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(CRUSTACEA, DECAPODA, BRACHYURA)**

*Joseph Poupin, Régis Cleva, Jean-Marie Bouchard,
Vincent Dinhut, and Jacques Dumas*

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This work is dedicated to our friend Alain Crosnier, great contributor for crab sampling in Mayotte region between 1958-1971 and author of several important taxonomic contributions in the region. Photograph February 2006 courtesy of J. -F Dejouannet (photographer unknown) during a coffee break in Paris Museum.

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THE CRABS FROM MAYOTTE ISLAND (CRUSTACEA, DECAPODA, BRACHYURA)

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JEAN-MARIE BOUCHARD³, VINCENT DINHUT⁴ and JACQUES DUMAS⁵

ABSTRACT

A collection of crabs assembled during the KUW 2009 expedition to Mayotte Island and deposited in the Muséum national d'Histoire naturelle Paris is studied. In total 202 species are recognized, 138 of them being new records for the Island and a list of brachyuran crabs is documented and illustrated with photographs. A complementary list of all crabs previously in taxonomic literature from Mayotte and its nearest Islands (Comoros Islands, Glorieuses Islands and marine banks of Zélée, Geysier and Leven) is also provided. In total 298 crabs are identified from the region, the richness of this fauna is discussed with zoogeographic considerations and the prospects for further studies are outlined.

RÉSUMÉ

Une collection de crabes réalisée pendant la mission KUW de 2009 sur l'île de Mayotte et déposée au Muséum national d'Histoire naturelle de Paris est étudiée. Au total 202 espèces sont reconnues, 138 d'entre elles étant de nouveaux signalements pour l'île de Mayotte. Les espèces sont présentées dans une liste documentée et illustrée par des photographies. En complément une liste des crabes déjà signalés dans la littérature taxonomique de Mayotte et îles les plus proches (Iles Comores et Glorieuses ainsi que les banc marins de Zélée, Geysier et Leven) est également proposée. Au total 298 crabes sont identifiés dans cette région. La richesse de cette faune est discutée avec des considérations zoogéographiques et les perspectives pour de nouvelles études dans cette zone.

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INTRODUCTION

This report is the third of a series published in *Atoll Research Bulletin* (ARB) to study the Crustacea (Decapoda) collected during the Kraken Underwater Works C^{ie} (KUW) expedition to Mayotte Island, southwestern Indian Ocean, November 1-21, 2009. This fieldwork was organized by J. -M. Bouchard, head of the KUW C^{ie} in Mayotte, with participation of the École Navale, Brest, and the Muséum national d'Histoire naturelle (MNHN), Paris (Figure 1), and was targeting primarily the Crustacea Decapoda of the Island. Financial support was provided by the DAF (Direction de l'Agriculture et de la Forêt) of Mayotte and *The Total Foundation*.

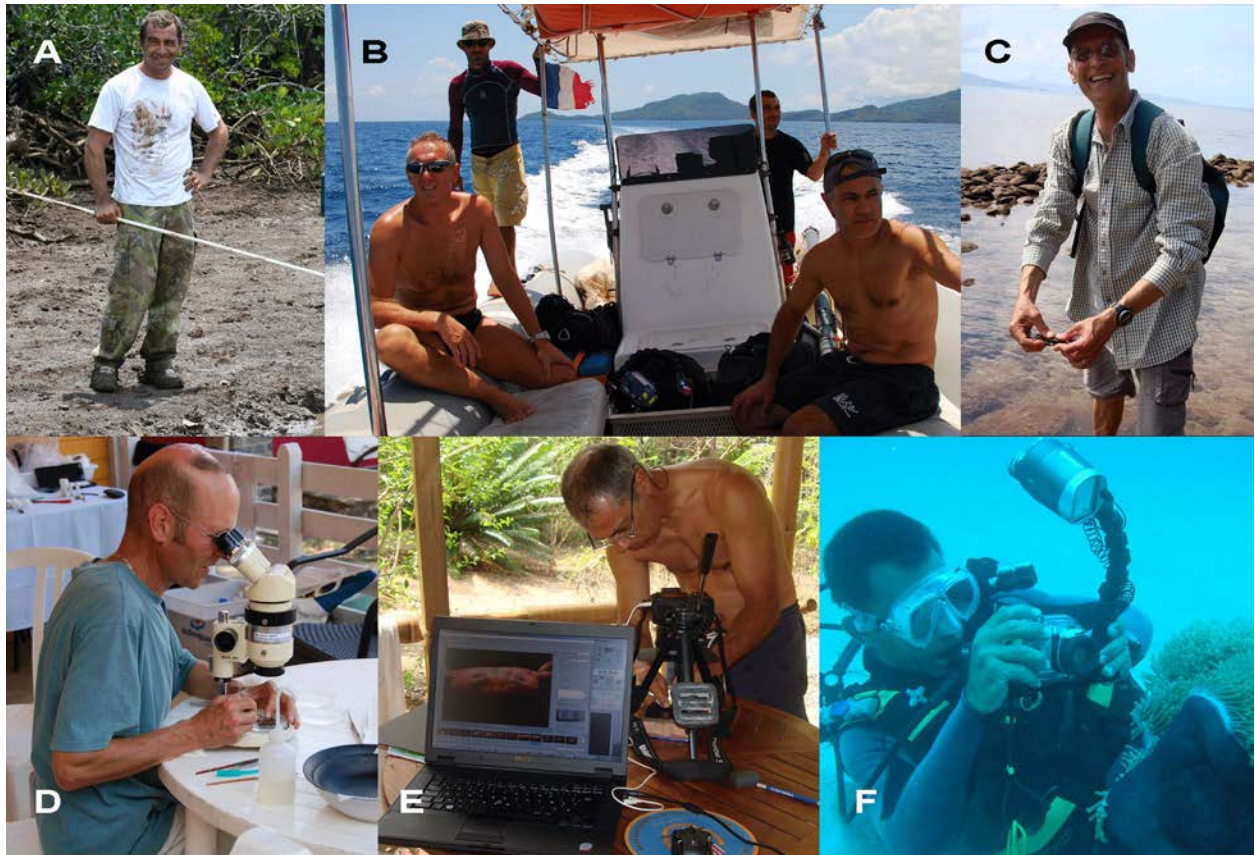


Figure 1. Participants in Mayotte KUW 2009 expedition. **A)** J. -M. Bouchard, mission organizer, collecting fiddler crabs in Malamani mangrove (st. 13); **B)** on Mayotte lagoon going to islet M'tzamboro (st. 20) on the left J. Dumas and V. Dinhut (standing), J. -M. Bouchard, steering the boat, on the right J. Poupin; **C-D)** R. Cleva catching a grapsid crab on Mutsumbatsou reef flat (st. 26) and sorting small specimens with stereoscopic microscope in Trévani bungalow; **E)** J. Poupin, at Ngouja Hotel, taking macrophotographs of a crab *Liomera edwardsi* (st. 27) with computer-aided equipment; **F)** V. Dinhut, photographing the anomuran *Neopetrolisthes* in situ with a giant anemone (st. 14).

The first ARB study (Bouchard et al., 2013) was dedicated to land, mangrove and freshwater Decapoda including caridean shrimps (Atyidae, Palaemonidae), anomuran (Coenobitidae) and brachyuran (Eriphioidea, Portunoidea, Grapsoidea, Ocypodoidea) and can be consulted for more details about the KUW 2009 expedition, including a documented list of the 39 stations from around the island (Figure 3).

The second ARB study (Poupin et al., 2013) was dedicated to the Anomura (Chirostyloidea, Galatheoidea, Hippoidea, Paguroidea) with the list of the species collected in Mayotte being

complemented with previous anomuran records in Mayotte region. This is defined as an area situated between longitudes 43–48° E and latitudes 11–13°10' S and including the nearest islands to Mayotte, *i.e.* Comoros (Grande Comore, Mohéli, Anjouan) and Glorieuses Islands (Grande Glorieuse, Island du Lys) and the marine banks of Zélée, Geyser and Leven (Figures 2, 22). The main biotopes sampled in the littoral and at sea are illustrated in this contribution with a description of sampling techniques including the use of suction pump and brushing of coral blocks during scuba dives in the lagoon.

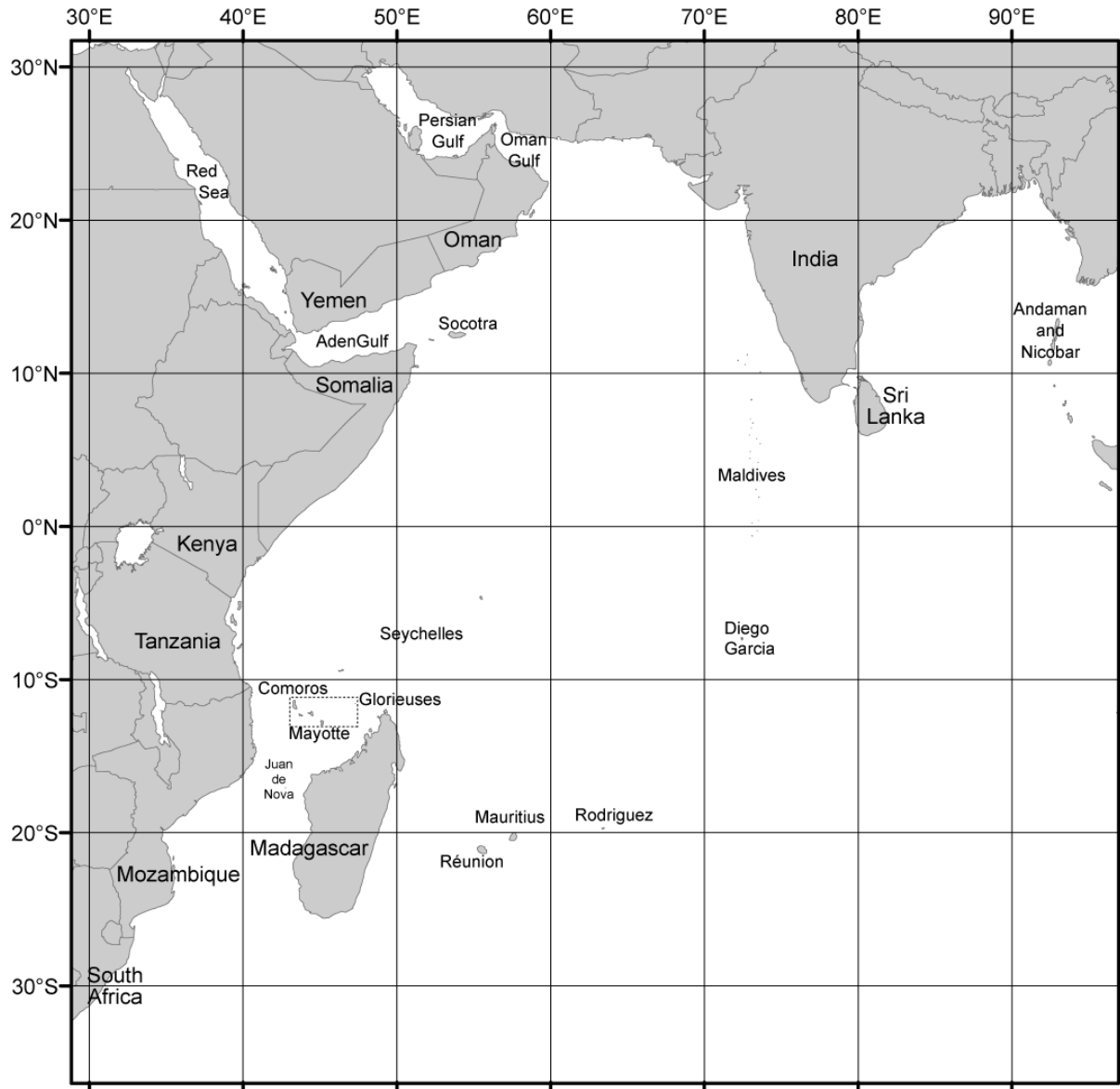


Figure 2. Western Indian Ocean (WIO) with indication of Mayotte region (dotted rectangle).

The Decapoda collected during Mayotte K UW 2009 were all deposited and registered in the MNHN. Some of this material have been also published in taxonomic revisions in others journals, including studies of the shrimps Palaemonoidea (Li et al., 2012); the anomuran Galatheidae (Macpherson and Cleva, 2010), the Paguridae (Komai and Poupin, 2012, 2013), the Porcellanidae (Osawa and Poupin,

2013); and the brachyuran Leucosiidae (Komai and Ng, 2012) and Macrophthalmidae (Poupin and Bouchard, 2010).

This contribution aims to complete the study of the Decapoda K UW 2009 collection with respect to the brachyuran crabs. Several crabs identifications from the Mayotte K UW collection have been already included in a preliminary list of 239 species by [Poupin \(2010\)](#) as part of the inventory program of the French Service du Patrimoine Naturel, MNHN Paris. This first list, however, was incomplete because not documented and without illustration. The purpose of the present work, therefore, is to improve this first contribution with additional determinations and to document each crab species record with: a) the material examined, with associated MNHN number(s); b) scientific contributions with former records in Mayotte region (if any); c) remarks on systematic (were necessary); d) color photographs of specimens of almost all species collected during K UW 2009; e) and geographic and deep ranges.

A few historical landmarks for collection and study of crabs in Mayotte region are given before the documented list. The list is followed by a discussion about the richness of this fauna, the zoogeography of the species, several taxonomic issues, and the prospects for further studies in Mayotte region, especially for the deepwater fauna.

METHODS

Abbreviations and acronyms

ARB, Atoll Research Bulletin; **BIORECIE**, French research program 2011-2013 ‘*Biodiversité, ressources et conservation des récifs coralliens dans le SO Océan Indien, Iles Eparses*’; **CL**, carapace length; **CW**, carapace width; **det.**, determined by; **G1-G2**, Male gonopods 1 and 2; **IO**, Indian Ocean; **FLMNH**, Florida Museum of Natural History, Gainesville; **IP**, Indo-Pacific; **IWP**, Indo-West Pacific; **juv.**, juvenile; **K UW**, Kraken Underwater Works C^{ie}; **MNHN**, Muséum national d’Histoire naturelle, Paris; **NHM**, Natural History Museum, London; **ov.**, ovigerous; **pers. comm.**, personal communication; **s.l.**, *sensu lato*; **sp./spp.**, specimen/s; **st.**, station; **RMNH**, Rijksmuseum van Natuurlijke Historie, Leiden; **UFID**, University of Florida, identification number; **WA**, Western Atlantic; **WIO**, Western Indian Ocean.

Sampling method and photographs

The coordinates together a short description of the stations prospected (Figure 3) during Mayotte K UW 2009 can be consulted in Bouchard et al. (2013). The description of marine biotopes visited and sampling techniques used in the intertidal and at sea are provided by Poupin et al. (2013). In the lagoon scuba dives were made between 1-35m. Species were collected by hand, by brushing corals or rocks, by using sediment suction pump, and by setting traps in some stations (st. 7, 16, 22, 30) between 3-32m, targeting specifically the swimming crabs (Figure 4).

Macrophotographs of fresh species have been made, some such as *Liomera edwardsi*, *L. guttata* and *Platypodia morini*, being presented herein with their live color for the first time. Additional photographs have been made during the process of registration and determination, the live color being more or less faded in these cases. Only selected photographs are presented in this contribution but many of the additional photos (~ 660) are available online in two dedicated databases, one in French ([Poupin et al., 2012](#); no longer updated after 2012) and one in English ([Legall and Poupin, 2018](#); still updated in 2018).

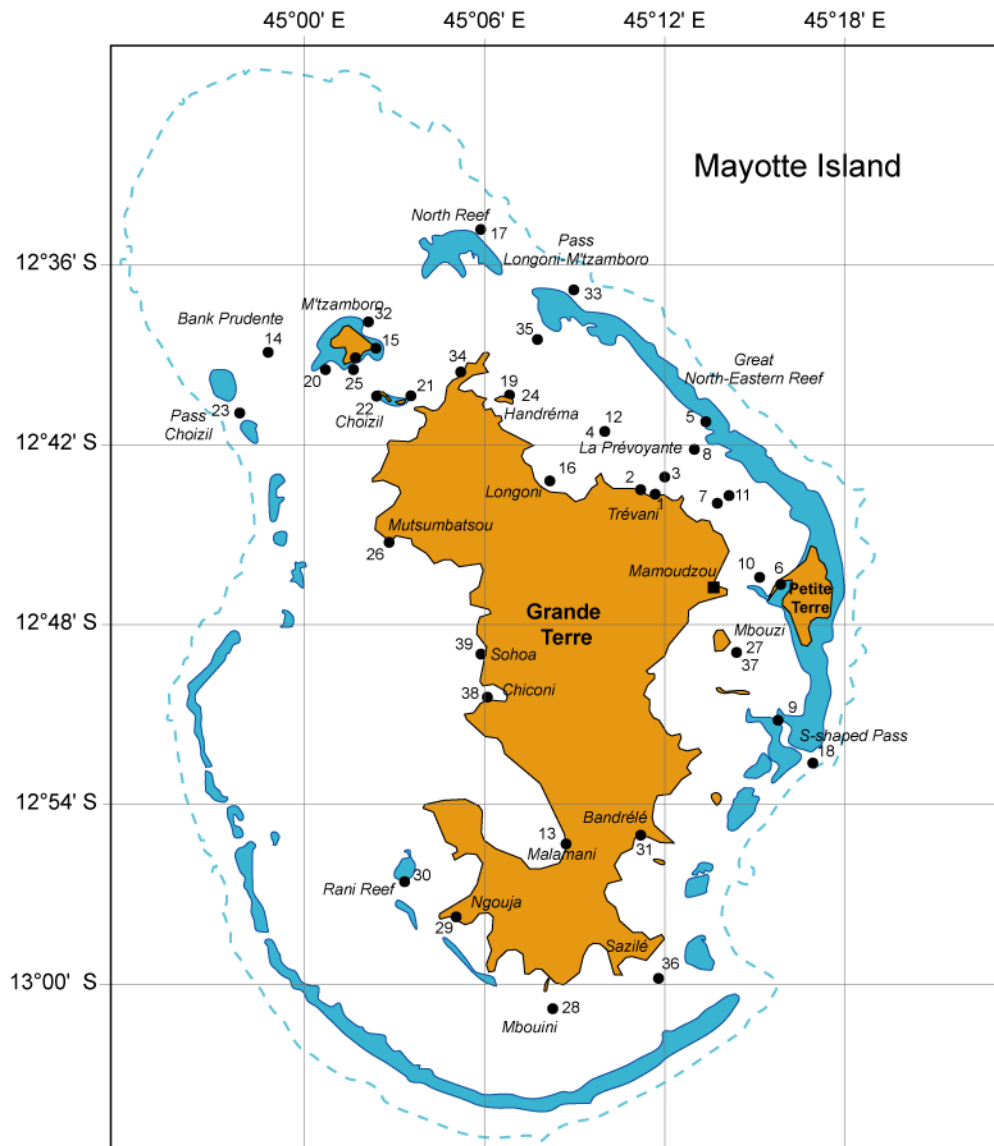


Figure 3. Map of Mayotte Island with sampling stations 1-39 (black dots) during Mayotte KUV 2009 expedition (from Bouchard et al., 2013; to be consulted for the documented list of the stations).



Figure 4. Traps set in Mayotte lagoon to catch swimming crabs (Portunidae). Left - Vincent Dinhut setting the traps. Right - two traps lying in the lagoon at st. 7, 32m, near ‘Kongo Cardinal Buoy’.

A few Mayotte collections and observations (~ 20 spp.) made in May-June 2008 by Arthur Anker and François Michonneau, during a stay sponsored by the Florida Museum of Natural History, are added to the KUW 2009 observations. This collection is deposited in FLMNH Gainesville (at [FLMNH, 2018](#) - search tool using Order=Decapoda, County=Mayotte Island).

Measurement of the crabs

The size of crabs is expressed as the largest length (CL)×width (CW) of carapace in millimeters. When long rostrum or lateral spines are present, two measures are sometimes presented (with and without rostrum/lateral spines). Due to large variations in size of species examined specimens illustrated herein cannot be presented at scale on the figures. The size of each specimen, however, is always indicated in captions of figures. Attention is drawn to the fact that many species are small, a point that is sometimes overlooked when inspecting macrophotographs of different sized species (Figure 5).

Determinations

The crabs have been mostly determined by J. Poupin, between 2009 and 2017, with participation of J. -M. Bouchard and R. Cleva at the beginning of the study (2009-2010) and appreciated help of the following carcinologists for a few taxa: P. Castro (Trapeziidae), D. Guinot (Dromiidae, Majidae, Parthenopidae), R. Naderloo (Sesarmidae), and P. K. L. Ng (Leucosiidae, Pilumnidae, Planopilumnidae).

Registration of the collection

All the Decapoda collected during Mayotte KUW 2009 expedition have been deposited and registered in the collections of the invertebrate department of the MNHN. Just after the expedition (2009- early 2010), the samples were registered by using handwritten catalog of the Muséum, with numbers such as MNHN B32282. From late 2010, the registration has been computerized with samples registered a second time by using numbers such as MNHN-IU-2009-1100. This explains why most of the samples have two numbers in the MATERIAL EXAMINED section, such as MNHN B32282, MNHN-IU-2009-1100. The last part of the new MNHN number (e.g. 2009-1100) can be used in the field ‘Catalog number’ in the online catalog of Paris Muséum ([MNHN-Collection, 2018](#)) to retrieve the information for each sample (specimens, collectors, geographic coordinates ...).



Figure 5. The importance of size measurements. The largest crab collected during the fieldwork, *Scylla serrata* (♂ 93.6×140 mm) is illustrated on scale with a few much smaller species, from left to right above the scale bar (140 mm): *Kabutos durandi* (♀ ov. 2.84×4.23 mm), *Nucia speciosa* (♀ 4×5 mm), *Chaenostoma lisae* (♀ ov. 3.85×5.1 mm), *Thyrolambrus efflorescens* (♂ 8×12 mm) and *Lydia annulipes* (♂ 12.4×19 mm). Sizes of specimens photographed are always indicated in the captions of the figures but the species are not presented at scale.

Geographic distribution and depth ranges

The information on geographic distribution is limited to the western (northernmost to southernmost) and eastern Indo-Pacific (IP) boundaries, for example ‘Red Sea, South Africa to Japan, Hawaii, French Polynesia’, Mayotte being indicated only when this is a first record for this Island. The main contributions used to check the geographic distributions and depth ranges are, in alphabetical order: Castro (2011; Hawaii), Davie (2002; Australia), Emmerson (2016; South Africa), [Legall and Poupin \(2018; IP](#), including a few unpublished records), Paulay et al. (2003; Guam), Sakai (2004; IWP), Serène (1984; IWP).

HISTORICAL LANDMARKS

This attempt to reconstitute the historical records of crab collections in Mayotte region is based on the information given about collector(s) in the literature consulted. This information is often missing or limited to a place, name of collector(s), and date of collection. Many small contributions cannot be reported because of the scarcity of information, but a few main events are nonetheless identified herein (Figure 20).

The first crabs collected from Mayotte were four Portunidae (*Charybdis feriata*, *C. natator*, *Scylla serrata*, and *Thalamita prymna*), in 1864 by F.P.L. Pollen and D.C. Van Dam during their ‘*Recherches sur la Faune de Madagascar et des ses dépendances*’ and reported in Hoffmann (1874). A narration of this expedition is given by Pollen (1868) and the collection deposited in RMNH Leyden Museum (see Bouchard et al., 2013).

In ca. 1880, a collection of forty or so crabs was made in Mayotte by Ed. Marie, ‘*sous-commissaire*’ of the French Navy, and deposited in MNHN. Guinot (1957) indicates that his collection included only one new Portunidae, that she described and named after Ed. Marie (*Portunus mariei*), and 24 xanthid crabs that are reported in Guinot (1958a-c). It seems that his collection from Mayotte includes a few more specimens other than those described by Guinot (1957, 1958a-c) Castro (1999a) examined additional crabs collected by Ed. Marie from Mayotte (e.g. *Trapezia guttata*, *Tetralia rubridactyla*).

In 1882 H.M.S. *Alert* put in near Mayotte in the Glorieuses Islands with five crabs, *Eriphia sebana*, *E. smithii*, *Thalamita sima*, *Trapezia cymodoce*, and *T. rufopunctata*, reported from this voyage by Miers (1884).

From 1903-1905, during his travels to East Africa, the German zoologist Alfred Voeltzkow has collected several crabs in Mayotte and Comoros Islands, namely *Actaeodes tomentosus*, *Epixanthus frontalis*, *Sesarmops impressus*, and *Varuna litterata*. These were all reported by Lenz (1910) in his contribution on the ‘*Crustaceen von Madagaskar, Ostafrika und Ceylon*’.

Between 1914-1955, there were few sporadic collections from Mayotte deposited in various museums: United States Museum of Natural History, *Ptychognathus johannae* from Anjouan Island, received in exchange from Berlin Museum (cf. Rathbun, 1914); Naturhistorisches Museum, Wien, *Psaumis cavipes* (Odhner, 1925); and MNHN for miscellaneous small collections, collectors being Messrs. Humblot, Millot, and Fourmanoir in Balss (1934), for *Dromidiopsis tridentata*, *Lewindromia unidentata*, *Macromedaeus voeltzkowi*, *Medaeops neglectus*, and in Barnard (1954), for *Libystes nitidus*.

Between 1958 and 1971, an important crab collection has been assembled from Mayotte region by Alain Crosnier, *Centre d’Océanographie et des Pêches (ORSTOM)*, Nosy Be, Madagascar. The collection by Crosnier was mainly undertaken in 1959 from Mayotte during a geomorphologic campaign aboard the R/V ORSTOM II (see Guilcher et al., 1965); other collections were from Anjouan (November 1961) and Glorieuses Islands (September 1958, January 1971). In total at least 80 crabs have been identified from Crosnier’s collections in this region. This collection has been identified for the Portunidae (Crosnier, 1962); Grapsidae and Ocypodidae (Crosnier, 1965); Xanthidae and Trapeziidae (Serène, 1984); and Carpiliidae and Menippidae (Crosnier, 1984). Other references to the crab collection of Crosnier appear more discreetly in Castro (1997, 1998), Clark & Galil (1993), Galil (1997, 2005), Guinot (1958a, 1964b), McLay (1999) and Tan & Ng (2007).

Pascale Chabanet lead the BIORECIE 2 leg to the Glorieuses Islands in December (5–17) 2012 and the Decapoda were identified by J. Poupin. Although completed after Mayotte KUW 2009, the crab inventory was published (Poupin et al., 2013c) with ca. 60 crabs being reported, including 18 new records for the region.

CRABS OF MAYOTTE KUW 2009 EXPEDITION

The taxonomy of the list follows WoRMS (2018) which is based on the following contributions for the Brachyura: list of genera and higher taxa (De Grave et al., 2009) and crabs (Ng et al., 2008). Updates for these core contributions have been integrated as required, for example for the authorship of the nomen Brachyura (Guinot et al., 2013) or new fiddler crabs genera *Uca* sensu lato (Shih et al., 2016). Terrestrial crabs have been previously studied by Bouchard et al. (2013). Their material examined is nonetheless listed again herein, including the new MNHN numbers that were not available in their contribution. References, comments and photos for these species are not repeated as they can be found in Bouchard et al. (2013).

Order Decapoda Latreille, 1802

Infra Order Brachyura Latreille, 1802

Superfamily Dromioidea De Haan, 1833

Family Dromiidae De Haan, 1833

Stebbingdromia plumosa (Lewinsohn, 1984) (Figure 6A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil ‘Patate à Teddy’, 15-30m, 1♂ 4.9×5.2 mm, MNHN-IU-2009-3227.

REMARKS — Determination of this specimen is based on characters given in Guinot and Tavares (2003: 91) including aspect of orbits, ocular peduncles, front, lateral margins of carapace and G2 shorter than G1. The epipods on the chelipeds as indicated by Guinot and Tavares (2003) were not observed but McLay (2001: 843) has recorded that these lateral extensions were mentioned erroneously by Lewinsohn (1984) when describing the species. Danièle Guinot has verified our determination indicating that the G2 is not styliform in this species, a character unique within the Dromiinae used by Števíć (2005) for creating the new Stebbingdromiini tribe.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Seychelles to New Caledonia, Hawaii; shallow subtidal, 15-55m.

Tumidodromia dormia (Linnaeus, 1763) (Figure 6B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef at night, 6-12m, 1♀ 87.5×106 mm, 1♂ 126×160 mm, MNHN-IU-2009-1157.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique, Mayotte (present study) to Hawaii, French Polynesia; subtidal, 8-156m.

Family Dynomenidae Ortmann, 1892

Hirsutodynomena spinosa (Rathbun, 1911) (Figure 6C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, south Islet M'tzamboro, 15-20m, 1♀ 6.7×7.8 mm, MNHN-IU-2009-3226; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ juv. 6.0×6.75 mm, MNHN B32427, MNHN-IU-2009-1189.

OTHER RECORDS — *Hirsutodynomena spinosa* - McLay, 1999: 505, Glorieuses, intertidal, coll. A. Crosnier, 30 January 1971, 1♂ 16.4×14.3 mm, MNHN B 6899.

GEOGRAPHIC AND DEPTH RANGES — IWP, Glorieuses, Madagascar to Japan, French Polynesia; intertidal to 40 m (maximum depth of 40 m from unpublished field observation in French Polynesia, BENTHAUS 2002 campaign, st. DW1984, det. A. Crosnier).

Superfamily Aethroidea Dana, 1851

Family Aethridae Dana, 1851

Aethra edentata Edmondson, 1951 (Figure 6D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, south Islet M'tzamboro, 15-20m, 1♀ 19.4×30.3 mm, MNHN B32402, MNHN-IU-2009-1164.

OTHER RECORDS — Mayotte, 'Buoy n°8 in S-shaped Pass', no specimen only in situ photograph by Matthias Deuss, July 2011, det. J. Poupin based on dentition on chelipeds and lateral margins of carapace almost absent (photos in [Legall and Poupin, 2018](#)).

REMARKS — Following Ng (1999, key) the small specimen examined from Mayotte KUW 2009 is *A. edentata*, having no teeth on lower margin of palms of chelipeds (vs. teeth present in affiliated *A. scruposa*). The aspect of its carapace, almost smooth, matches the photograph of *A. edentata* type specimen in Ng (1999, fig. 3, a female of comparable size 19.6×30 mm). *Aethra edentata* and *A. scruposa* are close species, the former sometimes considered as a subspecies of the latter. Examination of series of specimens comprising different sizes would be useful to confirm the status of *A. edentata*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study, first record in IO) to Hawaii, French Polynesia; 1-106m.

Aethra scruposa (Linnaeus, 1764) (Figure 6E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, North Reef, 22m, 1♂ 55.5×79.8 mm, MNHN B32401, MNHN-IU-2009-1163.

REMARKS — *Aethra seychellensis* Takeda, 1975 from Seychelles cannot be confused with *A. scruposa* because of its characteristic gastric projection (high, sublamelliform, posteriorly directed) and by the aspect of its posterolateral margins of carapace (strongly upturned).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Réunion, Mauritius to Japan, Cook Islands; 1-200m. This species is sometimes reported from East Africa (e.g. Sakai, 2004), perhaps from the list by Guinot (1967b: 299). No confirmed records of this species from the African coast, however, were retrieved during this study. The present record from Mayotte, therefore, is perhaps the westernmost IWP limit for this crab.

Superfamily Calappoidea De Haan, 1833

Family Calappidae De Haan, 1833

Calappa gallus (Herbst, 1803)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil 'Patate à Teddy', 15-30m, only remains of carapace (not retained in MNHN collection), field det. J. Poupin.

OTHER RECORDS — *Calappa gallus* - Galil, 1997: 293, Glorieuses, intertidal, 30 January 1971, coll. A. Crosnier, 1♀ 24.6 mm, MNHN.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal to 216m.

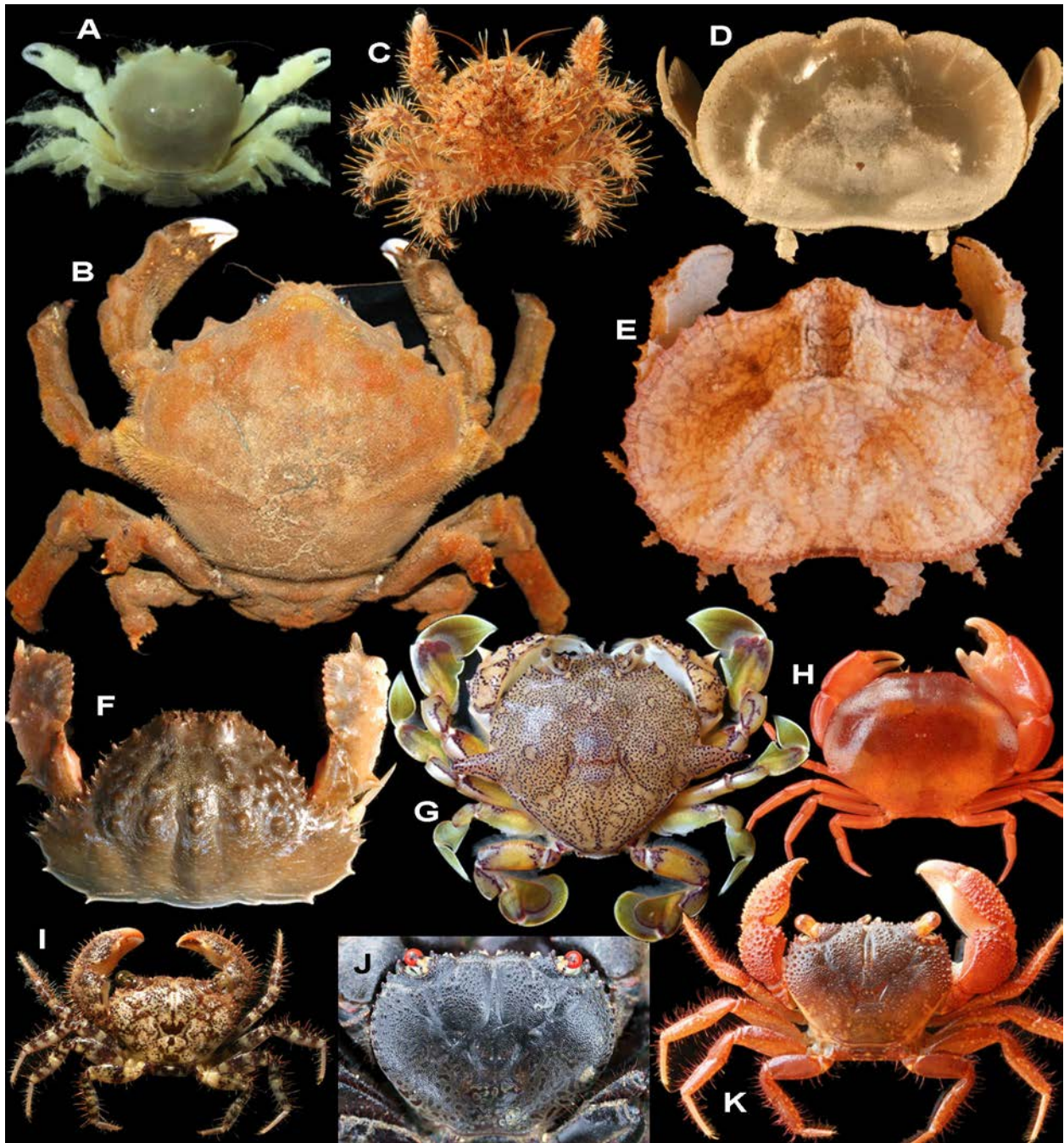


Figure 6. Crabs from Mayotte KUW 2009. **Dromioidea** - **A)** *Stebbingdromia plumosa* 1♂ 4.9×5.2 mm, MNHN-IU-2009-3227 (preserved); **B)** *Tumidodromia dormia* 1♀ 87.5×106 mm, MNHN-IU-2009-1157; **C)** *Hirsutodynomene spinosa*, 1♀ juv. 6.0×6.75 mm, MNHN-IU-2009-1189. **Aethroidea** - **D)** *Aethra edentata*, 1♀ 19.4×30.3 mm, MNHN-IU-2009-1164 (preserved); **E)** *A. scruposa*, 1♂ 55.5×79.8 mm, MNHN-IU-2009-1163. **Calappoidea** - **F)** *Calappa hepatica*, 1♂ 20.7×22.6 mm, MNHN-IU-2009-1077 (preserved); **G)** *Matuta victor* 1♂ 23.5×36.0 mm (with lateral spines) MNHN-IU-2009-1170. **Carpilioidea** - **H)** *Carpilius convexus*, 1♂ 12×16.5 mm, MNHN-IU-2009-1106. **Eriphiidae** - **I)** *Eriphia scabricula*, 1♂ 9.5×14 mm, MNHN-IU-2009-1213; **J)** *E. sebana*, sp. not collected, size about 33×45 mm, Petite Terre 'Déversoir Badamiers'; **K)** *Eriphia smithi*, 1♂ 14.6×19.4 mm, MNHN-IU-2009-1177.

***Calappa hepatica* (Linnaeus, 1758)** (Figure 6F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil ‘*Patate à Teddy*’, 15-30m, carapace only, not retained in collection; coll. J. -M. Bouchard, V. Dinhut scuba dive December 2009, mud bottom harbor, Mamoudzou, 7-8m, 1♂ 20.7×22.6 mm, 1 juv., MNHN B32259, MNHN-IU-2009-1077.

OTHER RECORDS — *Calappa hepatica* - Galil, 1997: 297, Glorieuses, intertidal, 30 January 1971, coll. A. Crosnier, 1♂ 22.8 mm, MNHN.

REMARKS — The largest specimen examined (♂ 20.7×22.6 mm) has a carapace length/width ratio of 1.63 instead of 1.4 in the affiliated *C. woodmasoni*, a species also present in Mayotte (see Appendix).

Mayotte specimens of *C. hepatica* belong to the ‘spiniform teeth form’ formerly reported as a separate species, *Calappa spinosissima* H. Milne Edwards, 1837. This species is now treated as a junior synonym of *C. hepatica* because of large variation of the ‘spiniform teeth’ observed in series of specimens (see remarks in Galil, 1997: 299).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia, and Clipperton; intertidal to 150 m; introduced to the Mediterranean Sea (Galil et al., 2018).

Family Matutidae De Haan, 1835

***Matuta victor* (Fabricius, 1781)** (Figure 6G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 1, beach, Trévani, buried in sand 0.5m, 1♂ 23.5×36.0 mm (with lateral spines), MNHN B32408, MNHN-IU-2009-1170; coll. J. -M. Bouchard, 1 July 2009, 1♀ 27.3×30 mm, 1 juv., MNHN B32406, MNHN-IU-2009-1168; coll. J. -M. Bouchard 2006-2009, 1♂ 27.6×28.5 mm (without lateral spines), MNHN B32407, MNHN-IU-2009-1169.

OTHER RECORDS — *Matuta victor* - Galil and Clark, 1994: 39, Mayotte, coll. R. von Hentig, July 1972, 1♂, RMNH D29256.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to French Polynesia (report in French Polynesia documented in [Legall and Poupin, 2018](#)); intertidal to shallow subtidal.

Superfamily Carpilioidea Ortmann, 1893

Family Carpiliidae Ortmann, 1893

***Carpilius convexus* (Forskål, 1775)** (Figure 6H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil ‘*Patate à Teddy*’, 15-30m, 1♂ 12×16.5 mm, MNHN B32288, MNHN-IU-2009-1106 (also several carapaces, not retained in the collection).

OTHER RECORDS — *Carpilius convexus* - Crosnier, 1984: 302, Glorieuses. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St6, S-shaped Pass, UFID 13682. - Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Clipperton, Easter Island; intertidal to 95 m (95 m from unpublished field observation in French Polynesia, BENTHAUS 2002 Expedition, st. CAS1976, Arago Bank, 90-95 m).

Superfamily Eriphioidea MacLeay, 1838

Family Eriphiidae MacLeay, 1838

***Eriphia scabricula* Dana, 1852** (Figure 6I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, 1♂ 9.5×14 mm, MNHN B32451, MNHN-IU-2009-1213; st. 10, east Islet ‘*Quatre frères, Vatou*’, intertidal, 1♂, 1♀, MNHN B32452, MNHN-IU-2009-1214; st. 26, Mutsumbatsou reef flat, intertidal, 1♂ 15.3×21.4 mm, perhaps also 1♀ juv., MNHN B32450, MNHN-IU-2009-1212.

OTHER RECORDS — *Eriphia scabricula* - Crosnier, 1984: 311, Anjouan, Mayotte, Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, French Polynesia; intertidal to subtidal.

***Eriphia sebana* (Shaw and Nodder, 1803)** (Figure 6J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2 field observation, no specimen; st. 6 photograph only, specimen not collected (size about 33×45 mm); st. 26, Mutsumbatsou reef flat, intertidal, 1♂ 43×55 mm, MNHN B32405, MNHN-IU-2009-1167.

OTHER RECORDS — *Eriphia laevimana* - Miers, 1884: 534, Glorieuses / *Eriphia laevimana* Guérin, 1829 accepted as *E. sebana* in WoRMS (2018). - *Eriphia sebana* - Guinot, 1967b: 271, list with Glorieuses. - Crosnier, 1984: 311, Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, South Africa to Hawaii, French Polynesia; intertidal to subtidal.

***Eriphia smithii* MacLeay, 1838** (Figure 6K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, littoral, between Trévani beach and Kangani Mangrove, 1♂ 34.2×44.5 mm, MNHN B32413, MNHN-IU-2009-1175; st. 26, Mutsumbatsou reef flat, 1♂ 14.6×19.4 mm, MNHN B32415, MNHN-IU-2009-1177; st. 26b, Mutsumbatsou reef flat, coll. J. -M. Bouchard, 3 August 2008, 1♀ ov. 25×33 mm, MNHN B32414, MNHN-IU-2009-1176.

OTHER RECORDS — *Eriphia laevimanus* var. *smithii* - Miers, 1884: 535, Glorieuses. - *Eriphia smithi* - Guinot, 1967b: 271, list with Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — *Eriphia smithii* resembles *E. sebana* but can be separated by the aspect of the outer face of the chela: tubercles in *E. smithii* (vs. smooth in *E. sebana* and in live specimens the eyes of *E. smithii* are pale yellow (vs. bright red in *E. sebana*). For a revision of *Eriphia* see Koh and Ng (2008) for more characters to recognize these two species.

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, South Africa to Seychelles, Madagascar; intertidal to subtidal.

Family Oziidae Dana, 1851

***Epixanthus corrosus* A. Milne-Edwards, 1873** (Figure 7A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, east Islet ‘*Quatre frères, Vatou*’, intertidal, 2♂♂ 5.4×9.6 mm, 9.7×16 mm, MNHN B32435, MNHN-IU-2009-1197; st. 26, Mutsumbatsou reef flat, intertidal, low tide, 1♂ 8.2×14.2 mm, MNHN B32436, MNHN-IU-2009-1198.

OTHER RECORDS — *Epixanthus corrosus* - Guinot, 1958c: 276, Mayotte, 1♀ 6×4 mm MNHN. - Guinot, 1967b: 270, list with Mayotte. - Crosnier, 1984: 307, Mayotte.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte to Japan, New Caledonia; intertidal to subtidal.

***Epixanthus dentatus* (White, 1848)** (Figure 7B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 13, Malamani mangrove, 1♂ 17.8×29 mm, MNHN B32465, MNHN-IU-2009-1227.

REMARKS — This species has already been presented in the mangrove species for Mayotte published in Bouchard et al. (2013: 14).

GEOGRAPHIC AND DEPTH RANGES — IWP, Kenya, Mayotte (present study) to Japan, Fiji; intertidal, subtidal.

***Epixanthus frontalis* (H. Milne Edwards, 1834)** (Figure 7C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, 1♂ 12.6×20.7 mm, MNHN B32461, MNHN-IU-2009-1223, 1♂, 2♀♀, MNHN B32460, MNHN-IU-2009-1222; st. 10, 1♀ 11.1×18.4 mm, MNHN-IU-2009-2599; st. 26, 1♂ 14.5×23 mm, 1♀ juv. 9.0×14.3 mm, MNHN-IU-2009-2600; st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 1♀ 17.8×30.6 mm, MNHN B32462, MNHN-IU-2009-1224.

OTHER RECORDS — *Epixanthus frontalis* - Lenz, 1910: 552, Grande Comore. - Guinot, 1958c: 276, Mayotte, 1♀ 8×5 mm MNHN. - Guinot, 1967b: 270, list with Mayotte. - Crosnier, 1984: 307, Mayotte.

REMARKS — In field notes (st. 10, 26) several specimens erroneously indicated as '*Pseudozius caystrus*', corrected into *E. frontalis* after careful re-examination. Although the two species have superficial resemblances they can be easily differentiated by the aspect of male G2: short without distal flagellum, in *P. caystrus* (elongated with a long cross-shaped (or coiled) distal flagellum in *E. frontalis*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, Tuvalu; intertidal, subtidal.

