

La nutrition d'échinodermes abyssaux I. Alimentation des holothuries



In deep waters, deposit-feeding holothurians represent a high percentage of the total abyssal biomass and play an important ecological role in sediment modification. The feeding of these organisms, which inhabit a nutritively poor environment, has been studied by means of analyses of intestinal contents. Four abundant species : *Psychropotes longicauda* Theel, *Paroriza pallens* (Koehler), *Benthogone rosea* Koehler and *Molpadia blakei* (Theel), collected between 2000 and 4500 m in the Bay of Biscay during three cruises organized by CNEXO-COB, were chosen for this study. The morphological characteristics of the ingested alimentary particles are described and the results of analyses of the organic matter in the guts reported. The species studied do not exhibit a strict alimentary diet ; 16 types of presumably nutritive particles were distinguished in the foregut. The nutritional sources for these holothurians mainly consist of organo-mineral aggregates, faecal matter and organic incrustations on mineral particles. Selection is for those detritus particles which are richest in bio-available compounds ; a negative selection for living organisms is apparent. The finest fraction of the sediment (which is also the richest in organic matter) is also ingested. The concentrations of organic carbon and nitrogen in the sediment found in the foreguts are about 4 times and 6 times greater, respectively, than the concentrations in the environmental sediment. During passage through the intestines, assimilation of organic carbon and nitrogen is 15 and 22%, respectively ; assimilation is maximal in the ascending intestine loop.

Auteurs du document : Khripounoff, Alexis, Sibuet, Myriam

Obtenir le document : Springer Verlag

Thème (issu du Text Mining) : MILIEU NATUREL

Date : 1980

Format : text/xml

Source : Marine Biology (0025-3162) (Springer Verlag), 1980 , Vol. 60 , N. 1 , P. 17-26

Langue : Inconnu

Droits d'utilisation : by Springer-Verlag 1980, info:eu-repo/semantics/openAccess, restricted use

Télécharger les documents : <https://archimer.ifremer.fr/doc/1980/publication-5309.pdf>

<https://archimer.ifremer.fr/doc/00000/5309/>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/la-nutrition-d-echinodermes-abyssaux-i-alimentation-des-holothuries0>