2010 floramac

açores | madeira | selvagens | canárias | cabo verde

Organisers

CCPA · CIBIO Açores · azorean biodiversity group · Universidade dos Açores

International Symposium FloraMac2010

23-25 September 2010

Ponta Delgada, Azores, Portugal

Funding

DRCTC
DIRECÇÃO REGIONAL DA CIÊNCIA, TECNOLOGIA E COMUNICAÇÕES

International Symposium
FloraMac2010

23-25 September 2010

Ponta Delgada, Azores, Portugal

Organisers

CCPA Centro de Conservação e Protecção do Ambiente
CIBIO Centro de Investigação em Biodiversidade e Recursos Genéticos, Pólo Açores

Organizing Committee

Universidade dos Açores
Luís Silva • Mónica Moura • Graciete Maciel • Ana Isabel Neto • Rosalina Gabriel

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Jardin Botánico Canario "Viera y Clavijo" – Unidad Asociada CSIC
Juli Caujapé Castells

Instituto Nacional de Investigação e Desenvolvimento Agrário
Isildo Gomes • Samuel Gomes

Natural History Museum
Mark Carine • Fred Rumsey

Harvard University, Department of Organismic and Evolutionary Biology
Hanno Schäfer

Instituto de Investigação Científica Tropical
Maria Romeiras

Keynote speakers

David Bramwell
José Luis Martín Esquível
José María Fernández-Palacios
Juli Caujapé Castells
Ricardo Haroun
Robert J Whittaker

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Phylogenetics & Biogeography

08:30 Registration
09:30 Opening session
10:00 Session conference
10:30 Coffee break
11:00 Oral presentations
13:00 Lunch
14:00 Session conference
14:30 Oral presentations
15:30 Poster Session / Coffee break
16:00 Oral presentations
18:30 End of the day
19:00 Reception of participants

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Ecology & Conservation

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09:30 Oral presentations
10:30 Coffee break
11:00 Oral presentations
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14:00 Session conference
14:30 Oral presentations
15:30 Poster Session/Coffee break
16:00 Oral presentations
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12:00 Closing session
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- DEMIURGO project meeting
- BIOCLIMAC project meeting
- Macaronesian Herbaria
- Conservation of Bryophytes in Macaronesia
- Edition of a Flora of Macaronesia

15:30 Coffee break

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Post-symposium Tour

08:30 Arrival of participants
09:00 Departure from the University Campus
09:30 Indigenous and non-indigenous species in the south coast
10:30 Lagoa do Fogo Nature Reserve – Indigenous and non-indigenous species
11:30 Porto Formoso tea plantations
12:30 Terra Nostra Gardens and swimming pool – Indigenous and non-indigenous species
13:30 Traditional Furnas Lunch
15:00 Visit to hotsprings
15:30 Lagoa das Furnas – Indigenous and non-indigenous species
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Ecology & Conservation 24-09-2010

Juli Caujapé-Castells, moderator

09:00 Session conference

Dynamic oceanic island biogeography: a general model and its application to Macaronesia
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The allozyme genetic diversity of the Canarian flora: relationships with reproductive, biotic and abiotic factors
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Genetic diversity and conservation of two threatened Canarian endemic species of *Crambe* (*Brassicaceae*)
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Genetic diversity of *Bryum argenteum* Hedw coming from high Mediterranean mountains in Tenerife Island and the Iberian Peninsula
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Figueiredo A & Menezes de Sequeira M

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11:00 Oral presentations

Flirting with extinction? *Orthotrichum handiense,* a Canarian endemic bryophyte under multiple threats
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Riparian galleries of Azorean streams
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Application of Macrophytes' indexes to water quality evaluation in Azores
Cunha A, Cruz AM, Ramos J, Raposeiro P, Dodkins I, Costa AC & Gonçalves V

Ecological quality of Azorean coastal waters: Macrophytes and Phytoplankton evaluation
Patarra RF, Brotas V, Álvaro NV, Gameiro C, Silva A, Diniz T, Prestes ACL, Azevedo JMN, Medeiros MC, Pacheco DM, Gaspar JL & Neto AI

Metal concentrations and structural changes in coralline algae from hydrothermal vents
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Evaluation of Azorean endemic plants according to IUCN
Corvelo R, Silva L & Schäfer H

Control of invasive alien flora species in Azores sensible areas
Pimentel P, Bettencourt M, Veríssimo E & Costa M

13:00 Lunch

Ecological quality of Azorean coastal waters: Macrophytes and Phytoplankton evaluation

Patarra*[1,2,3] RF, Brotas[4] V, Álvaro[1,2,3] NV, Gameiro[4] C, Silva[4] A, Diniz[4] T, Prestes[1,2,3] ACL, Azevedo[1,3] JMN, Medeiros[5] MC, Pacheco[5] DM, Gaspar[5] JL & Neto AI[1,2,3]

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EU Directive 2000/60/EC, commonly known as the Water Framework Directive (WFD), is a fundamental tool for the management of the European water resources and aimed at guarantying a good ecological quality by 2015. Is application requires the assessment of the ecological status of coastal waters in order to implement management plans that prevent their further deterioration. The geographical situation of the Azores places specific questions to the application of WFD. Due to the high dilution power of the open ocean surrounding these Atlantic islands, the impact of anthropogenic effects on coastal waters is likely to be localized. Water masses adjacent to urbanized areas have therefore been classified as "In Doubt". In the present study, the ecological quality of the Azorean coastal water masses was evaluated in the islands of Terceira, São Miguel and Santa Maria, using the quality parameters: macrophytes and phytoplancton. Results indicate that the studied coastal waters have an excellent ecological quality when compared with mainland Europe. Differences within and among islands were detected only on the phytoplankton, with the highest concentrations recorded during Spring 2009 in Terceira, followed by São Miguel and Santa Maria. The coccolithophores were the most abundant group, followed by the diatoms and dinoflagellates.
Keywords: WFD, macrophytes, phytoplancton.

Metal concentrations and structural changes in coralline algae from hydrothermal vents

Couto*[1,2,3] RP, Neto[1,2,3] AI & Rodrigues[1,3] AS

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One of the striking features of the Azores is the presence of active shallow water hydrothermal activity. Organisms that live in such environments are chronically exposed to increased temperature and metal concentrations and reduced pH, therefore presenting great potential as sentinels of the effects derived from such exposure. The present study aimed at evaluating metal concentration in specimens of *Corallina. elongata* J. Ellis & Solander collected at sites exposed and not exposed to shallow water hydrothermal activity and evaluating changes in its anatomical and calcareous structures. Specimens were collected at four sites, one with hydrothermal activity and three without. Concentrations of Ca, Mg, Zn, Rb, Mn and Cd in the collected specimens were determined and their calcium carbonated structure was morphometrically analysed by electron microscopy scan. Thicker cell walls and a bleached appearance were observed on *C. elongata* specimens collected at the hydrothermal location. Increased concentrations of elements associated to volcanic activity such as Zn, Rb and Mn were also observed in these specimens. This study reports on metal accumulation and changes in the carbonated structure of *C. elongata*, adding new data for further research on the influence of shallow water hydrothermal vents on communities living in such habitats. Results also provide an insight on how coralline algae might be affected by ocean acidification.
Keywords: Calcifiers; bioindicators; ocean acidification.

Ecological quality of Azorean coastal waters: Macrophytes and Phytoplankton evaluation

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