***Eupilumnus calmani* (Balss, 1933)** (Figure 7D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, 1♂ 6.2×8.9 mm, North Reef, 22 m (photo only); st. 23, Pass Choizil '*Patate à Teddy*', 15-30m, 1♂ 9.7×12 mm, 3♂♂ 5.7×6.9 to 7.5×8.5 mm, 1♀ 10.9×13.5 mm, MNHN-IU-2013-7223; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ 6.4×7.7 mm, MNHN-IU-2013-7224.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — In field notes these specimens were erroneously identified as '*Pilodius cf. flavus*', corrected into *Eupilumnus calmani* after careful examination. Description and figures for *E. calmani* (including male G1/G2) are in Guinot-Dumortier (1960). It is affiliated to *E. actumnoides* (A. Milne-Edwards, 1873) from the western Pacific (Japan, Papua New Guinea, New Caledonia, Samoa, Kiribati, Australia). Guinot-Dumortier (1960) has indicated several differences between the two species including: a) the aspect of anterolateral spines on the carapace, sharp and long in *E. calmani* (vs. reduced in *E. actumnoides*); b) a stridulating apparatus on P2 merus and cheliped (see Guinot-Dumortier, 1960: 113, fig. 11) in *E. calmani* (vs. absent in *E. actumnoides*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Tanzania to China Sea, French Polynesia; intertidal to 174m. Distribution extended herein to French Polynesia from specimen collected in the Tuamotu (Mataiva) determined in Moorea CRIOBE collection in 2014 by J. Poupin (photos in [Legall and Poupin, 2018](#)).

***Lydia annulipes* (H. Milne Edwards, 1834)** (Figure 7E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, 1♂ 12.4×19 mm, MNHN B32468, MNHN-IU-2009-1230.

OTHER RECORDS — *Lydia annulipes* - Crosnier, 1984: 309, Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — Crosnier (1984: 309) has indicated that this species can be confused with *Lydia tenax* (Rüppell, 1830) and has given a few characters useful to separate both species with this comment '*La distinction de ces deux espèces n'est pas évidente et ce d'autant plus que, dans le genre Lydia, les spécimens d'une même espèce semblent présenter des variations individuelles importantes de la granulation des chélipèdes ainsi que de la granulation et du relief de la carapace*'. GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania, South Africa to Hawaii, French Polynesia; intertidal.



Figure 7. Crabs from Mayotte KUW 2009. **Oziidae** - **A**) *Epixanthus corrosus*, probably 1♂ 9.7×16 mm, MNHN-IU-2009-1197 (?or 1♂ 8.2×14.2 mm, MNHN-IU-2009-1198); **B**) *E. dentatus*, 1♂ 17.8×29 mm, MNHN-IU-2009-1227; **C**) *E. frontalis*, 1♂ 12.6×20.7 mm, MNHN-IU-2009-1223; **D**) *Eupilumnus calmani*, 1♂ 9.7×12 mm, st. 23, MNHN-IU-2013-7223; **E**) *Lydia annulipes*, 1♂ 12.4×19 mm, MNHN-IU-2009-1230; **F**) *Ozius rugulosus*, 1♀ 25×38 mm, MNHN-IU-2009-1180. **Acidopsidae** - **G**) ?*Caecopilumnus piroculatus*, 1♀ 5.9×7.9 mm, MNHN-IU-2013-7225; **H**) *Parapilumnus cristimanus*, 1♀ 12.18×14.91 mm, MNHN-IU-2009-1153. **Leucosiidae** - **I**) *Coralliocryptus caementa*, 1♀ 5.4×8.8 mm, MNHN-IU-2009-2127; **J**) ? *Hiplyra elegans*, 1♀ juv. 4.75×4.85 mm, MNHN-IU-2013-7218 (preserved); **K**) *Kabutos durandi*, 1♀ ov. 2.84×4.23 mm, MNHN-IU-2009-2129; **L**) *Nucia speciosa*, 1♀ juv. 4×5 mm, MNHN-IU-2013-7219; **M**) *Oreophorus horridus*, 1♂ 7.0×10.0 mm, MNHN B32264 (preserved); **N**) *Urnalana elata*, 1♀ 7.1×8.4 mm, MNHN-IU-2013-7220.

***Ozius rugulosus* Stimpson, 1858** (Figure 7F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, ‘Déversoir Badamiers’ Petite Terre, 1♀ 25×38 mm, MNHN B32418, MNHN-IU-2009-1180; st. 10, east Islet ‘Quatre frères, Vatou’, intertidal, 1♀, MNHN B32420, MNHN-IU-2009-1182; st. 29, beach, Mboianatsa, Ngouja Hotel, 1♂ 14×21.5 mm, 2♀♀ 25×37 mm, 27×42 mm, MNHN B32419, MNHN-IU-2009-1181.

OTHER RECORDS — *Ozius rugulosus* - Crosnier, 1984: 305, Mayotte. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St7, Ngouja Reef, UFID 136631.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Kenya to Japan, French Polynesia; intertidal.

Superfamily Goneplacoidea MacLeay, 1838

Family Acidopsidae Števcíć, 2005

?*Caecopilumnus piroculatus* (Rathbun, 1911) (Figure 7G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 19, north Islet Handréma, 6-10m, 1♀ 5.9×7.9 mm, MNHN-IU-2013-7225.

REMARKS — This specimen has been tentatively determined by using photos and description in Rathbun (1911). *Caecopilumnus piroculatus* has been described from three females (1 adult, 2 juv.) collected in the Seychelles (Amirantes) not far from Mayotte. Present determination is made with hesitation because no comparative specimens were examined. Some records of *C. piroculatus* from South Africa (Barnard, 1955) and Indonesia (Serène, 1964) have been assigned by Ng (1987) and Ng et al. (2008: 76) to *Raoulia limosa* Ng, 1987 based on the aspect of male abdomen with segments 3-5 fused in *R. limosa* (vs. segments 3-5 free in *C. piroculatus*). Unfortunately the specimen from Mayotte being a female this character cannot be verified herein.

GEOGRAPHIC AND DEPTH RANGES — IWP, ?Mayotte (present study), Seychelles to Philippines, ?Kiribati (Gilbert Islands); 6-65m.

***Parapilumnus cristimanus* (A. Milne-Edwards, 1873)** (Figure 7H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil ‘Patate à Teddy’, 15-30m, 1♀ 12.18×14.91 mm, MNHN-B32380, MNHN-IU-2009-1153.

REMARKS — *Parapilumnus oryctos* is a similar species described by Ng (2002) from a single male 10.5×12.3 mm collected in Guam. The most distinct character to separate both species is the ratio width/length of the carapace, being of 1.25-1.33 in *P. cristimanus* (vs. only 1.17 in *P. oryctos*). In Mayotte specimen examined this ratio is 1.22, almost in the range of *P. cristimanus*. Other characters indicated by Ng (2002) to separate both species can be sex and/or size variable and need to be appreciated with larger sets of specimens. Live coloration of *P. cristimanus* (Mayotte) and *P. oryctos* (Guam) are similar suggesting that the latter is perhaps a junior synonym of *P. cristimanus* (color photos of both species are in [Legall and Poupin, 2018](#))

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study) to Palau, Samoa; shallow subtidal to 15-30 m (present study).

Superfamily Leucosioidea Samouelle, 1819

Family Leucosiidae Samouelle, 1819

***Coralliocryptus caementa* Komai and Ng, 2012** (Figure 7I)

MATERIAL EXAMINED (by Komai and Ng) — *Coralliocryptus caementa* Komai and Ng, 2012: 42, Mayotte KUW 2009, st. 14, 09/11/2009, 10h-12h, Bank Prudente, 12°38'50.68"S, 44°58'1.93"E, coll. J. -M. Bouchard, V. Dinhut, J. Dumas, scuba diving 15-17m, sediment suction pump, sandy bottom, coral boulders, 1♀ 5.4×8.8 mm, MNHN-IU-2009-2127; st. 23, 13/11/09, 11h-13h, Pass Choizil

‘Patate à Teddy’, 12°40’56.91”S, 44°57’51.63”E, coll. J. -M. Bouchard, V. Dinhut, J. Dumas, scuba diving 15-30m, collapsed edge reef, 1♀ 5.2×8.3 mm, MNHN-IU-2009-2128.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte to Japan, Vanuatu; 15-35m.

? *Hiplyra elegans* (Gravier, 1920) (Figure 7J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, Mutsumbatsou reef flat, intertidal at low tide, 1♀ juv. 4.75×4.85 mm, MNHN-IU-2013-7218.

REMARK — This small female cannot be identified with confidence by using keys with male characters in Galil (2009) and/or Naderloo and Apel (2012). *Hiplyra elegans* reported from Madagascar (Tuléar and Nosy Bé) is proposed with hesitation based only on resemblance with photograph in Galil (2009, fig. 7). *Hiplyra variegata* (Rüppell, 1830) is similar (*cf.* Galil, 2009, fig. 13A) and common in WIO. This too could be a possible identification for the specimen.

GEOGRAPHIC AND DEPTH RANGES — IO, ?Mayotte (present study), Madagascar to Sri Lanka; intertidal, subtidal.

***Kabutos durandi* (Serène, 1955)** (Figure 7K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-12m, det. P. Ng, 1♀ ov. 2.84×4.23 mm, MNHN-IU-2009-2129; st. 25, south of Islet M'tzamboro, 15-30m, 1♀ ov. 2.7×3.8 mm, det. J. Poupin July 2011, MNHN-IU-2013-7222.

REMARKS — This is a small species with an ovigerous female measuring 2.7×3.8 mm. It was indicated in field notes as ‘*Nucia sp.*’ corrected from photos examination by P. Ng (pers. comm.) as *Kabutos durandi*. The description and illustration of *K. durandi* are given by Komatsu and Ng (2011) with a diagnosis for *Kabutos*.

GEOGRAPHIC AND DEPTH RANGES — Mayotte (present study, first record in IO) to Philippines, Vanuatu; subtidal to 31m.

***Nucia speciosa* Dana, 1852** (Figure 7L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, south Islet M'tzamboro, 15-20m, 1♀ juv. 4×5 mm, MNHN-IU-2013-7219; st. 26, Mutsumbatsou reef flat, intertidal at low tide, 1♀ juv. 4.2×5.1 mm, MNHN-IU-2013-7221.

REMARKS — The carapaces of the specimens examined from Mayotte are more angular (?juvenile character) than typical *Nucia speciosa* and somewhat similar to *Nucia rosea* Nobili, 1906 from French Polynesia (photos of type specimen of *N. rosea* are in [Legall and Poupin, 2018](#) and [MNHN 2018, MNHN-IU-2014-7827](#)). As *Nucia speciosa* is common in IWP and already reported in WIO (Réunion, Mauritius) the specimens from Mayotte are attributed to this species. Characters used to separate *N. speciosa* and *N. rosea* require revision.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study) to Hawaii, French Polynesia; intertidal to subtidal and bathyal, 41-293 m (*cf.* Castro, 2011).

***Oreophorus horridus* Rüppell, 1830** (Figure 7M)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. Lisa Bouchard, intertidal in rubble near the beach in front of the Dzaoudzi Airport restaurant, Petite Terre, 12°47’15.63”S, 45°15’49.85”E, 1♂ 7.0×10.0 mm, MNHN B32264, MNHN-IU-2009-1082.

REMARKS — Specimen determined by using Tan and Ng (1995) and Galil and Innocenti (2002).

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, Kenya to Gulf of Aden, Mayotte (present study); intertidal.

***Urnalana elata* (A. Milne-Edwards, 1873)** (Figure 7N)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 32, northeast Islet M'tzamboro, 6-21m, 1♀ 7.1×8.4 mm, MNHN-IU-2013-7220.

OTHER RECORDS — *Urnalana elata* - Galil, 2005: 16, Mayotte, 47m, coll. A. Crosnier, August 1958, 1♂ CL 6.0 mm, MNHN B18337; 50m, coll. A. Crosnier September 1959, 1 juv., MNHN B18714.

REMARKS — This species is closely allied to *Urnalana elatula* Galil, 2005 from New Caledonia. Galil (2005) indicates that females of the two species are separated by the aspect of the coxa of third maxilliped, smooth in *U. elata* (verified on Mayotte specimen) vs. bearing conical tubercles in *U. elatula*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte to Japan, Marshall Islands, Samoa; intertidal to 50m.

Superfamily Majoidea Samouelle, 1819

Family Epialtidae MacLeay, 1838

***Huenia ?brevifrons* Ward, 1941** (Figure 8A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, North Reef, 22m, 1♂ 7.0×5.6 mm, MNHN B32565, MNHN-IU-2009-1325.

REMARKS — This species is associated with algae *Halimeda* being mimetic of its calcified green segments. The specimen from Mayotte is attributed to *H. brevifrons* with hesitation because it is distinct from typical *H. brevifrons* described by Griffin and Tranter (1986). The front is more rounded, with a small sub-rostral spine, and the legs are cylindrical (not carinated). The Mayotte specimen is similar to the form '*H. aff. brevifrons*' reported by Griffin and Tranter (1986) and also to the photograph of a male from Japan in Takeda et al. (1976), identified as '*H. brevifrons*'.

GEOGRAPHICAL AND DEPTH RANGES — IWP, ?Mayotte (present study, first record in WIO), Laccadives, Maldives to Japan, French Polynesia; subtidal to 22m.

***Huenia grandidierii* A. Milne-Edwards, 1865** (Figure 8B)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. J. -M. Bouchard, V. Dinhut, 31 January ?2009, st. 26, Mutsumbatsou reef flat, intertidal, low tide, 2♂♂ 10.1×5.9 mm, 16.2×10.4 mm, MNHN B32544, MNHN-IU-2009-1304.

REMARKS — This species is probably common in WIO although rarely reported. It has been recently collected in the Mozambique Channel at Europa and Juan de Nova (Poupin et al., 2013b; Poupin, 2016) and Réunion ([Legall and Poupin, 2018](#)). In *Huenia grandidierii*, as in others *Huenia* species, there is a strong sexual dimorphism in shape of carapace. The live coloration observed for Réunion is bright green. *Huenia grandidierii* is similar to *Huenia pacifica* Miers, 1879 distributed from Indonesia to Fiji, French Polynesia and Easter Island. Griffin and Tranter (1986: 84) indicate a few differences between these two species, sometimes considered as synonyms.

GEOGRAPHIC AND DEPTH RANGES — WIO, Somalia, Tanzania to Mayotte (present study), Réunion; intertidal to subtidal.

***Hyastenus uncifer* Calman, 1900** (Figure 8C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12c, La Prévoyante Reef at night, 6-12m, 1♀ 21.6 (with horns)×5.9 mm, MNHN B32558, MNHN-IU-2009-1318; st. 20b, west reef flat, Islet M'tzamboro, 10-15m, 2♂♂ 16.1×5.1 mm, 18.2×5.7 mm, 1♀ 17.6×5.9 mm, MNHN B32559, MNHN-IU-2009-1319; st. 23, Pass Choizil, '*Patate à Teddy*', 15-30m, 1♂ 10.5×3.7 mm, MNHN B32560, MNHN-IU-2009-1320; st. 24, north Islet Handréma, 6-12m, 1♂ 30.5×7.9 mm, MNHN B32561, MNHN-IU-2009-1321; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 20.9×5.9 mm, MNHN B32562, MNHN-IU-2009-1322.

REMARKS — Mayotte specimens have the characteristic long horns of the *Hyastenus* in the ‘*borradailei* group’: *H. borradailei* (Rathbun, 1907), *H. brockii* de Man, 1887, and *H. uncifer*. *Hyastenus uncifer* is distinct because of its long intestinal spine on posterior carapace. *Hyastenus borradailei* has also been reported in the region (Seychelles) by Serène (1977: 48).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mozambique, Mayotte (present study) to Indonesia, Christmas Island; subtidal to 300m.

***Lahaina incerta* (Balss, 1938)** (Figure 8D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, suction pump, North Reef, 22m, 1♂ 8.5×2.8 mm (broken; reduced spines), MNHN B32567, MNHN-IU-2009-1327; st. 25, south Islet M'tzamboro, 15-20m, 1♀ with *Sacculina* 13.9×5.3 mm, MNHN B32568, MNHN-IU-2009-1328.

REMARKS — These specimens have been determined by using key characters and figures in Griffin and Tranter (1986: 159, fig. 52a, d). The most noticeable characters are: a) spines of the carapace with small secondary rose-like spinules, distally; and b) hiatus of the upper orbit (between supraorbital eave and postorbital lobe) oval. A few differences are however observed, perhaps in the range of variation for that species: presence of a minute intercalated spine (not reported for *L. incerta*); dorsal margins of meri of ambulatory legs with 2-3 spines behind the distal spine (a single spine in *H. incerta*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study, first record in IO) to Indonesia, Marshall Islands; subtidal to 45m. This seems to be the first record of that species since Griffin and Tranter (1986).

***Lahaina ovata* Dana, 1851** (Figure 8E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 1♀ ov. 17.7×7.1 mm, MNHN B32556, MNHN-IU-2009-1316; st. 19 north Islet Handréma, 6-12m, 1♀ 13.1×4.9 mm, MNHN B32557, MNHN-IU-2009-1317.

REMARKS — In this species the hiatus between the supraorbital eave and postorbital lobe is rounded with a minute spine in its middle (Griffin, 1974; Rathbun, 1906). This minute spine is not figured on the plate published for the original description (Dana, 1855, pl. 2, fig. 1).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study) to Hawaii, ?French Polynesia; subtidal to 18-161m. Presence in French Polynesia with hesitation in [Legall and Poupin \(2018\)](#) (Marquesas, coll. 2012, AAMP Expedition, st. 21, 20m, Ua Huka, det. J. Poupin, sp. in FLMNH, UFID 030136).

***Menaethiops brevicornis* (A. Milne-Edwards, 1868)** (Figure 8F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, intertidal, reef, Mutsumbatsou, 1♂ 5.8×3.6 mm, MNHN B32569, MNHN-IU-2009-1329.

REMARKS — Rostral horns of the specimen examined are similar to those figured by A. Milne-Edwards (1868, pl. 19, fig. 1) for a male type specimen (8×5 mm) from Madagascar (Cap Sainte-Marie ‘à une assez grande profondeur’). Its male G1, produced distally in two short triangular lobes, is typical of *Menaethiops* species as figured by Barnard (1950, fig. 8), Guinot (1962a, fig. 2), Griffin and Tranter (1986: fig. 18g-h) and Peyrot-Clausade and Serène (1976, pl. VD). *Menaethiops natalensis* Barnard, photographed from Madagascar in Peyrot-Clausade and Serène (1976, pl. IC) is similar but it has a spine on the ocular peduncle, not observed on Mayotte specimen. It would have been interesting to compare the male with more specimens because characters separating *M. brevicornis* (Madagascar, Mayotte) with related species such as *Menaethiops acutifrons* (A. Milne-Edwards, 1868) (Zanzibar) and *Menaethiops bicornis* Alcock, 1895 (Zanzibar, Karachi) are in need of revision as these three species may be synonyms (*cf.* Guinot, 1962a: 4).

GEOGRAPHIC AND DEPTH RANGES — WIO, ?Oman (*cf.* Kazmi, 1997), Mayotte (present study) to Madagascar; intertidal to subtidal.



Figure 8. Crabs from Mayotte KUW 2009. **Epialtidae** (horns/rostrum included in carapace length)- **A)** *Huenia ?brevifrons*, 1♂ 7.0×5.6 mm, MNHN-IU-2009-1325; **B)** *H. grandidierii*, 1♂ 16.2×10.4 mm, MNHN-IU-2009-1304 (preserved, green shade reproduced from live coloration observed at Réunion Island); **C)** *Hyastenus uncifer*, 1♂ 30.5×7.9 mm, MNHN-IU-2009-1321; **D)** *Lahaina incerta*, 1♀ with *Sacculina* 13.9×5.3 mm, MNHN-IU-2009-1328 (preserved); **E)** *Lahaina ovata*, 1♀ ov. 17.7×7.1 mm, MNHN-IU-2009-1316 (preserved); **F)** *Menaethiops brevicornis*, 1♂ 5.8×3.6 mm, MNHN-IU-2009-1329 (preserved); **G)** *M. contiguicornis*, 1♂ 9.3×5.5 mm, MNHN-IU-2009-1311 (preserved); **H)** *M. nodulosus*, 1♂ 3.3×1.9 mm, MNHN-IU-2009-1326 (preserved); **I)** *Menaethiops monoceros*, 1♂ 24.6×14.2 mm, MNHN-IU-2009-1306; **J)** *M. orientalis*, 1♀ ov. 8.8×5.4 mm, MNHN-IU-2009-1307 (preserved, red shade reproduced from live coloration observed at Glorieuses - white bands on legs omitted); **K)** *Tylocarcinus styx*, 1♀ 11.3×5.9 mm, MNHN-IU-2009-1291; **L)** *Xenocarcinus conicus*, 1♀ ov. 29.4×10 mm, MNHN-IU-2009-1156 (preserved). **Inachidae** - **M)** *Oncinopus araneus*, 1♀ 9.9×6.1 mm, MNHN-IU-2009-1324.

***Menaethiops contiguicornis* (Klunzinger, 1906)** (Figure 8G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, ‘Patate à Teddy’, 15-30m, 1♂ 9.3 (with horns)×5.5 mm, MNHN B32551, MNHN-IU-2009-1311; st. 26, intertidal, reef, Mutsumbatsou, 1♀ ov. 7.7×4.6 mm, MNHN B32552, MNHN-IU-2009-1312, coll. J. -M Bouchard, 1♂ broken 14.2×8.9 mm, MNHN B32555, MNHN-IU-2009-1315 (with hesitation *Menaethiops ?sp.*); st. 30, Rani Reef, double barrier, 3-15m, 1♀ ov. 9.25×4.9 mm, MNHN B32553, MNHN-IU-2009-1313; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 5.4 (horns broken)×3.2 mm, MNHN B32554, MNHN-IU-2009-1314 (note - first registration of these specimens in MNHN as *Menaethiops acutifrons*, in error).

REMARKS — Males examined have the typical *Menaethiops* shaped G1, produced distally in two short triangular lobes. They were pre-identified in field notes as *M. cf. acutifrons* but corrected later into *M. contiguicornis* based on a characteristic postorbital lobe in that species, a long blunt spine. A black and white photograph of a specimen from Madagascar, attributed to *M. contiguicornis* with hesitation, is in Peyrot-Clausade and Serène (1976, pl. IB).

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, Mayotte (present study) to ?Madagascar; intertidal, subtidal (6-21 m).

***Menaethiops nodulosus* (Nobili, 1905)** (Figure 8H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, North Reef, 22m, 1♂ 3.3×1.9 mm, 1♀ ov 3.1 (tips of horns broken)×2.1 mm, photo, MNHN B32566, MNHN-IU-2009-1326.

REMARKS — These two specimens were collected with suction pump in fine sediment. Despite of being small they are mature as indicated by an ovigerous female. The male G1 is typical of *Menaethiops*, produced distally in two short triangular lobes. The determination is based on characters and figures in Nobili (1905), Guinot (1962b), and comparison with HD photographs of type specimen in [MNHN-Collection \(2018, MNHN-IU-2014-19858\)](#). The carapace is pyriform, uneven, with noticeable spine on the hepatic lobe; rostral horns are short, moderately divergent, the postorbital lobe is feebly serrated; there is a spine on the ocular peduncle.

GEOGRAPHIC AND DEPTH RANGES — WIO, Persian Gulf, Red Sea to Mayotte (present study), ?Réunion; subtidal to 22m. A specimen from Réunion has also been examined (including male G1) and attributed with hesitation to *M. ?nodulosus* in Poupin et al. (2013d).

***Menaethius monoceros* (Latreille, 1825)** (Figure 8I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6 ‘Déversoir Badamiers’, Petite Terre, 1-3m, 2♂♂ 25×15,2 mm, 24.6×14.2 mm, MNHN B32546, MNHN-IU-2009-1306, 1♀ 12 (rostrum broken)×7.6 mm, MNHN B32545, MNHN-IU-2009-1305.

REMARKS — The male G1 of a *Menaethius monoceros* specimen from Tahiti is figured in Forest and Guinot (1961: 14, fig. 9a, b), is the same as in male specimens examined from Mayotte. Griffin and Tranter (1986) have indicated that species of *Menaethius* and *Huenia* are morphologically close which is confirmed herein for specimens of *M. monoceros* and *H. grandidierii* collected during Mayotte KUW 2009. *Menaethius monoceros*, however, is distinguished from *H. grandidierii* by: a) ventral margin of P2 propodus with a distal tuft of setae, without tubercle (vs. tubercle present in *H. grandidierii*); b) branchial lateral margin of the carapace lobulated (vs. more straight in *H. grandidierii*), and c) shape of carapace similar in both sexes (vs. different in ♂ and ♀ in *Huenia spp.*). Live coloration and ecology are also distinct for the two species: brown and free living on the bottom overlapped with camouflage algae for *M. monoceros* (in situ photo for Mayotte by M. Deuss in [Legall and Poupin, 2018](#)); and bright green and probably always associated (and camouflaged) in algae *Halimeda*, for *H. grandidierii*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; Intertidal, shallow subtidal to 83m.

***Menaethius orientalis* (Sakai, 1969)** (Figure 8J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 2♀ 4.9×3.7 mm, 7.3(rostrum broken)×4.7 mm, 2♀ ov. 7.8×4.9 mm, 8.8×5.4 mm, MNHN B32547, MNHN-IU-2009-1307; st. 17, North Reef, 22m, 1♂ 3.5×2.0 mm, 1♀ ov. 7.3×4.5 mm, MNHN B32548, MNHN-IU-2009-1308; st. 30, Rani Reef double barrier, 3-15m, 1♂ 8.1×5.2 mm, MNHN B32549, MNHN-IU-2009-1309; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 8.7×5.3 mm, 1♀ ov. 8.1×5.1 mm, MNHN B32550, MNHN-IU-2009-1310.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — Male G1 of specimens examined match that figured for *M. orientalis* in Griffin and Tranter (1986: 69, fig. 18c, d). *Menaethius orientalis* is distinguished from *M. monoceros* by: a) a shorter rostrum; b) presence of carinae on legs (vs. absent in *M. monoceros*); and c) live coloration bright red on carapace with ambulatory legs banded in red and white (photos of live specimens from Glorieuses and Moorea in [Legall and Poupin, 2018](#)) (vs. brown in *M. monoceros*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study) to Japan, French Polynesia; subtidal to 54m.

***Tylocarcinus styx* (Herbst, 1803)** (Figure 8K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-11m, 1♂ juv. 4.9×2.3 mm, MNHN B32534, MNHN-IU-2009-1294; st. 14, Bank Prudente, 15-17m, 1♂ 8.15×4.4 mm (horns broken), 3♂♂ with *Sacculina* 10.2×4.9 to 13.5×7.0 mm, 2♂♂ juv. 8.4×4.1 mm, 8.4×4.5 mm, 1♀ juv. 7.2×3.6 mm MNHN B32533, MNHN-IU-2009-1293; st. 26, intertidal low tide, Mutsumbatsou reef flat, 1♀ 11.3×5.9 mm, MNHN B32531, MNHN-IU-2009-1291, 1♂ 13.2×7.1 mm, 1♀ 10.8×5.7 mm, MNHN B32532, MNHN-IU-2009-1292.

OTHERS RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — Male G1 of this species is figured in Guinot (1962c: 240, fig. 17a, b) showing a triangular distal lobe. *Tylocarcinus styx* is rather polymorphic, especially for length of fused part of the horns or live coloration with variable shades of green, red, brown or pink. A character rather constant, however, and useful to quickly recognized this crab on the reef is the 'skull-shaped' design on posterior carapace.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study) to Japan, French Polynesia; intertidal to subtidal.

***Xenocarcinus conicus* (A. Milne-Edwards, 1865)** (Figure 8L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 37, Islet Mbouzi 'Patate sud-est', 3m, coll. J. -M. Bouchard 10 August 2007, 1♀ ov. 29.4×10 mm, MNHN B32383, MNHN-IU-2009-1156.

REMARKS — This specimen was collected on a black coral *Antipathes dichotoma* by J. -M. Bouchard two years before KUW fieldwork. It has been added to the KUW collection and determined by using characters and drawings in Griffin and Tranter (1986).

GEOGRAPHICAL AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study) to Japan, Indonesia; subtidal to 80m.

Family Inachidae MacLeay, 1838

***Oncinopus araneus* (De Haan, 1839)** (Figure 8M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 21b, east Islet Choizil, Malandzamiayatsini, 15-20m, 1♀ (remains of eggs laid recently) 5.8×3.3 mm, MNHN B32563, MNHN-IU-2009-1323; st. 24, north Islet Handréma, 6-12m, ♀ 9.9×6.1 mm, MNHN B32564, MNHN-IU-2009-1324.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Seychelles, Maldives, Laccadives to Japan, Hawaii, French Polynesia; shallow subtidal to bathyal, 16–400m.

Family Majidae Samouelle, 1819

Cyclax spinicinctus Heller, 1861 (Figure 9A)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. J. -M. Bouchard st. Mliha 11, near st. 26, intertidal, reef, Mutsumbatsou, 1 ♀ juv. 11.2×8.2 mm, MNHN B32535, MNHN-IU-2009-1295.

REMARKS — A photograph of this species with drawings of the orbital region is in Forest and Guinot (1961, pl. VI, fig. 3; fig. 7, 8). *Cyclax spinicinctus* is affiliated to *C. suborbicularis* (Stimpson, 1858) with characters separating them in Forest and Guinot (1961: 15).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Kenya, Mayotte (present study) to Japan, Samoa; shallow subtidal.

Micippa platipes Rüppell, 1830 (Figure 9B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, 'Déversoir Badamiers', Petite Terre, intertidal to 3m, 1 ♂ 20.5×17.2 mm, MNHN B32528, MNHN-IU-2009-1288; coll. J. -M. Bouchard 31/01/2009?, st. Mliha, near st. 26, intertidal, reef, Mutsumbatsou, under rubble, 1 ♂ 14.5×11.25 mm, MNHN B32527, MNHN-IU-2009-1287.

REMARKS — *Micippa platipes* can be confused with *Micippa philyra* (Herbst, 1803). The two species were for a long time considered as synonyms until Buitendijk (1939: 34) indicated their differences. Mayotte specimens are attributed to *M. platipes* because of: a) basal antennal segment almost smooth; b) orbit open ventrally and U-shaped between margin of basal antennal segment and postorbital lobe; c) anterolateral margins of carapace with 8-9 spines; and d) distal tip of male G1 straight.

GEOGRAPHIC AND DEPTH RANGES — IWP, Persian Gulf, Mayotte (present study), South Africa to Japan, Tonga; intertidal, subtidal.

Micippa thalia (Herbst, 1803) (Figure 9C)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. J. -M. Bouchard ? 31/01/2009, st. Mliha, near st. 26, under rubble, intertidal, reef, Mutsumbatsou, 1 ♀ juv. 7.5×5.3 mm ; MNHN B32529, MNHN-IU-2009-1289; st. 26, 1 ♀ ov. 19.1×14 mm, MNHN B32530, MNHN-IU-2009-1290.

REMARKS — The specimens examined match well the photograph of *M. thalia* type specimen in Sakai, 1999: pl. 13E), especially for the aspect of the anterolateral margin of the carapace. They are distinct from *Micippa platipes*, collected at the same station (st. 26), by the absence of lateral horns on rostral spines (*cf.* key of *Micippa* in Griffin and Tranter, 1986: 274). The specimens examined are also similar to *Micippa xishaensis* Chen, 1979 (known from a single male) for: a) spines on anterolateral margin of carapace reduced to granules; b) postorbital lobe with a large lobe on posterior margin basally; and c) basal antennal segment smooth with a distinct spine at anteromesial angle. *Micippa thalia* is widely distributed in IWP and already reported from Madagascar. Reporting the specimens from Mayotte as *M. thalia* seems logical but the differences between this species and *M. xishaensis* are in need of revision when more specimens of the latter are available.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), South Africa to Japan, northeastern Australia; intertidal to 100m.

Schizophrys aspera (H. Milne Edwards, 1834) (Figure 9D)

MATERIAL EXAMINED — Mayotte KUW 2009, st 3a, fringing reef, Trévani, 1-8m, 1 ♀ juv. 10.5×6.8 mm, MNHN B32537, MNHN-IU-2009-1297; st. 20b, western reef, Islet M'tzamboro, 10-15m, 1 ♂ 21.5×16.0 mm, MNHN B32542, MNHN-IU-2009-1302; st. 21b, Islet Choizil, east of Malandzamiayatsini, 15-20m, 1 ♂ juv. 12.3×8.1 mm, MNHN B32539, MNHN-IU-2009-1299; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1 ♂ 18.5×12.9 mm, MNHN B32541, MNHN-IU-2009-1301; st. 24, north Islet Handréma, 6-12m, 1 ♀ ov. 29×24 mm (without horns), MNHN B32416, MNHN-IU-2009-1178; st. 25, southern tip, Islet M'tzamboro, 15-20m, 2 ♂♂ 16.3×11.4 mm, 18.8×13.4 mm, 1 ♀ ov. 17.8×13.8 mm, MNHN B32540, MNHN-IU-2009-1300; st. 26, intertidal, Mutsumbatsou reef flat,

2♀ juv. 9.5 (rostral horns included)×6.5 mm, 13.4×9.2 mm, MNHN B32536, MNHN-IU-2009-1296; st. 28, east Islet Mbouini, 3-20m, 1♂ 17.2×12.9 mm, MNHN B32543, MNHN-IU-2009-1303; st. 30, Rani Reef, double barrier, 3-15m, 1♂ juv. 8.8×5.5 mm, 1♀ juv. 10.7×6.9 mm, MNHN B32538, MNHN-IU-2009-1298; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, carapace only, reported in field notes, not collected.

REMARKS — The specimens collected include several juveniles mixed with much larger material which makes it possible to appreciate morphological variations with size. In juveniles the granulation of the carapace is reduced and the distal end of male G1 is little or not curved. In adults rostral horns can have a small additional basal spine on mesial margin (e.g. 1♂ 18.8×13.4 mm, st. 25, MNHN-IU-2009-1300). These size-related morphological variations have been noted for *S. aspera* by A. Milne-Edwards (1872) after examining many specimens from New Caledonia.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal to 69m.

Superfamily Parthenopoidea MacLeay, 1838

Family Parthenopidae MacLeay, 1838

Daldorfia leprosa (Nobili, 1905) (Figure 9F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 13×17.4 mm, MNHN B32424, MNHN-IU-2009-1186; st. 25, Islet M'tzamboro, southern tip, 15-20m, 1♂ 16×22 mm, 1 juv. 6.4×8.5 mm, MNHN B32425, MNHN-IU-2009-1187.

REMARKS — These specimens were determined by using characters in Tan and Ng (2007). Sternal pit in male is deep with a reticulated pattern, this pattern being reduced in the largest specimen (♂ 16×22 mm, MNHN-IU-2009-1187).

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Madagascar to Japan, French Polynesia; intertidal to 30m.

Daldorfia rathbunae (De Man, 1902) (Figure 9G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1 juv. 7.2×9.4 mm, MNHN B32426, MNHN-IU-2009-1188.

REMARKS — This juvenile is attributed to *Daldorfia rathbunae* because of the 'r-shaped' spines on dorsal margin of ambulatory legs. The sternal pit is divided into three, a small anterior pit plus two lateral posterior pits (see Tan and Ng, 2007: 148).

GEOGRAPHIC AND DEPTH RANGES — Mayotte (present study, westernmost limit in WIO), Madagascar to Japan, Hawaii, New Caledonia.

Lambrachaeus ramifer Alcock, 1895

MATERIAL EXAMINED — Mayotte KUW 2009, coll. J. -M. Bouchard, 2010-2012, lagoon, scuba dive, 5-10m, preserved specimen det. Poupin/Guinot in Paris MNHN 9 July 2012. Specimen indicated in draft notes but not located in MNHN collection.

REMARKS — This specimen must be in MNHN, probably unregistered as it is not indicated the catalog ([MNHN-Collection 2018, Parthenopidae from Mayotte](#)). A living specimen of *L. ramifer* was photographed from Réunion in [Legall and Poupin \(2018\)](#). Ng and McLay (2003) can be consulted for redescription of this species, its geographic distribution and its transfer from Majidae to Parthenopidae.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), South Africa to Japan, Hawaii; subtidal to 54-92m.



Figure 9. Crabs from Mayotte KUW 2009. **Majidae** - **A)** *Cyclax spinicinctus*, 1♀ juv. 11.2×8.2 mm, MNHN-IU-2009-1295; **B)** *Micippa platipes*, 1♂ 20.5×17.2 mm, MNHN-IU-2009-1288; **C)** *M. thalia*, 1♀ ov. 19.1×14 mm, MNHN-IU-2009-1290; **D)** *Schizophrys aspera*, 1♀ ov. 29 (without horns)×24 mm, MNHN-IU-2009-1178. **Parthenopidae** - **E)** *Daldorfia horrida*, 1♂, from Glorieuses, coll. Poupin 13.12.2012, not measured, approximately 38×40 mm, MNHN-IU-2013-7341; **F)** *D. leprosa*, 1♂ 13×17.4 mm, MNHN-IU-2009-1186; **G)** *D. rathbunae*, 1 juv. 7.2×9.4 mm, MNHN-IU-2009-1188; **H)** *Thyrolambrus efflorescens*, 1♂ 8×12 mm, MNHN-IU-2013-7226. **Pilumnidae** - **I)** *Glabropilumnus laevimanus*, 1♂ 6.2×9.0 mm, MNHN-IU-2013-7227; **J)** *Pilumnus ?fissifrons*, 1♀ 6.8×10 mm, MNHN-IU-2013-7229; **K)** *P. longicornis*, 1♂ 7.0×8.8 mm, MNHN-IU-2013-7234; **L)** *P. aff. turgidulus*, 1♀ 3.4×4.7 mm, MNHN-IU-2013-7232; **M)** *P. vespertilio*, 1♀ ov. 16.4×21 mm, MNHN-IU-2009-1226.

***Thyrolambrus efflorescens* (Alcock, 1895)** (Figure 9H)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. J. -M. Bouchard, 2008-2011, 1♂ 8×12 mm, MNHN-IU-2013-7226.

REMARKS — A key to *Thyrolambrus* species, with photographs, is in Tan and Ng (2007). *Thyrolambrus efflorescens* is similar to WA *T. astroides* Rathbun, 1894.

GEOGRAPHIC AND DEPTH RANGES — Mayotte (present study, westernmost limit in WIO), Mauritius to Guam, French Polynesia; subtidal to 66m.

Superfamily Pilumnoidea Samouelle, 1819

Family Pilumnidae Samouelle, 1819

***Glabropilumnus laevimanus* (Dana, 1852)** (Figure 9I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, east Islet ‘*Quatre frères, Vatou*’, intertidal, 2♂♂ 5.9×8.6 mm, 6.2×9.0 mm, 1♀ 5.4×7.9 mm, 5♂♂ 4.6×6.6 to 5.0×7.0 mm, 2♀♀ 4.5×6.2 mm, 5.2×7.2 mm, MNHN-IU-2013-7227; st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, 1♀ juv. 4.6×6.6 mm, MNHN-IU-2013-7228; st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 1♀ 3.6×5.0 mm, MNHN-IU-2013-7230.

Remarks — These specimens are attributed to *Glabropilumnus laevimanus* according to diagnosis in Galil and Takeda (1988). Most of the characters of *G. laevimanus* are validated except ‘*upper margins of pereopodal meri 2-4 carinate*’, these margins being at most angular in specimens examined.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Tanzania (Zanzibar), Mayotte (present study) to China sea, New Caledonia; intertidal, subtidal.

***Latopilumnus malardi* (de Man, 1914)** (Figure 19H-J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, Islet ‘*Quatre frères, Vatou*’ east, intertidal, 2♂♂ 4.5×6.2 mm, 5.3×7.2 mm, MNHN-IU-2013-7236, det. P. K. L. Ng (from photos, 2017).

REMARKS — These specimens were pre-determined in field notes as *Pilumnus* sp. B (J. Poupin, July 2011). They were determined by P.K.L. Ng (from photographs) during the redaction of this contribution. Characters identifying *L. malardi* are in Ng and Clark (2008); a revision of genera *Latopilumnus* Türkay and Schuhmacher, 1985 and *Aniptumnus* Ng, 2002. In Mayotte specimens the G1 is distally hooked, a character that separates them from related *L. conicus* where this part is not curved (compare Ng and Clark, 2008, figs 4e-f and 8d-e). *Latopilumnus malardi* is also close to *L. truncatospinosus* (de Man, 1914), but distinct by the aspect of its anterolateral teeth of carapace, less pointed than in *L. truncatospinosus*, and granules on carpus and chela of chelipeds, pearl-like in (vs. conic and truncated in *L. truncatospinosus*; compare Ng and Clark, 2008, figs 4a, c-d and 5a, g-i). *Aniptumnus vietnamicus* Ng and Clark, 2008 is another related species, similar to *L. malardi* for distal aspect of male G1 (several specimens from Vietnam attributed by Raoul Serène to ‘*Parapilumnus malardi*’ have been assigned to *A. vietnamicus* by Ng and Clark (2008).

GEOGRAPHIC AND DEPTH RANGES — WIO (?IWP), Mayotte (present study), Madagascar (type locality); intertidal, subtidal. This species is probably widespread in IWP although rarely reported. It is invasive in the Levantine Sea and in the English Channel (but not established there). De Man (1913, 1914) has described this crab from specimens collected between barnacles fixed on ship hull mooring at Saint-Vaast-la-Hougue, English Channel, coming from Madagascar. The record in the Levantine sea is indicated as ‘*from Turkey, 2015, personal database*’ in [WoRMS \(2018\)](#).

***Pilumnus ?fissifrons* Stimpson, 1858** (Figure 9J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 19, north Islet Handréma, 6-10m, 1♀ 6.8×10 mm, MNHN-IU-2013-7229.

REMARKS — *Pilumnus fissifrons* is known with certainty only from Australia. This determination is proposed with hesitation from key and diagnosis in Takeda and Miyake (1968) but without reference to comparative material. Characters verified are: shape of carapace, pilosity, and characteristic slopping front with marked median fissure.

GEOGRAPHIC AND DEPTH RANGES — ?IWP, ?Mayotte (present study, first record in WIO) and Australia (western and eastern); subtidal (6-10 m).

***Pilumnus longicornis* Hilgendorf, 1878** (Figure 9K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, ‘Patate à Teddy’, 15-30m, 1♂ 7.0×8.8 mm, 1 juv., 1♀ 4.6×5.8 mm, MNHN-IU-2013-7234.

OTHER RECORDS — *Pilumnus ?longicornis* - Poupin et al., 2013c: 11, Glorieuses (1 sp. MNHN-IU-2013-7356).

REMARKS — Mayotte specimens were determined using Sakai (2004) and verification of male G1 from Takeda and Miyake (1968: 51, fig. 13 d-f), however no comparative material were examined. These small crabs superficially resemble *Eupilumnus calmani* and *Glabropilumnus laevimanus* and were mixed with these species before sorting.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mozambique, Mayotte (present study), South Africa to Hawaii, Tuvalu; subtidal to 85m.

***Pilumnus aff turgidulus* Rathbun, 1911** (Figure 9L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 19, Islet Handréma north, 6-10m, 1♀ 3.4×4.7 mm, MNHN-IU-2013-7232.

REMARKS — This specimen has only superficial resemblances with the photograph of *Pilumnus turgidulus* in Rathbun (1911, pl. 19, fig. 1) but is not considered to be her species.

GEOGRAPHIC AND DEPTH RANGES — Mayotte (present study), 6-10m.

***Pilumnus vespertilio* (Fabricius, 1793)** (Figure 9M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, littoral Trévani beach to Kangani Mangrove, 2♀♀ 6.0×8.3 mm, 10.5×15.0 mm, MNHN B32296, MNHN-IU-2009-1114; st. 6, ‘Déversoir Badamiers’, Petite Terre, intertidal, 4 juv. 4.5×6 to 8.4×10.6 mm, MNHN-IU-2013-7231; st. 10, east Islet ‘Quatre frères, Vatou’, littoral, 1♀ ov. 16.4×21 mm, 4♀ ov., 1♀, 1♂, 1 juv, MNHN B32464, MNHN-IU-2009-1226; st. 26, intertidal, Mutsumbatsou reef flat, 1♂ 15.5×21 mm, MNHN B32463, MNHN-IU-2009-1225; st. 38, southwest Chiconi/Sada bay, coll. J. -M. Bouchard, intertidal, 24 July 2008, 3♂♂ 6.0×8.5 to 11.8×16.5 mm, 1♀ ov. 8.0×11.0 mm, MNHN B32295, MNHN-IU-2009-1113.

OTHER RECORDS — Guinot, 1958c: 278, Mayotte, 1♂ 6×4.7 mm, MNHN.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mozambique, South Africa to Hawaii, Wallis and Futuna; intertidal, subtidal.

Superfamily Portunoidea Rafinesque, 1815

Family Portunidae Rafinesque, 1815

Catoptrus rathbunae Serène, 1966 (Figure 10A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 27, Islet Mbouzi ‘*Patate sud-est*’, 4-20m, 2♀♀ 4.3×5.8 mm, 5.3×7.3 mm, MNHN B32521, MNHN-IU-2009-1281; st. 28, east Islet Mbouini, 3-20m, 1♂ 5.6×8 mm, MNHN B32522, MNHN-IU-2009-1282; st. 30, Rani Reef, double barrier, 3-15m, 1♂ 4.9×6.9 mm, MNHN B32523, MNHN-IU-2009-1283; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ damaged, approximately 5.2×7.3 mm, MNHN B32524, MNHN-IU-2009-1284.

