

Conference Paper

Decapoda crustacea in the Gulf of Taranto and the Gulf of Catania with a discussion of a new species of Dromidae (Decapoda Brachyoura) in the Mediterranean Sea

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Two sources give information about Jonian Decapoda. One, by Costa¹ is a catalogue of 51 Decapoda found in the Taranto area. Also in Costa², two other species are mentioned which make a total number of 53. The other source, by Forest³, is a list of 67 Decapoda found in the Porto Cesareo area.

The list of the species is enlarged by a new find in the Gulf of Taranto and the Gulf of Catania. *Dromidiopsis spinirostris* (Miers, 1881) is also a new Record for the Mediterranean Sea. At the moment, 119 species of Decapoda in the Jonian Sea are recorded, 25 of which are not recorded above. In this work we have examined 74 species: 6 Peneidaea, 8 Caridea, 7 Macrura reptantia, 11 Anomura and 42 Brachiura.

INTRODUCTION

The materials studied in this work were collected under various circumstances and at different times and places from 1969 until today. All of them are from the Jonian sea.

Most of these species are common or very common in the western Mediterranean. But there are some species which are mentioned here for the first time.

There is very little literature for the Jonian sea. We have found only five works which deal with the area.

From the past century Rizza⁴ describes material from the Gulf of Catania and Costa¹ describes material from the Gulf of Taranto. At the beginning of the present century Riggio⁵ presents and annotation of some Crustaceans from the Strait of Messina. The most recent work is by Forest³ and consists of a list of 67 Decapoda found in the Porto Cesareo area.

The material we have examined allows us to supply a new annotated list which adds names of other specimens to these and points out the presence of specimens new to the Jonian sea.

Our collection consists of 6 species of Peneidaea, 8 of Caridea, 7 of Macrura reptantia, 11 of Anomura, and 42 Brachiura.

A very interesting specimen was found among the Brachiura: it is a unique specimen, belonging to the Dromidae family and captured in the S. Vito (Taranto) area. The presence of this specimen in our collection confirms once

again the incompleteness of our knowledge of the Carcinology of the Mediterranean sea, and even more, the importance of the Jonian sea, far from being well known, offers good opportunities for various scientific investigation.

In Table I are the species found respectively by Costa, Forest, and myself.

Each specimen has been collected with a record referring to its catch-area, substratum, depth, and when possible, the temperature, salinity and biocenosis of the locality.

In deep water the specimens were gathered by trawls, dredges and Petersen type grabs; in shallow or relatively shallow waters, by hand or by scuba-diving.

Some of these specimens were fished by fishermen specialized in this kind of work, and some were fished by ourselves. Some specimens were kindly sent to us by researchers from other areas.

In the study of the materials, we have followed the fundamental works of Pesta⁶, Bouvier⁷ and the posthumous work by Zariquiey Alvarez⁸.

Some species are accompanied by observations regarding their structure and edaphic factors have a certain weight in determining specific variabilities.

The trustee of the collection is the museum of the Istituto Sperimentale Talassografico in Taranto.

In conclusion, we have found 25 new specimens in the Jonian sea which are: 8 species of Natantia, 1 species of Macrura, 3 species of Anomura, and 13 species of Brachiura.

Natantia are: *Aristeomorpha foliacea*, *Solenocera membranacea*, *Parapenaeus longirostris*, *Stenopus spinosus*, *Pasiphaea multidentata*, *Plesionika heterocarpus*, *Processa mediterranea*, *Palaemon serratus*.

Macrura are: *Nephrops norvegicus*;

Anomura are: *Galathea nexa*; *Munida curvimana*; *Pisidia longicornis*;

Brachyura are: *Dromidiopsis spinirostris*; *Ebalia tuberosa*; *Ebalia granulosa*; *Corystes cassivelaunus*; *Atelecyclus undecimdentatus*; *Pilumnus spinifer* *Xantho pilipes*; *Potamon edule*; *Brachinotus sexdentatus*; *Parthenope macrochelos*; *Heterocrypta maltzani*; *Pisa corallina*; *Inachus communissimus*.

