



## Description of two new species of sea bass (Teleostei: Latidae: *Lates*) from Myanmar and Sri Lanka

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### Abstract

Two new species of *Lates* Cuvier are described. *Lates lakdiva*, new species, from western Sri Lanka, differs from its Indo-Pacific congeners by its lesser body depth, 26.6–27.6% SL; 5 rows of scales in transverse line between base of third dorsal-fin spine and lateral line; 31–34 serrae on the posterior edge of the preoperculum; third anal-fin spine longer than second; 47–52 lateral-line scales on body; and greatest depth of maxilla less than eye diameter. *Lates uwisara*, new species, from eastern Myanmar, is distinguished by possessing 7 scales in transverse line between base of third dorsal-fin spine and lateral line; eye diameter 4.4–4.7% SL; body depth 28.4–34.5% SL; and third anal-fin spine shorter than the second. Despite substantial genetic variation, *L. calcarifer* sensu lato is widely distributed, from tropical Australia through Indonesia, Singapore and Thailand, westwards to at least the west coast of India. Caution is urged in translocating *Lates* in the Indo-Pacific region as other yet unrecognized species likely exist. The status of the type specimens of *L. calcarifer* is discussed, and a common lectotype designated for *L. heptadactylus* and *L. nobilis*. While *Lates vacti* (type locality Bengal) may be a valid species, *L. cavifrons* and *L. darwiniensis* are considered synonyms of *L. calcarifer*. *Plectropomus* Goldfuss and *Ptertopomus* Goldfuss are shown to be incorrect subsequent spellings of *Plectropomus* Oken.

**Key words:** Australia, Burma, cryptic species, giant perch, barramundi, sibling species

### Introduction

Known as sea bass or giant perch in Asia and barramundi in Australia, *Lates calcarifer* (Bloch, 1790) is among the most important food fishes in tropical Australasia and the Asian countries bordering the Indian Ocean (Pender & Griffin 1996; Rimmer & Russell 1998; Yingthavorn 1951; Rabanal & Soesanto 1982). The species has been recorded to attain a mass in excess of 44 kg and reach a total length of more than 135 cm in Australia (IGFA 2011). *Lates calcarifer* has long been of economic importance (e.g., it figures in Australian aboriginal rock art dating 15,000–8,000 ybp: Chaloupka 1997), and has been increasingly stocked for the recreational fishery and utilized in aquaculture for the past several decades. The existence of as many as 75 local names in 14 of the countries within its range (Mathew 2009; FAO 2011) is perhaps additional evidence of its popularity as a species of commercial significance.

While several freshwater species of *Lates* occur in the Nile basin (the Mediterranean having been connected to the Indian Ocean until the mid-Miocene: Harzhauser & Piller 2007), the only other non-African species currently considered valid is *L. japonicus* Katayama & Taki, 1984, restricted to estuaries and coastal waters in Japan. The range of *L. calcarifer* presently extends eastwards from the Persian Gulf to China and the Queensland coast of Australia, within an approximate latitude range of  $\pm 25$  (FAO 2011; Pusey *et al.* 2004). The species is catadromous, with adults occurring in coastal waters, estuaries and sometimes rivers more than 700 km upstream of the tidal influence (Dunstan 1962). Species of *Lates* are, however, unknown from the East African coast, the Arabian Peninsula (which lacks perennial rivers and hence estuaries) apparently serving as a barrier to their southward dispersal.

Several studies suggest there is considerable genetic variation between populations of the fishes currently assigned to *L. calcarifer*. For example, Salini and Shaklee (1988) and Keenan and Salini (1990), based on an elec-