



Organisers



Funding



*International Symposium
FloraMac2010*

*23-25 September 2010
Ponta Delgada, Azores, Portugal*



*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

Universidade da Madeira

Miguel Sequeira

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

CONTENTS

SYMPOSIUM PRESENTATION	9
GENERAL PROGRAM	11
PROGRAM	13
PHYLOGENETICS & BIOGEOGRAPHY	13
ECOLOGY & CONSERVATION	17
ETHNOBOTANY & PLANT RESOURCES	21
ABSTRACTS	23
PHYLOGENETICS & BIOGEOGRAPHY	25
ORAL PRESENTATIONS	25
POSTER PRESENTATIONS	37
ECOLOGY & CONSERVATION	49
ORAL PRESENTATIONS	49
POSTER PRESENTATIONS	61
ETHNOBOTANY & PLANT RESOURCES	77
ORAL PRESENTATIONS	77
POSTER PRESENTATIONS	81
INDEX OF AUTHORS	89

General Program

23-09-2010

Phylogenetics & Biogeography

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

24-09-2010

Ecology & Conservation

09:00 Session conference	14:00 Session conference
09:30 Oral presentations	14:30 Oral presentations
10:30 Coffee break	15:30 Poster Session/Coffee break
11:00 Oral presentations	16:00 Oral presentations
13:00 Lunch	18:00 End of the day
	20:00 Symposium dinner

25-09-2010

Ethnobotany & Plant Resources

09:00 Session conference	14:30 Workshops
09:30 Oral presentations	- DEMIURGO project meeting
10:30 Poster Session/Coffee break	- BIOCLIMAC project meeting
11:00 Session conference	- Macaronesian Herbaria
11:30 Conclusions of the symposium	- Conservation of Bryophytes in Macaronesia
12:00 Closing session	- Edition of a Flora of Macaronesia
12:45 Lunch	15:30 Coffee break

26-09-2010

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
- 17:00 Departure to Ponta Delgada

13. **Molecular and morphological data reveal a new Macaronesian taxon of *Isoethecium* (Bryophyta)**
González-Mancebo JM, Draper I, Werner O, Patiño J, Stech M, Sim-Sim M, Hedenäs L & Ros RM
14. **Out of Africa: northwestwards Pleistocene expansions of the emblematic Mediterranean shrub, *Erica arborea***
Désamoré A, Laenen B, Devos N, Popp M, González-Mancebo JM, Carine MA & Vanderpoorten A
15. **Biometrical approach to the genus *Andryala* L. (Asteraceae)**
Ferreira Z, Álvarez I, Jardim R & Menezes de Sequeira M
16. **Genetic differentiation of *Ilex perado* ssp. *lopezilloi* and its congeners on Macaronesia**
González-González EA, González-Pérez MA, Rivero E, Sosa PA, Pereira MJ, Moura M & Silva L
17. **Morphological variability and taxonomy of *Carlina salicifolia* (L.f.) Cav. in the Madeira archipelago**
Menezes de Sequeira M & Jardim R
18. **Genetic diversity of *Micromeria* Benth. (Lamiaceae) in Tenerife**
Puppo P, Curto M, Nogueiras M, Pérez de Paz PL & Meimberg H
19. **On *Plantago costae* Menezes a forgotten species of the Madeira Flora**
Jardim R & Menezes de Sequeira M
20. ***Cheirolophus* (Asteraceae, Cardueae): molecular evidences of speciation and rapid diversification in Macaronesia**
Vitales D, Pellicer J, Santos-Guerra A, Vallès J & Garnatje T
21. **Genetic diversity of the Portuguese wild *Beta-Patellaria* species complex using DNA barcoding and flow cytometry**
Romeiras MM, Loureiro J, Vieira A, Castro S, Pina-Martins F, Veloso M, Moura M, Batista D, Paulo OS & Duarte MC
22. **The DNA bank of the Canarian Flora: audit of benefits since its inception in 2004**
Jaén-Molina R, Marrero-Rodríguez Á & Caujapé-Castells J
23. **The use of New Generation Sequencing as tool for Island Biogeography Studies**
Curto M, Puppo P, Nogueiras M & Meimberg H

16:00 Oral presentations

Hybridization and the pteridophyte flora of Macaronesia

Rumsey F

Comments on the Vascular Plants Checklist of Madeira

Menezes de Sequeira M, Capelo J & Jardim R

What can we learn from non-speciose taxa in oceanic archipelagos?

