



Desrosiers, G., C. Savenkoff, M. Oliver, G. Stora, K. Juniper, A. Caron, J.P. Gagné, L. Legendre, S. Mulsow, J. Grant, S. Roy, A. Grehan, P. Scaps, N. Silverberg, B. Klein, J.É. Tremblay & J.C. Therriault (2000). Trophic structure of macrobenthos in the Gulf of St. Lawrence and on the Scotian Shelf. *Deep-Sea Research Part II: Topical Studies in Oceanography*, 47(3-4): 663-697. DOI: 10.1016/S0967-0645(99)00122-8

Trophic structure of macrobenthos in the Gulf of St. Lawrence and on the Scotian Shelf

G. Desrosiers, C. Savenkoff, M. Oliver, G. Stora, K. Juniper, A. Caron, J.-P. Gagné, L. Legendre, S. Mulsow, J. Grant, S. Roy, A. Grehan, P. Scaps, Norman Silverberg, B. Klein, J.-É. Tremblay & J.-C. Therriault

The Gulf of St. Lawrence and Scotian Shelf provide a diversity of oceanographic conditions in a continental margin setting. Climate is markedly seasonal, and bathymetry and hydrodynamic conditions cover a broad range, significantly influencing the patterns of organic matter sedimentation and, potentially, benthic community dynamics. Samples for analysis of benthic macrofauna and sediment microorganisms were collected at six stations in the Gulf of St. Lawrence (GSL) and the Scotian Shelf during winter and summer cruises, as part of the Canadian Joint Global Ocean Flux Study. Multivariate analyses indicate significant site-related trends in trophic guilds, benthic assemblages, and microbial activity, some of which are related to geomorphological characteristics (bathymetry, topography, and substratum). Macrofaunal trophic guild data show that the stations with relatively deep settling basins (Cabot Strait and Emerald Basin), dominated by surface deposit feeders, were distinct from stations with sloping bottoms (Anticosti Gyre and Anticosti Channel), where subsurface deposit feeders dominated or surface and subsurface deposit feeders were equally abundant. Deposit feeders (surface and subsurface trophic groups) made up >60% of the benthic communities, except at the Scotian slope station where they represented 44% of the total benthic abundances. Based on the data collected in both the water column and the sediment at three deep stations in the GSL, we hypothesize that the proportion of surface and subsurface deposit feeders, and thus the nature of bioturbation activity, is related to the magnitude and pattern of organic matter supply from the euphotic zone.

Para obtener copia del documento contacta con el autor (silverb@ipn.mx) o con el personal de la biblioteca (bibliocicimar@ipn.mx).