

Green Sunfish (Lepomis cyanellus)

Green sunfish were earliest of the smaller sunfishes to be introduced into Arizona, first being collected in 1926 (Minckley 1973). It is characterized by its large mouth with blue-green striations on the cheeks. The opercle flap is black with a reddish or orange border. The body is olive-green in color, with dark vertical bars on the sides. The pectoral fin is short and rounded and the caudal fin and lower fin margins are white or yellowish with dusky spots at the rear of the dorsal and anal fins. Length is about 3 to 12 inches with the typical weight ranging between 3 ounces to 1 pound 8 ounces (AGFD 2006).

The green sunfish can be found in most warm water lakes and streams in Arizona and even in a few trout lakes in the White Mountains and Mogollon Rim. This fish is highly adaptable, but tends to become most abundant in rocky situations of either lakes or streams, where other sunfish are absent or uncommon.

Green sunfish will eat anything they can catch and swallow. Insects, crayfish, fish and frogs are all in danger when green sunfish are present.

Green sunfish are remarkably tolerant of crowding among themselves. Under such conditions, they often become stunted in size creating management problems in small lakes. Large populations apparently compete with the young of other fishes for food, or prey upon them, thus causing negative impacts to both game and native fishes (Minckley 1973).

Green sunfish is the most piscivorous member of its genus (Dudley and Matter 2000). According to Moyle and Nichols (1973, 1974), green sunfish were probably responsible for the elimination of California roach (*Hesperoleucus symmetricus*) in the San Joaquin valley of California because of heavy predation on the young. In a study in North Carolina (Lemly 1985), removal of green sunfish from streams led to the increase in the biomass and numbers of most native species.

Dudley and Matter (2000) studied the impacts of small green sunfish on the recruitment of Gila chub (*Gila intermedia*) in Sabino Creek, Arizona. Young of the year Gila chub were abundant in upstream reaches of the creek that were devoid of green sunfish, but were absent in downstream areas occupied by green sunfish. They were highly predacious on young of the year chubs and the authors concluded that young life stages of Gila chub do not persist in sections of Sabino Creek occupied by green sunfish.

Work Cited:

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