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First record of *Parapercis clathrata* (Perciformes: Pinguipedidae) from Indian waters

K. KANNAN[1,3], K. PRABHU[2], G. ARUMUGAM[1] AND S. MOHAMED SATHAKKATHULLAH[1]

[1]TRC of Central Marine Fisheries Research Institute, Tuticorin, TamilNadu, India, [2]CAS in Marine Biology, Faculty of Marine Sciences, Annamalai University, TamilNadu, India, [3]Wildlife Institute of India, Post Box # 18, Chandrabani, Dehradun, Uttarakhand, India

A single specimen of latticed sandperch, Parapercis clathrata *measuring 163 mm total lenth was caught in a trawler off Tuticorin, south-east coast of India in February 2010. Morphometric and meristic characters of the recorded specimen are described. This record constitutes the first occurrence of the species in Indian waters and a substantial westward extension of its known geographical distribution.*

Keywords: *Parapercis clathrata*, Pinguipedidae, latticed sand perch, Indian Ocean and Tuticorin

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INTRODUCTION

The perciform sandperch family Pinguipedidae was formally known as the Parapercidae or Mugiloididae (Rosa & Rosa, 1987; Randall, 2001). The family includes 79 species in seven genera, *Pinguipes*, *Parapercis*, *Prolatilus*, *Pseudopercis*, *Kochichthys*, *Simipercis* and *Ryukyupercis* (Ho & Shao, 2010). The genus *Parapercis* was described by Bleeker, 1863. It is the largest genus in the family, currently comprising 71 valid species (Johnson, 2006; Randall & Yamakawa, 2006; Randall, 2008; Randall *et al.*, 2008; Ho & Shao, 2010). The fish of the genus *Parapercis* are popularly known as sandperch in the United States, grubfish in Australia and sandsmelt in South Africa. From the central and western Pacific 22 species of *Parapercis* have been recorded (Randall, 2001). Twenty-seven species including four new species have been recorded from Japan (Shimada, 2002; Randall & Yamakawa, 2006; Randall, 2008; Randall *et al.* 2008). Ho & Shao (2010) described one new species from Taiwan. Recently one new species has been reported from western Pacific waters (Yun Chio Liao *et al.*, 2011). More numbers of new species discovered in the genus clearly shows the dearth of up to date information in the literature.

The sandperch family Pinguipedidae comprises seven genera and 78 valid species. Sixteen new species of *Parapercis* have been described in the past five years (Johnson, 2006; Randall & Yamakawa, 2006; Imamura & Yoshino, 2007; Randall, 2008; Randall *et al.*, 2008); *P. clathrata* grows up to a total length (TL) of 24 cm (Kuiter & Tonozuka, 2001). The species occurs in tropical marine waters of the Indo-Pacific from the Andaman Sea north to Japan, throughout Micronesia, south to Australia and east to the Samoa Islands (Randall, 2001). It inhabits both clear lagoon and seaward reefs, in the areas of open sand, rubble as well as on the rocky surfaces between coral heads of 3 m to 50 m (Myers, 1991).

Corresponding author:
K. Kannan
Email: kanna.k84@gmail.com

RESULTS

On 14 February 2010, a 163 mm TL male *P. clathrata* (Figure 1) weighing 50 g was collected from a commercial trawler, which operated at a depth 30 m, 60 km north-west off Tuticorin, south-east coast of India. All the counts and morphometric measurements were taken according to Masuda *et al.* (1984).

Description

The body is moderately elongated and little compressed, except posteriorly. The head is pointed and tapered on the tip. The tip of the snout is flat with large eyes, slightly prominent above the dorsal profile of the head, oriented as much dorsally as laterally. Mouth is large and terminal with lower jaw slightly projecting having recurved canine teeth in an outer row at front of the jaws. The lateral line is simple and complete having 60 pored scales. The dorsal fin has IV spines and 20 soft rays, anal fin with I spine and 17 soft rays, pelvic fin has I spine and 4 soft rays; pectoral fins with 17 soft rays. Gill rakers on the first gill arch range from 17 to 19. The colour of the dorsal surface is reddish-brown, belly whitish, head with brown patches, cheeks with many small black spots and prominent eye spots on the nape (typical of males: Randall *et al.*, 1990; Myers, 1991). Lower side of the body has 12 vertically elongate spots; each spot is black in colour. Two narrow horizontal lines run from the pectoral fin origin, to the caudal fin base. Pectoral and pelvic fins are dusky yellow and posterior half of caudal fin

