



**FIRST SYMPOSIUM
"FAUNA AND FLORA OF THE ATLANTIC ISLANDS"**

**PRIMEIRO SIMPÓSIO
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ABSTRACTS / RESUMOS

MICROCLIMATE AND RELATIVE HABITAT CONSTANCY ON THE ATLANTIC ISLANDS AND THE MOUNTAINS OF NORTHWEST AFRICA AMONG *EUPHORBIA* SPECIES AND LICHENS

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In the light of habitat ecology, there are coincidences among the flora and vegetation of the Atlantic Island groups and the mountains of northwest Africa. With increasing aridity from north to south and east to west, the floras are impoverished in number generally, but common or vicariant species occur in comparable habitats or even microhabitats under a more stressful macroclimate. The microclimate of the hemispherical shaped *Euphorbia* species is regarded as an example providing suitable growth conditions for e. g. seedlings and cryptogams. The lichen colonization of the Atlantic Islands even in suitable microhabitats and some evolutionary questions are discussed.

JUVENILE COASTAL WATERS FISH ASSEMBLAGES IN THE CANARY ISLANDS

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Juvenile stage fish assemblages in coastal waters was analysed for the purpose of obtaining an ecological relationship between fish species and the habitat where they are maturing.

The biological samples were obtained from the local fishing fleet. Most of the species (principally sparids) are of commercial value.

The relationships have been established so as to understand the spatial dimension (fishing area, sea-bed quality, fishing gear used) and temporal dimension (diurnal and seasonal variations).

POSTER

SHALLOW-WATER BENTHIC CNIDARIANS OF ILHA DO SAL (CAPE VERDE ISLANDS): ECOLOGY AND ZONATION OF MAJOR SPECIES

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Cnidarians were collected by SCUBA diving along line-transects perpendicular to the shore, from 33 m depth up to the sea surface. Despite some taxonomical uncertainties (due to the poor faunal knowledge of the region: in some cases species were tentatively identified with their west-Atlantic relatives), a total of 19 'major' species (i.e. those which can form physiognomical 'facies' due to their abundance or conspicuousness) were recorded in 5 cnidarian zones, recognised through multivariate analysis techniques. *Actinia equina* was the only species collected in the lower midlittoral. A *Millepora* zone was defined on exposed infralittoral rocks, 0 to 5 m depth: besides *Millepora* sp. (a complanata-like growth-form), *Halocordyle disticha* was the only important cnidarian species. Mixed coral assemblages (*Millepora* cfr. *alcicornis*, *Palythoa* cfr. *caribaeorum*, *Siderastrea radians*, *Porites astreoides*, *P. porites*, *Favia fragum* and *Balanophyllia "italica"*) were found on infralittoral bottoms, down to about 15-20 m depth. A greater depths, *L. gaini*, *Eunicella granulata*, *E. papillifera*, *Antipathes* cfr. *pennacea*, *Antipathes* sp. and *Stichopathes* aff. *lutkeni* were found overhangs and lava-tunnels 1 to 24 m depth were inhabited by *Tubastraea* cfr. *aurea* and *Cnidoscypus marginatus*.

THE MARINE ALGAL FLORA OF THE AZORES AND ITS BIOGEOGRAPHICAL AFFINITIES

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Studies on the marine algae of the Azores go back only just over a century, although in comparison to mainland European Atlantic coasts the Azores flora has been less well-known, its isolated geographical position has encouraged a recent resurgence of algal interest resulting in many new records. Currently 288 species are listed, comprising 48 Chlorophyta, 57 Phaeophyta and 183 Rhodophyta. Ten species appear to be endemic (5 Chlorophyta, 5 Rhodophyta) but most are of taxonomically difficult groups (*Cladophora*,

STRUCTURE AND ZONATION OF ALGAL TURF COMMUNITIES ON THE AZORES: A NUMERICAL APPROACH

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An appraisal of benthic marine algal communities of the Monte da Guia marine nature reserve (Faial) was undertaken as part of the international investigation "Expedição Açores 1989". The first detailed account of subtidal algal communities and zonation for the Azores archipelago is presented. In the field quadrats were sampled at depth intervals along five transects from the littoral fringe to deep sublittoral levels. Although some intertidal shores were barnacle-dominated much of the vegetation was characterised by a dense algal turf externally uniform in appearance and mainly articulated. Corallinaceae, together with filamentous and filiform Chlorophyta, Phaeophyta and Rhodophyta. It extended to at least 30m depth. The structure and significance of algal turf as an ecological formation is considered.

Numerical analytical methods (Decorana and Twinspan) provided the best means of comparing samples in order to assess similarities and differences. In general the results showed some differences between sites investigated, but no distinct zonation of algal assemblages down to 20m. Intertidal zonation varied according to wave-exposure; where a coralline turf was present there was little variation in species composition and abundance with shore level and continuity into the shallow sublittoral.

HABITAT RELATIONSHIPS OF COLEOPTERA FROM THE MADEIRAN ARCHIPELAGO

WHEATER, C. P. - Department of Environmental and Geographical Sciences, The Manchester Metropolitan University, Manchester, M1 5GD, England.

Expeditions from Manchester (1981 to 1991) to the Madeiran Archipelago collected Coleoptera from a number of sites covering a wide range of habitats. The Maximum Likelihood Coefficient of Similarity was used to group sites on the basis of their coleopterous fauna. The similarities recorded between major collection areas (principally the different islands and the Madeiran Peninsula) was, in the main, consistent with island distribution. However, a complex pattern of site similarities resulted from the analysis of site specific data: The relationships between the groups of sites produced by the similarity analysis are discussed in relation to habitat characteristics and species distribution.

POSTER

ASPECTS OF THE ECOLOGY OF *CLEONUS CONICIROSTRIS* ON SELVAGEM GRANDE

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Cleonus conicirostris (Oliver 1807) is a widespread species in the Madeiran and Canary Islands. It appears to be spreading within the Atlantic Islands, especially in dry, sandy areas, having only recently been recorded from the Madeiran Peninsula. During an expedition to Selvagem Grande from Manchester, the species was found to be very common around bushes of *Suaeda vera*, clumps of which are clustered around the plateau of the island. The distribution of species and its mobility were investigated in one area of the plateau. The results are discussed with respect to its apparent association with the shrub.