

# Preliminary note on the polychaeta and polychaeta larvae in Haifa harbour, Israel

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Raft tests were carried out in Haifa Harbour, and the main components of the marine fouling communities in this region have been described by KOMAROVSKY and SCHWARZ [1957], and KIMOR (KOMAROVSKY) and PISANTY [1965].

In the present paper we are dealing specifically with Polychaeta and their larvae, from the same environment.

MONRO [1937], FAUVEL [1955, 1957], TEBBLE [1959], GOTTLIEB (GILAT) [1959], have been working with Polychaeta of this country, but only on adult stages.

From November 1965 to August 1966, plankton samples were collected every week in the vicinity of the raft in addition to salinity, O<sub>2</sub>, pH, and temperature data.

Adult stages were picked up from the sea bottom with an Emery Grab, and these samples were thoroughly rinsed in a series of sieves. Organisms occurring on the experimental panels on the raft, have also been checked and examined without any previous washing, in order to obtain spawned eggs and larval stages as well as ripe adults.

In the laboratory, the animals were sorted out and kept alive in small Petri dishes. Aeration was performed according to the apparatus described by HANNERZ [1952-53], and the food supplied was a culture of *Chlorella* sp.

The larvae have been studied and drawn under the microscope. For adult stages, the stereo-microscope has been used. Square ruled paper was used for the drawings and a square-net micrometer in the eye-piece, as described by WILSON [1928].

All the figures (less some adults) have been drawn from living specimens according to the method adopted by HANNERZ [1956]. As larvae move fast, it was necessary to employ MgCl<sub>2</sub>, in very low concentrations, in order to obtain a light anaesthetic effect without stopping the ciliary movements.

The most common larva from November 1965 to July 1966, belongs to the *Spionidae* family, with some dominance in winter and spring. *Polydora* was the commonest genus.

As has already been mentioned by KIMOR and PISANTY [1965] *Hydroides norvegica* is the commonest sedentary polychaete occurring on the experimental panels. Their trochophores and metatrochophores were found in the plankton during the whole period.

From this species artificial fertilisation was tried according to the method described by WISELY [1958].

Successive larval forms were obtained up to the stage of old trochophores. These results allowed us to recognise the same forms in the plankton samples, and subsequent stages were caught and reared in the laboratory until they reached metamorphosis.

Syllids with eggs and their larvae were commonly found on the panels during summer.

Less common were the larvae of *Nereidae*, *Hesionidae*, *Sabellidae* and *Magelonidae* in the plankton samples.

A full report on this investigation will be prepared in due time.

It is hoped that by then a full year cycle of observations on the succession of larval stages will be completed.

Such an attempt would contribute to a better knowledge and understanding of the life history of some of the dominant polychaete species in the plankton of this region, and possibly also be of assistance in the current research on marine fouling going on in the same environment.

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