

# MODERN BENTHIC FORAMINIFERA OF WEST ANTARCTICA

## Summary

After a decade of research, Admiralty Bay on King George Island stands among the most researched for benthic foraminifera areas throughout West Antarctica. In this area, several new taxa were established, together with the first living representative of the family Elphidiidae; foraminifera that are common in the Arctic, and so far have been considered absent throughout Antarctica. Monothalamous foraminifera with no mineral test constitute large portion of living foraminiferal assemblages. They have no chance to be preserved in fossil record and until recently they were ignored in most of studies. It lead to significant underestimating of foraminiferal diversities and total frequencies, especially in the most shallow-water and near-shore environments. Thanks to rather broad geographic distribution and distinct morphological variability, multichambered

foraminifera are the most useful for environmental studies. In Admiralty Bay, a clear bathymetrical gradient in their assemblages has been observed. However, it was not as pronounced as in other regions where strongly stratified waters promote calcium carbonate dissolution at greater depths. Despite large differences between different habitats, benthic foraminiferal assemblages show broad geographic distribution beyond West Antarctica. Strong assemblage similarities were noted between very distant areas of West and East Antarctica, that are under influence of similar oceanographic conditions. These similarities enable extensive use of ecological data on foraminiferal species and entire communities for interpretation of fossil data throughout Antarctica, which may improve our understanding of its environmental history.