Dromidiopsis spinirostris is rarely collected and represents a new record for the Mediterranean. This species also is discussed in the second part of this work.

TABLE I

List of species	O. Costa	J. Forest	M. Pastore
<i>Aristeomorpha foliacea</i>	—	—	+*
<i>Aristeus antennatus</i>	—	+	+
<i>Solenocera membranacea</i>	—	—	+*
<i>Penaeus kerathurus</i>	—	+	+
<i>Parapenaeus longirostris</i>	—	—	+*
<i>Sicyonia carinata</i>	—	+	+
<i>Stenopus spinosus</i>	—	—	+*
<i>Pasiphaea multidentata</i>	—	—	+*
<i>Plesionika heterocarpus</i>	—	—	+*
<i>Plesionika edwardsii</i>	—	+	—

TABLE I (cont.)

List of species	O. Costa	J. Forest	M. Pastore
<i>Parapandalus narval</i>	+	-	-
<i>Thorulus cranchii</i>	-	+	-
<i>Lysmata seticaudata</i>	-	+	-
<i>Ligur ensiferus</i>	+	-	-
<i>Athanas nitescens</i>	+	+	-
<i>Synalpheus gambarelloides</i>	-	+	-
<i>Alpheus dentipes</i>	+	+	-
<i>Gnathophyllum elegans</i>	-	+	+
<i>Processa edulis edulis</i>	-	+	-
<i>Processa acutirostris</i>	-	+	-
<i>Processa canaliculata</i>	+	-	-
<i>Processa mediterranea</i>	-	-	+*
<i>Palaemon serratus</i>	-	-	+*
<i>Palaemon longirostris</i>	-	+	-
<i>Palaemon elegans</i>	-	+	-
<i>Pontonia pinnophylax</i>	-	+	+
<i>Crangon crangon</i>	+	-	-
<i>Pontocaris cataphracta</i>	+	-	-
<i>Homarus gammarus</i>	+	-	+
<i>Nephrops norvegicus</i>	-	-	+*
<i>Polycheles typhlops</i>	-	+	+
<i>Palinurus elephas</i>	+	-	+
<i>Scyllarus arctus</i>	+	+	+
<i>Scyllarides latus</i>	+	-	+
<i>Callianassa subterranea</i>	+	-	-
<i>Callianassa tyrrhena</i>	+	+	+
<i>Upogebia deltaura</i>	+	-	-
<i>Upogebia pusilla</i>	-	+	-
<i>Diogenes pugilator</i>	+	+	+
<i>Paguristes oculatus</i>	-	+	-
<i>Clibanarius erythropus</i>	+	+	+
<i>Dardanus arrosor</i>	+	-	+
<i>Dardanus calidus</i>	+	-	+
<i>Pagurus cuanensis</i>	-	+	-
<i>Pagurus alatus</i>	-	+	-
<i>Pagurus bernhardus</i>	+	-	-
<i>Pagurus anachoretus</i>	-	+	-
<i>Pagurus prideauxi</i>	+	+	-
<i>Catapaguroides timidus</i>	-	+	-
<i>Anapagurus breviaculeatus</i>	-	+	-
<i>Galathea strigosa</i>	+	+	+
<i>Galathea nexa</i>	-	-	+*
<i>Galathea intermedia</i>	-	+	-
<i>Munida curvimana</i>	-	-	+*
<i>Munida rugosa</i>	+	-	+

TABLE I (cont.)

