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Marine crabs from African waters housed in the Museo Nacional de Ciencias Naturales (MNCN-CSIC): An opportunity for biogeographic and systematic studies. Part I: Heterotremata (Decapoda, Brachyura)

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Abstract. Zoological collections are the main repositories of biodiversity for specific regions or taxa. However, they often lack promotion and consequently remain largely unknown to the general public or even for specialists. Moreover, many of these collections are at risk of deterioration and, in many cases, lack taxonomic review. Founded in 1771, the Museo Nacional de Ciencias Naturales (MNCN; Madrid, Spain) is one of the oldest Natural History Museums in the world and one of the most important scientific research institutions in the field of Natural Sciences in Europe. The review conducted in this study resulted in an annotated catalogue of marine Heterotremata crabs, documenting 83 species across 21 families from the MNCN collection. It was found that only 21.9% of the specimens had been correctly identified, while 78.1% were either unidentified, identified only to the family level, or misidentified. This highlights a significant loss of biodiversity information and missed opportunities for identifying new species, as many specimens had been inadequately identified for up to 175 years. The review also expanded the known geographic distribution of several species, with the first-time recordings in regions such as Mauritian, Equatorial Guinean, Moroccan, Ghanaian, and São Tomé and Príncipe waters. The study emphasizes the importance of access to zoological collections and collaboration with specialists to enhance our understanding of biodiversity.

Keywords. Crustacea diversity, zoological collections, taxonomy, crabs.

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Introduction

Zoological collections are crucial resources for examination of comparative anatomy, developmental biology, and life history hypotheses. They provide insight into spatiotemporal distribution, species population, and individual variation associated with environmental factors, as well are useful for resolving taxonomic questions and the species delimitation or understanding past distribution of extinct species. For endangered species these collections provide data nearly impossible to replicate today (Webster 2017; Walls & Aronsen 2023; Palandačić *et al*. 2024). Museum and other institutional collections continue to provide new insights into taxonomic and individual variation and environmental context, ultimately allowing for comparisons between modern and historical environmental and behavioural variables.

Since 2014, regulations have been in place to collect specimens from countries other than where the destination collections are housed. ABS (Access and Benefit-Sharing), through the Nagoya Protocol to the Convention on Biological Diversity (CBD), ensures the fair sharing of benefits from using genetic resources, promoting sustainable use and biodiversity conservation. It requires transparent agreements between users and providers, with benefits like financial compensation, technology transfer, or capacity building (Secretariat of the Convention on Biological Diversity 2011). Therefore, before this legislation, most of the specimens housed in scientific collections were collected without the need for regulations or permits, making it easier to accumulate specimens from different countries. Zoological collections have the role of the primary archive of biodiversity for specific geographical areas or taxa. However, they are often not well-promoted and, as a result, remain largely unknown to the general public (Pipitone *et al*. 2023), and even to specialists.

Currently, the highest priority is being given to the digitization of scientific collections to make them more accessible to scientific communities (Lendemer *et al*. 2020). With this objective, various initiatives have arisen in recent years, such as the Distributed System of Scientific Collections (DiSSCo), a new world-class Research Infrastructure (RI) for Natural Science Collections. The RI DiSSCo aims to establish a new business model for a virtual European collection that digitally consolidates all European natural science assets, providing unified access, curation, policies, and practices across countries, while ensuring compliance with the FAIR principles for all data (findable, accessible, interoperable and reusable) (https://www.dissco.eu/).

However, many of these collections are at risk of deterioration, and, more importantly, they have not undergone taxonomic review. Currently, taxonomy is undergoing a crisis, or as some authors have referred to as the "taxonomic impediment" (Dayrat 2005; Pearson *et al*. 2011), which refers to the shortage of specialists, and a need for training, funding, support, etc. Similarly, to what is done with threatened species, the European Union, through CETAF (Consortium of European Taxonomic Facilities) and IUCN (International Union for Conservation of Nature), has proposed to build a database of European taxonomy experts, with the first of these initiatives already underway being The Red List of Insect Taxonomists (https://red-list-taxonomists.eu/).

As a result of the lack of taxonomist, collections often retain outdated names, misidentifications or preliminary identifications only at the family level. The Extended Specimen Network (ESN), method of digitization that goes beyond the physical specimen to include the historical information stored in the collection, requires new generations of taxonomic expertise for this aim (Lendemer *et al*. 2020).

The International Code of Zoological Nomenclature states in its Recommendation 72F (ICZN 1999) that "every institution in which name-bearing types are deposited should [...] publish lists of name-bearing types in its possession or custody" (Cléva *et al*. 2007). We believe that catalogues should be made not only with the type specimens housed in Museums, but also with all the specimens housed in historical scientific collections, as is the case with those made by Innocenti & Stasolla (2013) and Innocenti & Manzoni (2017, 2019), all about brachyuran crabs. These catalogues, resulting not only from historical reviews but also from taxonomic reviews by specialists in the specific taxa, can lead to the discovery of new species, the revision of genera and families, and, in general, to an expanded knowledge of the distribution, ecology, and evolution of species.

Material and methods

The specimens considered in this work are the specimens catalogued in any family of the Infraorder Brachyura and the subsection Heterotreamata Guinot, 1977, from African marine waters, housed in the Arthropod collection of the MNCN. Records catalogued under the order Decapoda Latreille, 1802, without further description, have also been reviewed in search of possible crabs that might be inside the jars. In this latter case, a large number of crabs were found mixed with other decapods, and even with other taxa such as bivalves, under the Decapoda denomination. Almost all the reviewed specimens were preserved in 70% ethanol, but there were some dry specimens, which were used for exhibitions. We have decided to include specimens from the Canary Islands (Spain) due to their geographical location, along the Moroccan coast, although administratively part of Europe.

The compilation involves a careful examination of all specimens, their labels, any sheet or publication linked to them, and the appropriate literature to elucidate their correct metadata. The information regarding each record was obtained from the current databases of the MNCN Arthropod Collection (https://www.mncn.csic.es/es/colecciones/cientificas/artropodos), through the old labels that still remain inside the jars and boxes of the reviewed specimens, as well as handwritten historical inventories available through the MNCN Registry. In the jars, different labels can be found: the current printed ones (Fig. 1A) and handwritten ones which may have come from the collectors themselves (Fig. 1B). Additionally, small round labels with a number can be found inside or outside the jars (Fig. 1C–G). According to San Miguel de la Cámara (ACN0287/001) (Fig. 1H), the inside round labels (Fig. 1C) were to differentiate them from the other round labels placed on the outside of the jars (Fig. 1D), which belonged to the 1890 catalogue, and therefore, were the oldest. Other labels or codes can be found either attached to the specimen carapaces (Fig. 1E), written on them (Fig. 1F) or outside the jars, but at present we have not been able to determine which catalogue or inventory they belong to.

All specimens and labels from each record (jar) have been carefully reviewed, identified, measured, and photographed whenever possible. Additionally, tissue samples have been taken from many of them for future molecular studies. In the Examined material section for each species, the term "leg." (legit, legerunt) includes not only the actual collectors but also those who donated, sold, or exchanged specimens with the MNCN. The collection date is approximate in many cases and may refer to the date of purchase, donation, or exchange. Therefore, many of the specimens were collected years before the date listed in this work.

General publications on specific areas, more or less extensive, have been used to confirm the identification of the species, such as: Rathbun (1900) (West Africa), Barnard (1950) (South Africa), Capart (1951)

(South Atlantic), Monod (1956) (West Africa), Crosnier (1962) (Madagascar), Guinot & Ribeiro (1962) (Cabo Verde Islands and Angola), Forest & Guinot (1966) (Gulf of Guinea, São Tomé and Principe, and Annobon Islands), Manning & Holthuis (1981) (West Africa), Kensley (1981) (South Africa), Macpherson (1983, 1988, 1991) (Namibia), Serène (1984) (Indian Ocean and Red Sea), Griffin & Tranter (1986) (Indo-West Pacific), Fransen (1991, 2014) (Eastern Part of the North Atlantic), Marco-Herrero *et al*. (2015) (Spain), Poupin (2015) and Poupin *et al*. (2018) (Mayotte region), Emmerson (2016a, 2016b, 2016c) (Namibia, South Africa, Mozambique), Naderloo (2017) (Persian Gulf), Muñoz *et al*. (2012, 2024) (Guinea-Bissau), de Matos-Pita *et al*. (2016) (Mauritania), González (2018) (Canary and Cabo Verde Islands), Al-Hindi (2019) (Yemen), Muñoz *et al*. (2021) (Mozambique); as well as others specific to groups mentioned in the species sections. In addition, the manual used for genera identification is Poore & Ahyong (2023).

Sasaki (2023) has been the reference for the examination of the distribution range of the species.

For checking the current valid scientific names of species, the following literature has been used: Ng *et al.* (2008) and DecaNet (World List of Decapoda) (DecaNet 2025): https://www.decanet.info/, where information about synonyms, original names, and descriptions with their references can also be found.

Measurements, given in millimetres (mm), refer to the carapace at its maximum width including teeth or spines if present (cw) and carapace length (cl) as length of the dorsal midline from the middle of the frontal region to the posterior margin. In all the measured specimens, the measurement will be

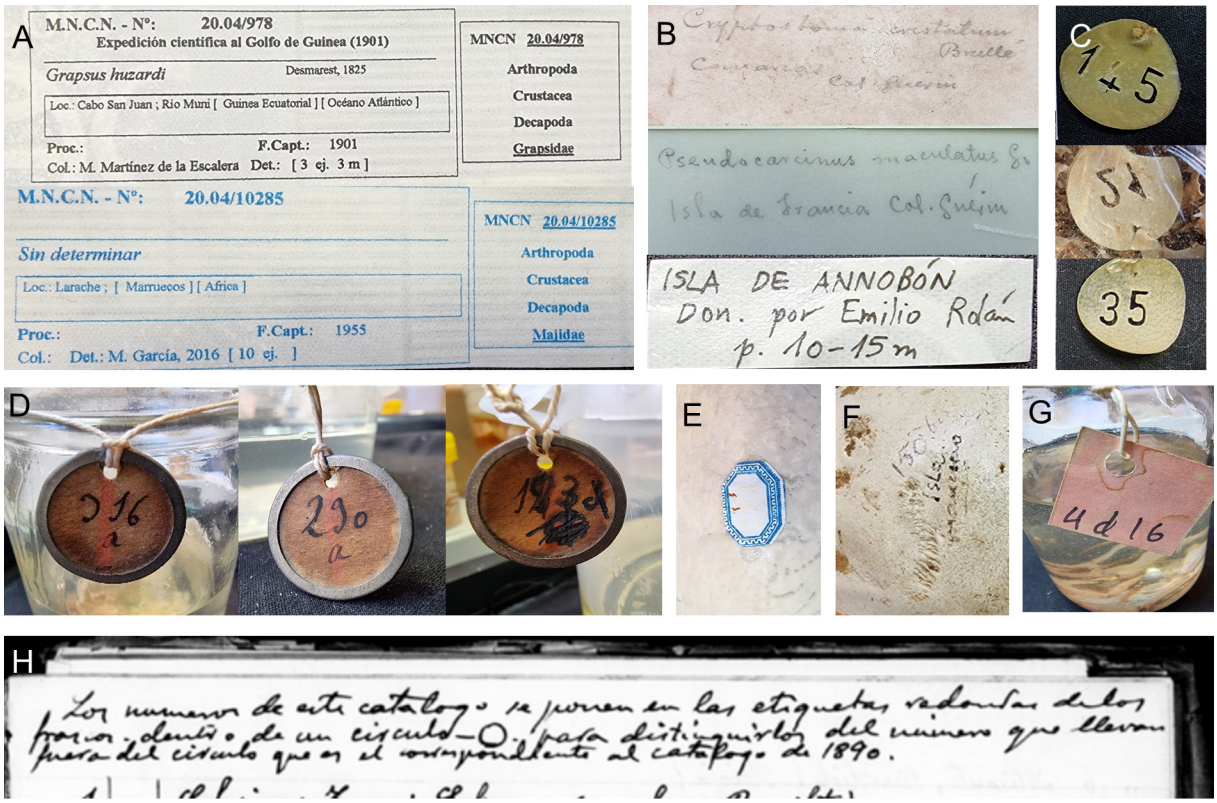

Fig. 1. A. Modern printed labels of the collection. **B**. Original handwritten labels. **C**. Round labels inside the jar. **D**. Round labels outside the jar. **E**. Label on the dry specimen carapace. **F**. Code handwritten on the dry specimen carapace. **G**. External label. **H**. Text of the "Catálogo de la Colección Carcinológica de España" (ACN0287/001).

given as follows: cw × cl. In some cases, the identification presented limitations, such as in deteriorated specimens or remains, or in dry specimens where the pleon could not be studied to avoid damaging the specimen, as they are glued to cardboard and displayed in boxes. The term "unsexed" is used to indicate immature specimens or those whose sex cannot be determined.

Darwin Core (DwC) terms have been used to cite records and specimens in the Material examined section.

Abbreviated terms

bef. = before the year
leg. = (legit, legerunt) people who donated, sold, specimens with the MNCN
ov. = ovigerous
spec./specs = specimen/specimens

MNCN = Museo Nacional de Ciencias Naturales, Madrid, Spain
RSEHN = Real Sociedad Española de Historia Natural

Results

The Museo Nacional de Ciencias Naturales (MNCN): A brief overview of its history and Crustacean Collection

The MNCN is one of the emblematic State Agencies of the Consejo Superior de Investigaciones Científicas (CSIC) with a heritage of over 250 years. It houses more than 11 million zoological, geological, and paleontological specimens spread across 19 natural history collections. The Arthropod collection (Hexapoda excepted, which comprises the Entomological collection and contains about 9.5 million specimens), consists of over 189 000 specimens and around 57 478 records. The main represented groups are crustaceans (over 91 000 specimens and 1290 species), followed by the arachnids, centipedes and millipedes. The Decapoda order is the most abundant among the crustaceans in the MNCN collection (nearly 40%). Regarding the represented crustacean groups, 107 families have been identified and almost 80% are marine species. The Atlantic Ocean is their primary geographic origin, with 33.2% of the specimens. More than 99% of the crustacean collection is currently preserved in 70° ethanol, highlighting the collection's primary taxonomic aim, the scientific research, as dry preserved decapods are very fragile for detailed anatomic examination and are rarely used for DNA analysis. Indeed, around 600 specimens, especially from the historical decapod collection, are dry preserved. Some of these specimens come from the "Sala del Mar", an exhibition room at the MNCN that housed all zoological groups inhabiting marine waters, from mammals to the smallest invertebrates, which, since 1782, occupied space for public education and enjoyment. During the 20th century, the exhibition rooms of the MNCN also served as practical laboratories for the students of the Universidad Central of Madrid (now Universidad Complutense de Madrid). So many crustaceans were preserved due to their chitinous exoskeleton, which was easy to prepare and resistant for display in the rooms, where they were generally dry preserved by removing their internal contents. Additionally, the vast biological diversity of the group allowed decapods to occupy a prominent space in the "Sala del Mar" exhibition.

The first carcinological catalogue was compiled by Ignacio Bolívar y Urrutia (Madrid, 1850–Mexico, 1944) in 1883 (ACN0288/002), and included 549 specimens from both the Spanish coasts and the Pacific Expedition (1862–1866), as well as from the Indian and Pacific Oceans. In 1910, Maximino San Miguel de la Cámara (Burgos, 1887–Cartagena, 1961) published a new catalogue incorporating the contributions of Bolívar, including the decapods from this room (ACN0287/001), reflecting the specimens acquired by the MNCN during that time (ACN0242/003).

After the Spanish Civil War (1936–1939), the arachnid and terrestrial crustacean material came under the control of the "Instituto de Entomología", established in 1941, which operated independently for more than 40 years. However, from that time on, a high level of neglect of the collections was evident, and they have only been partially revised and published in recent times (Villena *et al*. 2009). During the dismantling of the "Sala del Mar" exhibition in 1987, many of the specimens lacked further information beyond what was indicated, and most identifications were not updated and often incorrect, needing taxonomic revisions and the retrieval of the historical documentation.

Several notable naturalists, some associated with the MNCN in the 19th and 20th centuries, and others of international renown, participated in the collection of the specimens included in this work. In 1877, the teaching activity at the Museum was reorganized, and the Invertebrate chair was divided into two. Ignacio Bolívar, who was already working at the center, took over the Chair of Articulated Animals (Martínez 2019). He and his team organized and studied the collections of crustaceans, arachnids, and insects, producing various specific catalogues for each group. In the late 19th century, several acquisitions of non-insect arthropods took place, including those from Quiroga's expedition to Río de Oro (received in 1886). Bolívar established contacts with various research groups from other countries, allowing him to assemble collections of several crustacean groups of great interest.

In the first third of the 20th century, when Ignacio Bolívar was director of the Museum, the invertebrate collections continued to expand. During this period, Manuel Martínez de la Escalera (San Sebastián, 1867–Tangier, 1949), a Spanish entomologist and naturalist, became staff member of the Museum. He worked at MNCN for 50 years, enriching the collections with specimens from his numerous expeditions to Morocco, Equatorial Guinea, the Middle East, the Iberian Peninsula, and the Canary Islands (Sánchez *et al.* 2011). He participated in the Expedition of the Boundary Commission sent by the Spanish government to survey Spanish possessions in West Africa in 1901. He spent three months (July–September) in Equatorial Guinea, studying various zoological groups. Martínez de la Escalera focused on specimen collection, and upon his return to Spain, a Commission appointed by the Ministry of Foreign Affairs oversaw the organization and study of these collections. It was also decided to publish the findings in the first volume of the *Memorias de la Real Sociedad Española de Historia Natural* after the review of the zoological groups brought from Equatorial Guinea (September 1902) (RSEHN 1903) (Fig. 1A). His explorations with the Northwest Africa Commission, between 1905 and 1907, were particularly noteworthy, and the specimens collected by him are in the Non-Insect Arthropod Collection (Morocco and Equatorial Guinea). The last deposit of decapod crustaceans by Martínez de la Escalera was made in 1920 and consists of a small batch from Tangier (ACN0242/003). The revision of these specimens was carried out by the Italian zoologist Giuseppe Nobili (Omegna, 1877–1908), who published a catalogue (Nobili 1906) (Fig. 2B), listing the specimens included in this catalogue (Fig. 2C).

Today, the group of decapod crustaceans from Equatorial Guinea includes over 500 specimens deposited in the MNCN collections, and although there is only documentation for about 200 historical specimens collected by Martínez de la Escalera in 1901, it is possible that this number is actually higher. There are 13 families represented, with Xanthidae MacLeay, 1838, Palaemonidae Rafinesque, 1815, Grapsidae MacLeay, 1838, Ocypodidae Rafinesque, 1815, Majidae Samouelle, 1819, and Thelphusidae H. Milne Edwards, 1837 being the most notable. However, up to now, 90% of the specimens were unidentified, most not even at the family level, so the present work provides a significant advance in their identification. An updated summary of the work done by Martínez de la Escalera concerning arthropods can be found in Sánchez *et al*. (2011).

Félix Édouard Guérin-Méneville (Toulon, 1799–Paris, 1874), French entomologist and zoologist, is renowned among systematists for his tireless investigation of global natural history. Throughout his career, he authored hundreds of papers and books on most of the major animal groups, describing taxa and establishing new ones based on specimens from around the globe. However, he is probably best

remembered for his work on the biota of France and French colonial territories (Spamer & Bogan 1994). Guérin-Méneville established 22 species-group names and four genus-group names for brachyuran crabs. It has been investigated how the specimens housed in the MNCN, whose collector is Guérin, arrived there. By searching in the MNCN Archives, a letter from 1850 was found from the "Jefe Local" (local head) of the Museum at that time, the Spanish entomologist Mariano de la Paz Graëlls (Tricio, 1809–Madrid, 1898), requesting the purchase of a collection of arachnids and another one of crustaceans from Guérin-Méneville, for an amount between 6835 and 7600 "reales" (Spanish currency of the time), to be paid in instalments. These collections came from the natural object warehouses in London, The Hague, and Paris, and were guaranteed to be identified by Guérin-Méneville (Fig. 3). Another document, found in the MNCN archive, deals with the approval of these collections by the Queen Isabel II of Spain (Fig. 4) (ACN0165/177). Therefore, the specimens from Mauritius Islands reviewed here, whose collector is listed as "Guérin", are specimens that come from that 1850 purchase, but which were collected years earlier, having been stored until then in the Museums of London, Paris, and The Hague. The date we consider in the records will be 1850, but it is very likely that we are dealing with specimens that may be near to two centuries old since their capture.

Emilio Rolán Mosquera (A Guarda, 1935), Spanish malacologist and doctor, is honorary researcher at the Natural History Museum of the University of Santiago de Compostela. With a degree in Medicine and a PhD in Biology, he is renowned for his extensive work in malacology, including the discovery of 1200 new species and three new genera of molluscs. According to Soriano & Villena (1997), although he was specialist in malacology, the donation of crustacean specimens to the MNCN by Rolán started in 1984 until today. However, the reviewed specimens donated by Rolán lack a collection date.

Pere Antiga i Suñer (Barcelona, 1854–1904) studied Philosophy and Law, was a collaborator of the current "Museu de Ciènces Naturals of Barcelona", and donated to the MNCN through his good relations with the former director, Ignacio Bolívar y Urrutia (ACN0377/026; ACN0261/005; ACN0260/031) (Fig. 5). He owned a natural history collection created by his father, and it was then that he began

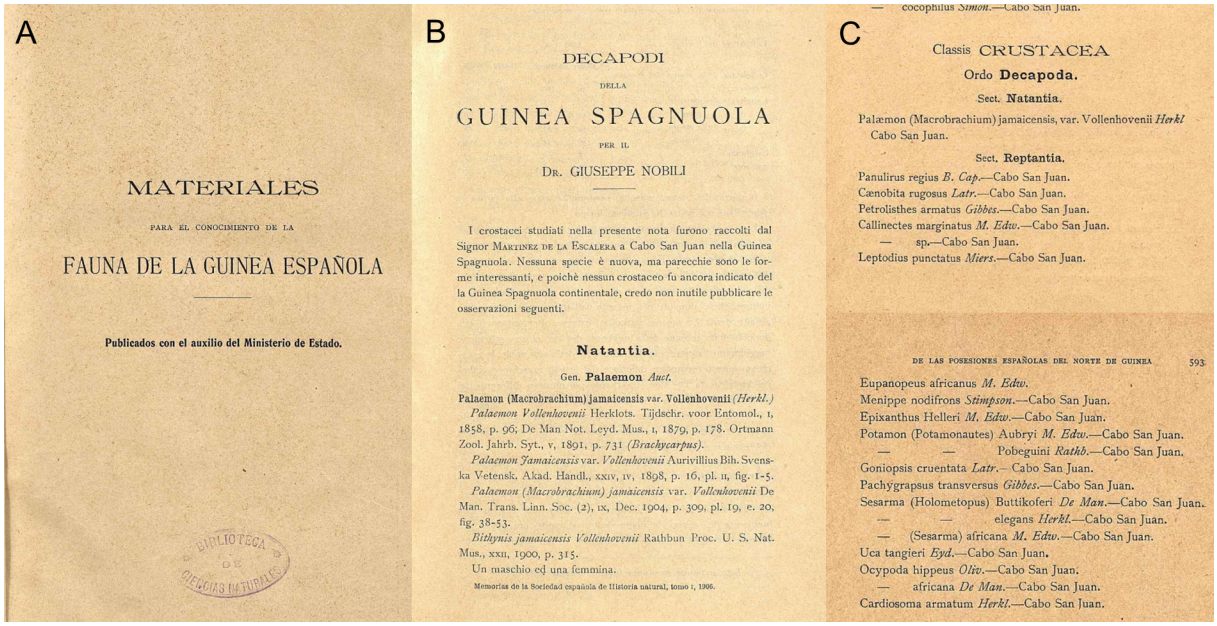

Fig. 2. A. Cover page of the *Memorias de la RSEHN*. "Materiales para el Conocimiento de la Fauna de la Guinea Española". **B**. Cover page of Nobili (1906). **C**. Specimens identified by G. Nobili and included in this work.

his studies in botany, the taxidermy of birds he hunted, and the collection of crustaceans and fish he caught (ACN0260/031). He also exchanged specimens with other collectors, significantly expanding his fish collection. His collection of crustaceans was among the most important in Spain at the time (ACN0260/031). Some of the specimens included in this work were donated or came from exchanges between museums by means of Antiga from various parts of the world.

The first known catalogue published in the MNCN is by Franco Dávila (Guayaquil, 1711−Madrid, 1786), who created a catalogue of his collection for the Marquis of Grimaldi, Minister and Secretary of State in Spain in 1771, in order to present his ideas on the establishment of the Gabinete de Historia Natural in Spain (de Andrés Cobeta 2001). Since then, there have been several catalogues or inventories of non-insect invertebrates (ACN0244/001; Soriano & Villena 1997; Sánchez Chillón & Sánchez Almazán

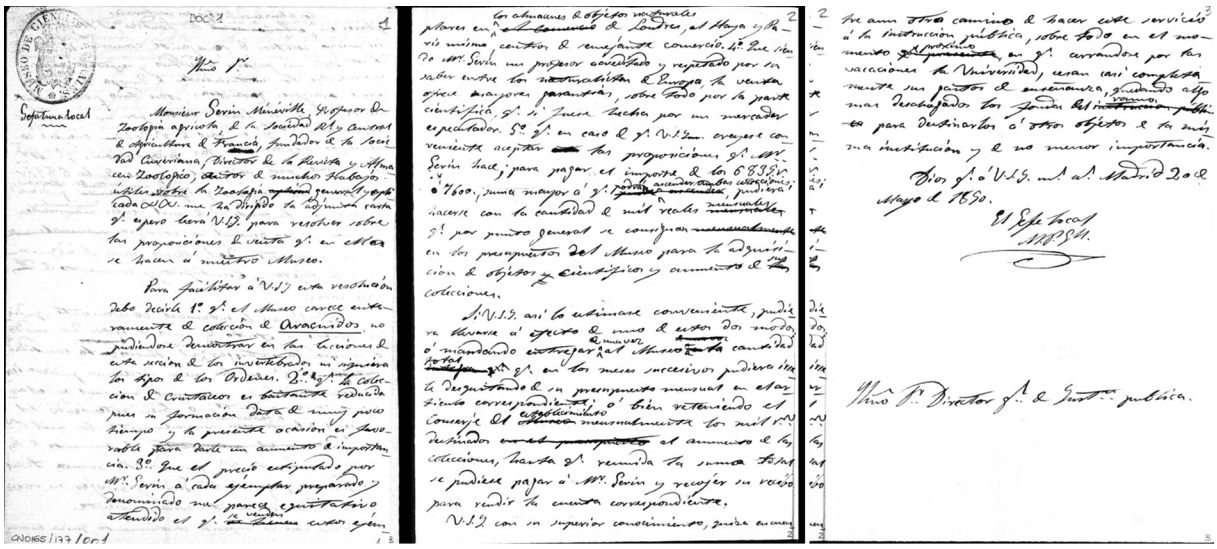

Fig. 3. Request for the purchase of specimens of the Guérin-Méneville collections (ACN0165/177).

