

Genetic characterization of the red algae *Asparagopsis armata* and *Asparagopsis taxiformis* (Bonnemaisoniaceae) from the Azores

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The Azores is situated in the North Atlantic Ocean (37–40N, 25–31W), astride the Mid-Atlantic Ridge, and is strongly influenced by the sea-surface pathway from the Gulf Stream. Nevertheless, the affinities of the marine algal flora are to the continental coasts of Europe and Africa, the Mediterranean Sea, and the other Macaronesian islands. Azorean marine ecosystems are relevant because of their uniqueness, geographic position, biogeographic mixed algal flora, and insularity—all of which highlight their susceptibility to alien species introduction. Algae invasions in marine habitats represent a recognized worldwide threat to the integrity of native communities, to economies, and even to human health. The genus *Asparagopsis* is known for being invasive in several regions of the world. Until now, two species of this genus have been reported to the Azores: *Asparagopsis armata*, described from the western coast of Australia and displaying today a worldwide distribution, although preferentially in cold temperate regions; and *Asparagopsis taxiformis*, originally described for the southern hemisphere and widely distributed across tropical and temperate regions. We investigated the phylogeography of these two species in the Macaronesia, with focus in the Azores, to better understand biogeographic relationships within the North Atlantic. Populations of *A. armata* and *A. taxiformis* from Azorean Islands, Madeira, Canary Islands, and mainland Portugal were genetically scrutinized using two molecular markers, the mitochondrial COI-5P barcode (cytochrome c oxidase subunit I) and the nuclear ITS (ribosomal internal transcribed spacer). Our preliminary results will be presented.