

MARINE ALGAE OF FLORES, AZORES: FLORISTICS AND ECOLOGY

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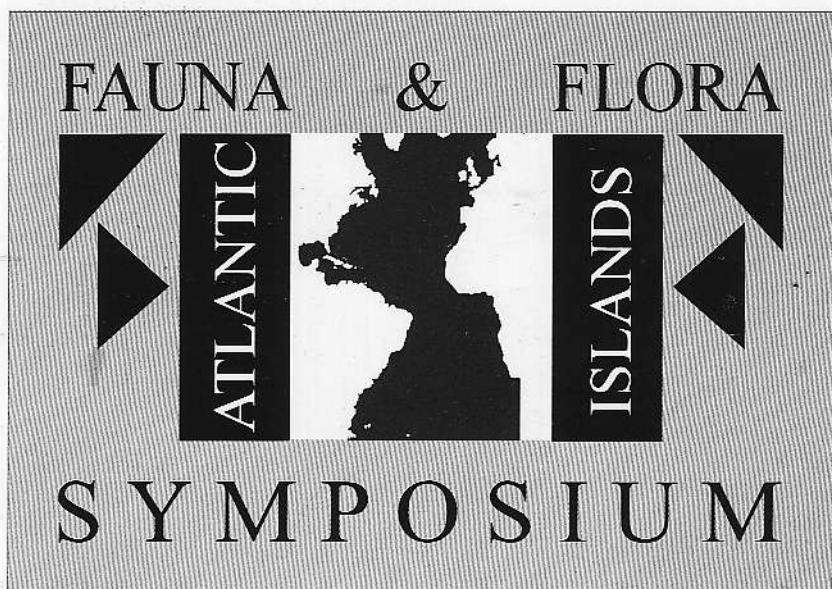
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Flores, the most western (and northern) island in the Azores archipelago, lies on the Mid-Atlantic ridge 1700km west of Lisbon and 600km west of Sao Miguel at the eastern end of the archipelago. Since its marine flora had been previously only scantily studied an intensive field investigation was undertaken during summer 1995. Its aim was to describe and inventory the island's marine flora, and to use new and existing data to redefine the island's biodiversity and biogeographical relationships; another aim was to define ecologically the main marine plant communities.

Investigations were carried out all round the island in sheltered, wave-exposed, and also anthropogenically disturbed situations. The field method involved studying the vegetation along transect lines from high tide level down to subtidal levels (30m depth). Study quadrats were located at intervals along these lines and a subsample of the vegetation removed for laboratory study. In the field dominant species were recorded within a quadrat and abundances noted; in the laboratory all species presence and abundances in a subsample were recorded. Taxonomically difficult material was retained for further study.

New species records for Flores and the Azores include, *Bachelotia antillarum* (Azores), *Microdictyon calodictyon*, and *Carpomitra cabrerae* (Flores). The introduced red alga *Symphyocladia marchantioides*, and *Schimmelmania ornata*, were also found on Flores for the first time but restricted to the harbours of Santa Cruz and Lajes. Wracks (apart from drift *Ascophyllum*) and kelps were not detected, and other larger Fucales (*Cystoseira*, *Sargassum*) were small and infrequent. Patterns of algal occurrence were clearly zoned at intertidal and subtidal levels, and characterised by Cyanophyta, *Caulacanthus*, *Gelidium* and *Corallina* turfs, *Asparagopsis*, crustose Corallinaceae, *Halopteris* and *Zonaria* dominated communities. Preliminary results suggest species diversity in Flores is lower than elsewhere in the Azores, and also differences in community structure with less extensive turfs at sublittoral levels.



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ABSTRACTS

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