

BATHYMETRIC DISTRIBUTION OF SOME REPTANTIA DECAPODA  
IN THE CATALAN AREA (SPAIN)

by

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**ABSTRACT** Material from one hundred sixteen samples in Catalan coast (N.E. of Spain) using commercial gears was analyzed and classified. Results limited to depth distribution of Reptantia Decapoda are exposed.

**INTRODUCTION** At present there are some seriated and continual samples which come from all the Catalan continental shelf and they will give an important information about the bathymetric distribution which give too, more knowledge about the area. Part of the advances limited to Reptantia Decapoda are summarized in this work. The knowledge of their distribution and abundance is necessary to understand their integration in the benthonic ecosystem of our coasts.

**MATERIAL AND METHODS** The species collected and studied come all of them from commercial trawling catches using conventional gears surrounded by an overnet of 16 mm of mesh.

The samples here presented were taken from June 1981 to July 1982, from Cape of Creus in the North to the delta of the Ebro in the South. One hundred sixteen fishing samples were taken between 4 and 832 meters. The frequency has approximately been of 30 fishing samples within three months. The material obtained was classified in groups and a proportional part of the sample was taken in order to do a posterior study in the laboratory. We took mainly the work of Zariquiey (1968) for taxonomic purposes.

The direct data that were obtained (number of individuals per sample) have been changed to number of individuals per hour of trawling and per 100 HP in order to unite the sampling effort.

Depth distribution has been represented taking the following intervals: 25m from 0 to 50m; 50m from 50m to 200m and 100m from 200m on.

**RESULTS** The species collected and identified were the following:

	Infraorder BRACHYURA
Order DECAPODA	<i>Atelecyclus rotundatus</i> (Olivi, 1792)
Suborder REPTANTIA	<i>Brachynotus sexdentatus</i> (Risso, 1827)
Infraorder MACRURA	<i>Calappa granulata</i> (Linnaeus, 1767)
<i>Calocaris macandreae</i> Bell, 1846	<i>Corystes cassiveolaanus</i> (Pennant, 1777)
<i>Nephrops norvegicus</i> (Linnaeus, 1758)	<i>Dorynchus thomsoni</i> Thomson, 1873
<i>Pallinurus mauritanicus</i> Gravel, 1911	<i>Geryon longipes</i> A. Milne Edwards, 1881
<i>Pollicheles typhlops</i> Heller, 1862	<i>Goneplax rhomboides</i> (Linnaeus, 1758)
<i>Scyllarus arctus</i> (Linnaeus, 1758)	<i>Homola barbata</i> (Fabricius, 1793)
Infraorder ANOMURA	<i>Inachus communissimus</i> Rizza, 1839
<i>Dardanus arrosor</i> (Herbst, 1796)	<i>Inachus dorsettensis</i> (Pennant, 1777)
<i>Diogenes pugilator</i> (Roux, 1829)	<i>Inachus thoracicus</i> (Roux, 1830)
<i>Galathea dispersa</i> Bate, 1859	<i>Macropipus depurator</i> (Linnaeus, 1758)
<i>Munida intermedia</i> A. Milne Edwards & Bouvier, 1899	<i>Macropipus puber</i> (Linnaeus, 1767)
<i>Munida perarmata</i> A. Milne Edwards & Bouvier, 1894	<i>Macropipus tuberculatus</i> (Roux, 1830)
<i>Paguristes oculatus</i> (Fabricius, 1775)	<i>Macropipus vernalis</i> (Risso, 1816)
<i>Pagurus alatus</i> Fabricius, 1775	<i>Macropodia longipes</i> (A. Milne Edwards & Bouvier, 1899)
<i>Pagurus cuanensis</i> Bell, 1846	<i>Macropodia rostrata</i> (Linnaeus, 1761)
<i>Pagurus prideauxi</i> Leach, 1815	<i>Maja squinado</i> (Herbst, 1788)
<i>Pagurus variabilis</i> (Linnaeus, 1758)	<i>Medoripe lanata</i> (Linnaeus, 1767)
	<i>Monodaeus couchii</i> (Couch, 1851)
	<i>Paramola cuvieri</i> (Risso, 1816)
	<i>Parthenope macrochelos</i> (Herbst, 1790)
	<i>Pilumnus spinifer</i> H. Milne Edwards, 1834
	<i>Pinnotheres pinnotheres</i> (Linnaeus, 1758)
	<i>Pisa armata</i> (Latreille, 1803)
	<i>Pisa nodipes</i> (Leach, 1815)
	<i>Pisidia longicornis</i> (Linnaeus, 1767)
	<i>Thia scutellata</i> (Fabricius, 1793)

