

A larva of the eteline lutjanid, *Randallichthys filamentosus* (Pisces: Perciformes), with comments on phylogenetic implications of larval morphology of basal lutjanids

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Abstract

The only known larva of *Randallichthys filamentosus*, a 9.7 mm specimen, is characterized by fin-ray counts of D X,11, A III, 9, ~50 lateral-line scales, an extremely long and whip-like spine 2 of the dorsal fin (80% body length), and very long first ray of the pelvic fin (74% body length). Like all eteline larvae, it is fully scaled at a small size. Within the Lutjanidae, this larva shares the otherwise unique morphological features of very elongate whiplike dorsal-fin spine and very elongate pelvic-fin ray with some species of the apsiline genus *Paracaesio*. Evidence from larvae supports Johnson's hypothesis, based on adult morphology, that the Etelinae and Apsilinae are basal lutjanids. The morphology of lutjanid larvae, however, suggests several hypotheses of relationships within basal lutjanids that differ from those based on adult morphology: that the lutjanid subfamilies Etelinae and Apsilinae form a monophyletic group, that *Paracaesio* is polyphyletic, that *Randallichthys* and some *Paracaesio* spp. are closely related, and that *Aphareus* is closely related to *Pristipomoides*, not *Randallichthys*.

Key words: larva, Lutjanidae, Etelinae, Apsilinae, *Randallichthys filamentosus*, systematics

Introduction

The monotypic *Randallichthys filamentosus* (Fourmanoir, 1970) is an apparently rare eteline lutjanid about which little is known. This species has been reported from widespread, albeit scattered, localities in the Central and Western Pacific: from the Ryukyus to New Caledonia to the Cook Islands to Hawaii, and a few other localities within the boundaries of these four (Allen 1985; Anderson & Allen 2001). Larvae of all other eteline lutjanid genera are known (Leis & Lee, 1994), but until now, no *R. filamentosus* larvae have been described. Herein, I describe a larva of *R. filamentosus*, which is the only known specimen of the species that is smaller than the 136 mm SL holotype. This larva was captured