender gill rakers; two dorsal fins, well separated, and the first consisting of four stiff spines; caudal fin is deeply forked. A lateral line is absent. The intestinal tract is long, and the peritoneum usually is black.

ILLUSTRATIONS: B&W photo (Minckley 1973:257)
Color photo (Rinne and Minckley 1991:37)

TOTAL RANGE: Found in estuarine, inter-tidal and coastal marine systems and in mouths of major tropical and subtropical rivers worldwide between 42°N and 42°S latitude.

RANGE WITHIN ARIZONA: Historically ranged far up the Colorado River to the vicinity of Blythe and up the Gila River to perhaps Tacna. Because of the dams and restricted flows to the Sea of Cortez, the range in Arizona is restricted to the Colorado River below Laguna Dam and the lower end of the Gila River when there is water present. Often abundant in the mainstream and lateral canals in that region.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: A mainly diurnal coastal species that often enters estuaries and rivers. It usually schools over sand or mud bottoms, feeding on zooplankton, benthic organisms and detritus. Adults feed on algae in fresh water. Maximum size approximately 120 cm (47.25 in), max weight about 8,000 g (17.6 lb). The species is euryhaline and this combined with the acclimation of juveniles to high water temperatures appears to be a selective advantage.

REPRODUCTION: Females are sexually mature at age four, males at age three. Spawning by striped mullet apparently occurs in the open sea. Young move into Arizona only during periods when the Colorado River reaches the Sea of Cortez. Maturation of gonads of mullet from the lower Colorado River occurs in autumn, and reaches its peak in mid-winter. Reproduction of land locked populations in the lower Colorado River is not certain.

FOOD HABITS: They feed on zooplankton, benthic organisms, organic debris and some planktonic crustaceans and adults feed on algae while in freshwater systems.

HABITAT: Benthopelagic, catadromous, fresh, brackish and marine habitats in depths ranging between 0-120 m (0-394 ft) and temperature between 8-24°C. In the Colorado River mullet are pelagic in larger pools, sometimes moving into currents below dams, and generally occurring in small groups.

ELEVATION: Sea level to 38 m (125 ft.) above mean sea level.

PLANT COMMUNITY:

POPULATION TRENDS: Declining in Arizona, due to periods when the Colorado River does not reach the Sea of Cortez.

SPECIES PROTECTION AND CONSERVATION**ENDANGERED SPECIES ACT STATUS:****STATE STATUS:**

3 (AZGFD, AWCS 2022)
[1B (AGFD SWAP 2012)]

OTHER STATUS:**MANAGEMENT FACTORS:****PROTECTIVE MEASURES TAKEN:****SUGGESTED PROJECTS:****LAND MANAGEMENT/OWNERSHIP:****SOURCES OF FURTHER INFORMATION****REFERENCES:**

- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Arizona Game and Fish Department, Phoenix, Arizona. 233 pages.
- Arizona Game and Fish Department. 2022. Arizona Wildlife Conservation Strategy: 2022-2032. Arizona Game and Fish Department, Phoenix, Arizona. 378 pages.
- Biota Information System of New Mexico. 2000. BISON species account 010201: striped mullet - *Mugil cephalus*. New Mexico Game and Fish, Available: <https://www.bison-m.org/booklet.aspx?SpeciesID=010201>
- Minckley, W.L. 1973. Fishes of Arizona. Arizona Game and Fish Department, Phoenix, Arizona. pp. 257-258.
- Rinne, J.N. and W.L. Minckley. 1991. Native fishes of arid lands: a dwindling resource of the desert southwest. General Technical Report RM-206. U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado. pp. 36-37.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

John N. Rinne - USDA, Forest Service Rocky Mountain Forest and Range Experiment Station, Flagstaff, Arizona.

ADDITIONAL INFORMATION: There is a considerable commercial fishery for this species in the Mexican portion of the river, generally through the use of throw nets.

Revised: 1994-07-22 (WBJ)
2002-09-25 (RHB)
2023-01-09 (MBL)

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