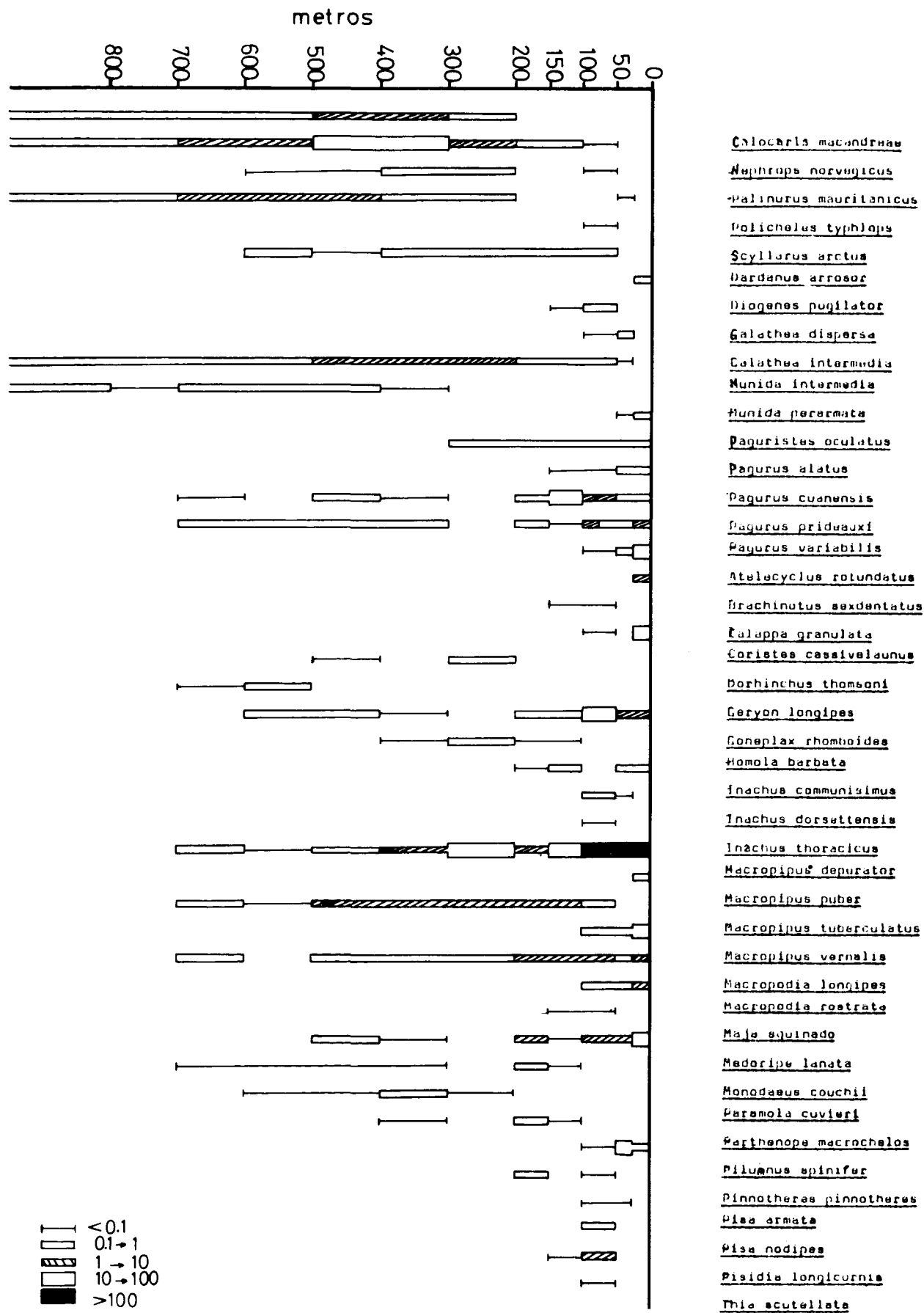


Fig.1 . Bathymetric distribution and abundance of Decapoda Reptantia