List of species	O. Costa	J. Forest	M. Pastore
<i>Porcellana platycheles</i>	—	+	+
<i>Porcellana bluteli</i>	—	+	—
<i>Pisidia longimana</i>	+	—	+
<i>Pisidia longicornis</i>	—	—	+*
<i>Dromia personata</i>	+	+	+
<i>Dromidiopsis spinirostris</i>	—	—	+*
<i>Homola barbata</i>	+	+	+
<i>Ethusa mascarone</i>	+	+	—
<i>Dorippe lanata</i>	+	—	+
<i>Calappa granulata</i>	+	+	+
<i>Ilia nucleus</i>	+	+	+
<i>Ebalia tuberosa</i>	—	—	+*
<i>Ebalia granulosa</i>	—	—	+*
<i>Ebalia edwardsi</i>	+	—	+
<i>Corystes cassivelaunus</i>	—	—	+*
<i>Athelecyclus undecimdentatus</i>	—	—	+*
<i>Cancer pagurus</i>	+	—	—
<i>Pirimela denticulata</i>	+	+	+
<i>Carcinus mediterraneus</i>	—	+	+
<i>Portumnus latipes</i>	+	+	—
<i>Portumnus pestai</i>	—	+	—
<i>Macropipus arcuatus</i>	—	+	—
<i>Macropipus corrugatus</i>	—	+	+
<i>Macropipus pusillus</i>	—	+	—
<i>Macropipus depurator</i>	—	+	+
<i>Bathynectes longipes</i>	+	—	—
<i>Portunus hastatus</i>	+	—	+
<i>Pilumnus spinifer</i>	—	—	+*
<i>Pilumnus hirthellus</i>	+	+	+
<i>Eriphia verrucosa</i>	+	—	+
<i>Xantho poressa</i>	+	+	+
<i>Xantho pilipes</i>	—	—	+*
<i>Xantho incisus incisus</i>	+	—	—
<i>Xantho i. granulicarpus</i>	+	+	+
<i>Potamon edule</i>	—	—	+*
<i>Actaea rufopunctata</i>	—	+	—
<i>Geryon tridens</i>	—	+	—
<i>Pinnotheres pisum</i>	+	—	+
<i>Pinnotheres pinnotheres</i>	+	+	—
<i>Goneplax rhomboides</i>	+	—	+
<i>Pachygrapsus marmoratus</i>	—	+	+
<i>Brachynotus sexdentatus</i>	—	—	+*
<i>Brachynotus foresti</i>	—	+	+
<i>Parthenope angulifrons</i>	—	+	+
<i>Parthenope macrochelos</i>	—	—	+*
<i>Parthenope massena</i>	—	+	+

TABLE I (cont.)

List of species	O. Costa	J. Forest	M. Pastore
<i>Heterocrypta maltzani</i>	—	—	+*
<i>Maja squinado</i>	+	—	+
<i>Maja verrucosa</i>	—	+	+
<i>Pisa tetraodon</i>	+	+	+
<i>Pisa corallina</i>	—	—	+*
<i>Pisa muscosa</i>	—	+	—
<i>Pisa nodipes</i>	—	+	+
<i>Herbstia condyliata</i>	—	+	+
<i>Lissa chiragra</i>	—	+	+
<i>Eurynome aspera</i>	+	+	+
<i>Acanthonyx lunulatus</i>	+	+	—
<i>Inachus communissimus</i>	—	—	+*
<i>Inachus dorsettensis</i>	+	—	+
<i>Inachus thoracicus</i>	+	+	—
<i>Achaeus cranchi</i>	+	+	—
<i>Macropodia rostrata</i>	+	+	+
<i>Macropodia czerniavskii</i>	—	+	—
<i>Macropodia longirostris</i>	+	—	—
	53	67	74

EXAMINED SPECIES

NATANTIA

*Penaeidae**Aristeomorpha foliacea* (Risso 1827)

Gulf, Torre Saturo, 260—270 m
fishery in June and July.

Aristeus antennatus (Risso 1816)

Gulf, Torre Saturo, 270 m.
Gulf, San Pietro, 150 m.
fishery in June, July and August.

Solenocera membranacea (Risso 1816)

Gulf, San Pietro, 120 m.
fishery in June, July and August.

