

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

Animal Abstract

Element Code: AFCJC02070

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Catostomus discobolus yarrowi*

COMMON NAME: Zuni Bluehead (=Mountain) Sucker, Bluehead Mountain Sucker

SYNONYMS: *Catostomus discobolus yarrowi*, *Minomus jarrovii*, *Minomus delphinus*,
Pantosteus jarrovii, *Pantosteus Pantosteus yarrowi*

FAMILY: Catostomidae

AUTHOR, PLACE OF PUBLICATION: E.D. Cope, Proc. American Philosophical Society
14: 129-139. 1874.

TYPE LOCALITY: Zuni River, Zuni Pueblo, New Mexico, 1873 (Cope 1874).

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Twenty three species in genus *Catostomus*, all found in North America. Six species occur 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). *C.d. yarrowi* origin is likely a hybrid between *C. discobolus* and *C. plebius*.

DESCRIPTION: Generally slender fusiform body with a subterminal mouth. Most individuals do not exceed 200 mm (7.87 in), but a few may attain 250 mm (Hanson, 1980, Propst and Hobbs, 1996). Mouth has fleshy lips and protuberances, particularly on the lower lips. The lips are notched laterally and the medial separation of the lower lip extends nearly to its anterior margin. The posterior margin of the lower lip extends back at an acute angle to the ventral longitudinal median. The lower jaw has a well-developed cartilaginous mandibular ridge that parallels the curvature of the lower lip (Sublette et al., 1990). The caudal peduncle is comparatively thick (ca. 9% of standard length) and the dorsal fin usually has fewer than 10 principal rays (Smith, 1966). There are 42 or fewer post-Weberian vertebrae and 25 or more gill-rakers in the first row on the first pharyngeal arch (Smith et al., 1983). Typically they have fewer than 100 scales in the lateral line (Smith et al., 1983). Young *C.d. yarrowi* are mottled dark gray-green dorsally and cream-white ventrally. Adults are slate-gray, almost black dorsally and cream-white ventrally. Males, in addition to coarse tubercles on the anal fin and ventral lobe of the caudal fin, develop a distinctive coloration during spawning season; dorsally they are intense black with a bright red lateral band and a white belly (Propst and Hobbs, 1996).

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

ILLUSTRATIONS: Line drawing (Cope, 1874)
Color photo (www.nativefish.org)
Color photo of species (*In* http://www.desertfishes.org/na/catostom/cdiscobo/I_cdiscos.html)
Color photo of species (*In* <http://www.utahcdc.usu.edu/rsgis2/Search/Display.asp?FINm=catodisc>)

TOTAL RANGE: Endemic to the headwaters of the Little Colorado River in east-central Arizona and west-central New Mexico (especially the Zuni River system).

RANGE WITHIN ARIZONA: Smith (1966) reported the subspecies in four small streams in East Central Arizona. Smith et al. (1979) collected Zuni suckers from East Clear Creek and from Kin Li Chee Creek. As of the early 1980s occurrences apparently reduced to Kin Li Chee Creek. Presence there confirmed in 1987 (Crabtree and Buth) and 2000 when fish were collected for genetic evaluation.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: *C.d. yarrowi* live about 4-5 years, maturing around 2 years of age and about 100mm SL. Historically associated with roundtail chub (*Gila robusta*) and speckled dace (*Rhinichthys osculus*).

REPRODUCTION: They spawn in April through late May or early June when water temperature reach 10-15°C. Both sexes mature at about 100mm SL but females are usually larger than males. There is evidence of a bi-modal spawning season. Most females produce 200-300 eggs, but larger females may produce more than 450. Spawning substrate is not known but is presumed to be the interstitial spaces of cobble bottomed pools.

FOOD HABITS: Scrapes algae and invertebrates off rocks with cartilaginous scraper.

HABITAT: *C.d. yarrowi* occur in stream reaches having shade and pool and riffle habitats with coarse substrates (e.g. bedrock, boulder, cobble). Usually found in water velocities less than 0.1 meter/sec and in depths ranging from 1-2 m in pools to 30 to 50 cm in pool-runs. Pools often edged by emergent aquatic vascular plants (e.g. willows, cattail). Fry and young fish prefer quite shallow areas like backwaters or near the shore line until strong enough to handle current. Non-native fish rarely present.

ELEVATION: For the species, elevation ranges between 2,000 – 6,760 ft (610 – 2060 m).

PLANT COMMUNITY: Aquatic. Pools often edged with emergent aquatic vascular plants such as willows and cattails.

POPULATION TRENDS: Populations have shown about a 90% decrease in the last 20 years due to poor watershed management. They are now found only in fragmented, semi-isolated stretches of their former range.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: C (USDI, FWS 2001)
 [None USDI, FWS 1996]
 [C2 USDI, FWS 1994]
 [C2 USDI, FWS 1991]

STATE STATUS: WSC (AGFD, WSCA in prep)

OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 1999)
 [Forest Service Sensitive at full species level (USDA, FS Region 3 1988)]
 Group 4 full species (NNDFG, NESL 2001)

MANAGEMENT FACTORS: Loss of high quality riverine habitat will decimate population. Logging, road construction, over-grazing, reservoir/irrigation construction and stocking of exotic fish are primary threats.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: In Arizona, extant populations if present are on the Navajo Nation. Possibly on Forest Service (Apache-Sitgreaves NF) and Private lands.

SOURCES OF FURTHER INFORMATION

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ADDITIONAL INFORMATION:

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