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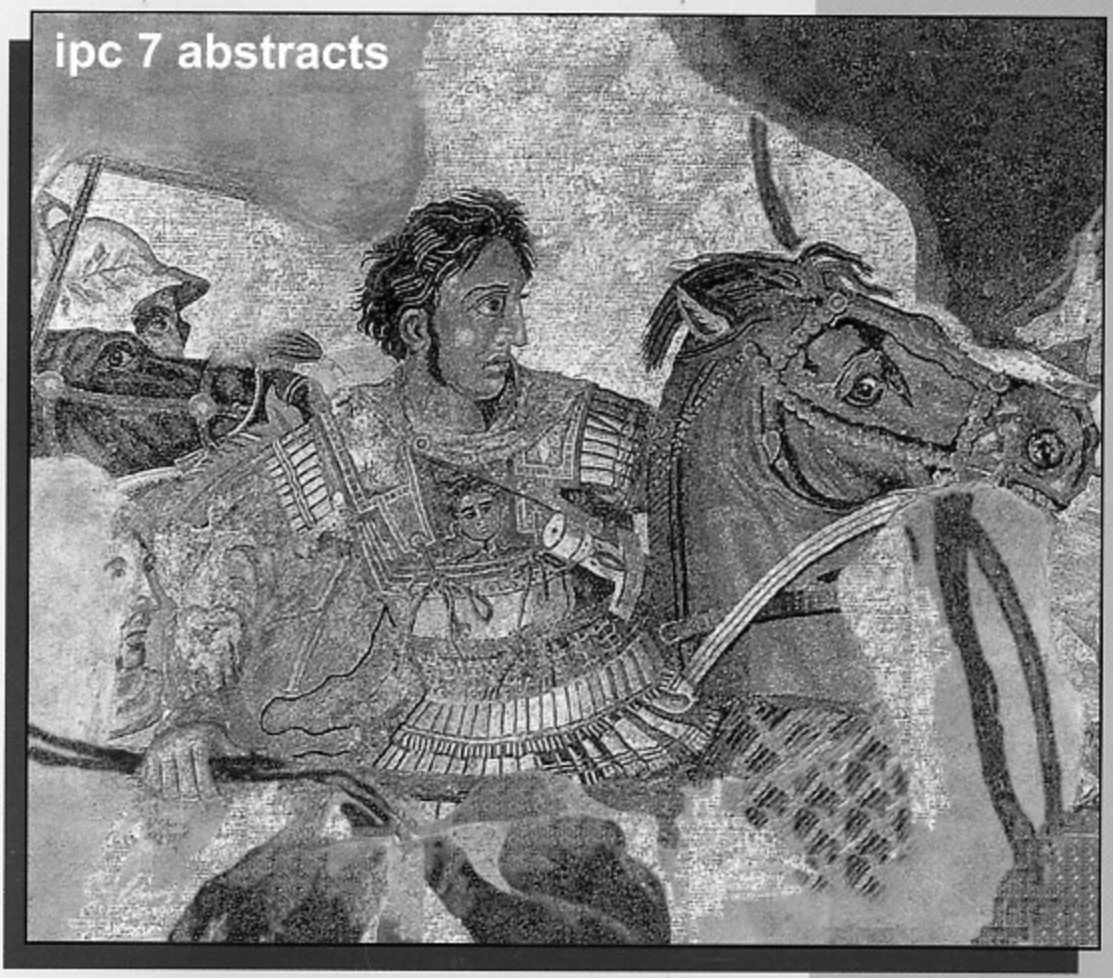

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species for the genus, or simply a variety of the species recently described for Macaronesia.

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LIFE HISTORY STUDIES AND ECOLOGICAL OBSERVATIONS OF *ENDARACHNE BINGHAMIAE* J. AGARDH (SCYTOSIPHONACEAE, PHAEOPHYCOTA) FROM THE AZORES

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First reported in the Azores in 1994, *Endarachne binghamiae* J. Agardh is commonly found throughout the year on large stones, bedrock and other hard substrata in the upper mid-tidal region of exposed Azorean shores. Reproductive plants with plurilocular sporangia occur all year round. In culture, spores released from plurilocular sporangia developed into small knot-filaments, which on squashing exhibited a 3-dimensional structure of a typical crust. These prostrate filaments gave rise directly to new erect blades. No unilocular sporangia were seen and no evidence of sexuality has been observed so far. These observations were obtained in both short-day and long-day conditions at 15–22°C, and are similar to those for Californian plants.

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A NEW APPROACH AND HYPOTHESIS TO THE DISTRIBUTION AND ORIGIN OF THE BRAZILIAN SEAWEED FLORA

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The publication of a considerable number of papers since the last synthesis of the Brazilian seaweed flora (Oliveira F. in 1977), the recent publication of the marine flora of Uruguay, and a survey of the subtidal flora of the S-SE coast of Brazil have provided enough information to support mathematical analysis and a new hypothesis on the distribution and origin of the seaweed flora in Brazil. The prevailing hypothesis considers the Caribbean as the centre of origin of the tropical Atlantic flora, of which the flora of Brazil is an extension. The consolidated data yielded a matrix of 649 subgeneric taxa, comprising 405 Rhodophyta, 159 Chlorophyta and 85 Phaeophyta. A principal components analysis of the matrix indicates that the flora can be divided into two main groups: a tropical and a warm temperate one, explained by temperature and habitat heterogeneity. A third group of species is restricted to brackish-water areas colonized by mangroves. On the basis of floristic similarities, continental drifts and palaeocurrents, we propose that the Brazilian seaweed flora migrated from the Indian Ocean, as well as from the Caribbean, but at different times and by different routes.

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FIRST RECORD OF *PACHYCHAETA* (CERAMIALES, RHODOPHYTA) IN THE SOUTH WESTERN ATLANTIC

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A rhodomeloid alga has been collected for several years in Espirito Santo State, south-eastern Brazil (*c.* 20°S). The species is apparently restricted to intertidal sandstone beach rocks exposed to moderate wave action, often buried in sand. The endogenous origin of the dwarfed lateral tetrasporangial and cystocarpic branches, the procarps borne on unbranched laterals of limited growth and the presence of special trichoblasts (brachyblasts) support its placement in the genus *Pachychaeta* Kützing. However, it differs from *Pachychaeta brachyarthra* (Kützing) Trevisan and *P. cryptoclada* Falkenberg, both known only from South Africa, by the presence of a crustose instead of rhizomatous base, a corticated axis and one sporangium per segment. The Brazilian plants are considered a new species. A previous record of *P. brachyarthra* in the West Indies has been questioned; however, a few other supposedly endemic South African genera have been found in Brazil and the present report of *Pachychaeta* is yet another example of this extended distribution.

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THE GENERA *LAURENCIA* AND *CHONDROPHYCUS* (CERAMIALES, RHODOPHYTA) IN WESTERN CARIBBEAN

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