

Four syntopic mudskippers on intertidal mudflats at Parit Jawa, Johor, Peninsular Malaysia

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Photographs by: Nick Baker.

Subjects identified by: Nick Baker.

Location: Parit Jawa, Johor, Peninsular Malaysia.

Elevation: Sea level.

Habitat: Intertidal mudflats at the mouth of a modified, linear, tidal inlet.

Date and time: 27 March 2018, 10:30-11:00 hrs.

Identity of subjects:

- i) Blue-spotted Mudskipper, *Boleophthalmus boddarti* (Teleostei: Gobiidae), Fig 2.
- ii) Great Blue-spotted Mudskipper, *Boleophthalmus pectinirostris* (Teleostei: Gobiidae), Fig 3.
- iii) Giant Mudskipper, *Periophthalmodon schlosseri* (Teleostei: Gobiidae), Fig 4.
- iv) Gold-spotted Mudskipper, *Periophthalmus chrysospilos* (Teleostei: Gobiidae), Fig 5.

Description of record: Intertidal mudflats either side of the 60-metre long public jetty at the mouth of the tidal inlet which bisects the fishing village of Parit Jawa were inspected for mudskippers at low tide (Fig. 1). Four species were observed, and photographs were taken (Figs. 2 to 5).



Fig. 1. Intertidal habitat at Parit Jawa.

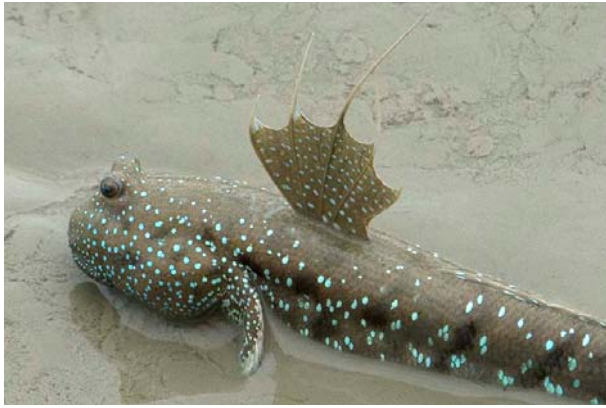


Fig. 2. *Boleophthalmus boddarti*

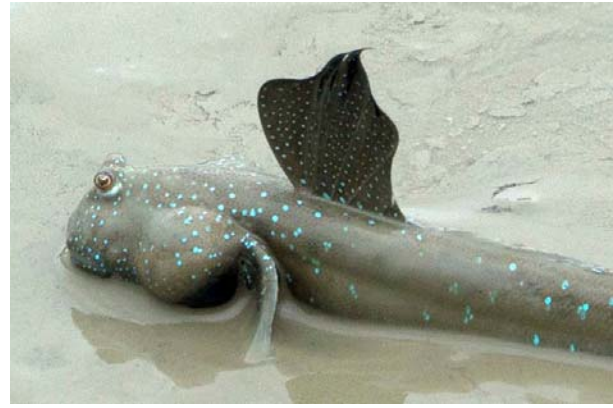


Fig. 3. *Boleophthalmus pectinirostris*



Fig. 4. *Periophthalmodon schlosseri*



Fig. 5. *Periophthalmus chrysospilos*

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Remarks: *Boleophthalmus boddarti* appeared to be the commonest mudskipper adjacent to the public jetty at Parit Jawa during low tide: the example in Figure 2 is identified as this species based on the presence of numerous pale blue spots on the head and flanks, oblique dark bands on the flanks, and a front dorsal fin which is yellowish-brown with small blue spots (Larson & Lim, 2005). The colour and patterning of the example in Figure 2 bears a close similarity with Figure 1.8 in Jaafar & Murdy (2017).

The mudskipper in Figure 3 is identified as *Boleophthalmus pectinirostris* based on the sparse blue spots on the head and body, and the epidermis below the orbits (dermal cups) being sky blue, the latter being a diagnostic feature for Malayan populations (Polgar, 2014). Only one example of this species was clearly identified from photographs.

Numerous examples of adult *Periophthalmodon schlosseri* were seen, and each was typically located at the edge of the pools which mark the entrance to their burrows. The example in Figure 4 is identified as this species based on its large size and the presence of a dark lateral stripe (Larson & Lim, 2005). Although the dorsal fins are not erect in this image, the colouration of the front dorsal fin can be discerned, which is reddish-brown with a pale margin: this bears a close similarity with Figure 1.18 in Jaafar & Murdy (2017).

Four examples of *Periophthalmus chrysospilos* were seen, which exhibited typical shoaling behaviour: the example in Figure 5 is identified as this species based on the unmistakable colour and patterning of the front dorsal fin which is orange-red, with a thick black band above, and a narrow white border: this closely resembles Figure 1.22 in Jaafar & Murdy (2017).

References:

- Jaafar, Z., & Murdy, E. O. (Eds.). (2017). *Fishes Out of Water: Biology and Ecology of Mudskippers*. CRC Press. 411 pp.
- Larson, H. K. & Lim, K. K. (2005). *A Guide to Gobies of Singapore*. Singapore Science Centre. 164 pp.
- Polgar, G. (2014). *Boleophthalmus pectinirostris* (Linnaeus, 1758). www.mudskipper.it/SpeciesPages/pect.html (Accessed 22 April 2018).