

## Poeciliopsis gracilis (Heckel), a newly introduced poeciliid fish in California

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### ABSTRACT

On 27 July 1974, four specimens of a poeciliid previously unreported in California were collected with a minnow seine in an irrigation canal at the junction of U.S. Highway 111 and Johnson Avenue, near Mecca, Riverside County, California. The specimens were identified by Dr. Carl L. Hubbs (Scripps Institution of Oceanography) as *Poeciliopsis gracilis* (Heckel), 1848 (Rosen and Bailey 1966).

*Poeciliopsis gracilis* is native to freshwater streams on both the Pacific and Atlantic slopes of southern Mexico and Guatemala (Rosen and Baily 1966). Males reach 30 mm TL and females 50 mm (1.17 and 1.95 inches, respectively). Their preferred water temperature is 22-24 C (71.6—75.2) (Sterba 1962). Observations in the field and in aquaria suggest that *P. gracilis* resembles the mosquitofish, (*Gambusia affinis*), but is readily distinguished in the field by a longitudinal row of four to eight large, jet-black spots; the males have an extremely long anal fin (gonopodium), extending almost to the caudal fin when depressed. Rosen and Bailey (1966) have reviewed the nomenclature of this species of which *heterandia pleurospilus* (Jordan and Evermann 1896) and *Poecilistes pleurospilus* (Sterba 1962) are among the synonyms. The common name “porthole live bearer” is suggested, as a modification of “porthole fish” used by Sterba (1962).

*P. gracilis* should not be confused with Gila topminnow, *P. occidentalis*, which was formerly abundant in the Gila River system of Arizona (Minckley and Deacon 1968; Minckley 1973; Carl L. Hubbs, pers. comm.). The specimens I collected, one immature male (21 mm SL) (0.82 inch) and three half-grown females (14-20mm) (0.55-0.78 inch) were readily distinguished from other resident stream poeciliids by the four to five very distinct, jet-black spots on each side of their translucent tan body.

Twelve additional specimens, ranging in size from 8 mm (0.31 inch) juveniles to a 43 mm (1.69 inches) female, were collected on 17 November 1974 at the same site (Table 1). At least a dozen more were observed schooling with young of shortfin molly, *P. Mexicana* and red shiners, *Notropis lutrensis*. The appearance of recently born young, the wide range of sizes, and the persistence of the fish for at least a 4-months period, suggest that *P. gracilis* is a reproducing resident of this canal.

The species was not represented in collections I have previously made at this site, nor have I obtained *P. gracilis* in samples from other nearby Coachella Valley canals and waterways sampled from other nearby Coachella Valley canals and waterways sampled periodically since 1964 (i.e., canals at Avenues 81, 82, and 83 near Highway 86 as described by St. Amant and Sharp (1971) and the Whitewater River, Riverside Country). Thus, the introduction were not investigated but presumably were direct release by aquarists or escapements from a nearby tropical fish farm.

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