REMARKS — In field notes these specimens were erroneously labeled as ‘*C. nitidus*’. Vannini and Innocenti (2000: 257, fig. 8-9) were consulted for differences between *C. rathbunae* and *C. nitidus*, including figures of male G1.

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mayotte (present study) to Vietnam; subtidal, 3-25m.

Charybdis anisodon (De Haan, 1850) (Figure 10B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 16, Longoni Bay, traps 2m, in front of mangrove, 1♂ 26×48.5 mm (with lateral spine), MNHN B32476, MNHN-IU-2009-1238.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Madagascar to Philippines, New Caledonia; subtidal to 37m.

Gonioinfradens paucidentatus (A. Milne-Edwards, 1861) (Figure 10F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 1 juv. 10.3×13.4 mm, 1 juv., MNHN B32472, MNHN-IU-2009-1234; st. 22, west Islet Choizil, Malandzamiayajou, traps 30-35m, 1♀ 31×39.4 mm, 1♀ ov., MNHN B32473, MNHN-IU-2009-1235; st. 32, northeast Islet M'tzamboro, 6-21m, 1 juv. 5.6×7.5 mm (with a doubt, a juvenile of another species possible), MNHN B32517, MNHN-IU-2009-1277; st. 34, Beach ‘du Préfet’, 2-8m, 1♀ ov. 34×46 mm, MNHN B32471, MNHN-IU-2009-1233.

REMARKS — *Gonioinfradens paucidentatus* has only 4 spines on the anterolateral margin of carapace with 2 additional smaller intercalated spines between spines 1-2 and 2-3. Other characters of specimens examined are those recapitulated in Apel and Spiridonov (1998). *Gonioinfradens* is a monotypic genus.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Kenya, Mayotte (present study) to Japan, French Polynesia; subtidal to 150-300m.

Laleonectes nipponensis (Sakai, 1938) (Figure 10G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, ‘*Patate à Teddy*’, 15-30m, 1♂ young 10.5×21.2 mm (with lateral spines), MNHN B32501, MNHN-IU-2009-1263.

REMARKS — This specimen has a stridulating apparatus composed of ridges situated on the pterygostomial area and merus of cheliped. Crosnier and Moosa (2002) have reviewed four Portunidae species with such a stridulating apparatus and Mendoza and Devi (2017) have described an additional species from Réunion and southwestern coast of India, at depths of 100-250m. Mayotte specimen has juvenile characters and is tentatively attributed to *Laleonectes nipponensis* based on the shape of male G1, fresh color pattern, and P2 and P3 meri clearly overreaching distal end of P1 merus (in *L. kuriya* Mendoza and Devi, 2017, P2 and P3 do not overreach distal P1 merus).

GEOGRAPHIC AND DEPTH RANGES — Mayotte (present study, single confirmed record in WIO) to Japan, French Polynesia; subtidal to 130m.



Figure 10. Crabs from Mayotte KUW 2009. **Portunidae** - **A)** *Catoptrus rathbunae*, 1♂ 5.6×8 mm, MNHN-IU-2009-1282; **B)** *Charybdis anisodon*, 1♂ 26×48.5 mm (with lateral spine), MNHN-IU-2009-1238; **C)** *C. annulata*, 1♀ ov. 40×56 mm, MNHN-IU-2013-7313 (Glorieuses 2012); **D)** *Charybdis obtusifrons*, 1♀ about 30×45 mm (Glorieuses 2012, not collected); **E)** *Cycloachelous granulatus*, Glorieuses, 1 sp. MEPA1248 about 15×20 mm, not located in FLMNH collection, photo M. Malay; **F)** *Gonioinfradens paucidentatus*, 1♀ ov. 34×46 mm, MNHN-IU-2009-1233; **G)** *Laleonectes nipponensis*, 1♂ young 10.5×21.2 mm (with spines), MNHN-IU-2009-1263; **H)** *Lissocarcinus orbicularis*, 1♀ 14.4×16.7 mm, MNHN-IU-2009-1185; **I)** *Lupocyclus quinquedentatus*, 1♂ 18.2×23.5 mm, MNHN-IU-2009-1264; **J)** *Portunus convexus*, 1 sp. not measured, about 30×66 mm (with spines), not in MNHN collection (photo C. Hily); **K)** *P. (Xiphonectes) cf. longispinosus*, 1♂ 15.5×36 mm (with lateral spines), MNHN-IU-2009-1258; **L)** *P. mariei*, 1♂ 13.8×30.8 mm (with lateral spines), MNHN-IU-2009-1254; **M)** *Scylla serrata*, 1♂ 93.6×140 mm (not kept for MNHN collection because very large size).

***Lissocarcinus orbicularis* Dana, 1852** (Figure 10H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 8, lagoon near Great North East Reef, 6-8m, 1♂ 6.6×7.6 mm, MNHN B32422, MNHN-IU-2009-1184; st. 12, La Prévoyante Reef, 6-11m, 1♀ 14.4×16.7 mm, MNHN B32423, MNHN-IU-2009-1185; st. 15, northeastern beach, Islet M'tzamboro, 0-3m, 1♂ 4.5×4.8 mm, MNHN B32421, MNHN-IU-2009-1183.

OTHER RECORDS — Crosnier, 1962: 25, Mayotte. - Guinot, 1967b: 250, list with Mayotte. - Coll. Anker and Michonneau, 2008, Mayotte st. MAY08-St5, reef, S-shaped Pass, UFID 13668.

REMARKS — This small crab is a symbiont of holothurians. It was collected by pressing black sea cucumbers (*Holothuria atra* Jaeger, 1833).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Hawaii, French Polynesia; subtidal to 60m.

***Lupocyclus quinqueidentatus* Rathbun, 1906** (Figure 10I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 18.2×23.5 mm, MNHN B32502, MNHN-IU-2009-1264.

GEOGRAPHIC AND DEPTH RANGES — IWP, Seychelles, Mayotte (present study) to Hawaii, French Polynesia; subtidal, 15-151m.

***Portunus convexus* De Haan, 1835** (Figure 10J)

MATERIAL EXAMINED — Mayotte KUW 2009, no specimen collected, only color photograph (C. Hily, transmitted before fieldwork by P. Frouin, University Réunion), observation 18 April 2009, sandy bottom near seagrass beds of *Thalassodendron* northeastern large reef, 1 sp. about 30×66 mm (with lateral spines).

REMARKS — *Portunus convexus* is recognized herein from a photograph only but with a few conspicuous characters: carapace pubescent; frontal teeth rounded; anterolateral margin of carapace with 9 spines, posterior-most the larger; two lateral pale patches outlined in brown on posterior carapace. The latter character (two patches on carapace) is useful to separate *P. convexus* from the affiliated *P. pubescens* (Dana, 1852) (see key in Stephenson, 1972: 15).

GEOGRAPHIC AND DEPTH RANGES — IWP, Eritrea, Somalia, Mayotte (present study) to Guam, French Polynesia; subtidal.

***Portunus (Xiphonectes) cf. longispinosus* (Dana, 1852)** (Figure 10K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12b-c, La Prévoyante Reef at night, 6-12m, 1♀ CL 9.8 mm, MNHN B32493, MNHN-IU-2009-1255, 1♀ juv. 8.5×11.3 mm (20 mm with lateral spines), MNHN B32516, MNHN-IU-2009-1276 (this specimen similar to *P. iranjae* using key in Crosnier, 1962); st. 24, north Islet Handréma, 6-12m, 1♂ 15.1×31.8 mm (with lateral spines), MNHN B32495, MNHN-IU-2009-1257, 1♂ 15.5×36 mm (with lateral spines), MNHN B32496, MNHN-IU-2009-1258.

REMARKS — Apel and Spiridonov (1998: 298) and Crosnier (2002: 407) have indicated that there is currently a confusion for species affiliated to *Portunus (Xiphonectes) longispinosus* s.l.: *P. tenuicaudatus* Stephenson, 1961, *P. macrophthalmus* Rathbun, 1906, *P. iranjae* Crosnier, 1962, and *P. guinotae* Stephenson and Rees, 1961. *Portunus mariei* Guinot, 1957 and *Xiphonectes tuerkayi* Spiridonov, 2017a, recently described from the Indian Ocean, can also be added to that '*longispinosus* group'. A revision of these species is needed to confirm the identification of the Mayotte specimens.

GEOGRAPHIC AND DEPTH RANGES (*P. (Xiphonectes) longispinosus*) — IWP, ?Mayotte (present study), Madagascar, Réunion to Hawaii, French Polynesia; shallow subtidal to 305m. According to Spiridonov (2017a) *Portunus (Xiphonectes) longispinosus* s.s. is only in the intertidal and upper subtidal, other records of *P. longispinosus* being doubtful.

***Portunus mariei* Guinot, 1957** (Figure 10L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 7, Kongo Cardinal Buoy, traps 32m, 2♂♂ 13.8×30.8 mm, 16.3×36.3 mm (with lateral spines), MNHN B32492, MNHN-IU-2009-1254; st. 12b-c, La Prévoyante Reef at night, 6-12m, 1♂ 16.4×34 mm (to broken tip of lateral spines), MNHN B32491, MNHN-IU-2009-1253, 1 juv. 7.7×11.9 mm (20 mm with lateral spines), MNHN B32518, MNHN-IU-2009-1278, 1♂ 16.5×23 mm (without lateral spines), 1♀ 14.5×21 mm (without lateral spines), MNHN B32494, MNHN-IU-2009-1256.

OTHER RECORDS — *Portunus (Hellenus) mariei* Guinot, 1957: 476, Mayotte, 1♂ 25×10 mm, branchial spine 5 mm, MNHN. - Crosnier, 1962: 61, Mayotte. - Guinot, 1967b: 258, list with Mayotte.

REMARKS — A species of the *P. longispinosus* group (see under *P. cf. longispinosus*) which is characterized by a 3-toothed front and extremely long lateral carapace spines.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte to New Caledonia (*cf.* Ng and Richer de Forges, 2007; det. perhaps by K. Moosa, unpublished); subtidal to 60m.

***Scylla serrata* (Forskål, 1775)** (Figure 10M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 13b, Malamani mangrove, coll. J. -M. Bouchard, 8 October 2008, 2 spp. including 1♂ 93.6×140 mm (photo but specimen not retained in MNHN collection because of its large size), 1♀ juv. without chelae 9.2×12.7 mm, MNHN B32505, MNHN-IU-2009-1265, st. 13c, Malamani mangrove, coll. J. -M. Bouchard, 1 July 2009, 1♂ 29.4×43.2 mm, MNHN B32485, MNHN-IU-2009-1247.

OTHER RECORDS — Hoffmann, 1874: 9, Mayotte. - Guinot, 1967b: 258, list with Mayotte.

REMARKS — *Scylla serrata* has already been reported with mangrove species by Bouchard et al. (2013: 15). Male 29.4×43.2 mm, MNHN-IU-2009-1247 has a faint carinae on upper margin of palm instead of margin rounded in typical *S. serrata*, perhaps this is a juvenile character.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, South Africa to Hawaii, French Polynesia; subtidal to 10m.

***Thalamita admete* (Herbst, 1803)** (Figure 11A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 5, seagrass bed of great northeaster reef, 1m, 1♀ 8.0×13.1 mm, MNHN B32519, MNHN-IU-2009-1279; st. 6, 'Déversoir Badamiers', intertidal, Petite Terre, 1♀ 9.1×15 mm, MNHN B32520, MNHN-IU-2009-1280.

OTHER RECORDS — Crosnier, 1962: 96, Mayotte. - Guinot, 1967b: 255, list with Mayotte.

REMARKS — Specimens identified as *Thalamita edwardsi* Borradaile, 1900 by using key in Crosnier (1962) (but accepted as *T. admete* according to WoRMS, 2018). Carapace of largest specimens is glabrous while there is a faint pubescens in smallest specimens.

GEOGRAPHIC AND DEPTH RANGES — Tanzania, South Africa to Hawaii, French Polynesia, Pitcairn; subtidal to 120m.

***Thalamita crenata* Rüppell, 1830** (Figure 11B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 16, Longoni Bay, in front of mangrove, trap 2m, 1♀ 42×63.5 mm, 1♀ ov. 34.7×52 mm, 3♂♂, MNHN B32477, MNHN-IU-2009-1239; st. 26, Mutsumbatsou reef flat, intertidal, 1♂ 21.3×30.6 mm, MNHN B32478, MNHN-IU-2009-1240.

REMARKS — Determination based the male G1, shape of 6th segment of abdomen and live coloration, with blue shades on chelae and orange tints on the articulations of legs (color illustration in Vannini and Innocenti, 2000: 289, fig. 87). Now in genus *Thranita* (see Evans, 2018).

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal, subtidal to 10m.

***Thalamita gatavakensis* Nobili, 1906** (Figure 11D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 3♂♂ 4.1×6.4 to 6.5×10.3 mm, 1 juv. (det. with doubt), MNHN B32513, MNHN-IU-2009-1273; st. 17, North Reef, 22m, 2♂♂ 4.6×7.2 mm, 5.3×8.2 mm, 2♀♀ ov. 4.85×7.9 mm, 5.4×8.4 mm, 1♀ 5.2×8.4 mm, 2 juv., MNHN B32512, MNHN-IU-2009-1272.

REMARKS — The outer face of palm of chela has three granulated costae. The male G1 is illustrated in Crosnier (1962: 107, fig. 177). Specimens registered in MNHN as '*Thalamita pilumnoides* var. *gatavakensis* Nobili, 1906'.

GEOGRAPHIC AND DEPTH RANGES — Kenya, Mayotte (present study), Madagascar to French Polynesia; intertidal to 22m.

***Thalamita helleri* Hoffmann, 1874** (Figure 11C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, intertidal between Trévani beach to Kangani Mangrove, 1♂ 28.6×41.3 mm MNHN B32482, MNHN-IU-2009-1244, 1♀ ov. 20.7×30.6 mm MNHN B32498, MNHN-IU-2009-1260, 1♂ 21.3×31.3 mm, MNHN B32500, MNHN-IU-2009-1262, 1♂ juv. 9.4×13.1 mm, MNHN B32525, MNHN-IU-2009-1285 (with hesitation, dactyl of P5 blue but male G1 not strongly curved; ?juvenile aspect); st. 6, 'Déversoir Badamiers', Petite Terre, 1♂ 27.7×41.3 mm, 1♀ juv., 2 juv., MNHN B32481, MNHN-IU-2009-1243, 1♀ 31.7×47.4 mm, MNHN 32483, MNHN-IU-2009-1245, 1♂, 1♀ juv. MNHN B32499, MNHN-IU-2009-1261; st. 20b, Islet M'tzamboro, 10-15m, 1♀ (soft carapace), MNHN B32484, MNHN-IU-2009-1246; st. 26, intertidal, western reef flat, Mutsumbatsou reef flat, 1♂ 27×39 mm, 1♀ ov. 27.4×40.4 mm, MNHN B32480, MNHN-IU-2009-1242; st. 29, littoral, beach, Mboianatsa, Ngouja Hotel, 1♀ 17.3×26.6 mm, MNHN B32497, MNHN-IU-2009-1259; st. 38, southwest bay Chiconi/Sada, coll. J. -M. Bouchard/V. Dinhut, 24/07/2008, 1♀ juv. 10.4×15.4 mm, MNHN B32514, MNHN-IU-2009-1274; st. 39, Sohoa Beach, coll. J. -M. Bouchard, V. Dinhut, 01/07/09, 1♂ 27.4×39.6 mm, MHNN B32479, MNHN-IU-2009-1241.

OTHER RECORDS — *Thalamita foresti* - Poupin et al., 2013c: 11, Glorieuses, 1 sp. MNHN-IU-2013-7312.

REMARKS — All specimens from Mayotte registered in MNHN collection as '*Thalamita foresti* Crosnier, 1962' are currently accepted as *Thalamita helleri* in WoRMS (2018; see also remarks in Apel and Spiridonov, 1998: 241). A few specimens were confused on the field with *T. crenata* that has superficial resemblances. *Thalamita helleri* has a pilose carapace, 5 sub-equal spines on anterolateral margin of carapace, and tip of male G1 bent at about 180° (vs. of almost straight in *T. crenata*, see Crosnier, 1962, figs 230-233). On live specimens of *T. helleri* the dactyl of swimming P5 is colored in blue, a useful character for first sorting of the specimens in the field. Another species that can be confused with *T. helleri* is *Thalamita danae* Stimpson, 1858 (see Crosnier, 1962; Apel and Spiridonov, 1988). Now in genus *Thranita* (see Evans, 2018).

GEOGRAPHIC AND DEPTH RANGES — IWP, Gulf of Aden, Mayotte (present study), Mozambique, Madagascar to Philippines, New Caledonia (from Spiridonov, 2017b, as *T. foresti*); intertidal, subtidal.

***Thalamita integra* Dana, 1852** (Figure 11E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 1, intertidal, beach, Trévani, 1♂ 9.2×14.8 mm, MNHN B32489, MNHN-IU-2009-1251.

REMARKS — This species is affiliated to *Thalamita admete* (Herbst, 1803), also collected during KUW fieldwork. The determination is based on aspect of male G1, illustrated by Vannini and Innocenti (2000: 278, fig. 54), and the outer face of palm smooth with a single costa along ventral margin, extended to fixed finger.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal to 11m.



Figure 11. Crabs from Mayotte KUW 2009. **Portunidae** - **A)** *Thalamita admete*, 1♀ 8.0×13.1 mm, MNHN-IU-2009-1279; **B)** *T. crenata*, 1♀ 42×63.5 mm, MNHN-IU-2009-1239; **C)** *T. helleri*, 1♀ 17.3×26.6 mm, MNHN-IU-2009-1259; **D)** *T. gatavakensis*, 1♂ 6.5×10.3 mm (preserved), MNHN-IU-2009-1273; **E)** *T. integra*, 1♂ 9.2×14.8 mm, MNHN-IU-2009-1251; **F)** *T. picta*, 1♂ 10.3×14.9 mm, MNHN-IU-2012-618 (specimen from Europa, Mozambique Channel); **G)** *T. prynna*, 1♀ 37.2×52.8 mm, MNHN-IU-2009-1236; **H)** *T. quadrilobata*, 1♂ 20.5×34.6 mm, MNHN-IU-2009-1252; **I)** *T. spinifera*, 1♂ 14×20 mm, MNHN-IU-2009-1250; **J)** *T. stephensoni*, 1♂ 9.7×15.5 mm, MNHN-IU-2009-1268; **K)** *Thalamitoides quadridens*, 1 sp. 18.7×33 mm, st. 21b, not collected. **Pseudozioidea** - **L)** *Planopilumnus spongiosus*, 1♀ 11.4×14.8 mm, MNHN-IU-2009-1155; **M)** *Pseudozius caystrus*, 1♂ 10.8×17.8 mm, MNHN-IU-2009-2597.

***Thalamita ?mitsiensis* Crosnier, 1962**

MATERIAL EXAMINED — Mayotte KUW 2009, st. 33, Pass Longoni-M'tzamboro, 25m, 1♀ ov. damaged about 6.7×8.9 mm, MNHN B32526, MNHN-IU-2009-1286.

OTHER RECORDS — *Thalamita mitsiensis* - Crosnier and Thomassin, 1975: 1114, Comoros, Mohéli, foraminiferous sand, dredge 24m, 26 January 1970, R. Plante coll. 1♀ 8.6×12.0 mm, MNHN.

REMARKS — Determination of this female is uncertain because it is in poor condition and the male G1 is not available. The anterolateral margin of carapace has 4 teeth and the shape of the front is similar to *T. mitsiensis*, as illustrated in Crosnier (1962, fig. 212)

GEOGRAPHIC AND DEPTH RANGES — IWP, Comoros, ?Mayotte (present study), Madagascar to Japan, French Polynesia; 24-85m.

***Thalamita picta* Stimpson, 1858** (Figure 11F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, intertidal, Mutsumbatsou reef flat, coll. J. -M. Bouchard 2008, st. Mliha, 1♂ 6.9×10 mm, 1♀ ov. 10.3×15.8 mm, 1♀ juv. 7.6×11.3 mm, MNHN B32506, MNHN-IU-2009-1266.

OTHER RECORDS — *Thalamita picta* - Crosnier, 1962: 138, Comoros, Anjouan, Mayotte, Glorieuses. - Guinot, 1967b: 256, list with Mayotte. - Poupin et al., 2013c: 11, Glorieuses, 1♀ juv 6.8×9.5 mm MNHN-IU-2013-7311.

REMARKS — The specimens have been determined by using characters and illustrations in Crosnier (1962). The tip of the male G1 is broadened, flared and truncated (illustrated in Vannini and Innocenti, 2000: 282, fig. 66). The specimen photographed from Mayotte was already preserved, consequently another fresh crab collected in 2011 from Europa Island, Mozambique Channel (Poupin et al., 2013b) is presented. Spiridonov (2017b) has recently described a new species from Japan, *Thalamita matzuzawai*, related to *T. picta*. He has provided a comparative table of diagnostic characters for these two species and 4 others related *Thalamita*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Hawaii, French Polynesia and Clipperton; intertidal, subtidal to 159m.

***Thalamita prymna* (Herbst, 1803)** (Figure 11G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 7, trap, Kongo Cardinal Buoy, 32m, 1♀ 37.2×52.8 mm, MNHN B32474, MNHN-IU-2009-1236; st. 38, southwest, Bay Chiconi/Sada, coll. J. -M. Bouchard, V. Dinhut, 24/07/08, 1♂ 37×62 mm, MNHN B32475, MNHN-IU-2009-1237.

OTHER RECORDS — *Thalamita prymnoa* (sic) Herbst - Hoffmann, 1874: 39, Mayotte (indicated in list but not p. 9 where this species is presented). - *Thalamita prymna* - Milne-Edwards, 1873: 164 'Le Muséum d'histoire naturelle en possède de nombreux représentants provenant de Mayotte'. - Crosnier, 1962: 136, synonymy, including Hoffman (1874).

REMARKS — Specimens were identified by using keys in Crosnier (1962), Stephenson (1972) and Apel and Spiridonov (1988). Some variations are attributed to their large size: a) almost no pubescens on carapace; b) ridge of carapace, between 2nd anterolateral teeth, reduced, present only on mesogastric region; c) on the outer face of palm *T. prymna* has three costae but on specimens examined only inferior costa is obvious, upper and median costae being reduced to granules. Now in genus *Thranita* (see Evans, 2018).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, French Polynesia; intertidal to 32 m (present study).

***Thalamita quadrilobata* Miers, 1884** (Figure 11H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12c, La Prévoyante Reef, at night, 6-12m, 2♂♂ 9.5×14.1 mm, 10.3×14.9 mm, MNHN B32515, MNHN-IU-2009-1275; st. 35, Surprise Reef, Pass

Longoni-M'tzamboro, 4-25m, 1♂ 20.5×34.6 mm, 1♀ juv. with *Sacculina*, MNHN B32490, MNHN-IU-2009-1252.

OTHER RECORDS — Crosnier and Thomassin, 1976: 1114, Mayotte, sand around reef, coll. R. Plante, 21 January 1970, 1♀ 7.7×12.5 mm, MNHN.

REMARKS — Specimens examined agree well with diagnosis and illustrations of Apel and Spiridonov (1988: 260), including shape of male G1 with rows of strong subterminal spines on mesial and lateral faces.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique Channel (Mayotte, Europa) to Marshall Islands, Kiribati, French Polynesia; subtidal to 25m.

***Thalamita spinifera* Borradaile, 1902** (Figure 11I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 1, intertidal, beach, Trévani, 1♂ 14×20 mm, MNHN B32488, MNHN-IU-2009-1250.

OTHER RECORDS — Crosnier, 1975: 724, Mayotte.

GEOGRAPHIC AND DEPTH RANGES — Mayotte, Madagascar to Hawaii, French Polynesia; intertidal (present study) and 20-433m.

***Thalamita stephensoni* Crosnier, 1962** (Figure 11J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, littoral, Trévani beach to Kangani Mangrove, intertidal, 1♀ ov. 7.9×12.5 mm, MNHN B32509, MNHN-IU-2009-1269; st. 29, intertidal, beach, Mboianatsa Ngouja Hotel, 2♂♂ 8.0×12.4 mm, 9.8×15.8 mm, MNHN B32507, MNHN-IU-2009-1267; st. 31, Bandrélé, 'Plage musicale', intertidal, 8♂♂ 5.2×8.0 to 9.7×15.5 mm, 6♀ ov. 5.8×9.3 to 7.6×12.0 mm, 2 juv., MNHN B32508, MNHN-IU-2009-1268.

REMARKS — A species of small size characterized by spoon shaped fingers of chelae; a unique feature for *Thalamita* species. The anterolateral margin of carapace has five teeth, the 4th being much reduced, sometimes hardly visible. Male G1 is cross shaped at tip.

GEOGRAPHIC AND DEPTH RANGES — Somalia, Kenya, Mayotte (present study), Madagascar to Hawaii, Samoa; intertidal.

***Thalamitoides quadridens* A. Milne-Edwards, 1869** (Figure 11K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, La Prévoyante Reef, 6-10m, 1♂ 4.9×8.2 mm, 3 spp. in poor condition (from brushing of substrate), MNHN B32511, MNHN-IU-2009-1271; st. 12, La Prévoyante Reef, 6-12m, 3 juv. in poor condition, det. with hesitation, 1 carapace 18.5×30.5 mm; st. 14, Bank Prudente, 15-17m, 1♂ 4.6×8.4 mm, MNHN B32510, MNHN-IU-2009-1270; st. 19, north Islet Handréma, 6-10m, 1♂ 16.2×30 mm, 1 juv. 5.8×10.6 mm MNHN B32486, MNHN-IU-2009-1248; st. 21b, Islet Choizil, east Malandzamiyatsini, 15-20m, 1 sp. 18.7×33 mm, field notes and photo only not collected; st. 22, Islet Choizil, west Malandzamiyajou, 30-35m, field notes only several specimens, not collected; st. 27, Islet Mbouzi, 'Patate sud-est', 4-20m, 2 spp., field notes only, not collected; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, field notes only, not collected.

OTHER RECORDS — Poupin et al., 2013: 11, Glorieuses.

REMARKS — This is a first record for Mayotte although the species was observed at many stations, usually in corals, during the KUW 2009 expedition.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Mozambique Channel (Europa) to Hawaii, French Polynesia; subtidal to 65m.

Superfamily Pseudozioidea Alcock, 1898

Family Planopilumnidae Serène, 1984

***Planopilumnus spongiosus* (Nobili, 1906)** (Figure 11L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 1♂ juv. 5.2×6.4 mm, 1♀ 11.4×14.8 mm, det. P. K. L. Ng, MNHN B32382, MNHN-IU-2009-1155.

REMARKS — This species was recognized from our photographs by P. K. L. Ng. After the revision of genus *Planopilumnus* by Ng (2010) and a description of a new species from Pakistan (*P. holthuisi*) by Ng and Kazmi (2011), only two species are currently assigned to this genus, namely *P. spongiosus*, and *P. holthuisi*.

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea to Mayotte (present study), Madagascar; intertidal.

Family Pseudoziidae Alcock, 1898

***Pseudozius caystrus* (Adams and White, 1849)** (Figure 11M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, 15, 20, 29, field notes no specimens collected; st. 6, ‘Déversoir Badamiers’, Petite Terre, intertidal, 1♀ 10.2×16.9 mm, MNHN-IU-2009-2596; st. 10, 1♂ 7.2×11.4 mm, MNHN-IU-2009-2595; st. 26, 1♂ 10.8×17.8 mm, MNHN-IU-2009-2597.

OTHER RECORDS — *Pseudozius caystrus* - Guinot, 1958c: 276, Mayotte, 1♀ 13.5×8 mm MNHN. - Guinot, 1967b: 272, list with Mayotte. - Crosnier, 1984: 313, Glorieuses 1♂ 12.7×20.0 mm, MNHN-B 8760. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — This species is common in the intertidal. It has superficial resemblances with *Epixanthus frontalis* and was confused with this species at several stations in field notes. The shape of the male G1 is a good character to separate the two species, short without distal flagellum in *Pseudozius caystrus* (see Crosnier, 1984: 313, figs 242-243) versus long with a coiled distal flagellum in *Epixanthus frontalis* (see Serène, 1984: 306, figs 222-223).

GEOGRAPHIC AND DEPTH RANGES — Red Sea, South Africa to Hawaii, French Polynesia; intertidal.

Superfamily Trapezioida Miers, 1886

Family Domeciidae Ortmann, 1893

***Domecia glabra* Alcock, 1899** (Figure 12A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-11m, 1♂ 5×7 mm, with *Sacculina*, 1♀ with *Sacculina*, 1♂ juv., MNHN B32428, MNHN-IU-2009-1190; st. 17, North Reef, 22m, 1♂ 4×5 mm, MNHN-IU-2009-2643.

REMARKS — Some specimens confused with *Domecia hispida* in field notes. In Guinot (1964a, key) *Domecia glabra* has the following characters: a) distal part of thoracic sternum short, not elongated; b) dorsal margin of P5 merus with spines on distal part only. Live coloration is useful to separate *D. glabra* and *D. hispida*, being much paler in *D. glabra* (see Figure 12A-B).

GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania, Mayotte (present study), Madagascar to Hawaii, French Polynesia; shallow subtidal to 75m.

***Domecia hispida* Eydoux and Souleyet, 1842** (Figure 12B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 1♂ 4.2×5.2 mm, MNHN-IU-2009-2644; st. 32, northeast Islet M'tzamboro, 6-21m, 2♂♂ 4.2×5.4 mm, 5.0×6.6 mm (with *Sacculina*), MNHN B32291, MNHN-IU-2009-1109.

REMARKS — Diagnostic characters for *D. hispida* are: a) distal part of thoracic sternum narrow and elongated; b) dorsal margin of P5 merus with spines along entire margin; c) live color (see Figure 12A-B).

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, Kenya, Mayotte (present study), Europa (southernmost record in Mozambique Channel, *cf.* Poupin et al., 2013b) to Hawaii, French Polynesia, Easter Island, Clipperton, Gulf of California, Equator; subtidal to 50-90m.

Family Tetraliidae Castro, Ng and Ahyong, 2004

Tetralia cincipes Paul'son, 1875 (Figure 12C)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro), st. 14, 2♂♂ 5.8×6.8 mm, 6.4×7.2 mm, 1♀ ov. 6.2×7.5 mm, MNHN B32242, MNHN-IU-2009-1060; st. 21b, 1♀ ov. 5.5×6.5 mm, MNHN B32243, MNHN-IU-2009-1061; st. 25, 1♀ ov. 5.5×6.6 mm, MNHN B32244, MNHN-IU-2009-1062.

OTHER RECORDS — *Tetralia glaberrima f. pullidactyla* - Serène, 1984: 282, Zélée Bank, coll. A.J. Bruce 1♂ 5.8×6.7 mm, 1♀ 6.9×8.4 mm, MNHN B8169 / *T. glaberrima f. pullidactyla* Patton, 1966 accepted as *T. cincipes* in WoRMS (2018). - *Tetralia cincipes* - Castro, 1997: 65, Zélée Bank, MNHN B8169. - Castro, 1999a: 101, Mayotte, coll. Humboldt 1901, 2♂♂ MNHN B13907; Zélée Bank, 1♂, 1♀ MNHN B8169 and Geysler Bank, 1♂, 1♀ MNHN B25276, coll. A.J. Bruce March 1972.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Europa (southernmost record in Mozambique Channel, *cf.* Poupin et al., 2013b), Madagascar to Japan, French Polynesia; subtidal to 30m.

Tetralia glaberrima (Herbst, 1790) s.l. (Figure 12D)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 3a, 2♂♂ 9.0×9.5 mm, 9.3×10.3 mm, 1♀ ov. 10.8×12.5 mm, MNHN B32128, MNHN-IU-2009-1047; st. 4, 1♂ 6.4×7.2 mm, MNHN B32129, MNHN-IU-2009-1048; st. 8, 1♂ 10.8×11.9 mm, MNHN B32130, MNHN-IU-2009-1049; st. 12, 1 sp. 10.9×11.5 mm, 2♂♂, 3♀♀, MNHN B32008, MNHN-IU-2009-931; st. 14, 2♂♂ 6.8×7.4 mm, 6.9×7.8 mm, 3♀♀ ov. 4.4×5.2 mm, 4.6×5.3 mm, and 6.8×7.8 mm, MNHN B32232, MNHN-IU-2009-1050; st. 14, 2♀♀ ov. 5.4×6.2 mm, 8.7×10.2 mm, MNHN B32233, MNHN-IU-2009-1051; st. 17, 1♀ ov. 4.5×5.5 mm, MNHN B32234, MNHN-IU-2009-1052; st. 19, 2♂♂, MNHN B32009, MNHN-IU-2009-932; st. 21b, 2♂♂ 6.0×7.0 mm, 8.5×9.3 mm, 1♀ ov. 6.3×7.4 mm, MNHN B32235, MNHN-IU-2009-1053; st. 22, 3♂♂ 4.0×4.8 to 6.2×6.6 mm, 1 sp with bopyrid, MNHN B32236, MNHN-IU-2009-1054; st. 23, 3♂♂ 4.0×4.8 to 6.2×6.6 mm, 1 sp with bopyrid, MNHN B32237, MNHN-IU-2009-1055; st. 25, 1♂ 4.6×5.5 mm, 1♀ ov. 6.3×7.3 mm, MNHN B32238, MNHN-IU-2009-1056; st. 30, 1♂ 6.5×7.5 mm, 1♀ ov. 7.4×8.5 mm, MNHN B32239, MNHN-IU-2009-1057.

OTHER RECORDS — *Tetralia glaberrima* - Guinot, 1958c: 279, Mayotte, 1♂ 8×8 mm MNHN. - *Tetralia fulva* - Castro, 1999a: 102, Mayotte, coll. M. Marie, 1♀, MNHN B25687 / *T. fulva* Serène, 1984 accepted as *T. glaberrima* in WoRMS (2018).

REMARKS — Specimens from Mayotte KUW 2009 are attributed to *T. glaberrima* s.l. because potentially belonging to a new species affiliated to *T. glaberrima* s.s (pers. comm. S. Trautwein, S. McKeon, and P. Castro). Samples MNHN-IU-2009-931/932, sent to S. Trautwein (in 2009) for more examination and sequencing.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Japan, French Polynesia; subtidal to 40-50m.

Tetralia ?nigrolineata Serène and Pham, 1957 (Figure 12E)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, with hesitation), st. 12a, 1♀ 4.9×5.8 mm, MNHN B32240, MNHN-IU-2009-1058; st. 14, 1♂ 3.5×4.3 mm, MNHN B32241, MNHN-IU-2009-1059.



Figure 12. Crabs from Mayotte KUV 2009. **Trapezioidea** - **A)** *Domecia glabra*, 1♂ 5×7 mm, with *Sacculina*, MNHN-IU-2009-1190; **B)** *D. hispida*, 1♂ 4.2×5.4, MNHN-IU-2009-1109; **C)** *Tetralia cincipes*, 1♂ 6.4×7.2 mm, MNHN-IU-2009-1060; **D)** *T. glaberrima* s.l., 1 sp. 10.9×11.5 mm, MNHN-IU-2009-931; **E)** *T. ?nigrolineata*, 1♀ 4.9×5.8 mm, MNHN-IU-2009-1058; **F)** *T. rubridactyla* s.l., 1♀ 11×12 mm, MNHN-IU-2009-933; **G)** *Quadrella maculosa*, 1♀ 6.8×8.7 mm, MNHN-IU-2009-1083; **H)** *Trapezia bidentata*, 1♀ 11.5×14.5 mm, MNHN-IU-2009-939; **I)** *T. cymodoce*, 1♂ 11.5×13.7 mm, MNHN-IU-2009-944; **J)** *T. digitalis*, 1♀ ov. 6.3×8.0 mm, MNHN-IU-2009-1085; **K)** *T. formosa*, 1♀ ov. 5.5×7.2 mm, MNHN-IU-2009-1084; **L)** *T. guttata*, 1♀ 8.5×11.3 mm, MNHN-IU-2009-1086; **M)** *T. lutea*, 1♀ ov. 10.8×12.8 mm, MNHN-IU-2009-935; **N)** *T. richtersi*, 1♂ 7.3×8.5 mm, MNHN-IU-2009-1098.

REMARKS — The color pattern of typical *T. nigrolineata* is illustrated, for a male and female, in Castro (1997: 101, pl. 1D) showing black lines on frontal and lateral margin of carapace. These lines are unclear in the female 4.9×5.8 mm of Figure 12E, perhaps because of its juvenile condition?

GEOGRAPHIC AND DEPTH RANGES — Mozambique, ?Mayotte (present study) to Japan, New Caledonia; subtidal to 66m.

***Tetralia rubridactyla* Garth, 1971 s.l.** (Figure 12F)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, with hesitation), st. 14, 1♀ 10.6×12.3 mm, 1♀ ov. 11×12 mm, 1♀, MNHN B32010, MNHN-IU-2009-933; st. 23, 1♂ damaged CW 6.8 mm, MNHN B32245, MNHN-IU-2009-1063.

OTHER RECORDS — *Tetralia rubridactyla* - Castro, 1999a: 103, Mayotte, coll. M. Marie, 1♂, 1♀, MNHN B13913, Leven Bank, coll. A.J. Bruce, 1971, 1♀ MNHN B13342, Geysers Bank, coll. A.J. Bruce, 1972, 1♂, 1♀, MNHN B8160, 1♂, 1♀, MNHN B8161. - Castro, 1999b: 43, Mayotte, Geysers and Leven banks, same MNHN lots.

REMARKS — The specimens from Mayotte are determined with hesitation by P. Castro and have been sent for sequencing to S. Trautwein (2009). The western Indian population of *T. rubridactyla* is perhaps distinct from Coral Sea and western Pacific populations. Color variation of live specimens from these areas is discussed in Castro (1999b: 44).

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mozambique to Japan, French Polynesia; subtidal to 20-30m.

Family Trapeziidae Miers, 1886

***Quadrella maculosa* Alcock, 1898** (Figure 12G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 18, S-shaped Pass, terrace at 50-60m, in antipatharian, 1♀ 6.8×8.7 mm, MNHN B32265, MNHN-IU-2009-1083.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Mozambique to Japan, French Polynesia; 27-37 m to 372-466m.

***Trapezia bidentata* (Forskål, 1775)** (Figure 12H)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 11, 1♀ ov. 11×14 mm, MNHN-B32020, MNHN-IU-2009-942, 1♂ 10×12 mm, MNHN B32246, MNHN-IU-2009-1064; st. 12, 1♂ 6.0×7.0 mm, MNHN B32247, MNHN-IU-2009-1065; st. 14, 1♀ 11.5×13.7 mm, broken with *Sacculina*, MNHN B32019, MNHN-IU-2009-941, 4♀♀ 4.5×5.7 to 7.0×8.6 mm, MNHN B32248, MNHN-IU-2009-1066; st. 23, 1♀ 11.5×14.5 mm, MNHN-B32017, MNHN-IU-2009-939, 1♀ 7.8×9.8 mm, MNHN-B32021, MNHN-IU-2009-943, 1♂ 13.3×16.3 mm (carapace broken), MNHN B32018, MNHN-IU-2009-940, 2♂♂ 4.5×5.7 mm, 7.2×9.0 mm, 2♀♀ 4.0×5.0 mm, 5.4×7.0 mm, MNHN B32249, MNHN-IU-2009-1067; st 25, 2♂♂ 6.0×7.0 mm, 13.5×15.8 mm, MNHN B32250, MNHN-IU-2009-1068.

OTHER RECORDS — *Trapezia ferruginea* - Serène, 1984: 273, Glorieuses, intertidal, coll. A. Crosnier, 16 September 1958, 2♂♂ largest 10.8×12.5 mm, 2♀♀ largest 11.1×13.5 mm, MNHN-B 8233; Mayotte, 10m, coral, coll. A. Crosnier, September 1959, 1♀ 10.4×12.3 mm, MNHN-B 8234. - Castro, 1999a: 108, Mayotte, Glorieuses / *T. ferruginea* Latreille, 1825 accepted as *T. bidentata* in WoRMS (2018) - *Trapezia bidentata* - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — Alive, the largest specimens have a bluish carapace and smaller specimens are orange; in all specimens the distal part of P2-P5 propodi is red. One specimen from st 11 (♀ ov. 12.3×15.3 mm, MNHN-IU-2009-1091) with tomentum on chelipeds attributed in error by J. Poupin to '*T. bidentata pilose*' corrected by P. Castro into *T. lutea* (see remarks under *T. lutea*).

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, South Africa to Hawaii, French Polynesia, Clipperton, Gulf of California, Colombia; shallow subtidal to 55m.

***Trapezia cymodoce* (Herbst, 1801)** (Figure 12I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 20b, 1♂ 5.3×6.4 mm, MNHN B32251, MNHN-IU-2009-1069; st. 23, 1♂ 11.5×13.7 mm, MNHN-B32022, MNHN-IU-2009-944, 1♂ 6.3×7.7 mm, MNHN B32252, MNHN-IU-2009-1070; st. 30, 1♂ 9.0×10.8 mm, MNHN-B32023, MNHN-IU-2009-945, 1♀ with *Sacculina* 10.0×12.0 mm, MNHN-B32024, MNHN-IU-2009-946; st. 32, 1♂ 8.0×9.5 mm, MNHN B32253, MNHN-IU-2009-1071; st. 35, 1♀ ov. 11.0×14.0 mm, MNHN B32025, MNHN-IU-2009-947, 1♂ 12.2×14.5 mm, MNHN B32026, MNHN-IU-2009-948.

OTHER RECORDS — *Trapezia cymodoce* - Miers, 1884: 535, Glorieuses, coll. Coppinger, HMS *Alert*, in NHM. - Castro, 1999a: 106, Mayotte, Glorieuses. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St6, S-shaped Pass, UF13676, 13684.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, French Polynesia; subtidal to 59m. Several IWP records probably confused with *T. lutea*, with similar tomentum along outer edge of palm.

***Trapezia digitalis* Latreille, 1828** (Figure 12J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 1♂ 5.8×7.2 mm, 1♀ ov. 6.3×8.0 mm, MNHN B32267, MNHN-IU-2009-1085.

OTHER RECORDS — *Trapezia digitalis* - Serène, 1984: 277, Glorieuses, intertidal, coral, coll. A. Crosnier 16 September 1958, 1♂ 6.2×7.6 mm, MNHN-B 8264. - Castro, 1999a: 107, Glorieuses, MNHN B8264.

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, South Africa to Hawaii, French Polynesia, Clipperton, Mexico, Equator, Colombia; subtidal to 52m.

***Trapezia formosa* Smith, 1869** (Figure 12K)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro), st. 14, Bank Prudente, 15-17m, 1♂ 5.7×6.8 mm, 1♀ ov. 5.5×7.2 mm, MNHN B32266, MNHN-IU-2009-1084.

OTHER RECORDS — *Trapezia formosa* - Castro, 1998: 180, Glorieuses, coll. A. Crosnier, J. Millot, 2♂♂, 1♀, MNHN B25291. - Castro, 1999a: 110, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IP, Kenya, Mayotte (present study), Mozambique to Clipperton, Gulf of California, Colombia, Equator; subtidal to 60m. A widespread species but still not reported in Hawaii and French Polynesia.

***Trapezia guttata* Rüppell, 1830** (Figure 12L)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 12a, La Prévoyante Reef, 6-11m, 13♂♂ 3.5×4.5 to 8.3×10.4 mm, 12♀♀ (2 ov.) 3.3×4.3 to 8.7×10.8 mm, MNHN B32268, MNHN-IU-2009-1086; st. 14, field notes only, no specimens collected; st. 17, North Reef, 22m, 1♂ 6.3×7.8 mm, 1♀ ov. 6.5×8.0 mm, MNHN B32269, MNHN-IU-2009-1087; st. 19, north Islet Handréma, 6-10m, 4 small specimens no collected; st 25, south Islet M'tzamboro, 15-20m, 1♂ 4.5×5.5 mm, 1♀ ov. 3.5×4.5 mm, MNHN B32270, MNHN-IU-2009-1088; st. 30, Rani Reef, double barrier, 3-15m, 1♂ 5.2×6.5 mm, 1♀ ov. 5.6×7.0 mm, MNHN B32271, MNHN-IU-2009-1089; st. 32, northeast Islet M'tzamboro, 6-21m, 6♂♂ 4.8×6.0 mm to 8.0×10.0 mm, 6♀♀ (3 ov.) 4.3×5.5 mm to 8.5×10.8 mm, MNHN B32272, MNHN-IU-2009-1090.

OTHER RECORDS — *Trapezia guttata* - Castro, 1999a: 110, Mayotte, coll. Marie 1903.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Madagascar, Mozambique (Emmerson, 2016) to Japan, French Polynesia; subtidal to 66m.

