ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract **Element Code:** AFCJC02070
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Catostomus* (*Pantosteus*) *discobolus*
COMMON NAME: Bluehead Sucker, Zuni Bluehead (=Mountain) Sucker, Bluehead Mountain Sucker
SYNONYMS: *Catostomus delphinus, Catostomus discobolus, Catostomus discobolus discobolus, Catostomus discobolus yarrowi, Minomus jarrovii, Minomus delphinus, Pantosteus delphinus, Pantosteus delphinus delphinus, Pantosteus discobolus, Pantosteus jarrovii, Pantosteus plebeius, Pantosteus yarrowi*
FAMILY: Catostomidae

AUTHOR, PLACE OF PUBLICATION: Cope, E. D. 1872. Recent reptiles and fishes *in* U.S. Geologic Survey of Wyoming and contiguous territory. Special reports Part IV:432-442.

TYPE LOCALITY: Green River, Wyoming.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: 23 species in genus *Catostomus*, all found in North America. Six species in Arizona. Two subspecies of *C. discobolus* have been discussed, *C.d. discobolus* and *C.d. yarrowi*, the latter being the Zuni population (Smith et al. 1983, Crabtree and Buth 1987).

DESCRIPTION: "...specimens more than 300 mm (11.8 in.) standard length not being uncommon. Coloration varies with habitat conditions, silvery tan to dark green above, silvery to yellowish or dirty white below. Inguinal process sometimes absent or obsolescent. Lips large, with tiny papillae evenly scattered over lower and oral face of upper, but absent from anterior face of upper lip. Caudal peduncle thick to slender, ranging from 4.2 to 10.0 percent of standard length" (Minckley 1973). Lower lip shallowly notched at midline. Lateral line scales usually 90-100 (ranging from 78-122). Predorsal scales usually more than 50 (range 44-75). Dorsal fin rays 9-12 and anal fin rays 7. Breeding adult males have a blue patch on top of the head. The lower fins become yellow or orange, and red or rosy lateral bands form along the sides. Bluehead suckers grow to about 50 cm (20 in.) in the mainstem Colorado River, Grand Canyon, but tributary resident fish tend to be smaller.

AIDS TO IDENTIFICATION: Cartilaginous scraper in lower jaw. Lips deeply notched at corners. Bluish head in breeding males.

ILLUSTRATIONS:
Line drawing (Eddy and Underhill 1978:119)
B&W photos (Minckley 1973:170)
Line drawing (Minckley and Holden 1980:377)
Color drawing (Page and Burr 1991)
Color photo (Rinne and Minckley 1991:30)
Line drawing (Sigler and Sigler 1987:222)
B&W photo (Simpson and Wallace 1978:151
Line drawings and B&W photos (Snyder and Muth 1990:116-123)
Line drawings (Sublette et al. 1990:208, 209)
Color photo (*In* http://www.desertfishes.org/na/catostom/cdiscobo/I_cdisco.shtml)
Color photo (*In* http://www.utahcdc.usu.edu/rsgis2/Search/Display.asp?FINm=catodisc)

TOTAL RANGE: High gradient streams of western North America. Found in Colorado River drainages upstream (including the Grand Canyon) from Lake Mead (AZ, CO, NM, UT and WY), Snake River, above Shoshone Falls (ID and WY), and Bear River (ID and UT) and Weber River drainages (UT and WY) of the Bonneville Basin.

RANGE WITHIN ARIZONA: Colorado River mainstem and Grand Canyon tributaries, including Little Colorado River, Clear Creek, Bright Angel Creek, Shinumo Creek, Kanab Creek and Havasu Creeks; rare below Diamond Head. May be found in a few areas on the Navajo Reservation, and in the San Juan Drainage (Minckley 1995, AGFD Native Fish Diversity Review)

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Can live more than 20 years. Known to hybridize with other species of *Catostomus*.

REPRODUCTION: Spawn in spring and summer, after water temperatures exceed 16.0º C (60.8º F); 2-5 males join a single female to spawn over gravel-sand and gravel-cobble substrates. Spawning in Grand Canyon tributaries occurs during April and May in water depths of a few cm to greater than one meter. Water temperatures at this time are generally 16.0-20.0º C (60.8-68.0º F). Young appear May through June and reach approximately 60 mm (2.36 in.) by the end of the first year in the mainstem. In the upper Colorado River basin they spawn over gravel and rubble, in flatwater reaches but sometimes in currents greater than 1.0 m/s near the upper ends of riffles.

FOOD HABITS: Scrapes algae and invertebrates off rocks with cartilaginous scraper. Mostly immature dipterans and amphipods with diatoms and organic debris also being found in the gut.

HABITAT: Bluehead suckers occupy "a variety of habitats from headwater streams to large rivers" (Sublette et al. 1990). Riverine habitats from cold (12º C), clear streams to warm, very turbid rivers. When water is clear they stay in deep pools and eddies during the day then move into shallow riffles, tributary mouths, shorelines, or other hard-bottomed sites to feed at night. When water is turbid they occupy shallow areas throughout the day. Young inhabit backwaters in the Grand Canyon.

ELEVATION: 610 to 2060 m (2,001 to 6,759 ft.)

PLANT COMMUNITY: Aquatic.

POPULATION TRENDS: Populations are stable except where habitat is destroyed by flooding of riverine habitats by dams.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:
C (USDI, FWS 2001 *C.d. yarrowi*)
[None USDI, FWS 1996]
[C2 USDI, FWS 1994 *C.d. yarrowi*]
[C2 USDI, FWS 1991]
[C2 USDI, FWS 1985, 1989]

STATE STATUS:
WSC (AGFD, WSCA in prep) (*C.d. yarrowi*)
[State Candidate AGFD, TNW 1988 (*C. d.* ssp. = ssp. *yarrowi*)]

OTHER STATUS:
Forest Service Sensitive (USDA, FS Region 3 1988, 1999, 2007)
Bureau of Land Management Sensitive (USDI, BLM AZ 2010)
Group 4 (NNFWD, NESL 2001, 2008)

MANAGEMENT FACTORS: Loss of riverine habitat will decimate population, as they are not found in any reservoirs within their range. They do appear to be tolerant of a wide range of temperatures, except for spawning and larval growth requirements. Introduction of non-native fish species are a major threat to this species.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Laboratory examination of temperature preference and tolerance; larval and juvenile food habits; age and growth in the Colorado River and tributaries, Grand Canyon.

LAND MANAGEMENT/OWNERSHIP: In Arizona, most of the habitat for bluehead suckers is within Grand Canyon National Park. Other areas lie in the Navajo Nation, Bureau of Land Management, US Forest Service and private lands.

SOURCES OF FURTHER INFORMATION

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ADDITIONAL INFORMATION:

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