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POPULATION DYNAMICS OF *HOLOTHURIA (HOLOTHURIA) TUBULOSA* AND *HOLOTHURIA (LESSONOTHURIA) POLII* OF AN ALGERIAN *POSIDONIA OCEANICA* MEADOW

Abstract

Deposit-feeder holothurians represent a major component of Posidonia oceanica (L.) Delile ecosystems. They actively contribute to the turnover of organic matter by ingesting materials in the detritus layer. The evolution of the biomass/density ratio was investigated for two aspidochirotid species Holothuria (H.) tubulosa (Gmelin, 1978) and Holothuria (L.) polii (Rowe, 1969). Quantitative samples were seasonally collected from March 2001 to February 2002, at 3 m depth in two Algerian contiguous shallow stations. The data collected in each season were statistically compared between stations, species and seasons. A significant difference between species was demonstrated in both stations. However, for both species, the biomass/density ratios exhibited a maximum in summer and a minimum in fall. The minimum value of the biomass/density ratio may be interpreted as an indication of recruitment. The mean abundance of Holothuria (L.) polii was significantly lower in the polluted station than in the unpolluted station. The data collected confirm the importance of Holothuria (L.) polii as an indicator of the pollution.

Key-words: echinoderms, population dynamics, seagrass, pollution, Algerian basin.