

A new alien species in Hellenic waters: *Pseudonereis anomala* (Polychaeta, Nereididae) invades harbors in the Eastern Mediterranean

Venetia Kambouroglou* and Artemis Nicolaidou

Department of Zoology & Marine Biology, School of Biology,
University of Athens, Panepistimiopolis, GR 157 84, Athens, Greece

*Corresponding author, E-mail: vkambour@biol.uoa.gr

Received 11 April 2006; accepted in revised form 28 May 2006

Abstract

Pseudonereis anomala (Polychaeta), a Red Sea immigrant, is reported in Greek waters in a time period when the species was also recorded along the Turkish coast. A total of 55 specimens were collected in the harbor of Piraeus in September 2003, and 5 specimens in the harbor of Kalamata in October 2003.

Key words: alien polychaete species, distribution, harbors, Aegean Sea, Ionian Sea

The species *Pseudonereis anomala* (Gravier, 1900) (Polychaeta, Nereididae) (Figure 1) was first recorded in Alexandria (Egypt) by Fauvel (1937). In 2005, Cinar and Ergen reported the presence of *P. anomala* in samples collected in January 2004 in and around Alsancak harbor (Izmir Bay, Turkey, East Aegean Sea). This was the first record of the species from outside the Levant Basin. At approximately the same time, the species was also collected by us from the west Aegean coast, namely in the port of Piraeus in Saronikos Gulf (N 37°56'55", E 23°27'26") in September 2003 and in the south Ionian Sea, in the port of Kalamata in Messiniakos Gulf (N 37°01'03", E 22°07'03") in October 2003. At both sites samples were taken from wharfs (artificial hard substrata) at approximately 0.5 m depth. Sampling was conducted by SCUBA diving scraping a bottom surface of 400 cm². In Piraeus 55 specimens were collected, most of which were found among calcareous algae and fewer among young mussels of the local fouling communities. The length of intact worms ranged from 6.46 mm to 22.3 mm in Piraeus. In Kalamata only 5 specimens were found among calcareous algae whose length ranged from 5.59 mm to 22.8 mm.

These findings testify the actual wider limits of *P. anomala* distribution to the west, with respect

to the information of Cinar and Ergen (2005). *Pseudonereis anomala* is a species of Indo-Pacific origin (Day 1967).

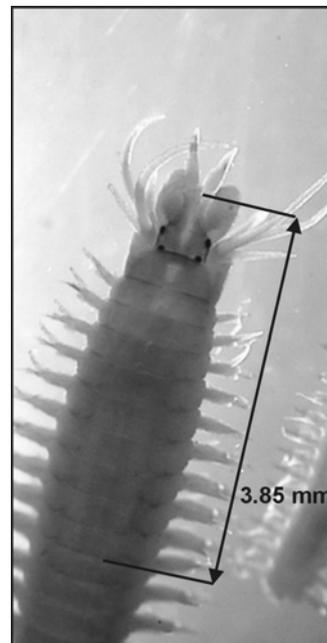


Figure 1. Dorsal view from anterior region of a *Pseudonereis anomala* specimen collected in Piraeus harbor. Length of head and first ten chaetigerous segments: 3.85mm.

Its presence in large numbers in the Suez Canal (Ben-Eliahu 1991), suggest its introduction by Lessepsian migration in the Mediterranean, favoured also by its mode of dispersion by pelagic larvae (Cinar and Ergen 2005). However, its presence inside and near the harbors in the present record as well as in that of Cinar and Ergen (2005), suggest that its expansion is at least facilitated by shipping activity.

Acknowledgements

We would like to thank Dr. Melih Ertan Cinar of the Ege University (Izmir, Turkey) for confirmation of species' identification.

References

- Ben-Eliahu MN (1991) Nereididae of the Suez Canal – Potential Lessepsian migrants. *Bulletin of Marine Science* 48: 318-329
- Cinar ME and Ergen Z (2005) Lessepsian migrants expanding their distributional ranges; *Pseudonereis anomala* (Polychaeta: Nereididae) in Izmir Bay (Aegean Sea). *Journal of the Marine Biological Association of the United Kingdom* 85: 313-321
- Day JH (1967) A monograph on the Polychaeta of Southern Africa. Part I, ERRANTIA. Trustees of the British Museum (Natural History): 458 pp
- Fauvel P (1937) Les fonds de pêche près d' Alexandrie. XI. Annélides Polychètes. Ministère du Commerce & de l' Industrie, Le Caire. Direction des Recherchers des Pêcheries. *Notes and Mémoires*, no 19: 1-60
- Gravier C (1900) Contribution à l'étude des Annélides Polychètes de la Mer Rouge. Première partie. *Nouvelles Archives du Muséum d' Histoire Naturelle Paris* 42: 137-282