

## LAKE EUSTIS PUPFISH

*Cyprinodon variegatus hubbsi*

**Order:** Cyprinodontiformes

**Family:** Cyprinodontidae

**FNAI Ranks:** G5T2Q/S2

**U.S. Status:** none

**FL Status:** none



**Description:** Small, typically 2 - 3 in. (51 - 76 mm), stout, deep-bodied fish with clear dorsal and caudal fins. The general body color is beige to olive with dark, irregular stripes; dorsal surface is white, except in breeding males, when it is iridescent blue.

**Similar Species:** This subspecies is very similar to the much more common sheepshead minnow (*Cyprinodon variegatus variegatus*). Since the Lake Eustis pupfish has a very restricted range and occurs in fresh water (unlike the typical subspecies), geography is the easiest way to distinguish between these two closely related taxa.

**Habitat:** Very narrow, shallow zone of shoreline that is exposed to heavy wave action and typically devoid of vegetation.

**Seasonal Occurrence:** Present in all seasons.

**Florida Distribution:** Known only from a group of interconnected lakes that form the headwaters of the Ocklawaha River. Lakes by counties are as follows: Lake County: Eustis, Harris, Dora, Griffin, and Yale; Lake and Orange counties: Beauclair and Carlton; Marion County: Weir.

**Range-wide Distribution:** Same as Florida distribution.

**Conservation Status:** In the late 1970s, the Florida Game and Fresh Water Fish Commission conducted surveys for *C. variegatus hubbsi*. The results found that, although much of the region has experienced extreme developmental pressure, populations appear to be stable. The subspecies was subsequently downlisted from Threatened to Species of Special Concern by FGFWFC.

## Lake Eustis Pupfish

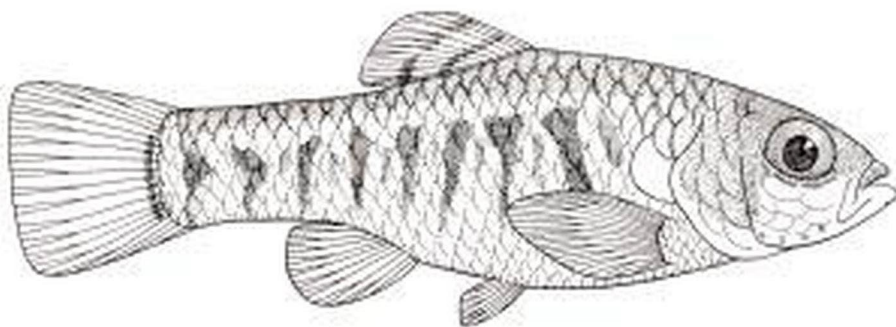
## *Cyprinodon variegatus hubbsi*

**Protection and Management:** Avoid damaging the shallow, high-energy shoreline microhabitat preferred by the species. Monitor water quality of inhabited lakes especially as it pertains to septic systems and surface runoff from surrounding home sites. Re-evaluate the status of the *C. variegatus hubbsi* periodically as watershed development increases.

**References:** Gilbert (ed.) 1992, Guillory 1979, Guillory and Johnson 1986, Page and Burr 1998.



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