

Notes on the Parthenopidae (Crustacea: Decapoda: Brachyura) collection of the Natural History Museum, Florence University, Italy, with the quotation of the world's largest specimen of parthenopid crab

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Abstract New information on the geographical distribution of seven species of Parthenopidae is given. The fifth record of *Daldorfia spinosissima* (A. Milne-Edwards, 1862) is reported, presently exhibited in the Crustacean room of the Natural History Museum of Florence University, Italy.

Key words: Parthenopidae, systematics, museum collection

Introduction

The senior author visited the Natural History Museum of the University of Florence (MZUF), Italy, in June, 1991 for a research on the Coleoptera Lucanidae type material. During his visit, he noticed a very large parthenopid crab in the Crustacean exhibition room. Subsequently, in 2010 he contacted the MZUF Crustacean curator, in order to get information and photographs of the gigantic specimen. Recently, the senior author received several papers on Parthenopidae from Dr Tan Swee Hee, which helped with the identification of this large crab.

The following paper gives information on the parthenopid collection in the Museum from the Indo-Pacific Ocean, and adds new data on Parthenopidae distribution. An asterisk (*) marks new localities for the species. The Parthenopidae crabs listed in the present paper are preserved in the Natural History Museum, Florence, Italy and the number after the acronym MZUF indicates their collection number.

Systematics

Family **Parthenopidae** MacLeay, 1838
Subfamily **Parthenopinae** MacLeay, 1838
Genus ***Cryptopodia*** H. Milne-Edwards, 1834

This genus is distributed from the Indian Ocean to the central area of the Pacific Ocean, and thirteen species are known. The carapace is flatten at the edges, fan shaped at the posterior half, wide and triangular shaped at the anterior half. Legs are slender, short, and hidden under the carapace.

Cryptopodia pan Laurie, 1906
(Figure 1A)

Specimens examined: 1 male (MZUF 4287), carapace width: 22.5 mm, Sri Lanka, Trincomalee, -18-27 m, II.1889, leg. K. Fristedt; 1 male (MZUF 4286), carapace width: 15.4 mm, Sri Lanka, Trincomalee, -18-27 m, II.1889, leg. K. Fristedt.

Distribution: from Seychelles to New Caledonia.

Remarks: This species is close to *C. collifer* Flipse, 1930, recorded from Thailand, Philippines and Fiji, but it is distinguishable by the following differences: frontal projection strongly produced distinctly forward and frontal corners somehow angulated at the epibranchial margins. These two male specimens are probably the oldest collected ones amongst all parthenopid specimens.

Genus *Rhinolambrus* A. Milne-Edwards, 1878

There are thirteen species in this genus, and they are distributed from the Indian Ocean to the central area of the Pacific Ocean.

Rhinolambrus pelagicus (Rüppell, 1830)
(Figure 1B)

Specimens examined: 1 male (MZUF 4280), carapace width: 14.4 mm, Somalia, Gesira, sheltered pools, X.1986, leg. M. Vannini; 1 male (MZUF 4282), carapace width: 12.0 mm, Kenya, N of Mombasa, Twiga, XI.1991, leg. M. Vannini; 1 male (MZUF 4283), carapace width: 15.2 mm, Kenya, N of Mombasa, Malindi, XI.1999, leg. S. Cianfanelli; 1 male (MZUF 4281), carapace width: 15.3 mm, Tanzania, S of Dar es Salaam, Ras Dege, X.2005, leg. S. Cannicci; 1 female (MZUF 4285), carapace width: 22.0 mm, India, Paumben, -2-5 m, IV.1889, leg. K. Fristedt; 4 juvenile males, carapace width, respectively: 8.3 mm, 7.4 mm, 5.9 mm, 5.7 mm, 1 juvenile female, carapace width: 6.8 mm (MZUF 4291), Sri Lanka, Trincomalee, -7-11 m, II.1889, leg. K. Fristedt; 1 male (MZUF 4284), carapace width: 31.3 mm, Samoa, Upola, IV.1889, purchased by Pohl.

Distribution: *Somalia, *Kenya, *Tanzania, Madagascar, Red Sea, Sudan, Djibouti, India, Sri Lanka, Andaman Is., Thailand, Indonesia, Malaysia, Singapore, Philippines, Taiwan, Japan, Korea, Caroline Is., Palau, Australia, New Caledonia, Fiji, Samoa.

