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Ödemål, Kville en, Bohuslän

Hällristning
Fiskare från
bronsåldern

Rock carving
Bronze age
fishermen



**MEDDELANDE från
HAVSFISKELABORATORIET • LYSEKIL**

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Notes on the distribution of some
polychaetes in the Baltic

by

Anders Hagberg

September 1972

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During the Swedish investigations of the quantitative distribution of the benthic fauna in the Baltic Sea, carried out by the Institute of Marine Research of Lysekil since 1970, some new data have been obtained on the distribution of some of the polychaete annelide species.

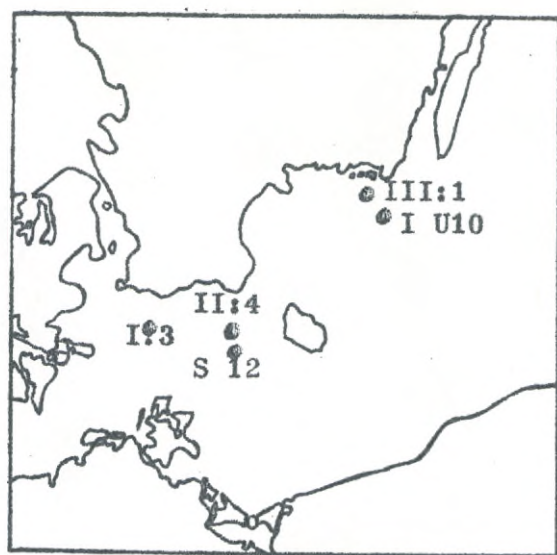
Errantia

Eteone longa (Fabricius, 1780) is quite frequently found in the Arkona Basin throughout the year and is hereby recorded as far eastward as station S 12 (see map), position N 55°00' E 14°05', at a depth of 48 m on black, oozy bottom substrate; the bottom water salinity and temperature (March 1972) were 15,81 ‰ and 2,01°C, respectively. This species is reported, however, to tolerate salinity values down to about 9 ‰ (Hartmann-Schröder, 1971). It has hitherto been reported from the Baltic area only in the Mecklenburger Bucht (Schulz, 1969).

Anaitides maculata (Linné, 1767). Showing a similar distributional pattern as the beforementioned species in the area of investigation, it seems, however, to be more wide-spread in the Arkona Basin and shows a greater abundance. As is the case with Eteone longa, it tolerates well lower salinities. It has been taken as far eastward as station S 12, where it is quite frequent (hydrographical recordings were identical with those for E. longa). This species is reported previously only from the Lübecker Bucht (Hartmann-Schröder, 1971).

Microphthalmus aberrans (Webster & Benedict, 1887) is not uncommon in the Arkona Basin and has been found on at least four localities, station S 12 being the most eastward. Previously recorded from the Kieler Bucht (Hartmann-Schröder, 1971).

Trochochaeta multisetosa (Oersted, 1843) was not uncommon in the Bornholm Basin during 1970 and early 1971, at depths ranging from 70 to 92 m, on brownish-black, rather soft mud; the bottom water salinity varied between 15,52 and 16,60 ‰ and the oxygen concentrations recorded were low (2,76 to 0,19 ml/L). However, perhaps due to further oxygen depletion of the bottom water as far up as to 70 m in the autumn of 1971, this species has not been found in the Bornholm Basin since March 1971; it is quite frequent in the Arkona Basin. According to Hartmann-Schröder (1971), it tolerates salinity values down to



Southern Baltic with the stations mentioned.

about 3 ‰. Reported previously from the Mecklenburger Bucht (Schulz, 1969).

Sedentaria.

Polydora quadrilobata Jacobi, 1883. This species was found during early 1972 in the Bornholm Basin where it is, however, not common, on hard clay mixed with gravel at a depth of 50 m (station III:1); salinity was 13,23 ‰. Previously recorded from Kieler Bucht (Hartmann-Schröder, 1971).

Fam. Cirratulidae Carus, 1863. Five specimens of this family were taken in March 1972 at station II:4, which is the easternmost locality recorded as yet for this family. The specimens have not yet been identified down to species; two cirratulid species of the genera Cirratulus and Chaetozone have been reported from the Kieler Bucht (Kühlmorgen-Hille, 1963) and from the Mecklenburger Bucht (Schulz, 1969) but morphological characters do not conform either of these two genera with the actual specimens.

Heteromastus filiformis (Claparède, 1864) was found in the Bornholm Basin as late as September 1971 at station I U-10, depth being 65 m, on soft, muddy bottom; salinity and oxygen recordings were 15,15‰, and 0,01 ml/L, respectively. However, in 1970 and early 1971 it was recorded further down in the Basin (often associated with Capitella capitata). This species is reportedly tolerant against-lower salinity values (down to about 5 ‰), as well as against polluted waters. Hitherto recorded from the Sound (Hartmann-Schröder, 1971).

Myriochele oculata Zachs, 1922. Five specimens were found at station S 12 in the eastern part of the Arkona Basin in the autumn of 1971. Salinity and temperature recordings were 13,00 ‰ and 13,26°C, respectively.

Laonome kröyeri Malmgren, 1865. Three specimens were collected in the western part of the Arkona Basin (station I:3) in November 1970, at a depth of 45 m on soft, oozy bottom; salinity recordings showed 14,09 ‰ at the bottom. It has hitherto been recorded from the Mecklenburger Bucht (Hartmann-Schröder, 1971).

Among the species mentioned above, egg-bearing individuals have been found only in Trochochaeta multisetosa (Jan. and Aug. 1972) and Heteromastus filiformis (March 1970 and 1971) as far eastward as station S 12. It seems, therefore, reasonable to assume that the occurrence of these two species, and of Polydora quadrilobata, in the Bornholm Basin may be due to the specific hydrographical conditions which ruled the southern Baltic during 1969-1971, and that propagation by them does not take place in the Bornholm Basin. The type of larval development - pelagic in all species referred to with the presumable exceptions of Laonome kröyeri and P. quadrilobata, where the larval development seems to be unknown - would, in connection with the hydrographical conditions mentioned, facilitate the dispersion of these species from the western Baltic throughout the Arkona Basin into the Bornholm Basin. Very little is known about their exact tolerance to low oxygen contents, but the actual findings suggest a fairly high resistance/tolerance to low oxygen tensions at least in T. multisetosa and H. filiformis.

References.

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