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## Identification of *Cancer lactatus* Linnaeus, 1758 with *Lophozozymus pictor* (Fabricius, 1798) and reversal of precedence (Crustacea: Decapoda: Brachyura: Xanthidae)

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The name *Cancer lactatus* Linnaeus, 1758, has not been treated taxonomically since it was described, with a diagnosis provided by Linnaeus (1758: 627): “C[ancer] brachyurus, thorace laevi utrinque serrato-quadrilobo, manibus ovatis laevibus. M.L.U. Habitat in Indiis.”. The abbreviation, “M.L.U.”, in Linnaeus (1758: 627) refers to the *Museum Ludovicae Ulricae* (Linnaeus 1764), a study of the collection of Queen Louisa Ulrica which was not published until 1764, but the manuscript of which was ready four years before the publication of the tenth edition of the *Systema Naturae* (Linnaeus 1758) (see Dance 1967: 13–15). The collection of Queen Ulrica was later presented to the University of Uppsala by King Gustav IV Adolf, where it is now deposited (Dance 1967: 15). This depository is now the Zoology Section, Museum of Evolution, Uppsala University, Uppsala, Sweden (UUZM) (Wallin 2001).

A dry specimen labelled as *Cancer lactatus* (Fig. 1A–D) is currently in the UUZM collections. The specimen was previously identified as “*Xantho* (octodentata Edw.) *lactata* Linn.” by A. Eurén (Wallin 2001: 16; label in Fig. 1A). *Xantho octodentata* H. Milne Edward, 1834, is now a junior subjective synonym of *Lophozozymus pictor* (Fabricius, 1798) (Ng & Chia 1997: 422). The specimen matches well with the description of *Cancer lactatus* as provided by Linnaeus (1758: 627) as well as the expanded diagnosis in the *Museum Ludovicae Ulricae* (Linnaeus 1764: 435).

As the collection in the *Museum Ludovicae Ulricae* (Linnaeus 1764) was cited in his description of *Cancer lactatus*, it is clear that Linnaeus (1758: 627) had access to this specimen (Fig. 1A–D) and that the diagnosis was based (at least in part) on this specimen. As additional information on the type material available to Linnaeus (1758) is not known, we consider the specimen to be a syntype of *Cancer lactatus* Linnaeus, 1758.

The syntype of *C. lactatus* can be clearly classified in the genus *Lophozozymus* A. Milne-Edwards, 1863, as it has the typical quadripartite anterolateral carapace margin, with the last two teeth dorsally carinate, as well as smoothly cristate ambulatory legs (Serène 1984). An important morphological diagnostic feature for some species of this genus is the distinct gap, or hiatus, between the exorbital angle and the subsequent lobe on the anterolateral margin of the carapace. The presence of this hiatus in the syntype of *C. lactatus* effectively narrows down the possibilities to a few species (i.e., *L. edwardsi* (Odhner, 1925), *L. erinnyes* Ng & Chia, 1997, and *L. pictor* (Fabricius, 1798)), all others having the exorbital angle confluent with the first anterolateral lobe and no hiatus (Serène 1984: 167, 169, key).

“*Lophozozymus*” *intonsus* (Randall, 1840) was included in this group in Serène’s (1984) key to the genus, but it has since been transferred to *Juxtaxanthias* Ward, 1942 (see Ng *et al.* 2008). *Cancer lactatus* cannot be referred to *L. edwardsi* because the hiatus is much deeper and the anterior borders of the carapace regions are not strongly cristate. Furthermore, the crest on the superior margin of the cheliped palm is complete and distinct, whereas in *L. edwardsi*, the crest is much less pronounced and limited to the proximal half of the palm (Guinot 1979: pl. 7 fig. 3; Ng & Chia 1997: fig. 11).

The most likely possibilities are *L. pictor* and *L. erinnyes*. These two similar species are most easily distinguished from each other by their live colouration, *L. pictor* having a red-and-white mosaic pattern of spots and blotches on the carapace, whereas *L. erinnyes* has more widely spaced white spots on a uniform red background (Ng & Chia 1997: fig. 8). Linnaeus (1764: 435) did describe the carapace colour of *C. lactatus* as “*ruber albo maculatus*”, but this description is still equivocal where *L. pictor* and *L. erinnyes* are concerned. Furthermore, the syntype of *Cancer lactatus* is extremely faded (Fig. 1A–D). Ng & Chia (1997: 430) listed additional morphological differences between *L. pictor* and *L. erinnyes*,