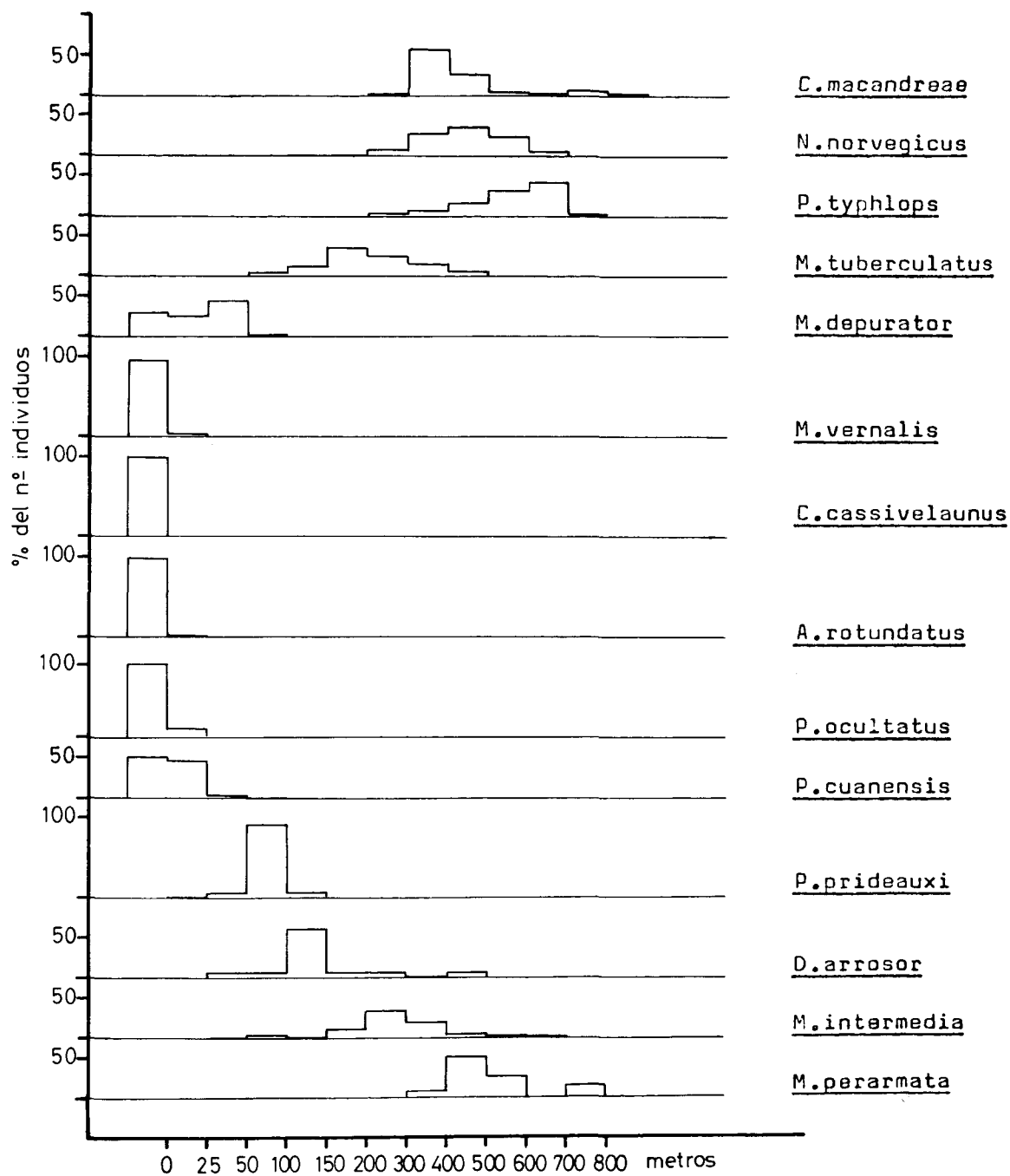


Fig. 2. Depth distribution of some species (percentage for each species)