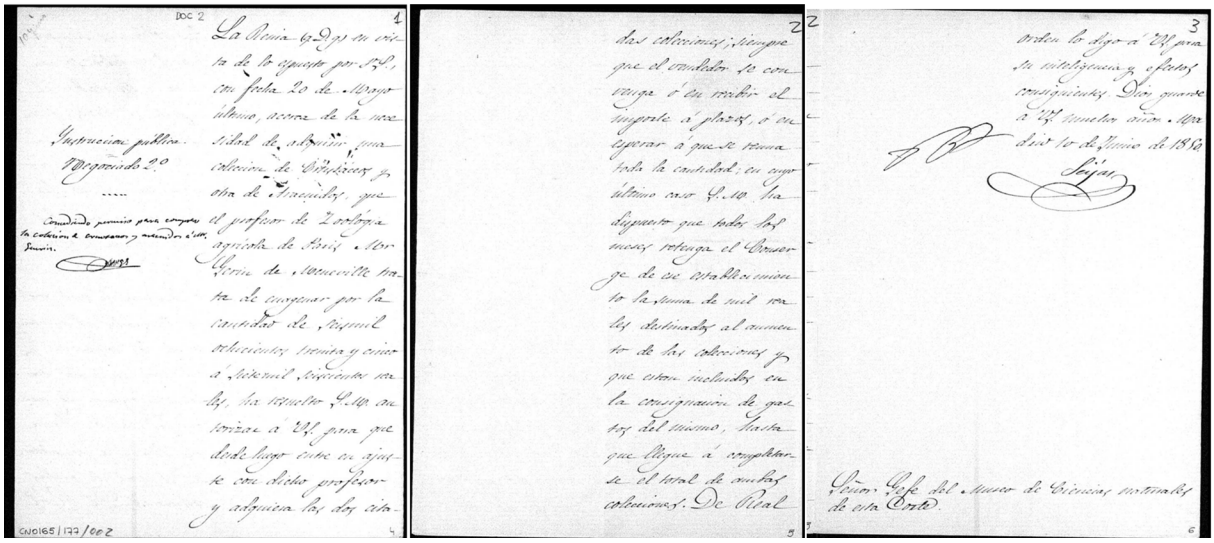

Fig. 4. Approval by Queen Isabel II of Spain for the purchase of the Guérin-Méneville collections (ACN0165/177).

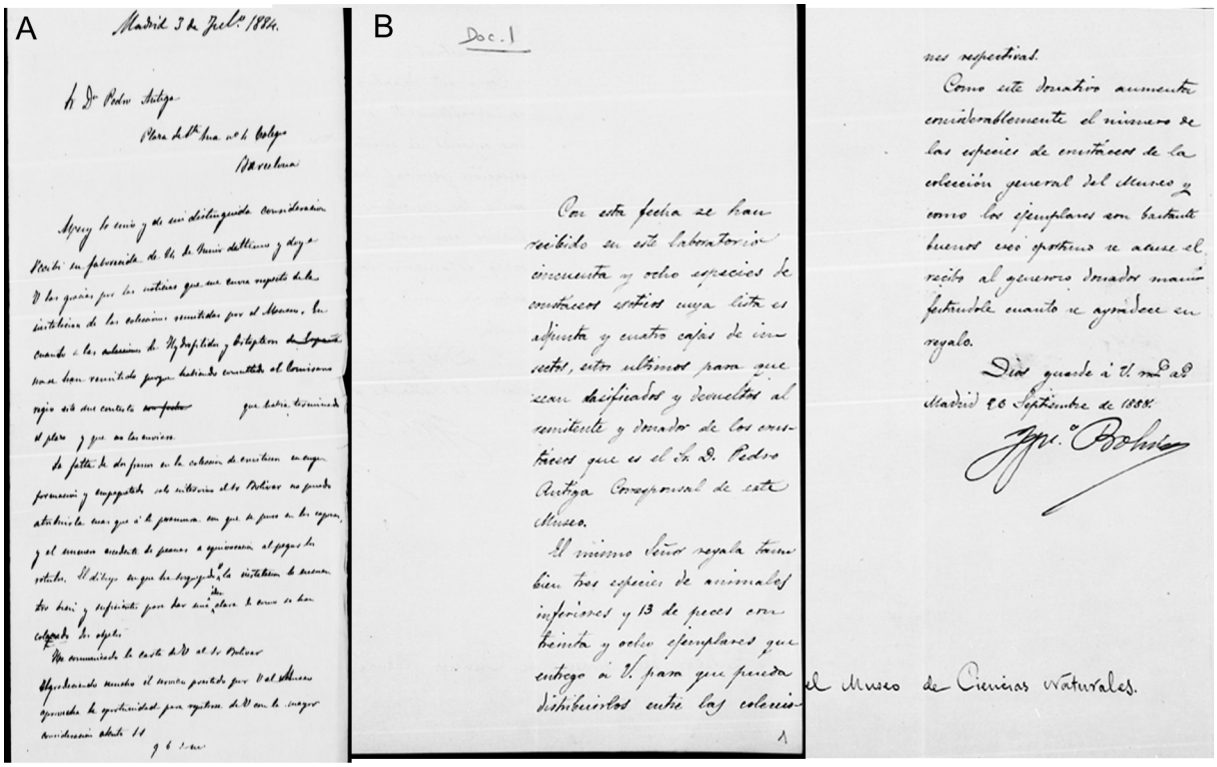

Fig. 5. A. Letter of acknowledgements from M. Maisterra to P. Antiga for specimens donated to the MNCN (1884) (ACN0261/005). **B**. Letter from I. Bolívar confirming the receipt of crustaceans and thanking P. Antiga (1888) (ACN0377/026).

2023), including crustaceans, e.g., in that of San Miguel de la Cámara (ACN0248/005), or focused on decapod crustaceans (ACN0287/001).

Obtaining the metadata of the records in historical museums (capture date, location, collector, depth, etc.) is quite a challenge because the descriptions and label data were frequentely inadequate or ambiguous. Some specimens were collected by naturalists during old expeditions in the European colonial era (19th–20th centuries) to remote locations and with the available resources of that time. Many specimens are over a century and a half old and arrived at the MNCN through donations from other museums, benefactors of the museum itself, purchases, or naturalist scientists sent by the Spanish Government or the MNCN (Real Gabinete de Historia Natural before 1915; Villena *et al*. 2009).

In this catalogue, we provide a taxonomic revision of all the African marine Heterotremata Guinot, 1977 housed in the Arthropod collection of the MNCN, with historical context and background. This study provides a baseline for future research, with the aim to test alternate techniques, such as non-invasive genetic analysis or morphometric studies.

Taxonomic account

The systematic proposals made by Ng *et al*. (2008), Davie *et al*. (2015) and Poore & Ayhong (2023) have been followed to carry out the taxonomic account. Although new insights in the systematics of some superfamilies/families, such as Portunidae Rafinesque, 1815 (Evans 2018) or Xanthoidea MacLeay, 1838 (Mendoza *et al*. 2022) were obtained, we decided to adopt the most recent and conservative option, based on morphology, following DecaNet (2025).

Class Malacostraca Latreille, 1802
Order Decapoda Latreille, 1802
Superfamily Calappoidea De Haan, 1833
Family Calappidae De Haan, 1833
Genus *Calappa* Weber, 1795

Calappa calappa (Linnaeus, 1758)
Fig. 6

Material examined

MAURITIUS • 1 unsexed (109.3 × 67) (dry specimen from the historic "Sala del Mar" exhibition); 1850; MNCN20.04/00104 • 1 ♂ (96.5 × 44.3); 1850; Guérin-Méneville leg.; MNCN20.04/00643.

Fig. 6. *Calappa calappa* (Linnaeus, 1758). **A–B**. Dry specimen, MNCN20.04/00104. **C–G**. Dry male, MNCN20.04/00643. Scale bars = 1 cm.

Remarks

The specimen with code MNCN20.04/00104 was dry preserved and deposited inside a glass and wood case for display. Thanks to the annotations in the logbook, it is known that it was exhibited in the "Sala del Mar" exhibition. It is interesting to note that on the labels used for the "Sala del Mar" exhibition, there was always an attempt to provide some non-scientific name or clarify something about the morphology of the specimen to make it more understandable for non-taxonomists, as in this case "Cangrejo costero de la Isla de Francia" (coastal crab from the Island of France [= Mauritius]). The appearance of the male with MNCN20.04/00643 code, although is preserved in ethanol, indicates that at some point it was dry preserved. It is not explicitly written, but it is very likely that this specimen was also exhibited in "Sala del Mar". In the specimen MNCN20.04/00104, the technique of fixation for dry preservation and display aided by needles can be observed. Because of this, it has not been possible to manipulate it, and it has not been sexed in order to avoid damaging it.

For identification see also Michel (1964) and Galil (1997).

Calappa gallus (Herbst, 1803)
Fig. 7

Material examined

MAURITIUS • 1 unsexed; 1850; Guérin-Méneville leg.; MNCN20.04/00620.

Remarks

The specimen is damaged, they are only fragments, so it has not been possible to determine its sex.

For identification see also Galil (1997) and Naderloo (2017).

Fig. 7. *Calappa gallus* (Herbst, 1803), MNCN20.04/00620. Scale bar = 1 cm.

Calappa granulata (Linnaeus, 1758)
Fig. 8

Material examined

MOROCCO – **Alhucemas** • 1 ♀ (55.3 × 43.6); 1955?; MNCN20.04/04027.

Remarks

The specimen was previously identified as "Sin determinar" (undetermined), and assigned to Calappidae.

For identification see also Zariquiey Álvarez (1968), Galil (1997) and Fransen (2014).

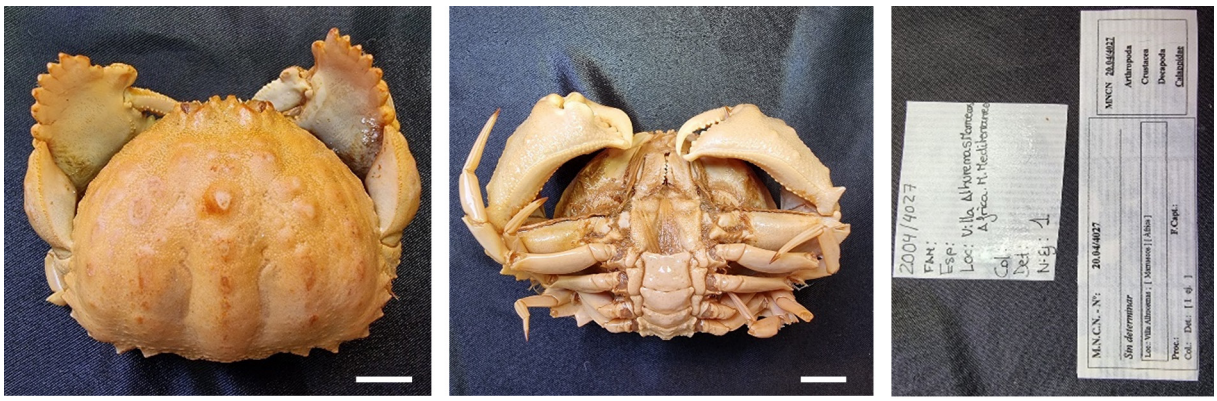

Fig. 8. *Calappa granulata* (Linnaeus, 1758), MNCN20.04/04027. Scale bars = 1 cm.

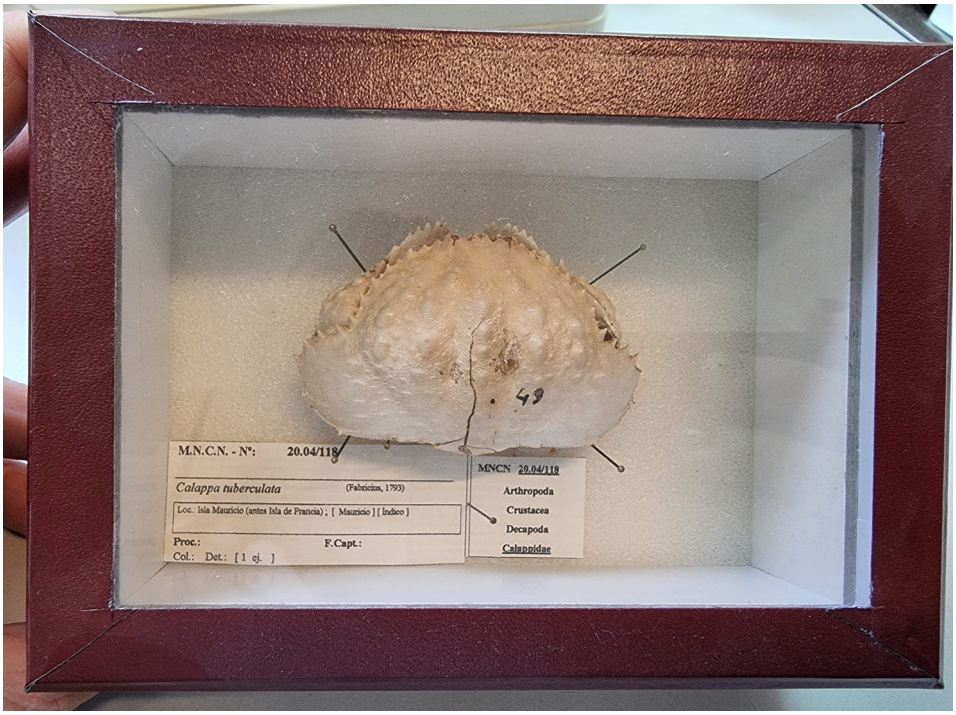

Fig. 9. *Calappa hepatica* (Linnaeus, 1758), MNCN20.04/00118, inside its glass and wooden box.

Calappa hepatica (Linnaeus, 1758)
Figs 9−10

Material examined

MAURITIUS • 1 ♂ (66.3 × 39.9); 1850; MNCN20.04/00118 • 1 unsexed (66.3 × 39.9); 1850; MNCN20.04/00117 • 2 ♂♂ (66.9 × 39.9, 98 × 54.2), 4 ♀♀ (42.6 × 27.2, 31.3 × 20.7, 40.4 × 26.6, 46.7 × 29.9); 1850; Guérin-Méneville leg.; MNCN20.04/00618.

Fig. 10. *Calappa hepatica* (Linnaeus, 1758). **A−C**. Specimen MNCN20.04/00117. **D−F**. Specimen MNCN20.04/00118. **G−J**. Specimens MNCN20.04/00618. Scale bars = 1 cm.

Remarks

All the specimens had the previous identification as *Calappa tuberculata* (Fabricius, 1787). The specimens MNCN20.04/00117 and MNCN20.04/00118 are dry preserved inside a glass and wood box. Both specimens were previously held by a large needle positioned through the centre of the carapace. The specimen MNCN20.04/00118 has the shell cracked in half. There are still remnants of the old codes that were annotated on the specimen itself. Those codes correspond to the ones used for the catalogue published by San Miguel de la Cámara in 1910 (ACN0287/001). The specimens MNCN20.04/00618 are covered with fungi, a sign that at some point they lost the ethanol and were dried out.

For identification see also Galil (1997).

Calappa lophos (Herbst, 1785)
Fig. 11

Material examined

MAURITIUS • 1 ♂ (102.3 × 64.7); 1850; "Sala del Mar" exhibition; MNCN20.04/00022.

Remarks

The specimen is dry preserved inside a glass and wood case. It was exhibited in the "Sala del Mar". The description provided about the species is interesting and makes it understandable even to non-taxonomists: "Cangrejo parecido al llamado globito en España, de profundidad, propio de los mares de

Fig. 11. *Calappa lophos* (Herbst, 1785), ♂, MNCN20.04/00022. Scale bars = 1 cm.

Fig. 12. *Calappa pelii* Herklots, 1851, MNCN20.04/04391. Scale bars = 1 cm.

la Isla de Francia" (crab similar to the one called "globito" in Spain, from the deep sea, typical of the waters around the Island of France [= Mauritius]). The name "globito" refers to *C. granulata*.

The specimen was previously misidentified as *Calappa tuberculata* (Fabricius, 1787).

For identification see also Galil (1997).

Calappa pelii Herklots, 1851
Fig. 12

Material examined

MOROCCO − **Larache** • 1 ♀ (24.6 × 21.9); 1955; MNCN20.04/04391.

Remarks

This is the first record of *C. pelii* in Moroccan waters. However, it has been cited from Alboran Sea (Galil *et al*. 2002).

The specimen was identified as "Sin identificar" (unidentified) and assigned to Calappidae.

For identification, see also Fransen (2014).

Genus *Cryptosoma* Brullé, 1837

Cryptosoma cristatum Brullé, 1837
Fig. 13

Material examined

SPAIN − **Canary Islands** • 1 unsexed (34.7 × 34.1); 1850; Guérin-Méneville leg.; MNCN20.04/03536.

For identification see also Galil & Clark (1996).

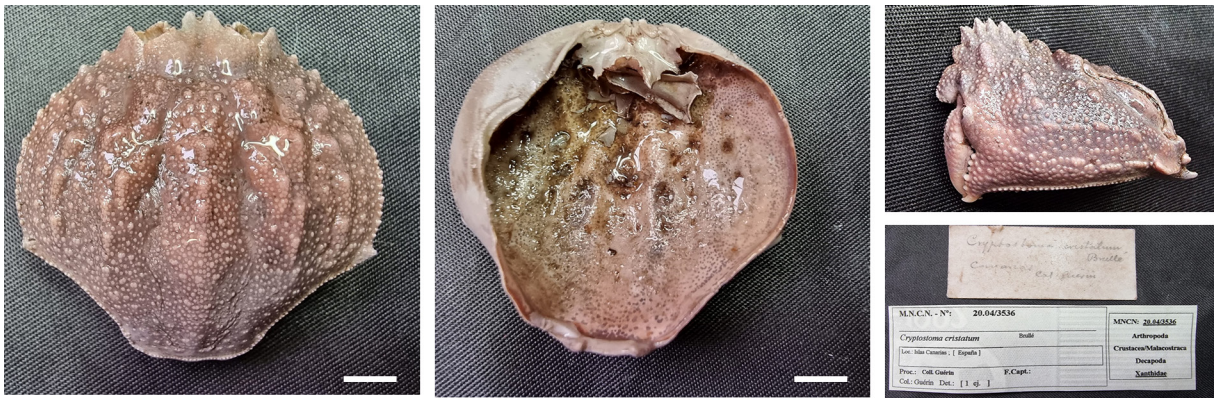

Fig. 13. *Cryptosoma cristatum* Brullé, 1837, MNCN20.04/03536. Scale bars = 1 cm.

Family Matutidae De Haan, 1835
Genus *Ashtoret* Galil & Clark, 1994

Ashtoret lunaris (Forskål, 1775)
Fig. 14

Material examined

MAURITIUS • 2 ♂♂ (34 × 25, 48.5 × 33.1); 1850; Guérin-Méneville leg.; MNCN20.04/00636.

Remarks

Initially identified as *Matuta lunaris*, currently a synonym of *Ashtoret lunaris*.

For identification see also Galil & Clark (1994).

Genus *Mebeli* Galil & Clark, 1994

Mebeli michaelseni (Balss, 1921)
Fig. 15

Material examined

GHANA • 1 ♂ (16.6 × 10.8); 1993; MNCN20.04/10198 • 1 ♂ (17 × 9.7); Mar. 1993; MNCN20.04/41917 • 3 ♂♂; Mar. 1993; MNCN20.04/41923.

Remarks

The specimen MNCN20.04/10198a was identified as Portunidae, it was mixed with two other species and comes from the entomological collection. The specimens with codes MNCN20.04/41917 and MNCN20.04/41923, were mixed with other decapod species, and they were not assigned to any family within the decapod collection.

For identification see also Galil & Clark (1994).

Superfamily Dorippoidea MacLeay, 1838
Family Dorippidae MacLeay, 1838
Genus *Phyllodorippe* Manning & Holthuis, 1981

Phyllodorippe armata (Miers, 1881)
Figs 16–17

Material examined

GHANA • 1 ♂ (10.5 × 8.3); 1993; MNCN20.04/41937 • 2 ♂♂ (6 × 6.7, 11.1 × 9.3), 1 ♀ ov. (10.9 × 8.7); 1993; depth 7–10 m; MNCN20.04/41929 • 7 ♂♂ (min. 7.1 × 6.4; max. 12.1 × 9.6), 7 ♀♀ (min. 8 × 5.9; max. 12.1 × 10.8); Mar. 1993; MNCN20.04/41922.

MOROCCO – **Larache** • 5 ♂♂, 3 ♀♀ ov.; 1955; MNCN20.04/10285.

Remarks

All the specimens of this species were mixed with other species and located in the wrong families. The MNCN20.04/10285 specimens were unidentified within Majidae, the MNCN20.04/41937 specimens included in Polybiidae, and the MNCN20.04/41922 specimens, were mixed with other decapods under the generic identification of Decapoda. *Phyllodorippe armata* has a known distribution from the Western

Fig. 14. *Ashtoret lunaris* (Forskål, 1775), MNCN20.04/00636. Scale bars = 1 cm.

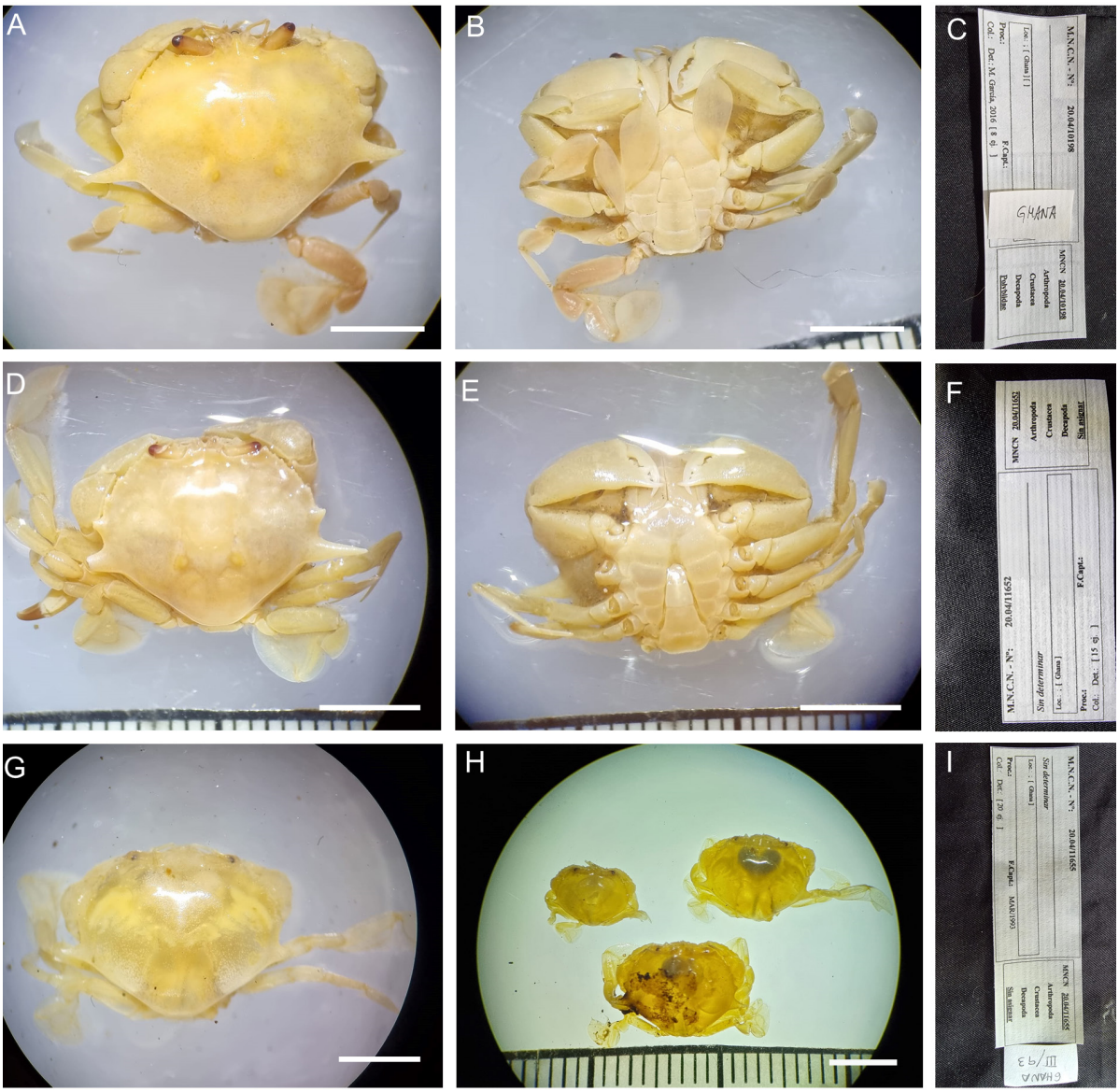

Fig. 15. *Mebeli michaelseni* (Balss, 1921). **A–C**. Specimen MNCN20.04/10198. **D–F**. Specimen MNCN20.04/41917. **G–I**. Specimens MNCN20.04/41923. Scale bars = 0.5 cm.