Penaeus kerathurus (Forskål 1775)

Gulf, mouth of Lato, 15—20 m. Sand, *Cymodoce* sp.
Chiatona, 40 m. Sand

♀ with spermatheca from May until Sept. 15, in the Gulf
stations from 18—26 °C. We have followed the deposition
until postlarval development, from 26—28 °C.

Parapenaeus longirostris (Lucas 1846)

Gulf, Torre Ovo, 350 m.
1 + 8 thorns on the rostrum; mxp2 is more pointed in the last
article; the sculptures of the propodus are unlike those in
respect to the fgg. in Pesta and Zariquiey Alvarez.

<i>Sicyonia carinata</i> (Brünnich 1768)	2
Mar Piccolo, 7 m. Mud, Chaetomorpha sp.	
S‰ 37.33 (aemv) T °C 25.08 (aemv)	
<i>Caridea</i>	
<i>Stenopus spinosus</i> Risso 1827,	1
Mar Grande, 27 m. Deep-reefs and sand, Desmarestia sp.	
Polysiphonia sp., Rhodymenia palmata.	
<i>Pasiphaea multidentata</i> (Esmark 1866)	5
Gulf, Torre Zozzoli, 300 m.	
mixed Aristeomorpha, Aristeus, Solenocera.	
<i>Plesionika heterocarpus</i> (Costa, 1871)	3
Gulf, Torre Zozzoli, 380 m.	
<i>Gnathophyllum elegans</i> (Risso 1816)	1
Mar Grande, 8 m. Posidonia	
S‰ 38.57 (vmv) T °C 26.65 (vmv) Rock, different algae.	
<i>Processa mediterranea</i> (Parisi, 1915)	
Gulf, Torre Saturo, 380 m.	
Fishery July, August and half of September	
<i>Palaemon serratus</i> (Pennant, 1777)	
Mar Piccolo, 5, 50 m. Mud	2
Mar Grande, S. Vito, 1.20 m. Reefs, Fucus sp. Padina	5
Gulf, Lido Bruno, 0.20 m. Reefs.	s. sp.
<i>Palaemon elegans</i> Rathke, 1837,	
Mar Grande, S. Vito, 1,20 m. — Rreefs with diff. Algae	2
<i>Pontonia pinnophylax</i> (Otto, 1921)	
Mar Grande in Pinna nobilis.	

REPTANTIA

Macrura

<i>Homarus gammarus</i> (Linnaeus, 1758)	
Gulf, San Pietro, 18 m. — Sand, stones with diff. Algae	3
S‰ 38.25 (aemv) T °C 18.34 (aemv)	
<i>Nephrops norvegicus</i> (Linnaeus, 1758)	
Gulf, Torre Ovo, 200 m.	s. sp.
<i>Polycheles typhlops</i> Heller, 1862,	
Gulf, Torre Sgarrata, Sand	2
<i>Palinurus elephas</i> (Fabr. 1787)	
Mar Grande, 15 m. artificial reefs	5
S‰ 38.42 (vmv) T °C 13.58 (vmv)	
<i>Scyllarus arctus</i> (Linnaeus, 1758)	
Mar Grande, San Pietro, 12 m. — Sand, stones, diff. Algae	3
Mar Grande, Rondinella, 7 m. Mud, Chaetomorpha sp.	
The specimens of the Rondinella area are darker than those of San Pietro and smell of hydrocarbon	

<i>Scyllarides latus</i> (Latr. 1803)	
Mar Grande, San Pietro, 8 m. — Rocks, Calliblepharis sp.	1
<i>Callianassa tyrrhena</i> (Petagna, 1792)	
Mar Piccolo, 0.15 m. — Sand	10
S ⁰ / ₀ 35.59 (vmv) T °C 11.85 (vmv)	

