

The World's Smallest Vertebrate, *Schindleria brevipinguis*, A New Paedomorphic Species in the Family Schindleriidae (Perciformes: Gobioidei)

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ABSTRACT. *Schindleria brevipinguis* n.sp., from the Lizard Island-Carter Reef vicinity of the Great Barrier Reef, Australia and from Osprey Reef nearby in the Coral Sea, is a small, unpigmented gobioid species distinctive in having fewer dorsal- and anal-fin rays and a deeper body with larger eyes than the other described species, *S. pietschmanni* and *S. praematura*. The urogenital papilla of male *S. brevipinguis* has a markedly different shape from those of the other two species. *Schindleria brevipinguis* apparently provides an even more extreme example of paedomorphosis than its congeners, and with males maturing by 7 mm and the largest specimen only 8.4 mm, it almost certainly is the world's smallest fish and smallest vertebrate.

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Schindleriidae, a family of small, paedomorphic, marine gobioid fishes (Johnson & Brothers, 1993), is widely distributed in warm-water reef habitats of the Indian and Pacific Oceans (e.g., Bruun, 1940; Jones & Kumaran, 1964; Sardou, 1974; Ozawa & Matsui, 1979; Belyanina, 1989; Harris & Cyrus, 1996; Landaeta *et al.*, 2002). *Schindleria praematura* (Schindler, 1930) and *S. pietschmanni* (Schindler, 1931) originally were described as *Hemiramphus* species; Giltay (1934) subsequently placed them in their own genus and family. To date, these two species remain the only described members of the family, although Yoshino *et al.* (2000) and Kon & Yoshino

(2002) have suggested that Schindleriidae probably contains many species.

In 1979, while conducting ichthyoplankton research in the Lizard Island-Carter Reef vicinity of the Great Barrier Reef, Queensland, J.M. Leis and party collected a small *Schindleria* specimen that clearly differed from *S. praematura* and *S. pietschmanni*. Four additional specimens were collected from the Lizard Island-Carter Reef vicinity from 1981–1983, and in 1988 another was collected at Osprey Reef, nearby in the Coral Sea. These six specimens are described here as a new *Schindleria* species.