Fig. 16. *Phyllodorippe armata* (Miers, 1881). **A–C**. Specimen MNCN20.04/41937. **D–H**. Specimens MNCN20.04/41929. **I–M**. Specimens MNCN20.04/10285. Scale bars = 0.5 cm.

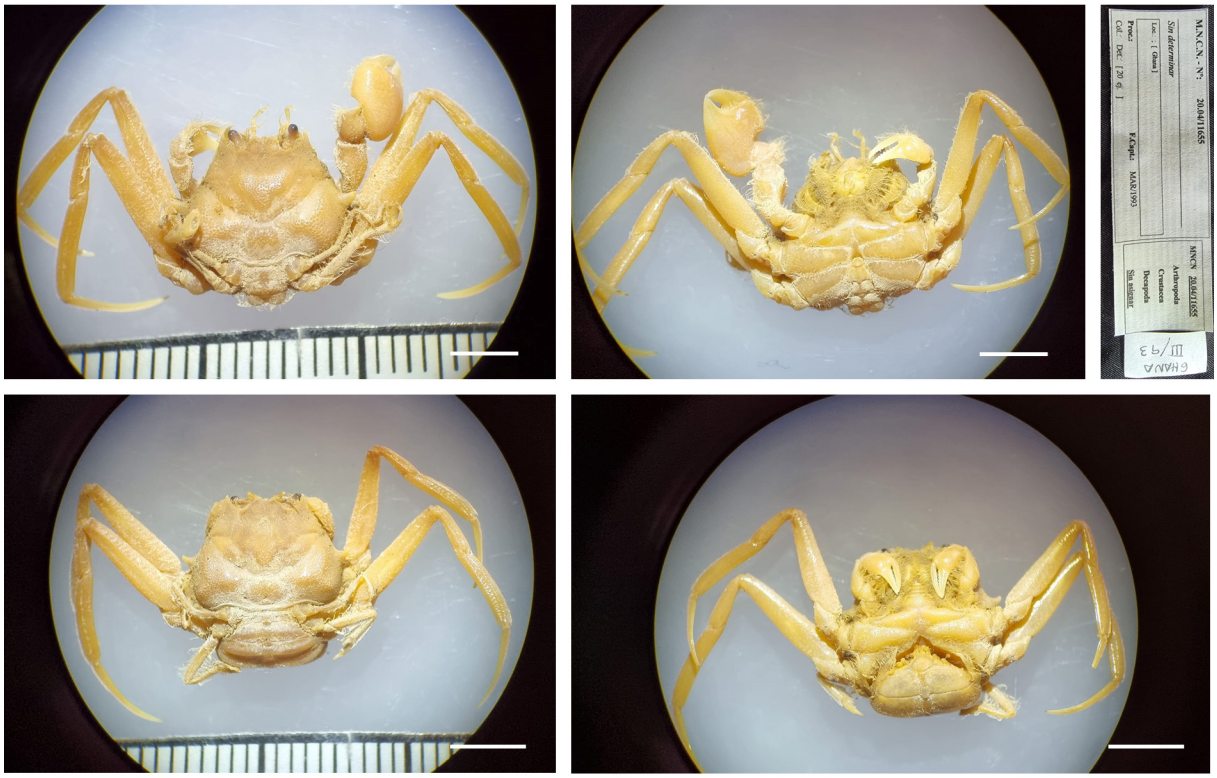

Fig. 17. *Phyllodorippe armata* (Miers, 1881), specimens MNCN20.04/41922. Scale bars = 0.5 cm.

Sahara to Angola. This genus was described by Manning & Holthuis (1981) as *Medorippe* (formerly *Dorippe*).

This work provides the first record of *P. armata* in Moroccan waters. Besides, this record expands the distribution of this species northward.

For identification see also Chen (1987) and Sin *et al*. (2009).

Superfamily Dromioidea De Haan, 1833
Family Dromiidae De Haan, 1833
Genus *Tumidodromia* McLay, 2009

Tumidodromia dormia (Linnaeus, 1763)
Fig. 18

Material examined

MAURITIUS • 1 ♀ (135.7 × 109.9); 1850; dry specimen from the "Sala del Mar" exhibition; MNCN20.04/00032.

Remarks

Tumidodromia dormia is the largest known sponge crab (up to 200 mm cw), and inhabits shallow waters (McLay 2009). Only two ovigerous female specimens of this species have been captured (McLay 2009), and our specimen is a female, but due to its fragility, it is not convenient to manipulate the specimen, therefore it is not known if it is ovigerous or not.

Fig. 18. *Tumidodromia dormia* (Linnaeus, 1763), dry specimen MNCN20.04/00032 inside a glass and wooden box. Scale bar = 1 cm.

For identification see also Lewinsohn (1984) and McLay (2001, 2009).

Superfamily Eriphioidea MacLeay, 1838
Family Eriphiidae MacLeay, 1838
Genus *Eriphia* Latreille, 1817

Eriphia sebana (Shaw & Nodder, 1803)
Fig. 19

Material examined

MAURITIUS • 6 ♀♀ (51.7 × 38.8, 49.6 × 35.7, 42.3 × 32.7, 29 × 21.1, 32.7 × 24.5, 22.6 × 16.8), 1 ♂ (20.9 × 15.9); 1850; Forrer leg.; MNCN20.04/03488 • 1 unsexed; 1850; Guérin-Méneville leg.; dry specimen from the "Sala del Mar" exhibition; MNCN20.04/00131.

Remarks

The specimens were initially identificated as *Eriphia laevimana*, a current synonym of *E. sebana*. In the label is also indicated that the locality of collection was "Isla de Francia, Groenlandia [sic!]", but it is probably a mistake in the transcription from the old label to the new one, therefore must be recorded as from Mauritius.

For identification see also Serène (1984) and Koh & Ng (2008).

Fig. 19. *Eriphia sebana* (Shaw & Nodder, 1803), specimens MNCN20.04/03488. Scale bars = 1 cm.

Eriphia verrucosa (Forskål, 1775)
Figs 20−21

Material examined

MOROCCO − **Larache** • 1 ♂ (51.3 × 36.4), 1 ♀ ov. (51.2 × 33.9); 1955; MNCN20.04/03477. − **Los Farallones, Tres Forcas** • 1 ♀ (66.9 × 47), 1 ♂ (63.5 × 43.9); 29 Dec. 1909; Galán leg; picked by hand; MNCN20.04/03335. − **Sidi Ifni** • 6 ♂♂ (31.7 × 24, 47.5 × 34.7, 47.8 × 33.6, 51.4 × 36.4, 49 × 34.6, 49 × 34.6), 1 ♀ (45.1 × 31.2), 1 ♀ ov. (45.9 × 32); 1934; MNCN20.04/03533.

SPAIN − **Canary Islands, Gran Canaria** • 1 ♂ (unmeasured); Las Palmas de Gran Canaria; Quiroga leg.; MNCN20.04/03369. – **Canary Islands, Tenerife** • 1 ♂ (18 × 12.4), 1 ♀ (21.2 × 16.2); Santa Cruz de Tenerife; bef. 1910; Anatael Cabrera leg; MNCN20.04/03544 • 1 ♂ (unmeasured); El Médano; Aug. 1961; A. Bello leg; MNCN20.04/03993.

For identification, see also Zariquiey Álvarez (1968) and Koh & Ng (2008).

Fig. 20. *Eriphia verrucosa* (Forskål, 1775). **A–F**. Specimens MNCN20.04/03335. **G–L**. Specimens MNCN20.04/03477. Scale bars = 1 cm.

Fig. 21. *Eriphia verrucosa* (Forskål, 1775). **A–F**. Specimens MNCN20.04/03533. **G–L**. Specimens MNCN20.04/03544. Scale bars = 1 cm.

Family Menippidae Ortmann, 1893
Genus *Menippe* De Haan, 1833

Menippe nodifrons Stimpson, 1859
Figs 22−23

Material examined

EQUATORIAL GUINEA − **San Juan Cape** • 2 ♀♀ (49 × 32.8, 41.6 × 28.1), 1 ♂ (33.9 × 23.7); Muni River; 1901; M. Martínez de la Escalera leg.; MNCN20.04/03349.

MAURITIUS • 1 unsexed (dry specimen); MNCN20.04/00189.

Remarks

In Fig. 23G, the text written by G. Nobili (1906) where he identifies the 3 specimens included in MNCN20.04/03349 is provided.

The specimen MNCN20.04/00189 is a dry preserved specimen, which is not dated, but according to the MNCN archive, it already appeared in the catalogue from 1910, and its collector could be Guérin-Méneville, so it may have been collected around 1850. The specimen was identified as *Menippe rumphii* (Fabricius, 1798), a species from the waters of the Indian Ocean; however, after comparing it with specimens of *M. rumphii* (see Holthuis 1993; Vartak *et al*. 2015; Naderloo 2017; Al-Hindi 2019), we found that the first two anterolateral teeth of the carapace are prominent and rounded, as occurs in *M. nodifrons*, and not are in *M. rumphii*, which are mostly flattened.

The origin of the MNCN20.04/00189 specimen should be considered with caution. On many occasions, we cannot guarantee the provenance of some ancient specimens housed in the collection, as could be the case here However, all the dry specimens reviewed in this work and part of an exhibition at the

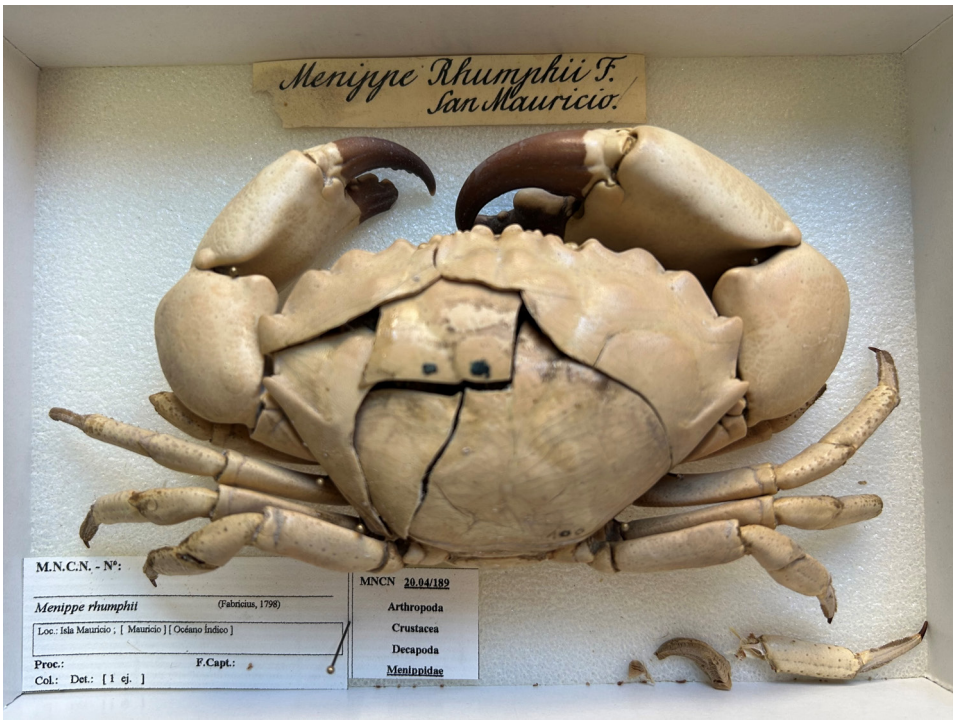

Fig. 22. *Menippe nodifrons* Stimpson, 1859, MNCN20.04/00189.

MNCN, originate from the Indian Ocean, and this fact leads us to consider its origin as correct. This reidentification of the specimen as *M. nodifrons* provides the first record of this species not only in the Mauritian waters but also in East Africa and Indian Ocean. *Menippe nodifrons* is recorded from the Western and Eastern Atlantic, along the western African coast from Mauritania (Fransen 1991) to Angola and Cabo Verde Islands (Manning & Holthuis 1981).

For identification, see also Nobili (1906) and for similar species Rathbun (1930), Capart (1951), Monod (1956), Holthuis (1993), Vartak *et al*. (2015), Naderloo (2017) and Al-Hindi (2019).

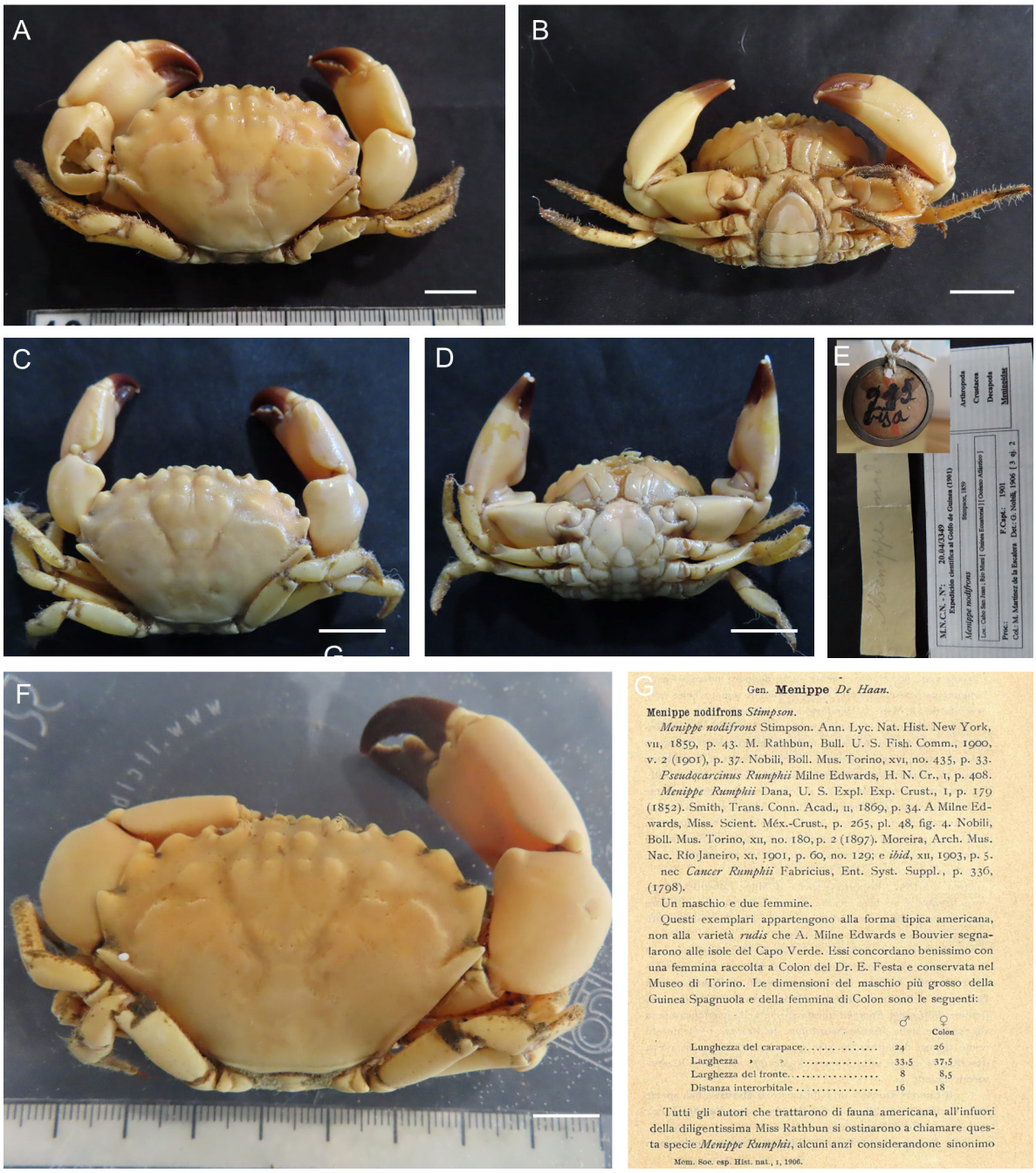

Fig. 23. *Menippe nodifrons* Stimpson, 1859. **A**–**F**. Specimens MNCN20.04/03349. **G**. Text by G. Nobili from 1906 in which he identifies the 3 specimens here included. Scale bars = 1 cm.

Family Oziidae Dana, 1851
Genus *Epixanthus* Heller, 1860

Epixanthus hellerii A. Milne-Edwards, 1867
Fig. 24

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 2 ♀♀ (24.1 × 17.1, 22.2 × 15.9); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06096 • 1 ♂ (9.9 × 6.9); 17 Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/20974. – **San Juan Cape** • 1 ♀ (22.6 × 13.4), 2 ♂♂ (18.5 × 11.8, 18 × 11.1); 17 Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/03493 • 1 ♂ (24.7 × 16.1), 1 ♀ (26.9 × 17); 1901; M. Martínez de la Escalera leg.; MNCN20.04/03442.

Remarks

Only the specimens MNCN20.04/03442 were properly identified. The specimens MNCN20.04/03493 were labelled as *Xantho* sp., the specimens MNCN20.04/06096 were unidentified within the family Xanthidae, and the specimens MNCN20.04/20974 as *Xantho poressa.*

For identification, see also Monod (1956).

Genus *Eupilumnus* Kossmann, 1877

Eupilumnus stridulans (Monod, 1956)
Fig. 25

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♀ (9.1 × 7.1), 1 ♂ (8.8 × 7.1); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06086.

Remarks

The specimens were identified as “Sin identificar” (unidentified), and assigned to Xanthidae.

For identification, see Monod (1956).

Genus *Lydia* Gistel, 1848

Lydia annulipes (H. Milne Edwards, 1834)
Fig. 26

Material examined

MAURITIUS • 1 unsexed (28.1 × 28.7); 1850; Guérin-Méneville leg.; MNCN20.04/03382.

Remarks

The specimen is in very poor condition. The previous identification on the oldest label is *Ozius macrodentu*s, a species of which there are no traces in literature, and on the most recent label it appears written as the genus *Orius*, which is due to a misspelling of the genus name.

For identification see also Serène (1984), Poupin (2015) and Poupin *et al*. (2018).

Fig. 24. *Epixanthus helleri* A. Milne-Edwards, 1867. **A–C**. Specimens MNCN20.04/03493. **D–F**. Specimens MNCN20.04/03442. **G–I**. Specimens MNCN20.04/06096. **J–L**. Specimen MNCN20.04/20974. Scale bars = 1 cm.

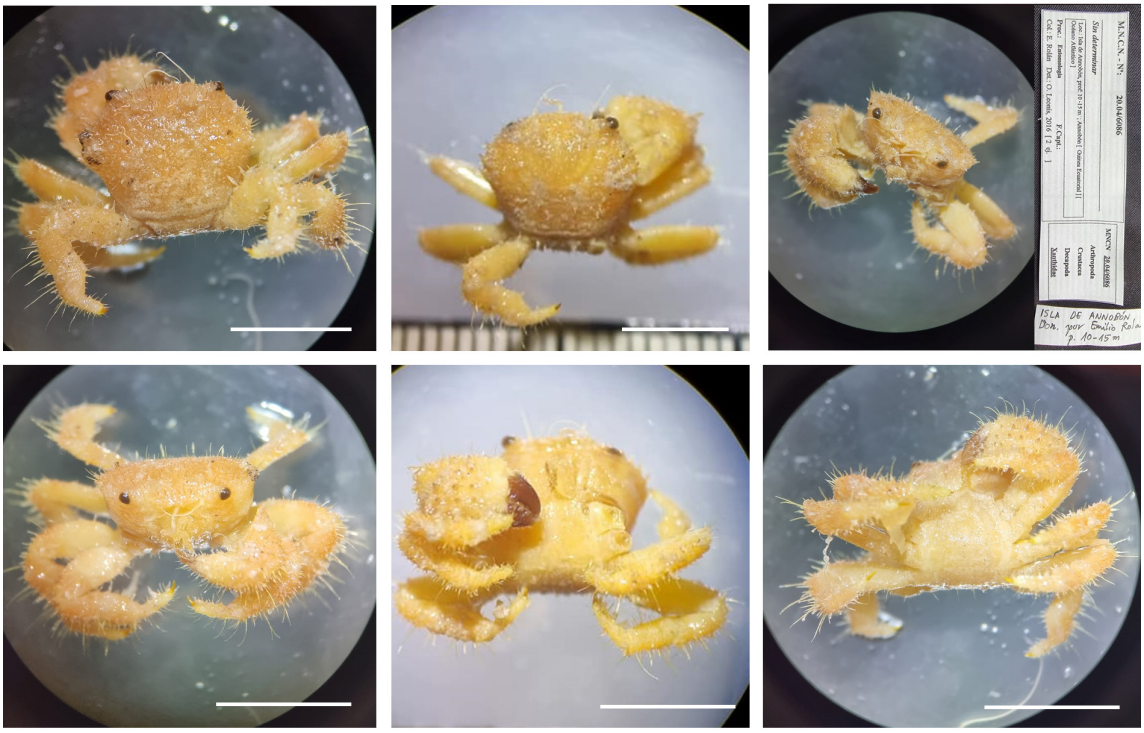

Fig. 25. Specimens of *Eupilumnus stridulans* (Monod, 1956), MNCN20.04/06086. Scale bars = 0.5 cm.

Fig. 26. *Lydia annulipes* (H. Milne Edwards, 1834). Damaged specimen MNCN20.04/03382 and labels and entry of the specimen in an old handwritten catalogue. Scale bars = 1 cm.

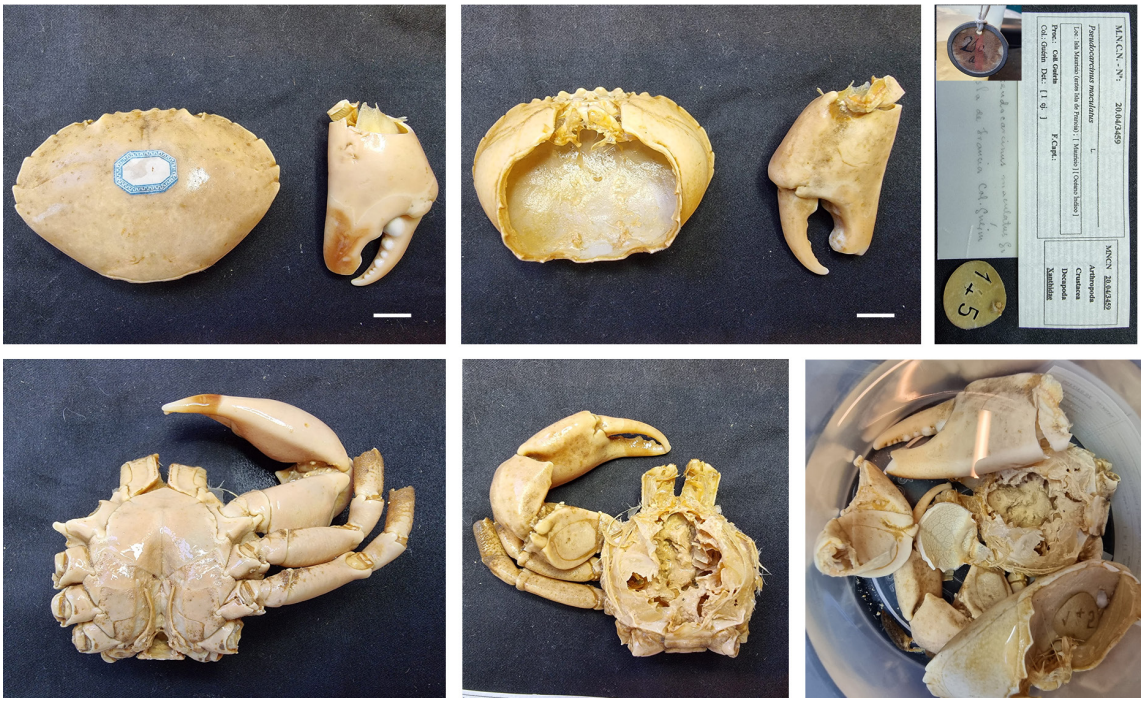

Fig. 27. *Ozius guttatus* H. Milne Edwards, 1834, MNCN20.04/03459. Scale bars = 1 cm.

Genus *Ozius* H. Milne Edwards, 1834

Ozius guttatus H. Milne Edwards, 1834
Fig. 27

Material examined

MAURITIUS • 1 ♂ (73.4 × 49.8); 1850; Guérin-Méneville leg.; MNCN20.04/03459.

Remarks

The specimen was previously identified as *Pseudocarcinus maculatus* (Xanthidae), name that does not correspond to any known species. This work provides the first record of *O. guttatus* in the waters of Mauritius. Ward (1942) cited this species, but as a subspecies *Ozius guttatus garciaensis* Ward, 1942, in the Chagos Islands (Diego García), a territory claimed by Mauritius and close to it.

For identification see also Ward (1942) and Serène (1984).

Superfamily Goneplacoidea MacLeay, 1838
Family Euryplacidae Stimpson, 1871
Genus *Machaerus* Leach, 1818

Machaerus atlanticus (Miers, 1881)
Fig. 28

Material examined

GHANA • 1 ♂ (5.7 × 4.1); Mar. 1993; MNCN20.04/41926.

Remarks

The specimen is parasitized by a Rhizocephala Müller, 1862 crustacean. Since this is a juvenile specimen, small in size, the proportions are different from those of an *Machaerus atlanticus* adult, with very long eye stalks and larger eyes than those of adult specimens.

For identification, see also Castro & Ng (2010).

Machaerus oxyacanthus (Monod, 1956)
Fig. 29

Material examined

GHANA • 1 ♂ (11.7 × 7.6); Mar. 1993; MNCN20.04/41925.

Remarks

The specimen was mixed with other decapods without identification.

For identification, see also Castro & Ng (2010).

Fig. 28. *Machaerus atlanticus* (Miers, 1881), parasitized specimen MNCN20.04/41926. Scale bars = 0.5 cm.