Remarks: The lectotype of this species was designated on a specimen collected in the Red Sea, and the species is distributed from East off Madagascar through the central area of the Pacific Ocean. With this report, the following new localities are added: Somalia, Kenya and Tanzania.

Rhinolambrus turriger (White, 1847)
(Figure 1C)

Specimen examined: 1 male (MZUF 4289), carapace width: 11.9 mm, Sri Lanka, Trincomalee, -18-27 m, II.1889, leg. K. Fristedt.

Distribution: Mayotte, Seychelles, Maldives, Laccadives, Sri Lanka, Andaman Islands, Philippine, China, Indonesia, Australia and Palau.

Remarks: This specimen is very similar to *Rhinolambrus sisimanensis* (Sérene & Umali, 1972), but differently from this species, the mesobranchial spines are very short (Tan, 2004).

Genus *Aulacolambrus* Paul'son, 1875

This genus consists of eight species widely distributed from the Indian Ocean to the western area of the Pacific Ocean.

Aulacolambrus hoplonotus (Adams & White, 1849)
(Figure 1D)

Specimen examined: 1 female (MZUF 4288), carapace width: 19.1 mm, Sri Lanka, Trincomalee, -7-11 m, II.1889, leg. K. Fristedt.

Distribution: Seychelles, Sri Lanka, Japan, Taiwan, Guam, Hawaiian Island, New Caledonia, Loyalty Island and Fiji.

Genus *Enoplolambrus* A. Milne-Edwards, 1878

This genus consists of seven species distributed from the Indian Ocean to the western Pacific Ocean.

Enoplolambrus cf. *carenotus* (H. Milne Edwards, 1834)
(Figure 1E)

Specimen examined: 1 male (MZUF 4290), carapace width: 16.0 mm, Sri Lanka, Trincomalee, -7-11 m, II.1889, leg. K. Fristedt.

Distribution: Sri Lanka.

Remarks: This specimen is very similar to *Lambrus holdswarthi* Miers, 1879 and *Lambrus (Platylambrus) carenotus* var. *alcocki* Laurie, 1906, and both the species were originally collected from Sri Lanka. Those two species are presently synonyms of *Enoplolambrus carenotus* (H. Milne-Edwards, 1834).

Subfamily **Daldorfiinae** Ng & Rodríguez, 1986
Genus *Daldorfia* Rathbun, 1904

This genus consists of twelve species, most of which are distributed in the Indian Ocean through the western area of the Pacific Ocean. One species, *D. bouvieri* (A. Milne Edwards 1869), is known from the eastern part of the Atlantic Ocean and another one, *D. glasselli* (Garth, 1958), is distributed in the western part of the Atlantic Ocean. Most species are very robust and the carapace of some species are very irregular, rugose or spinose.

This genus includes the largest species of the family Parthenopidae.

Daldorfia spinosissima (A. Milne-Edwards, 1862)
(Figure 2)

Specimen examined: 1 male (MZUF 4292), carapace width: 200.0 mm, Mauritius Is., IV.1875, purchased by L. De Greaux; both fourth legs are missing.

Distribution: Yemen (Socotra Is.), Réunion Is., *Mauritius Is.

Remarks: This specimen was identified by Adolfo Targioni Tozzetti as *Parthenope horrida* and subsequently updated in 1997 by the junior author as *Daldorfia horrida* (Linnaeus, 1758), but, after a more careful examination of the specimen, we identified it as *Daldorfia spinosissima* (A. Milne-Edwards, 1862), according to the revision of Daldorfiinae by Tan & Ng (2007). The type species is a female from Réunion (formerly Bourbon Is.). After that, a pair of specimens has been reported from the Bengal bay by Alcock

(1895), and two male specimens reported respectively from Socotra Is. and Réunion Is. by Tan & Ng (2007). At date, only three males (ranging from 151.3 and 167.2 mm) and a female (165.9 mm) are known. This species was reported from Japan (Sakai, 1976), Bay of Bengal (Alcock, 1895), Philippines (Serène & Umali, 1972) and Indonesia, Ambon (Flipse, 1930), but all these reports are to be considered as large specimens of *D. triangularis* Sakai 1974, as discussed by Tan & Ng (2007).

This specimen is the oldest and largest record for males (and the largest specimen in the Parthenopidae family), moreover it is the first report from Mauritius Is.

