

## Osteology and phylogeny of *Parioglossus* (Teleostei, Gobioidi), with a revised key to the species

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### Abstract

The seventeen species of *Parioglossus* (Perciformes, Gobioidi) form a group of small fishes that inhabit the warm temperate to tropical regions of the western Pacific and Indian Oceans. A revised key to the species, based on external characters, is provided. Using external characters and osteology, a parsimony analysis of 24 characters of the 17 described species resulted in five equally most parsimonious trees. The strict consensus tree of these five trees supports the monophyly of *Parioglossus*. There is a basal polytomy, within which are monophyletic subgroups, one consisting only of *P. dotui* and *P. neocaledonicus*. The other subgroup is fully resolved, and consists of (*P. galzini* (*P. aporos* (*P. nudus*, *P. philippinus*) (*P. rainfordi* (*P. palustris* (*P. interruptus* (*P. taeniatus* (*P. formosus* (*P. sinensis*, *P. raoi*))))))). However, only two of the nodes have a support value of greater than one.

**Key words:** *Parioglossus*, Gobioidi, osteology, phylogeny, key to species

### Introduction

The gobioid fish genus *Parioglossus* (Teleostei: Gobioidi) was erected by Regan (1912) for the type species *P. taeniatus*, and now has 17 recognized described species. Most of these species inhabit warm temperate to tropical regions of the western Pacific and Indian Oceans; they are normally found around the roots of mangroves, or around algae in estuaries and coastal coral reefs. The general gestalt of members of the genus is exemplified by *P. raoi* (Fig. 1). Only a few of the species appear to be geographically widespread (Rennis and Hoese, 1985), and one species seems to be confined to fresh water (*P. neocaledonicus*, Dingerkus and Séret, 1992).