García-Verdugo C

Marine phycological research in the Azores: past, present and future

Neto AI, Martins GM, Wallenstein FM & Titley I

Longitudinal and latitudinal diversity patterns in marine benthic algae: a phylogenetic perspective

De Clerck O, Tronholm A, Verbruggen H, Lennert T & Leliaert F

Cryptic diversity in the sea: case study of the morphologically plastic genus *Dictyota*

Tronholm A, Sansón M, Afonso-Carrillo J & De Clerck O

What can we learn from non-speciose taxa in oceanic archipelagos?

García-Verdugo¹ C

¹ Rancho Santa Ana Botanic Garden, 1500 N. College Ave. Claremont, CA 91711, USA (cgarcia@bio.ucm.es)

Most studies dealing with oceanic archipelagos typically emphasize the fact that these geographical areas constitute an ideal framework for testing evolutionary hypotheses. In reviewing the literature on this topic, however, it is remarkable that publications are strongly biased towards molecular analysis of taxa exhibiting high diversification. In this presentation, I will evaluate the quantitative presence of non-speciose vs. highly diversified taxa in some of the most paradigmatic oceanic archipelagos. In addition, I will discuss on the few evolutionary studies centered on non-speciose taxa, with a special focus on the Canarian flora. Although species radiations have captured the attention of evolutionary biologists, non-speciose taxa represent a high proportion of the oceanic floras and provide challenging scenarios for studies on phenotypic evolution and population genetics.

Keywords: Canary Islands, evolutionary studies, island populations.

Marine phycological research in the Azores: past, present and future

Neto^{1,2} AI, Martins^{1,2} GM, Wallenstein^{1,2} FM & Titley³ I

¹ Grupo de Biologia Marinha, Departamento Biologia, Universidade dos Açores, 9501-801 Ponta Delgada, Açores, Portugal (aneto@uac.pt; gmartins@uac.pt; fwallenstein@uac.pt)

² Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR), Rua dos Bragas 289, 4050-123 Porto, Portugal

³ Department of Botany, Natural History Museum, Cromwell Road, London SW7 5BD, U.K (it@nhm.ac.uk)

Macroalgal communities are amongst the most important and productive shallow water marine communities and have traditionally been exploited for a diverse range of anthropogenic uses. Shallow water rocky coasts in the Azores are conspicuously dominated by macroalgae. In the present study, we provide a synthetic overview of the phycological research done in the archipelago highlighting some of the most important findings. Our study spans a wide number of issues including: (i) the historical knowledge of the Azorean macroalgal flora, (ii) the taxonomic and phylogenetic context of the Azorean algal flora (iii) its biogeographic affinities, (iv) conspicuous macroalgal communities, (v) the commercial exploitation of macroalgae, (vi) macroalgal/herbivore dynamics, and (vii) macroalgae as bio-indicators of water quality. We also discuss some important avenues for future phycological research in the Azores.

Keywords: Azores, macroalgae, historical synthesis, future research.



Marine phycological research in the Azores: past, present and future

Neto, A.I.^{1,2*}, Martins, G.M.^{1,2}, Wallenstein, F.M.^{1,2} & Titley, I.³

¹CIRN and Grupo de Biologia Marinha, Departamento Biologia, Universidade dos Açores, 9501-801
Ponta Delgada, Açores, Portugal

²Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR), Rua dos Bragas 289, 4050-123
Porto, Portugal

³Department of Botany, Natural History Museum, Cromwell Road, London SW7 5BD, U.K