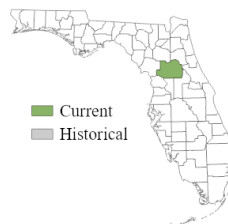


SILVER GLEN SPRINGS CAVE CRAYFISH

Procambarus attiguus

Order: Decapoda
Family: Cambaridae
FNAI Ranks: G1/S1
U.S. Status: none
FL Status: none



Description: This is a medium-small (body length to 52 mm/2 in) white to translucent cave crayfish with reduced eyes that lack pigment and facets. Specific identification is based on fine morphological features, including structure and ornamentation of the first pleopods of reproductive (form I) males. Additional characteristic features include enlarged third maxillipeds, a sharply tapering rostrum lacking marginal spines, elongate chelae, and a thorax that is not pronouncedly inflated (Hobbs and Franz 1992).

Similar Species: This highly distinctive crayfish is one of several stygobitic species in the subgenus *Ortmannicus* and appears to be on the line leading to the highly specialized spider cave crayfish in the genus *Troglocambarus*. Closest affinities are with another Florida stygobitic species, *P. delicatus*. The latter has a pouch-like protrusion on the anteroventral surface of the branchiostegites (lateral extensions of the carapace covering the gills at the base of the legs), whereas this feature is reduced in *P. attiguus*; several other fine morphological features also appear to distinguish the pair (Hobbs and Franz 1992).

Habitat: The species is associated with subterranean fresh waters in limestone bedrock. The only known site is a large subterranean cavern from which issues Silver Glen Springs and run. Specimens have been taken from rock and sand substrates, some with a light dusting of bacterial silt, on the cavern floor 213 m (700 ft) inside the main spring entrance (Hobbs and Franz 1992, Morris 2006).

Seasonal Occurrence: Crayfish are present year-round, although nothing is known of the species' life history. A January 2003 survey revealed very small and medium-sized immature crayfish as well as adults (Morris 2006).

Florida Distribution: To date, the species remains known only from the locality from

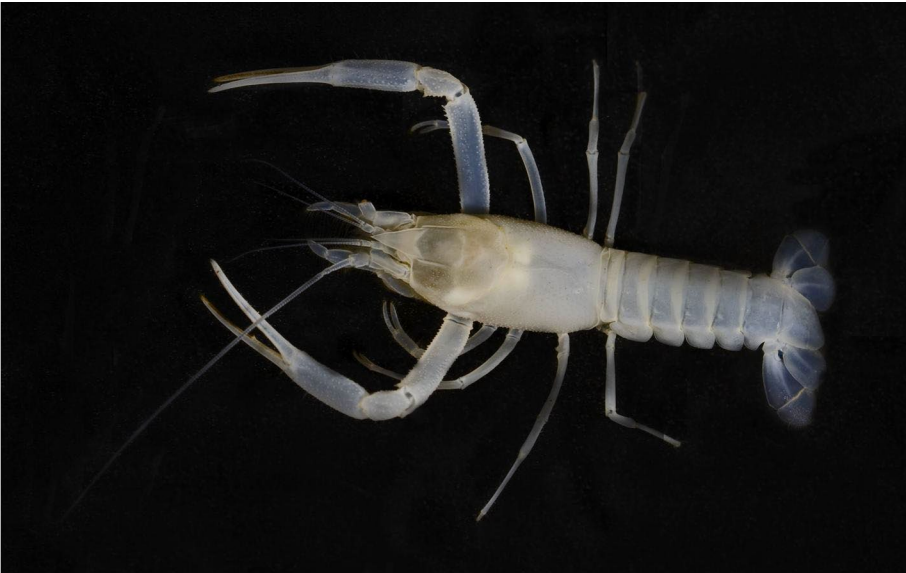
where it was first described, Silver Glen Springs cave, Marion County (Hobbs and Franz, 1992).

Range-wide Distribution: The species is endemic to Florida.

Conservation Status: The species' only known locality at Silver Glen Springs lies just within the Ocala National Forest; however, the containing aquifer likely extends beneath private lands offsite, including those along the southern side of the spring run that leads to Lake George. Greater protection of these private lands, either via fee-simple acquisition or less-than-fee-simple protection, is therefore important. In general, subterranean fresh waters, such as inhabited by *P. attiguus*, face a variety of potential threats; these include chemical pollution and excessive water withdrawal to support human consumption, agriculture, and industry. Population data for this species are non-existent and extremely difficult to obtain given that most of the species' primary habitat can only be visited, if at all, by highly specialized and equipped cave divers. Thus, population declines, though thus far unreported, are likely to go unnoticed.

Protection and Management: Because the aquifer below Silver Glen Springs (the species' only known locality) likely extends beyond the boundaries of Ocala National Forest, private lands along Silver Springs Run should be protected by fee-simple acquisition or less-than-fee-simple measures. Further, although the immediate site is within a national forest, conservation of the subterranean aquifer and associated species is not a major focus of management. Because of its limited geographic range and vulnerable habitat, the species and local groundwater quality merit continued monitoring and attention. Land managers should retain natural vegetation and avoid use of chemical pesticides and herbicides within at least 50 m of Silver Glen Springs and any associated subterranean conduits. Because the site is popular for human recreation, all activities must be regularly monitored to assure that the spring, cave, and surrounding upland habitat do not suffer from disturbance or degraded water quality.

References: Deyrup and Franz 1994, Franz et al. 1994, Hobbs and Franz 1992, Morris 2006.



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