



Further records of the anchialine shrimp, *Periclimenes pholeter* Holthuis, 1973 (Crustacea, Decapoda, Palaemonidae)

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Caridean shrimps are one of the most conspicuous faunal components of the Indo-West Pacific anchialine fauna (Maciolek, 1983). To date, 11 anchialine species distributed in 10 genera and 5 families have been recorded in Indo-Pacific waters, with related species occurring in Atlantic waters, notably in Mexican cenotes and caves in the Bahamas.

Some anchialine species have been recorded from numerous locations across vast stretches of the Indo-Pacific, whilst others are only known from their type locality or from a very low number of localities. *Antecaridina lauensis* (Edmondson, 1935) for instance is known from the Solomon Islands, Fiji, Entedebir Island (Red Sea), Europa Island, Maui and Hawai'i (Big Island), several islands in the Ryukyu Archipelago, as well as Guam and Bohol (see Smith & Williams, 1981; Maciolek, 1983; Sket, 1997; Leberer & Cai, 2003; Cai et al., 2009). Equally, the anchialine alpheid, *Metabetaeus minutus* (Whitelegge, 1897) occurs in Tuvalu, Tokelau, Kiribati, Jaluit and Arno Atolls, Rapa Nui, Christmas Island, Sulawesi, the Ryukyu Archipelago and Lifou (Anker, 2010). In contrast to these wide distributions, some species exhibit a pronounced disjunct distribution, with for instance *Calliasmata pholidota* Holthuis, 1973 only being recorded from the Ras Muhammad Crack in the Sinai desert in Egypt, as well as Ellice Island, Maui and Hawai'i in the Central Pacific (Holthuis, 1973; Maciolek, 1983; Kensley & Williams, 1986).

Another species which exhibits a highly disjunct distribution is *Periclimenes pholeter* Holthuis, 1973. The species was also originally described from the Ras Muhammad Crack, Sinai Peninsula, Egypt (Holthuis, 1973) and has since been recorded from similar anchialine habitats in Aldabra, Seychelles (Wear & Holthuis, 1977) and Vanua Levu, Fiji (Bruce, 1992). Remarkably, this species has also been recorded from 1825 m deep in the Red Sea (Bruce, 1992), with recent further specimens reported upon from 2148 m in the same area (Bruce, 2011). This record is not only the deepest for any Palaemonidae, but this remarkable depth range from surface waters down to 2148 m appears unique amongst the Caridea.

The current records of specimens from Lifou (New Caledonia) and especially Sulawesi considerably narrows the geographical gap in the previously reported distribution of *P. pholeter* (northern Red Sea, Fiji). On the other hand, the current record from Hawai'i considerably extends its distribution to include the Central Pacific.

All material is deposited in the Zoological Collection of the Oxford University Museum of Natural History (OUMNH.ZC). Post-orbital carapace length (pocl) is used as the standard measurement of size and indicated in mm.

Palaemonidae Rafinesque, 1815

Pontiinae Kingsley, 1879

Periclimenes Costa, 1844

Periclimenes pholeter Holthuis, 1973

(Figs. 1–2)

Periclimenes pholeter Holthuis, 1973: 30, Figs. 10–11; Plate 1.— Bruce, 1992: 74; Figs. 22–23.— Bruce, 2011: 119, Fig. 1.