Anomura

<i>Diogenes pugilator</i> (Roux, 1829)	
Gulf, Lido Bruno, 4—5 m. Sand	s. sp.
<i>Clibanarius erithropus</i> (Latreille, 1818)	
Mar Grande, 2—5 m. Sand	4
<i>Dardanus arrosor</i> (Herbst, 1796)	
Mar Grande, 5 m. in Dolium galea with Adamsia	1
<i>Dardanus callidus</i> (Risso, 1827)	
Mar Grande, 3 m. Sand-mud	1
Gulf, Rondinella, 7 m. in Dolium galea with Actinia sp.	1
<i>Galathea strigosa</i> (Linnaeus, 1767)	
Gulf, Mar Grande, 17 m. Mud	3
<i>Galathea nexa</i> Embleton, 1834,	
Gulf, Torre Zozzoli, 84 m. Sand-mud with stones	1
<i>Munida curvimana</i> A. M. Edw-Bouv., 1894	
Gulf, Torre Saturo, 120 m. Rock and Mud	1
<i>Munida rugosa</i> (Fabricius, 1775)	
Gulf, 100 m.	3
<i>Porcellana platycheles</i> (Pennant, 1777)	
Mar Piccolo, 7—9 m. Mud with organic detritus, in »Citri's« area	
Gulf, Lido Bruno, 1.5 m in cavities of reefs with little light	s. sp
<i>Pisidia longimana</i> (Risso, 1816)	
Mar Piccolo, 7—9 m Mud with organic detritus	10
<i>Pisidia longicornis</i> (Linnaeus, 1767)	
Mar Grande, 7—9 m Mud with organic detritus	4

Brachiura

<i>Dromia personata</i> (Linnaeus, 1759)	
Mar Grande, Porto Mercantile, 5 m	2
one of them with <i>Balanus perforatus</i> on the carapace the other one with <i>Synascidia</i> sp.	
Gulf, Liro Bruno, 5 m. on the reefs	1
Mar Grande, Arsenale Nuovo, 2 m. on the reefs	3
<i>Dromidiopsis spinirostris</i> (Miers, 1881)	
Gulf, Lido Bruno, 1.5 m. Under a stone in a detritical area of infralittoral plane at <i>Padina pavonia</i> , <i>Fucus virsoides</i> . The specimen was associated with <i>Porcellana platycheles</i> , <i>Ateleyclus undecimdentatus</i> , <i>Xanto incisus granulicarpus</i> . (See forward)	1

<i>Homola barbata</i> (Fabricius, 1793)		
Gulf, Lama area, 120 m. Rock with mud		1
Catania, Aci Trezze, 40 m. Mud		1
<i>Dorippe lanata</i> (Linnaeus, 1767)		
Gulf, Torre Saturo, 120 m. Mud		5
Catania, Aci Trezze, 80 m. Mud		1
<i>Calappa granulata</i> (Linnaeus, 1767)		
Gulf, Torre Saturo, 130 m. Rock-sand		4
Catania, Aci Trezze, 75 m many juvenile stages		
<i>Ilia nucleus</i> (Linnaeus, 1758)		
Mar Piccolo, 8 m. Mud with vegetal detritus		4
Mar Grande, 20 m. Mud		1
Gulf, Rondinella, 6—7 m. Sand-Mud		3
<i>Ebalia tuberosa</i> (Pennant, 1777)		
Catania, Aci Trezze, 100 m. Mud		1
<i>Ebalia granulosa</i> H. M. Edw., 1837		
Catania, Aci Trezze, 100 m. Mud		1
<i>Ebalia edwardsi</i> , Costa, 1838		
Mar Grande, 28 m. Clay with organic detritus		2
Catania, Aci Trezze, 60 m. Mud		1
<i>Corystes cassivelaunus</i> (Pennant, 1777)		
Gulf, Metaponto, 40 m. sand-clay		2
<i>Atelecyclus undecimdentatus</i> (Herbst 1783)		
Gulf, Lido Bruno, 1.5 m. in the sand under a stone		1
<i>Pirimela denticulata</i> (Montagu, 1808)		
Gulf, Lido Bruno, 0,50 m. under a stone		1
<i>Carcinus mediterraneus</i> , Czerniavsky, 1884		
Mar Piccolo, 0—2 m.		m. sp.
Mar Grande, 0—1 m.		m. sp.
<i>Macropipus corrugatus</i> (Pennant, 1777)		
Gulf, San Pietro, 35 m. Rock with <i>Posidonia oceanica</i>		6
Mar Grande, San Paolo, 16 m. Rock with <i>Posidonia oceanica</i>		
<i>Macropipus depurator</i> (Linnaeus, 1758)		
Mar Grande, San Paolo, 35 m. Rock with diff. Algae		1
Gulf		2
Catania, Aci Trezze, 45 m. Rock and Mud		1
<i>Portunus hastatus</i> (Linnaeus, 1767)		
Gulf, Ginosa, 25 m. Sand-clay		10
Gulf, Chiatona, 20 m. Sand		5
<i>Pilumnus spinifer</i> , H. M. Edw., 1834		
Mar Grande, 20 m. Stones and clay		1
<i>Pilumnus hirtellus</i> (Linnaeus, 1761)		
Mar Piccolo, 12 m. Clay and Mud		2
<i>Eripia verrucosa</i> (Forsk., 1775)		
Gulf, Lido Bruno, 0,50 m. on the reefs at <i>Padina pavonia</i> , <i>Fucus virsoides</i> .		5
<i>Xantho pilipes</i> , A. M. Edw., 1867		
Mar Grande, 8 m. Rock-sand at <i>Cladophora</i> sp.		1