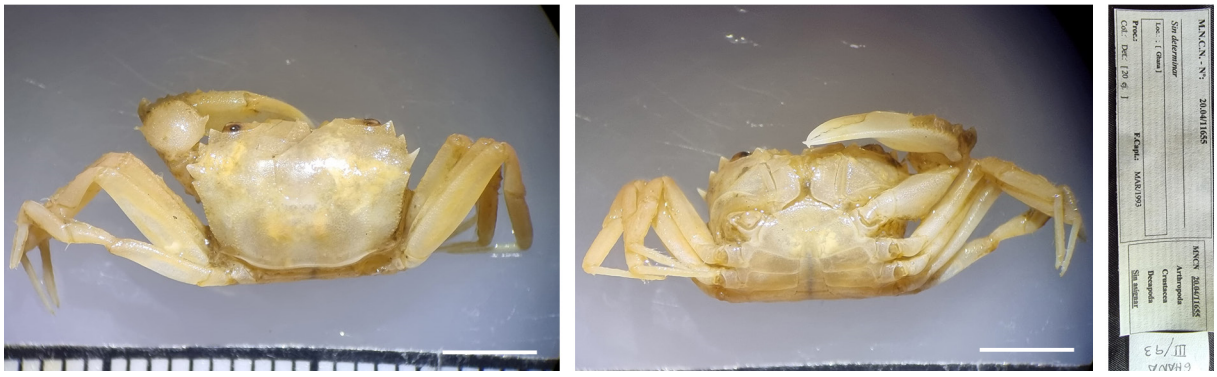

Fig. 29. *Machaerus oxyacanthus* (Monod, 1956), MNCN20.04/41925. Scale bars = 0.5 cm.

Family Goneplacidae MacLeay, 1838
Genus *Goneplax* Leach, 1814

Goneplax rhomboides (Linnaeus, 1758)
Fig. 30

Material examined

MOROCCO − **Larache** • 1 ♀ (23.7 × 14.3), 2 ♂ ♂ (20 × 12, 22.3 × 13.7); 1955; MNCN20.04/04392.

Remarks

The previous identification on the label was "Sin determinar" (undetermined), and assigned to Goneplacidae.

For identification, see also Guinot & Castro (2007).

Superfamily Homoloidea De Haan, 1839
Family Homolidae De Haan, 1839
Genus *Homola* Leach, 1815

Homola barbata (Fabricius, 1793)
Fig. 31

Material examined

SPAIN − **Canary Islands, Tenerife** • 1 ♀ (14.6 × 16.6); Santa Cruz de Tenerife; 1906?; M. Martínez de la Escalera leg.; MNCN20.04/01155.

Remarks

The previous identification on the label was "Sin determinar" (undetermined), and assigned to Homolidae.

For identification see also Zariquiey Álvarez (1968) and Guinot & Richer de Forges (1995).

Fig. 30. *Goneplax rhomboides* (Linnaeus, 1758), MNCN20.04/04392. Scale bars = 1 cm.

Fig. 31. *Homola barbata* (Fabricius, 1793), ♀, MNCN20.04/01155. Scale bars = 1 cm.

Superfamily Leucosioidea Samouelle, 1819
Family Leucosiidae Samouelle, 1819
Subfamily Ebaliinae Stimpson, 1871
Genus *Atlantolocia* Galil, 2009

Atlantolocia laevidorsalis (Miers, 1881)
Figs 32−33

Material examined

GHANA • 35 ♂♂ (min. 3.3 × 4.4, max. 8.7 × 10.1), 17 ♀♀ (min. 6.1 × 7.1, max. 7.7 × 8.7); Mar. 1993; MNCN20.04/10271 • 1 ♂ (5.7 × 6.5), 1 ♀ (7.8 × 7.3); 1993; MNCN20.04/41936 • 1 ♀ (6.2 × 7.2), 2 ♂♂ (6.3 × 7.2, 7 × 8.2); 1993; MNCN20.04/41938 • 9 ♂♂ (min. 4.3 × 5, max. 8 × 9.4), 4 ♀♀ (min. 6 × 6.9, max. 7 × 7.9); 1993; depth 7−10 m; MNCN20.04/41931 • 1 ♂ (5.1 × 6); Mar. 1993; MNCN20.04/20979 • 4 ♂♂ (4.5 × 5.4, 5.5 × 6.5, 4.6 × 4.9, 4.3 × 4.9); Mar. 1993; MNCN20.04/41924.

Remarks

Among the 52 specimens of *A. laevidorsalis* with MNCN20.04/10271 code, there were two other species of leucosids. The specimens MNCN20.04/41938 were mixed with other two species under the Polybiidae family and the three specimens of MNCN20.04/41936 were also mixed but without assigned family within the Decapoda. The 13 specimens of *A. laevidorsalis* MNCN20.04/11657c were mixed with bivalves, polychaetes, and other decapods, simply identified as "Decapoda". The four males of MNCN20.04/41924 were mixed with other decapods without determination. The specimen MNCN20.04/20979 was covered with organic remains, possibly some type of microalgae, which made it look like another species with a rough carapace.

For identification see also Galil (2009).

Genus *Atlantophila* Galil, 2009

Atlantophila cristata (Miers, 1881)
Fig. 34

Material examined

GHANA • 3 ♀♀; Mar. 1993; MNCN20.04/10271c • 3 specs (5.2 × 5.2, 5.5 × 6.2, 4.6 × 5); Mar. 1993; MNCN20.04/20727.

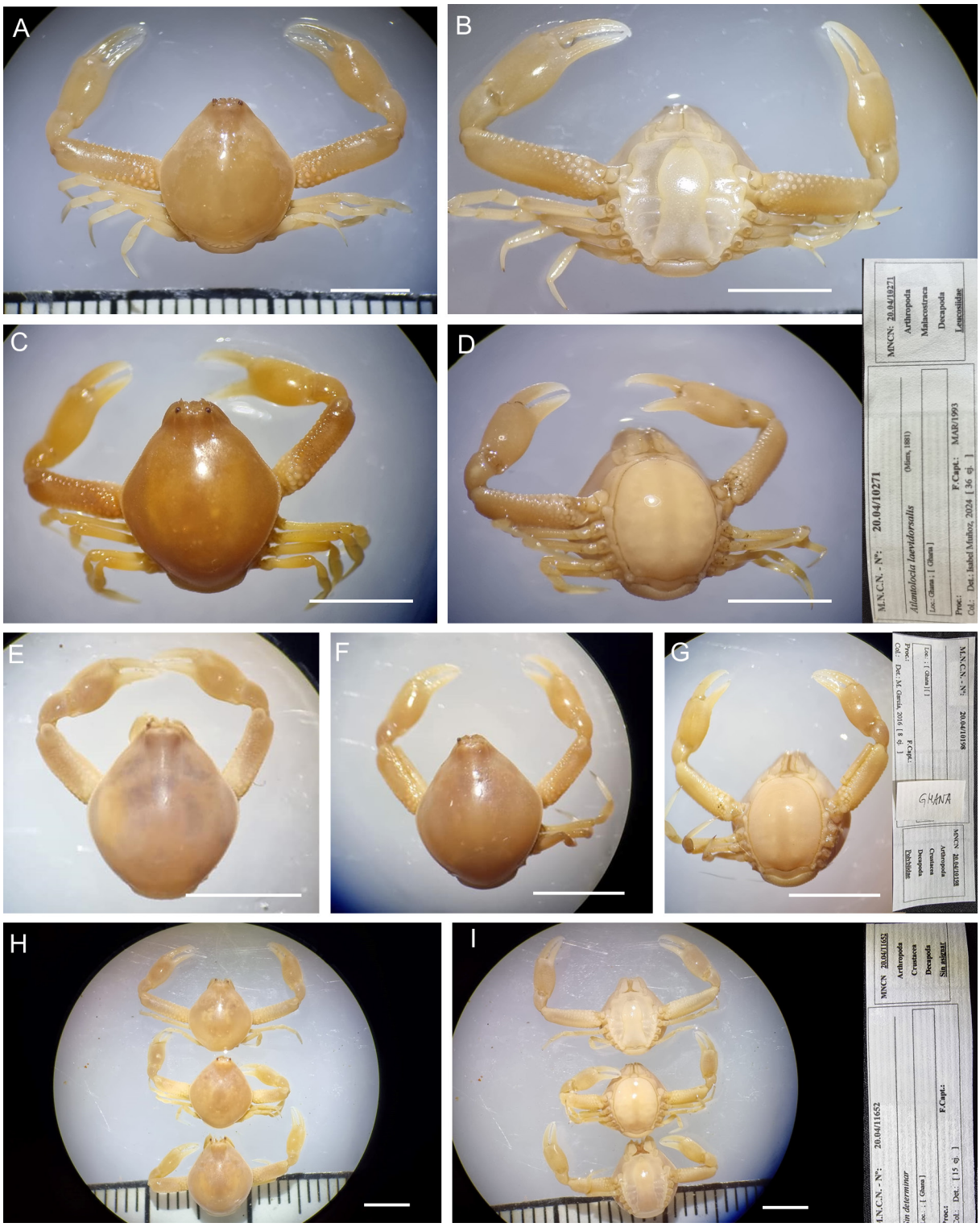

Fig. 32. *Atlantolocia laevidorsalis* (Miers, 1881). **A−D**. Specimens MNCN20.04/10271. **E−G**. Specimens MNCN20.04/41938. **H−I**. Specimens MNCN20.04/41936. Scale bars = 0.5 cm.

Fig. 33. *Atlantolocia laevidorsalis* (Miers, 1881). **A–C**. Specimens MNCN20.04/41932. **D–H**. Specimens MNCN20.04/20979. **I–K**. Specimens MNCN20.04/41924. Scale bars = 0.5 cm.

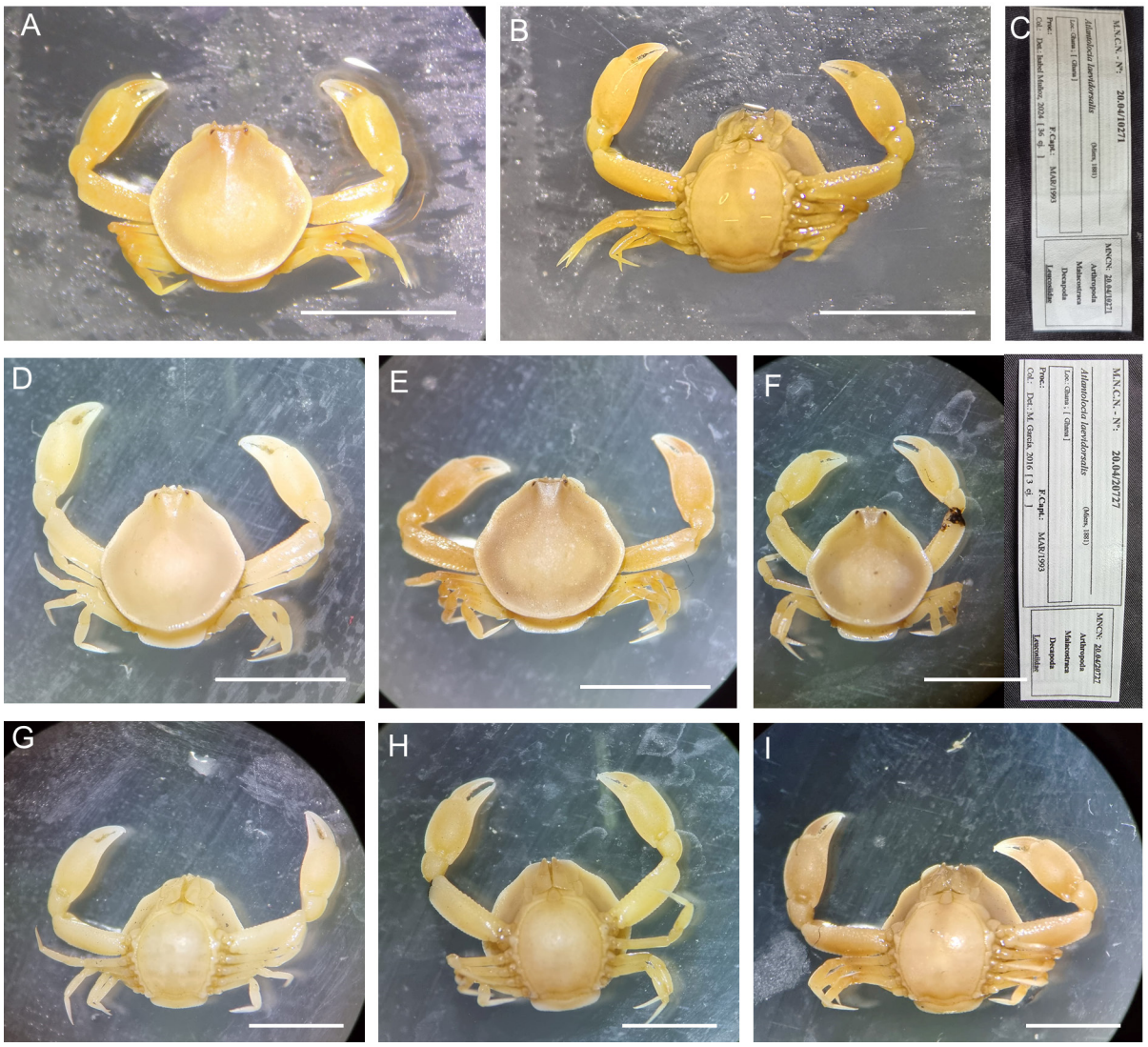

Fig. 34. *Atlantophila cristata* (Miers, 1881). **A–C**. Specimen MNCN20.04/10271c. **D–I**. Specimens MNCN20.04/20727. Scale bars = 0.5 cm.

Remarks

These three specimens MNCN20.04/10271c were mixed with the specimens of *A. laevidorsalis* MNCN20.04/10271, under the label of "Sin determinar" (undetermined), Leucosiidae family. The previous identification of the specimens MNCN20.04/20272 was wrong, as *A. laevidorsalis*.

This work provides the first records of *A. cristata* in Ghanaian waters.

For identification, see also Galil (2009).

Genus *Ilia* Leach, 1817

Ilia spinosa Miers, 1881
Fig. 35

Material examined

GHANA • 1 ♂ (9.4 × 9.9); 1993; MNCN20.04/41935.

Fig. 35. *Ilia spinosa* Miers, 1881, MNCN20.04/41935. Scale bars = 0.5 cm.

Remarks

The specimen was mixed with another four species, without being assigned to any family.

For identification, see also Monod (1956).

Genus *Ryphila* Galil, 2009

Ryphila cancellus (Herbst, 1783)
Fig. 36

Material examined

MAURITIUS • 2 ♀♀ (10.06 × 11, 9.5 × 9.6), 2 ♂♂ (9.5 × 9.6, 9.5 × 9.6); 1850; Guérin-Méneville leg.; MNCN20.04/01164.

Remarks

These four specimens were determined as *Philyra scabriuscula* (Fabricius, 1798), being the correct identification *Ryphila cancellus*. *Ryphila* is a genus described by Galil (2009), when she established a new combination for *Philyra scabriuscula* as *R. cancellus*. There is some confusion regarding the position of *P. scrabiuscula*, as at present the validity of this name is still being considered, as read in DecaNet (2025), or GBIF (2024). This paper provides the first record of *R. cancellus* in Mauritian waters.

For identification see also Galil (2009).

Superfamily Majoidea Samouelle, 1819
Family Epialtidae MacLeay, 1838
Subfamily Epialtinae MacLeay, 1838
Genus *Xenocarcinus* White, 1847

Xenocarcinus conicus (A. Milne-Edwards, 1865)
Fig. 37

Material examined

MAURITIUS • 2 unsexed (6.8 × 14.2, 5.2 × 12); 1850?; dry specimens belonged to the "Sala del Mar" exhibition; MNCN20.04/00160.

Remarks

These tiny specimens were part of the "Sala del Mar" exhibition, being dry preserved possibly throughout their entire time at the MNCN. Currently, they are attached to a type of felt fabric, but due to the holes in their carapaces, they were possibly held in place with needles at some point during their exhibition in the Museum.

This record represents the first report in Mauritian waters.

For identification, see also Griffin & Tranter (1986), Naderloo (2017) and Poupin *et al*. (2018).

Fig. 36. *Ryphila cancellus* (Herbst, 1783), specimens MNCN20.04/01164. Scale bars = 0.5 cm.

Fig. 37. *Xenocarcinus conicus* (A. Milne-Edwards, 1865), dry specimens MNCN20.04/00160. Scale bars = 0.5 cm.

Subfamily Pisinae Dana, 1851
Genus *Apiomithrax* Rathbun, 1897

Apiomithrax bocagei (Ozorio, 1887)
Fig. 38

Material examined

GHANA • 1 ♀ ov. (10.7 × 11.6); 1993; depth 7−10 m; MNCN20.04/41930.

Remarks

The specimen was mixed with another species under the identification of Decapoda.

Apiomithrax violaceus (A. Milne-Edwards, 1867)
Fig. 39

Material examined

GHANA • 1 ♂ (6 × 7.9), 4 specs (too damaged to be measured); Mar. 1993; MNCN20.04/10202.

Remarks

These five specimens were identified as "Sin determinar" (undetermined), assigned to Portunidae, and mixed with other species.

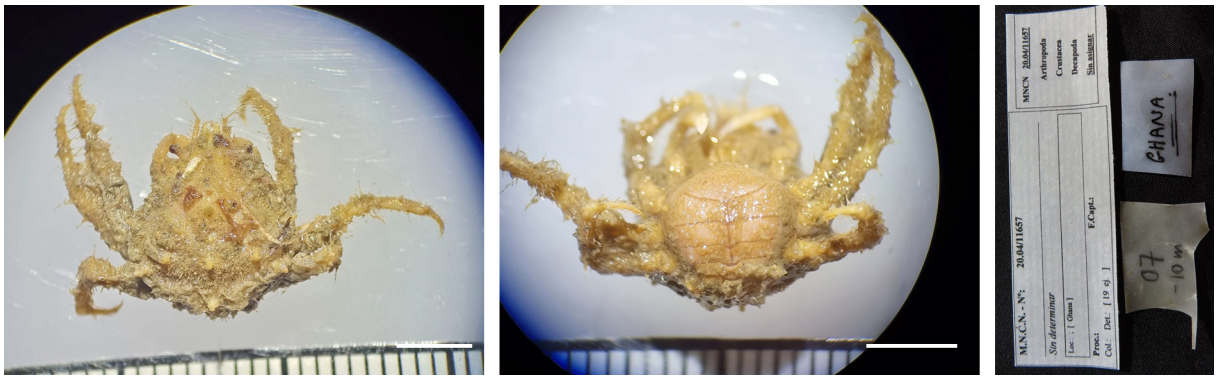

Fig. 38. *Apiomithrax bocagei* (Ozorio, 1887), MNCN20.04/41930. Scale bars = 0.5 cm.

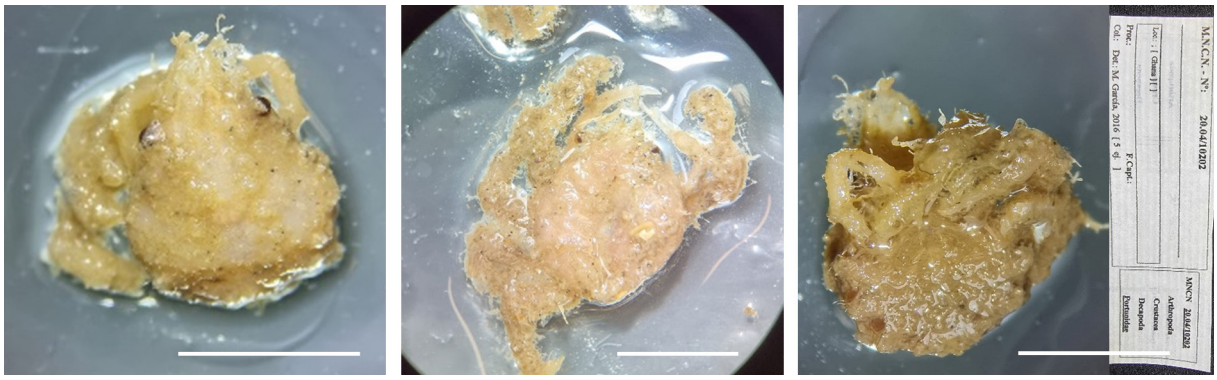

Fig. 39. *Apiomithrax violaceus* (A. Milne-Edwards, 1867), MNCN20.04/10202. Scale bars = 0.5 cm.

Genus *Herbstia* H. Milne Edwards, 1834

Herbstia nitida Manning & Holthuis, 1981
Fig. 40

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♂ (8 × 10.8); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06076.

Remarks

The specimen was previously identified as "Sin determinar" (undetermined), and assigned to Oregoniidae Garth, 1958.

Genus *Pisa* Leach, 1814

Pisa armata (Latreille, 1803)
Fig. 41

Material examined

ALGERIA • 1 ♀ (21 × 24.8); 1850; Guérin-Méneville leg; MNCN20.04/20934.

Fig. 40. *Herbstia nitida* Manning & Holthuis, 1981, MNCN20.04/06076. Scale bars = 0.5 cm.

Fig. 41. *Pisa armata* (Latreille, 1803), MNCN20.04/20934. Scale bar = 1 cm.

Remarks

The specimen was previously identified as *Pisa tetraodon* (Pennant, 1777), mixed with two other species with code MNCN20.04/1314, and, although the individual is extremely damaged, the carapace shape is unmistakable.

For identification see also Muñoz *et al*. (2023).

Pisa muscosa (Linnaeus, 1758)
Fig. 42

Material examined

ALGERIA • 2 unsexed (14.4 × 17, 13.1 × 15), 1 spec. (unmeasured); 1850; Guérin-Méneville leg.; MNCN20.04/20935.

Remarks

The specimens were previously identified as *Pisa tetraodon* (Pennant, 1777), mixed with two other species with code MNCN20.04/1314.

For identification, see also Zariquiey Álvarez (1959), Forest (1965) and Muñoz *et al*. (2023).

Pisa tetraodon (Pennant, 1777)
Fig. 43

Material examined

ALGERIA • 3 unsexed (17.9 × 20.8, 12.9 × 16.4, 13.1 × 15), 1 spec. (unmeasured); 1850; Guérin-Méneville leg.; MNCN20.04/01314.

Remarks

The three specimens were mixed with others species, as *P. armata* and *P. muscosa* (MNCN20.04/20934 and MNCN20.04/20935).

For identification, see also Zariquiey Álvarez (1959), Forest (1965) and Muñoz *et al*. (2023).

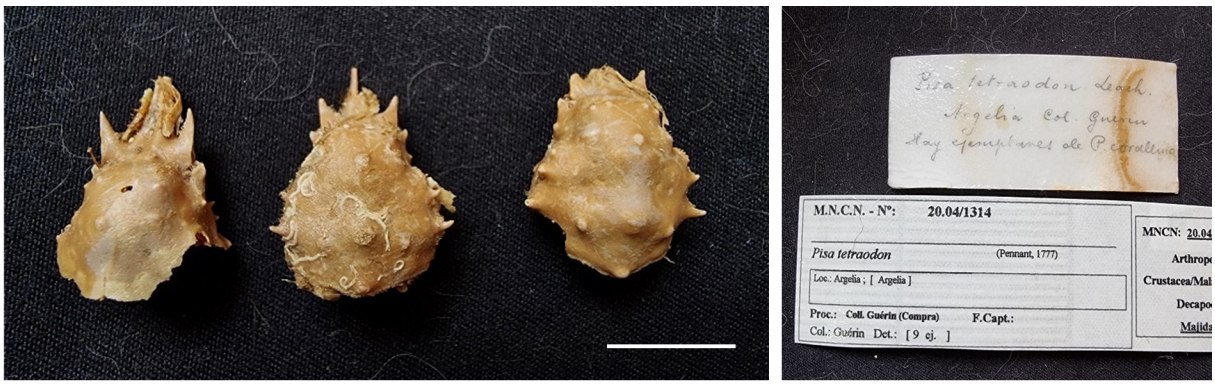

Fig. 42. *Pisa muscosa* (Linnaeus, 1758), damaged specimens MNCN20.04/20935. Scale bar = 1 cm.

Fig. 43. *Pisa tetraodon* (Pennant, 1777), damaged specimens MNCN20.04/01314. Scale bar = 1 cm.

Genus *Tylocarcinus* Miers, 1879

Tylocarcinus styx (Herbst, 1803)
Fig. 44

Material examined

MAURITIUS • 1 unsexed (12.6 × 19.2); 1850?; belonging to the "Sala del Mar" exhibition; MNCN20.04/00192.

Remarks

This specimen belonged to the exhibition of the Sala del Mar, being dry preserved inside a glass and wooden box, without retaining any old label. It is currently identified as *Apiomithrax violaceus* (A. Milne-Edwards, 1867), originating from the waters of the Cabo Verde Islands. However, this specimen is not *A. violaceus*, nor is there any species or genus with similar characteristics in the waters of West Africa. The specimen belongs to the species *Tylocarcinus styx* (Herbst, 1803) which has an Indo-Pacific distribution, as do all species of this genus. This led us to question whether the origin of this specimen was truly Cabo Verde, or perhaps it came from Indo-Pacific waters. In the current records and for many years now, the only data we can obtain about this specimen is that it comes from Cabo Verde, with no collector's name or year of collection, and a comment where a number supposedly from a catalogue appears, but we have not been able to determine what it corresponds to. Reviewing the inventory files and catalogues of the historical collections of the MNCN, an inventory by San Miguel de la Cámara in 1911 (ACN0248/005), was found, in which a specimen that could be our specimen appears. On page 22 of said catalogue (Fig. 45C–D), a specimen with an almost crossed-out name appears, where "*Arctopsis Styx* Herbst from Île de France (current Mauritius), collector Guérin", can be read, and just below this, the name *Micropisa violacea* from Cabo Verde (Fig. 45D). We believe that the crossing out of the name, the accompanying date, and the arrangement of the data caused the confusion that has persisted to this day, leading to the assumption that this specimen was the species *Micropisa violaceus* (today labelled as *Apiomithrax violaceus*), and that it originated from the waters of Cabo Verde. Since that date in 1911 when San Miguel de la Cámara made his notes about these specimens, this specimen has been considered to originate from the waters of Cabo Verde. However, it is now demonstrated that this specimen comes from the waters of Mauritius and was collected by Guérin-Méneville in 1850.