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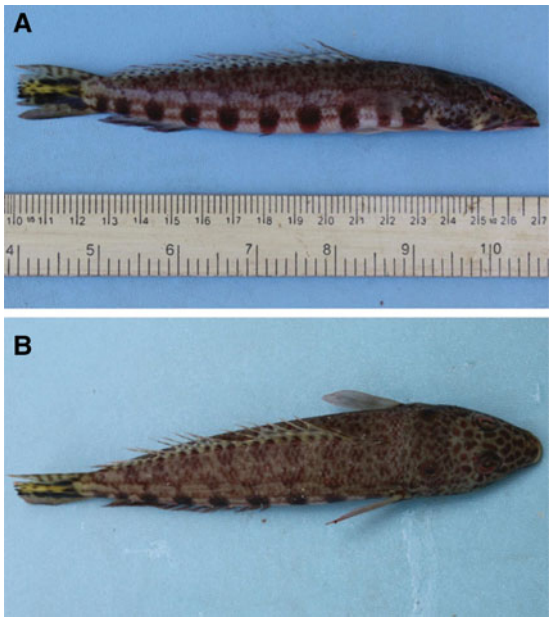


Fig. 1. *Parapercis clathrata* caught off Tuticorin, south-east coast of India: (A) lateral view; (B) dorsal view.

has a large yellow spot, having small brown spots within. Caudal fin is truncate. All counts and measurements are shown in Table 1.

The morphological characters of the studied specimen agree with the diagnostic features proposed by Randall (2001) to discriminate *P. clathrata* from other central-western Pacific species of the genus. According to Randall (2001), the number of spines and soft rays in the dorsal and anal fins discriminate *P. clathrata* and *P. millepunctata* from other species of *Parapercis* in this area. Whereas, by contrast, gill raker counts and differences in the coloration of the anal fin separate *P. clathrata* from *P. millepunctata*.

Table 1. The morphometric characters of *Parapercis clathrata* caught off Tuticorin.

Morphometric characters	Measurements (mm)
Total length	163
Standard length	145
Head length	43
Head width	17
Body width	30
Pre-orbital length	15
Post-orbital length	20
Orbital eye diameter	10
Lower jaw length	14
Upper jaw length	17
Dorsal fin length	16
Dorsal fin base length	88
Pre-dorsal fin length	50
Pectoral fin length	26
Pectoral fin base length	7
Pre-pelvic fin length	31
Pelvic fin length	30
Pelvic fin base length	1.2
Pre-anal length	67
Anal fin length	20
Anal fin base length	65
Caudal peduncle length	43.9

DISCUSSION

During recent years, greater numbers of fish species have been recorded for the first time in Indian waters (see Akhilesh *et al.*, 2009; Kurup *et al.*, 2009). Although some of these are probably residents in these areas that might have remained undetected due to intrinsic rarity or difficulty of access to these specific habitats (e.g. deep sea), some others can be considered 'vagrant' (i.e. they have arrived from the other areas). *Parapercis clathrata* is a reef-associated (Meyers, 1991; Kuiter & Tonozuka, 2001) benthic fish; the location from which the specimen is captured is also close to a major coral reef off the southern Indian main land—Gulf of Mannar. At this juncture there is much uncertainty about the presence of *P. clathrata* in Indian waters. More detailed monitoring of fish diversity in the Andaman and Nicobar Islands, the eastward territorial waters of India may spread some light on the westward range extension of this species towards more conducive habitats of the tropical Indian Ocean. For whatever reasons, recent records of this species from a new geographical area are a matter of scientific interest and solicit the need for more comprehensive investigation.

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Correspondence should be addressed to:
K. Kannan
Wildlife Institute of India,
Post Box # 18, Chandrabani, Dehradun
Uttarakhand, India
email: kanna.k84@gmail.com

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