

International Council for the  
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Plankton Committee

Planktonic Copepods from the  
Canary Islands

by

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The communities of planktonic copepoda in Santa Cruz de Tenerife Bay have been studied from local samples which were methodically collected at a point situated at 28°28.8'N - 16°10'W. The samples were taken about every 10 days, from seven to eight in the morning, from October 1968 to September 1969, over depths of 500 metres. The chosen collecting net was a monocoic one with a 50 cm mouth diameter, 2.60 m in full length and with a square mesh the side of which had 475 micron. The sampling was perfected by means of another similar net with separated meshes of 63 micron, towed by the same towing line as the first net. For the towing, a power boat 4.75 m in length was used which left the shore at San Andres bound for the above point. Each sampling took 30 minutes, the nets being towed against the tidal current at a speed of one knot, 3.5 km off the coast.

The purpose of this study was threefold :

- to investigate the species in these waters and their numerical importance throughout the year;
- to make accurate observations on morphological, anatomical and metric characteristics;
- to collect data concerning the temperature and salinity and their possible relation with the fauna of copepods.

From the observed data concerning temperature and salinity, it may be concluded that the temperature varies by about 4°C in the year, the minimum in April with 19.23°C and the maximum in October with 23.09°C.

The salinity variation is very small; from 36.53‰ in November to 36.96‰ in July.

The following species were found :

CALANIDAE

+)Calanus helgolandicus (Claus, 1863)

+)Calanus tenuicornis (Dana, 1849)

Neocalanus gracilis (Dana, 1849)

+)Calanoides carinatus (Kroyer, 1849)

Nannocalanus minor (Claus, 1863)

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EUCALANIDAE

- Eucalanus elongatus (Dana, 1849)  
Eucalanus attenuatus (Dana, 1849)  
+) Eucalanus crassus (Giesbrecht, 1888)  
+) Eucalanus monachus (Giesbrecht, 1888)  
Rhincalanus cornutus (Dana, 1849)  
Rhincalanus nasutus (Giesbrecht, 1888)

PARACALANIDAE

- Paracalanus parvus (Claus, 1863)  
+) Paracalanus denudatus (Sewell, 1929)  
+) Paracalanus nasus (Sars, 1907)  
+) Paracalanus nudus (Sewell, 1929)  
+) Acrocalanus longicornis (Giesbrecht, 1888)  
+) Acrocalanus andersoni (Bowman, 1958)

CALOCALANIDAE

- Calocalanus pavo (Dana, 1849)  
+) Calocalanus pavoninus (Farran, 1936)  
+) Calocalanus styliremis (Giesbrecht, 1888)  
+) Calocalanus contractus (Farran, 1926)  
+) Calocalanus neptunus (Shmeleva, 1965)  
+) Calocalanus elegans (Shmeleva, 1965)  
+) Calocalanus plumatus (Shmeleva, 1965)  
+) Ischnocalanus plumulosus (Claus, 1863)  
+) Ischnocalanus tenuis (Farran, 1926)  
+) Ischnocalanus gracilis (Tanaka, 1956)  
Mecynocera clausi (I.C. Thompson, 1888)

PSEUDOCALANIDAE

- Clausocalanus arcuicornis (Dana, 1849)  
Clausocalanus furcatus (Brady, 1883)  
+) Clausocalanus pergens (Farran, 1926)  
+) Clausocalanus paululus (Farran, 1926)  
+) Ctenocalanus vanus (Giesbrecht, 1888)

AETIDEIDAE

- +) Euactideus acutus (Farran, 1929)  
Undeuchaeta plumosa (Lubbock, 1856)

PHAENIDAE

- Phaenna spinifera (Claus, 1863)

SCOLECITHRICIDAE

- +) Scolecithrix bradyi (Giesbrecht, 1888)  
Scolecithrix danae (Lubbock, 1856)  
+) Scolecithricella dentata (Giesbrecht, 1892)  
+) Scolecithricella tenuiserrata (Giesbrecht, 1892)  
+) Scolecithricella auropecten (Giesbrecht, 1892)  
+) Scaphocalanus ochinatus (Farran, 1905)

TEMORIDAE

- Temora stylifera (Dana, 1849)  
+) Temora turbinata (Dana, 1849)  
+) Temoropia mayumbaensis (T. Scott, 1894)

METRIDIIDAE

- Pleuromamma abdominalis (Lubbock, 1856)  
Pleuromamma piseki (Farran, 1929)  
Pleuromamma gracilis gracilis (Claus, 1863)  
Pleuromamma borealis (F. Dahl, 1893)  
+) Pleuromamma robusta robusta (F. Dahl, 1893)

CENTROPAGIDAE

- +) Centropages chierchiae (Giesbrecht, 1889)  
+) Centropages bradyi (Wheeler, 1889)  
Centropages violaceus (Claus, 1863)  
Isias clavipes (Boeck, 1864)

LUCICUTIIDAE

- Lucicutia flavicornis (Claus, 1863)  
+) Lucicutia gaussae (Grice, 1963)

HETERORHABDIDAE

- Heterorhabdus papilliger (Claus, 1863)

AUGAPTILIDAE

- Haloptilus longicornis (Claus, 1863)  
+) Haloptilus spiniceps (Giesbrecht, 1892)  
+) Haloptilus acutifrons (Giesbrecht, 1892)

