

SPATIAL AND TEMPORAL VARIATION IN DISTRIBUTION OF *Gelidium canariensis* (RHODOPHYTA)

A. Lindgren¹, N. Bouza-Carrelo², P. Aberg¹ and P.A. Sosa².

¹Department of Marine Botany, Göteborg University, Carl Skottsbergs Gata 22, S- 413 19 Göteborg Sweden

²Departamento de Biología. Universidad de Las Palmas, Campus Universitario de Tafira. 35017 Las Palmas, Islas Canarias, Spain

Observation of spatial and temporal variation in the distribution and abundance of organisms is often the starting point from which questions and hypothesis of ecological processes arise. This study was designed to investigate spatial and temporal variation of *Gelidium canariensis* at two shores in northern Gran Canaria during two years. Spatial scales varied from some hundred meters (distance among shores), 10 to 30 m (distance among plots) to less than meters (distance between squares). *Gelidium* individuals was defined as distinct *Gelidium* clumps. The results show a significant difference in size of individuals between shores but not on the smaller scales. No significant temporal variation was found. For standing crop and density (counted on squares where *Gelidium* was present, not counted for the total shore) there were no differences on either temporal or spatial scales. Tetrasporophytic and gametophytic individuals were also distinguished by identifying reproductive structures in the field. For both years tetrasporophytes were more abundant although the major part of the population consists of vegetative individuals. The results indicate a stable population structure.

This work has been carried out from the collaboration surged in ambit of the European Community project "BIOGAP". MAST-III program.