

Interactive comment on “Bioerosion by microbial euendoliths in benthic foraminifera from heavy metal-polluted coastal environments of Portovesme (South-Western Sardinia, Italy)” by A. Cherchi et al.

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Received and published: 18 October 2012

The manuscript is a very detailed documentation of bioerosional processes, acting on benthic foraminiferal tests under severely pollutant conditions. Assemblages are characterized for abundance, diversity and population density; several geochemical analyses have ascertained anomalous Mg/Ca ratios and metal enrichments in tests. Moreover, microbial infestation and abnormal morphologies are documented. This study greatly contributes to growing characterization of environmental pollution through new methodologies and techniques for monitoring marine ecosystems. Benthic foraminifers

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are part of bioindicators sensitive to ecological and environmental changes and specifically respond to various pollutants. Therefore, they can be used to directly measure the “ecological health” of an ecosystem at short and long-term. The topic is certainly at the forefront of environmental sciences and the manuscript by Cherchi et al represent is a well-documented contribution in terms of new, integrated micropaleontological and geochemical data. The scientific approach and the methodologies are valid, the manuscript is properly organized and conclusions fully supported by data. Previous literature is exhaustively taken into account The photograph plates are particularly appreciated for the quality and quantity of details. In conclusion, the manuscript by Cherchi et al. should be considered for publication in BG after minor revision as outlined below. Lines 138-142 : these are results and should be moved to the appropriate chapter

Line 440 Palaeocl SHOULD BE Palaeoecol.

Line 509 micropaléontologie SHOULD BE Micropaléontologie OR Micropaléont.

Line 512 micropalénology SHOULD BE Micropaléontologie OR Micropaléont.

TABLE 2 : please note that in English decimals must be written using “.” and not “,”. For example 0,35 SHOULD BE 0.35. Change all.

FIGURE 10: It would be better if ALL PLOTS WERE AT THE SAME HORIZONTAL SCALE, and aligned.

Interactive comment on Biogeosciences Discuss., 9, 11103, 2012.