

The seasonal distribution of the Appendicularia in the Bay of
Cullera, Spain.

by

A. RADUAN* , C. BLANCO* , E. SOLER** , J.G. del RIO** , J.A. RAGA*

*Departamento de Zoología. Facultad de Ciencias Biológicas.

C/ Dr. Moliner, 50. Burjasot (Valencia).

**Lab. Puertos. E.T.S.I.C.C.P. Universidad Politécnica de Valencia.

Apdo. 2012. Valencia.

SUMMARY

The seasonal variations in population density of the six species of Appendicularians found in Cullera Bay were studied using samples collected during the years 1983-1984.

RESUME

On étudie les variations saisonnières de la densité des populations de six Appendiculaires qu'on a trouvés dans la Baie de Cullera, en utilisant les échantillons des années 1983-1984.

The location of this Bay is in the area north of 39° N - and west of 0° 12' W, of 4500 m. length and 12 m. are the maximal -- depth. This Bay is considered a very eutrophic area, because the hydrographic regime transforms it into a nutrient trap.

Samples collected during eight months, twice a season, -- were used for the present study.

The horizontal samples were collected with a WP2 net, -- 200 μ mesh, and the vertical samples with VAN DORN bottles of 16 l. of capacity. The systematic study has been done according to FENAUX (1967) and BUCKMANN (1975).

In the first place six species of Appendicularians have been found: Oikopleura dioica Fol, 1872, Oikopleura longicauda --- (Vogt, 1854), Oikopleura fusiformis Fol, 1872, Fritillaria pellucida (Busch, 1851), Fritillaria formica Fol, 1872, Fritillaria borealis Lohmann, 1896. Oikopleura dioica, represents more than 70% of the - specimens collected.

Importants variations are shown by the seasonal distribution of these species (Fig. 1). Oikopleura dioica shows two peaks, a big one in Spring-time and a short one in Autumn, in the other hand the population of Oikopleura fusiformis increases in Summer and Winter, Oikopleura longicauda and Fritillaria present only one peak in Autumn and Winter respectively.

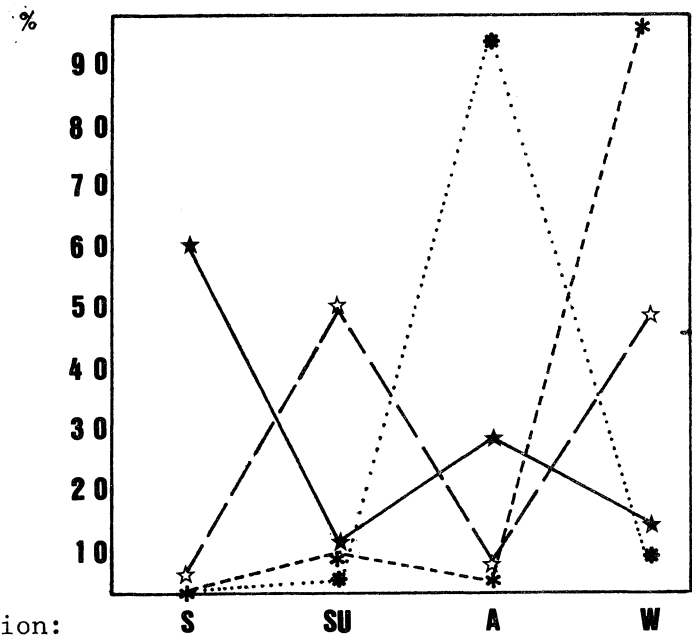


Fig. I.- Seasonal distribution:

- ★—————★ O. dioica
 - ★- - - - -★ O. fusiformis
 - ★.....★ O. longicauda
 - ★- · - - - -★ Fritillaria
- S - Spring, Su - Summer
A - Autumn, W - Winter

Literature Cited

BUCKMANN, A. and H. KAPP, 1975. Taxonomic characters used for the - distinction of species of Appendicularia. Mitt. Hamburg. Zool. Mus. Inst. 72: 201-228.

FENAUX, R., 1967. Les Appendiculaires des mers d'Europe et du bassin Méditerranéen. Masson et Cie. Paris. 113 pp.