

NEW NORTHWARD POLYCHAETES IMMIGRANTS THROUGH THE SUAZ CANAL

H. H.El-Rashidy, M.M.Atta, M.M.Dorgham and R.Hamdy

Oceanography Department, Faculty of Science, Alexandria University, Egypt

KEYWORDS: polychaetes, Suez Canal, invasive species, Lessepsian migration, Red Sea immigrants, invasive polychaetes, Alexandria Benthos.

The benthic polychaetes community was studied monthly in the inter-tidal and swash zones of the southeastern Mediterranean along Alexandria coast. Of the total number (73 species) of recorded species, nineteen were reported as new records to the area. Several of them were widely distributed over the whole area, namely: *Amphiglena mediterranea*, *Brania arminii*, *Grubeosyllis clavata*, *Loimia medusa*, *Opithosyllis brunnea*, *Pomatoceros triqueter*, and *Syllis (Typosyllis) schulzi*, while the others appeared at one or two sites only, like *Exogone (Exogone) dispar*, *Eunice miurai*, *Microphthalmus szcelkowi*, *Odontosyllis fulgurans*, *Namanereis pontica*, *Ophiodromus pallidus*, *Phyllodoce cf. longifrons*, *Serpula cf. concharum*, *Syllides fulvus*, *Saccocirrus papillocercus*, and *Protodrilus* sp. The majority of these species were found occasionally or sustained low counts, others displayed relatively high counts, like *Opithosyllis brunnea* and *Grubeosyllis clavata*, while *Pomatoceros triqueter* and *Syllis (Typosyllis) schulzi* were predominant over the whole area, with annual average of 344-2580 ind./m² for the former species and 294-2202 ind./m² for the latter one. Furthermore, *Saccocirrus papillocercus* was also a new record, occurring mostly in soft bottom with relatively high counts (up to 850 ind./m²). It is to be noted that, some of the new recorded species could be considered as recently migratints from the Red Sea, namely: *Phyllodoce cf. longifrons* and *Syllis (Typosyllis) schulzi*, beside the previously recorded Red Sea migrants, *Pseudonereis anomala*, *Linopherus acarunculata*, *Branchiosyllis exilis* and *Spirobranchus tetraceros*. Introsion of such species into the study area not only affected the species diversity but also caused changes in the pattern of species dominance. In the present study, the syllid species *S. (T.) schulzi* was found to overcome the previously dominant species *S. (T.) prolifera* and *S. (T.) variegata*.

The world geographical distribution of the new recorded species indicates that some are cosmopolitan (*Grubeosyllis clavata*, *Loimia medusa*, *Odontosyllis fulgurans*, *Opithosyllis brunnea*), others are known in the Atlantic Ocean and/or Mediterranean (*Microphthalmus aberrans*, *Microphthalmus szcelkowi*, *Namanereis pontica*, *Ophiodromus pallidus*, *Pomatoceros triqueter*). It is expected that the occurrence of such species in the study area may indicates transference of their larvae by ships ballast waters or by the current regime in the Mediterranean. The rest of the new recorded polychaete species were recorded in circum-tropical regions (*Brania arminii*), Pacific and Atlantic-Mediterranean (*Exogone (Exogone) dispar*, *Saccocirrus papillocercus*) Atlantic-Mediterranean and Red Sea (*Serpula cf. concharum*, *Syllides fulvus*, *Amphiglena mediterranea*) or Mexican and Caribbean Sea (*Eunice miurai*). Since these species are known in both Indo-Pacific and Atlanto-Mediterranean environments, their larvae are expected to be brought to Alexandria coast either from the Red Sea through the Suez Canal or from other parts of the Mediterranean by the same ways mentioned above. Furthermore, the Red sea immigrant serpulid, *Spirobranchus tetraceros*, which was previously recorded as predominant along Alexandria coast, has been substituted

by the Mediterranean cosmopolitan serpulid *Pomatoceros triqueter* during the present study.

Mohamed Moussa Dorgham

Oceanography Department,

Faculty of Science,

Alexandria University,

21511 Moharrem Bey

Alexandria

Egypt

Primary author email: mdorgham10@hotmail.com,

(002) 0124609801