

Étude expérimentale des niveaux d'utilisation des détrit­us dérivés de trois microphytes par le bivalve *Abra ovata* (Philippi)



We measured the utilization (i.e., ingestion and absorption) rates of the detritus derived from three microphytes (*Nitzschia acicularis*, *Nitzschia* sp., and *Pavlova lutheri*) by the deposit-feeding bivalve *Abra ovata*. The labelling procedure consisted in labelling Live microphytes with C-14 sodium bicarbonate. The cultures were then rinsed, frozen, and freeze-dried. The analysis of temporal changes in the distribution of radioactivity within the control chambers showed: (1) a significant production of (CO₂)-C-14 and (2) a rapid transfer of radioactivity from POM (i.e., detritus) to DOM. Modelling of the exchanges of radioactivity between compartments within the control chambers permitted quantification of these two processes, and computation of the initial distribution of radioactivity. Modelling of the exchanges of radioactivity between compartments within the experimental chambers containing bivalves permitted computation of ingestion rates and absorption efficiencies. Weight-specific ingestion rates ranged from 0.51 to 1.08 10⁻³ mgOM.mgDW⁻¹.h⁻¹ for the detritus derived from *P. lutheri* and *Nitzschia* sp., respectively. Absorption efficiencies were between 10 and 17% for the detritus derived from *Nitzschia* sp. and *P. lutheri*, respectively. These values are

lower than those reported in the literature concerning live microphytes. Comparison with other existing data suggests that the transition from live to detritic microphytes induces a reduction in absorption efficiency which appears to be affected by the nature of the detritus and (or) deposit-feeders considered.

Auteurs du document : Charles, F, Amouroux, Jm, Gremare, A

Obtenir le document : Gauthier-Villars

Thème (issu du Text Mining) : MILIEU NATUREL

Date : 1994

Format : text/xml

Source : Oceanologica Acta (0399-1784) (Gauthier-Villars), 1994 , Vol. 17 , N. 5 , P. 571-581

Langue : Inconnu

Droits d'utilisation : info:eu-repo/semantics/openAccess, restricted use

Télécharger les documents : <https://archimer.ifremer.fr/doc/00099/21033/18659.pdf>

<https://archimer.ifremer.fr/doc/00099/21033/>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/etude-experimentale-des-niveaux-d-utilisation-des-detritus-derives-de-trois-microphytes-par-le-bival0>

Evaluer cette notice: