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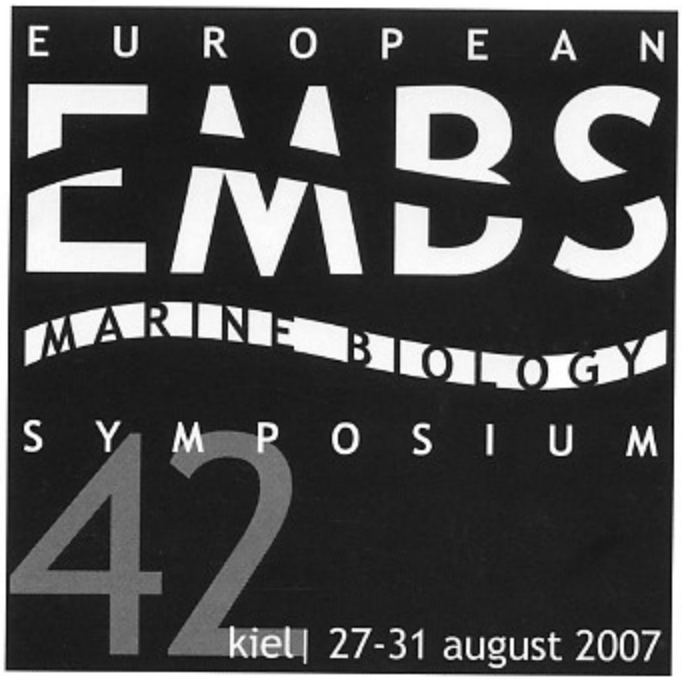

ABSTRACTS

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Representativeness of non-native species on azorean subtidal sub-biotopes

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Abstract

Thirteen non-native algal species are known to occur on the Azores: 4 Chlorophyta (*Caulerpa webbian*, *Codium fragile* subsp. *atlanticum*, *C. fragile* subsp. *tomentosoides* and *Codium vermilara*), 2 Heteronkontophyta (*Endarachne binghamiae*, *Sphaerotrichia divaricata*) and 7 Rhodophyta (*Antithamnion diminuatum*, *Antithamnion pectinatum*, *Asparagopsis armata*, *Asparagopsis taxiformis*, *Bonnemaisonia hamifera*, *Scageliopsis patens*, *Symphyocladia marchantioides*). Several of this species are spreading rapidly on the Azorean shores and becoming structuring elements of the littoral communities. Ongoing research to define littoral biotopes based on dominant and abundant species, involving quantitative procedures, has revealed the seasonal abundance of *A. armata* and *A. taxiformis* in the lower intertidal and shallow subtidal algal communities on some of the islands. Both species are abundant within the biotopes EIR.CorDicT (Calcareous fronds, Dictyota spp. and turfs on exposed shallow infralittoral rock) and EIR.StyDic (*Stypocaulon scoparium*/*Halpteris filicina* and *Dictyota* spp. on exposed mid depth infralittoral rock). Previous descriptive studies on benthic communities have described *S. marchantioides* as growing epilitically or as a common epiphyte on fronds of *Zonaria tournefortii*. As a consequence it is plausible that this species is common at the sub-biotope level, not only as an epiphyte, but as a primary constituent of turfs. With the intention of evaluating the presence of non-native species at the finer sub-biotope level, a detailed quantitative study was adopted to characterize sub-biotopes associated to the subtidal biotopes already defined for the island of Syo Miguel. The ongoing study focuses on the 3 subtidal biotopes defined for the island of Syo Miguel, and consists of 144 integral scrapings (4 replicates per location, at 4 locations per site, at a total of 3 sites for each of 3 biotopes) of 0,50x0,50m quadrats. To quantify species within each replicate the semi-quantitative DAFOR scale is applied to a random sub-sample of 1/3 of the whole scraped material. Although quantitative conclusive results are still missing, it is possible to verify the strong presence of *Symphyocladia marchantioides* and *Antithamnion* spp. within the species that characterize sub-biotopes.

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Abstract

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