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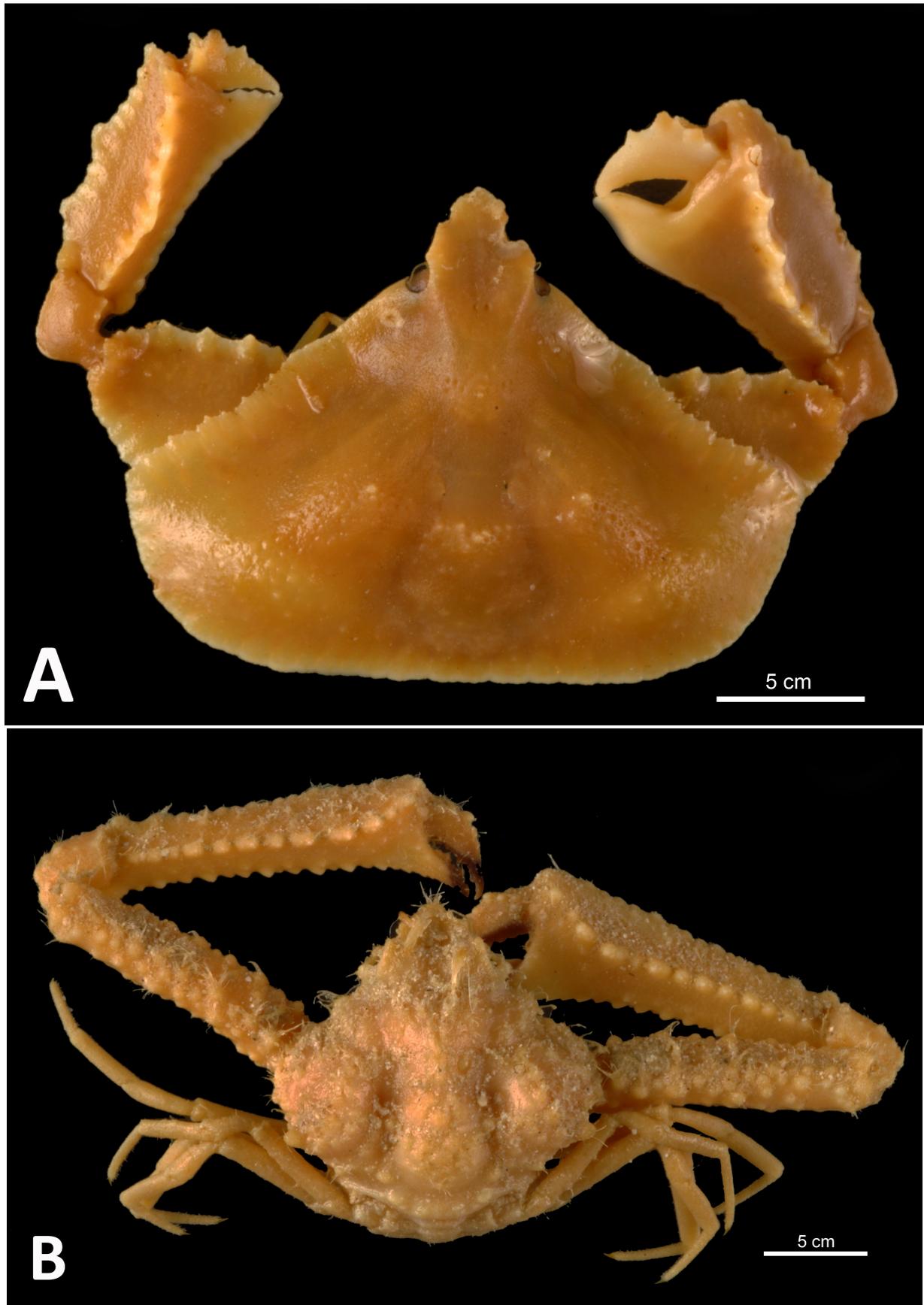


Figure 1. A, *Cryptopodia pan*, 1 male (MZUF 4287), carapace width: 22.5 mm, Sri Lanka, Trincomalee, -18-27 m, II.1889, leg. K. Fristedt. B, *Rhinolambrus pelagicus*, 1 male (MZUF 4282), carapace width: 12.0 mm, Kenya, N of Mombasa, Twiga, XI.1991, leg. M. Vannini.