***Trapezia lutea* Castro, 1997** (Figure 12M)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 11, ‘*Bouée bâbord Est de Kongo*’, 1-4m, 1♂ 10.0×12.2 mm; 1♀ ov. 12.3×15.3 mm, MNHN B32273, MNHN-IU-2009-1091; st. 12a, La Prévoyante Reef, 6-11m, 1♂ 6.6×8.0 mm, MNHN B32274, MNHN-IU-2009-1092; st. 14, Bank Prudente, 15-17m, 1♀ ov. 10.8×12.8 mm, MNHN-B32013, MNHN-IU-2009-935, 1♂ 9.4×11.4 mm, MNHN-B32014, MNHN-IU-2009-936, 3♂♂ 5.8×7.0 to 7.5×8.8 mm, 3♀♀ ov. 4.5×5.9 to 7.0×9.0 mm, MNHN B32275, MNHN-IU-2009-1093; st. 17, North Reef, 22m, 2♂♂ 3.0×3.8 mm, 4.5×5.5 mm, 1♀ 4.4×5.4 mm, MNHN B32276, MNHN-IU-2009-1094; st. 23, Pass Choizil, ‘*Patate à Teddy*’, 15-30m, 1♀ ov. 8.4×9.0 mm, MNHN-B32012, MNHN-IU-2009-934, 1♂ 5.9×7.2 mm, MNHN-B32015, MNHN-IU-2009-937, 1♂ 5.9×7.2 mm, MNHN-B32016, MNHN-IU-2009-938; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 5.5×6.7 mm, MNHN B32277, MNHN-IU-2009-1095.

OTHER RECORDS — *Trapezia lutea* Castro, 1997: 85, Glorieuses, coll. A. Crosnier, January 1973, 1♂, 3♀♀, MNHN-B 23046. - Castro, 1999a: 111, Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — This species can be confused with *Trapezia bidentata*. A distinguishing character is tomentum on the outer edge of the palm present in *T. lutea* and absent in *T. bidentata*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Kenya, Mayotte (present study), South Africa to Guam, French Polynesia; subtidal to 45m.

***Trapezia richtersi* Galil and Lewinsohn, 1983** (Figure 12N)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 12a, La Prévoyante Reef, 6-11m, 1♂ 7.4×8.6 mm, 1♀ ov. 8.4×10.8 mm, MNHN B32278, MNHN-IU-2009-1096; st. 14, Bank Prudente, 15-17m, 4♂♂ 4.8×6.0 to 6.7×7.8 mm, 3♀♀ ov. 6.0×7.4 to 7.0×9.0 mm, MNHN B32279, MNHN-IU-2009-1097; st. 23, Pass Choizil, ‘*Patate à Teddy*’, 15-30m, 3♂♂ 4.8×5.7 to 7.3×8.5 mm, 1♀ ov. 7.4×9.0 mm, MNHN B32280, MNHN-IU-2009-1098; st. 25, south Islet M'tzamboro, 15-20m, 1♀ 6.6×8.6 mm, MNHN B32281, MNHN-IU-2009-1099.

GEOGRAPHIC AND DEPTH RANGES — IO, Somalia, Mayotte (present study), Mozambique, Madagascar to Andaman Sea; subtidal to 52m.

***Trapezia rufopunctata* (Herbst, 1799)** (Figure 13A)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 8, 1♂ 16.2×17.8 mm, MNHN B32123, MNHN-IU-2009-1042; st. 14, 1♂ 15.6×17.4 mm, 1♀ ov. 16.5×19.5 mm, MNHN B32124, MNHN-IU-2009-1043; st. 23, 1♂ 14.3×16.1 mm (carapace damaged) MNHN B32125, MNHN-IU-2009-1044; st. 24, photo in situ, sp. not collected; st. 25, 1♀ 7.3×9.3 mm, MNHN B32126, MNHN-IU-2009-1045; st. 32, 1♀ ov. 15.2×18.0 mm, MNHN B32127, MNHN-IU-2009-1046.

OTHER RECORDS — *Trapezia rufopunctata* - Miers, 1884: 535, Glorieuses, coll. Coppinger, HMS *Alert*, in NHM. - Serène, 1984: 276, Mayotte, 10m, coll. A. Crosnier September 1959, 1♂ 18.5×21.6 mm, MNHN-B 8260. - Castro, 1999a: 114, Mayotte, Glorieuses. - Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Kenya, South Africa to Hawaii, French Polynesia; subtidal to 68m.

***Trapezia tigrina* Eydoux and Souleyet, 1842** (Figure 13B)

MATERIAL EXAMINED — Mayotte KUW 2009 (det. P. Castro, J. Poupin), st. 8, 1♂ 10.8×12.0 mm, 1♀ ov. 13.0×16.0 mm, MNHN B32117, MNHN-IU-2009-1036; st. 12a, 3♂♂ 5.5×7.0 to 9.0×10.6 mm; 3♀♀ (2 ov.) 4.0×5.5 to 10.6×13.0 mm, MNHN B32118, MNHN-IU-2009-1037; st. 14, 1♂ 11.2×12.8 mm, 1♀ ov. 12.0×14.4 mm (field det. J. Poupin as *T. rufopunctata*, corrected by P. Castro), MNHN B32119, MNHN-IU-2009-1038; st. 23, 1♂ juv. 4.8×6.0 mm, MNHN B32120, MNHN-IU-2009-1039; st. 25, 1♂ 5.0×6.4 mm, MNHN B32121, MNHN-IU-2009-1040; st. 32, 1♂ 10.5×12.0 mm, 1♀ ov. 12.5×15.5 mm (field det. J. Poupin as *T. rufopunctata*, corrected by P. Castro), MNHN B32122, MNHN-IU-2009-1041.

REMARKS — Several specimens were confused with *Trapezia rufopunctata* by J. Poupin during fieldwork. Peter Castro has determined these specimens and indicated (pers. comm.) that a good way to separate the two species is the aspect of the front, with low and rounded teeth in *T. tigrina* (vs. long and sharp teeth in *T. rufopunctata*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique, Mayotte (present study) to Hawaii, French Polynesia, Pitcairn, ?Easter Island; subtidal to 75m.

Superfamily Xanthoidea MacLeay, 1838

Family Xanthidae MacLeay, 1838

Actaea spinosissima Borradaile, 1902 (Figure 13C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12a, La Prévoyante Reef, 6-11m, 1♀ 5.0×7.3 mm, MNHN B32282, MNHN-IU-2009-1100; st. 17, North Reef, 22m, 1 sp. 5.9×8.1 mm, MNHN-IU-2009-3221; st. 20b, Islet M'tzamboro, western reef flat, 10-15m, 1♂ 4×5.2 mm, MNHN-IU-2009-3223; st. 23, Pass Choizil 'Patate à Teddy', 15-30m, 1♂ 4.8×6.5 mm, 1♀ (+ *Sacculina*) 5.8×8.0 mm, MNHN B32283, MNHN-IU-2009-1101; st. 25, Islet M'tzamboro, 15-20m, 1♀ 5.6×7.7 mm, 1♂ 7.0×9.3 mm, MNHN-IU-2009-3220; st. 30, Rani Reef, double barrier, 3-15m, 1♂ 5.0×7.0 mm, MNHN B32284, MNHN-IU-2009-1102.

REMARKS — These specimens were determined from Serène (1984). Size of the spines on the carapace is variable. Anterior lobe of region 3M (see Serène, 1984: 18, fig. C) is long and made of four tubercles. In the affiliated *Actaea polyacantha* (Heller, 1861), which is also found in Mayotte (see Appendix), this lobe is short.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Cargados Carajos, Maldives to Australia (Torres Strait); intertidal, subtidal to 22m.

Actaeodes tomentosus (H. Milne Edwards, 1834) (Figure 13D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, low tide, intertidal, reef flat, Mutsumbatsou 1♂ juv. 6.8×10.7 mm, MNHN B32285, MNHN-IU-2009-1103.

OTHER RECORDS — *Actaea tomentosa* - Lenz, 1910: 549, Mayotte. - Guinot, 1958a: 87, Mayotte, 1♀ 17×11 mm, MNHN. - Guinot, 1967: 260, list with Mayotte. - *Actaeodes tomentosus* - Serène, 1984: 134, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier 29 January 1971, 1♂ 11×17 mm, 4♀♀ largest 13.5 ×20 mm MNHN-B6582. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St1, Mboianatsa, UF13559.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Hawaii, French Polynesia, intertidal, subtidal.

Atergatis floridus (Linnaeus, 1767) (Figure 13E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12a, La Prévoyante Reef, 6-11m, 1 juv 3.4×5.1 mm, MNHN B32287, MNHN-IU-2009-1105.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses, 1 juv. MNHN-IU-2013-7337.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Mozambique to Hawaii, French Polynesia, subtidal to 15m.

Banareia parvula (Krauss, 1843) (Figure 13F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, 'Déversoir Badamiers', intertidal, Petite Terre, 1♂ 9.2×12.3 mm, MNHN-IU-2009-2678.



Figure 13. Crabs from Mayotte KUW 2009. **Trapezioidea** - **A)** *Trapezia rufopunctata*, 1♂ 14.3×16.1 mm (posterior carapace broken), MNHN-IU-2009-1044; **B)** *T. tigrina*, 1♀ ov. 10.6×13.0 mm, MNHN-IU-2009-1037. **Xanthidae** - **C)** *Actaea spinosissima*, 1♀ 5.0×7.3 mm, MNHN-IU-2009-1100; **D)** *Actaeodes tomentosus*, 1♂ juv. 6.8×10.7 mm, MNHN-IU-2009-1103; **E)** *Atergatis floridus*, 1 juv 3.4×5.1 mm MNHN-IU-2009-1105; **F)** *Banareia parvula*, 1♂ 9.2×12.3 mm, MNHN-IU-2009-2678 (preserved); **G)** *Bruciana pediger*, 1♀ 5.4×9.0 mm, MNHN-IU-2009-1150; **H)** *Chlorodiella laevissima*, 1♀ 4.2×7 mm, MNHN-IU-2009-2662; **I)** *C. nigra*, 1♂ 10.1×14.7 mm, MNHN-IU-2009-1115; **J)** *Cyclodius drachi*, 1♀ 7.43×10.74 mm, MNHN-IU-2009-1205; **K)** *C. granulatus*, 1♂ 9.0×11.4 mm, MNHN-IU-2009-3238 (preserved); **L)** *Cyclodius nitidus*, 1♀ 7.04×10.72 mm, MNHN-IU-2009-3239 (preserved); **M)** *C. unguilatus*, 1♂ 11×14 mm, MNHN-IU-2009-1206; **N)** *Cymo deplanatus*, 1♂ 7.0×7.0 mm, MNHN-IU-2009-1107.

REMARKS — Male G1 is typical of *Banareia* species. It is attributed to *B. parvula* based on dorsal aspect of carapace, as described and figured in Serène (1984: 37, pl. IIIC): region 3M is entire and 2M is divided; outer face of chela is granulated which distinguishes it from *B. armata* A. Milne-Edwards, 1869, also present in Mayotte, with outer face of palm smooth on ventral half.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), South Africa to Hawaii, French Polynesia, Easter Island; intertidal, subtidal

***Bruciana pediger* (Alcock, 1898)** (Figure 13G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 2♀♀ 5.4×9.0 mm, 3.5×5.5 mm, MNHN B32377, MNHN-IU-2009-1150.

REMARKS — These females were identified with confidence by the aspect of the carapace. Male characters in Serène (1984) cannot be verified: a) merus of cheliped exceeding the margin of carapace; and b) dactyl of cheliped with a noticeable tooth on its cutting edge.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Seychelles to Philippines (Sulu Sea); 10-40m.

***Chlorodiella laevis* (Dana, 1852)** (Figure 13H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-11m, 2♂♂, 1♀ 3.4×5.5 mm, MNHN-IU-2009-2657; st. 14, Bank Prudente, 15-17m, 2♀♀, MNHN-IU-2009-2661; st. 17, North Reef, 22m, 3 juv., MNHN-IU-2009-2663; st. 19, Islet Handréma, North, 6-10m, 1♀ 4.2×7 mm, 1♂ 4.0×5.8 mm, MNHN-IU-2009-2662; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 3.1×4.6 mm, MNHN-IU-2009-2659; 2♀♀ ov. both 3.1×4.7 mm, MNHN-IU-2009-2653; st. 25, south Islet M'tzamboro, 15-20m, 1♀ juv. 3.3×4.6 mm, MNHN-IU-2009-2658, 1♂ 3.0×4.8 mm, MNHN-IU-2009-2660, 2♂♂ 4.8×6.7 mm, 5.1×7.3 mm, MNHN-IU-2009-2655; st. 30, Rani Reef, double barrier, 5-15m, 1♀ 4.9×7.5 mm, MNHN-IU-2009-2654; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 3.6×5.7 mm, MNHN-IU-2009-2656.

OTHER RECORDS — *Chlorodiella laevis* - Guinot, 1964b: 71, Mayotte (in distribution). - Serène, 1984: 260, Glorieuses, intertidal, coll. A. Crosnier, September 1958, 2♂♂ 3.0×4.6 mm, 4.3×7.0 mm, MNHN-B 6715; Mayotte, intertidal, coll. A. Crosnier, August 1959, 1♂ 4.0×6.4mm, MNHN-B 6716. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St5, reef at S-shaped Pass, UFID 13611, 13627. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — A good character to identify this *C. laevis* is the aspect of the anterolateral spines of the carapace: spines 1 and 4 reduced to tubercles, spine 2 is short and acute, spine 3 is the longest acute and hook shaped. The specimens examined include the two forms reported by Serène (1984): *C. laevis laevis* and *C. laevis robusta*, accepted as synonyms in WoRMS (2018).

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mozambique to Hawaii, French Polynesia; intertidal to 124m.

***Chlorodiella nigra* (Forskål, 1775)** (Figure 13I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 3, fringing reef, Trévani, 1-8m, 1♂ 8.6×12.7 mm, 1 juv., MNHN B32470, MNHN-IU-2009-1232; st. 8, Lagoon close to Great North-Eastern Reef, 1♂ 10.1×14.7 mm, MNHN B32297, MNHN-IU-2009-1115; st. 19, north Islet Handréma, 1♂ 7.0×10.3 mm, MNHN B32298, MNHN-IU-2009-1116; st. 27, Islet Mbouzi, 'Patate sud-est', 4-20m, 1♂ 9.0×13.2 mm, MNHN B32299, MNHN-IU-2009-1117; st. 30, Rani Reef, double barrier, 5-15m, 1♂ 4.8×6.8 mm, MNHN-IU-2009-3252; st. 32, northeast Islet M'tzamboro, 6-21m, 2♂♂ 5.5×8.0 mm, 7.3×11.0 mm; 3♀♀ 5.0×7.2 to 7.3×10.6 mm (ov.), MNHN B32300, MNHN-IU-2009-1118.

OTHER RECORDS — *Chlorodiella nigra* - Guinot, 1958b: 180, Mayotte, 5♂♂, 2♀♀, 3 juv., largest 18×12 mm, MNHN. - Guinot, 1967b: 262, list with Mayotte. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St4, Sada, Tahiti beach, reef, UFID 13620.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Japan, French Polynesia; intertidal to shallow-water.

***Cyclodius drachi* (Guinot, 1964b)** (Figure 13J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 28, east Islet Mbouini, 3-20m, 1♀ 7.43×10.74 mm, MNHN B32443, MNHN-IU-2009-1205.

OTHER RECORDS — *Phymodius drachi* - Serène, 1984: 249, Mayotte, intertidal, coll. A. Crosnier September 1959, 2♂♂ 7.1×10.5 mm, 7.6×11.3 mm, MNHN-B8075.

REMARKS — This species was confused in field notes with *Cyclodius unguatus* (H. Milne Edwards, 1834). Consult Guinot (1964b) for species affiliated to *Cyclodius drachi*: *C. unguatus* (H. Milne Edwards, 1834), *C. granulatus* (Targioni-Tozzetti, 1877) and *C. nitidus* (Dana, 1852).

GEOGRAPHIC AND DEPTH RANGES — IO, Red Sea, Kenya, Madagascar to Christmas Island (in Mendoza et al., 2014); intertidal, shallow subtidal.

***Cyclodius granulatus* De Man, 1888** (Figure 13K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 21b, Islet Choizil, east, Malanzamiayatsini, 15-20m, 1♂ 9.0×11.4 mm, 1♀ 8×10 mm, 1 juv., MNHN-IU-2009-3238; st. 23, Pass Choizil 'Patate à Teddy', 15-30m, 1 juv. 3.9×4.9 mm, MNHN-IU-2009-3243; st. 30, Rani Reef, double barrier, 3-15m, 1 juv. 4.2×5.3 mm, MNHN-IU-2009-3244.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — These specimens are similar to *Cyclodius unguatus*. They are distinct by the male G1 as figured by Serène (1984, fig. 163): sub-distal setae oriented forward, instead of backward as in *C. unguatus*. The determination of juveniles at st. 23, 30 is made with hesitation because without examination of mature male G1, *C. unguatus* cannot be totally excluded. The presence of *C. granulatus* in Mayotte was suggested by Serène (1984) and is confirmed herein, with an additional record in Glorieuses by Poupin et al. (2013c).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Madagascar to Japan, French Polynesia; intertidal to 15-30 m (present study).

***Cyclodius nitidus* (Dana, 1852)** (Figure 13L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26c, Mutsumbatsou reef flat, coll. J. -M. Bouchard 03/08/2008, intertidal 1♀ 7.04×10.72 mm, MNHN-IU-2009-3239; st. 26, Mutsumbatsou reef flat, intertidal 1♂ 6.2×8.8 mm, MNHN-IU-2009-3240.

OTHER RECORDS — *Phymodius nitidus* - Serène, 1984: 249, Glorieuses, intertidal, coll. A. Crosnier 29 January 1971, 2♂♂ largest 12.3×20.0 mm, 3♀♀ largest 8.7×13.6 mm, MNHN-B 8073.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Tanzania, Mayotte (present study) to Hawaii, French Polynesia; intertidal, shallow subtidal.

***Cyclodius unguatus* (H. Milne Edwards, 1834)** (Figure 13M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-11m, 4 juv, MNHN-IU-2009-3241; st. 19, north Islet Handréma, 6-10m, 1♂ 11×14 mm, 1 sp. not measured, MNHN B32444, MNHN-IU-2009-1206; st. 25, south Islet M'tzamboro, 15-20m, 3♂♂ 7.95×10.95 to 9.55×12.90 mm, 1♂ 11.1×15.1 mm, 1♀ 10.1×14.1 mm, 3 juv. MNHN-IU-2009-3242.

OTHER RECORDS — *Phymodius unguatus* - Serène, 1984: 251, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier, 29 January 1971, 1♂ 11.6×16.9 mm, 3♀♀ largest 9.8×14.0 mm, MNHN-B6739; Mayotte, intertidal, coll. A. Crosnier, August 1959, 2♂♂ 7.2×10.0 mm, 8.6×12.1 mm, 7♀♀ largest 10.6×15.3 mm, MNHN-B8082. - Poupin et al., 2013c: 11, Glorieuses.

REMARKS — The specimens were determined by using Serène (1984: 247) key and these characters: a) carapace narrow (CW/CL < 1.5 mm); b) ambulatory legs with sparse setae; c) male abdomen with

telson and 6th segment as large as long; and d) male G1 with long distal setae, directed backward. *Cyclodius unguulatus* resembles *C. obscurus* but has sharper tubercles on the chelae (vs. tubercles reduced or absent in *C. obscurus*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Hawaii, French Polynesia; intertidal to 15-20 m (present study).

***Cymo deplanatus* A. Milne-Edwards, 1873** (Figure 13N)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 1♂ 7.0×7.0 mm, MNHN B32289, MNHN-IU-2009-1107, 1♀ broken, 1♀ 7×7 mm, MNHN B32437, MNHN-IU-2009-1199; st. 17, North Reef, 22m, 1 juv. (det. with hesitation), MNHN-IU-2009-2681; st. 21b, east Islet Choizil, Malandzamiayatsini, 15-20m, 1♀ 8.1×9.2 mm (det. with hesitation), MNHN-IU-2009-2680.

OTHER RECORDS — *Cymo andreossi* - Guinot, 1958b: 181, Mayotte, in part not *C. andreossi* (Audouin, 1826) cf. Serène (1984) - *Cymo deplanatus* - Serène, 1984: 33, Mayotte, from re-det. of Guinot (1958b) 'C. andreossi'.

REMARKS — This species can be confused with *C. andreossi* (Audouin, 1826). Determinations at st. 17 and 21b with hesitation because of juvenile characters and resemblance with a specimen of *C. melanodactylus* at st. 30 (MNHN-IU-2009-1108, see below).

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mayotte to French Polynesia; subtidal to at least 15-17 m (present study).

***Cymo melanodactylus* Dana, 1852** (Figure 14A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 8, lagoon near Great North-Eastern Reef, 6-8m, 1♂ 10.5×12.5 mm, MNHN B32442, MNHN-IU-2009-1204; st. 30, Rani Reef double barrier, 3-15m, 1♀ 8.0×8.9 mm, MNHN B32290, MNHN-IU-2009-1108 (overall like *C. deplanatus* but attributed to *C. melanodactylus* because of black coloration of fingers of chelae instead of white in *C. deplanatus*; registered as *Cymo sp.* in MNHN in November 2017).

OTHER RECORDS — *Cymo melanodactylus* - Guinot, 1958b: 183, Mayotte, 1♂ 12×11 mm, MNHN. - Guinot, 1967b: 263, list with Mayotte.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, Kiribati, French Polynesia; subtidal.

***Cymo quadrilobatus* Miers, 1884** (Figure 14B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 36, south Salizé beacon, coll. J. -M. Bouchard, 11/11/2008, 2m, 1♀ 18.0×19.7 mm, MNHN B32454, MNHN-IU-2009-1216.

OTHER RECORDS — *Cymo quadrilobatus* - Guinot, 1958b: 183, Mayotte, 1♂ 15×15 mm, MNHN. - Guinot, 1967b: 263, list with Mayotte. - Serène, 1984: 31, Mayotte, 1♂ 15×15 mm, MNHN.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Guam, French Polynesia; subtidal.

***Etisus anaglyptus* H. Milne Edwards, 1834** (Figure 14C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 14, Bank Prudente, 15-17m, 1♂ 17.8×25.5 mm, MNHN B32466, MNHN-IU-2009-1228; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 9.5×14 mm, MNHN B32469 (see remarks); st. 33, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ juv. 6.5×8.4 mm, MNHN-IU-2009-2620 (see remarks).

REMARKS — Specimens at stations 32 and 33 determined with hesitation (registered in MNHN collection as *Etisus sp.*; November 2017) but most probably juveniles of *E. anaglyptus* where granulation of chelipeds and first anterolateral spine of carapace are reduced.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Somalia, Mayotte (present study), South Africa to Japan, French Polynesia; shallow water to 30m.

***Etisus demani* Odhner, 1925** (Figure 14D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 8, lagoon near Great North-Eastern Reef, 6-8m, 1♂ 6.6×9.7 mm (with hesitation, male G1 not checked; *E. odhneri* Takeda, 1971 possible), MNHN-B32381, MNHN-IU-2009-1154; st. 28, east Islet Mbouini, 3-20m, 1♂ 11.4×16.8 mm, MNHN B32348, MNHN-IU-2009-1123.

OTHER RECORDS — *Etisus demani* - Serène, 1984: 227, Mayotte, intertidal, coll. A. Crosnier September 1959, 2♂♂ largest 14.1×21.0 mm, 1♀ 8.5×12.4 mm, MNHN B6741.

REMARKS — This species is related to *E. odhneri* Takeda, 1971 (also collected, see below). The characters of *E. demani* in Serène (1984) are verified on the largest specimen from st. 28 (MNHN-IU-2009-1123): a) front aspect (compare fig. 143a, *E. demani*, and fig. 143b, *E. odhneri*, in Serène, 1984); b) anterolateral teeth of carapace with intercalated smaller teeth (absent or reduced in *E. odhneri*); c) dactyls of cheliped strongly curved distally; d) upper margin of ambulatory legs spinous; and e) aspect of male G1 with long sub-distal setae. On the smallest specimen examined, however, these characters are less obvious and differences with *Etisus odhneri* are more difficult to appreciate. Serène (1984: 227) has indicated that differences between these two species are perhaps size related questioning, therefore, the validity of *E. odhneri*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte, Madagascar to Hawaii, French Polynesia; intertidal, subtidal to 120m.

***Etisus dentatus* (Herbst, 1785)** (Figure 14E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 3, fringing reef, Trévani, at night, 1-8m, 1♂ 67×103 mm, MNHN B32412, MNHN-IU-2009-1174.

REMARKS — This large *Etisus* can be confused with *E. splendidus* Rathbun, 1906. The two species are recognized by their live coloration, chocolate brown in *E. dentatus* (vs. bright red in *E. splendidus*), and by a single spine on the carpus of the cheliped in *E. dentatus* (vs. two spines in *E. splendidus*).

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; shallow water to 30m.

***Etisus frontalis* (Dana, 1852)** (Figure 14F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, ‘Déversoir Badamiers’, intertidal, Petite Terre, 1♂ 10.7×17.6 mm, 1♀ 7.8×12.5 mm, 2 juv., not located in MNHN; st. 19, north Islet Handréma, 6-10m, 1♀ juv. 5.2×6.8 mm, MNHN-IU-2009-2626.

REMARKS — Male G1 has a coiled distal filament. In largest specimens the fixed finger of the larger chela has a molar tooth on its cutting edge, probably used to break mollusk shells. Juvenile at st. 19 is determined with hesitation and attributed to *Etisus frontalis* mostly because of the shape of its front (see illustration in Guinot, 1964b, pl. V, fig. 2; Serène, 1984, pl. XXXI E).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Seychelles to ?Australia, French Polynesia; intertidal, subtidal.



Figure 14. Crabs from Mayotte KUW 2009. **Xanthidae** - **A)** *Cymo melanodactylus*, 1♂ 10.5×12.5 mm, MNHN-IU-2009-1204; **B)** *Cymo quadrilobatus*, 1♀ 18×19.7 mm, MNHN-IU-2009-1216; **C)** *Etisus anaglyptus*, 1♂ 17.8×25.5 mm, MNHN-IU-2009-1228; **D)** *E. demani*, 1♂ 11.4×16.8 mm, MNHN-IU-2009-1123; **E)** *E. dentatus*, 1♂ 67×103 mm, MNHN-IU-2009-1174; **F)** *E. frontalis*, 1♀ juv. 5.2×6.8 mm, MNHN-IU-2009-2626; **G)** *E. odhneri*, 1♀ 6.6×9.4 mm, MNHN-IU-2009-2623; **H)** *E. utilis*, carapace 30.9×47.6 mm, MNHN-IU-2009-1249; **I)** *Euxanthus exsculptus*, 1♂ 9.0×13.7 mm, MNHN-IU-2009-1111; **J)** *Gaillardiiellus rueppelli*, 1♀ juv. 5.0×6.8 mm, MNHN-IU-2009-1134; **K)** *Hypocolpus divarticulatus*, 1♂ 14.8×19.5 mm, MNHN-IU-2009-2675 (preserved); **L)** *Kraussia rugulosa*, 1♂ 11.3×12.9 mm, MNHN-IU-2009-3224 (preserved); **M)** *Lachnopodus subacutus*, 1♂ 7.4×11.5 mm, MNHN-IU-2009-1128; **N)** *Leptodius exaratus*, 1♂ 10.2×14 mm MNHN-IU-2009-2615.

***Etisus odhneri* Takeda, 1971** (Figure 14G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, La Prévoyante Reef, 6-10m, 1♀ 6.6×9.4 mm, 2♂♂ 5.6×7.5 mm, 7.0×9.7 mm, MNHN-IU-2009-2623; st. 23, Pass Choizil, ‘*Patate à Teddy*’, 15-30m, 1♂ 7.4×10.3 mm, MNHN-IU-2009-2625; st. 25, south Islet M’tzamboro, 15-20m, 1♂ juv. 4.5×6.2 mm, 1♂ juv. 5.8×7.6 mm, 1♀ juv. 6.8×9.5 mm (pre-det. as *E. ?demani*) MNHN-IU-2009-2622, 1♀ ov. 7.3×10.1 mm, 1♀ 9.7×13.3 mm, MNHN-IU-2009-2622; st. 33, seaside of Pass Longoni-M’tzamboro, 25m, 1♂ 6.3×8.7 mm, MNHN B32292, MNHN-IU-2009-1110 (pre-det. as *E. ?demani*); st. 35, Surprise Reef, Pass Longoni-M’tzamboro, 4-25m, 1♀ 7.5×10.4 mm, MNHN-IU-2009-2621.

REMARKS — *Etisus odhneri* is similar to *E. demani* (see above). Specimens examined were attributed to *E. odhneri* from the original description of Takeda (1971) and the key and observations of Serène (1984). The following characters seem to be characteristic of *E. odhneri*: a) front more straight, without small lateral lobes; b) intercalated denticles between anterolateral teeth of carapace absent or reduced; and c) male G1 with a few short distal setae (several long distal setae in *E. demani*). The opinion of Serène (1984), however, that *E. odhneri* is perhaps a juvenile form of *E. demani* is supported by the largest specimen examined for *E. odhneri* (1♀ 9.7×13.3 mm, MNHN-IU-2009-2622) with characters intermediate between *E. odhneri* and *E. demani* (lateral lobes of front small but present; intercalated denticles between anterolateral teeth small but present). Live coloration of *E. demani* has often a remarkable large red patch on cardiac area, also observed on a few specimens of *E. odhneri*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Kenya, Mayotte (present study) to Taiwan, Palau Islands, Australia (Coral Sea); subtidal.

***Etisus splendidus* Rathbun, 1906**

MATERIAL EXAMINED — Mayotte KUW 2009, st. 32, northeast Islet M’tzamboro, 6-21m, carapace and one chela only, not collected.

OTHER RECORDS — [Legall and Poupin \(2018\)](#), Mayotte, in situ photo by Benjamin Pineau (specimen not collected).

REMARKS — This large *Etisus* is affiliated to *E. dentatus* (see above) and it can be recognized in the field by its bright red coloration (vs. brown in *E. dentatus*).

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Madagascar to Hawaii, French Polynesia; subtidal to at least 10m.

***Etisus utilis* Jacquinot, in Jacquinot and Lucas, 1853** (Figure 14H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 3, fringing reef, Trévani, night, photo in situ by J. Dumas (in [Legall and Poupin, 2018](#)), 1-8m, not collected; st. 24, north Islet Handréma, 6-12m, carapace only 30.9×47.6 mm, MNHN B32487, MNHN-IU-2009-1249.

REMARKS — This *Etisus* is identifiable by the aspect of anterolateral margin of the carapace armed, behind the exorbital angle, with seven large teeth, curved and flattened, almost of equal size. Its live coloration is chocolate brown, as in *E. dentatus*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Madagascar to Japan, New Caledonia; intertidal, subtidal.

***Euxanthus exsculptus* (Herbst, 1790)** (Figure 14I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 21b, east Islet Choizil, Malandzamiayatsini, 15-20m, 1♂ 9.0×13.7 mm, MNHN B32293, MNHN-IU-2009-1111.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Mozambique Channel (Juan de Nova), Mauritius to Japan, Guam, French Polynesia; subtidal to 15-20m.

***Gaillardiiellus rueppelli* (Krauss, 1843)** (Figure 14J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, La Prévoyante Reef, 6-10m, 1 juv. (with hesitation), MNHN-IU-2009-2647; st. 20b, western reef, Islet M'tzamboro, 10-15m, 1♂ 4.5×5.7 mm, MNHN-IU-2009-2646; st. 21b, east Islet Choizil, Malandzamiayatsini, 15-20m, 1♀ 6.7×9.5 mm, MNHN-IU-2009-2650; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♀ 6.9×9.6 mm, MNHN-IU-2009-2645, 1♂ 5.6×7.7 mm, MNHN-IU-2009-2652; st. 25, south Islet M'tzamboro, 15-20m, 1 juv. 3.7×5.2 mm, MNHN-IU-2009-2648, 2♂♂ and 2♀♀, MNHN-IU-2009-2649; st. 32, northeast Islet M'tzamboro, 6-21m, 1♀ juv. 5.0×6.8 mm, MNHN B32361, MNHN-IU-2009-1134; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 6.8×9.2 mm, MNHN-IU-2009-2651.

OTHER RECORDS — *Gaillardiiellus rueppelli* - Coll. Anker and Michonneau, 2008, st. MAY08-St1, Mboianatsa Reef, UFID 13570, 13575.

REMARKS — For photographs of this species see Guinot (1976: pl. 16, fig. 1, 1a) and Serène (1984: pl. XV F). Pollex black color extended variously, from distal part of palm only to about half of the palm.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mozambique, Mayotte (present study), South Africa to Japan, Kiribati, French Polynesia; intertidal to 120m.

***Hypocolpus divarticulatus* (Strahl, 1861)** (Figure 14K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, 'Déversoir Badamiers', intertidal, Petite Terre, 1♂ 14.8×19.5 mm, MNHN-IU-2009-2675.

OTHER RECORDS — *Hypocolpus divarticulatus* - Guinot, 1958a: 93, Mayotte, 1♂ 26×19 mm MNHN. - Guinot-Dumortier, 1960: 180, Mayotte, same specimen. - Guinot, 1967b: 264, list with Mayotte.

REMARKS — According to Serène (1984: 90) this is '*l'espèce d'Hypocolpus la plus commune dans l'Océan Indien Occidental*' with a specimen as large as 53×74 mm reported.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Vietnam, Japan but mostly in WIO; intertidal.

***Kraussia rugulosa* (Krauss, 1843)** (Figure 14L)

MATERIAL EXAMINED — Mayotte KUW 2009, coll. before fieldwork ?2008, V. Dinhut, seagrass bed Bouénie 'Sud, dans des résidus de carottage', 1♂ 11.3×12.9 mm, MNHN-IU-2009-3224.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — This crab has some resemblance with *Palapedia integra* (De Haan, 1835). Lateral margin of the carapace are denticulated with four salient acute spines (vs. feebly denticulated in *P. integra*) and the fingers of the chelae are slightly spoon shaped at tip (vs. acute at tip in *P. integra*). Serène (1972) can be consulted for key and photographs of both species.

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mayotte (present study), South Africa to Japan, French Polynesia; intertidal, subtidal.

***Lachnopodus subacutus* (Stimpson, 1858)** (Figure 14M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 34, 'Plage du Préfet', 2-8m, 1♂ 7.4×11.5 mm, MNHN B32355, MNHN-IU-2009-1128.

REMARKS — This species has some resemblance with *Liomera tristis*. The specimen of *L. subacutus* collected at st. 34 was pre-determined in field notes as '?*Liomera tristis* (Dana, 1852)'. The same confusion was made by Lenz (1910) for a specimen of '*L. tristis*' collected at Europa Island, later corrected in *L. subacutus* (cf. Serène, 1984: 59).

OTHER RECORDS — *Lachnopodus subacutus* - Serène, 1984: 205, Glorieuses, intertidal, coll. A. Crosnier 29 January 1971, 1♀ 7.4×11.4 mm, MNHN-B 6666.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Europa Island, Madagascar to Japan, Kiribati, Samoa; intertidal, subtidal.

***Leptodius exaratus* (H. Milne Edwards, 1834)** (Figure 14N)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, 1♂ 10.2×14 mm, 3♂♂ 8.2×11.7 to 10.2×14.0 mm, 1♀ 8.1×11.7 mm, MNHN-IU-2009-2615; st. 6, ‘Déversoir Badamiers’, intertidal, Petite Terre, 1♂ 8.5×12.2 mm, 1♀ 8.5×12.5 mm, 3 juv., MNHN-IU-2009-2616; st. 10, east Islet ‘Quatre Frères, Vatou’, intertidal, 1♂ 7.3×10.4 mm, MNHN-IU-2009-2618; st. 29, beach, intertidal at low tide, Mboianatsa, Ngouja Hotel, 14 spp., MNHN-IU-2009-2617.

OTHER RECORDS — *Xantho* (*Leptodius*) *exaratus* - Guinot, 1958a: 92, Mayotte, 1♂ 13×19 mm, 1♀ 6.4×9 mm, MNHN. - Guinot, 1967b: 265, list with Mayotte. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St7, Ngouja, reef, UFID 13632.

REMARKS — According to Serène (1984: 184) this is ‘*l’espèce de Xanthidae le plus commun de la zone intertidale de la région indo-pacifique tropicale. Sans grande difficulté, on peut en récolter des centaines d’exemplaires ... elle présente de nombreuses variations*’. Several specimens listed herein were pre-identified in field notes as ‘*?Leptodius sanguineus*’. The two species are similar but can be separated with the key in Serène (1984): a) anterolateral margin of carapace with 4 teeth (*L. exaratus*) or 5 teeth, the fifth being sometimes indistinct (*L. sanguineus*); b) male G1 with 5-6 curved sub-distal spines in *L. exaratus*, absent in *L. sanguineus*. Male G1 of both species is figured in Serène (1984: 180, fig. 106-108).

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, South Africa to western coast of Indian; intertidal, shallow subtidal. In several contributions (e.g. Serène, 1984; Sakai, 2009; Castro, 2011) this species has a wide IWP distribution including Australia, Japan and Hawaii. Lee et al. (2013: 192), however, consider that *L. exaratus* s.s. is only in the WIO its eastern limit being western India.

***Leptodius gracilis* (Dana, 1852)**

MATERIAL EXAMINED — Mayotte KUW 2009, st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 2♂♂ 4.6×6.3 mm, 5.4×7.3 mm, MNHN-IU-2009-2619.

REMARKS — These specimens were collected with *L. exaratus* but are distinguished by: a) carapace smooth; b) anterolateral teeth of carapace rounded; c) shape of big chela as illustrated in Serène (1984: pl. 26C); d) aspect of male G1 (figures in Serène, 1984: 180, fig. 107, *L. gracilis*, and fig. 106, *L. exaratus*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Mozambique to Hawaii, French Polynesia; intertidal, shallow subtidal.

***Leptodius nudipes* (Dana, 1852)** (Figure 15A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, intertidal, east Islet ‘Quatre frères, Vatou’, 1♂ 7.9×12.0 mm, 3♀♀ 6.2×9.2 to 7.0×10.0 mm (first record, in error, as *L. sanguineus*), 1♂ 9.1×13.8 mm (added in September 2011), MNHN B32346, MNHN-IU-2009-1121; st. 26, reef flat, intertidal, Mutsumbatsou, 1♀ 6.4×9.3 mm, MNHN-IU-2009-2613; st. 26c, reef flat, intertidal, Mutsumbatsou, coll. J. -M. Bouchard 03/08/2008, 1♂ (with *Sacculina*) 8.6×13 mm, ? 1 juv., MNHN-IU-2009-2614.

OTHER RECORDS — *Leptodius nudipes* - Serène, 1984: 183, Glorieuses, intertidal, coll. A. Crosnier, 16 September 1958, 2♂♂ 10.1×15.1mm, 11.3×17.3 mm, 1♀ 8.1×12.1 mm, MNHN-B6636.

REMARKS — This *Leptodius* species is unique by possessing a subdivision (bi or tri-cuspid) of the anterolateral carapace teeth.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Mozambique Channel (Europa Island), Madagascar to Hawaii, New Caledonia; intertidal, shallow subtidal.

***Leptodius sanguineus* (H. Milne Edwards, 1834)** (Figure 15B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 2, intertidal from Trévani to Kangani Mangrove, 2♂♂ 9.8×14.2 mm, 10.6×15.9 mm, 1♀ 8.8×13.1 mm, MNHN B32301, MNHN-IU-2009-1119, 3♂♂ 7.6×10.9 to 15.2×23.7 mm, MNHN B32345, MNHN-IU-2009-1120, 1♂ 9.1×13.4 mm, 6♀♀ (4 ov.)

6.4×8.2 to 9.1×13.4 mm, MNHN-IU-2009-3232; st. 6, ‘Déversoir Badamiers’, intertidal, Petite Terre, 2♂♂ 8.5×12.3 mm, 15.5×23.4 mm, 2♀♀ 8.5×12.2 mm, 14.4×21.5 mm, 3 juv. (with hesitation), MNHN-IU-2009-3233; st. 10, intertidal, east Islet ‘Quatre frères, Vatou’, 1♂ 14.4×22 mm, plus 13 spp., MNHN-IU-2009-3222; st. 26, intertidal, reef, Mutsumbatsou, 2♂♂ 14.0×21.5 mm, 18.3×28.6 mm, 4♀♀ 6.5×9.5 (ov.) to 17.0×26.4 mm, MNHN B32347, MNHN-IU-2009-1122; st. 29, beach, intertidal low tide, Mboianatsa, Ngouja Hotel, 2♂♂, 1 juv., MNHN-IU-2009-3231.

OTHER RECORDS — Poupin et al., 2013c: 11, Glorieuses.

REMARKS — Live coloration of this species is extremely variable. At least three distinct color pattern are illustrated for Mayotte in [Legall and Poupin \(2018\)](#). *Leptodius sanguineus* can be confused with *L. exaratus* (differences are under *L. exaratus*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal, shallow subtidal.

***Linnaeoxantho acanthomerus* (Rathbun, 1911)** (Figure 15C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 19, Nord Islet Handréma, 6-10m, 1♀ 5.8×8.1 mm, MNHN-IU-2013-7237.

REMARKS — The specimen examined matches well the characters and photograph in Rathbun (1911). A revision of this rare species is provided by Mendoza et al. (2012) with new records from Ryukyu and Kiribati (10-24 m). *Melybia thalamita* Stimpson, 1871 is the ‘equivalent’ species in WA, similar morphologically although assigned to a different genus. Phylogenetic analysis inferred from nuclear and mitochondrial markers indicate that both species should be classified in a separate family, Linnaeoxanthidae Števcíć, 2005 (see Toma et al., 2014).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study) to Japan, Kiribati; subtidal to 55m.

***Liocarpilodes armiger* (Nobili, 1905)** (Figure 15D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, La Prévoyante Reef, 6-10m, 2♂♂ 2.9×3.8 mm, 3.5×5.1 mm, 1♀ ov. 2.6×3.9 mm, MNHN-IU-2009-2610; st. 12, La Prévoyante Reef, 6-11m, 1♀ 2.3×3.7 mm, 1♀ 2.9×4.2 mm, MNHN-IU-2009-2607; st. 14, Bank Prudente, 15-17m, 1♀ ov. 2.0×4.6 mm, 1♂, MNHN-IU-2009-2604; st. 17, North Reef, 22m, 7 juv. about 2.5×3.5 mm, MNHN-IU-2009-2609; st. 19, north Islet Handréma, 6-10m, 1♂ 2.6×3.6 mm, MNHN-IU-2009-2603; st. 20b, western reef, Islet M'tzamboro, 10-15m, 2 spp., MNHN-IU-2009-2602; st. 23, Pass Choizil, ‘Patate à Teddy’, 15-30m, 1♀ 2.4×3.6 mm, MNHN-IU-2009-2608; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 2.3×4.5 mm, 1♀ 3.15×4.6 mm, MNHN-IU-2009-2605, 1♀ ov. 2.7×3.9 mm, MNHN-IU-2009-2606; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 2.6×3.8 mm, MNHN-IU-2009-2601.

OTHER RECORDS — *Liocarpilodes armiger* - Guinot, 1958b: 175, Mayotte, 1♀ 5.0×3.5 mm MNHN. - Guinot, 1967b: 265, list with Mayotte - Serène, 1984: 264, Glorieuses, 30m, coll. C. Jouannic, 1 July 1973, 1♀ 2.5×3.0 mm, MNHN-B 6723; Comoros (Anjouan), intertidal, coll. A. Crosnier, November 1961, 1♀ 2.7×4.1 mm, MNHN-B6725.

REMARKS — The anterolateral margin of carapace is cut into four teeth, 1 and 4 being distinctly small or indistinct. There is a long and sharp spine on inner margin of the cheliped merus (close up macro photos are in [Legall and Poupin, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — WIO/?IWP, Red Sea, Mayotte, Mozambique Channel (Europa Island), Madagascar, Mauritius, perhaps to Guam, French Polynesia. The western population of *L. armiger* is sometimes attributed to the Pacific ‘equivalent’, *L. pacificus* Balss, 1938 (e.g. Davie, 2002) but Guinot (1958b) has mentioned morphological variations indicating that the two species are perhaps conspecific.



Figure 15. Crabs from Mayotte KUW 2009. **Xanthidae** - **A)** *Leptodius nudipes*, 1♂ 7.9×12.0 mm, MNHN-IU-2009-1121 (preserved); **B)** *L. sanguineus*, 1♂ 14.4×22 mm, MNHN-IU-2009-3222; **C)** *Linnaeoxantho acanthomerus*, 1♀ 5.8×8.1 mm, MNHN-IU-2013-7237; **D)** *Liocarpilodes armiger*, 1♀ ov. 2.7×3.9 mm, MNHN-IU-2009-2606; **E)** *L. integerrimus*, 1♂ 2.3×3.2 mm, MNHN-IU-2013-7314 (from Glorieuses); **F)** *Liomera albolineata*, 1♀ juv. 5.3×8.3 mm MNHN-IU-2009-1141; **G)** *L. bella*, 1♀ 5.2×8,7 mm, MNHN-IU-2009-1145 (preserved); **H)** *L. cinctimana*, 1♀ 10.4×19.2 mm, MNHN-IU-2009-1124; **I)** *L. guttata*, 1♀ 7.2×11 mm, MNHN-IU-2009-1131; **J)** *L. laevis*, 1♀ 6.8×11.3 mm, MNHN-IU-2009-1149 (preserved); **K)** *L. monticulosa*, 1♂ 3.8×6.4 mm, MNHN-IU-2009-1125 (nb, color of carapace variable; totally white cream in some specimens); **L)** *L. rubra*, 1♀ 10.4×17.0 mm, MNHN-IU-2009-1147; **M)** *L. stimpsoni*, 1♂ 6.4×10.7 mm, MNHN-IU-2009-1142; **N)** *L. striolata*, specimen from Moorea, not measured, from Leray (2012, fig. C1-I); **O)** *L. edwardsi*, 1♂ 10.2×17.0 mm, MNHN-IU-2009-1127.

