

NEW RECORD OF THE BLUE-TAILED DARTFISH, *PTERELEOTRIS HANAE* (TELEOSTEI: PTERELEOTRIDAE) IN SINGAPORE

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ABSTRACT. — The blue-tailed dartfish, *Ptereleotris hanae*, is recorded for the first time in Singapore. Several specimens were observed on the reefs at Pulau Hantu, an island in the Straits of Singapore.

KEY WORDS. — new record, *Ptereleotris hanae*, Ptereleotridae, dartfish, Singapore

INTRODUCTION

Commonly known as dartfishes, the genus *Ptereleotris* consists of small, slender and elongate gobioid fishes with 21 recognised species. Members of this genus occur within and near rocky reefs and coral reefs. They hover close to the substrate and take refuge in burrows and crevices when threatened (Randall & Hoese, 1985; Bussing, 2001; Gasparini et al., 2001; Randall & Suzuki, 2008; Allen & Erdmann, 2012).

The blue-tailed dartfish, *Ptereleotris hanae* (Jordan & Snyder, 1901) is a common species in the Indo-Pacific, but had never been recorded to occur in the territorial waters of Singapore. This species was observed for the first time in Singapore, on 8 Nov.2011 on a reef at Pulau [=Island] Hantu. This paper records its presence in Singapore, with photographic evidence.

OBSERVATIONS

Identification. — In the field, members of the genus *Ptereleotris* can be distinguished by this suite of characters: elongate and compressed body, body depth 4.8–8.3 cm in standard length, body width approximately half the depth, head length 3.8–5.5 cm in standard length, short snout, and short and broadly rounded pectoral fins (Randall & Hoese, 1985). *Ptereleotris hanae* is visually distinguished from its congeners based on the following two diagnostic characters: rounded caudal fin with two to six trailing filaments; and presence of two curved, bright blue bands on the operculum (Figs. 1, 2; see [video](#) of an individual filmed by DN at the southern reefs of Pulau Hantu, taken on 17 Oct.2012). It grows to 12 cm in total length (excluding the caudal filaments), and is widely distributed in the Indo-west Pacific from the coasts of Borneo and East Java to the Solomon Islands, to Micronesia, Line Islands and Samoa, to tropical Australia and Japan (Allen & Erdmann, 2012). The only other similar looking species is *Ptereleotris arabica* Randall & Hoese, 1985 but this species has only two trailing caudal filaments. In addition, *Ptereleotris arabica* has only been recorded in the Red Sea and Persian Gulf (Randall & Hoese, 1985).

Location. — Five individuals of *Ptereleotris hanae* were first observed on 8 Nov.2011 along the southern shores of Pulau Hantu in the Straits of Singapore. They occurred at a depth of approximately 10 m, at a sandy area off the base of the coral reef. More individuals were observed in this area on subsequent SCUBA trips to the area. An individual of about 10 cm (total length, caudal filaments excluded) was photographed on 24 Nov.2012 at the southern reefs of Pulau Hantu (Fig. 1).

Behaviour. — These dartfishes were observed hovering approximately 30 cm to 1 m above the sandy substrate. Present within the substrate were burrows of an unidentified species of *Alpheus*, a pistol shrimp that is associated with the shrimp-goby *Cryptocentrus sericus* Herre, 1932. When disturbed, the dartfishes entered the aforementioned burrows where they stayed for some time, until the perceived danger passed. It appears that these fishes are more sensitive to perceived danger as they entered the burrow earlier and more often than the *Alpheus* spp., and *Cryptocentrus sericus*. Unlike shrimp-associated gobies (such as *Cryptocentrus* spp. and *Amblyeleotris* spp.), *Ptereleotris* species are not obligate symbionts of *Alpheus* species as no apparent tactile interaction can be observed between them (Randall & Hoese, 1985). While hovering, these fishes feed on zooplankton found in the water column (Randall & Hoese, 1985).



Fig. 1. *Ptereleotris hanae* individual (c.a. 10 cm, excluding the caudal filaments), found at the southern reefs of Pulau Hantu, on 24 Nov.2012. (Photograph by: Jeffrey Low).



Fig. 2. *Ptereleotris hanae* from Samoa (76 mm). (Photograph by: John E. Randall).

DISCUSSION

The cautious nature of *Ptereleotris* species makes them difficult to observe in the wild. In Singapore, *Ptereleotris hanae* was likely overlooked in the past, presumably due to the compounding effects of poor visibility and skittish nature of these fishes. Prior to the present report, no species from the genus *Ptereleotris* had been observed or recorded in Singapore (Larson et al., 2008). Larson et al. (2008) did, however, include a tentative record of another ptereleotrid, *Oxymetopon amblyopinus* (Kner, 1868), though this tentative record is not substantiated by specimens from Singapore. Species from the genus *Oxymetopon* exhibit similar hovering behaviour as does *Ptereleotris*, but the species in question (*Oxymetopon amblyopinus*) does not possess elongated caudal elements. In addition, the identity of the species in question is in doubt as absence of type material renders this species open to interpretation as either a cepolid fish or *Oxymetopon* species (Larson et al., 2008).

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