For identification, see also Sakai (1938), Griffin & Tranter (1986) and Poore & Ahyong (2023).

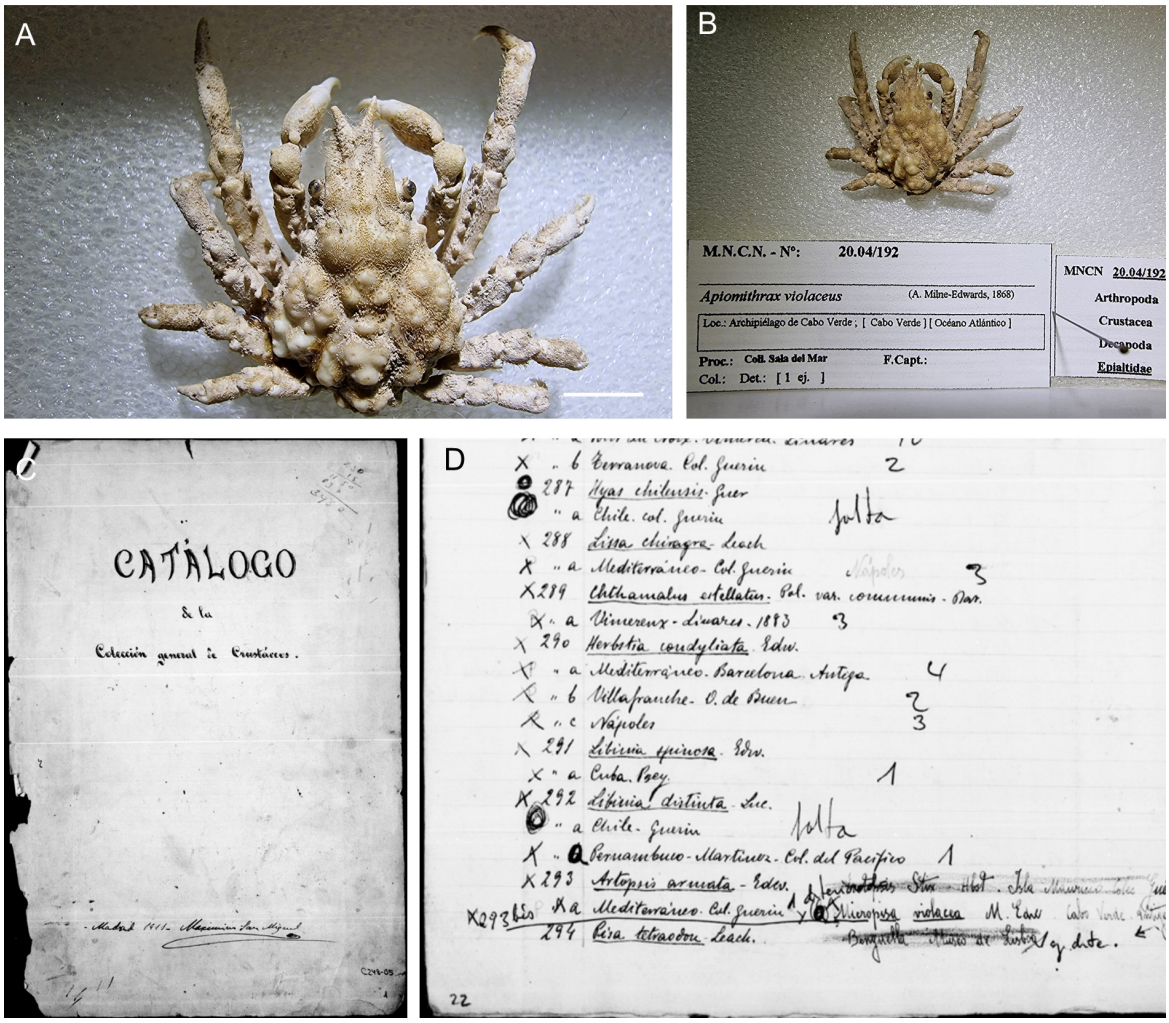

Fig. 44. *Tylocarcinus styx* (Herbst, 1803). **A–B**. Specimen MNCN20.04/00192, inside a glass and wooden box, and labels. **C–D**. Colección General de Crustáceos catalogue where the specimen is cited (ACN0248/005). Scale bars = 0.5 cm.

Family Inachidae MacLeay, 1838
Subfamily Inachinae MacLeay, 1838
Genus *Macropodia* Leach, 1814

Macropodia rostrata (Linnaeus, 1761)
Fig. 45

Material examined

MOROCCO – **Larache** • 1 ♀ (10.7 × 14.8), 1 ♂ (12.9 × 17.9); 1955; MNCN20.04/20973.

Remarks

The specimens were mixed with *Phyllodorippe armata* (MNCN20.04/10285) under the identification of Majidae. This record confirms the presence of *M. rostrata* in Moroccan waters, previously cited by García-Isarch & Muñoz (2015). The bigger specimen was totally covered with many barnacles.

For the synonym see also Spiridonov *et al*. (2020).

Macropodia tenuirostris (Leach, 1814)
Fig. 46

Material examined

MOROCCO – **Tanger** • 1 ♀ (12.8×18.2); 20 Nov. 1906; M. Martínez de la Escalera leg.; MNCN20.04/04171.

Fig. 45. *Macropodia rostrata* (Linnaeus, 1761). MNCN20.04/20973. Scale bars = 0.5 cm.

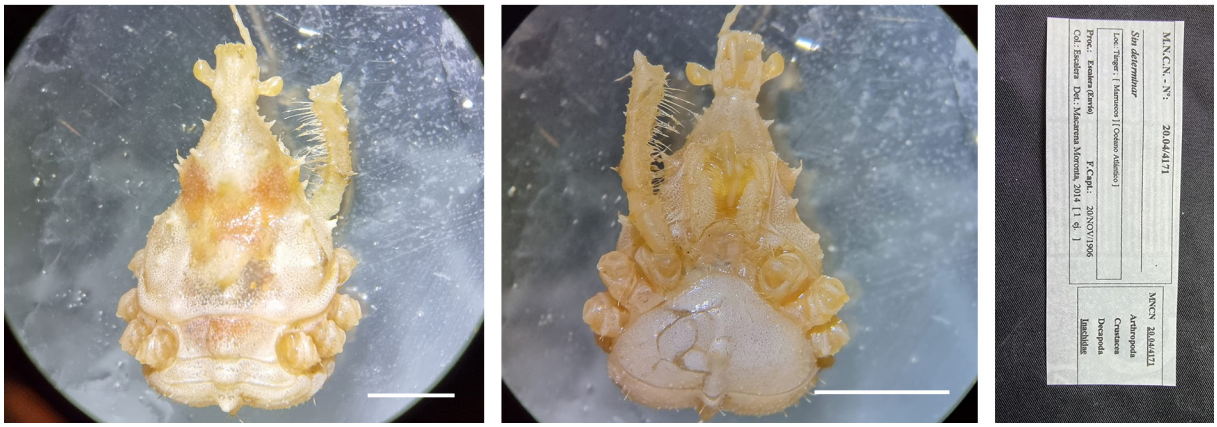

Fig. 46. *Macropodia tenuirostris* (Leach, 1814). MNCN20.04/04171. Scale bars = 1 cm.

Remarks

Only the carapace of the specimen is preserved, and the rostrum is broken, but the arrangement of the spines, both ventrally and dorsally, identifies it as a female *M. tenuirostris*. The previous identification was at family level, Inachidae.

Family Majidae Samouelle, 1819
Subfamily Majinae Samouelle, 1819
Genus *Eurynome* Leach, 1814

Eurynome aspera (Pennant, 1777)
Fig. 47

Material examined

MOROCCO − **Sidi Ifni** • 1 ♂ (13.2 × 14.1); Jan. 1935; MNCN20.04/10248.

Remarks

The specimen was catalogued without identification and assigned to Majidae.

For identification, see also García-Raso (1989).

Genus *Micippa* Leach, 1817

Micippa philyra (Herbst, 1803)
Fig. 48

Material examined

MAURITIUS • 1 ♀ (damaged); 1850; Guérin-Méneville leg; MNCN20.04/01306 • 1 unsexed (9 mm cw); 1850; Guérin-Méneville leg.; "Sala del Mar" exhibition; MNCN20.04/00191.

Remarks

Measurements of the specimens were not possible due to its position and conservation.

For identification, see also Beleem *et al*. (2016) and Naderloo (2017).

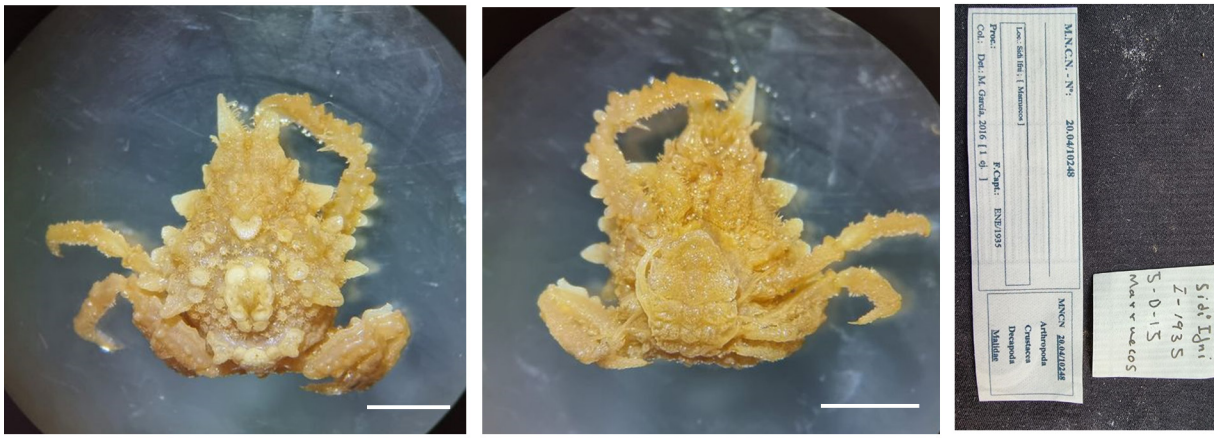

Fig. 47. *Eurynome aspera* (Pennant, 1777). MNCN20.04/10248. Scale bars = 1 cm.

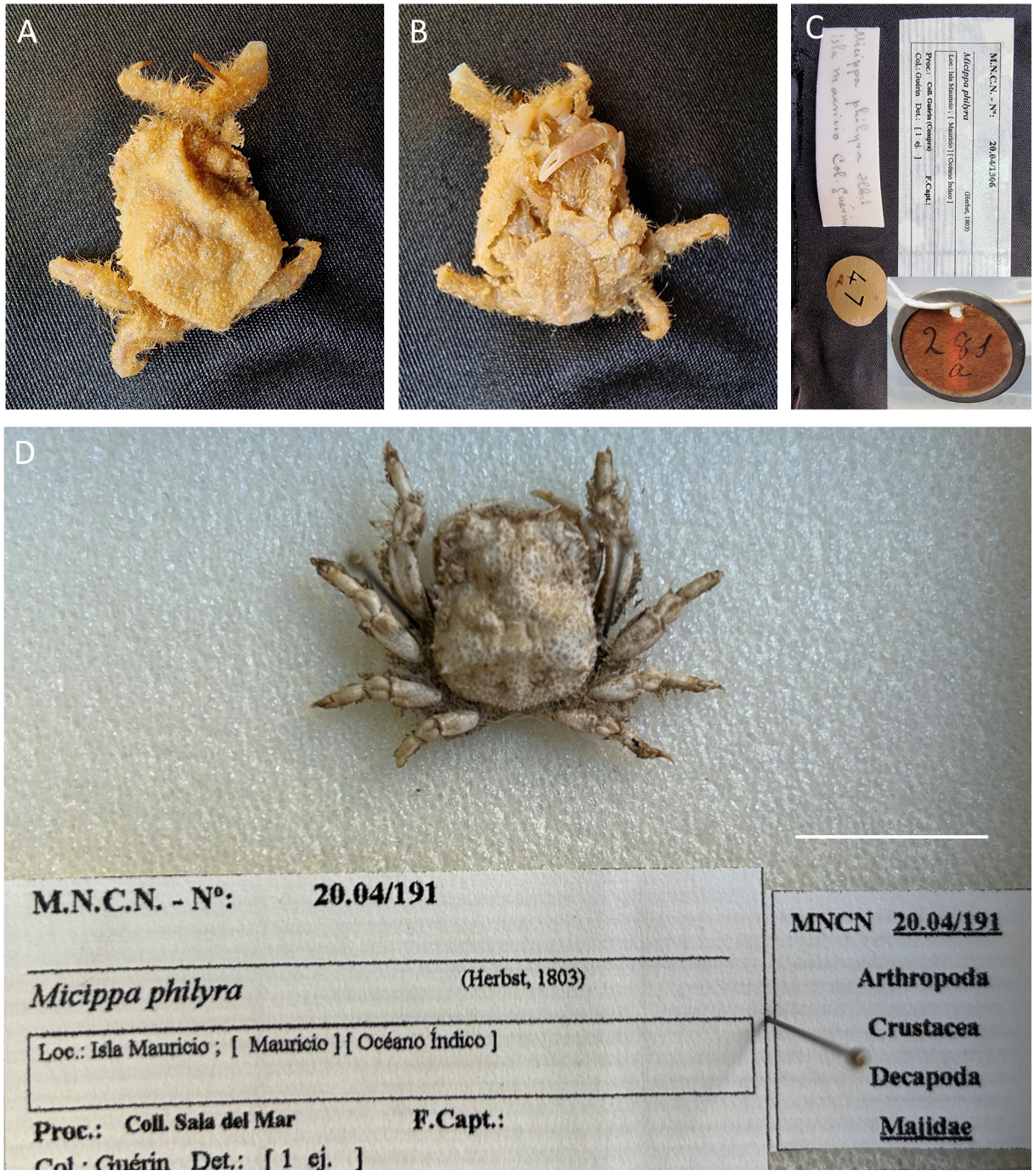

Fig. 48. *Micippa philyra* (Herbst, 1803). **A–C**. Damaged specimen MNCN20.04/01306. **D**. MNCN20.04/00191, dry specimen. Scale bar = 1 cm.

Genus *Schizophrys* White, 1848

Schizophrys aspera (H. Milne Edwards, 1831)
Fig. 49

Material examined

MAURITIUS • 1 ♂ (20.6 × 30.2), 1 ♀ (27.8 × 29.1), 2 chelipeds (belonging to another lost specimen); 1850; Guérin-Méneville leg.; MNCN20.04/03576.

Remarks

The specimens at some point during their preservation were dried out and then rehydrated. They were labelled as *Schizophrys dichotomus* (Desmarest, 1823).

For identification, see also Griffin & Tranter (1986), Naderloo (2017) and Lee *et al*. (2018).

Schizophrys dahlak Griffin & Tranter, 1986
Fig. 50

Material examined

MAURITIUS • 1 ♂ (46 × 49.4); 1850; Guérin-Méneville leg.; MNCN20.04/41942.

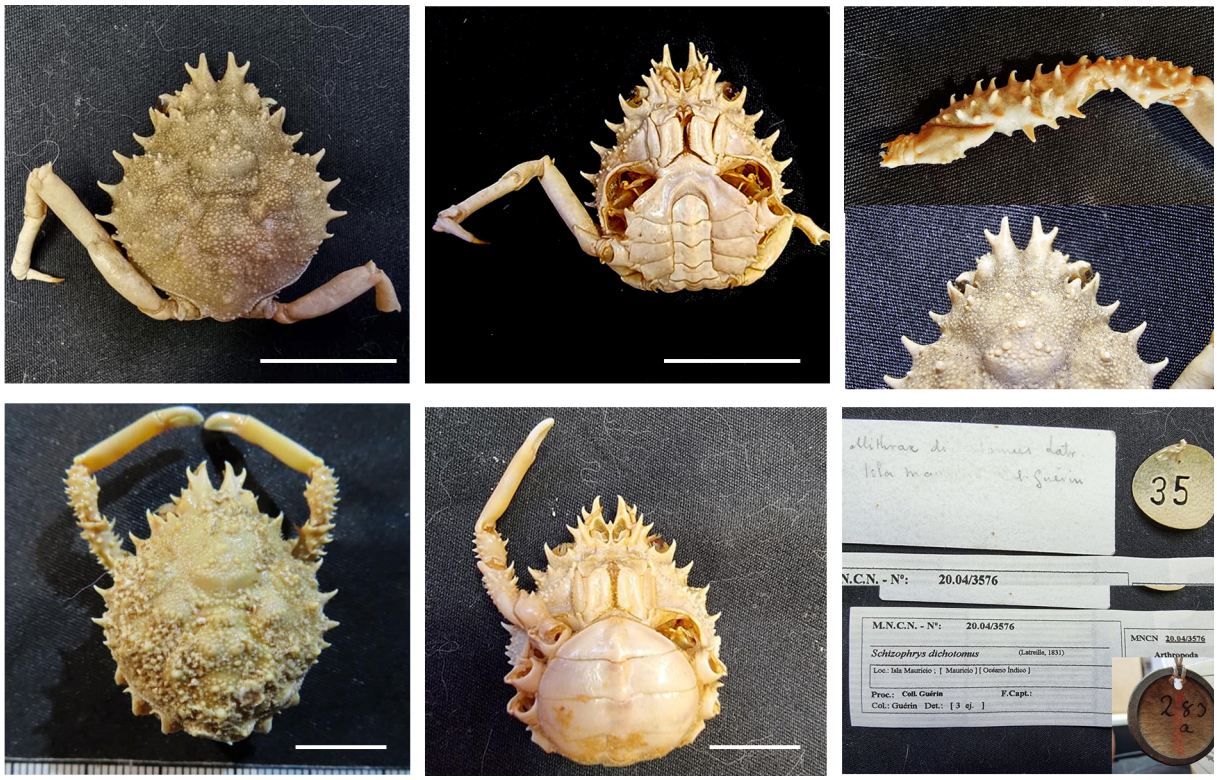

Fig. 49. *Schizophrys aspera* (H. Milne Edwards, 1831). Specimens MNCN20.04/03576. Scale bars = 1 cm.

Fig. 50. *Schizophrys dahlak* Griffin & Tranter, 1986, MNCN20.04/41942. Scale bars = 1 cm.

Remarks

The specimens at some point during their preservation were dried out and then rehydrated. The specimen was identified as *S. dichotomus* (Desmarest, 1823), and it was mixed with the specimens of *S. aspera*.

The known distribution for *S. dahlak* is Red Sea and Pacific Ocean (Balicasag Island in Philippines, Koror Islands and Palau Islands in Republic of Palau) (Sasaki 2023). This work provides the first record of *S. dahlak* in Mauritian waters.

For identification, see also Griffin & Tranter (1986) and Lee *et al*. (2018).

Superfamily Parthenopoidea MacLeay, 1838
Family Parthenopidae MacLeay, 1838
Subfamily Parthenopinae MacLeay, 1838
Genus *Spinolambrus* Tan & Ng, 2007

Spinolambrus macrochelos (Herbst, 1790)
Fig. 51

Material examined

MOROCCO − **Pozos de Kinitra, Port-Licotey** • 1 unsexed (55.4 × 37.9); Jul. 1956; José Díaz Pintado leg.; in "Sala del Mar" exhibition; MNCN20.04/00170.

Remarks

Dry specimen, previously identified as *Parthenope* sp. This is a specimen of considerable age, based on size and the quantity of tubiculous worms and scleractinian corals covering its carapace and chelipeds.

For identification, see also Tan & Ng (2007).

Fig. 51. *Spinolambrus macrochelos* (Herbst, 1790), specimen MNCN20.04/00170 inside a glass and wooden box. Scale bars = 1 cm.

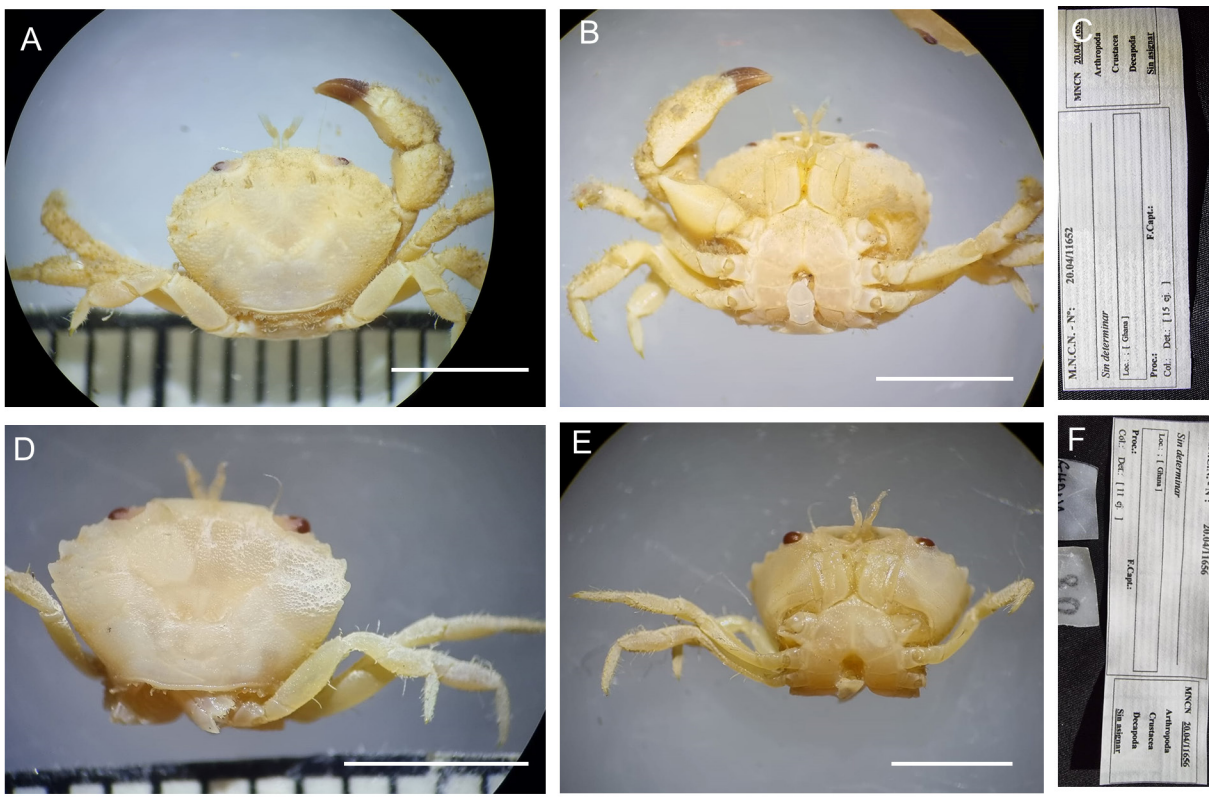

Fig. 52. *Latopilumnus tuberculidens* (Monod, 1956). **A–C**. Specimen MNCN20.04/41920. **D–F**. Specimen MNCN20.04/41928. Scale bars = 0.5 mm.

Superfamily Pilumnoidea Samouelle, 1819
Family Pilumnidae Samouelle, 1819
Subfamily Pilumninae Samouelle, 1819
Genus *Latopilumnus* Türkay & Schuhmacher, 1985

Latopilumnus tuberculidens (Monod, 1956)
Fig. 52

Material examined

GHANA • 1 ♂ (7.5 × 5.1); 1993; MNCN20.04/41920 • 1 ♂ (6.6 × 4.2); 1993; MNCN20.04/41928.

Remarks

The specimen was found mixed with another five species within the Decapoda collection but not assigned to any family. Its distribution range is off West Africa, from a few localities between Guinea-Bissau and Congo (Manning & Holthuis 1981).

For identification, see also Türkay & Schuhmacher (1985).

Genus *Pilumnus* Leach, 1816

Pilumnus vespertilio (Fabricius, 1793)
Fig. 53

Material examined

TANZANIA • 1 ♀ (18.6 × 12.9); coast in front of Pemba Island; Jan. 1971; MNCN20.04/20936.

Remarks

Specimen was labelled as "Sin determinar" (undetermined) and assigned to Xanthidae, mixed with other species.

For identification, see also El-Sayed *et al*. (2019).

Fig. 53. *Pilumnus vespertilio* (Fabricius, 1793), MNCN20.04/20936. Scale bars = 0.5 cm.

Genus *Serenepilumnus* Türkay & Schuhmacher, 1985

Serenepilumnus pisifer (MacLeay, 1838)
Fig. 54

Material examined

GHANA • 1 ♀ ov. (5.9 × 5.1), 1 ♂ (5.2 × 3.4); 1993; MNCN20.04/41927.

Remarks

The specimens were mixed with other decapods, without any identification to species or familial level.

For identification, see also Türkay & Schuhmacher (1985) and Ng & Ahyong (2001).

Superfamily Portunoidea Rafinesque, 1815
Family Carcinidae MacLeay, 1838
Subfamily Carcininae MacLeay, 1838
Genus *Carcinus* Leach, 1814

Carcinus maenas (Linnaeus, 1758)
Fig. 55

Material examined

MOROCCO • **Boudmil, Tazougarte (Grum river)** • 1 ♀ (40 × 31.3); Apr. 2001; I. Doadrio leg.; MNCN20.04/10212. − **Essaouira** • 1 ♀ (34.1 × 25.6); MNCN20.04/03153. – **Larache** • 1 ♂ (74.1 × 56), 1 ♀ (48 × 36.1); 1955; MNCN20.04/03180.