***Liomera albolineata* (Serène and Nguyen, 1960)** (Figure 15F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, 15-30m, 1♀ juv. 5.3×8.3 mm (live coloration verified), perhaps also 2♂♂ 4.8×7.8 mm, 6.2×9.9 mm (live color not verified), MNHN B32368, MNHN-IU-2009-1141.

REMARKS — These three specimens were registered as *L. rubra* in MNHN. The live color of 1♀ juv. 5.3×8.3 mm presented herein, however, is clearly that of *Liomera albolineata* (Serène and Nguyen, 1960: pl. II, fig. A). This species has been little reported since its description despite its remarkable color pattern. A color photograph in Salvat and Bacchet (2011: 252, bottom left as '*Liomera cf. rubra*') is obviously of *L. albolineata*, extending its distribution to French Polynesia (Moorea). *Liomera albolineata* is probably also in Japan, illustrated in color as '*L. rubra*' in Kawamoto and Okuno (2003: 137, top).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study, first record in IO) to Vietnam, Japan, French Polynesia; 15-20m.

***Liomera bella* (Dana, 1852)** (Figure 15G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, east Islet '*Quatre frères, Vatou*', intertidal, 1♀ 5.2×8.7 mm, MNHN B32372, MNHN-IU-2009-1145; st. 26, intertidal, Mutsumbatsou reef flat, coll. J. -M. Bouchard (Mliha), 2♂♂ 3.5×5.8 mm, 5.7×9.3 mm, 2♀♀ 4.4×7.4 mm, 5.7×9.6 mm, MNHN B32373, MNHN-IU-2009-1146.

OTHER RECORDS — *Liomera bella* - Serène, 1984: 61, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier, 29 January 1971, 9♀♀ largest 7×11 mm, 1♂ 6.5×11 mm, MNHN-B6493.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Mozambique to Hawaii, French Polynesia; intertidal, subtidal.

***Liomera cinctimana* (White, 1847)** (Figure 15H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, '*Patate à Teddy*', 15-30m, 1♀ 10.4×19.2 mm, MNHN B32349, MNHN-IU-2009-1124.

OTHER RECORDS — *Liomera cinctimana* - Serène, 1984: 57, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier 29 January 1971, 1♂ 20.0×35.5 mm, intertidal, 30 January 1971, 1♀ 36×65 mm, MNHN-B6482. - Mayotte, buoy n°8 in S-shaped Pass, in situ photograph by Matthias Deuss, July 2011 (photo in [Legall and Poupin, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, Mayotte (present study), South Africa to Gulf of California, Colombia; subtidal to 35m.

***Liomera edwardsi* Kossmann, 1877** (Figure 15O)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 27, Islet Mbouzi, '*Patate sud-est*', 4-20m, 2♂♂ 9.0×14.4 mm, 10.2×17.0 mm, 1♀ 10.8×17.6 mm, MNHN B32354, MNHN-IU-2009-1127.

OTHER RECORDS — Serène, 1984: 58, Mayotte, 30m, coll. A. Crosnier March 1959, 1♀ 4.6×7.0 mm, MNHN-B 8428.

REMARKS — These specimens were pre-identified as '*Liomera tristis*' and recorded as such in MHNN. *Liomera edwardsi* and *L. tristis* are similar for the male G1 (illustrated for *L. tristis* in Serène, 1984: 48, fig. 19) and legs banded in white. They can be separated by: a) shape of carapace, less elongated (CW/CL ~ 1.68) in *L. edwardsi* than in *L. tristis* (~ 1.76) with posterolateral margins straight making an angle of about 45° with horizontal line of posterior margin (less than 45° in *L. tristis*); b) anterolateral teeth of the carapace angular in *L. edwardsi* versus rounded in *L. tristis*; and c) dactyls of ambulatory legs much longer in *L. edwardsi*, length of P5 dactyl being included ~ 3.55 times in carapace length, versus ~ 5.9 in *L. tristis*.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte, Madagascar to Japan, northern Australia; subtidal, 15-35m.

***Liomera guttata* de Man, 1888** (Figure 15I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ 7.2×11.0 mm, MNHN B32358, MNHN-IU-2009-1131.

REMARKS — *Liomera guttata* de Man, 1888 has been described from Indonesia (Ambon) and seems to be known only by the type specimen, revised by Odhner (1925: 14, pl. 1, fig. 4) and listed with a '?' in Ng et al. (2008: 200). Its live coloration is illustrated herein for the first time with a bright orange carapace, with faint paler patches on posterior half, chelipeds orange, and ambulatory legs banded in white and red-orange. On the specimen examined, the carapace is smooth, strongly convex, only 1.53 as large as long (1.56 for the type specimen of *L. guttata*) instead of usually more than 1.6 in most *Liomera* species; fingers of chelipeds are slightly spoon-shaped at tip; ambulatory legs are longer than in most *Liomera* species with length of P4 about 1.1 CW with dactyls sub-equal to, or slightly longer, than propodi and P4 merus 3.36 as long as large. According to De Man (1888) and Odhner (1925) *L. guttata* is affiliated to *L. laevis* which was the determination by using the key of Serène (1984) but the two species are distinct (compare Figure 15I, J). The morphology of *L. guttata* is rather apart within the genus which would probably justify its assignment to a new genus.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study) to Indonesia (Ambon); subtidal.

***Liomera laevis* (A. Milne-Edwards, 1873)** (Figure 15J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, Mutsumbatsou reef flat, coll. J. -M. Bouchard (Mliha), intertidal, 1♀ 6.8×11.3 mm, MNHN B32376, MNHN-IU-2009-1149.

REMARKS — Specimen determined with key in Serène (1984). Coloration presented herein is altered by preservative (Figure 15J). Unaltered live color is in Nagai and Nomura (1988: 154) carapace being cream and legs red-purple banded in white.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, Mayotte (present study), Mauritius to Japan, French Polynesia; intertidal, subtidal.

***Liomera monticulosa* (A. Milne-Edwards, 1873)** (Figure 15K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12a, La Prévoyante Reef, 6-11m, 1♂ 3.8×6.4 mm, MNHN B32350, MNHN-IU-2009-1125; st. 17, North Reef, 22m, 1♂ 3.0×5.1 mm, MNHN B32379, MNHN-IU-2009-1152; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 5.8×9.5 mm, 1 juv. MNHN B32366, MNHN-IU-2009-1139; st. 25, south Islet M'tzamboro, 15-20m, 1♀ 5.7×9.7 mm, MNHN B32367, MNHN-IU-2009-1140; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 4.2×7.1 mm, MNHN B32353, MNHN-IU-2009-1126.

OTHER RECORDS — *Carpilodes caelatus* - Guinot, 1958a: 86, Mayotte, 1♀ 8×5 mm, MNHN / Not *Carpilodes caelata* Odhner, 1925, corrected into *L. monticulosa* by Serène (1984) - *Liomera monticulosa* - Serène, 1984: 64, Mayotte, from Guinot, 1958a. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St5, reef at S-shaped Pass, UFID 13636.

REMARKS — Live coloration of carapace varies from almost entire red to totally white cream, with intermediate aspects of mixed red and white cream patches (photographs in [Legall and Poupin, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Kenya, Mayotte, Madagascar to Japan, French Polynesia, Easter Island; subtidal to about 80-120 m (maximum depth from unpublished observation in Austral Islands, French Polynesia, BENTHAUS Expedition, 2002, J. Poupin).

***Liomera rubra* (A. Milne-Edwards, 1865)** (Figure 15L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 8, lagoon near Great North-Eastern Reef, 6-8m, 1♀ 10.4×17.0 mm, MNHN B32374, MNHN-IU-2009-1147; st. 14, Bank Prudente, 15-17m, 1 sp. 5.4×9 mm, not located in MNHN; st. 21b, east Islet Choizil, Malandzamiayatsini, 15-20m, 1♀ ov. 11.4×18.8 mm, MNHN B32378, MNHN-IU-2009-1151; st. 23, 2♂♂ 4.8×7.8 mm, 6.2×9.9 mm, MNHN B32368, MNHN-IU-2009-1141; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 11.2×18.2 mm, MNHN B32375, MNHN-IU-2009-1148; st. 35, 1♀ 10.8×17.5 mm, MNHN B32356, MNHN-IU-2009-1129.

OTHER RECORDS — *Liomera rubra* - Serène, 1984: 65, Glorieuses, coll. A. Crosnier 29 January 1971, 1♂ 9.0×15.1 mm, MNHN-B 8427.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; subtidal to 133m.

***Liomera stimpsonii* (A. Milne-Edwards, 1865)** (Figure 15M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 6.4×10.7 mm MNHN B32369, MNHN-IU-2009-1142; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 9.8×16.7 mm, MNHN B32370, MNHN-IU-2009-1143; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 5.5×9.2 mm, MNHN B32371, MNHN-IU-2009-1144.

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Mayotte (present study), South Africa to Japan, French Polynesia; subtidal.

***Liomera striolata* (Odhner, 1925)** (Figure 15N)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil 'Patate à Teddy', 15-30m, 1 juv. 3.1×5.4 mm, MNHN-IU-2009-3234.

REMARKS — This small specimen was identified as '*Liomera cf. semigranosa*' in field notes and registered as such in MNHN. It was re-determined as *L. striolata* during this work based on the remains of coloration on the preserved specimen comprising six pale yellow longitudinal lines on carapace, two median lines behind either side of median sinus of the front and two lateral lines, the innermost being behind the orbit. Serène (1984) has indicated that this color pattern is distinctive of *L. striolata*. No color photograph being available for Mayotte, a specimen from French Polynesia is presented on Figure 15N (adapted from Leray, 2012).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Seychelles to Japan, Guam, French Polynesia; subtidal.

***Lophozozymus edwardsi* Odhner, 1925** (Figure 16A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 30, Rani Reef, double barrier, 3-15m, 1♂ 24.8×42.0 mm, MNHN B32417, MNHN-IU-2009-1179.

REMARKS — This appears to be the first record of this species for the Indian Ocean record. The specimen from Mayotte has been compared with a specimen from New Caledonia in Paris collection (coll. Banaré, 1♂ 24.4×40.0 mm, MNHN B9324 [=B3011S, selected as lectotype in Guinot, 1979: 64], MNHN-IU-2014-22685. It matches also the photographs and description in Ng and Chia (1997) with: a) carapace glabrous; b) anterolateral margins cristate; c) large extension of pollex black coloration to the palm of chela, with a characteristic 'hook-shaped' form; and d) 'small orange punctuations all throughout the ventral surface'.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study, first record in IO) to Guam, French Polynesia; subtidal.

***Lophozozymus pulchellus* A. Milne-Edwards, 1867** (Figure 16B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 4.7×7.6 mm (damaged), det. September 2011, MNHN-IU-2009-3237.

REMARKS — Alive this small *Lophozozymus* has a reticulation of fine red lines on the carapace and its ambulatory legs are banded red. The specimen examined from KUW st. 35 is in a damaged condition, with only faint remains of live coloration. The live color pattern for Mayotte is nonetheless illustrated on Figure 16B from a photograph received during this work (courtesy N. Verneau). Live photos from French Polynesia ([Legall and Poupin, 2018](#)) are somewhat different indicating a possible complex of species.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Tanzania to Guam, Hawaii, French Polynesia; shallow subtidal to 120m.

***Lybia plumosa* Barnard, 1947** (Figure 16C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 32, northeast Islet M'tzamboro, 6-21m, 1♀ ov. 3.0×4.3 mm, MNHN B32434, MNHN-IU-2009-1196.

REMARKS — According to Guinot (1976) and Serène (1984) *L. plumosa* is similar to *Lybia leptochelis* (Zehntner, 1894), a species reported from Red Sea, Mozambique, Seychelles, Madagascar and Mauritius. Without comparative material, the specimen examined from Mayotte is nonetheless attributed to *Lybia plumosa* because of a faint tooth behind the two rounded lobes of anterolateral margin of the carapace (cf. Serène, 1984, 27, key). *Lybia plumosa* is illustrated in color by Galil and Vannini (1990: 34, fig. 7b, Somalia) and *L. leptochelis* by Mendoza et al. (2014: 281, fig. 3E, Christmas Is.). The two species have a similar color pattern, suggesting that they are perhaps conspecific.

GEOGRAPHIC AND DEPTH RANGES — WIO (mostly) to IWP (unusual), Somalia, Mayotte (present study), South Africa to Seychelles, Madagascar, Mauritius; also French Polynesia; subtidal. This species is mostly in WIO records from the Pacific being limited to Moorea and Tikehau Islands, French Polynesia (cf. Serène, 1984; Peyrot-Clausade 1989).

***Lybia tessellata* (Latreille, in Milbert, 1812)** (Figure 16D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 5, seagrass bed near Great North-Eastern Reef, 1m, 1♀ ov. 6.5×8.3 mm, MNHN B32430, MNHN-IU-2009-1192; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 2♂♂, 1♀ ov. MNHN B32433, MNHN-IU-2009-1195; st. 25, south Islet M'tzamboro, 15-20m, 1♀ 6.8×7.9 mm, MNHN B32431, MNHN-IU-2009-1193; st. 26, Mutsumbatsou reef flat, coll. J. -M. Bouchard st. Mliha 5-18m, 1♀, 1♀ ov., MNHN B32432, MNHN-IU-2009-1194.

OTHER RECORDS — *Lybia tessellata* - Serène, 1984: 28, Glorieuses, intertidal, coll. A. Crosnier, J. Millot, 16 September 1958, 11 spp. 4.6×5.8 to 8.3×12.0 mm, MNHN-B6691; Comoros (Anjouan) intertidal, coll. A. Crosnier, 1 juv. 3.5×4.2 mm, 1♀ ov. 5.2×7.2 mm, MNHN-B 6690. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St5, reef at S-shaped Pass, UFID 13683. - Photo Matthias Deuss, Mayotte, Sakouli, under a stone 1 m (in [Legall and Poupin, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, Guam, French Polynesia; subtidal. All previous records of this species in Hawaii attributed to *Lybia edmondsoni* Takeda and Miyake, 1970 in Castro (2011: 100).

***Metaxanthops acutus* Serène, 1984** (Figure 16E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 17, North Reef, 22m, 1♀ ov. 4.0×5.1 mm, MNHN-IU-2009-3217; st. 32, northeast Islet M'tzamboro, 6-21m, 1♀ juv. 3.2×3.7 mm, MNHN-IU-2009-3219; no station number, coll. V. Dinhut 1998, seagrass bed, Bouénie, 1♂ 7.1×9.8 mm, MNHN-IU-2009-3218.

OTHER RECORDS — *Metaxanthops acutus* - Serène, 1984: 214, Comoros (Anjouan), intertidal, coll. A. Crosnier, November 1961, 1♀ 6.0×8.1 mm, paratype, MP-B6673. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St5, reef at S-shaped Pass, UFID 136681.

GEOGRAPHIC AND DEPTH RANGES — IWP, Comoros (Anjouan), Mayotte (present study), Madagascar to New Caledonia (see Ng and Clark, 2002).



Figure 16. Crabs from Mayotte KUW 2009. **Xanthidae** - **A)** *Lophozozymus edwardsi*, 1♂ 24.8×42 mm, MNHN-IU-2009-1179; **B)** *L. pulchellus*, 1 specimen not measured (approximately 11×18 mm), not in MNHN photograph Norbert Verneau, Mayotte; **C)** *Lybia plumosa*, 1♀ ov. 3.0×4.3 mm, MNHN-IU-2009-1196 (dead specimen having lost the anemones fixed on its chelae when alive); **D)** *Lybia tessellata*, 1♀ ov. 6.5×8.3 mm, MNHN-IU-2009-1192 (with anemones on its chelae); **E)** *Metaxanthops acutus*, 1♂ 7.1×9.8 mm, MNHN-IU-2009-3218 (preserved); **F)** *Monodaeus tuberculidens*, 1♂ 6.3×9.1 mm, MNHN-IU-2009-3235 (preserved); **G)** *Nanocassiope alcocki*, 1♀ 3.5×5.2 mm, MNHN-IU-2009-2612 (preserved); **H)** *Neoliomera sabaea*, 1♂ 7.0×10.8 mm, MNHN-IU-2009-3229; **I)** *N. themisto*, 1♀ 9.3×16.0 mm, MNHN-IU-2009-1130; **J)** *Neoxanthias impressus*, Glorieuses 2012, photo M. Malay n° MEPA1296, not measured about 30×50 mm; **K)** *Palapedia integra*, 1♀ 9×10 mm, MNHN-IU-2009-3225; **L)** *Paractaea retusa*, 1♂ 12.5×19.0 mm, MNHN-IU-2009-3253 (preserved); **M)** *Paractaea rufopunctata* 1♀ 12.0×17.4 mm, MNHN-IU-2009-1211; **N)** *Paramedaeus octogesimus*, 1♀ ov. 10.4×14.8 mm, MNHN-IU-2013-7354 (Glorieuses, 2012).

***Monodaeus tuberculidens* (Rathbun, 1911) s.l.** (Figure 16F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 19, north Islet Handréma, 6-10m, 1♂ 6.3×9.1 mm, MNHN-IU-2009-3235.

REMARKS — Guinot and Macpherson (1998) have revised several specimens of *Monodaeus tuberculidens*, including the type specimen from Saya de Malha Bank (229 m) and specimens from Réunion and Madagascar. They have reported morphological variations and attributed Réunion specimens to this species with hesitation (*M. aff. tuberculidens*). They also indicate that records from Madagascar and South Africa must be revised to confirm *M. tuberculidens*. The specimen examined herein from Mayotte present most of the characters of *M. tuberculidens* listed in Guinot and Macpherson (1998) except for the armament of upper margins of P2-P5 meri, with spines instead of sharp granules for the holotype of *M. tuberculidens*. This difference is perhaps related to the small size of the specimen examined, 6.3×9.1 mm (vs. 12.0×18.2 mm for holotype). Due to remarks and observations in Guinot and Macpherson (1998) the present record from Mayotte is attributed to *M. tuberculidens* sensu lato. More specimens are required to understand the morphological variations in this species.

GEOGRAPHIC AND DEPTH RANGES — WIO, ?South Africa, ?Mayotte (present study), ?Madagascar, ?Réunion, Saya de Malha Bank; subtidal to 229m, ?420 m (Réunion).

***Nanocassiope alcocki* (Rathbun, 1902)** (Figure 16G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 3.3×3.7 mm, 1♀ 3.5×5.2 mm, MNHN-IU-2009-2612; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 3.0×4.2 mm, MNHN-IU-2009-2611.

REMARKS — The small specimens examined have juvenile characters with granules on chelipeds and carapace reduced, and anterolateral teeth of carapace low. The male G1, however, is similar to that of *N. alcocki* as figured by Serène (1984: 202).

GEOGRAPHIC AND DEPTH RANGES — IO, Seychelles, Mayotte (present study), South Africa to Maldives Islands, northwestern Australia (Ashmore and Cartier Islands), Christmas Island (see Mendoza et al., 2014); subtidal to 460m.

***Neoliomera sabaea* (Nobili, 1905)** (Figure 16H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, southern tip Islet M'tzamboro, 15-20m, 1♂ 7.0×10.8 mm, MNHN-IU-2009-3229.

OTHER RECORDS — *Neoliomera sabaea* - Guinot, 1958a: 91, Mayotte, 1♀ 16×10 mm, MNHN. - *Actaea sabaea* - Guinot, 1967b: 261, list with Mayotte. - *Neoliomera sabaea* - Serène, 1984: 69, Mayotte.

REMARKS — The specimen illustrated herein is slightly discolored due to preservation. For live color of *N. sabaea* see Galil and Vannini (1990, fig. 7E).

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, South Africa to Ceylon, Mauritius; intertidal, subtidal.

***Neoliomera themisto* (De Man, 1889)** (Figure 16I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 8.5×13.8 mm, 1♀ 9.3×16.0 mm, MNHN B32357, MNHN-IU-2009-1130.

REMARKS — No comparison specimens were examined. The determination is made by a comparison with the photograph in Serène (1984, pl. IX A). *Neoliomera themisto* is affiliated to *N. richtersi* (De Man, 1889) distributed in the Pacific with similar live color pattern of orange punctuated with white patches (photo in Salvat and Bacchet, 2011). Serène (1984: 70) has suggested that the two species are perhaps conspecific.

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, Aldabra, Mayotte (present study); subtidal.

***Palapedia integra* (De Haan, 1835)** (Figure 16K)

MATERIAL EXAMINED — Mayotte KUW 2009, Mayotte, st. 14, Bank Prudente, 15-17m, 1♀ 9×10 mm, MNHN-IU-2009-3225 (same sp. as '*P. marquesa* (Serène, 1972)' in field report of Bouchard et al., 2009: 80).

REMARKS — This specimen was determined by using Serène (1972) key and description, most of the characters being those of *P. integra*, in particular, the front is sinuous vs. straight in the related *P. bongensis* (Serène, 1972), a species known from Philippines and Japan (see Ng, 1993: 153). In FLMNH collection (UFID 13651) a specimen from Mayotte is identified as '*Palapedia bongensis*'. This would be interesting to check this identification to verify that *P. bongensis* is present in Mayotte.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (present study), Réunion, Mauritius to China, Japan, Gilbert Islands, ?Hawaii (questionable in Castro, 2011); shallow subtidal to 115m.

***Paractaea retusa* (Nobili, 1905)** (Figure 16L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, '*Patate à Teddy*', 15-30m, 1♀ 5.8×7.9 mm, MNHN-IU-2009-3254; st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, intertidal 1♂ 12.5×19.0 mm, 1♀ 10.8×16.4 mm (field identification as '*P. rufopunctata*', see remarks), MNHN-IU-2009-3253.

OTHER RECORDS — *Paractaea retusa retusa* - Serène, 1984: 125, Glorieuses, Island du Lys, intertidal; coll. A. Crosnier, 21 January 1971, 1♀ 9.5×15.0 mm, MNHN-B6574.

REMARKS — This species can be confused with *Paractaea rufopunctata*, with the two species being collected together at station 26c. *Paractaea retusa* is characterized by: a) anterolateral margins of the carapace with only 3 lobes, the first one being fused with the exorbital angle (vs. 4 lobes in *P. rufopunctata*); b) region 5L on carapace entire (vs. partly divided in *P. rufopunctata*); c) region 4L on carapace separated from 'T' tooth (vs. connected to 'T' tooth in *P. rufopunctata*; for nomenclature of carapace regions and teeth see Serène, 1984: 18, fig. C).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Kenya, Mayotte (present study), Mozambique Channel (Europa) to New Caledonia, French Polynesia; intertidal.

***Paractaea rufopunctata* (H. Milne Edwards, 1834) s.l.** (Figure 16M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 3a, fringing reef, Trévani, 1-8m, 1♂ 7.5×10.9 mm, MNHN-IU-2009-2669; st. 12c, La Prévoyante Reef at night, 6-11m, 1♂ 14.8×30.3 mm, MNHN B32446, MNHN-IU-2009-1208; st. 12a., 1♀ juv. 4.6×6.5 mm (with hesitation, *P. retusa* possible), MNHN-IU-2009-2673; st. 14, Bank Prudente, 15-17m, 1♂ 15.0×21.7 mm, MNHN B32286, MNHN-IU-2009-1104; st. 20b, western reef flat, Islet M'tzamboro, 10-15m, 1 juv., MNHN-IU-2009-2672; st. 23, Pass Choizil, '*Patate à Teddy*', 15-30m, 1♀ 12.0×17.4 mm, MNHN B32449, MNHN-IU-2009-1211, 1♂ 6.2×9.4 mm, MNHN-IU-2009-2674; st. 26, intertidal at low tide, Mutsumbatsou reef flat, 2♂♂ same size 17.2×24.0 mm, MNHN B32448, MNHN-IU-2009-1210; st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, intertidal 1♂ 15.8×23.0 mm, 1♀ 15.1×21.7 mm, MNHN-IU-2009-2668; st. 27, Islet Mbouzi, '*Patate sud-est*', 4-20m, 1♀ 5.7×8.2 mm, MNHN-IU-2009-2667; st. 32, northeast, Islet M'tzamboro, 6-21m, 1♀ 14.8×21.0 mm, MNHN B32447, MNHN-IU-2009-1209; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ 14.8×20.9 mm, MNHN-IU-2009-2670.

OTHER RECORDS — *Paractaea rufopunctata* f. *frontalis* nov. - Serène, 1984: 123, Mayotte, intertidal, coll. A. Crosnier September 1959, 1♂ 19×27 mm, MNHN-B 6565 / In Ng et al. (2008: 196) the form '*frontalis*' is not accepted.

REMARKS — *Paractaea rufopunctata* sensu lato is a species complex with several form identified by Serène (1984). Live coloration of specimens examined from Mayotte have a characteristic pattern of red or brown patches on carapace (see Figure 16M), with more photos in [Legall and Poupin, 2018](#).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Hawaii, French Polynesia; intertidal, subtidal.

***Pilodius areolatus* (H. Milne Edwards, 1834)** (Figure 17B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 5, seagrass bed, Great North-Eastern Reef, 1m, 1 sp. 9.0×11.6 mm, MNHN-IU-2009-3246; st. 17, North Reef, 22m, 1 juv. not collected; st. 26, intertidal, Mutsumbatsou reef flat, 1♀ 9.3×13.7 mm, 6♀♀ ov., 2 juv., MNHN B32453, MNHN-IU-2009-1215, 1♂ 5.5×7.2 mm, 1♀ 6.3×8.7 mm, MNHN-IU-2009-3248; st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, 1♀ 10.6×15.1 mm, MNHN-IU-2009-3247; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♀ 7.0×9.6 mm, MNHN-IU-2009-3245.

OTHER RECORDS — *Chlorodopsis areolata* - Guinot, 1958b: 176, Mayotte, 1♂ 17×12 mm, MNHN. - *Pilodius areolatus* - Guinot, 1967b: 268, list with Mayotte. - Serène, 1984: 236, Glorieuses, intertidal, coll. A. Crosnier 16 September 1958, 16♂♂, largest 15.5×22.5 mm, 14♀♀, largest 12.6×18.4 mm, MNHN-B 6695; Mayotte, intertidal, coll. A. Crosnier September 1959, 5♂♂ largest 16.8×24.5 mm, 5♀♀ largest 11.4×16.5 mm, MNHN B-6694. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St1, Mboianatsa, reef, UFID 13604; st. MAY08-St2, Tanaraki, reef, UFID 13553, 13555, 13564; st. MAY08-St0, UFID 20185. - Poupin et al., 2013c: 11, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — Red Sea, South Africa to Hawaii, French Polynesia; intertidal, shallow subtidal.

***Pilodius spinipes* (Heller, 1861)** (Figure 17D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 4, La Prévoyante Reef, 6-10m, 8 spp. MNHN B32456, MNHN-IU-2009-1218, 1♂ 9.4×14.7 mm, MNHN-IU-2009-1158, MNHN B32457 (and/or MNHN-IU-2009-1219); 2 juv. (with hesitation) MNHN-IU-2009-2637; st. 12, La Prévoyante Reef, 6-12m, 1♀ 8×13 mm, 6 spp., MNHN B32458, MNHN-IU-2009-1220; st. 14, Bank Prudente, 15-17m, 11 spp., MNHN B32459, MNHN-IU-2009-1221, 5♂♂ 4.6×7.0 to 8.7×13.2 mm, 6♀♀ 3.0×5.0 to 8.3×12.5 mm, MNHN B32388, MNHN-IU-009-1161; st. 17, North Reef, 22m, 2♂♂ 5.3×7.2 mm, 5.8×8.5 mm, 1♀ 6.6×9.2 mm, 1♀ ov. 7.1×9/8 mm, 8 juv. MNHN-IU-2009-2641; st. 20b, western reef Islet M'tzamboro, 10-15m, 2♂♂ 7.0×10.6 mm, 11.6×16.4 mm, MNHN-IU-2009-3250; st. 21b, Islet Choizil, east, Malandzamiayatsini, 15-20m, 1♂ 9.8×14.0 mm, MNHN-IU-2009-2639; st. 23, Pass Choizil 'Patate à Teddy', 15-30m, 2♀♀ 6.7×9.7 mm, 8.6×12.9 mm (with hesitation), MNHN B32389, MNHN-IU-2009-1162, 1♂ 10.0×13.5 mm, MNHN-IU-2009-2635; st. 25, south Islet M'tzamboro, 15-20m, 1 juv. 3.4×4.9 mm, 1♂ 10.1×15.4 mm, 1♀ 8.5×13.3 mm, MNHN-IU-2009-2638, 1♀ 6.6×9.6 mm, MNHN-IU-2009-3249; st. 27, Islet Mbouzi, 'Patate sud-est', 4-20m, 1 sp. 8.0×12.4 mm, not located in MNHN; st. 28, 1♂ 8.4×11.8 mm, MNHN-IU-2009-2642; st. 32, Islet M'tzamboro, northeast; 6-21m, 1♂ 7.5×11.2 mm, 1♀ ov. 9.7×14.1 mm, 2 juv., MNHN-IU-2009-2636; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 2♂♂, 1♀, 1♂ with *Sacculina*, MNHN-IU-2009-2640.

OTHER RECORDS — *Chlorodopsis spinipes* - Guinot, 1958b: 178, Mayotte, 1♂ 14×9 mm MNHN-B16505. - *Pilodius spinipes* - Guinot, 1967b: 268, list with Mayotte. - Clark and Galil, 1993: 1155, Mayotte, coll. Marie 1 CW♂ 14 mm MNHN-B16505, coll. A. Crosnier September 1959, 2♂♂ CW 14.5-15.5 mm, 4♀♀ CW 14-10 mm, MNHN-B8025. - Poupin et al., 2013c: 12, Glorieuses. - *Pilodius* aff. *spinipes* - Serène, 1984: 244, Glorieuses, intertidal, coll. A. Crosnier 29 January 1971, 1♂ 10.8×16.6 mm, MNHN-B8024; Mayotte, coll. A. Crosnier September 1959, 3♂♂, 5♀♀, MP-B8025 / Accepted as *P. spinipes* in Clark and Galil (1993).

GEOGRAPHIC AND DEPTH RANGES — IO, Red Sea, Mozambique to Andaman, Mergui archipelagoes (see map in Clark and Galil, 1993, fig. 30); intertidal, subtidal.

***Platypodia granulosa* (Rüppell, 1830)** (Figure 17E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, Islet 'Quatre frères, Vatou', intertidal, 1♀ 14×20 mm, MNHN B32445, MNHN-IU-2009-1207.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal, subtidal.

***Platypodia morini* (Ward, 1942)** (Figure 17F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 22, Islet Choizil, west, Malandzamiayajou, 30-35m, 1♂ 12.3×18.2 mm, MNHN B32294, MNHN-IU-2009-1112.

REMARKS — This seems to be the first report of this species since Serène (1984). Figures can be consulted in Guinot (1964b, pl. I).

GEOGRAPHIC AND DEPTH RANGES — IO, Seychelles (Aldabra), Mayotte (present study) to Chagos Islands; shallow water to 42m.

***Polydectus cupulifer* (Latreille, in Milbert 1812)** (Figure 17G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♀ 5.0×5.5 mm, MNHN B32429, MNHN-IU-2009-1191.

REMARKS — This species is rarely reported despite a wide IWP distribution. The chelae hold anemones and has a typical shape as illustrated in Guinot (1976: 67-68, fig. 15a-g).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), Madagascar to Hawaii, French Polynesia; intertidal, subtidal to 15-30m.

***Psaumis cavipes* (Dana, 1852)** (Figure 17H)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 12, La Prévoyante Reef, 6-12m, 1♂ 5.4×8.3 mm, MNHN B32441, MNHN-IU-2009-1203; st. 25, south Islet M'tzamboro, 15-20m, 1 juv. 2.5×3.7 mm MNHN-IU-2009-2677; st. 35, Surprise Reef, Pass Longoni-M'tzamboro, 4-25m, 1♂ 7.5×11.9 mm, MNHN-IU-2009-2676.

OTHER RECORDS — *Actaea cavipes* - Odhner, 1925: 68, Mayotte (specimens in Wien Museum). - Guinot, 1958a: 87, Mayotte, 1♀ 13.0×8.6 mm, MNHN. - Guinot, 1967b: 260, list with Mayotte. - *Psaumis cavipes* - Serène, 1984: 129, Mayotte, coll. A. Crosnier September 1959, intertidal, 1♀ 5×8 mm, lagoon, 50 m rubble and sand, 1♀ 5.6×8.5 mm, MNHN-B6519; Comoros (Anjouan), intertidal, coll. A. Crosnier November, 1♀ 4.1×6.7 mm, MNHN-B-6519. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St1, Mboianatsa, reef, UFID 13663.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, Kiribati, French Polynesia; intertidal, subtidal.

***Pseudactaea multicristata* (Zehntner, 1894)** (Figure 17I)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♂ 4.7×6.4 mm, MNHN-IU-2009-3236.

REMARKS — A rarely reported species.

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia (Galil and Vannini, 1990), Mayotte (present study), Madagascar to Vietnam, Indonesia; subtidal to 15-30m.

***Pseudoliomera helleri* (A. Milne-Edwards, 1865)** (Figure 17J)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, Islet M'tzamboro, south, 15-20m, 1♂ 11.35×17.12 mm, det. September 2011, MNHN-IU-2009-3228.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Somalia, Mayotte (present study), Madagascar to Japan, northern and western Australia; subtidal to 15-35m.

***Pseudoliomera speciosa* (Dana, 1852)** (Figure 17K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 11, scraping of buoy 'Bâbord Est, Kongo' along shipping channel, 1-4m, 1♂ 10.2×13.8 mm, 1♀, MNHN B32467, MNHN-IU-2009-1229; st. 23, Pass Choizil, 'Patate à Teddy', 15-30m, 1♀ 8.5×12.0 mm, MNHN B32359, MNHN-IU-2009-1132; st. 32, northeast Islet M'tzamboro, 6-21m, 1♂ 5.5×7.5 mm, MNHN B32360, MNHN-IU-2009-1133.



Figure 17. Crabs from Mayotte KUW 2009. **Xanthidae** - **A)** *Paramedaeus simplex*, 1 juv. 5.9×7.8 mm, MNHN-IU-2013-7355 (preserved; from Glorieuses, 2012); **B)** *Pilodius areolatus*, 1 sp. 9.0×11.6 mm, MNHN-IU-2009-3246; **C)** *P. pugil*, 1 juv. not measured (CW about 7 mm), MNHN-IU-2013-7358 (from Glorieuses, 2012); **D)** *P. spinipes*, 1♀ 8×13 mm, MNHN-IU-2009-1220; **E)** *Platypodia granulosa*, 1♀ 14×20 mm, MNHN-IU-2009-1207; **F)** *P. morini*, 1♂ 12.3×18.2 mm, MNHN-IU-2009-1112; **G)** *Polydectus cupulifer*, 1♀ 5.0×5.5 mm, MNHN-IU-2009-1191; **H)** *Psaumis cavipes*, 1♂ 7.5×11.9 mm, MNHN-IU-2009-2676 (preserved); **I)** *Pseudactaea multicristata*, 1♂ 4.7×6.4 mm, MNHN-IU-2009-3236 (preserved); **J)** *Pseudoliomera helleri*, 1♂ 11.3×17.1 mm, MNHN-IU-2009-3228 (preserved); **K)** *P. speciosa*, 1♂ 10.2×13.8 mm, MNHN-IU-2009-1229; **L)** *P. variolosa*, 1♀ 7.4×10.4 mm, MNHN-IU-2009-3230 (preserved); **M)** *Tweedieia laysani*, 1♂ 6.8×8.6 mm, MNHN-IU-2009-2679 (preserved); **N)** *Xanthias cherbonnieri*, 1♂ 3.05×4.67 mm, MNHN-IU-2009-2628 (preserved).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal, subtidal.

***Pseudoliomera variolosa* (Borradaile, 1902)** (Figure 17L)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, ‘Patate à Teddy’, 15-30m, 2♀♀
6.2×9.2 mm, 7.4×10.4 mm, MNHN-IU-2009-3230.

REMARKS — This species has superficial resemblances with juveniles of *Gaillardiiellus rueppelli*. The aspect of the chelae is a good distinguishing character; in *Pseudoliomera variolosa* the palm is more inflated and fingers are hook-shaped with two bristle brushes at tip (vs. not present in *G. rueppelli*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Kenya, Somalia, Mayotte (present study), South Africa to Hawaii, French Polynesia; shallow subtidal to bathyal, 29–311 m.

***Tweedieia laysani* (Rathbun, 1906)** (Figure 17M)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 25, south Islet M'tzamboro, 15-20m, 1♂ 6.8×8.6 mm, MNHN-IU-2009-2679.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses.

REMARKS — This species is related to *Tweedieia odhneri* (Gordon, 1934) distributed from Christmas Island to French Polynesia. Crosnier indicated (footnote, p. 253 in Serène, 1984) that the differences between the two species are not clear and in need of revision, ‘*compte tenu des variations individuelles*’.

GEOGRAPHIC AND DEPTH RANGES — IWP, Seychelles (Aldabra), Mayotte (present study) to Hawaii, French Polynesia; intertidal, subtidal.

***Xanthias cherbonnieri* Guinot, 1964b** (Figure 17N)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 20b, western reef flat Islet M'tzamboro, 10-15m, 1♂ 4.4×6.7 mm, MNHN-IU-2009-2629, 1♀ 3.3×5.2 mm, MNHN-IU-2009-2631; st. 25, south Islet M'tzamboro, 15-20m, 1♂ 3.05×4.67 mm, MNHN-IU-2009-2628; st. 30, Rani Reef, double barrier, 3-15 m (with hesitation, see remarks), 1♀ 5.5×8.8 mm, MNHN-IU-2009-2630.

REMARKS — This small species is characterized by a network of yellow lines on the carapace, illustrated in Guinot (1964, pl. II, fig. 1-4). Serène (1984) has indicated that the specimens collected at Réunion Island (20 m) were associated with a coral *Galaxea fascicularis* (Linnaeus, 1767). *Xanthias cherbonnieri* is rarely collected, probably because of its small size, but it has a wide IWP distribution. Mendoza et al. (2014) have reported *X. cherbonnieri* from Christmas Island but according to their photograph (Fig. 4E) this is probably a distinct species because the color pattern is atypical. In Mayotte KUW collection 1♀ 5.5×8.8 mm, MNHN-IU-2009-2630 at st. 30 is different and attributed with hesitation to *X. ?cherbonnieri*. The aspect of the carapace is overall similar but the following differences were observed: a) much larger size; b) absence of reticulated pattern of yellow lines on carapace; c) presence of long fringes of setae on upper margins of meri of ambulatory legs (absent in *X. cherbonnieri*); d) both chelae of similar small size (vs. one chelae is larger than the other in *X. cherbonnieri*).

GEOGRAPHIC AND DEPTH RANGES — IWP, Seychelles (Aldabra), Mayotte (present study), Réunion to Japan; subtidal to 20m.

***Xanthias lamarckii* (H. Milne Edwards, 1834)** (Figure 19A)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, 1 ♀ juv. 7.6×11.9 mm, MNHN-IU-2009-2627.

OTHER RECORDS — *Xanthias lamarckii* - Serène, 1984: 195, Comoros (Anjouan) intertidal, 1 ♀ 9.1×14.4 mm, MNHN-B6650. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St2, Tanaraki, UFID 13592.

REMARKS — Serène (1984) indicates that this is '*l'espèce la plus commune du genre*' but a single specimen was collected during KUW 2009. The Mayotte specimen being preserved is replaced in Figure 19A by material with clearer coloration (collection 2011, Europa Island, Poupin et al., 2013b).

GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania, Mayotte (present study), Mozambique, South Africa to Hawaii, French Polynesia; intertidal, subtidal.

***Xanthias maculatus* Sakai, 1961 s.l.** (Figure 18A-D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 23, Pass Choizil, '*Patate à Teddy*', 15-30m, 1 ♀ 3.7×6.5 mm, 1 ♂ 5.0×7.5 mm, MNHN-IU-2009-2633, 1 ♀ 5.9×8.7 mm, 1 juv. 4.1×6.1 mm, MNHN-IU-2009-2634; st. 25, south Islet M'tzamboro, 15-20m, 1 juv. 3.1×4.7 mm, MNHN-IU-2009-2632.

REMARKS — The 'ocellated' *Xanthias* include two species, *X. maculatus* and *X. joanneae* Mendoza, 2013 (see Mendoza, 2013). Mayotte specimens have intermediate characters between the two and, for this reason, are attributed to *X. maculatus sensu lato*. With *X. joanneae* they share: a) 31-33 ocelli on the carapace (at least 40 in *X. joanneae* vs. about 14 in *X. maculatus*); b) ambulatory legs with broad and stout meri, ratio of the width of the P5 merus to carapace length being 0.21 (0.22 in *X. joanneae* vs. 0.17 in *X. maculatus*). With *X. maculatus* they share: a) dorsal carapace region well demarcated, similar to holotype illustrated in Mendoza (2013, fig. 5A) (vs. not well demarcated in *X. joanneae*); b) teeth of anterolateral margin of carapace with acute apices (vs. rounded apices in *X. joanneae*, compare Mendoza, 2013: fig. 3A, 5A); c) external surface of the palm of the chelipeds with longitudinal ridges (vs. no ridges in *X. joanneae*). Serène (1984) has attributed several specimens from Kenya and 1 specimen from Vietnam to *X. aff. maculatus* because of teeth of anterolateral margin of carapace with rounded apices, merus of P5 stouter than in *X. maculatus* typical, and more ocelli on carapace (20 for Vietnamese specimen). He has suggested large intraspecific variations within *X. maculatus*, depending the locality. Mendoza (2013) has suggested that the Kenya specimens of Serène (1984) belong to a species distinct from either *X. maculatus* or *X. joanneae*. Intermediate characters observed in the present collection from Mayotte indicate that *X. maculatus sensu lato* is in need of revision to decide if this is a single species, with regional variations, or if more than two species must be considered in the 'ocellated' *Xanthias*.

GEOGRAPHIC AND DEPTH RANGES (for ocellated *Xanthias*: *X. maculatus*, *X. joanneae*) — IWP, Kenya, Mayotte (present study) to Philippines, Japan; subtidal to 85-110m.

***Zosimus aeneus* (Linnaeus, 1758)** (Figure 19B)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, Mutsumbatsou reef flat, 1 ♂ 41×61 mm, MNHN B32403, MNHN-IU-2009-1165; st. 26c, same, coll. J. -M. Bouchard, 1 ♀ 35×51 mm, 2 juv., MNHN B32404, MNHN-IU-2009-1166.

OTHER RECORDS — *Zosimus aeneus* - Serène, 1984: 165, Glorieuses, intertidal, under coral blocks, coll. A. Crosnier 16/9/1958, 9 ♂♂ largest 53×80 mm, 3 ♀♀ largest 46×68 mm, MNHN.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; intertidal, shallow subtidal.



Figure 18. *Xanthias maculatus* s.l. Mayotte specimens have intermediate characters between *X. maculatus* and *X. joanneae* - Color pattern: A) 1♂ 5.0×7.5 mm, MNHN-IU-2009-2633 (coloration slightly altered by preservative); B) 1♀ 3.7×6.5 mm, MNHN-IU-2009-2633. Details of carapace, legs and outer face of chela: C) 1♀ 5.9×8.7 mm, MNHN-IU-2009-2634; D) same, outer face of left chela.

***Zozymodes cavipes* (Dana, 1852)** (Figure 19C)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 6, ‘Déversoir Badamiers’, intertidal, Petite Terre, 1♂ 11.5×16.9 mm, 1♀ 9.5×14.1 mm, MNHN-IU-2009-2592; st. 10, Islet ‘Quatre frères, Vatou’, intertidal, 1♀ 7.5×11 mm, MNHN B32438, MNHN-IU-2009-1200; st. 26, Mutsumbatsou reef flat, intertidal at low tide, 1♀ 10.2×15.5 mm, 1♀, MNHN B32439, MNHN-IU-2009-1201, 1♂, 2♀♀, coll. J. -M. Bouchard, MNHN B32440, MNHN-IU-2009-1202; st. 26c, Mutsumbatsou reef flat, coll. J. -M Bouchard 03/08/2008, intertidal 2♂♂ 11.3×16.1 mm, 13.2×20.7 mm, 1♀ 12.2×18.8 mm, 1 juv., MNHN-IU-2009-2594; st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 1♂ 13.2×20.4 mm, MNHN-IU-2009-2593; st. 38, southwest Bay Chiconi/Sada, intertidal, coll. J. -M. Bouchard, 24 July 2008, 1 sp. 10.4×16.2 mm, plus 2 spp., not located in MNHN.

OTHER RECORDS — *Zozymodes cavipes* - Guinot, 1967b: 269, list with Mayotte. - Serène, 1984: 152, Glorieuses, intertidal, coll. A. Crosnier, September 1958, 1♂ 11.8×17.1 mm, MNHN. - Poupin et al., 2013c: 12, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mozambique to Japan, western Australia; intertidal, shallow subtidal.



