

The *Posidonia oceanica* (L.) Delile Meadows of Egyptian Waters.  
Polychaetes from the Alexandria Meadows

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The Polychaete fauna of a *Posidonia* stand located at Miami Bay (Alexandria) have been investigated in the frame of a current project on the study of the *Posidonia oceanica* ecosystem in Egyptian waters. Samples were collected seasonally by Scuba diving from a meadow 5-7 m deep from 1000cm<sup>2</sup> using a metal frame. The samples yielded a total of 8080 individuals/m<sup>2</sup>, distributed between 24 species, 16 Errantia and 8 Sedentaria. Their diversity H'(Shannon-Weaver), richness (Margalef), evenness J(Pielou) and relative abundance were calculated (Table 1).

Thirteen species contributed 95.5% of the population. *Dasychone lucullana* was leading with 31% and common in all seasons on the rhizomes. It was followed by *Platynereis dumerilii* (14%) and *Eurythoe complanata* (11%), *Cirratulus cirratus* (10%), *Nereis laevigata* (6%), *Syllis variegata* (6%), *Syllis alternata* (5%), *Lumbriconereis funchalensis* (4%), *Lepidonotus clava* (3%), *Staurocephalus rudolphii* (2%), *Lepidonotus squamatus* (1%), *Capitella capitata* (1%) and *Syllis gracilis* (1%). Eleven other species contribute 1%.

Ergen (1985) found *Nereis zonata*, *Platynereis dumerilii* and *Nereis pelagica* to be the most common Polychaetes associated with *P. oceanica* meadows of Izmir Bay, while Colognola, Gambi and Chessa (1984) showed that a "typical" Polychaete community associated with *Posidonia oceanica* leaves could not be identified. All species found are characteristic of other different environments most species identified in Alexandria meadow differ from those reported from the Gulf of Naples, except *Platynereis dumerilii* which seems to prefer the shallow stands. Although some of the genera identified in Alexandria meadows are correspond to those of the Gulf of Naples such as *Syllis*, *Nereis*, *Leptonereis*, *Hydroides*, the species are completely different.

Table 1. Total number of species and individuals/m<sup>2</sup>, diversity index, evenness, richness at different seasons in Alexandria meadow.

Season	No. of species	No. of individual/m <sup>2</sup>	H'	J'	R
Spring	20	1790	2.22	0.74	2.54
Summer	19	3220	2.30	0.78	2.23
Autumn	12	2000	1.60	0.65	1.45
Winter	10	1070	1.26	0.55	1.29

Spring and Summer were significantly more diversified in species than Autumn and Winter, their population was also more even than the Winter and Autumn populations.

The authors wish to thanks Dr. H. Hosny for his cooperation.

References

- Colognola, R.; Gami, M.C. and Chessa, A. (1984). International Workshop *Posidonia oceanica* Beds 1: 101-108.
- Ergen, Z. (1986). Rapp. int. Mer Médit 30 (2): p.19.