<i>Xantho incisus granulicarpus</i> (Forest, 1953)	
Gulf, Lido Bruno, 3 m. stones and sand	3
Gulf, Lido Silvana, 0 m. in a pile of sea-shored Posidonia	2
<i>Potamon edule</i> (Latreille, 1819)	
Patimisco river, 0.30 m.	12
<i>Pinnotheres pisum</i> (Linnaeus, 1767)	
Mar Grande, 5 m. In <i>Pinna nobilis</i>	2
<i>Goneplax rhomboides</i> (Linnaeus, 1758)	
Gulf, Chiatona, 150 m. Sand and rocks	8
Gulf, Torre Saturo, 120 m. Rocks and mud	4
<i>Pachygrapsus marmoratus</i> (Fabr., 1787)	
San Vito, 0.10—0.50 m Reefs	m. sp.
Compomarino 0.10—0.50 m Reefs	
Trebisacce 0.10—0.50 m Reefs	
Nettuno 0.10—0.50 m Reefs	
<i>Brachynotus sexdentatus</i> (Risso, 1827)	
Mar Piccolo, Citro Coapre, Precoralligenous	s. sp.
<i>Branchynotus foresti</i> , Zariquiey, 1968	
Mar Piccolo, Citrello, 12 m; Precoralligenous	3
S‰ 37.33 (aemv) T °C 25.08 (aemv)	
<i>Parthenope angulifrons</i> , Latreille, 1825	
Gulf, Rondinella, 18 m. Sand-clay	2
Catania, Aci Trezze, 80 m. Mud	1
<i>Parthenope marochelos</i> (Herbst, 1790)	
Catania, Aci Trezze, 80 m. Mud	1
<i>Parthenope massena</i> (Roux, 1830)	
Catania, Aci Trezze, 80 m Clay and sand	3
<i>Heterocrypta maltzani</i> , Miers, 1881	
Catania, Aci Trezze, 80 m. Mud	s. sp.
in this area it is relatively easy to find.	
<i>Maya squinado</i> (Herbst, 1788)	
Mar Grande, 4 m. Posidonia	4
<i>Maja verrucosa</i> , H. M. Edw., 1834	
Mar Piccolo, Azienda cozze	m. sp.
These specimens have two characteristic violet speckles in the	
proto gastric region, each with a central tubercle.	
<i>Pisa tetraodon</i> (Pennant, 1777)	
Mar Grande, 12 m. Rock and sand	2
<i>Pisa corallina</i> (Risso, 1816)	
Mar Grande, 16 m. Sand-Posidonia	1
<i>Pisa nodipes</i> (Leach, 1815)	
Mar Grande, 19 m. Sand with organic detritus	1
<i>Herbstia condyliata</i> (Fabr., 1787)	
Gulf, Saguerra, 4 m. a carapace on reefs with diff. brown algae.	
<i>Lissa chiragra</i> (Fabr., 1775)	
one specimen in the Museum of Institut	
<i>Eurynome aspera</i> (Pennant, 1777)	
Gulf, Torre Saturo, 120 m. Rock and mud	1
Catania, Aci Trezze, 80 m. Mud	2