Figure 19. Crabs from Mayotte KUW 2009. **Xanthidae** - **A)** *Xanthias lamarckii*, 1♂ 12.7×19.4 mm, MNHN-IU-2012-646 (from Europa Island, 2011, coloration slightly faded); **B)** *Zosimus aeneus*, 1♂ 41×61 mm, MNHN-IU-2009-1165; **C)** *Zozymodes cavipes*, 1♀ 7.5×11.0 mm, MNHN B32438 - **Grapsoidae** - **D)** *Percnon guinotae*, 1♀ ov. 25.5×22.4 mm, MNHN-IU-2009-973; **E)** *P. planissimum*, 1♀ ov. 17.5×15.5 mm, MNHN-IU-2009-976; **F)** *Plagusia squamosa*, 1♀ 37.0×38.0 mm MNHN-IU-2009-971; **G)** *Nanosesarma jousseaumei*, 1♂ 3.1×3.6 mm, MNHN-IU-2009-2664 (preserved) - **Pilumnidae** - **H-J)** *Latopilumnus malardi*, 1♂ 5.3×7.2 mm, MNHN-IU-2013-7236 (preserved) - **Pinnotheridae** - **K)** ?*Nepinnotheres pectinicola*, 1♀ 3.8×4.4 mm, MNHN-IU-2013-7238 - **Oziidae** - **L)** *Ozius guttatus*, not in collection, CW about 60 mm (photo N. Verneau) - **Undetermined** - **M)** ?*Pilumnus* sp. A, 1♀ ov. 4.0×5.5 mm, MNHN-IU-2013-7233 (preserved); **N)** ?*Pilumnus* sp. C, 1♀ 4.2×5.4 mm, MNHN-IU-2013-7235 (preserved).

Superfamily Grapsoidea MacLeay, 1838

Family Gecarcinidae MacLeay, 1838

Cardisoma carnifex (Herbst, 1796)

MATERIAL EXAMINED — See Bouchard et al., 2013: 17, fig. 12 - Mayotte KUW 2009, st. 6, 'Déversoir Badamiers', Petite Terre, 1♀ 53×64 mm, MNHN B32410, MNHN-IU-2009-1172, 1♂ 65×75.5 mm, MNHN B32411, MNHN-IU-2009-1173; st. 29, photographs, no specimen collected.

OTHER RECORDS — *Cardisoma carnifex* - Guinot, 1967b: 289, list with Comoros (Grande Comore), Mayotte. - Bouchard, 2009: 6, 8, Mayotte, 1♂ 61×74 mm, MNHN B32409, MNHN-IU-2009-1171. - Poupin et al., 2013c: 12, Glorieuses, Island du Lys.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Japan, Guam, Line Islands, French Polynesia; supratidal, land.

Family Grapsidae MacLeay, 1838

Geograpsus crinipes (Dana, 1851)

MATERIAL EXAMINED — See Bouchard et al., 2013: 25, fig. 20A - Mayotte KUW 2009, st. 21a, east Islet Choizil, Malandzamiayatsini, supratidal, 1♂ 36.0×42.5 mm, MNHN B32042, MNHN-IU-2009-961.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses, Island du Lys.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Somalia, ?Tanzania, Mayotte (this fieldwork) to Hawaii, French Polynesia, Easter Island; supratidal, land.

Geograpsus grayi (H. Milne Edwards, 1853)

MATERIAL EXAMINED — See Bouchard et al., 2013: 25, fig. 20B - Mayotte KUW 2009, st. 1, beach, supratidal, Trévani 1♂ 38.5×48.0 mm, MNHN B32041, MNHN-IU-2009-960.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Tanzania, Mayotte (this fieldwork), Madagascar to Japan, French Polynesia, Henderson Island; supratidal, land.

Grapsus fourmanoiri Crosnier, 1965

MATERIAL EXAMINED — See Bouchard et al., 2013: 25, fig. 20C-D - Mayotte KUW 2009, st. 1, beach, Trévani, 1♀ 25.0×28.0 mm, MNHN B32046, MNHN-IU-2009-965; st. 2, intertidal between Trévani to Kangani Mangrove, 3♂♂ 17.4×20.4 to 27.2×31.0 mm, MNHN B32045, MNHN-IU-2009-964; st. 6, 'Déversoir Badamiers', Petite Terre, 1 juv. 16.3×19.0 mm, MNHN B32063, MNHN-IU-2009-982; st. 10, east Islet 'Quatre frères, Vatou', 2♂♂ 15.0×17.0 mm, 18.0×20.7 mm, 2♀♀ 15.8×18.6 mm, 25.6×30.0 mm (ov.), MNHN B32044, MNHN-IU-2009-963; st. 15, northeast beach Islet M'tzamboro, 1♂ 13.4×15.5 mm, 1 juv. 7.5×9.0 mm, MNHN B32060, MNHN-IU-2009-979; st. 21a, east Islet Choizil, Malandzamiayatsini, 4♂♂ 8.2×9.5 to 24.5×28.0 mm, 4♀♀ 13.5×16.0 to 21.0×24.3 mm (ov.), MNHN B32043, MNHN-IU-2009-962; st. 26, Mutsumbatsou reef flat, 1♂ 17.3×19.7 mm, 3♀♀ 11.5×13.0 to 13.0×15.3 mm, MNHN B32061, MNHN-IU-2009-980; st. 29, beach, Mboianatsa, Ngouja Hotel, 1 juv. 7.0×8.6 mm, MNHN B32062, MNHN-IU-2009-981; Coll. J. -M. Bouchard, mangrove, Malamani, 1♂ 32.7×36.0 mm, MNHN B32047, MNHN-IU-2009-966.

OTHER RECORDS — *Grapsus fourmanoiri* - Crosnier, 1965: 12, Mayotte. - Poupin et al., 2013c: 12, 1 sp. MNHN-IU-2013-7319, 2 spp. MHNH-IU-2013-7322.

GEOGRAPHIC AND DEPTH RANGES — WIO, Somalia, South Africa to Seychelles, Madagascar, Réunion; supratidal, land.

***Grapsus tenuicrustatus* (Herbst, 1783)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 25, fig. 20E-F - Mayotte KUW 2009, st. 21, rocky shore, east Islet Choizil, Malandzamiayatsini, 3♀ 18.2×20.2 to 39.5×41.3 mm, MNHN B32049, MNHN-IU-2009-968; st. 26, Mutsumbatsou reef flat, 1♂ 43.0×45.5 mm, MNHN B32050, MNHN-IU-2009-969; st. 26c, Mutsumbatsou reef flat, 1♂ 43.5×46.4 mm, MNHN B32051, MNHN-IU-2009-970; st. 38, southwest Bay Chiconi/Sada, coll. J. -M. Bouchard, intertidal, 24 July 2008, 2♀ 22.0×24.2 mm, 26.0×27.6 mm (ov.), MNHN B32048, MNHN-IU-2009-967.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), South Africa to Hawaii, French Polynesia; intertidal, supratidal.

***Metopograpsus messor* (Forskål, 1775)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 27 - Mayotte KUW 2009, st. 2, 1♂ 9.5×13.2 mm, 2♀ 7.6×10.3 mm, 9.0×12.4 mm, det. R. Cleva, MNHN B32067, MNHN-IU-2009-986.

REMARKS — This species can be confused with *Metopograpsus thukuhar*. See comments in Bouchard et al. (2013: 27).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), South Africa to ?Hawaii, ?French Polynesia; intertidal, supratidal. Presence in Hawaii and French Polynesia should be confirmed because of possible confusion with *M. thukuhar* (see Castro, 2011: 115; Poupin, 2005: 39).

***Metopograpsus thukuhar* (Owen, 1839)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 27, fig. 21 - Mayotte KUW 2009, st. 2, 1♂ 14.0×17.8 mm, MNHN B32066, MNHN-IU-2009-985, 1♀ 6.5×9.0 mm, MNHN B32083, MNHN-IU-2009-1002; st. 6, 1♂ 11.3×15.3 mm MNHN B32065, MNHN-IU-2009-984, 5♂♂ 8.5×10.5 to 12.8×17.0 mm, 5♀♀ 8.3×11.4 to 10.8×14.6 mm, det. R. Cleva, MNHN B32064, MNHN-IU-2009-983.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), South Africa to Hawaii, French Polynesia; intertidal, supratidal.

***Pachygrapsus minutus* A. Milne-Edwards, 1873**

MATERIAL EXAMINED — See Bouchard et al., 2013: 28, fig. 22A-B - Mayotte KUW 2009, st. 6, ‘Déversoir Badamiers’, intertidal, Petite Terre, 1♂ 6.0×8.1 mm, 1♀ 3.5×5.3 mm, MNHN-IU-2009-2665, 1♀ (with *Sacculina*) 4.8×6.9 mm, MNHN-IU-2014-9019; st. 10, Islet ‘Quatre frères, Vatou’, 4♀♀ 4.5×6.5 to 5.7×8.3 (ov.) mm, MNHN B32068, MNHN-IU-2009-987; st. 26, Mutsumbatsou reef flat, 1♂ 4.3×6.5 mm, 1♀ 3.8×5.6 mm, plus 1♂ 3.3×5.2 mm, MNHN B32069, MNHN-IU-2009-988; st. 31, Bandrélé, ‘Plage musicale’, 1♂ 5.3×7.6 mm, 5♀♀ 3.0×4.5 to 4.8×7.0 mm, MNHN B32070, MNHN-IU-2009-989.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses, 7 spp. MNHN-IU-2013-7323.

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, Mayotte (this fieldwork), South Africa to Hawaii, French Polynesia, Clipperton, Revillagigedo Islands; intertidal.

***Pachygrapsus planifrons* De Man, 1888**

MATERIAL EXAMINED — See Bouchard et al., 2013: 28, fig. 22C-D - Mayotte KUW 2009, st. 2, intertidal between Trévani beach and Kangani Mangrove, 1♀ ov. 4.7×5.6 mm, MNHN B-32365, MNHN-IU-2009-1138.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses, 1 sp. MNHN-IU-2013-7324.

GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania, Mayotte (this fieldwork), Seychelles to Hawaii, French Polynesia, Clipperton; intertidal.

Family Percnidae Števíć, 2005

Percnon guinotae Crosnier, 1965 (Figure 19D)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 9b, S-shaped Pass, coll. J. -M. Bouchard, 1 ♀ ov. 32.5×28.5 mm, MNHN B32055, MNHN-IU-2009-974; st. 11, 2 ♀♀ ov. 31.6×28.5 mm, 43.0×37.6 mm, MNHN B32053, MNHN-IU-2009-972; st. 35, 1 ♀ ov. 25.5×22.4 mm, MNHN B32054, MNHN-IU-2009-973.

OTHER RECORDS — *Percnon guinotae* - Crosnier, 1965: 83, Glorieuses. - Guinot, 1967b: 289, list with Glorieuses.

REMARKS — In live *Percnon guinotae* the cornea is bright red (vs. black cornea *P. planissimum*; for color photographs of both species see [Legall and Poupin, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, Tanzania, Mayotte (present study), Madagascar to Wallis and Futuna, French Polynesia; low intertidal, shallow subtidal.

Percnon planissimum (Herbst, 1804) (Figure 19E)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, 1 ♀ ov. 17.5×15.5 mm, MNHN B32057, MNHN-IU-2009-976; st. 31, 1 ♂ 9.0×8.0 mm, 1 ♀ ov. 13.0×12.0 mm, MNHN B32056, MNHN-IU-2009-975.

OTHER RECORDS — *Percnon planissimum* - Crosnier, 1965: 90, Mayotte, Glorieuses. - Guinot, 1967b: 289, list with Mayotte, Glorieuses. - Poupin et al., 2013c: 12, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, South Africa to Hawaii, French Polynesia; low intertidal, shallow subtidal

Family Plagusiidæ Dana, 1851

Plagusia squamosa (Herbst, 1790) (Figure 19F)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 11, 1 ♂ 34.0×35.0 mm, 1 ♀ 37.0×38.0 mm MNHN B32052, MNHN-IU-2009-971.

OTHER RECORDS — *Plagusia depressa tuberculata* - Crosnier, 1965: 80, Mayotte (Bandéli). - Guinot, 1967: 288, list with Comoros / *Plagusia depressa tuberculata* Lamarck, 1818 accepted as *P. squamosa* in [WoRMS \(2018\)](#).

REMARKS — *Plagusia squamosa* is similar to *Plagusia immaculata* Lamarck, 1818. Vannini and Valmori (1981: 92) illustrate both species, carapace having strong hairy tubercles in *P. squamosa* instead of low glabrous tubercles in *P. immaculata*.

GEOGRAPHIC AND DEPTH RANGES — IP, Red Sea, South Africa to Hawaii, French Polynesia, Clipperton and eastern Pacific (Gulf of California to Acapulco); invasive in the Mediterranean Sea (*cf.* Zaouali et al., 2007); low intertidal, shallow subtidal, and on flotsam and ship's hulls.

Family Sesarmidae Dana, 1851

Metasesarma obesum (Dana, 1851)

MATERIAL EXAMINED — See Bouchard et al., 2013: 19, fig. 14 - Mayotte KUW 2009, st. 21a, upper littoral, Islet Choizil, 2 ♂♂ 6.5×7.5 mm, 11.8×13.0 mm, 3 ♀♀ 7.4×8.5 to 11.5×12.5 mm, MNHN B32082, MNHN-IU-2009-1001.

REMARKS — *Metasesarma obesum* is often reported as *M. rousseauxi* H. Milne Edwards, 1853, the later now accepted as a junior synonym ([WoRMS, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania (Zanzibar), Mayotte (this fieldwork), Madagascar to Taiwan, Philippines, Guam, French Polynesia; supratidal, land.

***Nanosarma jousseaumei* (Nobili, 1905)** (Figure 19G)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 10, intertidal, east Islet ‘*Quatre frères, Vatou*’, 1♂ 3.1×3.6 mm, 1♀ 3.75×4.5 mm, det. N. Naderloo, MNHN-IU-2009-2664.

REMARKS — These specimens are not included in the Sesarmitidae presented by Bouchard et al. (2013). They were retrieved in a jar containing several undetermined small crabs. By using Crosnier (1965) key and diagnose, without comparative specimens, they were first identified as *Nanosarma ?minutum* (De Man, 1887) and registered as such in MNHN. Crosnier (1965) has attributed his own specimens from Madagascar to ‘*Nanosarma cf. minutum* (De Man)’ because of several differences with this De Man species. Holthuis (1977) has suggested that Crosnier’s specimens from Madagascar might be *Nanosarma jousseaumei* Nobili (1906), described from the Red Sea. Vannini and Valmori (1981) have attributed a few specimens from Somalia to *N. minutum* but with indication that *N. jousseaumei* could be also retained, their specimens ‘*being in agreement with both descriptions*’. More recently Naderloo (2011) has corrected the records of *N. (?)minutum* by Crosnier (1985) and Vannini and Valmori (1981) with assignment to *N. jousseaumei*. Naderloo (pers. comm. 23/02/2012), after examining the close up macrophotographs of Mayotte KUW specimens in [Legall and Poupin \(2018\)](#) has indicated that they ‘*are highly similar to my specimens from the Persian Gulf*’ and suggested that they must belong to *N. jousseaumei*, common in WIO.

GEOGRAPHIC AND DEPTH RANGES — WIO, Gulf of Aden, Djibouti, Persian Gulf, Tanzania to Mayotte (present study), Madagascar; intertidal, supratidal.

***Neosarmatium meinerti* (De Man, 1887)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 19, fig. 15 - Mayotte KUW 2009, st. 6, ‘*Déversoir Badamiers*’, 1♂ 22.4×27.3 mm, MNHN B32059, MNHN-IU-2009-978; st. 13, 3♂♂ 30.0×36.4 to 31.5×38.0 mm, MNHN B32038, MNHN-IU-2009-957.

OTHER RECORDS — *Sesarma (Sesarma) meinerti* - Guinot, 1967: 288, list with Mayotte. - *Neosarmatium meinerti* - Bouchard, 2009: 6, 13, Mayotte, Malamani mangrove, 3♂♂ 30.0×35.8 to 33.0×39.0 mm, 3♀♀ 29.5×35.5 to 30.4×37.0 mm, MNHN B32035, MNHN-IU-2009-954; 3♂♂ 32.3×34.0 to 38.0×39.8 mm, 1♀ 29.0×35.8 mm, MNHN B32036, MNHN-IU-2009-955; 1♂ 33.0×39.4 mm, 1♀ 29.0×35.0 mm, MNHN B32037, MNHN-IU-2009-956.

REMARKS — *Neosarmatium meinerti* is a species complex studied by Ragionieri et al. (2009, 2010, 2012). The specimens from Mayotte could be assigned to *N. africanum* Ragionieri, Fratini and Schubart, 2012. Bouchard et al. (2013: 20) however, failed to separate confidently the two species (More comments are in Bouchard et al. 2013).

GEOGRAPHIC AND DEPTH RANGES (for *N. meinerti* cf. Ragionieri et al. 2012) — WIO, ?Mayotte, Seychelles (Aldabra, Mahé) to Mauritius, Rodrigues; supratidal, land.

***Neosarmatium smithi* (H. Milne Edwards, 1853)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 21, fig. 16 - Mayotte KUW 2009, st. 13, mangrove, Malamani, 1♂ 37.0×39.7 mm, MNHN B32040, MNHN-IU-2009-959.

OTHER RECORDS — *Neosarmatium smithi* - Bouchard, 2009: 6, 11, Mayotte, Malamani mangrove, 1♂ 37.2×39.4 mm, 2♀♀ 15.4×17.5 mm, 16.8×18.6 mm, MNHN B32039, MNHN-IU-2009-958.

REMARKS — Bouchard et al. (2013: 21) can be consulted for differences between *Neosarmatium smithi* and *N. meinerti*, collected at same stations.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), South Africa to Japan, New Caledonia, Fiji; supratidal, land.

***Parasesarma leptosoma* (Hilgendorf, 1869) s.l.**

MATERIAL EXAMINED — See Bouchard et al., 2013: 21, fig. 16 - Mayotte KUW 2009, coll. J. -M.

Bouchard, 16 April 2008, st. 3, 12°55'41" S, 44°09'27" E, in roots of *Rhizophora* tree, near freshwater rill, 1♂ 12.0×13.6 mm, MNHN B32081, MNHN-IU-2009-1000.

REMARKS — See Bouchard et al. (2013: 22) for comments on this crab adapted to live in canopy of mangrove trees. According to Rahayu and Ng (2009) *Parasesarma leptosoma* s.l. is a complex of species in need of revision.

GEOGRAPHIC AND DEPTH RANGES (*P. leptosoma* s.l.) — IWP, Kenya, Mayotte (this fieldwork), South Africa to Papua New Guinea, New Caledonia, Fiji; supratidal, land.

***Perisesarma guttatum* (A. Milne-Edwards, 1869)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 23, fig. 18 - Mayotte KUW 2009, st. 13, mangrove, Malamani 2 juv. (mixed with *Macrophthalmus spp.*), MNHN B-32364, MNHN-IU-2009-1137.

OTHER RECORDS — *Sesarma (Chiromantes) guttata* - Guinot, 1967: 288, list with Mayotte. -

Perisesarma guttatum - Bouchard, 2009: 6, 9, Mayotte, coll. J. -M. Bouchard, in roots of mangrove tree *Rhizophora*, Malamani, 2♂♂ 15.0×18.3 mm, 16.5×20.5 mm, 3♀♀ 9.5×12.3 to 16.2×20.2 mm, 1 juv., MNHN B32030, MNHN-IU-2009-949; 17♂♂ 7.3×9.3 mm to 24.0×29.0 mm, 8♀♀ 8.0×10.0 mm to 16.5×20.8 mm, 1 juv., MNHN B32031, MNHN-IU-2009-950; 4♂♂ 8.2×10.2 mm to 22.8×27.8 mm, 8♀♀ (4 ov.) 8.0×10.2 to 17.2×21.2 mm, 1 juv., MNHN B32032, MNHN-IU-2009-951; 4♂♂ 17.0×21.3 to 20.6×25.3 mm (photo♂ 19.0×23.3 mm), 1♀ 16.5×21.5 mm, MNHN B32033, MNHN-IU-2009-952; st. 2, coll. J. -M. Bouchard, 16/04/2008 in burrow between *Rhizophora* roots, 12°55.368 S, 45°09.267 E. 1♀ broken, 10×14 mm (in a jar with 1♂ of *Sesarma ortmanni*), MNHN B32263, MNHN-IU-2009-1081.

GEOGRAPHIC AND DEPTH RANGES (*cf.* Naderloo, 2011) — WIO, Red Sea, Gulf of Oman, Mayotte (this fieldwork), South Africa to Madagascar; supratidal, land.

***Sesarma ortmanni* (Crosnier, 1965)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 18, fig. 13 as '*Chiromantes*' *ortmanni* - Mayotte KUW 2009, st. 2, coll. J. -M. Bouchard, 16/04/2008, 12°55.368 S, 45°09.267 E, mangrove, burrows in *Rhizophora* tree roots, 1♂ 11.5×15.0 mm (collected with *Neosarmatium meinerti* and 1♀ *Perisesarma guttatum*), MNHN B32262, MNHN-IU-2009-1080.

REMARKS — Bouchard et al. (2013: 18) have additional comments about the taxonomy of this species.

GEOGRAPHIC AND DEPTH RANGES — WIO, Somalia, Tanzania, Mozambique, Mayotte (this fieldwork) to Madagascar; supratidal, land.

***Sesarmops impressus* (H. Milne Edwards, 1837)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 24, fig. 19 - Mayotte KUW 2009, st. 13, mangrove, Malamani, 3♂♂ 14.5×16.8 to 36.0×42.0 mm, MNHN B32034, MNHN-IU-2009-953.

OTHER RECORDS — *Sesarma nodulifera* de Man - Lenz, 1910: 562, Comoros (Mohéli), 2 spp. larger 16×17 mm / Not *Geosesarma noduliferum* (De Man, 1892) following re-examination of Lenz's specimens by Crosnier (1965: 63). - *Sesarma (Sesarma) impressa* - Crosnier, 1965: 63, Comoros (Mohéli). - Guinot, 1967: 287, list with Comoros. - *Sesarmops impressum* - Keith et al., 2006: 36, Comoros (Mohéli), Mayotte. - *Sesarmops impressus* - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St3, Hajangoua, in bushes and under rocks near ruins of sugar factory, UFID 13657, 13667. - Bouchard, 2009: 6, 15, Mayotte, cultivated land in upper Malamani mangrove, 3♂♂ 14.5×16.8 to 36.0×42.0 mm, MNHN B32034, MNHN-IU-2009-953.

GEOGRAPHIC AND DEPTH RANGES — IWP, Tanzania, Seychelles, Comoros, Mayotte, Madagascar to Taiwan, Papua New Guinea, Samoa; supratidal, land.

Family Varunidae H. Milne Edwards, 1853

Pseudograpsus albus Stimpson, 1858

MATERIAL EXAMINED — See Bouchard et al., 2013: 29, fig. 27A - Mayotte KUW 2009, st. 15, intertidal under stones, beach, northeast Islet M'tzamboro, 1♀ 5.3×5.9 mm, MNHN B32084, MNHN-IU-2009-1003.

GEOGRAPHIC AND DEPTH RANGES — IWP, Mayotte (this fieldwork), Madagascar, Réunion to Japan, Line Islands, French Polynesia; supratidal.

Pseudohelice subquadrata (Dana, 1851)

MATERIAL EXAMINED — See Bouchard et al., 2013: 29, fig. 24; Bouchard, 2009: 6, 28 - Mayotte KUW 2009, st. 13, Malamani mangrove, coll. J. -M. Bouchard, 12/12/2008, 12°55'07'' S, 45°09'07'' E, 2♂♂ 11.3×13 mm, 11.7×13.8 mm, 1♀ 11.0×13.5 mm, MNHN B-32363, MNHN-IU-2009-1136.

REMARKS — Formerly reported in WIO as *Helice leachii* Hess, 1865, a junior synonym ([WoRMS, 2018](#)).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), Tanzania, South Africa to Japan, French Polynesia; supratidal, land.

Thalassograpsus harpax (Hilgendorf, 1892)

MATERIAL EXAMINED — See Bouchard et al., 2013: 32, fig. 26 - Mayotte KUW 2009, st. 2, intertidal from Trévani to Kangani Mangrove, 1♂ 6.1×7.1 mm, 1♀ ov. 6.4×7.5 mm, MNHN B32261, MNHN-IU-2009-1079; st. 6, 'Déversoir Badamiers', Petite Terre, intertidal, 1♀ 5.2×6.0 mm, MNHN-IU-2009-2666; st. 31, Bandrélé 'Plage musicale', 5♀ ov. 5.0×5.4 to 6.6×7.6 mm, 1♀ 6.0×6.9 mm, MNHN B32260, MNHN-IU-2009-1078.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Gulf of Aden, Persian Gulf, Mayotte (this fieldwork), Tanzania to Japan, French Polynesia; supratidal.

Varuna litterata (Fabricius, 1798)

MATERIAL EXAMINED — See Bouchard et al., 2013: 32, fig. 27B-D - Mayotte KUW 2009, st. 10, Islet 'Quatre frères, Vatou', 1♂ 36.3×41.0 mm, MNHN B32058, MNHN-IU-2009-977.

OTHER RECORDS — *Varuna litterata* - Lenz, 1910: 560, Comoros (Mohéli). - Crosnier, 1965: 34, Comoros (Grande Comore, Mohéli). - Keith et al., 2006: 36, Comoros (Anjouan, Mohéli), Mayotte.

GEOGRAPHIC AND DEPTH RANGES — IWP, Somalia, South Africa to Japan, French Polynesia; rivers, brackish waters or at sea (drifting).

Superfamily Ocypodoidea Rafinesque, 1815

Family Dotillidae Stimpson, 1858

Dotilla fenestrata Hilgendorf, 1869

MATERIAL EXAMINED — See Bouchard et al., 2013: 34, fig. 28 - Mayotte KUW 2009, st. 1, beach, intertidal, Trévani, 1♂ 4.0×5.4 mm, MNHN B32078, MNHN-IU-2009-997; st. 29, intertidal, beach, Mboianatsa, Ngouja Hotel, 1♂ 3.7×5.6 mm, 1 juv., MNHN B32079, MNHN-IU-2009-998; st. 31, Bandrélé, 'Plage musicale', 1♀ 3.2×4.2 mm, MNHN B32080, MNHN-IU-2009-999; beach, Mliha, coll. Lisa, Tom and J. -M. Bouchard, 05/01/2010, 5♂♂ 2.2×2.6 mm to 4.5×5.8 mm, 2♀♀ 2.7×3.0 mm, 3.3×3.6 mm, MNHN B32257, MNHN-IU-2009-1075; same coll., upper beach of Ambato, 3 km from Mliha, 1♂ 3.3×4.3 mm, MNHN B32258, MNHN-IU-2009-1076; coll. J. -M. Bouchard 2012, sandy beach, det. J. Poupin January 2013, 12 spp. MNHN-IU-2013-7239.

OTHER RECORDS — *Dotilla fenestrata* - Crosnier, 1965: 120, Mayotte. - Guinot, 1967: 282, list with Mayotte.

GEOGRAPHIC AND DEPTH RANGES — WIO. Somalia, Mozambique, South Africa, Madagascar; supratidal.

Family Macrophthalmidae Dana, 1851

Chaenostoma crassimanus Stimpson, 1858

MATERIAL EXAMINED — Mayotte KUW 2009, st. 31, low intertidal, Bandrélé ‘*Plage musicale*’, 1♂ 3.6×4.6 mm, 1 juv. MNHN B32074, MNHN-IU-2009-993.

OTHER RECORDS

Macrophthalmus (Chaenostoma) boscii Audouin, 1826 - Poupin and Bouchard, 2010: 62, Mayotte, in part only the 2 spp. examined at st. 31, MNHN B32074, MNHN-IU-2009-993, accepted as *Chaenostoma crassimanus* in Teng et al. (2016: 17, 26, tab. 1) [in the same contribution 1♀ 7.5×9.1 mm at st. 1, MNHN B32073, MNHN-IU-2009-992 is accepted by Teng et al. (2016: 17, 26, tab. 1) as *Chaenostoma sinuspersici* (Naderloo and Türkay, 2010)].

Chaenostoma sinuspersici - Bouchard et al., 2013: 36, Mayotte, in part, same 2 spp. at st. 31 than in Poupin and Bouchard (2010), MNHN B32074, MNHN-IU-2009-993 - Not *C. sinuspersici* but *C. crassimanus* cf. Shih et al. (2015: 79) and Teng et al. (2016: 17, 26, tab. 1), see remarks.

Chaenostoma crassimanus - Shih et al., 2015: 79, Mayotte. - Teng et al., 2016: 26, Mayotte - Same specimens than Poupin and Bouchard (2010), Bouchard et al. (2013), 2 spp. MNHN-IU-2009-993.

REMARKS — Just after Mayotte KUW 2009 expedition the specimens collected at st. 1 (MNHN B32073, MNHN-IU-2009-992) and st. 31 (MNHN B32074, MNHN-IU-2009-993) were reported by Poupin and Bouchard (2010: 62) as *Macrophthalmus (Chaenostoma) boscii* Audouin, 1826 and used as ‘*Comparison material*’ to described a new species from Mayotte, *Macrophthalmus (Chaenostoma) lisae*. The same specimens (st. 1 and st. 31) were later listed as *Chaenostoma sinuspersici* by Bouchard et al. (2013) following the revision of the ‘*Macrophthalmus boscii*-group’ by Naderloo and Türkay (2010) where typical *Chaenostoma boscii* is restricted to the Red Sea and most other WIO records of ‘*C. boscii*’ are corrected into *C. sinuspersici* new species. More recently Teng et al. (2016) have recognized two distinct species in this material, *Chaenostoma crassimanus* for two specimens at st. 31 (MNHN B32074, MNHN-IU-2009-993) and *Chaenostoma sinuspersici* for one specimen at st. 1 (MNHN B32073, MNHN-IU-2009-992).

GEOGRAPHIC AND DEPTH RANGES — IWP (but not Red Sea), probably East African coast, from Somalia to South Africa (as *Macrophthalmus boscii*), Mayotte (this fieldwork), Madagascar to Taiwan, Japan (Ryukyus), New Caledonia; intertidal.

Chaenostoma lisae (Poupin and Bouchard, 2010)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 26, 1♂ 3.75×4.9 mm (holotype) MNHN B32254, MNHN-IU-2009-1072, 1♂ 4.1×5.4 mm, 3♀♀ ov. 3.1×4.1 to 3.95×5.3 mm, 3♀♀ 2.6×3.3 to 3.7×4.9 mm, 1♀ juv. broken (paratypes) MNHN B32071, MNHN-IU-2009-990, 1♀ ov. 3.85×5.1 mm, (paratype) MNHN B32362, MNHN-IU-2009-1135; st. 13b, coll. J. -M. Bouchard, Malamani mangrove, 1♀ ov. 3.75×5.01 mm (paratype) MNHN B32072, MNHN-IU-2009-991.

OTHER RECORDS — *Macrophthalmus (Chaenostoma) lisae* Poupin and Bouchard, 2010: 62, same spp. than Mayotte KUW 2009 (MNHN-IU-2009-990, 991, 1072, 1135). - Bouchard et al., 2013: 35, same spp. than Mayotte KUW 2009, but not the specimens recognized by Naderloo (com. pers. in Bouchard et al., 2013) from Madagascar (coll. A. Crosnier 1962, 2♂♂, 2♀♀, MNHN B10717, MNHN-IU-2009-2590) and New Caledonia (fig. 30D, which is st. 9 Pindai, CRISP 2009, MNHN B32603, MNHN-IU-2009-2591), that are *Chaenostoma crassimanus* (see Shih et al., 2015: 79; Teng et al., 2016: 26-27).

Not *Chaenostoma lisae* - Naderloo, 2013: 2842, **Madagascar**, coll. A. Crosnier 1962, 2♂♂, 1♀ ov., MNHN B10717, MNHN-IU-2009-2590; **Europa Island** (Mozambique Channel), BIORECIE 2011 Expedition [the specimens examined are not listed by Naderloo (2013) but are the same as in Poupin

et al. (2013b) for Europa Island, 2♂♂ 3.1×3.8 mm, 3.6×4.6 mm, MNHN-IU-2012-662], st. 4, outer reef, high intertidal, 8 November 2011, coll. J. Poupin; **New Caledonia**, Pindai, 1♂ 4.5×5.69, 1♀ ov. 5.16×6.79 ‘MNHN’ [no number indicated by Naderloo (2013) but must be MNHN B32603, MNHN-IU-2009-2591]. - Poupin et al., 2013b: 13, Europa, 2♂♂ 3.1×3.8 mm, 3.6×4.6 mm, MNHN-IU-2012-662 [same specimens than in Naderloo (2013)] - At least specimens from Madagascar and New Caledonia are *Chaenostoma crassimanus* in Shih et al. (2015: 79) and Teng et al. (2016: 26-27). Specimens from Europa Island (st. 4 during BIORECIE 2011 Expedition) were attributed with hesitation to ‘*C. lisae*’ by J. Poupin because the biotope indicated in field notes (fringing reef, in pools and under stones) was different than for *C. lisae* typical (mudflats). Europa specimens of ‘*C. lisae*’ were therefore sent to Naderloo (March 2012) to check this identification with molecular sequencing. They are not listed in subsequent studies by Shih et al. (2015) and/or Teng et al. (2016) but R. Naderloo has indicated (mail to J. Poupin. June 2012) that their sequences are similar (99 %) to ‘a sequence in GenBank for *Macrophthalmus boscii*’ which indicate that they are probably young of *Chaenostoma crassimanus* but not *C. lisae*.

REMARKS — Typical *Chaenostoma lisae* is known only from Mayotte, collected during Mayotte KUW 2009 (st. 13b, 26). It is related to the ‘*C. boscii/sinuspersici/crassimanus*’ group that includes three species reported in the IWP as ‘*Macrophthalmus boscii*’ before the revisions of Naderloo and Türkay (2010), Shih et al. (2015) and Teng et al. (2016). For its description *Chaenostoma lisae* was compared by Poupin and Bouchard (2010) with specimens of ‘*Macrophthalmus boscii*’ from Mayotte (MNHN B32073, MNHN-IU-2009-992 = *Chaenostoma sinuspersici* in Teng et al. 2016). Among the characters that are used to recognize *C. lisae* and ‘*C. boscii/sinuspersici*’ Poupin and Bouchard (2010) indicate that *C. lisae* is a much smaller species and that it excavates burrows on sandy mudflats (vs. living in rocks and pools of the intertidal, without obvious burrow for ‘*C. boscii/sinuspersici*’). Poupin and Bouchard (2010: 65), however, indicate that the two species (*C. lisae* and ‘*C. boscii/sinuspersici*’) can be confused, depending on the size of specimens examined: ‘the distinction between adult specimens of *M. lisae* and small specimens of *M. boscii* [= *C. sinuspersici*] of the same size, where indentation between the first and second anterolateral teeth is reduced is more difficult’. Naderloo (2013) has proposed a misleading redescription of ‘*C. lisae*’ because none of the specimens that he has examined (Madagascar, Europa, New Caledonia) belong to the type series collected during Mayotte KUW 2009. As a result the new diagnosis of *C. lisae* in Naderloo (2013) is erroneous and, following contributions of Shih et al. (2015) and Teng et al. (2016), applies in fact to *C. crassimanus*. The same error is reproduced in Shih et al. (2015) and Teng et al. (2016). It must be noted that the specimens of ‘*C. lisae*’ that were sequenced by Teng et al. (2016, tab. 1, Cc7, Cs8) are in fact the ‘*M. boscii*’ used as ‘*Comparison material*’ by Poupin and Bouchard (2010) when describing *C. lisae*. Logically, and in error, Teng et al. (2016) have concluded that ‘*C. lisae*’ is a junior synonym of *C. crassimanus* (formerly ‘*M. boscii*’). In conclusion, *C. lisae* must still be considered as a valid species with type material limited to specimens identified herein from KUW Mayotte 2009 (most spp. at st. 26; a single sp. at st. 13b). Specimens referred to ‘*C. lisae*’ in Naderloo (2013), Shih et al. (2015) and Teng et al. (2016) are not this species but *C. crassimanus*.

GEOGRAPHIC AND DEPTH RANGES — WIO, Mayotte only; upper intertidal.

***Chaenostoma sinuspersici* (Naderloo and Türkay, 2010)**

MATERIAL EXAMINED — Mayotte KUW 2009, st. 1, beach, Trévani, 1♀ 7.5×9.1 mm, MNHN B32073, MNHN-IU-2009-992 [registered in MNHN as *Macrophthalmus (Chaenostoma) boscii*].

OTHER RECORDS — *Macrophthalmus (Chaenostoma) boscii* - Poupin and Bouchard, 2010: 62, Mayotte, ‘*Comparison material*’, in part only, st. 1, Trévani, 1♀ 7.5×9.1 mm, MNHN B32073, MNHN-IU-2009-992 / Not *Chaenostoma boscii*, restricted to Red Sea (cf. Naderloo and Türkay, 2010) but *C. sinuspersici* following Teng et al. (2016: 17, 26, tab. 1) - *Chaenostoma sinuspersici* - Bouchard et al., 2013: 36, Mayotte, in part only st. 1, Trévani, 1♀ 7.5×9.1 mm, MNHN B32073, MNHN-IU-2009-992 [same than in Poupin and Bouchard (2010)]. - Teng et al., 2016: 26 - Mayotte, same sp., st. 1, Trévani, ‘1♀ 9.8 mm’, MNHN-IU-2009-992’.

REMARKS — In Bouchard et al. (2013: 36) other specimens listed as ‘*Chaenostoma sinuspersici*’ are: *C. crassimanus* (Mayotte KUW 2009, st. 31) and *C. orientale* (fig. 30C only, photo of 1♂ 8.1×14.1 mm from New Caledonia, Nouméa, Nouville, st. 2, intertidal, MNHN-IU-2013-9291; corrected in Teng et al. (2016: 27; measured as ‘1♂ 9.1 mm’).

GEOGRAPHIC AND DEPTH RANGES (cf. Teng et al., 2016) — WIO, Persian Gulf, Somalia, Mozambique, Mayotte (this fieldwork), Madagascar; ?South Africa, intertidal.

***Macrophthalmus depressus* Rüppel, 1830**

MATERIAL EXAMINED — See Bouchard et al., 2013: 38, fig. 32 - Mayotte KUW 2009, st. 13, 1♂ 7.0×11.4 mm (photo), 3♀♀ 7.4×11.9 to 9.4×15.1 mm, MNHN B32075, MNHN-IU-2009-994; st. 13b, coll. J. -M. Bouchard (2009, P11), mangrove, Malamani, 4♂♂ 8.9×13.9 to 9.5×15.6 mm, 4♀♀ 8.0×12.6 to 8.5×13.5 mm, MNHN B32076, MNHN-IU-2009-995.

OTHER RECORDS — *Macrophthalmus (Mareotis) depressus* - Bouchard, 2009: 6, 28, Mayotte, same spp. than Mayotte KUW 2009.

GEOGRAPHIC AND DEPTH RANGES — WIO. Red Sea, Persian Gulf, Somalia, Kenya, Tanzania, Mozambique, South Africa, Mayotte (this fieldwork), Madagascar; supratidal, land.

***Macrophthalmus grandidieri* A. Milne-Edwards, 1867**

MATERIAL EXAMINED — See Bouchard et al., 2013: 37, fig. 31 - Mayotte KUW 2009, st. 1, 7♂♂ 6.2×13.3 mm, 8.0×16.5 mm, 1♀ 6.1×12.0 mm, 1♀ ov. 9.0×18.6 mm, MNHN B32077, MNHN-IU-2009-996.

GEOGRAPHIC AND DEPTH RANGES — WIO. Red Sea, Somalia, Kenya, Tanzania, Mozambique, Mayotte (this fieldwork), South Africa, Madagascar; lower intertidal.

Family Ocypodidae Rafinesque, 1815

***Austruca annulipes* (H. Milne Edwards, 1837)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 41, fig. 35 as *Uca (Austruca) annulipes* - Mayotte KUW 2009, st. 2, intertidal, mangrove, Kangani, 1♂ 6.3×11.4 mm, MNHN B32095, MNHN-IU-2009-1014, 1♂ 6.2×10.3 mm, MNHN B32096, MNHN-IU-2009-1015, 9♂♂ 4.5×7.8 to 7.5×12.8 mm, 8♀♀ (1 ov.) 4.2×6.5 to 6.5×10.3 mm, MNHN B32097, MNHN-IU-2009-1016; st. 6, Petite Terre, ‘Déversoir Badamiers’ 2♂♂ 5.5×9.2 mm, 6.4×10.5 mm, 2♀♀ 5.2×8.8 mm, 6.5×11.0 mm, MNHN B32098, MNHN-IU-2009-1017; st. 13, mangrove (mixed with *Paraleptuca chlorophthalmus* and *Cranuca inversa*), Malamani, 11♂♂ 5.0×8.3 to 8.5×14.0 mm, MNHN B32099, MNHN-IU-2009-1018.

OTHER RECORDS — *Uca annulipes* - Guinot, 1967: 281, list with Mayotte. - *Uca (Paraleptuca) annulipes* - Bouchard, 2009: 6, 20, Mayotte, Malamani mangrove, coll. J. -M. Bouchard, 2008-2009, specimens added to Mayotte KUW 2009 collection, Malamani n° 1-2, 8♂♂ 3.5×5.5 to 7.7×13.4 mm, 4♀♀ 5.0×8.5 to 7.3×11.8 mm, MNHN B32094, MNHN-IU-2009-1013; Malamani n° P3, 10♂♂ 5.0×8.0 to 8.5×14.7 mm, MNHN B32093, MNHN-IU-2009-1012.

REMARKS — For new generic classification, including *Austruca*, *Cranuca*, *Gelasimus*, *Paraleptuca* and *Tubuca* see Shih et al. (2016).

GEOGRAPHIC AND DEPTH RANGES — IWP, Mozambique, Tanzania, South Africa to Japan, Philippines, Samoa; supratidal. Red Sea *Austruca annulipes* now attributed to *Uca (Austruca) albimana* (Kossmann, 1877) by Naderloo et al. (2010).

***Cranuca inversa* (Hoffman 1874)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 42, fig. 36 as *Uca* (*Cranuca*) *inversa* - Mayotte KUW 2009, Malamani mangrove coll. J. -M. Bouchard 2008-2009, Malamani n° 1-2, 1♂ 11.6×20.2 mm, 1♀ 6.8×10.7 mm, 1 juv., MNHN B32100, MNHN-IU-2009-1019, (upper mangrove) 5♂♂ 6.5×11.6 to 10.8×18.2 mm, 1 juv., MNHN B32101, MNHN-IU-2009-1020; Malamani n° P13, P15, 9♂♂ 6.5×11.0 to 13.2×22.9 mm, 6♀♀ 5.2×8.5 to 10.7×17.0 mm, MNHN B32104, MNHN-IU-2009-1023; KUW 2009, st. 6, ‘Déversoir Badamiers’, Petite Terre, 3♂♂ 7.8×14.0, 7.8×13.4 mm, and 7.4×12.2 mm, MNHN B32102, MNHN-IU-2009-1021; st. 13, mangrove, Malamani, 2♂♂ 6.3×10.3 mm, 8.3×14.7 mm, MNHN B32103, MNHN-IU-2009-1022.

OTHER RECORDS — *Uca* (*Cranuca*) *inversa* - Bouchard, 2009: 6, 18, Mayotte, coll. J. -M Bouchard 2008-2009, Malamani mangrove, specimens added to KUW 2009 collection (see above).

GEOGRAPHIC AND DEPTH RANGES — WIO, Red Sea, Yemen, Mayotte (this fieldwork), South Africa to Madagascar; supratidal.

***Gelasimus hesperiae* (Crane, 1975)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 43, fig. 37 as *Uca* (*Gelasimus*) *hesperiae* Crane, 1975 – coll. J. -M. Bouchard, 2008-2009, Malamani mangrove, Malamani n° P11, 1♂ 12.2×19.2 mm, MNHN B32105, MNHN-IU-2009-1024; Mayotte KUW 2009, st. 2, mangrove, Kangani, 1♂ 11.0×16.8 mm, 1♀ 12.5×18.3 mm, MNHN B32106, MNHN-IU-2009-1025, 1♂ 11.0×17.3 mm, MNHN B32107, MNHN-IU-2009-1026

OTHER RECORDS — *Uca marioni marioni* (Desmarest, 1823) - Guinot, 1967: 281, list with Mayotte / Accepted as *Gelasimus vocans* (Linnaeus, 1758) in WoRMS (2018) with ‘*U. vocans*’ from the Indian Ocean being now accepted as *Gelasimus hesperiae* (Crane, 1975) cf. Rosenberg (2013, 2014, 2018), Shih et al. (2010). - *Uca* (*Gelasimus*) *vocans* - Bouchard, 2009: 6, 24, Mayotte, Malamani mangrove, specimens with Mayotte KUW collection (see above).

GEOGRAPHIC AND DEPTH RANGES (cf. Rosenberg, 2018) — IO, Gulf of Aden, Somalia, Mayotte, South Africa to India, Thailand; supratidal.

***Gelasimus tetragonon* (Herbst, 1790)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 44, fig. 38 as *Uca* (*Gelasimus*) *tetragonon* - Mayotte KUW 2009, st. 2, littoral from Trévani to Kangani Mangrove, 1♂ 13.8×20.8 mm, 2♀♀ 11.4×17.2 mm, 18.8×26.2 mm (ov.), MNHN B32108, MNHN-IU-2009-1027.

GEOGRAPHIC AND DEPTH RANGES — IWP, Iran, Red Sea, Tanzania, Kenya, Mayotte (this fieldwork) to Taiwan, Japan (Ryukyus), French Polynesia; supratidal.

