



Callogobius winterbottomi, a new species of goby (Teleostei: Gobiidae) from the Western Indian Ocean

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Abstract

Callogobius winterbottomi new species is described from the 33.8 mm SL holotype and two paratypes (32.2 mm SL and 22.9 mm SL) from the Comoros, Western Indian Ocean. It is distinguished from all other known *Callogobius* species by the following combination of characters: sensory pores absent, 23–26 scales in lateral series, and sensory papillae preopercular row not continuous with transverse opercular row. One additional specimen of *Callogobius winterbottomi* was located from South Africa. A new standardized naming system for *Callogobius* sensory papillae rows is presented for identification and clarification of character states among *Callogobius* species. The new species is tentatively placed among what we term the “*sclateri* group”, a clade including *C. sclateri* (Steindachner) and three other species that exhibit a modified female urogenital papilla with lateral distal flaps and elongate ctenii on the caudal peduncle scales. *Callogobius tutuilae* (Jordan & Seale) is removed from synonymy with *C. sclateri* because it has partially united pelvic fins (vs separate) and the preopercular sensory papillae row is continuous with the transverse opercular row (vs separate).

Key words: Gobiidae, *Callogobius winterbottomi* new species, sensory papillae rows, systematics

Introduction

The genus *Callogobius* Bleeker comprises more than 40 nominal species (Eschmeyer 2012) and is widespread in Indo-Pacific shallow marine and brackish environments, including coral reefs and coral rubble, tidepools, and mangrove streams. Because of cryptic coloration, habitat specialization, and poor condition of most museum specimens (many species have fragile skin and deciduous scales), the taxonomy is poorly known. A revision of *Callogobius* has never been completed. In the 1970s some inroads were made; Akihito & Meguro (1975, 1977) examined type material and clarified the taxa from Japan, and McKinney & Lachner (1978a) provided a summary table of selected characters obtained mostly from types. The latter authors provided a complete list of included species of *Callogobius* at the time, and formed a basis for the recognition of *Callogobius* as currently circumscribed. Unfortunately, McKinney & Lachner never completed a planned revision, although they did synonymize several species in a later publication (McKinney & Lachner 1984), but without detailed evidence. Goren (1979a) reviewed the *Callogobius* species of the Red Sea, whereas other taxonomic papers on *Callogobius* since McKinney & Lachner (1978a) consist primarily of descriptions of one or two new species (e.g., Goren 1978; Goren 1979b; McKinney & Lachner 1978b; McKinney & Lachner 1984; Chen & Shao 2000; Chen *et al.* 2006).

During a visit by the first author to the Royal Ontario Museum, three male specimens of an unknown *Callogobius* species were encountered in a single collection from the Comoros. After a thorough search, only one additional specimen of this species, a female, was located from South Africa. In this paper, we describe this species as new, briefly discuss its relationships among congeners, and suggest removal of a possible relative, *C. tutuilae* (Jordan & Seale), from synonymy with *C. sclateri* (Steindachner). We also provide a new standardized naming system for *Callogobius* sensory papillae rows for identification and clarification of character states among species of this genus.