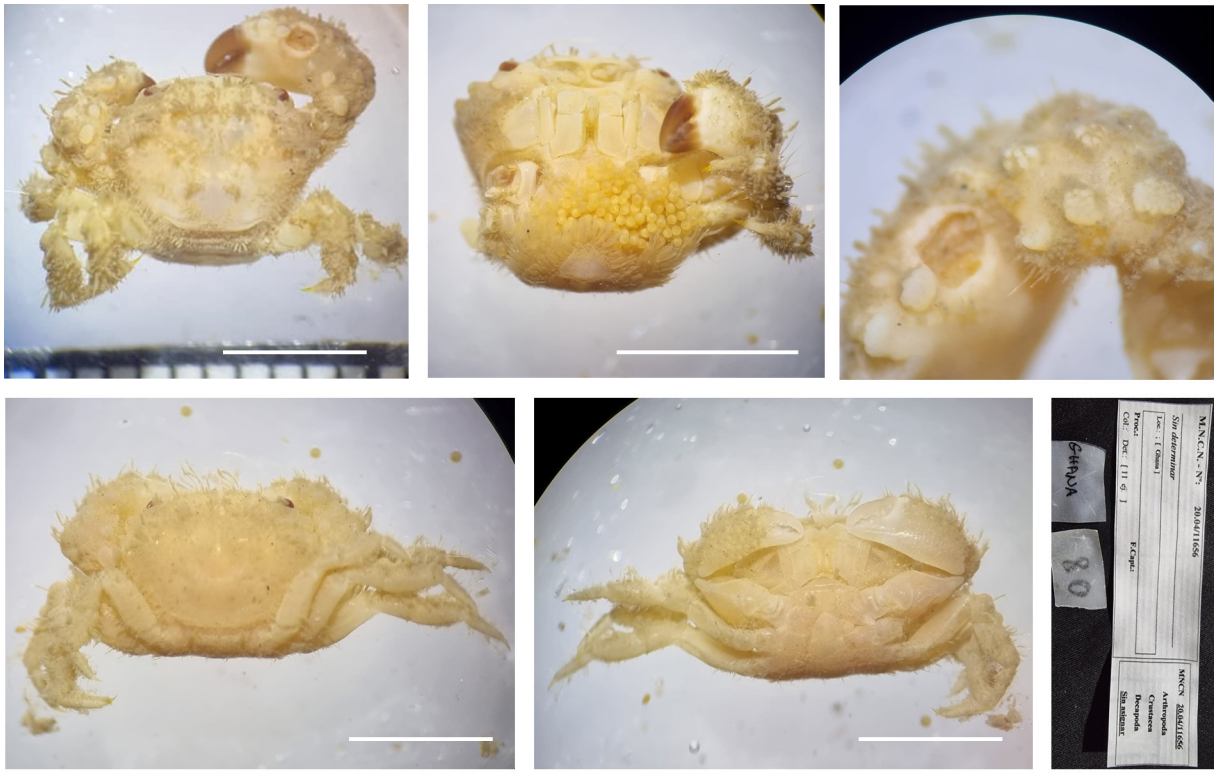

Fig. 54. *Serenepilumnus pisifer* (MacLeay, 1838), specimens MNCN20.04/41927. Scale bars = 0.5 cm.

Fig. 55. *Carcinus maenas* (Linnaeus, 1758). **A–E**. Specimens MNCN20.04/03180. **F–H**. MNCN20.04/10212. **I–K**. MNCN20.04/03153. Scale bars = 1 cm.

Remarks

The specimens MNCN20.04/03180 and MNCN20.04/03153 were assigned to the Portunidae but without identification at species level.

Subfamily Platyonichinae Dana, 1851
Genus *Xaiva* MacLeay, 1838

Xaiva mcleayi (Barnard, 1947)
Fig. 56

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♀ ov. (8.7 × 8.3), 1 ♂ (9.5 × 9.7); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06080.

Remarks

Previously, the specimens were without identification at species level, only assigned to the Portunidae.

For identification see also García-Raso & Manjón-Cabeza (1996).

Family Polybiidae Ortmann, 1893
Genus *Necora* Holthuis, 1987

Necora puber (Linnaeus, 1767)
Fig. 57

Material examined

MOROCCO − **Juby Cape (Tarfaya)** • 2 ♂♂ (79.8 × 60.3, 61.4 × 45.8); Jul. 1933; MNCN20.04/10195.

Remarks

Necora puber is mainly distributed in European waters. Although there are records of *N. puber* in Morocco, this new one confirms the presence of this species further south, on the border between Morocco and Western Sahara, as Capart published in 1951.

For identification and distribution, see algo Capart (1951) and Fransen (2014).

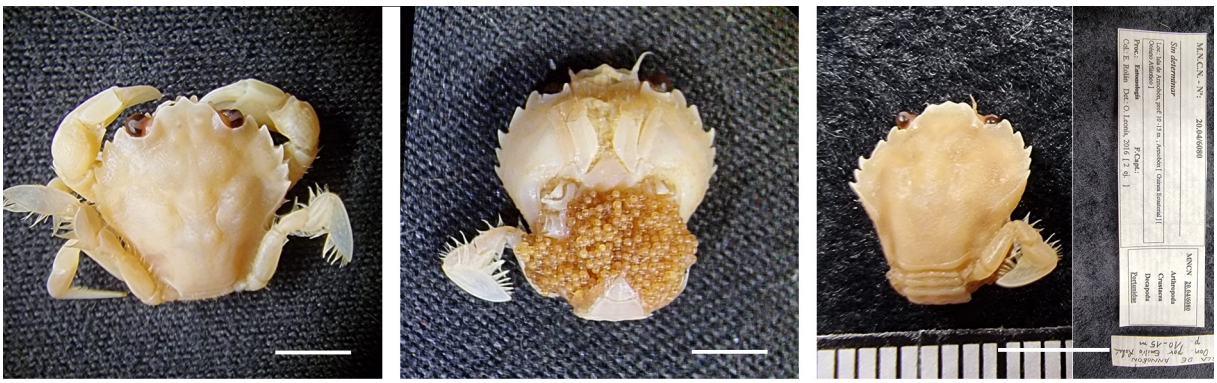

Fig. 56. *Xaiva mcleayi* (Barnard, 1947), MNCN20.04/06080. Scale bars = 0.5 cm.

Fig. 57. *Necora puber* (Linnaeus, 1767), MNCN20.04/10195. Scale bars = 1 cm.

Genus *Polybius* Leach, 1820

Polybius dioscurus García-Raso, d'Udekem d'Acoz, Moukrim, Schubart & Cuesta, 2024
Fig. 58

Material examined

MOROCCO − **Larache** • 2 ♂♂ (16.3 × 13.2, 11.8 × 10.1); 1955; MNCN20.04/20971.

WESTERN SAHARA − **La Agüera** • 3 ♂♂ (20.4 × 16.6, 25.5 × 20.8, 21.2 × 17.6), 1 ♀ (15.9 × 12); Sep. 1993; MNCN20.04/04478.

Remarks

Polybius dioscurus is a pseudocryptic species described in 2024. It is close to *P. vernalis* (Risso, 1827), *P. holsatus* (Fabricius, 1798*)* and *P. marmoreus* (Leach, 1814). This work confirms the presence of this species in Morocco as early as 1955, and in Western Sahara as 1993.

For identification, see also García-Raso *et al*. (2024).

Polybius henslowii Leach, 1820
Fig. 59

Material examined

MOROCCO − **Larache** • 1 ♀ (38.2 × 33.8); Oct. 1923; MNCN20.04/04371.

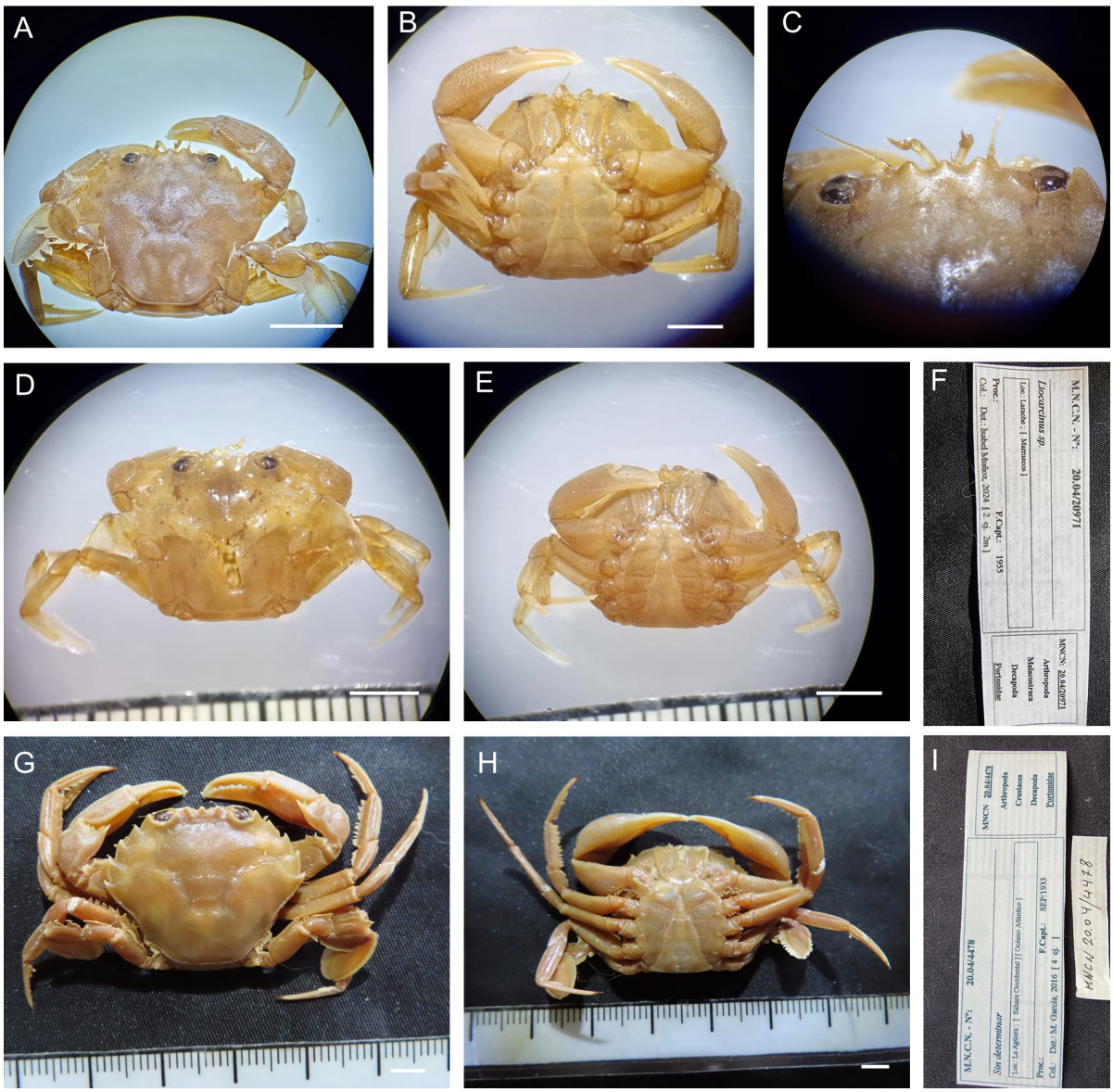

Fig. 58. *Polybius dioscurus* García-Raso, d'Udekem d'Acoz, Moukrim, Schubart & Cuesta, 2024. **A–F**. Specimens MNCN20.04/20971. **G–I**. Specimens MNCN20.04/04478. Scale bars = 0.5 cm.

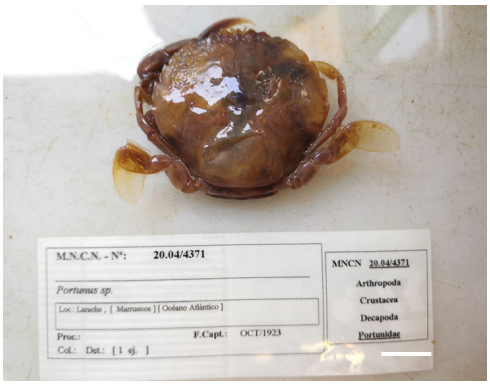

Fig. 59. *Polybius henslowi* Leach, 1820, MNCN20.04/04371. Scale bar = 1 cm.

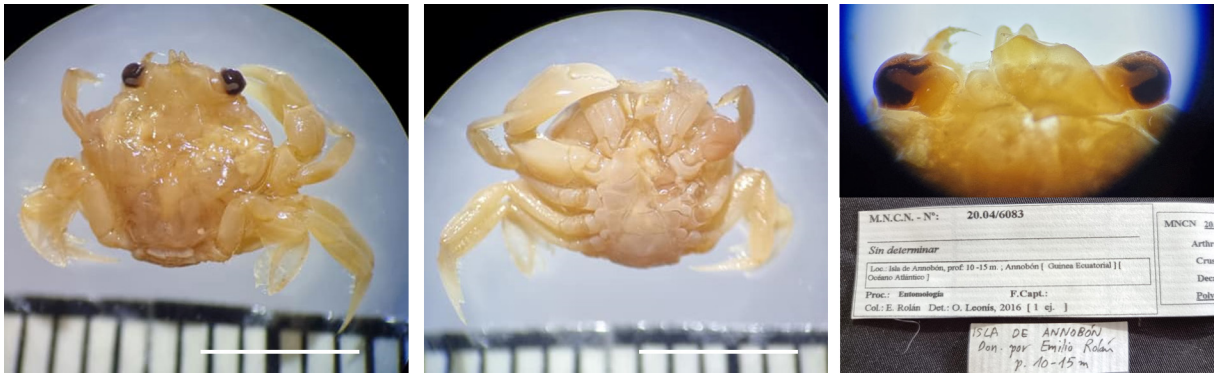

Fig. 60. *Polybius* cf. *pusillus* (Leach, 1816), MNCN20.04/06083. Scale bars = 0.5 cm.

Remarks

The specimen was previously identified as *Portunus* sp.

For identification, see Zariquiey Álvarez (1968) and also García-Raso *et al*. (2024).

Polybius cf. ***pusillus*** (Leach, 1816)
Fig. 60

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♀ (6.4 × 6.7, damaged specimen); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06083.

Remarks

The specimen is not in good condition, and, to be cautious, it is identified as *Polybius* cf. *pusillus*. If this identification can be confirmed in the future, this record would extend the distribution for *P. pusillus* southward, down to Equatorial Guinea.

For identification, see also Froglia & Manning (1982).

Family Portunidae Rafinesque, 1815
Subfamily Portuninae Rafinesque, 1815
Genus *Callinectes* Stimpson, 1860

Callinectes marginatus (A. Milne-Edwards, 1861)
Fig. 61

Material examined

EQUATORIAL GUINEA − **San Juan Cape** • 1 ♂ (80 × 38.9); 1901; M. Martínez de la Escalera leg.; MNCN20.04/03112.

GULF OF GUINEA • 4 ♂♂ (62.7 × 31.9, 67.2 × 30.3, 39.3 × 21.3, 58.7 × 28.7), 2 ♀♀ (64.4 × 30.6, 61.4 × 29.5); Jul. 1891; J. Valero leg.; MNCN20.04/03235.

Remarks

The specimens MNCN20.04/03235 were previously identified as *Portunus* sp. At some point during their preservation, they lost their preservative liquid, became dry, and developed visible fungal growth.

For identification, see also Williams (1974) and Manning & Holthuis (1981).

Fig. 61. *Callinectes marginatus* (A. Milne-Edwards, 1861). **A–B**. Specimen MNCN20.04/03112. **C–I**. Specimens MNCN20.04/03235. Scale bars = 1 cm.

Callinectes pallidus (de Rochebrune, 1883)
Fig. 62

Material examined

SÃO TOMÉ AND PRÍNCIPE − **Sao Tomé Island** • 1 ♂ (76.3 × 35.6), 1 ♀ (94 × 42.5); 1959; Santiago Vicente Peris and Julio Álvarez legs.; MNCN20.04/03200.

Remarks

The specimens were previously identified as *C. marginatus*. This work provides the first record of this species in waters of São Tomé and Príncipe.

For identification, see also Williams (1974) and Manning & Holthuis (1981).

Genus *Portunus* Weber, 1795

Portunus pelagicus (Linnaeus, 1758)
Fig. 63

Material examined

ERITREA − **Mitsiwa** • 1 ♀ (120 × 57.7); Raffray? Deyrolle leg.; MNCN20.04/03208.

Remarks

First record for Eritrean waters, although there is a record very close in the northern waters of Djibouti (DecaNet 2025). The rostral area and shape of the ventral lobe of the propodus of P5 may differentiate this species from *P. segnis* (Forskål, 1775) (see Lai *et al*. 2010).

For identification, see also Lai *et al*. (2010) and Naderloo (2017).

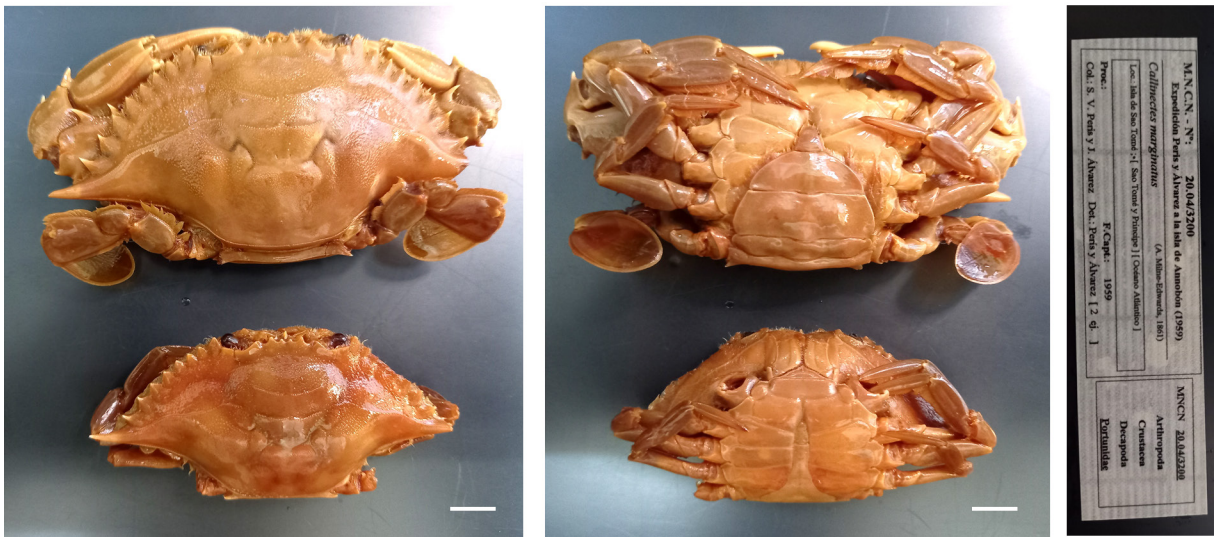

Fig. 62. *Callinectes pallidus* (de Rochebrune, 1883), MNCN20.04/03200. Scale bars = 1 cm.

Portunus sanguinolentus (Herbst, 1783)
Fig. 64

Material examined

MAURITIUS • 1 ♀ (139.4 × 61.2); May 1885; Pere Antiga leg.; MNCN20.04/03219.

Remarks

The internal cavity of the specimen is filled with alcohol, indicating that at some point since its collection in 1885, it has been exposed to dry conditions in the old collections of the MNCN. Obviously, the three red spots on the carapace, which make this species unmistakable, have not been preserved after so many years. It also retains several of the old labels tied with strings.

For identification, see also Crosnier (1962) and Naderloo (2017).

Fig. 63. *Portunus pelagicus* (Linnaeus, 1758), MNCN20.04/03208. White arrows point to: a = rostral median teeth; b = ventro-distal lobule of propodus. Scale bars = 1 cm.

Fig. 64. *Portunus sanguinolentus* (Herbst, 1783), MNCN20.04/03219. Scale bars = 1 cm.

Subfamily Thalamitinae Paulson, 1875
Genus *Thalamita* Latreille, 1829

Thalamita admete (Herbst, 1803)
Fig. 65

Material examined

MAURITIUS • 5 ♂♂ (32.3 × 22.6, 25.6 × 14.9, 23.6 × 14.8, 23.8 × 13.5, 13.1 × 8.8); 1850; Guérin-Méneville leg.; MNCN20.04/03067 • 1 unsexed (dry specimen); appears in the 1910 catalogue, so its collection date is earlier; MNCN20.04/00273.

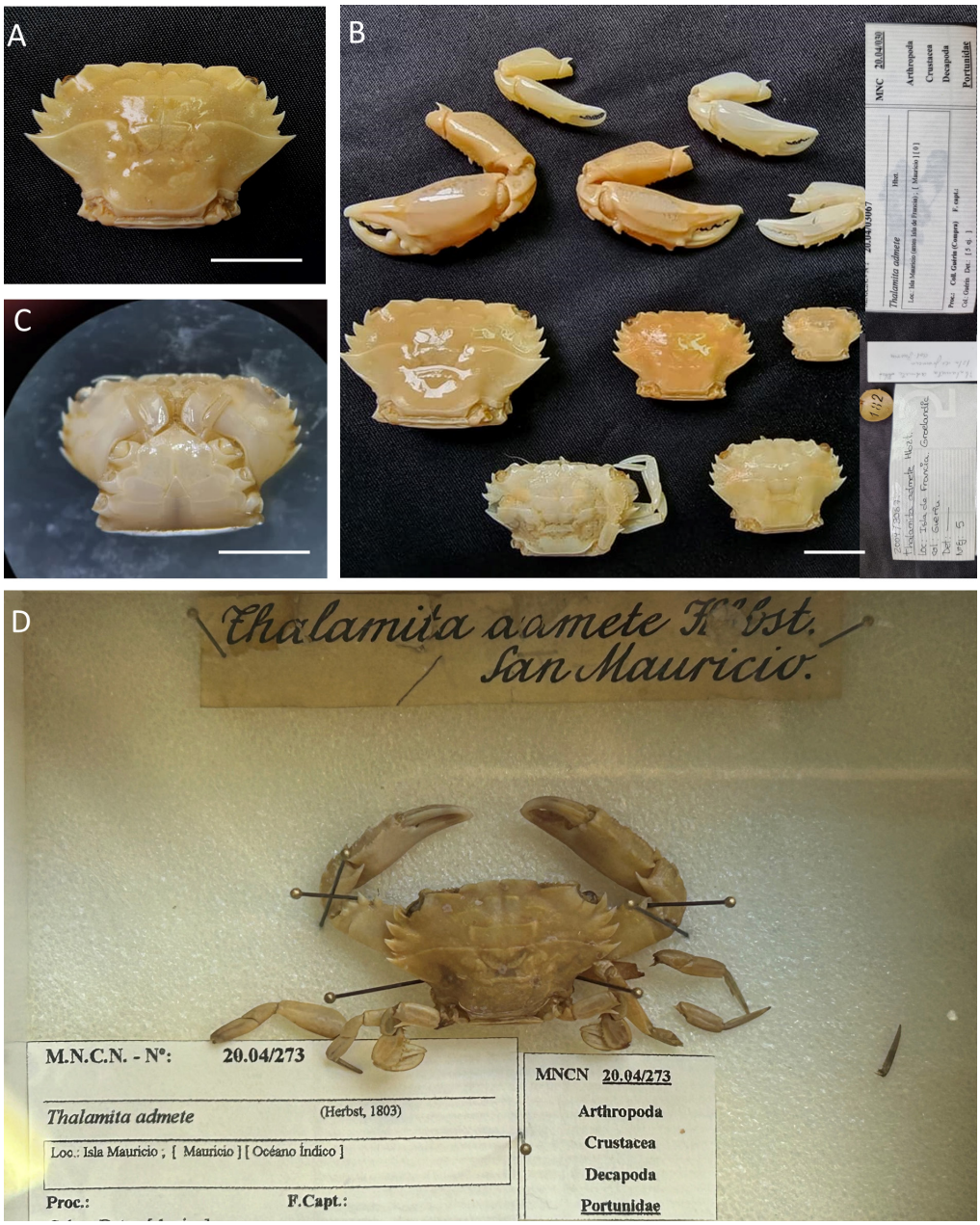

Fig. 65. *Thalamita admete* (Herbst, 1803). **A**–**C**. Specimens of MNCN20.04/03067. **D**. Dry specimen MNCN20.04/00273. Scale bars = 1 cm.

Remarks

The specimen MNCN20.04/00273 could not be measured or sexed due to its position.

For identification, see also Edmondson (1954), Crosnier (1962), Wee & Ng (1995), Vannini & Innocenti (2000) and Kloch & Bliznáková (2023).

Thalamita coeruleipes Hombron & Jacquinot, 1846
Fig. 66

Material examined

MAURITIUS • 1 ♂ (52.1 × 40.9); 1850; Guérin-Méneville leg.; MNCN20.04/03066 • 1 unsexed (dry specimen); appears in the 1910 catalogue, so its collection date is earlier; MNCN20.04/00274.

For identification, see also Edmondson (1954), Crosnier (1962) and Wee & Ng (1995).

Fig. 66. *Thalamita coeruleipes* Hombron & Jacquinot, 1846. **A**–**C**. Specimen MNCN20.04/03066. **D**. Dry specimen MNCN20.04/00274. White arrow points to the antennal basal article spines. Scale bars = 1 cm.

Thalamita crenata Rüppell, 1830
Fig. 67

Material examined

MAURITIUS • 2 ♀♀ (48.8 × 34.2, 52 × 34.7), 3 ♂♂ (62.1 × 41, 24.6 × 17.2, 18.4 × 12.4); 1850; Guérin-Méneville leg.; MNCN20.04/03052.

For identification, see also Edmondson (1954), Crosnier (1962), Wee & Ng (1995), Apel & Spiridonov (1998) and Vannini & Innocenti (2000).

Fig. 67. Specimens of *Thalamita crenata* Rüppell, 1830, MNCN20.04/03052. Scale bars = 1 cm.

Thalamita integra Dana, 1852
Fig. 68

Material examined

MAURITIUS • 2 ♂♂ (22.8 × 14, 21.1 × 13.4), 2 ♀♀ (18.9 × 13.1, 24.8 × 16.6); 1850; Guérin-Méneville leg.; MNCN20.04/03113.

For identification, see also Edmondson (1954), Crosnier (1962), Wee & Ng (1995), Vannini & Innocenti (2000) and Kloch & Bliznáková (2023).

Superfamily Xanthoidea MacLeay, 1838
Family Nanocassiopidae Števčić, 2013
Genus *Nanocassiope* Guinot, 1967

Nanocassiope melanodactylus (A. Milne-Edwards, 1867)
Fig. 69

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 3 ♂♂ (6.2 × 5.1, 5.2 × 3.9, 5 × 3.7), 1 ♀ (5.4 × 4.3); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06077a.