***Ocypode ceratophthalmus* (Pallas, 1772)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 39, fig. 33 - Mayotte KUW 2009, st. 1, beach, Trévani, 3♂♂ 19.5×22.5 to 26.8×31.0 mm, 2♀♀ 27.0×31.5 mm, 33.0×38.4mm, 1 juv. 10.5×12.5 mm, MNHN B32086, MNHN-IU-2009-1005; st. 2, intertidal from Trévani to Kangani Mangrove, 1 juv. 14.0×16.8 mm (with hesitation, see remarks); st. 21a, Islet Choizil, field observation only, no specimens; st. 26, beach near Mutsumbatsou reef flat, 2 juv. (with hesitation); st. 29, beach, Mboianatsa, Ngouja Hotel, 2♂♂ 31.8×37.7 mm, 34.0×38.6 mm, MNHN B32085, MNHN-IU-2009-1004; st. 31, Bandrélé, ‘Plage musicale’, 1 juv. (with hesitation, see remarks); coll. Lisa, Tom and J. - M. Bouchard, 05/01/2010, beach, Mliha, 5 juv., MNHN B32255, MNHN-IU-2009-1073; same collectors, upper beach of Ambato, 3 km from Mliha beach, 2♂♂ 13.6×16.0 mm, 17.6×20.6 mm, 2 juv., MNHN B32256, MNHN-IU-2009-1074.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses, 1 juv. MNHN-IU-2013-7329.

REMARKS — Juveniles of this species can be easily confused with *Ocypode pallidula* Hombron and Jacquinot, 1846 (see more comments in Bouchard et al., 2013).

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), South Africa to Hawaii, French Polynesia, to Clipperton in the eastern Pacific; supratidal.

***Ocypode cordimanus* Latreille, 1818**

MATERIAL EXAMINED — See Bouchard et al., 2013: 40, fig. 34 - Mayotte KUW 2009, st. 1, upper littoral, Trévani, 2♂♂ 30.7×34.0 mm, 32.5×36.4 mm, 1♀ 28.4×31.5 mm, MNHN B32087, MNHN-IU-2009-1006.

OTHER RECORDS — Poupin et al., 2013c: 12, Glorieuses.

GEOGRAPHIC AND DEPTH RANGES — IWP, Red Sea, Mayotte (this fieldwork), Mozambique to Japan, French Polynesia; supratidal, land. Records of this species in Hawaii have been corrected into *Ocypode pallidula* Hombron and Jacquinot, 1846 (see Castro, 2011)

***Paraleptuca chlorophthalmus* (H. Milne Edwards, 1837)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 45, fig. 39 as *Uca (Paraleptuca) chlorophthalmus* - Mayotte KUW 2009, st. 13, mangrove, Malamani 15♂♂ 6.7×11.0 to 10.4×17.7 mm, 15♀♀ 5.3×8.8 to 10.0×16.9 mm, MNHN B32116, MNHN-IU-2009-1035.

OTHER RECORDS — *Uca chlorophthalmus* - Guinot, 1967: 281, list with Mayotte, Comoros (Anjouan, Grande Comore). - *Uca (Tubuca) chlorophthalmus* - Bouchard, 2009: 6, 22, Mayotte, coll. J. -M. Bouchard 2008-2009, Malamani mangrove, specimens added to KUW 2009 collection (st. 13b), Malamani n°2, 4♂♂ 8.2×14.0 to 10.8×18.3 mm, 1♀ 10.5×17.3 mm, MNHN B32109, MNHN-IU-2009-1028; Malamani n° 3, 1♂ 8.5×14.0 mm, 1♀ 8.0×13.0 mm, MNHN B32110, MNHN-IU-2009-1029; Malamani n° P35, 1♂ 7.4×12.4 mm, 1♀ ov. 9.3×15.3 mm, MNHN B32111, MNHN-IU-2009-1030; ?Malamani, 6♀♀ 7.8×13.0 to 9.0×14.7 mm, MNHN B32112, MNHN-IU-2009-1031; Malamani n° P3, 1♂ 6.0×10.4 mm, MNHN B32113, MNHN-IU-2009-1032; Malamani n°1-2, 4♂♂ 6.8×11.3 to 10.8×18.7 mm, 2♀♀ 6.2×10.4 mm, 9.2×15.0 mm, MNHN B32114, MNHN-IU-2009-1033; Malamani n° P2, P3, 19♂♂ 7.0×11.9 to 11.0×19.2 mm, 4♀♀ 10.3×16.9 to 11.4×18.7 mm, MNHN B32115, MNHN-IU-2009-1034. - *Uca (Paraleptuca) chlorophthalmus* - Shih et al., 2012: 36, Mayotte, coll. from J. -M. Bouchard, 8 October 2008, Malamani mangrove, 1♂ CW 18.6 mm, MNHN IU-2011-5599, 1♂ CW 19.2 mm, MNHN-IU-2011-5600, 1♂ CW 16.2 mm, MNHN IU-2011-5601). - Shih et al., 2013: 643, tab. 1, 2 spp. MNHN (numbers not indicated) (loan from Mayotte KUW 2009 collection). - *Paraleptuca chlorophthalmus* - Shih et al., 2016: 173, Mayotte 2 spp. MNHN-IU-2011-5599, 5600.

GEOGRAPHIC AND DEPTH RANGES — WIO, Somalia, Kenya, Tanzania, Mayotte, Comoros (Anjouan, Grande Comore), Mozambique, South Africa to Madagascar, Réunion, Mauritius; supratidal, land.

***Tubuca urvillei* (H. Milne Edwards, 1852)**

MATERIAL EXAMINED — See Bouchard et al., 2013: 46, fig. 40 as *Uca (Tubuca) urvillei* - Mayotte KUW 2009, st. 13, 15♂♂ 12.8×22.0 to 18.8×33.7 mm, 3♀♀ 12.2×20.7 to 14.8×25.0 mm (photos in situ) MNHN B32092, MNHN-IU-2009-1011.

OTHER RECORDS — *Uca (Tubuca) urvillei* - Bouchard, 2009: 6, 16, Mayotte, coll. J. -M. Bouchard, Malamani mangrove, 16/04/2008, Malamani n°3, 12°55.415 S, 45°09.275 E, burrows near rill, 10♂♂ 12.5×22.0 to 16×28 mm, 2♀♀ 13.0×22.5 mm, 13×23.5 mm, MNHN B32089, MNHN-IU-2009-1008; Malamani n°P11, 12♂♂ 9.8×17.0 to 17.5×30.0 mm, 10♀♀ (1 ov.) 10.0×17.0 to 17.5×29.0 mm, MNHN B32088, MNHN-IU-2009-1007; Malamani n°1-2, 1♂ 15.2×27.2 mm, 1♀ 14.0×23.5 mm, MNHN B32090, MNHN-IU-2009-1009; Malamani n° 1-2, 1♀ 8.3×13.8 mm, MNHN B32091, MNHN-IU-2009-1010. - *Tubuca urvillei* - Shih et al., 2016: 174, Mayotte, leg. from Mayotte KUW 2009, Poroani, ZRC 1999.1107.

GEOGRAPHIC AND DEPTH RANGES — WIO, Southern Somalia, Mayotte (this work), South Africa, Madagascar. Other records from Rea Sea, Pakistan, India, western Thailand attributed by Shih et al. (2018) to *T. alcocki* sp. nov.; supratidal, land.

Superfamily Pinnotheroidea De Haan, 1833

Family Pinnotheridae De Haan, 1833

?*Nepinnotheres pectinicola* (Bürger, 1895) (Figure 19K)

MATERIAL EXAMINED — Mayotte KUW 2009, st. 20b, western reef, Islet M'tzamboro, 10-15m, 1♀ 3.8×4.4 mm, in a small bivalve Pectinidae, MNHN-IU-2013-7238.

REMARKS — Without comparative material this single female is tentatively attributed to *Nepinnotheres pectinicola* by using the key Tesch (1918: 251). The dactylus of external maxilliped (MxP3), however, does not clearly ‘overreach the propodus’, leading to *Pinnotheres obesus* Dana, 1852 if the alternate entry ‘not overreaching the propodus’ is chosen. The carapace is quadrangular with a straight front. The dactyls of the ambulatory legs are falciform and sub-equal. The chelae are elongated with fringes of setae along inner faces of palm and dactyl a character observed in some *Nepinnotheres* by Manning (1993). *Nepinnotheres pectinicola* is reported by Tesch (1918) in ‘*Pecten radula*’, now *Decatopecten radula* (Linnaeus, 1758). According to H. R. Von Cosel (pers. comm., based on photo examination of the shell), however, the Pectinidae hosting the crab in Mayotte is not a *Decatopecten* but more probably a species of *Laevichlamys* Waller, 1993.

GEOGRAPHIC (from Schmitt et al., 1973) AND DEPTH RANGES — IWP, Gulf of Aden (Djibouti), ?Mayotte (present study) to Philippines; shallow water to 10-15 m (present study).

DISCUSSION

Richness of the Crab Fauna

In total 202 species of crabs are reported herein from the Mayotte KUW 2009 collection, a few of them such as *Liomera albolineata*, *L. guttata*, *Linnaeoxantho acanthomerus*, *Platypodia morini* and *Xanthias cherbonnieri* are not, or rarely, reported since their original description. To complement the KUW collection, 96 additional species records have been found in Mayotte region in the taxonomic literature making a total of 298 crabs (see Appendix). Mayotte KUW 2009 expedition appears as an important step for the study of the crab fauna of the island, almost doubling (+138 new records) the previous number of species in the Island. This can be seen in Figure 20 where the documenting of crab new crab records from Mayotte region is plotted against time between 1870-2018 including the main collecting events and systematic contributions.

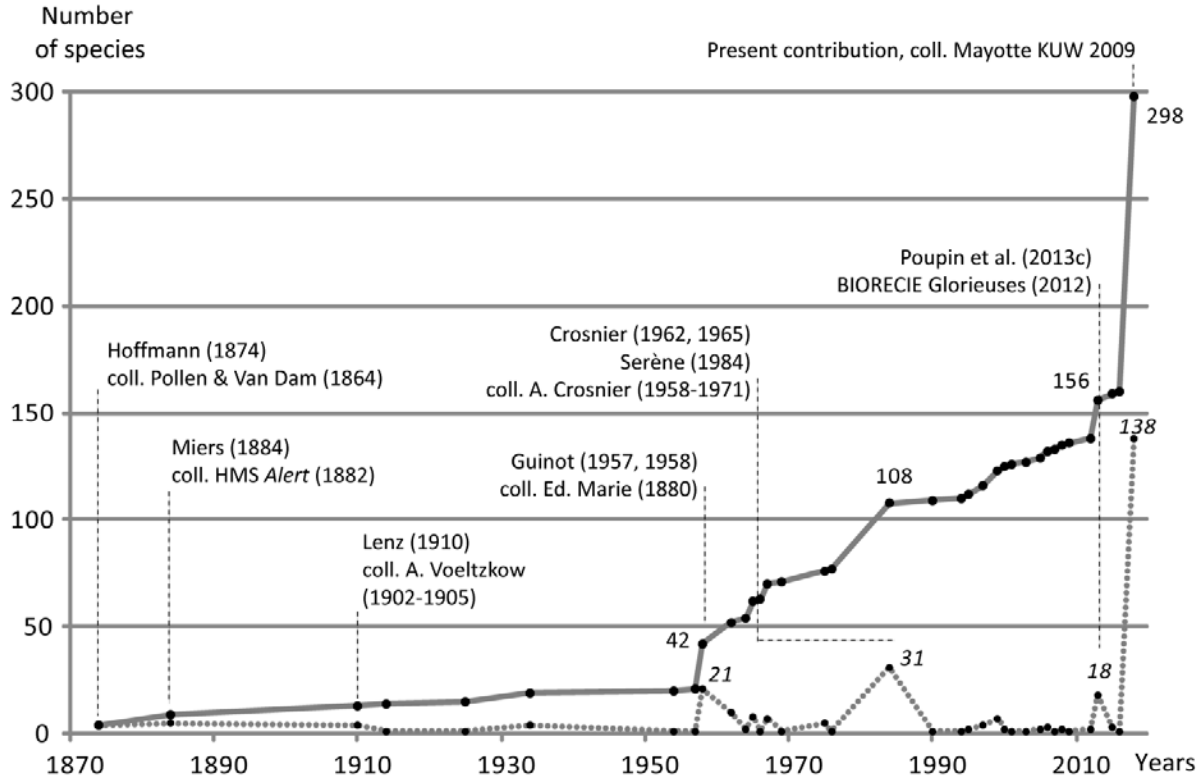


Figure 20. The documenting of new crab records in Mayotte region between 1864-2018, illustrating the importance of Mayotte K UW 2009 collection. Dotted line: number of new records by years. Solid line: cumulated number of new records. Main contributions and collecting events are indicated.

The number of species by family is presented in Table 1 and Figure 21. Six families are best represented accounting for about two third of the species (60 %): the Xanthidae (32 %), Portunidae (13 %), Epiplatidae (4 %), Trapeziidae (4 %), Grapsidae (4 %) and Leucosiidae (3 %).

Table 1. Crabs of Mayotte region. Number of species inventoried for each family (light grey for families represented by less than 10 species)

Family	n	Family	n	Family	n
Xanthidae	95	Pilumnidae	5	Latreilliidae	2
Portunidae	39	Tetraliidae	5	Matutidae	2
Epiplatidae	12	Calappidae	4	Plagusiidae	2
Trapeziidae	12	Dynomenidae	4	Aphanodactylidae	1
Grapsidae	11	Eriphiidae	3	Carpiliidae	1
Leucosiidae	10	Goneplacidae	3	Crossotonotidae	1
Ocypodidae	9	Palicidae	3	Cyclodorippidae	1
Dromiidae	8	Percnidae	3	Dairidae	1
Macrophthalmidae	8	Acidopsidae	2	Dotillidae	1
Sesamidae	8	Aethridae	2	Ethusidae	1
Majidae	7	Domeciidae	2	Euryplacidae	1
Varunidae	7	Gecarcinidae	2	Pinnotheridae	1
Oziidae	7	Homolidae	2	Planopilumnidae	1
Parthenopidae	6	Inachidae	2	Pseudoziidae	1
				Total	298

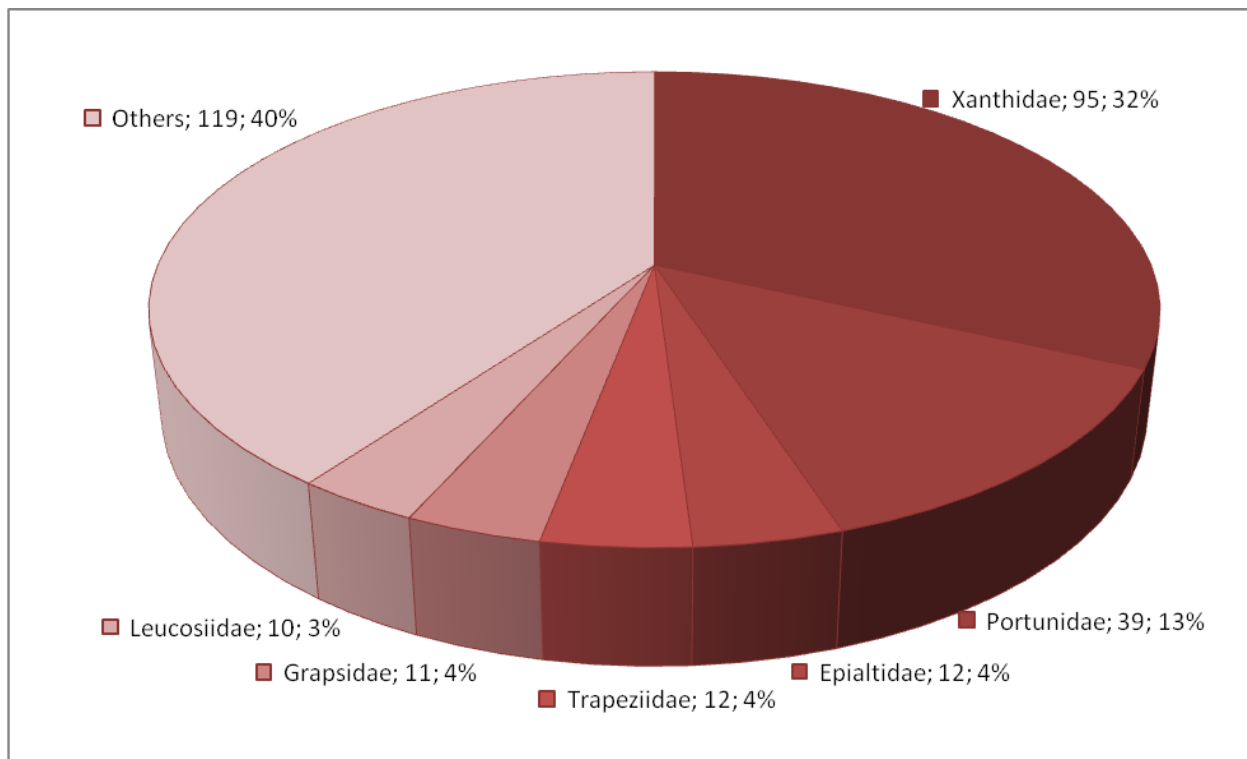


Figure 21. Most important crab families for the inventory in Mayotte region. Family names and exact figures for ‘Others’ are in Table 1 in light grey).

Zoogeography

The number of species in Mayotte region is presented in Table 2 by main zoogeographic provinces. The crab fauna of the Island is predominantly IWP in its composition counting for almost 80 % of the species from this province. About 17 % of the species are restricted to the IO (IO + WIO) of which about 83 % are only in the WIO *sensu* Serène (1984; west of 75°E, see Figure 2). Only seven species have an IP distribution, reaching to the western American coasts: *Domecia hispida*, *Liomera cinctimana*, *Plagusia immaculata*, *P. squamosa*, *Trapezia bidentata*, *T. digitalis*, and *T. formosa*. A single species has a worldwide distribution, being also present in the Atlantic, the pelagic crab *Planes major*. Six additional species can be added to the ‘worldwide group’ being IWP species invasive to the Mediterranean (and sometimes WA): *Carupa tenuipes*, *Charybdis hellerii* (also in WA), *Coleusia signata*, *Latopilumnus malardi* (also English Channel, but not established), *Plagusia squamosa*, and *Thalamita gloriensis*.

Zoogeographic provinces	Number of species
Indo-West Pacific (IWP)	238
Western Indian Ocean (WIO)	43
Indian Ocean (IO)	9
Indo-Pacific (IP)	7
Worldwide	1
Total	298

Table 2. Number of crabs reported in Mayotte region by zoogeographic provinces.

Six species of western and/or central Pacific are reported in the IO for the first time in this work: *Aethra edentata*, *Kabutos durandi*, *Lahaina incerta*, *Liomera albolineata*, *Lophozozymus edwardsi*, and *Paramedaeus octogesimus*. Three species are new WIO records: *Actaea spinosissima*, western limit extended from Cargados Carajos (Mauritius); *Huenia ?brevifrons*, western limit extended from Maldives and Laccadives Islands; *Pilumnus ?fissifrons*, western limit extended from Western Australia.

Taxonomic Issues

Many taxonomic issues remain unresolved in this study. More refined taxonomic revisions are required to improve the present contribution. Some of the taxonomic issues encountered during this work are summarized below:

- Species determined with hesitation, no comparison specimens being examined and/or specimens being juveniles: *?Caecopilumnus piroculatus*, *?Hiplyra elegans*, *Huenia ?brevifrons*, *Pilumnus ?fissifrons*, *P. aff. turgidulus*, *Tetralia ?nigrolineata*; *?Nepinnotheres pectinicola*; *Thalamita ?mitsiensis*.
- Species in need of revision (Morphological/color variations indicate complex of species): *Paramedaeus simplex* s.l., *Portunus longispinosus* s.l., *Tetralia glaberrima* s.l.; *Tetralia rubridactyla* s.l.; *Lophozozymus pulchellus* s.l. (live color pattern variable); *Menaethiops brevicornis* (differences between *M. brevicornis*, *M. acutifrons*, and *M. bicornis* unclear); *Monodaeus tuberculidens* s.l.; *Paractaea rufopunctata* s.l.; *Parasesarma leptosoma* s.l.; *Xanthias cherbonnieri* s.l. (live color pattern variable); *X. maculatus* s.l. (live color pattern variable).
- Congeneric species that remains difficult to recognized with need to examine sets of specimens for better appreciating morphological variations with size for a lot of them (some are potential synonyms): *Aethra edentata* / *A. scruposa*; *Liocarpilodes armiger* / *L. pacificus*; *Lydia annulipes* / *L. tenax*; *Lybia plumosa* / *L. leptochelis*; *Etisus odhneri* / *E. demani*; *Micippa thalia* / *M. xishaensis*; *Neoliomera themisto* / *N. richtersi*; *Neosarmatium meinerti* / *N. africanum*; *Nucia speciosa* / *N. rosea*; *Parapilumnus cristimanus* / *P. oryctos*; *Tweedieia laysani* / *T. odhneri*; *Xanthias maculatus* / *X. joanneae*.
- Revision of genera: *Liomera guttata*, different from all *Liomera* species; could warrant new genus; *Linnaeoxantho acanthomerus*, similar to *Melybia thalamita* Stimpson, 1871 in WA, but distinct generic placement for these two species perhaps not justified.
- Two species were not included in the present contribution because no satisfying determination can be proposed at genus level. These are however registered in MHNN collection pending further studies: *?Pilumnus* sp. A (Mayotte KUW 2009, st. 27, 1♀ ov. 4×5.5 mm, 2♂♂ 2. 6×3.3 mm, 4.1×5.4 mm, MNHN-IU-2013-7233; Figure 19M); and *?Pilumnus* sp. C. (Mayotte KUW 2009, st. 20b, 1♀ 4.2×5.4 mm MNHN-IU-2013-7235; Figure 19N).

Ongoing Studies on Deep Water Collections in the Region (MIRIKY 2009, BIOMAGLO 2017)

The number of crab species by deep ranges is reviewed in Table 3. Most of the species (200 spp. ~ 67 %) are from the shallow waters of the lagoon that were prospected during KUW 2009. Species from ‘Shallow to deep-waters’ (31 spp. ~ 10 %) are most often reported in shallow waters but with some much deeper records indicating that they have a wide depth range (i.e. *Aethra scruposa* 1-200 m; *Calappa gallus* 1-216 m; *Laleonectes nipponensis*, 15-250 m; *Tumidodromia dormia* 6-156 m, etc.). Only 11 species are ‘deep species’ being always reported in waters greater than 100 m: *Alcomaja miriky*, *Corycodus spinosus*, *Ethusa sinespina*, *Hyastenus uncifer*, *Metadynomene crosnieri*, *Paramaja gibba*, *Paramolopsis boasi*, *Pseudopalicus sexlobatus*, *Pycnoplax coryphaea*, *Sakaija africana*, and *Sphenomerides trapezioides*. The two pelagic species reported are *Charybdis smithii*, observed in large oceanic swarms, and the ‘oceanic crab’ *Planes major*.

Deep range	Number of crab species
Land and Freshwater	17
Intertidal	37
Shallow-waters (0-100 m)	200
Shallow to deep-waters (e.g. 10-190 m)	31
Deep (more than 100 m)	11
Pelagic or bathypelagic	2
Total	298

Table 3. Number of crab species in Mayotte region by depth ranges.

The results of Table 3 show that the deep fauna is poorly represented in the present inventory in Mayotte region. The three main oceanic campaigns having collected deep Decapoda in the region are shown below (Figure 22) with these campaigns being also presented in [BasExp \(2018\)](#). While the Decapoda collection found in 1977 has been already studied in several contributions those undertaken in 2009 and 2017 require investigation. Undoubtedly they will create many new records for the region.

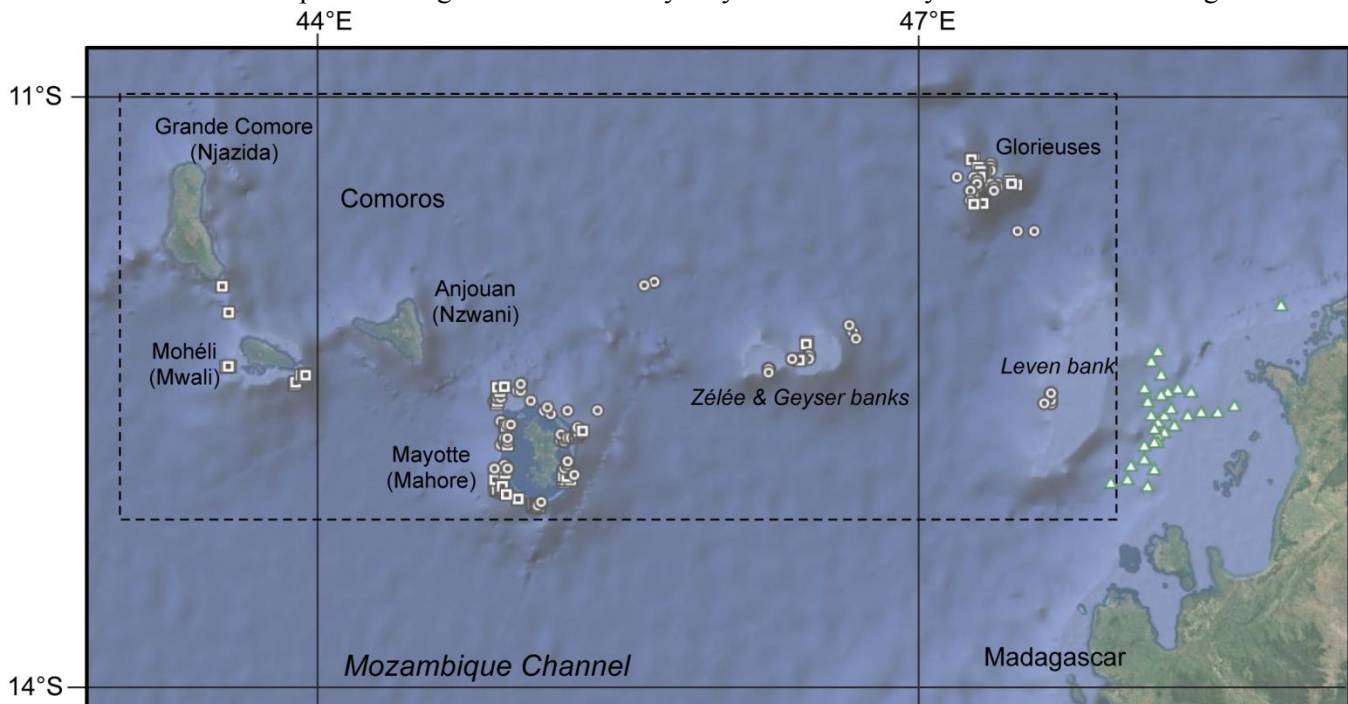


Figure 22. Mayotte region as defined for this inventory (dotted line, 11-13°10'S, 43-48°E), including Comoros Islands, Mayotte, Glorieuses Islands and three marine banks (Zélée, Geyser, Leven). Deep stations sampled at sea (~100-1000+ m) are indicated for three oceanographic campaigns realized for this region: BENTHEDI 1977 (circles), MIRIKY 2009 (green triangles, only for stations <13°S) and BIOMAGLO 2019 (squares).

- BENTHEDI 1977 — R/V *Suroît* with 107 stations in Mayotte region (Figure 22, circles). From this campaign [Poupin \(2015\)](#) has identified a total of 47 Decapoda including four brachyuran crabs, 1 Goneplacidae in Guinot (1990), 2 Homolidae in Guinot and Richer de Forges (1995) and 1 Dynomenidae in McLay (1999).
- MIRIKY 2009 — Shrimp trawler *Miriky* with 119 stations in the northeast of Madagascar of which only 32 situated north of 13°N, near the Leven bank, in the vicinity of Mayotte region (Figure 22, green triangles). Decapoda from this collection have been partly studied with only a few records near Mayotte region (north of 13°S) included in the present inventory: 12 crabs

Crossotonotidae, Ethusidae, Euryplacidae, Goneplacidae, Latreilliidae, Palicidae, Tetraliidae, and Trapeziidae in Castro (2012, 2013); 1 crab Cyclodorippidae in Naruse (2013); and 3 crabs Majidae in Ng and Richer de Forges (2015).

- BIOMAGLO 2017 — R/V *Antea* with 89 stations in Mayotte region (Figure 22, squares) with an unstudied collection of Decapoda.

How Many Crabs Are There in Mayotte Region: 600?

The discovery rate of crabs in Mayotte region is presented in Figure 23. The best fitting curve is exponential (vertical axis is logarithmic) without asymptotic limit in the recent years, that could indicate a saturation in the discovery rate during the latest decades, and the time for ‘half discovery’ is recent (2012-2013). These observations are an indication that much more species remain to be discovered in Mayotte region that is strategically positioned at the entrance to the Mozambique Channel and with a wide range of biomes from mangroves, corals, reefs, rocky shores, seagrass meadows, sandy beaches to freshwater and terrestrial biomes where the diversity of the species is very high.

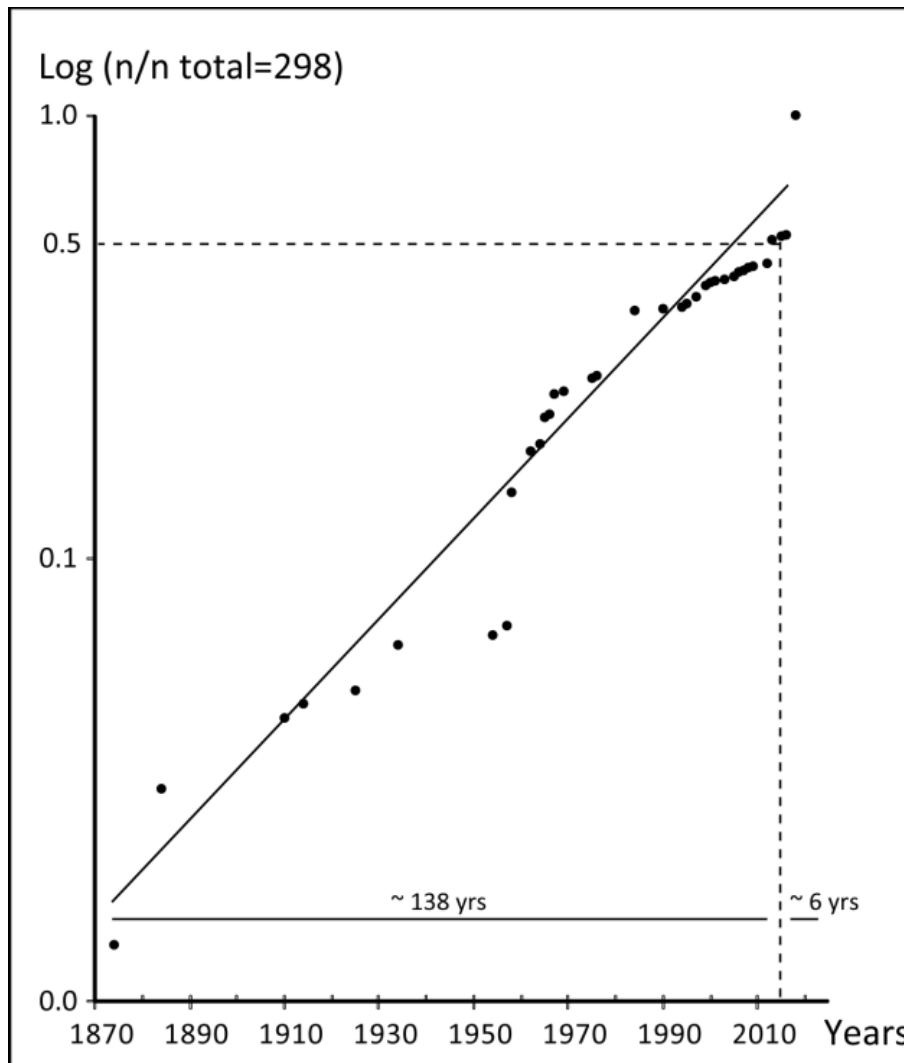


Figure 23. Discovery rate for the species of Decapoda in Mayotte region between 1874-2018. The discovery rate (vertical axis in logarithmic scale) is the ratio of number of species (n) / total number of species (298), plotted against time (horizontal axis, years). Dotted lines indicate the time when half of the records (0.5 or 149 species) has been reached (2012/13)

The total number of crab in the region can be estimated by comparison with more global inventories in the IO, these including the deep species that are poorly represented in the present contribution:

- For WIO French overseas territories the database of [Legall and Poupin \(2018\)](#) includes 437 crabs in Mayotte region and Islands of Europa, Juan de Nova, Réunion. Potentially all these species could be present in the region which means ca. +140 species.
- For Namibia, South Africa and Mozambique, Emmerson (2016) ‘Guide and Checklist’ reports about 460 crabs.
- For WIO, including Red Sea and IO west of 75° E, Serène (1984) indicates 280 brachyuran crabs Xanthidae and Trapeziidae to be compared to only ~ 110 in the present study (95 Xanthidae, 12 Trapeziidae), that is about ×2.5 more taxa. If this figure is applied to the whole crab fauna, Mayotte region could have as much as $2.5 \times 298 = 745$ species.
- In WoRMS (2018), consulted during the preparation of this contribution, the number of valid crabs species in IO is ~ 600 species.

From these examples it appears that the estimation of the total number of crabs in Mayotte region is still speculative. It is, however, realistic to consider that the number of crabs in this region may be about twice as for the present inventory; that is ~ 600 species. This figure is consistent with other IWP regions, e.g. Australia, the ‘Zoological catalogue’ (Davie, 2002) with 969 species; Taiwan, ‘Annotated checklist’ (Ng et al., 2001) with 548 species including the caveat that ‘*the brachyuran fauna for Taiwan and its associated islands will probably approach 700 species when more surveys and studies have been completed*’; Japan and adjacent seas (Sakai, 2004) with ‘*some 1250 species and subspecies of brachyuran crabs*’; French overseas territories of New Caledonia and French Polynesia (database of [Legall and Poupin, 2018](#)) with 640 and 480 valid species, respectively; and the Hawaiian Islands (Castro, 2011), which are more isolated and probably have an impoverished fauna, with 284 ‘*reliably identified*’ species.

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In MNHN Paris the registration of the collection was begun by R. Cleva, R. Kebir and J. Poupin, using the old handwritten catalogs (e.g. B32251). It was continued and computerized (e.g. MNHN-IU-2009-1069) by P. Martin Lefèvre with assistance of R. Kebir, A. Sato and S. Soubzmaigne.

Photographs of some species were obtained via several collaborators, by alphabetical order: Lionel Bigot, Matthias Deuss, François Fromard, Yvon Gildas, Christian Hily, Matthieu Leray, J. -B. Nicet, Ngan Kee Ng, Benjamin Pineau, Norbert Verneau.

Several determination were made or corrected by P. Castro (Trapeziidae), D. Guinot (Dromiidae, Majidae, Parthenopidae), P.K.L. Ng (Leucosiidae, Pilumnidae), and N. Naderloo (*Nanosesarma*).

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APPENDIX: LIST OF CRABS IN MAYOTTE REGION

In addition to the 202 crabs of Mayotte K UW 2009 expedition 90 records of crabs in Mayotte region have been retrieved in the scientific literature and six more species have been recognized with confidence (J. Poupin) on photographs, the specimens being not collected. These latter are common species having large IWP distribution: *Calappa calappa* (photo Y. Gildas), *Camposcia retusa* (photo M. Deuss), *Daira perlata* (photo N. Verneau), *Macrophthalmus milloti* (photos L. Bigot), *Ozius guttatus* (photos N. Verneau), *Plagusia immaculata* (photos N. Verneau), and *Portunus sanguinolentus* (photos J. -B. Nicet, N. Verneau). Their photographs can be consulted in [Legall and Poupin \(2018\)](#) with some of them presented in this work.

To simplify the formatting the list is presented alphabetically by name of species without the supra-specific classification that can be retrieved from [WoRMS \(2018\)](#). The following families are added to Mayotte K UW 2009 inventory: Aphanodactylidae Ahyong and Ng, 2009; Crossotonotidae Moosa and Serène, 1981; Cyclodorippidae Ortmann, 1892; Dairidae Ng and Rodriguez, 1986; Ethusidae Guinot, 1977; Euryplacidae Stimpson, 1871; Goneplacidae MacLeay, 1838; Homolidae De Haan, 1839; Latreilliidae Stimpson, 1858; and Palicidae Bouvier, 1898.

To serve as an index of scientific names for Mayotte region the species that were sampled in Mayotte K UW 2009 expedition are listed again. The species added are in bold and documented with literature consulted, geographic and depth ranges, and remarks (were necessary).

***Actaea polyacantha* (Heller, 1861)** — Guinot, 1958a: 87, Mayotte, 1♀ 6×4 mm, MNHN. - Guinot, 1967b: 260, list with Mayotte. - Serène, 1984: 114, Glorieuses, intertidal, coll. A. Crosnier 16 September 1958, 1♀ 6×9 mm, MNHN-B 6551 — IWP, Red Sea, South Africa to Samoa, Kiribati; intertidal ?shallow subtidal.

Actaea spinosissima Borradaile, 1902

***Actaeodes hirsutissimus* (Rüppell, 1830)** — Serène, 1984: 135, Mayotte, intertidal, coll. A. Crosnier August 1959, 1♂ 8×12 mm, MNHN-B 6589. - Poupin et al., 2013c: 11, Glorieuses, 1 juv. 4.4×6.6 mm, MNHN-IU-2013-7359 — IWP, Kenya, Tanzania, Mozambique to Guam, French Polynesia; intertidal, subtidal.

Actaeodes tomentosus (H. Milne Edwards, 1834)

Aethra edentata Edmondson, 1951

Aethra scruposa (Linnaeus, 1764)

***Alcomaja miriky* Ng and Richer de Forges, 2015:** 152, Leven Bank, between Glorieuses and Madagascar, MIRIKY, 1♂ holotype 26.4×20.9 mm, MNHN-IU-2010-929, st. DW 3215, 30 June 2009, 12°32'S 47°54'E, 314-433 m — IWP, Mozambique Channel to Japan; 230-600m.

***Ashtoret lunaris* (Forskål, 1775)** — *Ashtoret lunaris* - Poupin et al., 2013b: 11, Glorieuses — IWP, Red Sea, South Africa to Japan, New Caledonia; shallow subtidal.

Atergatis floridus (Linnaeus, 1767)

***Atergatopsis signata* (Adams and White, 1849)** — Serène, 1984: 142, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier 29 January 1971, 1 carapace 69×101 mm — IWP, Red Sea, South Africa to Guam, French Polynesia; intertidal, subtidal.

Austruca annulipes (H. Milne Edwards, 1837)

***Banareia armata* A. Milne-Edwards, 1869** — Serène, 1984: 43, Mayotte, coll. A. Crosnier September 1959, 10m, 1♂ 6.4×8.7 mm, MNHN-B 8062 — IWP, ?Red Sea, Mayotte, Madagascar to Japan, New Caledonia; intertidal to 10m.

Banareia parvula (Krauss, 1843)

Bruciana pediger (Alcock, 1898)

?*Caecopilumnus piroculatus* (Rathbun, 1911)

- Calappa calappa* (Linnaeus, 1758)** — A common species first reported herein for Mayotte from a photo of a carapace, with very distinctive shape (photo Yvon Gildas, at <http://img.over-blog.com/630x470-000000/1/92/85/77//Crustac-s-2/2009-09-12-carapace-crabe-calappa.jpg>) — IWP, Kenya, Mayotte (present study) to Hawaii, French Polynesia; 1-80m.
- Calappa gallus* (Herbst, 1803)
- Calappa hepatica* (Linnaeus, 1758)
- Calappa woodmasoni* Alcock, 1896** — *Calappa depressa* - Galil, 1997: 288, Mayotte lagoon, 50m, August 1959, coll. A. Crosnier (as *Calappa alata*), 2♂♂, 1♀, MNHN / *Calappa alata* Rathbun, 1911 and *Calappa depressa* Miers, 1886 accepted as *C. woodmasoni* in WoRMS (2018) — IWP, Somalia, Mayotte to New Caledonia; 2-350m.
- Camposcia retusa* (Latreille, 1829)** — A common species reported herein from photos in Mayotte lagoon (photo Matthias Deuss) — IWP, Red Sea, Mayotte (present study), South Africa to Japan, French Polynesia, 1-220m.
- Carcinoplax longimana* (De Haan, 1833)** — Castro, 2012: 93, Leven Bank, south of Glorieuses, MIRIKY 2009, st. DW3183, 12°38'S, 48°14'E, 420-436m, 26 June 2009, MNHN-IU-2010-947 — IWP, Madagascar (Leven Bank) to Taiwan, Philippines; 63-436m.
- Cardisoma carnifex* (Herbst, 1796)
- Carpilius convexus* (Forskål, 1775)
- Carupa tenuipes* Dana, 1852** — Crosnier, 1962: 19, Mayotte. - Guinot, 1967b: 253, list with Mayotte — IWP, Red Sea, South Africa to Hawaii, Pitcairn; invasive in Mediterranean (Galil et al., 2018); 1-100m.
- Catoptrus rathbunae* Serène, 1966
- Chaenostoma crassimanus* Stimpson, 1858
- Chaenostoma lisae* (Poupin and Bouchard, 2010)
- Chaenostoma sinuspersici* (Naderloo and Türkay, 2010)
- Charybdis anisodon* (De Haan, 1850)
- Charybdis annulata* (Fabricius, 1798)** — Poupin et al., 2013c, 11: Glorieuses (Figure 10C). — IWP, Tanzania, Glorieuses to French Polynesia; subtidal to 50m.
- Charybdis feriata* (Linnaeus, 1758)** — *Goniosoma sexdentatum* Herbst - Hoffmann, 1874: 39, Mayotte / *Cancer sexdentatus* Herbst, 1783 accepted as *Charybdis (Charybdis) feriata* in WoRMS (2018) — IWP, Somalia, South Africa to Japan, New Caledonia, 1-30m.
- Charybdis hellerii* (A. Milne-Edwards, 1867)** — Crosnier, 1962: 78, Mayotte. - Guinot, 1967b: 255, list with Mayotte — IWP, Red Sea, South Africa to Hawaii, New Caledonia, invasive in Mediterranean, Western Atlantic (e.g. Ferry et al., 2017); subtidal to 75m.
- Charybdis natator* (Herbst, 1794)** — *Goniosoma natator* - Hoffmann, 1874: 39, Mayotte. - *Charybdis (Charybdis) natator* - Crosnier, 1962: 82, Mayotte. - Guinot, 1967b: 254, list with Mayotte — IWP, Red Sea, South Africa to Japan, Australia; 1-55m.
- Charybdis obtusifrons* Leene, 1937** — Poupin et al., 2013c: 11, Glorieuses (Figure 10D) — IWP, Red Sea, Glorieuses, Madagascar to Japan French Polynesia; subtidal.
- Charybdis smithii* MacLeay, 1838** — *Charybdis edwardsi* - Losse, 1969: 146, North of Mayotte [09°45' S, 43° 39' E] from Della Croce and Holthuis, 1965, not consulted / *Charybdis (Goniohellenus) edwardsi* Leene and Buitendijk, 1949 accepted as *Charybdis (Goniohellenus) smithii* MacLeay, 1838 in WoRMS (2018) — IO, Tanzania, South Africa to western India; littoral and pelagic at sea with observation of large oceanic swarms.
- Chlorodiella barbata* (Borradaile, 1900)** — Guinot, 1967b: 262, list with Mayotte. - Serène, 1984: 260, Glorieuses, intertidal, coll. J. Millot 16 September 1958, 1♀ 4.6×7.4 mm, MNHN-B 6712 — IWP, Mayotte, Europa, Madagascar to Guam, French Polynesia; shallow subtidal.

