

DISTRIBUTION OF OIKOPLEURA LONGICAUDA AND OIKOPLEURA
FUSIFORMIS (APPENDICULARIA) IN THE ADRIATIC SEA

by

Boško Skaramuca

Biological Institute - Dubrovnik. Yugoslavia

Abstract

Results based on the data gathered during the "Oceanographic investigations of the Adriatic Sea - R/V Andrija Mohorovičić 1974- 1976" are presented in this paper. Horizontal distribution for the two most abundant species of Appendicularians Oikopleura longicauda and Oikopleura fusiformis is given.

Résumé

On a élaboré la répartition horizontale de deux espèces plus abondantes des Appendiculaires dans les eaux larges de la Mer Adriatique exactement: Oikopleura longicauda et Oikopleura fusiformis. On a constaté deux régions de leurs apparition maximum: L'Adriatique septentrional et la zone du seuil de Palagruža. De même nous avons pu conclure, bien que ce soit une conclusion faite sur la base de deux séries des pêches en tout, que pour leurs développement l'automne est plus favorable que le printemps.

Several authors have treated the Appendicularians of the Adriatic Sea, but their research were restricted to the coastal regions. Among them are UEBEL (1912) reporting the results of the travel on S/N "Rudolf Virchow" along the eastern coast and FENAUX (1972) whose reports are for the Northern Adriatic.

The results presented herein originate from zooplankton researches made during the "Oceanographic Investigations of the Adriatic Sea - Andrija Mohorovičić 1974 -1976". The plankton material was collected on 35 stations along 8 profiles with plankton net type Indian Ocean Standard Net, diameter 113 cm, length 3,5 m and mesh size 250 microns. Dimension of all magnitudes is number of individuals per square meter.

We have found fifteen species of Appendicularians. The most numerous were Oikopleura longicauda (VOGT) and Oikopleura fusiformis FOL, which made together 74,9 % in autumn 1974, and 37,8 % in spring of the total population. FENAUX (1972) treated the whole year cycle, and gives estimate of 95 % for 3 most numerous species: Oikopleura dioica, Oikopleura longicauda and Oikopleura fusiformis. This is quite understandable taking into consideration the fact that the research was done in the shallow part of the Northern Adriatic, where Oikopleura dioica dominated. On the other side we have a rare Oikopleura dioica in our material, specially during the spring cruise.

Oikopleura longicauda is represented with 48,5 % in autumn with a maximum in the Northern Adriatic and along the western coast till Otrant, while in spring it is represented with 17,7 % reaching the maximum at the Palagruža sill and south along the Italian coast till Otrant strait.

Oikopleura fusiformis is represented with 26,8 % in autumn. During this period we can separate two regions of maximum abundance. The first one, in the coast region of Northern Adriatic, and the second from Otrant strait along eastern coast till Palagruža sill, then turning to the west coast. In spring it is represented with 20,0 % reaching the maximum on the stations of eastern part of Palagruža sill and on the western coast from peninsula Gargano till Otrant strait.

It is difficult to give adequate interpretation on this distribution, due to shortages of one year cycle catch. We can only say that autumn is more convenient than the spring for the development of two mentioned species. This coincides with the results of other authors for the Adriatic Sea.

References

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