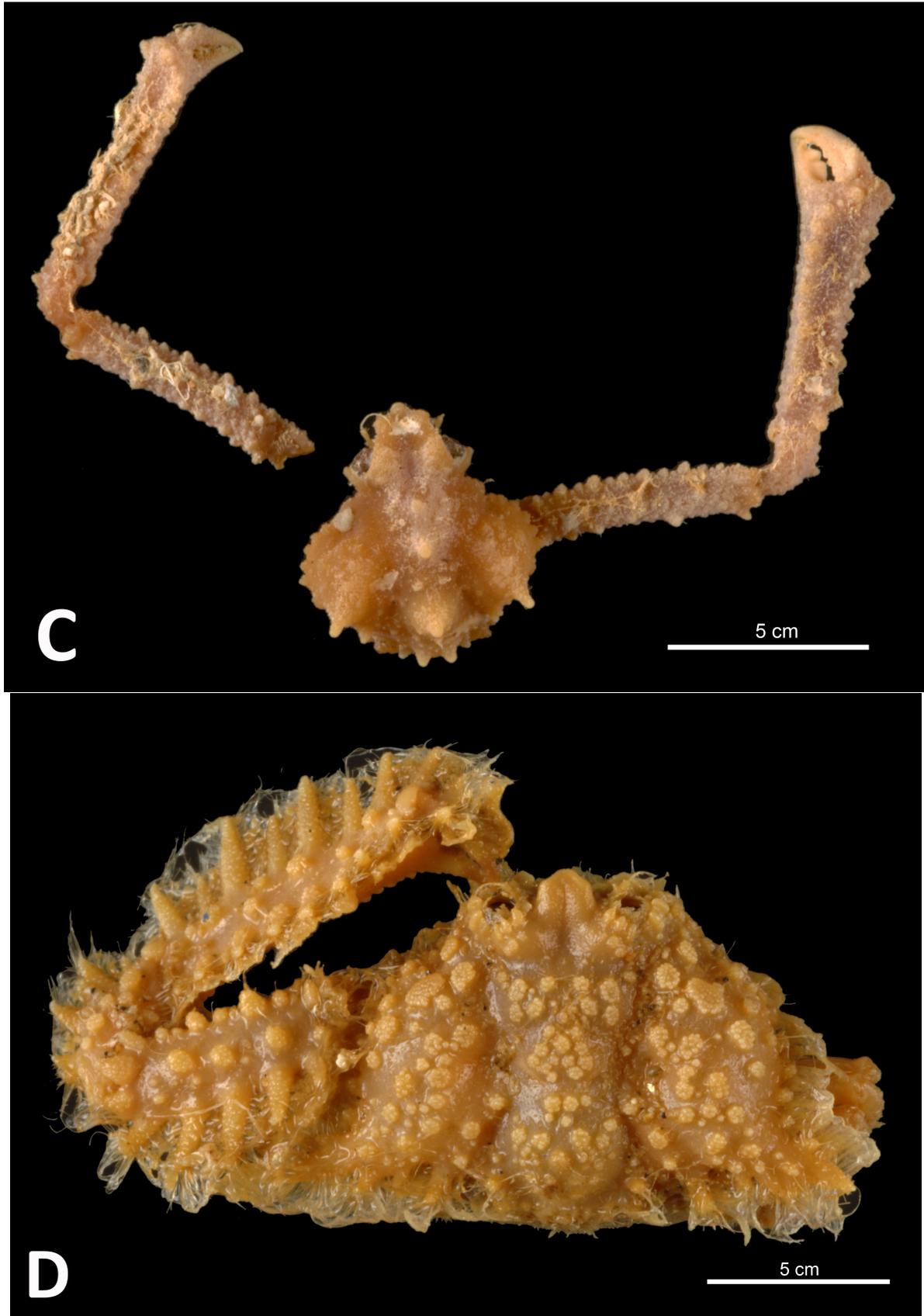


Figure 1 (continue). **C**, *Rhinolambrus turriger*, 1 male (MZUF 4289), carapace width: 11.9 mm, Sri Lanka, Trincomalee, -18-27 m, II.1889, leg. K. Fristedt. **D**, *Aulacolambrus hoplonotus*, 1 female (MZUF 4288), carapace width: 19.1 mm, Sri Lanka, Trincomalee, -7-11 m, II.1889, leg. K. Fristedt



Figure 1 (continue). **E**, *Enoplolambrus* cf. *carenatus*, 1 male (MZUF 4290), carapace width: 16.0 mm, Sri Lanka, Trincomalee, -7-11 m, II.1889, leg. K. Fristedt.



Figure 2. *Daldorfia spinosissima*, 1 male (MZUF 4292), carapace width: 200.0 mm, Mauritius Is., IV.1875, purchased by L. De Greaux.