- Chlorodiella cytherea* (Dana, 1852)** — Serène, 1984: 259, Mayotte, intertidal, coll. A. Crosnier August 1959, 2♂♂ 4.2×6.9 mm, 5.1×8.1 mm, MNHN-B8094. - Poupin et al., 2013c: 11, Glorieuses — IWP, Red Sea, Somalia, Mayotte, Madagascar, Réunion to Hawaii, Easter Island; intertidal, subtidal.
- Chlorodiella laevis* (Dana, 1852)
- Chlorodiella nigra* (Forskål, 1775)
- Coleusia signata* (Paul'son, 1875)** — Galil, 2006: 62, Mayotte, coll. M. Cloué, 1♂ MNHN B17532 — WIO, Red Sea, Mozambique to Madagascar, invasive in Mediterranean (*cf.* Galil et al., 2018); 1-10m.
- Coralliocryptus caementa* Komai and Ng, 2012
- Corycodus spinosus* Naruse, 2013**: 491, Leven Bank, south of Glorieuses, MIRIKY st. DW 3196, 12°08'S, 48°56'E, 238-249m, 18.06.2009, 1♀ ov. 5.0×9.8 mm, MNHN IU-2010-311 — WIO, only Leven Bank, between Glorieuses and Madagascar; 238-249m.
- Cranuca inversa* (Hoffman 1874)
- Crossotonotus spinipes* (De Man, 1888)** — Castro, 2013: 439, Leven Bank, between Glorieuses and Madagascar MIRIKY 2009, st. CP 3207, 29.06.2009, 12°40'S, 48°18'E, 70-135 m — IWP, Red Sea, Mozambique Channel to Hawaii, Samoa; intertidal to 146 m and up to 500 from tangle nets (*cf.* Castro 2011).
- Cryptodromia fallax* (Latreille, in Milbert, 1812)** — *Cryptodromia canaliculata* - Lewinsohn, 1984: 108, Glorieuses, intertidal, 16 September 1958, leg. A. Crosnier, 1♂ 9×10 mm, 1♀ 7×8 mm, MNHN B-6860; Grande Comore, Mitsamiouli, October 1952, leg. P. Fourmanoir, 3♂♂ 7.5×9.0 mm, 8.0×9.5 mm, 9×11 mm, MNHN B-6862; Mayotte, leg. Humblot, 1901 2♀♀, 1♀ ov., part MNHN B-6862 / *Cryptodromia canaliculata* Stimpson, 1858 accepted as *Cryptodromia fallax* in WoRMS (2018) — IWP, Red Sea, South Africa to Hawaii, French Polynesia; shallow subtidal.
- Cryptodromia hilgendorfi* De Man, 1888** — Lewinsohn, 1984: 109, Mayotte, leg. Humblot, 1901, 1♂, 1♀, part of MNHN B-6946 — IWP, Red Sea, Comoros to French Polynesia; intertidal to 105m.
- Cryptodromiopsis tridens* Borradaile, 1903** — Lewinsohn, 1984: 113, Glorieuses, intertidal, 16 September 1958, leg. A. Crosnier, 2♀♀ 6.5×7.5 mm [?largest], MNHN B-6859; intertidal, 30 January 1971, leg. A. Crosnier, 3♀♀, 1♀ ov. 6.5×7.0 mm [?largest], MNHN B-6893 — IWP, Somalia to French Polynesia; shallow subtidal.
- Cyclax spinicinctus* Heller, 1861
- Cycloachelous granulatus* (H. Milne Edwards, 1834)** — *Portunus granulatus* - Crosnier, 1962: 57, Mayotte, MNHN. - Guinot, 1967b: 257, list with Mayotte. - Poupin et al., 2013c: 11, Glorieuses (Figure 10E) — IWP, Red Sea, South Africa to Japan, French Polynesia; subtidal to 120 m — REMARKS - Records of this species in Hawaii now accepted as *Cycloachelous suborbicularis* (Stephenson, 1975) (*cf.* Castro, 2011).
- Cyclodius drachi* (Guinot, 1964b)
- Cyclodius granulatus* De Man, 1888
- Cyclodius nitidus* (Dana, 1852)
- Cyclodius obscurus* (Hombron and Jacquinot, 1846)** — *Phymodius monticulosus* - Guinot, 1958a: 93, Mayotte, 1♀ ov. 13.0×9.5 mm MNHN. - Guinot, 1967b: 267, list with Mayotte / *Chlorodius* (*Cyclodius*) *monticulosus* Dana, 1852 accepted as *Cyclodius obscurus* (Hombron and Jacquinot, 1846) in WoRMS (2018) — IWP, Red Sea, South Africa to Hawaii, French Polynesia; intertidal, shallow subtidal.
- Cyclodius unguulatus* (H. Milne Edwards, 1834)
- Cymo andreossyi* (Audouin, 1826)** — Guinot, 1958b: 181, Mayotte, 4♂♂, 2♀♀, largest 10×9 mm, MNHN. - Guinot, 1967b: 263, list with Mayotte. - Serène, 1984: 31, Mayotte, 1♂ 10×9 mm, MNHN — IWP, Red Sea, South Africa to Japan, French Polynesia; shallow water.
- Cymo deplanatus* A. Milne-Edwards, 1873

Cymo melanodactylus Dana, 1852

Cymo quadrilobatus Miers, 1884

***Daira perlata* (Herbst, 1790)** — Mayotte, photo Norbert Verneau, Moya reef, 3m, det. J. Poupin, specimen not collected (photo in Legall and Poupin, 2018) — REMARKS - A crab common on fore-reef, although rarely collected — IWP, Red Sea, Mayotte (present study), South Africa to Hawaii, French Polynesia; subtidal to 10m.

***Daldorfia horrida* (Linnaeus, 1758)** (Figure 9E) — Tan and Ng, 2007: 130, Glorieuses, intertidal, coll. A. Crosnier, 29 January 1971, 1♂ 63.3×47.2 mm, MNHN. - Poupin et al., 2013c: 11 Glorieuses, 1♂ (approximately 38×40 mm) MNHN-IU-2013-7341 — IWP, Red Sea, South Africa to Japan, French Polynesia; intertidal to 125m.

Daldorfia leprosa (Nobili, 1905)

Daldorfia rathbunae (De Man, 1902)

***Discoplax rotunda* (Quoy and Gaimard, 1824)** — Poupin et al., 2013c: 12, Glorieuses — IWP, Mayotte, Mauritius to Japan, Guam, French Polynesia; supratidal and land. Records from Hawaii probably from mislabeled specimens (*cf.* Castro, 2011).

Domecia glabra Alcock, 1899

Domecia hispida Eydoux and Souleyet, 1842

Dotilla fenestrata Hilgendorf, 1869

***Dromidiopsis tridentata* Borradaile, 1903** — Balss, 1934: 502, Mayotte, 2♀ MNHN, leg. A. Milne-Edwards. - Lewinsohn, 1984: 97, Comoros (Anjouan), intertidal, November 1961, leg. A. Crosnier, 1♂ 9.5×10.0 mm, MNHN B-6882; Glorieuses, intertidal, coll. 16 September 1958, leg. A. Crosnier, 1 juv. 4.5×4.5 mm, MNHN B-6887; Mayotte, leg. A. Milne Edwards, det. Balss 1♀ (on two), MNHN B-6963 (same sp. than Balss, 1934). - Guinot, 1967b: 239, list with Mayotte — IWP, Kenya, Comoros to Chesterfield Islands, New Caledonia; intertidal to 62m.

***Dynomene hispida* (Latreille, in Milbert, 1812)** — *Dynomene hispida* - Poupin et al., 2013c: 10, Glorieuses — IWP, Somalia, Madagascar to Hawaii, French Polynesia and Easter Island; intertidal to 48 m (Easter Island and 48 m from Ng and Boyko, 2017).

***Dynomene praedator* A. Milne-Edwards, 1879** — *Dynomene praedator* - McLay, 1999: 481, Glorieuses, coll. A. Crosnier, 29 January 1971, intertidal, 1♂ 8.7×6.7 mm, 1♀ ov. 9.6×7.5 mm, MNHN.

***Epiactaea margaritifera* (Odhner, 1925)** — *Actaea margaritifera* - Guinot, 1958a: 89, Mayotte, 1♂ juv. 6.2×4.5 mm, MNHN. - Guinot, 1967b: 261, list with Mayotte. - *Epiactaea margaritifera* - Serène, 1984: 117, Mayotte in distribution — IWP, Red Sea, Mayotte to Gulf of Thailand, Kei Islands, Australia (Torres Strait); subtidal.

Epixanthus corrosus A. Milne-Edwards, 1873

Epixanthus dentatus (White, 1848)

Epixanthus frontalis (H. Milne Edwards, 1834)

Eriphia scabricula Dana, 1852

Eriphia sebana (Shaw and Nodder, 1803)

Eriphia smithii MacLeay, 1838

***Ethusa sinespina* Kensley, 1969** — *Ethusa sinespina* - Castro, 2013: 439, Leven Bank, south of Glorieuses, MIRIKY 2009, st. CP 3185, 26.06.2009, 12°38'S, 48°10'E, 560-576m, st. CP 3222, 01.07.2009, 12°42'S, 48°11'E, 584-624 m — WIO, South Africa to Madagascar; 138-680m.

Etisus anaglyptus H. Milne Edwards, 1834

Etisus demani Odhner, 1925

Etisus dentatus (Herbst, 1785)

Etisus frontalis (Dana, 1852)

Etisus odhneri Takeda, 1971

Etisus splendidus Rathbun, 1906

Etisus utilis Jacquinot, in Jacquinot and Lucas, 1853

Eupilumnus calmani (Bals, 1933)

Euxanthus exsculptus (Herbst, 1790)

***Euxanthus rugosus* Miers, 1884** — Serène, 1984: 85, Glorieuses, intertidal, coll. A. Crosnier 30 January 1971, 5♂♂ largest 33×50 mm, 1♀ 28×42 mm, MNHN-B6523 — WIO, Glorieuses, Seychelles, Europa, Madagascar, Mauritius to Chagos, Maldives; intertidal.

***Forestiana depressa* (White, 1848)** — Serène, 1984: 106, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier 29 January 1971, 1♀ 17×23 mm, MNHN-B 6557 — IWP, Somalia, South Africa to Hawaii, ?French Polynesia [perhaps *Forestia scabra* (Odhner, 1925) there; cf. Guinot (1976), Serène (1984)]; intertidal, subtidal.

Gaillardiiellus rueppelli (Krauss, 1843)

***Gandoa brevipes* (H. Milne Edwards, 1853** — *Pinnixia brevipes* H. Milne Edwards, 1853: 220, Madagascar. - *Gandoa brevipes* - Ng and Naruse, 2009: 288, lectotype female 5.1×8.5 mm, Mayotte, Comoro Is., coll. Cloué, MNHN B-10616; new generic combination with this remark ‘*Type locality Mayotte, on associated label written by Serène, contradicts that stated by H. Milne Edwards [Madagascar]*’. - Ahyong and Ng, 2009: 39, Mayotte, same lectotype MNHN B-10616 - Ng and Rahayu, 2016: 365, Mayotte, same specimen — WIO, Kenya (Zanzibar), Mayotte; shallow water, perhaps with a polychaete worm.

Gelasimus hesperiae (Crane, 1975)

Gelasimus tetragonon (Herbst, 1790)

Geograpsus crinipes (Dana, 1851)

Geograpsus grayi (H. Milne Edwards, 1853)

Glabropilumnus laevimanus (Dana, 1852)

Gonioinfradens paucidentatus (A. Milne-Edwards, 1861)

Grapsus fourmanoiri Crosnier, 1965

***Grapsus longitarsis* Dana, 1851** — Poupin et al., 2013c: 12, Glorieuses — IWP, Red Sea, Somalia to Hawaii, French Polynesia; intertidal, supratidal.

Grapsus tenuicrustatus (Herbst, 1783)

***Hemisphaerodromia monodus* (Stebbing, 1918)** — *Hemisphaerodromia abellana* - Lewinsohn, 1984: 117, ‘Comoros or Madagascar no detail’, leg. P. Fourmanoir, 1♂ 13.5×15.5 mm, MNHN B-6857 / *Hemisphaerodromia abellana* Barnard, 1954 accepted as *Hemisphaerodromia monodus* in WoRMS (2018) — WIO, Red Sea, South Africa to ‘Comoros or Madagascar’; intertidal to subtidal — REMARKS - This species probably reported by error from New Caledonia in Ng and Richer de Forges (2007, as *Hemisphaerodromia abellana* Barnard, 1954), followed by Poupin (2010). This is perhaps because this species (*H. monodus/abellana*) is listed in McLay (1993) study on ‘*The sponge crabs from New Caledonia and Philippines*’ but no specimen(s) have been examined from New Caledonia in McLay contribution.

? *Hiplyra elegans* (Gravier, 1920)

Hirsutodynomene spinosa (Rathbun, 1911)

***Homolochunia valdiviae* Doflein, 1904** — *Homolochunia valdiviae* - Guinot and Richer de Forges, 1995: 430, Mayotte, coll. BENTHEDI, 29 March 1977, st. F61, 12°46'S, 44°58'E, 475-510m, 1♀ ov. 35.7×25.8 mm, MNHN B24270 — IWP, Mozambique, Madagascar to New Caledonia; 395-1000m.

Huenia brevifrons Ward, 1941

Huenia grandidierii A. Milne-Edwards, 1865
Hyastenus uncifer Calman, 1900
Hypocolpus diverticulatus (Strahl, 1861)
Kabutos durandi (Serène, 1955)
Kraussia rugulosa (Krauss, 1843)
Lachnopodus subacutus (Stimpson, 1858)
Lahaina incerta (Balss, 1938)
Lahaina ovata Dana, 1851
Laleonectes nipponensis (Sakai, 1938)
Lambrachaeus ramifer Alcock, 1895
Latopilumnus malardi (de Man, 1914)
***Latreillia metanese* Williams, 1982** — *Latreillia metanese* - Castro, 2013: 439, Leven Bank, south of Glorieuses MIRIKY 2009, st. CP 3188, 27.06.2009, 12°31'S, 48°22'E, 298-301m, st. CP 3189, 27.06.2009, 12°30'S, 48°18'E, 346-376 m — IWP, Somalia, Kenya, Mozambique to Hawaii, French Polynesia, Nazca ridges; 22-806m.
***Latreillia pennifera* Alcock, 1900** — *Latreillia pennifera* - Castro, 2013: 439, Leven Bank, south of Glorieuses, MIRIKY 2009, st. CP 3205, 29.06.2009, 12°37.64'S, 48°25.99'E, 60-63 m; st. DW 3206, 29.06.2009, 12°38.71'S, 48°21.52'E, 70-74 m — IWP, Mozambique Channel, South Africa to New Caledonia; 37-411m.
Leptodius exaratus (H. Milne Edwards, 1834)
Leptodius gracilis (Dana, 1852)
Leptodius nudipes (Dana, 1852)
Leptodius sanguineus (H. Milne Edwards, 1834)
***Lewindromia unidentata* (Rüppell, 1830)** — *Dromidia unidentata* - Balss, 1934: 502, Mayotte, Humblot leg. MNHN. - Guinot, 1967b: 240, list with Mayotte. - Lewinsohn, 1984: 107, Mayotte, same specimen than Balss (1934), leg. Humblot 1901, det. Balss, 1♂ 13×13 mm, MNHN B-6936 — IWP, Red Sea, Mozambique to Hawaii, Easter Island; intertidal to 122m.
***Libystes nitidus* A. Milne-Edwards, 1867** — Barnard, 1954: 100, Mayotte, Bandrélé, intertidal. - Crosnier, 1962: 14, Mayotte, 1 sp. 8.0×13.6 mm, MNHN. - Guinot, 1967b: 253, list with Mayotte — IWP, Red Sea, Tanzania, Madagascar to Indonesia, New Caledonia; subtidal to 187 m — REMARKS - This species has been reported in Taiwan, Philippines and Hawaii (e.g. Sakai, 2004) but these records should be verified as the genus *Libystes* is in need of revision (Apel and Spiridonov, 1998). Several records from the Pacific Ocean must belong to a complex of species affiliated to *Libystes villosus* Rathbun, 1924, a species described from Samoa, later reported from Hawaii and for long considered as a junior synonym of *L. nitidus* (see remarks in Castro, 2011: 66).
Linnaeoxantho acanthomerus (Rathbun, 1911)
Liocarpilodes armiger (Nobili, 1905)
***Liocarpilodes integerrimus* (Dana, 1852)** — Poupin et al., 2013c: 11, Glorieuses, 1♂ 2.3×3.2 mm, MHNH-IU-2013-7314 (Figure 15E). - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St5, reef at S-shaped Pass, UFID 13612 — IWP, Red Sea, Somalia, Mayotte, Madagascar to Hawaii, French Polynesia; shallow subtidal.
Liomera albolineata (Serène and Nguyen, 1960)
Liomera bella (Dana, 1852)
Liomera cinctimana (White, 1847)
Liomera edwardsi Kossmann, 1877
Liomera guttata de Man, 1888

Liomera laevis (A. Milne-Edwards, 1873)

Liomera monticulosa (A. Milne-Edwards, 1873)

Liomera rubra (A. Milne-Edwards, 1865)

***Liomera rugata* (H. Milne Edwards, 1834)** — Serène, 1984: 62, Glorieuses, coll. J. Millot and A. Crosnier 16 September 1958, 3♂♂ largest 6.5×11.0 mm, MNHN-B6500 — IWP, Red Sea, South Africa to Hawaii, French Polynesia, Easter Island; intertidal, subtidal.

***Liomera rugipes* (Heller, 1861)** — *Carpilodes rugipes* - Guinot, 1958a: 84, Mayotte, 1♂ 12.0×7.3 mm, MNHN. - *Liomera rugipes* - Guinot, 1967b: 265, list with Mayotte. - Serène, 1984: 52, 1♂ 7.3×12.0 mm, Mayotte, MNHN. - Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St2, Tanaraki reef, UFID 13590 — IWP, Red Sea, Somalia, Mayotte, Madagascar to Vietnam (in Serène, 1968); intertidal, subtidal — REMARKS - This species is rarely reported, affiliated to *L. rubra* (A. Milne-Edwards, 1865). Serène (1984) and Galil and Vannini (1990) have examined specimens from Madagascar and Somalia, respectively.

Liomera stimpsonii (A. Milne-Edwards, 1865)

Liomera striolata (Odhner, 1925)

***Liomera tristis* (Dana, 1852)** — *Carpilodes tristis* - Guinot, 1958a: 85, Mayotte, 1♂ 19.5×11.5 mm, MNHN. - Guinot, 1967b: 265, list with Mayotte. - *Liomera tristis* - Serène, 1984: 59, 1♂ 15.5×26.0 mm, coll. A. Crosnier August 1959, Mayotte, MNHN-B6486 — IWP, Red Sea, South Africa to Hawaii, French Polynesia; intertidal, shallow subtidal.

Lissocarcinus orbicularis Dana, 1852

***Lophozozymus anaglyptus* (Heller, 1861)** — *Platypodia anaglypta* - Serène, 1984: 159, Comoros (Anjouan), intertidal, coll. A. Crosnier November 1961, 1♀ 11.7×18.1 mm, MNHN-B6607 — IWP, Red Sea, Comoros (Anjouan), Madagascar to Japan, French Polynesia; intertidal, subtidal.

Lophozozymus edwardsi Odhner, 1925

Lophozozymus pulchellus A. Milne-Edwards, 1867

Lupocyclus quinquedentatus Rathbun, 1906

Lybia plumosa Barnard, 1947

Lybia tessellata (Latreille, in Milbert, 1812)

Lydia annulipes (H. Milne Edwards, 1834)

***Macromedaeus nudipes* (A. Milne-Edwards, 1867)** — Serène, 1984: 178, Glorieuses, Island du Lys, intertidal, coll. A. Crosnier 29 January 1971, 1♂ 18×27 mm, MNHN-B 6627. - Poupin et al., 2013c: 11, Glorieuses — IWP, Seychelles, Aldabra, Glorieuses, Europa, Madagascar to Guam, French Polynesia; intertidal, subtidal.

***Macromedaeus voeltzkowi* (Lenz, 1905)** — *Xantho (Leptodius) voeltzkowi* - Balss, 1934: 507, Mayotte, Millot leg. MNHN. - Guinot, 1967b: 265, list with Mayotte. - *Macromedaeus voeltzkowi* - Serène, 1984: 178, Mayotte (in distribution) — WIO, Gulf of Oman, Red Sea, South Africa to Madagascar; intertidal, subtidal.

Macrophthalmus depressus Rüppel, 1830

Macrophthalmus grandidieri A. Milne-Edwards, 1867

***Macrophthalmus milloti* Crosnier, 1965** — [Legall and Poupin \(2018\)](#), Mayotte, photograph only (L. Bigot, 2011), determined with confidence by J. Poupin based on drawings and photos in Crosnier (1965:124, fig. 217-220, 222-223, 228, pl. XI fig. 4). — REMARKS - Affiliated species having also long ocular peduncles are *Macrophthalmus transversus* (Latreille, 1817), *Macrophthalmus latipes* Borradaile, 1903 and *Macrophthalmus telescopicus* (Owen, 1839) — IWP, Tanzania, Kenya, Mayotte (present study), Madagascar to Japan (Ryukyu), New Caledonia; lower intertidal.

***Macrophthalmus telescopicus* Owen, 1839** — Crosnier, 1975: 737, Comoros (Grande Comore), ‘*Trou du Prophète, Im, sablons coralliens*’, 13 October 1969, coll. R. Plante, 1 sp. 15.7×25.4 mm; Mayotte

(Bouénié Bay), 55m, dredge, mud-sand, 21 January 1970, coll. R. Plante, 1 sp. 9.6×16.0 mm; same coll. and place, 26m, 1 sp. ov. 7.9×13.0 mm. - *Macrophthalmus (Macrophthalmus) telescopicus* - Bouchard et al., 2013: 37, list with Mayotte and same spp. than Crosnier (1975) — IWP, Red Sea, Tanzania, Comoros, Madagascar to Japan, Hawaii, Fiji; soft sediments in shallow subtidal to 55m.

Matuta victor (Fabricius, 1781)

***Medaeops neglectus* (Balss, 1922)** — *Medaeus granulatus* - Balss, 1934: 507, Mayotte, Millot leg. MNHN. - Guinot, 1967b: 266, list with Comoros / Not *Medaeops granulatus* (Haswell, 1882), re-determined as *M. neglectus* by Guinot (1967c: 367), Serène (1984: 91) — WIO, Red Sea, Kenya, Mayotte, South Africa to Madagascar; intertidal, subtidal.

Menaethiops brevicornis (A. Milne-Edwards, 1868)

Menaethiops contiguicornis (Klunzinger, 1906)

Menaethiops nodulosus (Nobili, 1905) ?

Menaethius monoceros (Latreille, 1825)

Menaethius orientalis (Sakai, 1969)

***Metadynomene crosnieri* McLay, 1999**: 530, Glorieuses, 7 June 1977, BENTHEDI, 11°32.00'S 47°16.40'E, 330-440m, 1 ♀ 23.2×22.7 mm, MNHN B22510. - Cleva et al., 2007: 248, type catalog in Paris MNHN, holotype from Glorieuses.

Metasesarma obesum (Dana, 1851)

Metaxanthops acutus Serène, 1984

Metopograpsus messor (Forskål, 1775)

Metopograpsus thukuhar (Owen, 1839)

Micippa platipes Rüppell, 1830

Micippa thalia (Herbst, 1803)

Monodaeus tuberculidens (Rathbun, 1911) *s.l.*

***Myrine kessleri* (Paul'son, 1875)** — Galil, 2001: 436, Mayotte lagoon, coll. A Crosnier, 55m, August 1960, 1 ♀ CL 12.1 mm, MNHN B18593; 46m, 5 March 1959, 1 ♀ CL 11.7 mm, MNHN B18590; 20m, September 1959, 1 ♀ CL 12.0 mm, MNHN B18591 — IWP, Red Sea, Mayotte to Fiji; 15-320m.

Nanocassiope alcocki (Rathbun, 1902)

Nanosesarma jousseaumei (Nobili, 1905)

Neoliomera sabaea (Nobili, 1905)

Neoliomera themisto (De Man, 1889)

***Neopalicus jukesii* (White, 1847)** — Castro, 2000: 554, Mayotte, 50m, coarse sand, A. Crosnier coll. 09.1958, 1 ♂ MNHN B27216. - Castro, 2013: 439, Leven Bank, between Glorieuses and Madagascar MIRIKY 2009, st. CP 3204, 29.06.2009, 12°37.03'S, 48°30.3'E, 59-60 m — IWP, Red Sea, Gulf of Aden, Mayotte, Madagascar to Japan, New Caledonia; 10-146m.

Neosarmatium meinerti (De Man, 1887)

Neosarmatium smithi (H. Milne Edwards, 1853)

***Neoxanthias impressus* (Latreille, in Milbert, 1812)** — Serène, 1984: 201, Mayotte, intertidal, coll. A. Crosnier September 1959, 1 ♂ 27.5×45.2 mm, MNHN-B6661. - Poupin et al., 2013c: 11, Glorieuses (see Figure 16J, specimen not located in FLMNH collection, perhaps not collected) — IWP, Mozambique, Mayotte, Europa, Glorieuses, South Africa to Japan, New Caledonia and probably to French Polynesia (*cf.* [FLMNH 2018](#), coll. A. Anker, 17/10/2009, UFID 023468); intertidal, subtidal.

?*Nepinnotheres pectinicola* (Bürger, 1895)

Nucia speciosa Dana, 1852

Ocypode ceratophthalmus (Pallas, 1772)

Ocypode cordimanus Latreille, 1818

***Ocypode pauliani* Crosnier, 1965:** 102, Comoros (Grande Comore). - Guinot, 1967b: 281, list with Comoros — WIO, Mayotte, Madagascar; supratidal (see 'Comment' for that species in Bouchard et al., 2013: 41).

Oncinopus araneus (De Haan, 1839)

Oreophorus horridus Rüppell, 1830

***Ozius guttatus* H. Milne Edwards, 1834** — Photographs Norbert Verneau, 2017 - Mayotte, Pamanzi foreshore along 'rue de la plage' (2010), CW about 60 mm; mudflats, Badamiers low tide (2011), CW about 90 mm — REMARKS - No specimens collected for this species, determination with confidence (J. Poupin, 13/12/2017) from photographs only (see Figure 19L and more photos in [Legall and Poupin, 2018](#)). This is a common IWP species but nonetheless a first record herein for Mayotte. A key for WIO *Ozius* is in Crosnier (1984: 305) with illustrations — IWP, Red Sea, Mayotte (present study), Madagascar to Japan, New Caledonia, Samoa; intertidal.

Ozius rugulosus Stimpson, 1858

Pachygrapsus minutus A. Milne-Edwards, 1873

Pachygrapsus planifrons De Man, 1888

***Pachygrapsus plicatus* (H. Milne Edwards, 1837)** — Crosnier, 1965: 27, Glorieuses. - Guinot, 1967b: 285, list with Glorieuses. - Poupin et al., 2013c: 12, Glorieuses, 2 spp. MNHN-IU-2013-7325 — IWP, Mozambique, South Africa to Hawaii, French Polynesia, Easter Island (*cf.* Boyko and Liguori, 2015).

Palapedia integra (De Haan, 1835)

***Palicoides whitei* (Miers, 1884)** — Castro, 2000: 565, Mayotte, lagoon, medium-size sand, 55m, A. Crosnier coll., 09.1958: 1♀ MNHN — IWP, Red Sea, Mayotte to Japan, New Caledonia; 7-70m.

Paractaea retusa (Nobili, 1905)

Paractaea rufopunctata (H. Milne Edwards, 1834) *s.l.*

Paraleptuca chlorophthalmus (H. Milne Edwards, 1837)

***Paramaja gibba* (Alcock, 1895)** — Ng and Richer de Forges, 2015: 133, Leven Bank, between Glorieuses and Madagascar, MIRIKY 2009, several stations north of latitude 13°S and longitudes 47-48°E — IWP, Mozambique Channel to Japan; 230-600m.

***Paramedaeus octogesimus* Ng and Clark, 2002** — Poupin et al., 2013c: 11, Glorieuses, 1♀ ov. 10.4×14.8 mm, MNHN-IU-2013-7354 (Figure 16N) — IWP, Mayotte (present study), reported by Ng and Clark (2002) from Coco-Keeling Islands, Hawaii; probably also Marquesas Islands from data and photos in [Legall and Poupin \(2018\)](#); subtidal to 20-23m.

Paramedaeus simplex* (A. Milne-Edwards, 1873) *s.l. — Coll. Anker and Michonneau, 2008, Mayotte, st. MAY08-St4, Sada, Tahiti Beach, fringing reef, UFID 13659. - Poupin et al., 2013c: 11, Glorieuses, 1 juv. 5.9×7.8 mm, MNHN-IU-2013-7355 (see Figure 17A) — REMARKS - Specimens from Glorieuses determined with description and photographs in Ng and Clark (2002). According to these authors, and also Mendoza and Ng (2010), *P. simplex* is a species complex of species, in need of revision — IWP, Red Sea, Somalia, Mayotte, Glorieuses, Madagascar to Hawaii, French Polynesia; intertidal, subtidal.

Parapilumnus cristimanus (A. Milne-Edwards, 1873)

Parasesarma leptosoma (Hilgendorf, 1869)

***Paromolopsis boasi* Wood-Mason in Wood-Mason and Alcock, 1891** — *Paromolopsis boasi* - Guinot and Richer de Forges, 1995: 355, Mayotte, coll. BENTHEDI, 29 March 1977, st F61, 'Grande Passe de l'Ouest', 12°46'S, 44°58'E, 450m, 1♀ ov., MNHN B19886 — IWP, Mayotte, Madagascar to Japan, New Caledonia; 284-1124m.

***Percnon abbreviatum* (Dana, 1851)** — Crosnier, 1965: 88, Glorieuses. - Guinot, 1967b: 289, list with Glorieuses — IWP, Tanzania, Glorieuses, Madagascar to Hawaii, French Polynesia and some islands of eastern Pacific (Revillagigedo, Clipperton); low intertidal, shallow subtidal.

Percnon guinotae Crosnier, 1965

Percnon planissimum (Herbst, 1804)

Perisesarma guttatum (A. Milne-Edwards, 1869)

Pilodius areolatus (H. Milne Edwards, 1834)

***Pilodius pugil* Dana, 1852** — *Chlorodopsis pugil* - Guinot, 1958b: 180, Mayotte, 1♂ 9×13 mm MNHN-B6782. - *Pilodius pugil* - Guinot, 1967b: 268, list with Mayotte. - Serène, 1984: 242, Mayotte, coll. M. Marie, 1903, 1♂ 8.5×13.8 mm, MNHN-B6782. - Clark and Galil, 1993: 1149, Mayotte, MNHN-B6782. - Poupin et al., 2013c: 11, Glorieuses (Figure 17C)— REMARKS - In Mayotte KUW 2009 field notes two juveniles of *Pilodius pugil* are indicated at st. 17, North Reef, 22 m but they were not located in MNHN collection for this work (probably lost) — IWP, Red Sea, South Africa to Japan, Guam, French Polynesia; intertidal, shallow subtidal.

***Pilodius scabriculus* Dana, 1852** — Serène, 1984: 244, Glorieuses, intertidal, coll. J. Millot September 1958, 1♂ 6.5×10.2 mm, 1♀ 5.5×8.7 mm, MNHN-B6733 — IWP, Glorieuses, Mozambique Channel (Europa) to Guam, Bikini, French Polynesia; intertidal, subtidal.

Pilodius spinipes (Heller, 1861)

Pilumnus ?fissifrons Stimpson, 1858 ?

Pilumnus aff. *turgidulus* Rathbun, 1911

Pilumnus longicornis Hilgendorf, 1878

Pilumnus vespertilio (Fabricius, 1793)

***Plagusia immaculata* Lamarck, 1818** — Poupin et al., 2013c: 12, Glorieuses, under a drifting buoy, 1♂ 17.6×19.4 mm, 1♀ 18.0×19.8 mm MNHN-IU-2013-7320 — IP, Somalia, Mayotte (see remarks), Glorieuses, Madagascar to Hawaii, Clipperton, Coco, Galapagos, eastern Pacific (Gulf of California to Mexico); low intertidal, shallow subtidal, and on flotsam and ship's hulls — REMARKS - This species is probably also in Mayotte, recognized with hesitation by J. Poupin on an underwater photograph transmitted by Norbert Verneau during this work (15/12/2017; photos in [Legall and Poupin, 2018](#)),

Plagusia squamosa (Herbst, 1790)

***Planes major* (MacLeay, 1838)** — Poupin et al., 2013c: 12, Glorieuses (drifting with a buoy) — Worldwide, South East Atlantic; IP from Mozambique, South Africa to Hawaii, French Polynesia, and eastern Pacific, California to Peru; pelagic.

Planopilumnus spongiosus (Nobili, 1906)

***Platyzius laevis* (Borradaile, 1902)** — Poupin et al., 2013c: 11, Glorieuses. - Castro, 2013: 439, Leven Bank, south of Glorieuses, MIRIKY 2009 st. CP 3203, 29.06.2009, 12°35.92'S, 48°35.22'E, 50-52 m — IWP, Glorieuses, Juan de Nova to Hawaii, French Polynesia; intertidal, 241m. It seems that this species has never been reported from the east African coast, westernmost IWP record being currently Juan de Nova, Mozambique Channel (*cf.* Poupin, 2016).

Platypodia granulosa (Rüppell, 1830)

Platypodia morini (Ward, 1942)

Polydectus cupulifer (Latreille, in Milbert 1812)

Portunus (*Xiphonectes*) *cf. longispinosus* (Dana, 1852)

Portunus convexus De Haan, 1835

Portunus mariei Guinot, 1957

***Portunus sanguinolentus* (Herbst, 1783)** — Mayotte, only photographs by N. Verneau, Dzaoudzi harbor at night, sand bottom, 3 m and by fishermen in front of mangrove ('Djarifa', fishing). Determination from photos with confidence (J. Poupin) based on color pattern (three red/brown spots on posterior carapace; see photos in [Legall and Poupin, 2018](#)) — IWP, Somalia, Mayotte (present study), South Africa to Japan, Guam, New Caledonia; subtidal to 78 m — REMARKS - *Portunus* (*Portunus*) *sanguinolentus hawaiiensis* Stephenson, 1968 is elevated to species level and distinct from *P.*

sanguinolentus (Herbst, 1783) s.s. in Castro (2011; following Ng and Lai pers. comm.). *Portunus hawaiiensis* is distributed with certainty in Hawaii and French Polynesia but other records of *P. sanguinolentus* s.l. in western Pacific (e.g. Guam, New Caledonia) should be verified as they could be also of *P. hawaiiensis*.

Psaumis cavipes (Dana, 1852)

Pseudactaea multicristata (Zehntner, 1894)

Pseudograpsus albus Stimpson, 1858

Pseudohelice subquadrata (Dana, 1851)

Pseudoliomera helleri (A. Milne-Edwards, 1865)

Pseudoliomera speciosa (Dana, 1852)

Pseudoliomera variolosa (Borradaile, 1902)

***Pseudopalicus sexlobatus* (Kensley, 1969)** — Castro, 2013: 439, Leven Bank, between Glorieuses and Madagascar MIRIKY 2009, st. DW 3215, 30.06.2009, 12°32'S, 47°54'E, 316-433 m — WIO, Mozambique, Madagascar, Mauritius; 110-442m.

Pseudozius caystrus (Adams and White, 1849)

***Psopheticus crosnieri* Guinot, 1990:** 351, Mayotte, coll. BENTHEDI, st. F61, 'Grande Passe de l'Ouest', 29 March 1977, 12°46'S, 44°58'E, 475-510m, 1♂ MNHN B19859. - Castro, 2012: 94, Leven Bank south of Glorieuses MIRIKY 2009, several stations north of 13°S and near 47-48°E — WIO, Mozambique to Réunion; 53-730m.

***Ptychognathus barbatus* (A. Milne-Edwards, 1873)** — Keith et al., 2006: 36, Comoros (Anjouan, Mohéli). - Bouchard et al., 2013: 30, fig. 25A, Comoros, same as Keith et al. (2006) — IWP, Comoros (Anjouan, Mohéli), Madagascar to Japan, Wallis and Futuna; land, fresh/brackish water.

***Ptychognathus johannae* Rathbun, 1914:** 354, pl. 30, 'Johanna Island' (alternate name used in the past for Anjouan Island), coll. Hildebrandt; in USNM received in exchange from the Berlin Museum; 1♂, type Cat. N° 22799 USNM, formerly N° 4598, Berlin Museum. - Guinot, 1967b: 286, list with Comoros. - Bouchard et al., 2013: 31, fig. 25C-D, same as Rathbun (1914) with photographs of the type (by Christopher Escano Mendoza, transmitted by Ng Ngan Kee) with comment on taxonomy — WIO, known with certainty only from Comoros (Anjouan), one record from Japan being an error for *Ptychognathus hachijoensis* Sakai, 1955 (see Osawa and Ng, 2006); land, fresh/brackish water.

***Ptychognathus pusillus* Heller, 1865** — Keith et al., 2006: 36, Comoros (Anjouan, Mohéli). - Bouchard et al., 2013, 31, fig. 25B, same as Keith et al. (2006) — IWP, Comoros (Anjouan, Mohéli) to Japan, Fiji; land, fresh/brackish water.

***Pycnoplax coryphaea* Castro, 2012** — Castro, 2013: 439, Leven Bank, south of Glorieuses, MIRIKY 2009, st. DW 3196, 28.06.2009, 12°08'S, 48°56'E, 238-249 m — WIO, only Mozambique Channel, from off Mozambique to Leven bank; 238-698m.

***Quadrella coronata* Dana, 1852** — Castro, 1999a: 95, Mayotte, Pass Longoni-M'tzamboro 40 m on white gorgonian, April 1995, coll. J. C. Martin, 1♂, MNHN. - Castro, 2013: 439, Leven Bank, between Glorieuses/Madagascar, coll. Miriky 2009, st. CP 3210, 29.06.2009, 12°44'S, 48°12'E, 442-491 m — IWP, Mozambique to French Polynesia; 5-491m.

Quadrella maculosa Alcock, 1898

***Sakaija africana* (Griffin and Tranter, 1986)** — Ng and Richer de Forges, 2015: 170, Leven Bank, between Glorieuses and Madagascar MIRIKY 2009, several stations north of latitude 13°S and longitude around 47-48°E — WIO, Leven Bank, northeast Madagascar to South Africa; 122-319m.

Schizophrys aspera (H. Milne Edwards, 1834)

Scylla serrata (Forskål, 1775)

Sesarma ortmanni (Crosnier, 1965)

Sesarmops impressus (H. Milne Edwards, 1837)

***Sphenomerides trapezioides* (Wood-Mason in Wood-Mason and Alcock, 1891)** — Castro, 2013: 439, Leven Bank, between Glorieuses/Madagascar, coll. Miriky 2009, st. DW 3179, 26.06.2009, 12°59'S, 48°09'E, 220-362 m — IWP, Madagascar to Indonesia; 136-528m.

Stebbingdromia plumosa (Lewinsohn, 1984)

***Tanaoa pustulosus* (Wood-Mason, in Wood-Mason and Alcock, 1891)** — Galil, 2003: 404, Geyser Bank, coll. 'filets Faubert', 11 April 1977, st. 114, 12°22,3'S, 46°28,2'E, 300-600m, MNHN B19044; Mayotte, coll. 'filets Faubert', 29 March 1977, st. 61, 12°46,0'S, 44°58'E, 475-510 m (nb J. Poupin, these specimens are from BENTHEDI Expedition, although not specified in the study) — IWP, Somalia, Mayotte to Japan, Fiji; 85-977m.

Tetralia ?nigrolineata Serène and Pham, 1957

Tetralia cinctipes Paul'son, 1875

Tetralia glaberrima (Herbst, 1790) s.l.

Tetralia rubridactyla Garth, 1971 s.l.

***Tetraloides nigrifrons* (Dana, 1852)** — *Tetralia heterodactyla fusca* - Serène, 1984: 283, Glorieuses, intertidal, coll. A. Crosnier September 1958, 3♂♂ largest 7.5×7.8 mm, 3♀♀ largest 7.6×8.6 mm, MNHN-B 8204. - *Tetralia heterodactyla lissodactyla* - Serène, 1984: 283, Glorieuses, intertidal, coll. A. Crosnier September 1958, 1♂ 8.0×8.0 mm, MNHN-B8184. - *Tetraloides nigrifrons* - Castro, 1997: 72, Glorieuses, re-determination of Serène (1984) lots MNHN B8204, MNHN 8184, not *Tetralia heterodactyla* Heller, 1861 — IWP, Somalia, Mozambique, South Africa to Johnston Atoll, French Polynesia; intertidal, subtidal to 20m.

Thalamita ?mitsiensis Crosnier, 1962

Thalamita admete (Herbst, 1803)

***Thalamita bouvieri* Nobili, 1906** — Crosnier, 1962: 119, Mayotte. - Guinot, 1967b: 256, list with Mayotte — IWP, Tanzania, Mozambique to Japan, French Polynesia; subtidal to 85m.

***Thalamita cooperi* Borradaile, 1902** — Crosnier and Thomassin, 1975: 1112, Glorieuses, C. Jouannic coll. January 1973, dredge about 10m, 1♂ 7.0×10.9 mm, 1♀ 5.2×8.4 mm, MNHN — IWP, Kenya, Glorieuses to Japan, French Polynesia; subtidal to 11m.

Thalamita crenata Rüppell, 1830 (Now in the genus *Thranita*, see Evans, 2018)

Thalamita gatavakensis Nobili, 1906

***Thalamita gloriensis* Crosnier, 1962:** 98, Glorieuses, intertidal, coral sand, MNHN. - Guinot, 1967b: 257, list with Glorieuses. - Poupin et al., 2013c: 11, Glorieuses, list — IWP, Tanzania, Glorieuses to Hawaii, French Polynesia, invasive in Mediterranean (*cf.* Galil et al., 2018); intertidal, subtidal — REMARKS - Recently reported in the Mozambique Channel at Juan de Nova (Poupin, 2016) with specimens in MNHN (1♀ ov. 4.4×5.9 mm, st. 15, MNHN-IU-2013-16095; 3 juv., st. 12, MNHN-IU-2013-16096).

***Thalamita gracilipes* (A. Milne-Edwards, 1873)** — *Thalamonyx gracilipes* - Crosnier, 1962: 91, Mayotte. - Guinot, 1967b: 257, list with Mayotte — IWP, Mayotte, Madagascar to Hawaii, French Polynesia; subtidal to 78m. — REMARKS - Now in genus *Thalamonyx* (see Evans, 2018).

Thalamita helleri Hoffmann, 1874 (Now in the genus *Thranita*, see Evans, 2018)

Thalamita integra Dana, 1852

Thalamita picta Stimpson, 1858

Thalamita prymna (Herbst, 1803) (Now in the genus *Thranita*, see Evans, 2018)

***Thalamita pseudospinifera* Crosnier, 1975:** 715, Glorieuses, dredge 30m, January 1973, C. Jouannic coll., 1♂ 8.7×12.7 mm MNHN IU 2014-7853, 1♀ 6.0×8.6 mm, MNHN IU 2014-7854 — WIO, only Glorieuses, 30 m — REMARKS - It seems that this species has never been reported since its description. In [GBIF \(2018\)](#) Internet dataset, however, there is a georeferenced record (SMF collections) of *T. pseudospinifera* from Japan (determiner not indicated but perhaps M. Türkay or K.

Sakai) indicating that this species has perhaps a large IWP distribution. Photographs of the type specimens are available in [MNHN-Collection \(2018\)](#).

Thalamita quadrilobata Miers, 1884

***Thalamita sexlobata* Miers, 1886** — Crosnier, 1962: 117, Mayotte. - Guinot, 1967b: 256, list with Mayotte — IWP, Red Sea, Mayotte, Madagascar to Hawaii, Tonga; subtidal, 5-146m.

***Thalamita sima* H. Milne Edwards, 1834** — Miers, 1884: 530, Glorieuses — IWP, Mozambique, South Africa to Hawaii, New Caledonia; intertidal to 50 m; records from Red Sea, Gulf of Aden and Arabian Sea are doubtful according to Apel and Spiridonov (1988).

Thalamita spinifera Borradaile, 1902

Thalamita stephensoni Crosnier, 1962

Thalamitoides quadridens A. Milne-Edwards, 1869

Thalassograpsus harpax (Hilgendorf, 1892)

Thyrolambrus efflorescens (Alcock, 1895)

Trapezia bidentata (Forskål, 1775)

Trapezia cymodoce (Herbst, 1801)

Trapezia digitalis Latreille, 1828

Trapezia formosa Smith, 1869

Trapezia guttata Rüppell, 1830

Trapezia lutea Castro, 1997

Trapezia richtersi Galil and Lewinsohn, 1983

Trapezia rufopunctata (Herbst, 1799)

Trapezia tigrina Eydoux and Souleyet, 1842

Tubuca urvillei (H. Milne Edwards, 1852)

Tumidodromia dormia (Linnaeus, 1763)

Tweedieia laysani (Rathbun, 1906)

Tylocarcinus styx (Herbst, 1803)

Urnalana elata (A. Milne-Edwards, 1873)

***Urnalana pulchella* (Bell, 1855)** — Galil, 2005: 29, Mayotte, lagoon 46m, coll. A. Crosnier August 1959, 1♂ CL 9.6 mm, MNHN B18610. — IWP, Red Sea, South Africa to China sea, Fiji; 29-90m.

Varuna litterata (Fabricius, 1798)

***Venitus latreillei* (Desmarest, 1822)** — *Macrophthalmus latreillei* - Crosnier, 1965: 131, Mayotte, mud grounds with adults between 5-15 m and young to 50m. - Guinot, 1967b: 282, list with Comoros. - *Venitus latreillei* - Bouchard et al., 2013: 38, Mayotte, list from previous records — IWP, Red Sea, South Africa to Japan, New Caledonia; sediments in shallow subtidal to 50m.

Xanthias cherbonnieri Guinot, 1964

***Xanthias glabrous* Edmonson, 1951** — Guinot, 1964b: 6, 28, 32, Mayotte, coll. A. Crosnier, 1♂ 5×8 mm, MNHN. - Guinot, 1967b: 269, list with Mayotte. - Serène, 1984: 193, Mayotte, 1♂ 5×8 mm, MNHN) — IWP, it seems that this species is still known only from Mayotte and Hawaii (see Castro, 2011); subtidal, 12-91m.

Xanthias lamarckii (H. Milne Edwards, 1834)

Xanthias maculatus Sakai, 1961 s.l.

Xenocarcinus conicus (A. Milne-Edwards, 1865)

Zosimus aeneus (Linnaeus, 1758)

Zozymodes cavipes (Dana, 1852)