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Acidification and dissolution in marine sediments of Bays

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Besides sea level rise, climate change consequences are ocean warming and its evil twin the acidification. Ocean acidification has been identified as a future global concern because it has been slowly affecting whole ecosystems and it is a threat to local economies, mainly shellfish and fisheries productions. Environments like bays are rich, biodiverse and act as a carbon sink. Oceans absorb twenty-five percent of carbon dioxide emissions. So, when there is an excess of carbon dioxide emissions in the atmosphere, this excess is absorbed in seawater and in the marine sediment interstitial water, and a series of chemical reactions lowering pH and increasing ocean acidity occurs. These ocean acidification changes have serious implications for coastal ecosystems, altering the way marine life behave and develop and nobody has yet addressed this question. Benthic Foraminifera is the base of the ocean food web, by being first consumers in the ocean. If something happens to them, the entire ecological chain will suffer and it will be registered, because Foraminifera are microfossils and their ecological dynamics remain well preserved in ocean sediments and continental sedimentary rocks for over millions of years and their fossilized shells evidences the environmental conditions when the organism was alive. They are "Environmental indicators" because they allow study of ecological and oceanographic conditions of the present and past oceans. They act like clocks, since they evidence age of sediments and rocks that contain them, and as thermometers, because their shell chemistry is used to reconstruct the climate history of oceans.