

# SEPIOLIDAE (MOLLUSCA, CEPHALOPODA) FROM THE CATALAN SEA NORTHWESTERN MEDITERRANEAN

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## Abstract

This paper reports information on the distribution and abundance of nine sepiolid species collected in the NW Mediterranean. The length frequency distribution of the most abundant species is also reported.

**Keywords :** *Cephalopods, Bathymetry, Balear Sea*

## Introduction

The family Sepiolidae is represented in the Mediterranean Sea by 15 species. Recent studies have increased the information about the family Sepiolidae (1). However, the species belonging to this family represent one of the lesser-known cephalopod groups. The object of the present study is to provide information on the abundance and distribution of sepiolids collected between 33 to 773 m in the NW Mediterranean.

## Material and methods

The study was conducted in Vilanova port of the Catalan coast (NW Mediterranean), between January 1996 to June 1996. Samples were collected on a quarterly basis in a total of 34 experimental haul in a depth stratified sampling grid between 33 to 773 m depths. A commercial fishing trawl gear was used. All specimens were frozen and after thawing at room temperature, the samples were analysed. Dorsal mantle length (DML) of all the specimens was measured in mm using a calliper, after which they were sexed, and identified to species level following Bello (2).

## Results and discussion

The number of specimens caught during the study surveys and the depth distributions are recorded in table 1.

**Table 1. Cephalopod species captured from June 1995 to June 1996 off the Catalan coast (NW Mediterranean).**

Numbers of individuals; Minimum depth of capture (Min.); Maximum depth of capture (Max.) and Mean depth of capture are indicated

Species	Number	Min.	Max.	Mean
<i>Sepiolo rondeletti</i> (Leach 1817)	7	39	78	55.5
<i>Sepiolo ligulata</i> (Naef, 1912)	12	34	149	122.4
<i>Sepiolo robusta</i> (Naef, 1912)	25	34	196	69.2
<i>Sepietta aweniana</i> (d'Orbigny in Ferussac & d'Orbigny, 1841)	108	39	459	178.1
<i>Sepietta neglecta</i> (Naef, 1912)	23	62	196	81.5
<i>Sepietta obscura</i> (Naef, 1916)	3	39		
<i>Rondeletiola minor</i> (Naef, 1912)	58	62	372	130.8
<i>Rossia macrosoma</i> (Delle Chiaje, 1830)	4	281	407	375.3
<i>Neorossia caroli</i> (Joubin, 1902)	5	377	558	407.0
<i>Heteroteuthis dispar</i> (Rüpell, 1844)	1	761		
<i>Stoloteuthis leucoptera</i> (Verrill, 1878)	1	377		

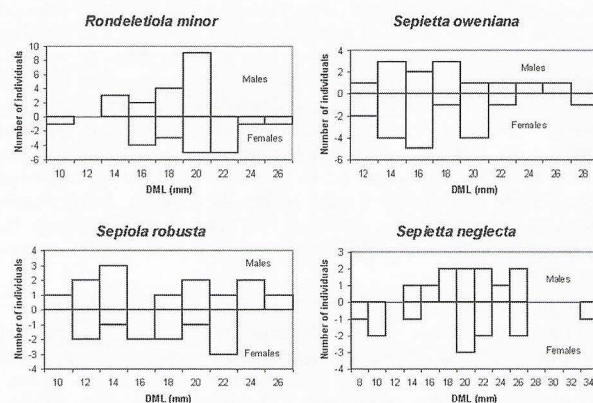
*Sepietta oweniana* is the most common species in our study. A total of 108 specimens were taken from depths varying between 39 and 459 m. Of these 59 were males measuring between 12.6 and 32.5 mm DML and 49 were females ranging in size from 12.2 to 35.7 mm DML (Fig.1). The smallest sexually mature male measured 18.2 mm DML, the smallest mature female 17.3 mm DML. The maximum density was 8.06 specimens/hour of trawling at 257 m. The minimum density was recorded in the deepest and shallowest parts of its depth distribution range (Fig. 2).

*Rondeletiola minor*. Of total of 58 specimens collected, 30 were males (14.2-21.5 mm ML) 28 were females (10.3-25.6 mm DML) (Fig.1). The smallest sexually mature male measured 15.3 mm DML, the smallest mature female 16.9 mm DML. The animals were found at depths ranging from 62 to 372 m. The minimum density was recorded in the deepest and part of its depth distribution range. The maximum density was 2.44 specimens/hour of trawling at 137 m. (Fig. 2).

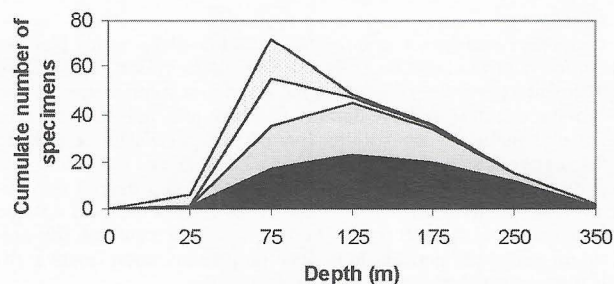
*Sepiolo robusta*. In all, 24 specimens of this species were collected, 13 were males (10.2-25.7 mm ML) 11 were females (11.2-20.8 mm

DML) (Fig.1). The smallest sexually mature male measured 18.7 mm DML, the smallest mature female 15.3 mm DML. The animals were found at depths ranging from 34 to 196 m. The maximum density was 1.06 specimens/hour of trawling at 36 m. (Fig. 2). After this depth became less abundant.

*Sepietta neglecta*. A total of 23 specimens were collected at depths between 62 and 196 m. Eleven males ranging from 14.8 to 26.7 mm DML and 12 females ranging from 9 to 34.2 mm DML (Fig.1). The smallest sexually mature male measured 16.7 mm DML, the smallest mature female 21.1 mm DML. The maximum density was 0.78 specimens/hour of trawling at 67 m. (Fig. 2).



**Figure 1. Size frequency distribution for males and females for the four most important sepiolid species.**



**Figure 2. Cumulative number of specimens by the most abundant species and depth.**

Although all the sepiolid subfamilies and genera known in the Mediterranean are represented in our records, some species were rarely caught; 4 species were absent altogether. This pattern may be due, at least partly, to our sampling methods. No samples were carried out in shallow waters (<33m).

## Acknowledgements

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## References

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