

**ABSTRACT BOOK OF THE
INTERNATIONAL SYMPOSIUM
FloraMac2022**



San Sebastián de La Gomera
Canary Islands

12-16 September 2022

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PRESENTATION

FloraMac 2022 is an international symposium that aims to bring together during a week, both senior and novel local-based or continental researchers working on different disciplines (i.e. taxonomy, ecology, biogeography, reproductive biology, vegetation science, genetics, phylogeography, paleoecology, evolutionary biology, conservation biology, history of science, etc.) regarding the terrestrial and marine flora and vegetation of the Macaronesia biogeographical region (Azores, Madeira, Salvages, Canaries and Cabo Verde).

FloraMac (diminutive of Flora of Macaronesia) conferences started in summer 2010 with the very first event held in Ponta Delgada (São Miguel) in Azores and hosted by the University of Azores. Two years later, it moved to another Macaronesia archipelago, this time Madeira, where the University of Madeira organized the 2nd FloraMac event in summer 2012. It was not until summer 2015 when FloraMac jumped for its first time to the Canaries, specifically to Gran Canaria, where the Jardín Botánico Canario “Viera y Clavijo” - Unidad Asociada al CSIC, hosted the 3rd FloraMac event in Las Palmas de Gran Canaria. Three years later FloraMac jumped back to Madeira, where our colleagues from the University of Madeira organized the 4th FloraMac event, which took place in summer 2018. Finally, a couple of years ago the University of La Laguna and the Institute of Natural Products and Agrobiology – IPNA CSIC (Tenerife) assumed the responsibility of organizing the 5th FloraMac event, which although initially scheduled for summer 2021 was inevitably postponed due to the COVID pandemic to September 2022 and take place in San Sebastián de La Gomera.

FloraMac conferences continue with the tradition that started ca. 50 years ago in 1973 in Las Palmas de Gran Canaria (Canary Islands), followed in 1977 by the 2nd event in Funchal (Madeira), with the organization of a regional symposium called “Congreso Internacional Pro-Flora Macaronésica” that gathered researchers working with very different approaches in the terrestrial and marine flora and vegetation of the Macaronesia Region. Some decades later, this event was replaced with the “International Symposium Fauna and Flora of the Atlantic Islands” which took place as much as five times in several places (1st in Funchal, Madeira in 1993; 2nd in Las Palmas de Gran Canaria, Canaries in 1996; 3th in Ponta Delgada, São Miguel, Azores in 1998; 4th in Praia, Santiago, Cabo Verde in 2000, and 5th in Dublin Ireland in 2004), before its final disappearance.

In this book you will find all the abstracts of the contributions presented by invited researchers, oral communications, and posters of the fifth FloraMac conference, which take place in San Sebastián de La Gomera (Canary Islands) between the 12th and 16th of September 2022.

The organization committee

OP25

Overview of more than twenty years of my geobotanical and geographical field research on Faial (Azores) - history, results and outlook

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The history of more than twenty years of my geobotanical and geographical field research in Faial Island (Azores) will be presented. The research on the island is geographically divided in two research areas: the Capelo region (Capelo-ash fields and the Capelinhos Volcano) and the vegetation of human settlements (gardens and parks in Horta and other localities). Thematically, most research in the Capelo area is focused on the dynamics of pioneer vegetation after the eruption of Capelinhos in 1957/58. Such research could be categorized as traditional succession study. The research in regard to the vegetation of human settlements has more ethnobotanical inclination. The dynamics of pioneer vegetation on the Capelinhos volcano is still dominated by alien species. Specifically, there are still no trees and bushes on the Capelinhos. This trend is confirmed by the results of our field campaigns in September 2019 and September 2022. As well as on other volcanic islands the avifauna seems to be an important driver of the vegetation dynamic on the Capelinhos. The vegetation dynamics of the ash fields of Capelo is still partly dominated or even blocked by *Arundo donax* as described by the author in 2021. But the vegetation dynamics is increasingly disturbed by human intervention. For example, viticulture is experiencing a rebirth. In fact, this re-birth has been accompanied by the construction of several houses and vacation homes which has consumed most “natural” landscapes of Portugal. In most of the cases these secondary residences are owned by citizens from France, Switzerland, Germany and the United States of America (Field studies September 2021). Species composition of traditional parks and gardens in Horta and surrounding localities will be presented. Furthermore, the link of the “garden and parks” vegetation to the successional processes in the Capelo area will be presented and discussed.

OP26

Impacts of volcanic eruptions on vegetation – Understanding the dominance of woody species and nitrogen fixers on oceanic islands

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The recent eruption of La Palma enabled to investigate the effects of volcanic eruption on vegetation. Besides the destructive power of the lava flow, it was the emission of sulfuric gases and of huge amounts of pyroclastic ashes that could be recorded. The responses in vegetation structures and plant species were impressive. The damage of gases on plant tissue and the deposition of tephra had substantial and large-scale effects. Such events are frequent at geological and evolutionary times scales. However, they can rarely be observed within human time scales. The drastic chlorotic damage to plant tissue caused a total defoliation of plant specimen (e.g., *Pinus canariensis*) within a radius of a few kilometres. This response could be detected even by remote sensing. Nonetheless, the impact of toxic gases was found to be transient. Canary pine and other endemic woody species were found to resprout within a few months after the end of the eruption. This response was similar to the resprouting after wildfires. In contrast, the deposition of ashes accumulated to thick layers of tephra (lapilli etc.) and did not allow small or short-lived herbs and grasses to