Remarks

The specimens were labelled as “Sin determinar” (undetermined), and assigned to Xanthidae.

For identification, see also Monod (1956).

Fig. 68. Specimens of *Thalamita integra* Dana, 1852, MNCN20.04/03113. Scale bars = 1 cm.

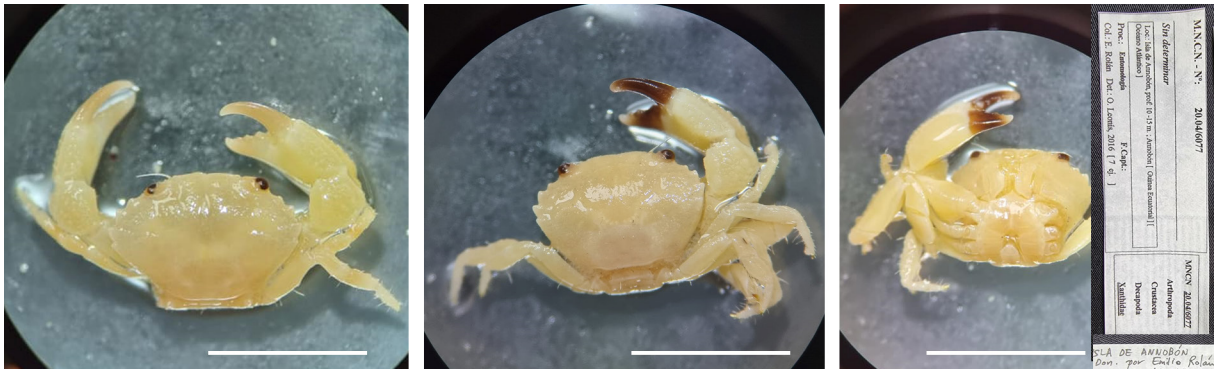

Fig. 69. Specimens of *Nanocassiope melanodactylus* (A. Milne-Edwards, 1867), MNCN20.04/06077a. Scale bars = 0.5 cm.

Family Panopeidae Ortmann, 1893
Genus *Eurypanopeus* A. Milne-Edwards, 1880

Eurypanopeus blanchardi (A. Milne-Edwards, 1880)
Fig. 70

Material examined

EQUATORIAL GUINEA − **Bioko Island** • 1 ♂ (12.6 × 8.4); MNCN20.04/20961 (before MNCN20.04/3388). − **San Juan Cape** • 1 ♂ (12.5 × 9); 17 Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/041918.

GHANA • 1 ♀ ov. (6.5 × 4.9), 1 ♂ (6.4 × 5); 1993; MNCN20.04/41933 • 1 ♀ (6.5 × 4.4); 1993; MNCN20.04/41921.

Remarks

The specimen MNCN20.04/20961 was previously identified as *Chlorodius* sp. and was mixed with other species, the male MNCN20.04/041918 was mixed with other species and identified as *Xantho poressa*, and the female MNCN20.04/41921 and specimens MNCN20.04/41933 were also mixed with other species without identification.

For identificaction, see also Monod (1956) (as *Panopeus parvulus*).

Genus *Panopeus* H. Milne Edwards, 1834

Panopeus africanus A. Milne-Edwards, 1867
Fig. 71

Material examined

EQUATORIAL GUINEA − **San Juan Cape** • 3 ♀♀ (37.9 × 25.7, 23 × 17, 16.3 × 11.7), 1 ♂ (20.8 × 14.6); 1901; M. Martínez de la Escalera leg.; MNCN20.04/03341 • 1 ♂ (24.2 × 17.3); 17 Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/04407 • 1 ♀ (17.5 × 12); 17 Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/41919.

Remarks

Specimen MNCN20.04/04407 was included in the Portunidae family but without identification, and the female MNCN20.04/041919 was identified as *Xantho poressa*.

Fig. 70. *Eurypanopeus blanchardi* (A. Milne-Edwards, 1880). **A–B**. Specimen MNCN20.04/20961. **C–G**. Specimens MNCN20.04/41933. **H–J**. Specimen MNCN20.04/41921. Scale bars = 0.5 cm.

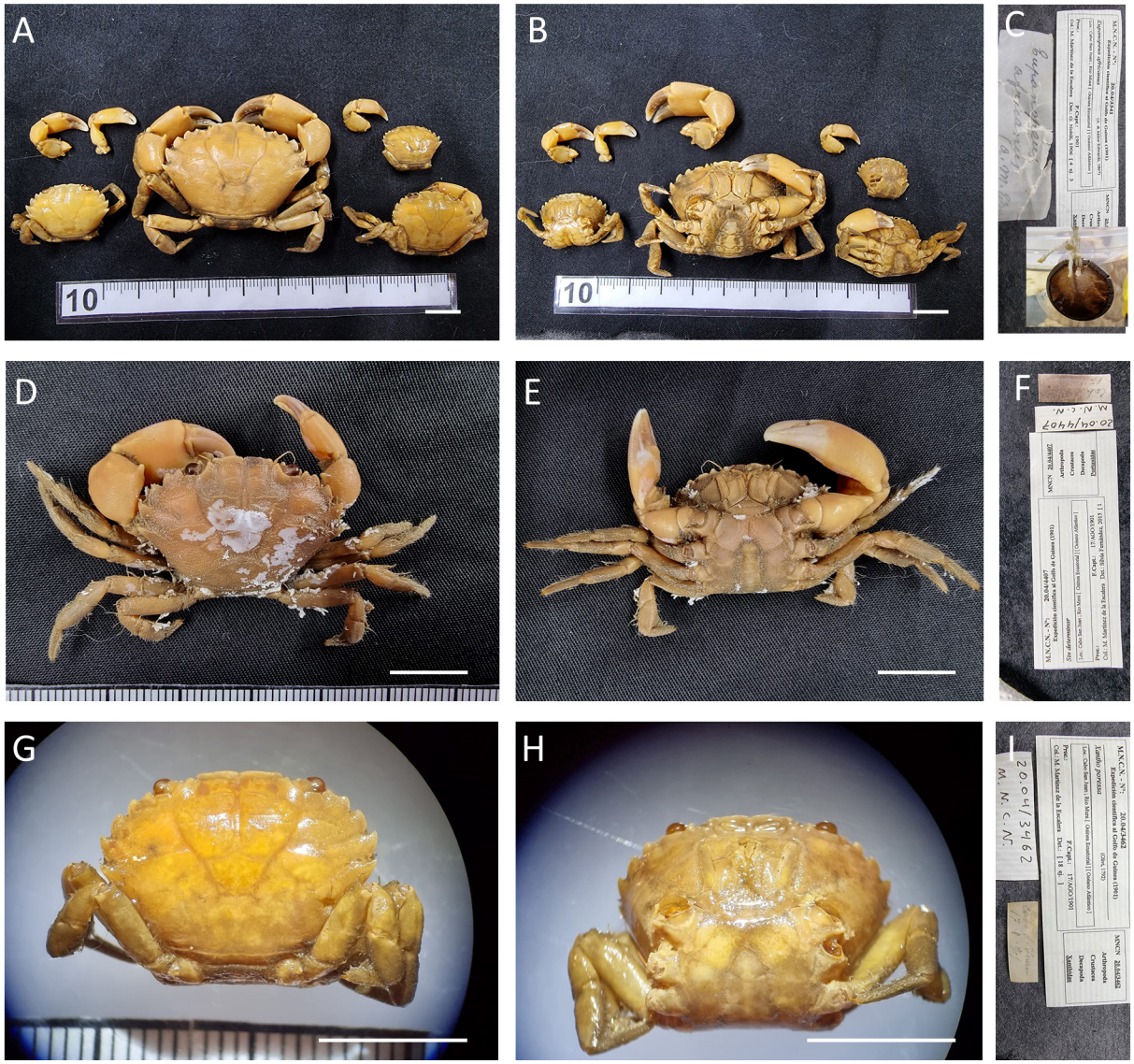

Fig. 71. *Panopeus africanus* A. Milne-Edwards, 1867. **A–C**. Specimens MNCN20.04/03341. **D–F**. Specimen MNCN20.04/04407. **G–I**. Specimen MNCN20.04/41919. Scale bars = 1 cm.

Family Xanthidae MacLeay, 1838
Subfamily Actaeinae Alcock, 1898
Genus *Actaeodes* Dana, 1851

Actaeodes hirsutissimus (Rüppell, 1830)
Fig. 72

Material examined

MAURITIUS • 1 unsexed (dry specimen); MNCN20.04/00085.

Remarks

Measurement and sex of the specimen could not be determined due to its arrangement.

For identification, see also Serène (1984).

Actaeodes tomentosus (H. Milne Edwards, 1834)
Fig. 73

Material examined

MAURITIUS • 1 unsexed (dry specimen); 1850?; MNCN20.04/00086 • 1 unsexed (dry specimen); "Sala del Mar" exhibition; MNCN20.04/00087.

Remarks

Measurement and sex of the specimens could not be determined due to their positions.

For identification, see also Serène (1984) and Corsini-Foka & Kondylatos (2015).

Fig. 72. *Actaeodes hirsutissimus* (Rüppell, 1830), MNCN20.04/00085. Scale bar = 1 cm.

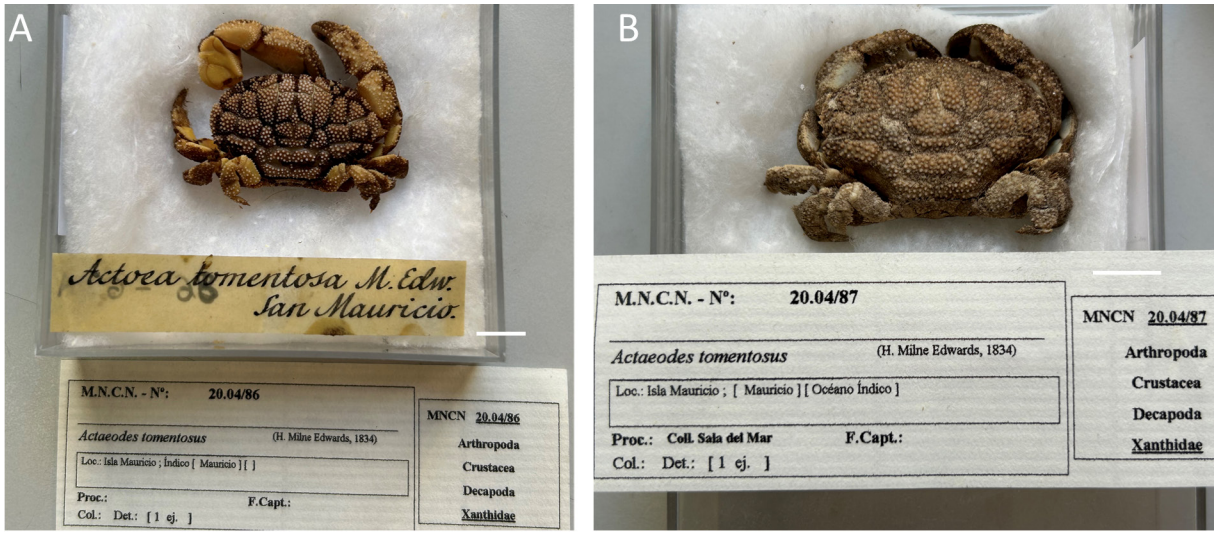

Fig. 73. *Actaeodes tomentosus* (H. Milne Edwards, 1834). **A**. Dry specimen MNCN20.04/00086. **B**. Dry specimen MNCN20.04/00087. Scale bars = 0.5 cm.

Genus *Gaillardiellus* Guinot, 1976

Gaillardiellus rueppelli (Krauss, 1843)
Fig. 74

Material examined

TANZANIA − 1 ♀ (24.5 × 17.3); coast of Tanzania along Pemba Island; 30 Jan. 1971; MNCN20.04/04482.

Remarks

The specimen was mixed with *Pilumnus vespertilio* MNCN20.04/20936 as "No identificado" (unidentified) and assigned to Xanthidae.

For identification, see also Serène (1984).

Subfamily Cymoinae Alcock, 1898
Genus *Cymo* De Haan, 1833

Cymo andreossyi (Audouin, 1826)
Fig. 75A

Material examined

MAURITIUS • 1 unsexed (dry specimen); 1850?; MNCN20.04/00111b.

Remarks

The specimen is preserved inside a box, together with another species of *Cymo*, *C. quadrilobulata* Miers, 1884, both previously identified as *Cymo melanodactylus* Dana, 1852.

For identification, see also Serène (1984).

Cymo quadrilobatus Miers, 1884
Fig. 75B

Material examined

MAURITIUS • 1 unsexed (dry specimen); 1850?; MNCN20.04/00111.

Fig. 74. Female *Gaillardiellus rueppelli* (Krauss, 1843), MNCN20.04/04482. Scale bars = 0.5 cm.

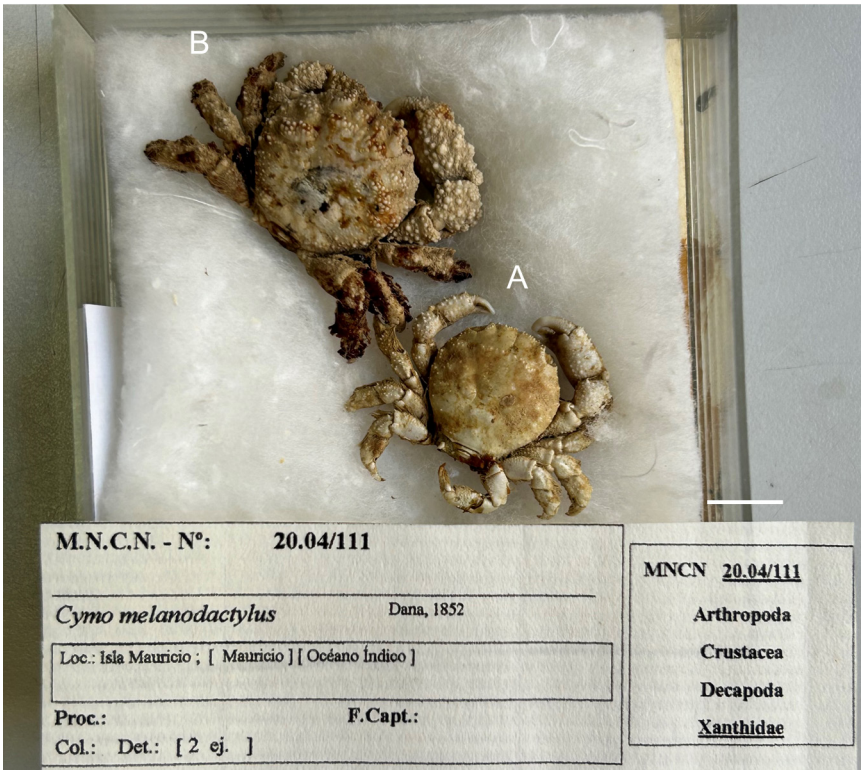

Fig. 75. A. *Cymo andreossyi* (Audouin, 1826), dry specimen MNCN20.04/00111b. **B**. *Cymo quadrilobulatus* Miers, 1884, dry specimen MNCN20.04/00111. Scale bar = 1 cm.

Remarks

The specimen is preserved inside a box, together another species of *Cymo*, *C. andreossyi* (Audouin, 1826), both previously identified as *C. melanodactylus* Dana, 1852.

For identification, see also Serène (1984).

Subfamily Euxanthinae Alcock, 1898
Genus *Hypocolpus* Rathbun, 1897

Hypocolpus diverticulatus (Strahl, 1861)
Fig. 76

Material examined

MAURITIUS • 1 unsexed (41.1 × 30.4. dry specimen); appears in the 1910 catalogue, so its collection date is earlier; MNCN20.04/00163.

Remarks

Sex of the specimens could not be determined. The cheliped that accompanies this specimen obviously does not belong to it, being a typical Ocypodidae male chela.

For identification, see also Serène (1984).

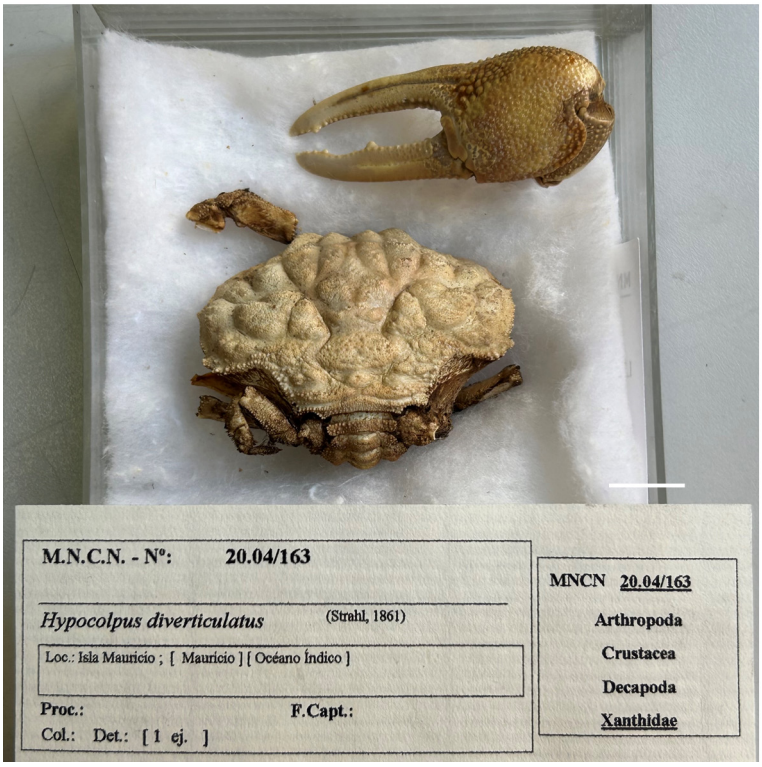

Fig. 76. *Hypocolpus diverticulatus* (Strahl, 1861) and an unidentified Ocypodidae Rafinesque, 1815 male chela, MNCN20.04/00163. Scale bar = 1 cm.

Subfamily Liomerinae Sakai, 1976
Genus *Liomera* Dana, 1851

Liomera cinctimanus (White, 1847)
Fig. 77

Material examined

MAURITIUS • 1 ♀ (38.7 × 21.5, dry specimen); 1850?; MNCN20.04/00175 • 1 ♀ (44.2 × 25.1, dry specimen); 1850?; "Sala del Mar" exhibition; MNCN20.04/00176 • 2 unsexed (23.9 × 12.7, 16.2 × 8.4); 1885; Pere Antiga leg.; MNCN20.04/03471.

Remarks

The specimens MNCN20.04/00175 and MNCN20.04/00176 are dry preserved, inside a glass and wooden box, and were exhibit in the "Sala del Mar" exhibition. The specimen MNCN20.04/03471 was previously only identified as *Liomera*.

For identification, see also Serène (1984) and Galil & Vannini (1990).

Fig. 77. *Liomera cinctimanus* (White, 1847). **A**–**B**. Dry specimen MNCN20.04/00175 inside a glass and wooden box; **C**. Dry specimen MNCN20.04/00176 inside a glass and wooden box. **D**–**F**. Specimens MNCN20.04/03471. Scale bars = 1 cm.

Subfamily **Xanthinae** MacLeay, 1838

Although Mendoza *et al*. (2022) transferred some genera to the subfamily Etisinae Ortmann, 1893 (*Leptodius* A. Milne-Edwards, 1863, *Neoxanthias* Ward, 1932, *Xanthias* Rathbun, 1897, *Xanthodius* Stimpson, 1859 and *Williamstimpsonia* Števčić, 2011), the classification followed here is that of Poore & Ahyong (2023), which is also used in DecaNet (2025).

Genus *Cataleptodius* Guinot, 1968

Cataleptodius aff. ***floridanus*** (Gibbes, 1850)
Fig. 78

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♂ (10.5 × 6.8); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/41941.

Remarks

The specimens were labelled as "Sin determinar" (undetermined), assigned to Xanthidae and was mixed with specimens of *Nanocassiope melanodactylus.*

Cataleptodius floridanus is an amphiatlantic species, mainly distributed in the West Atlantic. Guinot (1968) referred to the African specimens as *C*. aff. *floridanus*, as she considered there were some differences with the American specimens, with the aim of clarifying in the future.

For identification, see also Monod (1956), Guinot (1968) and Manning & Holthuis (1981).

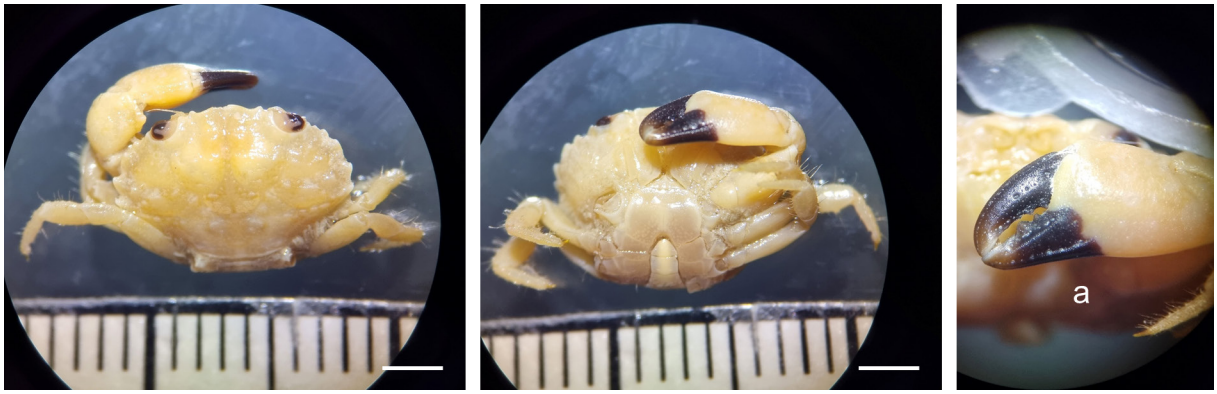

Fig. 78. *Cataleptodius* aff. *floridanus* (Gibbes, 1850), specimen MNCN20.04/41941. a: detail of the fingers. Scale bars = 0.5 cm.

Genus *Leptodius* A. Milne-Edwards, 1863

Leptodius exaratus (H. Milne Edwards, 1834)
Fig. 79

Material examined

ERITREA − **Mitsiwa** • 1 ♂ (22.8 × 15.3), 1 ♀ (20.7 × 12.9); Raffray? Deyrolle leg.; appears in the 1911 catalogue, so its collection date is earlier; MNCN20.04/03487.

Remarks

The specimens were previously only identified as *Xantho* sp.

For identification, see also Serène (1984), Lee *et al*. (2013), Naderloo (2017) and Amer *et al*. (2023).

Leptodius sanguineus (H. Milne Edwards, 1834)
Fig. 80

Material examined

MAURITIUS • 2 ♂♂ (25.9 × 17.2, 10.9 × 7.7); 1850; Guérin-Méneville leg.; MNCN20.04/03332.

Remarks

All specimens were identified as *Xantho lividus*, currently *Juxtaxanthias lividus* (Latreille, 1812).

For identification, see also Serène (1984).

Genus *Neoxanthias* Ward, 1932

Neoxanthias impressus (Latreille, 1812)
Fig. 81

Material examined

MAURITIUS • 1 ♀ (48.5 × 28.7); 1850; Guérin-Méneville leg.; MNCN20.04/03446.

For identification, see also Barnard (1950) and Serène (1984).

Fig. 79. A–E. *Leptodius exaratus* (H. Milne Edwards, 1834), specimens MNCN20.04/03487. **F**. Handwritten entry of the specimens in the ACN0248/005. Scale bars = 1 cm.

Fig. 80. *Leptodius sanguineus* (H. Milne Edwards, 1834), MNCN20.04/03332. Scale bars = 1 cm.

Genus *Xanthias* Rathbun, 1897

Xanthias punctatus (H. Milne Edwards, 1834)
Fig. 82

Material examined

MAURITIUS • 1 unsexed (dry specimen); appears in the 1910 catalogue, so its collection date is earlier; MNCN20.04/288.

Remarks

Measurement and sexed of the specimen were not possible due to its position.

For identification, see also Serène (1984) and Naderloo (2017).

Fig. 81. *Neoxanthias impressus* (Latreille, 1812), MNCN20.04/03446. Scale bars = 1 cm.

Fig. 82. *Xanthyas punctatus* (H. Milne Edwards, 1834), dry specimen MNCN20.04/288. Scale bar = 1 cm.

Genus *Xantho* Leach, 1814

Xantho hydrophilus (Herbst, 1790)
Figs 83−84

Material examined

MOROCCO − **Juby Cape (Tarfaya)** • 5 ♂♂ (29.3 × 19.3, 29.9 × 19.5, 24.8 × 16.4, 29.5 × 19.2, 21.2 × 14.5); Jul. 1933; MNCN20.04/01215.

SPAIN − **Canary Islands, Gran Canaria** • 1 ♂ (31.5 × 20), 1 ♀ (20.9 × 14.3); Las Palmas de Gran Canaria, San Cristóbal beach; MNCN20.04/20940. − **Canary Islands**, **Tenerife** • 1 ♂ (20.9 × 14.3); El Médano; Aug. 1961; A. Bello leg.; MNCN20.04/03991 • 4 ♂♂; Anatael Cabrera leg.; appears in the 1910 catalogue, so its collection date is earlier; MNCN20.04/3448.

