

Spatial and quantitative distribution of sand beach meiofauna in the Northern Gulf of Aqaba

by

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Résumé

On décrit la distribution spatiale et quantitative de la meiofaune des plages sablonneuses dans le golfe septentrional d'Aqaba.

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The wave-wash zone of 12 beaches along the Aqaba Coast of Jordan were sampled for meiofauna during November, 1973 and June, July and August, 1974. At each beach, 4 - 4 cm diameter cores were taken at the corners of a 50 × 50 cm area. The depth of the cores ranged from 5 to 20 cm, depending on the grain size of the beach. Additional data collected included temperature, sand samples for organic content and water samples for salinity, nitrate, nitrite, ammonia and phosphate analysis. The beaches were sampled over a range of tidal levels.

Analysis of the meiofauna, at 5 cm intervals, revealed a variable abundance from one beach to another. For all beaches studied, the mean number of meiofauna was : 0-5 cm - 288; 5-10 cm - 256; 10-15 cm - 247; 15-20 cm - 70. The community structure, based on numerically dominant taxa totaling a minimum of 70 percent, was found to be fairly uniform. The Harpacticoida were the most consistent and dominant components of the meiofauna community with Turbellaria, Nematoda, Archiannelida, Polychaeta, and Ostracoda being other significant components. Additional taxa found included Cnidaria, Gastrotricha, Oligochaeta, Mollusca, Halacaridae and Tardigrada.

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