(Number of samples)	(7)	(12)	(25)	(15)	(12)	(12)	(12)	(10)	(4)	(4)	(2)	(1)	
Depth(meters)	0	25	50	100	150	200	300	400	500	600	700	800	
<u>Calocaris macandreae</u>							0.1	3.8	1.7	0.3	0.2	0.4	0.2
<u>Nephtops norvegicus</u>			+	0.4	0.1	2.6	11	13.9	9.1	2.4	0.1	0.2	
<u>Pallinurus mauritanicus</u>			+			0.2	0.1	+	+				
<u>Pollichales typhlops</u>			+			0.1	0.5	1.2	2.4	5	6.7	0.3	
<u>Scyllarus arctus</u>			+										
<u>Dardanus arrosor</u>				0.1	0.1	0.8	0.1	0.1	+	0.1			
<u>Diogenes pugilator</u>	0.2												
<u>Galathea disperea</u>				0.2	+								
<u>Galathea intermedia</u>		0.1	+										
<u>Munida intermedia</u>		+	0.4	0.6	0.6	3.3	9.5	5.4	0.9	0.3	0.6	0.2	
<u>Munida perarmata</u>								+	0.1	0.6	0.3	0.2	
<u>Paguristes oculatus</u>	0.6	+											
<u>Pagurus alatus</u>	0.6	0.2	0.2	0.1	0.2	0.8	+	0.1					
<u>Pagurus cuanensis</u>	0.3	0.3	+	+									
<u>Pagurus prideauxi</u>	0.3	0.4	1.9	33.4	0.8		+	0.1		+			
<u>Pagurus variabilis</u>	2.8	0.5	4.9	+	0.4		0.2	0.1	0.5	0.1			
<u>Atelecyclus rotundatus</u>	13	0.3	+										
<u>Brachynotus sexdentatus</u>	1.7												
<u>Calappa granulata</u>			+	+									
<u>Coryistes cassivelaunus</u>	33		+										
<u>Dorhynchus thomsoni</u>						0.1		+					
<u>Geryon longipes</u>										0.1	+		
<u>Gonoplax rhomboidea</u>	8	3.7	11.3	0.2	0.4			+	0.2	0.2			
<u>Homola barbata</u>				+	+	0.2	+						
<u>Inachus communissimus</u>	0.7	0.1		0.1	+								
<u>Inachus dorsettensis</u>		+	0.2										
<u>Inachus thoracicus</u>			+										
<u>Macropipus depurator</u>	455	400	724	30	8	11	1.5	0.2	+	1.5			
<u>Macropipus puber</u>	0.7												
<u>Macropipus tuberculatus</u>			0.9	2.6	7.2	5	3.3	1.2	+	0.1			
<u>Macropipus vernalis</u>	20	0.7	0.2										
<u>Macropodia longipes</u>	3	0.2	1	1	2.3	0.1	0.1	0.1		0.1			
<u>Macropodia rostrata</u>	9.8	0.1	0.4										
<u>Maja squinado</u>			+	+									
<u>Medoripe lanata</u>	36.7	0.3	8.1	+	1		+	0.1					
<u>Monodaeus couchii</u>				+	0.1		+	+	+	+			
<u>Paramola cuvieri</u>						+	0.1	+	+				
<u>Parthenope macrocheles</u>				+	0.1		+						
<u>Pilumnus spinifer</u>	0.3	42.8	+										
<u>Pinnothere pinnotheree</u>			+		0.3								
<u>Pisa armata</u>		+	+										
<u>Pisa nodipes</u>		0.1											
<u>Pisidia longicornis</u>		5.9	+										
<u>Pisa scutellata</u>		+											

Table 1.-Depth distribution of abundance (No./hour \* 100 HP) (+ = <0.1)

In table 1 and in figure 1 have been showed the abundance for each depth. (The cross in table 1 point out the abundance lesser than 0.1 individuals per hour and per 100 HP of trawling). It is remarkable the greatest abundance of Macropipus tuberculatus.

Figure 2 shows the depth distribution and abundance of some species using the percentage of the number of the caught individuals for each depth. There is a zonation in the distribution of some groups like Diogenidae and Paguridae (hermit crabs) as well as in the genus Macropipus (M. puber is not represented). This zonation is not clear in species with a low abundance.

#### LITERATURE