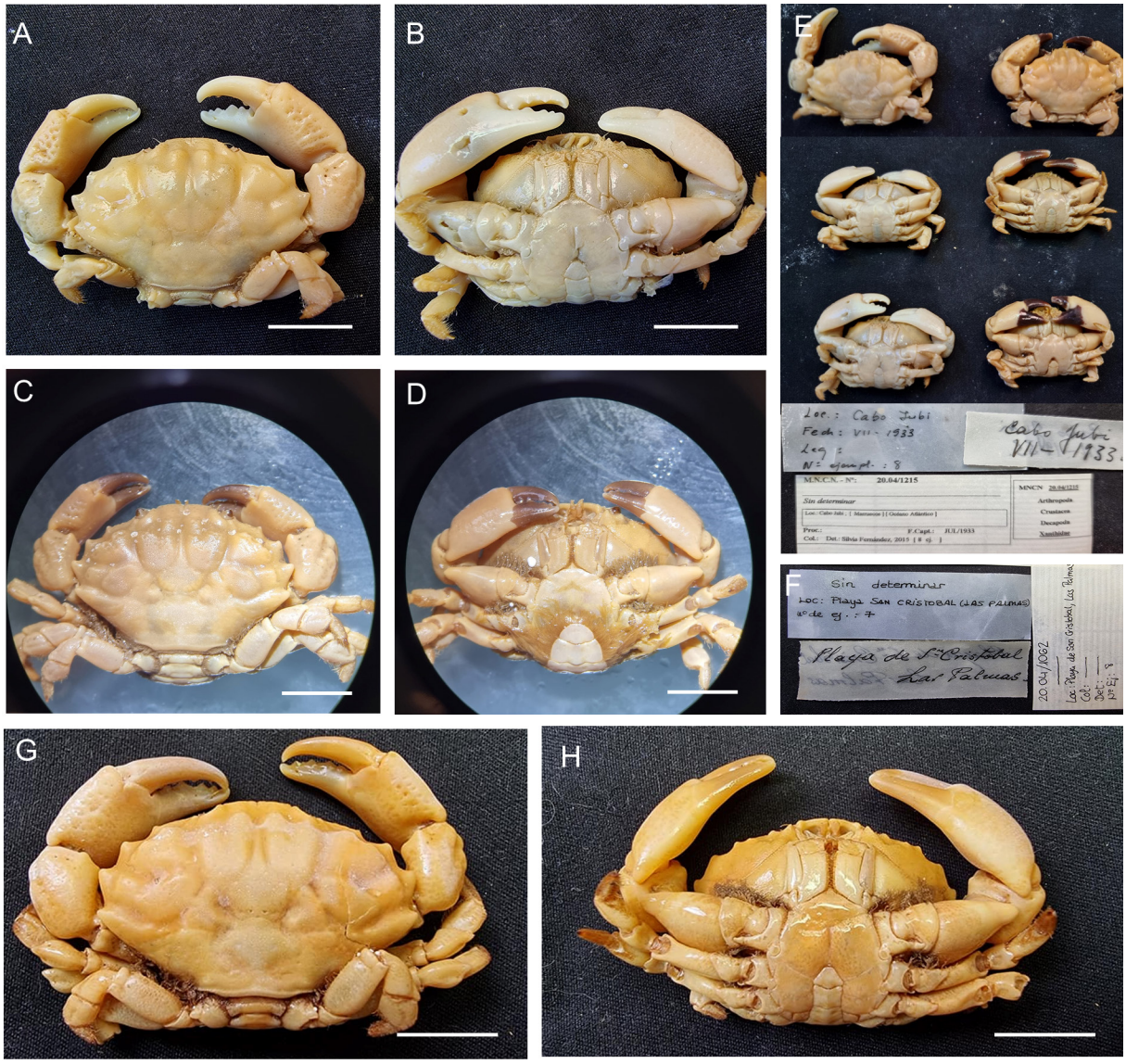

Fig. 83. *Xantho hydrophilus* (Herbst, 1790). **A−E**. Specimens MNCN20.04/01215. **F−H**. Specimens MNCN20.04/20940. Scale bars = 1 cm.

Remarks

This species is very similar to *Xanthodius inaequalis inaequalis* (Olivier, 1791) (Figs 87–88). The difference is in the larger cheliped fingertips, which in *Xantho* are pointed, partially crossing when closed (Fig. 84G–I), and in *Xanthodius* are rounded and hollowed on the occlusal surface, meeting when closed (Fig. 87) (Poore & Ahyong 2023).

Fig. 84. *Xantho hydrophilus* (Herbst, 1790). **A–C**. MNCN20.04/03991. **D–F**. MNCN20.04/3448. **G–I**. Cheliped fingertips. Scale bars = 1 cm.

Specimens were labelled as "Sin determinar" (undetermined), and assigned to Xanthidae.

For identification, see also Zariquiey Álvarez (1968) and Poore & Ahyong (2023).

Xantho poressa (Olivi, 1792)
Fig. 85

Material examined

SPAIN − **Canary Islands, Gran Canaria** • 2 ♂♂ (25.6 × 15.6, 29.3 × 18.2); Las Palmas de Gran Canaria; Anatael Cabrera leg.; MNCN20.04/03549 • 1 ♂ (29.7 × 18.4); Las Palmas de Gran Canaria, San Cristóbal beach; MNCN20.04/41932.

Remarks

Specimens MNCN20.04/03549 were labelled as "Sin determinar" (undetermined), and assigned to Xanthidae, the male MNCN20.04/41932 was mixed with *X. hydrophilus* as Grapsidae.

For identification, see also Drach & Forest (1953) and Zariquiey Álvarez (1968).

Xantho sexdentatus (Miers, 1881)
Fig. 86

Material examined

MOROCCO − **Juby Cape (Tarfaya)** • ♂ (28.2 × 18.7), ♂ (28.1 × 19.7); Jul. 1933; MNCN20.04/41939.

Remarks

These two specimens were mixed with *X. hydrophilus* MNCN20.04/01215, a species closely related to it. *Xantho sexdentatus* has not been cited again since Monod (1933), probably due to misidentification with *X. hydrophilus*.

For identification, see also Miers (1881) and Monod (1933, 1956).

Genus *Xanthodius* Stimpson, 1859

Xanthodius inaequalis inaequalis (Olivier, 1791)
Figs 87−88

Material examined

EQUATORIAL GUINEA − **Bioko Island** • 4 unsexed (18.7 × 11.8, 15.8 × 10, 14.6 × 9.7, 10.1 × 6.3), 2 ♂♂ (14.1 × 8.5, 14.6 × 8.6); appear in the 1910 catalogue, so its collection date is earlier; MNCN20.04/03388. – **San Juan Cape** • 9 ♂♂ (min. 11.8 × 7.4, max. 15.7 × 11.9), 5 ♀♀ (min. 9.9 × 6.6, max. 14 × 10.6); depth 10−15 m; Aug. 1901; M. Martínez de la Escalera leg.; MNCN20.04/03462.

GHANA • 3 ♂♂ (17.8 × 11.7, 7.6 × 5.5, 6.8 × 4.8); Mar. 1993; MNCN20.04/20977.

Remarks

The specimens MNCN20.04/03462 were identified as *Xantho poressa*, and were mixed with other species, those of MNCN20.04/03388 as *Chlorodius* sp. (fam. Xanthidae), and the MNCN20.04/20977 as Xanthidae. In the Fig. 86, the peculiar large cheliped fingertips can be seen, spoon-shaped, yet perfectly fitting together, the upper with the lower, very different from those of *Xantho hydrophilus*.

For identification, see also Monod (1956), Guinot (1967a) and Poore & Ahyong (2023).

Fig. 85. *Xantho poressa* (Olivi, 1792). **A–E**. Specimens MNCN20.04/03549. **F–H**. Specimen MNCN20.04/41932. Scale bars = 1 cm.

Fig. 86. *Xantho sexdentatus* (Miers, 1881), MNCN20.04/41939. Scale bars = 0.5 cm.

Fig. 87. *Xanthoides inaequalis inaequalis* (Olivier, 1791), specimens MNCN20.04/3462b. Scale bars = 0.5 cm.

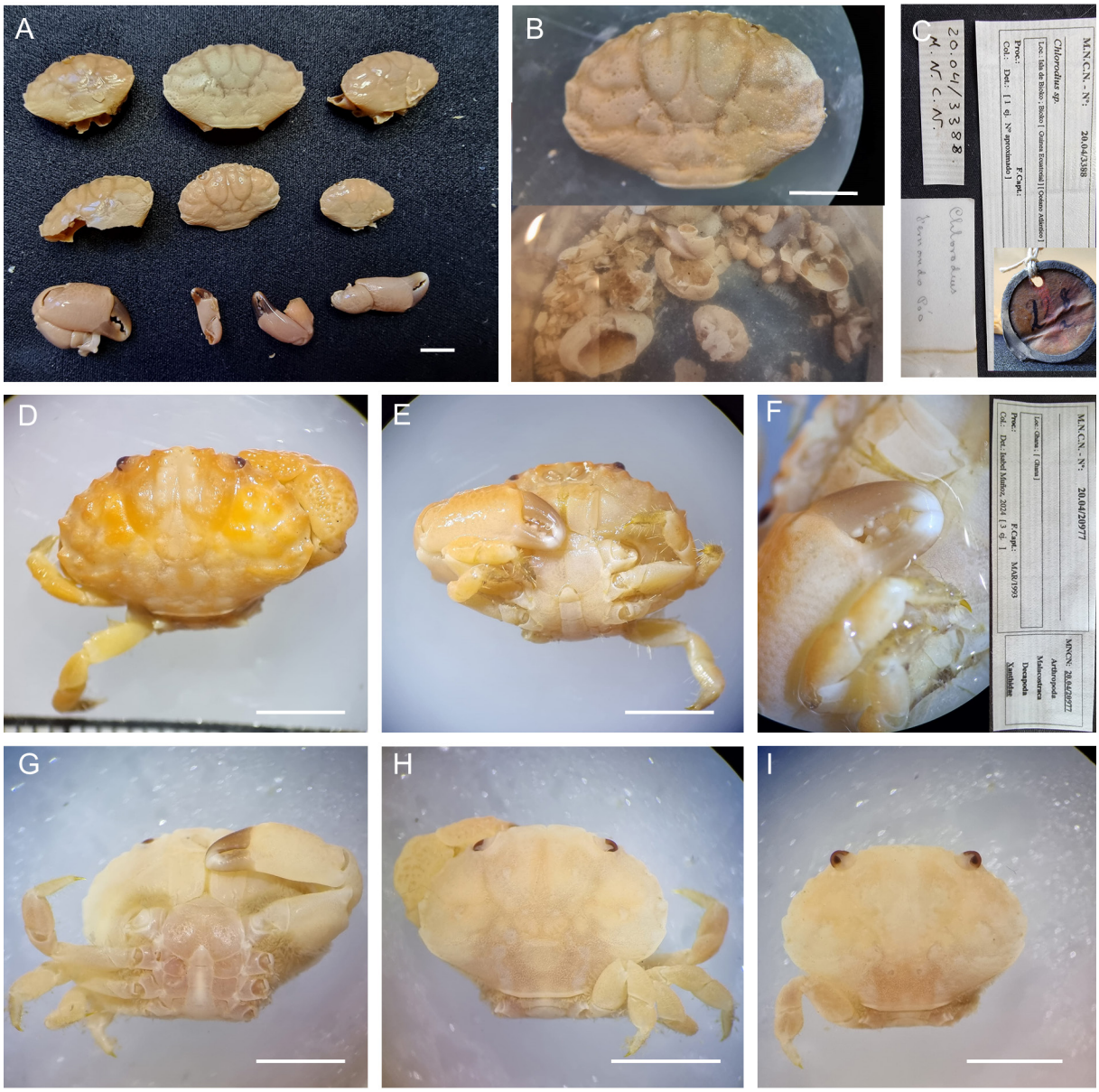

Fig. 88. *Xanthodius inaequalis inaequalis* (Olivier, 1791). **A–C**. Damaged specimens MNCN20.04/03388; **D–I**. Specimens MNCN20.04/20977. Scale bars = 0.5 cm.

Genus *Williamstimpsonia* Števčić, 2011

Williamstimpsonia denticulata (White, 1848)
Fig. 89

Material examined

EQUATORIAL GUINEA − **Annobon Island** • 1 ♂ (8.2 × 5.3); depth 10−15 m; Emilio Rolán leg.; MNCN20.04/06087 • 1 ♀ (10.9 × 6.8); Emilio Rolán leg.; MNCN20.04/06089 • 1 ♂ (10.8 × 7.7); Emilio Rolán leg.; MNCN20.04/20975.

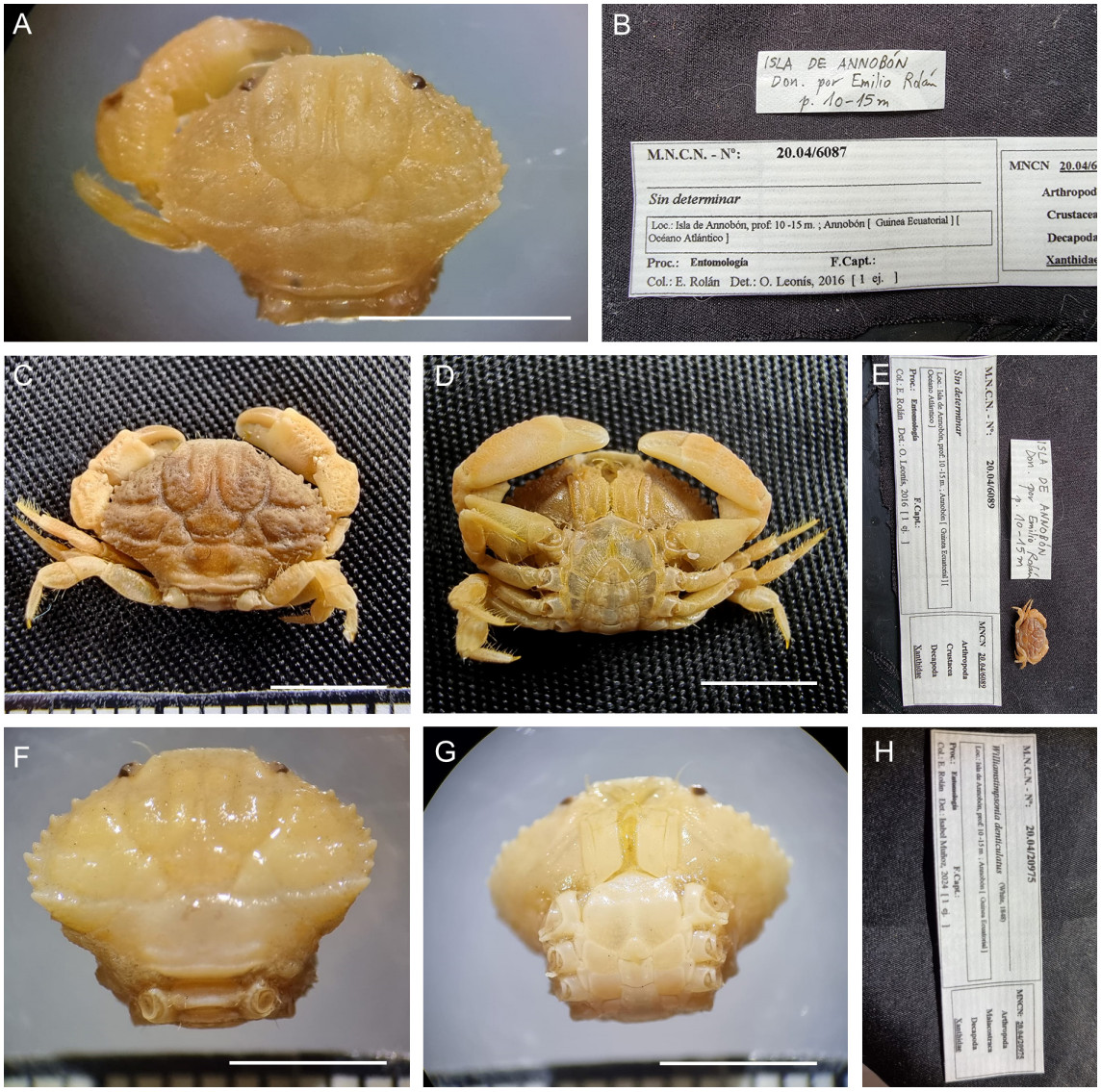

Fig 89. *Williamstimpsonia denticulata* (White, 1848). **A–B**. Specimen MNCN20.04/06087. **C–E**. Specimen MNCN20.04/06089. **F–H**. Specimen MNCN20.04/20975. Scale bars = 0.5 cm.

Remarks

None of the three specimens was identified at the genus or species level; they were assigned only to Xanthidae.

For identification, see also Monod (1956) and Števčić (2011).

Subfamily Zosiminae Alcock, 1898
Genus *Atergatis* De Haan, 1833

Atergatis cf. ***obtusus*** A. Milne-Edwards, 1865
Fig. 90

Material examined

MAURITIUS • 1 ♀ (35.6 × 23.0); 1885; Pere Antiga leg.; MNCN20.04/04377.

Remarks

The specimen was previously identified as *Actaea laevigatus*, a species name combination that has not been found in literature and is possibly due to a misspelling.

The key provided by Serène (1984) leads to *Atergatis laevigatus* A. Milne-Edwards, 1865 (cw/cl = 1.6−1.7) and *A. obtusus* (cw/cl = 1.5), since our specimen ratio is at 1.54. According to Serène, it would not be any of these two species. However, Takeda & Marumura (1997) published that the carapace proportions of the genus *Atergatis* varied with the size of the specimens; subsequently, Maenosono (2022) identified a specimen as *A. obtusus* with a ratio of 1.54. Takeda & Marumura (1997) also observed that *A. laevigatus* has a prominently projecting anterolateral margin (shoulder), whereas *A. obtusus* does not, as Takeda & Marumura (1997) named it "sloping shoulder". Our specimen agrees with the sloping shoulder shape. Subsequent to Serène (1984), the species *Atergatis interruptus* Takeda & Marumura, 1997 was described, which in its description take its place between *A. laevigatus* and *A. obtusus* based on the proportions. However, the posteriolateral edge is interrupted, which does not occur in our specimen.

This species has few records, and was previously recorded in Thailand, Vietnam, Philippines and Japan (A. Milne-Edwards 1865; Lai *et al*. 2011; Maenosono 2022). If the identification is confirmed in the future, this work would provide the first record of *A. obtusus* in waters of Mauritius, and extend the distribution range for this species. This new citation, far from its known distribution area, would not be exceptional, as many other species in the Indian Ocean have very broad distributions. However, due to all the previously mentioned points, it is possible that there are very closely related "twin" species that have not yet been described, and a molecular approach could solve heir taxonomic status.

For identification, see also A. Milne-Edwards (1865), Serène, (1984), Takeda & Marumura (1997) and Maenosono (2022).

Fig. 90. *Atergatis* cf. *obtusus* A. Milne-Edwards, 1865, MNCN20.04/04377. Scale bars = 1 cm.

Genus *Atergatopsis* A. Milne-Edwards, 1862

Atergatopsis signata (Adams & White, 1849)
Fig. 91

Material examined

MAURITIUS • 1 unsexed (111.2 × 73.7); 1850?; from "Sala del Mar" exhibition; MNCN20.04/00054.

Remarks

Sex of the specimen could not be determined.

For identification, see also Serène (1984).

Genus *Platypodia* Bell, 1835

Platypodia granulosa (Rüppell, 1830)
Fig. 92

Material examined

MAURITIUS • 1 ♂ (37 × 25.9, dry specimen); "Sala del Mar" exhibition; 1850; MNCN20.04/00172.

Remarks

The specimen was previously only identified as *Platypodia.* This work provides the first record of *P. granulosa* in Mauritian waters.

For identification, see also Serène (1984).

Fig. 91. *Atergatopsis signata* (Adams & White, 1849), MNCN20.04/00054 inside a glass and wooden box. Scale bar = 1 cm.

Genus *Platypodiella* Guinot, 1967

Platypodiella picta (A. Milne-Edwards, 1869)
Fig. 93

Material examined

GHANA − **Taizoradi** • 1 ♂ (14.8 × 10.3); Mar. 1993; MNCN20.04/10284.

Remarks

The specimen was previously only identified as Xanthidae.

For identification, see also Monod (1956), Guinot (1967b) and Hartog & Türkay (1991).

Genus *Zosimus* Leach, 1823

Zosimus aeneus (Linnaeus, 1758)
Fig. 94

Material examined

MAURITIUS • 1 ♀ (84.7 × 55.9); 1885; Pere Antiga leg.; MNCN20.04/03491.

For identification, see also Bouvier (1915) and Serène (1984).

Fig. 92. *Platypodia granulosa* (Rüppell, 1830), dry specimen MNCN20.04/00172 inside a glass and wooden box. Scale bars = 1 cm.

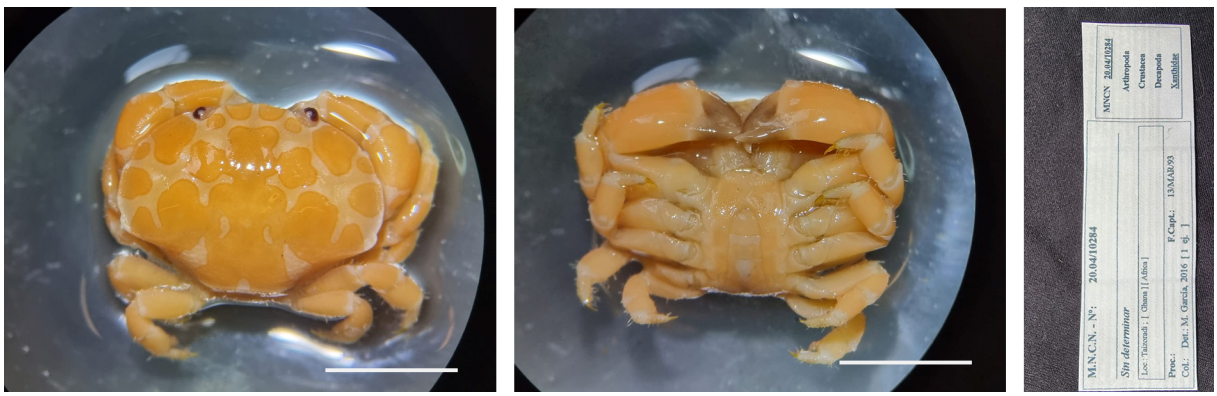

Fig. 93. *Platypodiella picta* (A. Milne-Edwards, 1869), MNCN20.04/10284. Scale bars = 0.5 cm.

Additional species

Pugettia producta (Randall, 1840)
Fig. 95

Material examined

UNKNOWN COUNTRY • 1 ♂ (74 × 81.8); 1850?; MNCN20.04/00154.

Remarks

This specimen is dry preserved and placed inside a glass and wooden case for exhibition. There is a hole in the centre of its carapace from having been pinned at some point. Possibly, this specimen was part of the "Sala del Mar" exhibition.

It was identified as *Herbstia rubra* A. Milne-Edwards, 1869, and labeled as being from Cabo Verde. However, it turned out to be *Pugettia producta* (Randall, 1840), a species common in the Northeast Pacific, not the African Atlantic. Therefore, this is clearly a mix-up.

Based on the available data analyzed, everything suggests that this specimen was likely collected during a Scientific Commission for the Pacific, held between 1862 and 1865, by order of Isabel II, Queen of Spain.

Fig. 94. *Zosimus aeneus* (Linnaeus, 1758), MNCN20.04/03491. Scale bars = 1 cm.

Fig. 95. *Pugettia producta* (Randall, 1840), dry specimen MNCN20.04/00154 inside a glass and wooden box. Scale bars = 1 cm.

As it is not a species native to African waters, it should not be included in this catalogue, but we have chosen to cite it as an "additional specimen" because mislabeling in ancient collections is not uncommon and because, by doing so, we highlight the challenges that can arise when studying ancient collections.

Discussion

Many zoological collections, held in Natural History Museums, require a thorough taxonomic review by experts in the different taxa. This is the situation for the decapod crustacean from African waters that are deposited at the Arthropod collection of the MNCN.

Following the review conducted for this work, an annotated catalogue of Heterotremata marine crabs has been compiled, after the revision of 349 specimens from African waters, totalling 83 species grouped into 21 families. Of the total specimens reviewed, only 21.9% had been correctly identified taxonomically (including synonyms), while the remaining 78.1% were either unidentified (or only identified to the family level) or misidentified. The fact that nearly 80% of the specimens were not correctly identified is remarkable. This means that for many years, in some cases up to 175 years, these specimens have remained at the MNCN facilities without proper identification despite numerous advances and changes in taxonomy. This represents a loss of information about the biodiversity of African waters, a gap in the understanding of the species geographic distribution, and missed opportunities for describing new species, as is the case with species such as *Thalamita integra* described in 1852 or *Schizophrys dahlak* in 1986, Where the specimens reviewed in this work were collected or donated to the MNCN in 1850, or *Polybius dioscurus* recently in 2024 (the specimens here are from 1955 and 1993).

By creating annotated catalogues based on the taxonomic review of specimens housed in scientific collections, it is also possible to expand the distribution ranges of species. In this study, the review has made it possible to record some species for the first time in Mauritian waters: *Menippe nodifrons*, *Atergatis* cf. *obtusus*, *Ozius guttatus*, *Xenocarcinus conicus*, *Ryphila cancellous*, *Schizophrys dahlak* and *Platypodia granulosa*; in Eritrea of *Portunus pelagicus*; in Equatorial Guinea *Polybius* cf. *pusillus*; in Moroccan waters of *Phyllodorippe armata*; in Ghanaian waters of *Atlantophila cristata* and in São Tomé and Príncipe of *Callinectes marginatus*.

Thanks to the review conducted in this work, it has been established that the specimen now identified as *Tylocarcinus styx* does not originate from the waters of Cabo Verde Islands (Atlantic Ocean), as previously recorded in the collection, but from Mauritius (Indian Ocean).

After reviewing the specimens belonging to the species *Menippe nodifrons* and *Atergatis* cf. *obtusus*, a revision of these species in the context of the genera *Menippe* and *Atergatis* should be done, along with in-depth DNA studies to rule out the presence of new, yet undescribed species.

The access of specialists to zoological collections, and their collaboration with Museums or other Institutions, are essential for a better understanding of biodiversity. Taxonomic reviews of specimens housed in collections increase their value, as they can be better identified and serve as reference collections.

Although the primary objective of this type of study is to clarify the identification of specimens housed in scientific collections, with the aim of enhancing their value, this not only a benefit for the collections, but also provides researchers with information about the existence of these species in the collections. Therefore, researcher will know about the availability of these specimens for taxonomic revisions (morphological and/or molecular). Besides, these types of catalogues represent historical records of the fauna in specific areas, allowing faunal modifications to be associated with physico-environmental changes in those areas.

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