<i>Inachus communissimus</i> , Rizza, 1839	
Catania, Aci Trezze, 85 m. Sand and rare rocks	1
Mar Grande, 12 m. Mud	2
<i>Inachus dorsettensis</i> (Pennant, 1777)	
Mar Piccolo, Azienda cozze, 5 m.	2
Mar Grande, Nettuno, 1—1.5 m. Brown algae	3
<i>Macropodia rostrata</i> (Linnaeus, 1761)	
Gulf, Lama, 40 m, Sand-mud Caulerpa sp.	2
Mar Grande, 0.50 m. on brown algae	2

Dromidiopsis spinirostris (Miers, 1881)

Material — Lido Bruno, Gulf of Taranto — 1.5 m. —
1 ♂ 23.5 x 23.9.

We think that it is useful to describe this species in the present section, accompanied by some photographs, in order to compare it with the original description by Miers⁹.

A comparative analysis corresponds to the description whereby we have concluded in favour of *Dromidiopsis spinirostris*.

Diagnosis

The carapace is nearly as wide as it is long; the ratio between the two dimensions is about 10/10; its dorsal profile lightly slopes from the frontal region to the mesogastric region where there is the greatest curvature. It has a narrow forehead with three spiniform teeth; the intermediate one is of a smaller form in a lower plane; the other two are putted forward and downward; an incisure between them continues with tight gutter to the epigastric region, and farther, with a very light keel, to the cardiac region.

The fore-side border is a little briefer than the posterior-side border; it is carved in 4 teeth which protrude forward and in front of the external tubercle of orbit which is lightly pronounced and placed in a lower plane than the orbital cavity; the distance between the 1st and 2nd teeth is greater than between the 2nd and 3rd but lesser than between the 3rd and 4th. Between the last two, the lateral border is marked by a clear hemming which, after the 4th tooth, continues almost to 1/2 half of the posterior-side border.

A deep orbital cavity with a spiniform proceeds towards half of the superior border. There is an incisure in the external orbital corner and a little tooth in the lower orbital border. The mesogastric and cardiac regions are sufficiently visible; the 1st one is delimited by a little engraved groove in front adjacent to the epigastric region, and laterally by a deep groove, which represent the most dorsal part of the cervical groove, imperceptible for the rest. The hepatic and protogastric regions are imperceptible. The cardiac region is marked in front by two stocky tubercles, posteriorly by a light prominence.

The branchial region is in relief on the lateral and antero-dorsal borders. The epigastric region is marked in front with a plate and little relief protuberances. The postero-cervical groove is barely marked. The whole carapace is covered with a thin and thick down.

Antennules (a1). The great basal article is as long as it is wide and it is placed in the antennular fossette with the superior edge shaped as a crest.

Antenne (a2). The basal peduncle is longer than it is wide the ratio being 25/10.

Mandible (md). The incisive proceeds with the border rather rectilinear; the palpus is marked by 3 articles, the 1st of which has a shaggy cylindrical base it is also hairy on the articular border; the 2nd article has a shaggy external border; the last article is longer and lanceolate.

Maxillula (mx1). They have form and appearance like those of Genus.

Maxillula (mx2). The middle lacinia of the endites have the form and appearance like the ones of Genus; the internal lacinia, with two long spiny protrusions.