CANDACIIDAE

- Candacia longimana (Claus, 1863)  
Candacia bipinnata (Giesbrecht, 1889)  
Candacia ethiopica (Dana, 1849)  
+) Candacia curta (Dana, 1849)  
+) Candacia tenuimana (Giesbrecht, 1889)  
+) Paracandacia simplex (Giesbrecht, 1889)  
Paracandacia bispinosa (Claus, 1863)

PONTELLIDAE

- Pontellina plumata (Dana, 1849)  
+) Pontellopsis villosa (Brady, 1883)

ACARTIIDAE

- Acartia (P.) negligens (Dana, 1849)  
+) Acartia (P.) danae (Giesbrecht, 1889)  
+) Acartia (Paracartia) grani (G.O. Sars, 1904)

OITHONIDAE

- Oithona plumifera (Baird, 1843)  
Oithona setigera (Dana, 1849)  
+) Oithona nana (Giesbrecht, 1892)  
+) Oithona robusta (Giesbrecht, 1891)  
+) Oithona linearis (Giesbrecht, 1891)

ONCAEIDAE

- +) Oncaea venusta (Philippi, 1843)  
+) Oncaea mediterranea (Claus, 1843)  
+) Oncaea media (Giesbrecht, 1891)  
+) Oncaea conifera (Giesbrecht, 1891)  
+) Oncaea dentipes (Giesbrecht, 1891)  
+) Oncaea similis (G.O.Sars, 1918)  
Lubbockia squillimana (Claus, 1863)

SAPPHIRINIDAE

- Sapphirina nigromaculata (Claus, 1863)  
+) Sapphirina intestinata (Giesbrecht, 1891)  
Sapphirina metallina (Dana, 1849)  
+) Sapphirina gastrica (Giesbrecht, 1891)  
+) Sapphirina auronitens (Claus, 1863)  
+) Sapphirina opalina (Dana, 1849)  
+) Sapphirina ovatolanceolata (Dana, 1849)  
+) Copilia denticulata (Claus, 1863)  
+) Copila quadrata (Dana, 1842)  
+) Copila vitrea (Haeckel, 1864)

CORYAEIDAE

- Corycaeus (C.) speciosus (Dana, 1848)  
+) Corycaeus (C.) clausi (F. Dahl, 1894)  
Corycaeus (A.) limbatus (Brady, 1883)  
+) Corycaeus (A.) flaccus (Giesbrecht, 1891)  
+) Corycaeus (A.) typicus (Kroyer, 1849)  
+) Corycaeus (O.) ovalis (Claus, 1863)  
+) Corycaeus (O.) giesbrechti (F. Dahl, 1894)  
+) Corycaeus (Ditrichocorycaeus) sp.  
Corycaeus (U.) furcifer (Claus, 1863)  
+) Corycaeus (U.) lautus (Dana, 1848)  
Farranula carinata (Giesbrecht, 1891)  
Farranula rostrata (Claus, 1863)

ECTINOSOMIDAE

- +) Microsetella rosea (Dana, 1852)  
+) Microsetella norvegica (Boeck, 1864)

MACROSETELLIDAE

- Macrosetella gracilis (Dana, 1852)

TACHIDIIDAE

Euterpina acutifrons (Dana, 1848)

According to consulted bibliographies, species marked with (+) were reported for the first time in the Canary waters in my previous paper (CORRAL, 1970).

Calocalanus tenuis (Farran) and Calocalanus gracilis (Tanaka) were moved into Ischnocalanus (Bernard, 1963) genus.

For the first time the males of the following species were found : Paracalanus denudatus, Calocalanus styliremis, Calocalanus pavonius, Calocalanus contractus, Ischnocalanus gracilis, Mecynocera clausi, Clausocalanus paululus, Oncaea dentipes.

Acrocalanus indicus (Tanaka, 1960) is moved into a synonymy of Paracalanus nudus (Sewell, 1929) since it is based on the males of the latter.

The following species, not previously known from the Atlantic Ocean, were taken in the present collection : Paracalanus nudus, Calocalanus neptunus, Calocalanus plumatus and Calocalanus elegans.

APPENDIX

In samples from Gomera, Fuerteventura and Lanzarote some species were found which had not been taken in the previous collection. They were the following :

- Euchaeta marina (Prestandrea, 1833)
- ++) Haloptilus oxycephalus (Giesbrecht, 1889)
- ++) Pontellopsis regalis (Dana, 1849)
- ++) Pontella mediterranea (Claus, 1863)
- ++) Labidocera nerii (Kroyer, 1849)
- ++) Copilia mirabilis (Dana, 1849)
- ++) Sapphirina stellata (Giesbrecht, 1891)

The species not previously known in Canary waters are indicated by (++) . Sapphirina stellata is newly recorded in the eastern Atlantic.

This time, the total of the species collected in the upper layers of sea around the Canary Islands is 117.

References 1)

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| Corral, J. | 1970 | "Contribución al conocimiento del plancton de Canarias. Estudio cuantitativo, sistemático y observaciones ecológicas de los copépodos epipelágicos en la zona de Santa Cruz de Tenerife en el curso de un ciclo anual." Publ.Fac.Ciencias ser.A, no.129. Madrid. |
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1) For a complete list of reference, please refer to my paper.