



“Scientific Opportunities for a Global Algal Revolution”

Program and Book of Abstracts

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minima, *Cuneolus skvortzowii*, *Cybellonitzschia banzuensis*, *Tripterion societatis* and *Tryblioptychus hainanensis* were found. The result of the present study has highlighted the unique biodiversity of Korean remote islands particularly in terms of diatom diversities.

Coralline algae (Rhodophyta, Corallinales) early colonizers of the littoral lava flows of the recent volcanic eruption of La Palma (Canary Islands)

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The eruption of the Tajogaite volcano (La Palma, Canary Islands) occurred between September 19 and December 13, 2021. The lava flowed into the sea on the western shore of La Palma and a new rocky shore was formed. Once the eruption ended and the safety protocols allowed it (February 2022), several bimonthly samplings were carried out in the intertidal and shallow subtidal in order to evaluate the contribution of coralline algae in the early stages of colonization of these new substrates. The identification was carried out by morpho-anatomical and molecular studies. Just two months after the end of the eruption, coralline algae had already settled on the surface of volcanic rocks initially colonized by bacteria and diatoms. The first multicellular colonizers were annual ephemeral minute and thin species of the genus *Hydrolithon*. *Hydrolithon* crusts bearing a large number of minute triangular vegetative propagules were very common, suggesting that vegetative reproduction by specialized propagules may play a relevant role in these early stages. These *Hydrolithon* were later covered and replaced by other slightly thicker non-fertile crusts. Both small confluent crusts of *Porolithon* and crusts that ended up forming *Corallina*-type erect geniculate branches became the coralline algae dominant. Trichocytes, isolated or in dense groups, were very obvious in all coralline algae that took part in these early stages of colonization of the new volcanic substrates.

Revisiting the systematics of the *Grateloupia*-complex (Halymeniales, Rhodophyta) based on cystocarp development and molecular phylogeny

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