

## SQUIRREL CHIMNEY CAVE SHRIMP

*Palaemon cummingi*

**Order:** Decapoda  
**Family:** Palaemonidae  
**FNAI Ranks:** GH/SH  
**U.S. Status:** Threatened  
**FL Status:** Threatened



**Description:** A small (1.3 in. = 30 mm), nearly colorless cave shrimp with only a suggestion of white (albinism) in the general body coloration; internal organs of various colors may be visible through the exoskeleton (outer shell). The rostrum (forward projection of shell in front of eyes) is long and serrated, with six teeth on its dorsal surface, and the first and second pairs of legs are of nearly equal length.

**Similar Species:** This is the only cave shrimp known from Florida. The closely related glass shrimp, *Palaemonetes paludosus*, is abundant in surface waters throughout much of Florida. Its body (to 1.8 in. = 46 mm) is translucent gray to nearly transparent, but its eyes are pigmented and its appendages less delicate, with the second pair of legs appreciably longer than the first. Crayfishes, of which three cave species co-occur with the cave shrimp, have larger front legs and claws, and an unserrated rostrum.

**Habitat:** Groundwater within a flooded solution cave in limestone.

**Seasonal Occurrence:** Presumably present year-round, although movements toward and away from the cave opening may occur. A female with eggs was collected in July, with young hatching a month later.

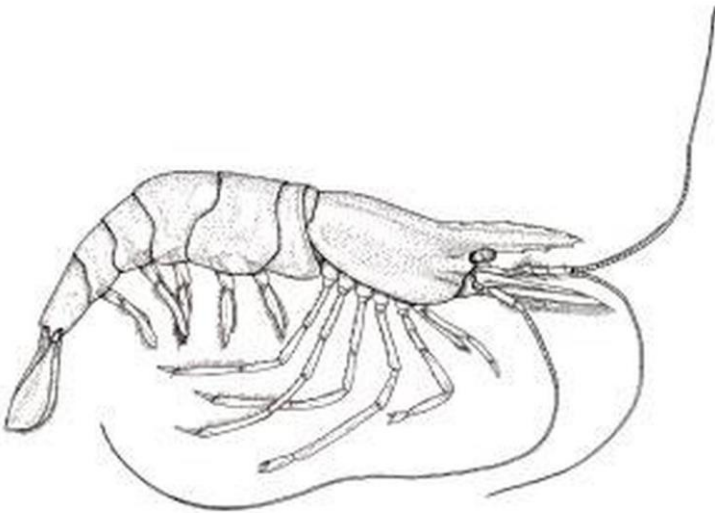
**Florida Distribution:** Known only from a single cave (Squirrel Chimney) in western Alachua County.

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

**Conservation Status:** No cave shrimps have been observed, despite recent surveys, since 1973, and there is concern that the species may be extinct. However, other ecologically similar sites exist within the local limestone plain and may yet harbor undiscovered populations. The private owners of the land surrounding Squirrel Chimney restrict access to the site. Nonetheless, groundwater contamination associated with increasing urban development of the greater Gainesville area poses a potential threat to the species and its habitat, as does the apparently recent invasion of the site by a small fish, the redeye chub (*Notropis harperi*).

**Protection and Management:** Ultimately (and assuming the species still exists), acquisition of Squirrel Chimney (and any other sites if discovered in the future) and a large terrestrial buffer by a conservation organization or agency is vital. Access must remain restricted, and the surrounding land and underlying groundwater must be protected via regulatory means. If possible to do so without otherwise affecting the aquatic environment, eradication of redeye chub from Squirrel Chimney should be a priority.

**References:** Chace 1954, Deyrup and Franz (eds.) 1994, U.S. Fish and Wildlife Service 1998.



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