1st maxillipede (mxp1). The exopodius has a typical flagellus; the endopodius with internal lacinia of basipodius is entire; then lacinia of coxopodius are three-shared; the epipodius has a terminal enlarged portion and a groove along its length.

2nd maxillipede (nxp2). It has a typical exopodius; the endopodius has the last piece articulated with the distal extreme with the exception of the last one.

3rd (maxillipede mxp3). The ischion has a series of 8—9 acute little teeth on the internal border; the merus is as large as the ischion but shorter and has two notches on the base of the internal border. The 5th article is a little longer than the 4th.

Pereiopodes (pn). The chelipedes are longer than the 2nd paws; the superior carina of the propodius has 6 little tubercles, 4 of which are on a more external line; the interior border also has 4 tubercles in the middle distal part. There is an articular tubercle on the base of the dactylus. The superior carina of the carpus has 4 little tubercles, the last one being halfway along the length. There is tubercle on the anterior external border and another one in the middle of the same side. There are three little tubercles behind the last one which are on a subparallel line along the external border. The merus has a triangular section which is bent on the inside part having one dorsal and two ventral borders. Each of them is sculptured in many notches along its length and the infero-external border is characterized by bubble tubercles. The p3 is as long as p2; p4 and p5 are short and levelled, and are furnished with false pincers; p5 is longer than p4; the merus of p5 is longer than the merus of p4.

The sternal region is very narrow and smooth. The abdomen has 6 articles graduated in breadth from the 1st to the 6th; this one is longer than it is wide.

Remarks

Dromia personata, among the Dromiidae, was a unique species in the Mediterranean. According to Forest et Guinot¹⁰ four species live in the Atlantic region: *Dromia monodi*, *D. nodosa*, *D. sp.*, and *Dromidiopsis spinirostris*. We had been not able to find any reference for the Indo-pacific region, especially for the Red Sea, except, a species of *Dromia unidentata* by Rüppel¹¹.

However recently Holthuis¹² has marked *Cryptodromia granulata* and *C. canaliculata*, from the northern Red Sea.

Excluding a comparison with the above mentioned crabs and references from the Red Sea, it has been necessary for us to observe the species of the eastern Atlantic region.

Our subject is comparable only with *Dromia monodi* and *Dromidiopsis spinirostris*. The differences between *D. monodi* and *Dromidiopsis spinirostris* are: the presence in the *Dromidiopsis spinirostris* female of a sternal ornament; the wider carapace in *D. monodi*; the anterolateral thorns more protruding in *D. Monodi*; the great distal tooth on the carpus of chelipedes, present in *D. monodi* but not in *Dromidiopsis spinirostris* (in which a tubercle not in relief is present); the dactyla smaller in *Dromidiopsis spinirostris*.

Our subject can not be identified with *D. monodi* for the substantial differences in the pereopodes, in the frontal thorns, in the lateral border thorns (and in the hairy). Therefore, after the preceding diagnosis, we think that our subject is *Dromidiopsis spinirostris* (Miers), found for the first time in the Mediterranean, but that it is also necessary to make better comparisons with a real specimen*.

One important question is the depth in which we have captured our subject, 1.5, while in the west Atlantic it lives at a depth of 25 to 75 m.

Acknowledgements. We wish to express our gratitude to the people who have helped us to produce the present work, particularly dr. I. di Geronimo, of the Geology Institute of Catania University, who kindly has set at our disposal the carcinological material collected in the Aci Trezza area and dr. P. Panetta for his encouragement. We should also like to thank Mrs. B. Merker-Poček to whom we are grateful for a collection of specimens from the Adriatic sea. We are also indebted to Prof. J. Forest who has permitted us to examine a specimen of *Dromidiopsis spinirostris* from the Atlantic region.

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* Recently it has been possible for us to examine in Paris a real specimen and to confirm this hypothesis, and so we include a comparative photographic document in Fig. 1.



Fig. 1. *Dromidiopsis spirostris* (Miers, 1881) above, a specimen in the collection of the «Museum d'Histoire Naturelle» of Paris; below, our specimen.