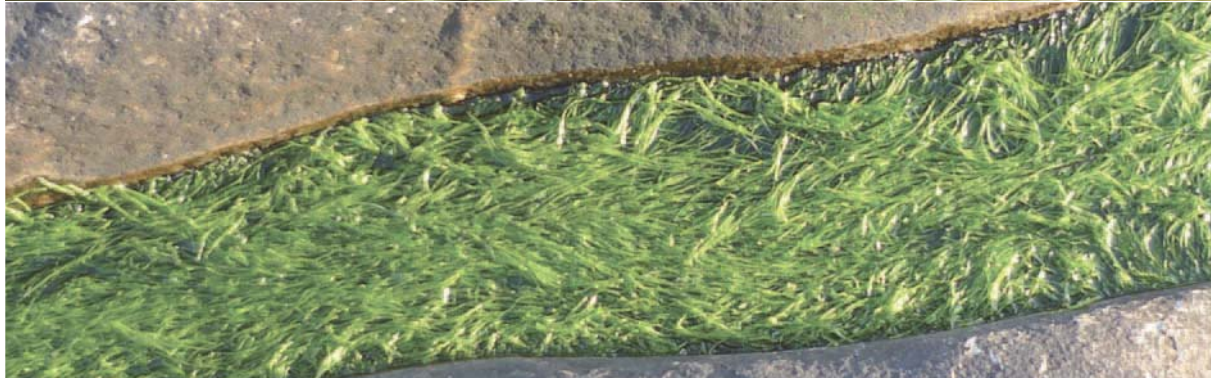




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XX SIMPÓSIO
DE BOTÂNICA CRIPTOGÂMICA
PORTO, 22 A 25 DE JULHO DE 2015



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Symposium Venue: HF Tuela Porto, Street Arq. Marques da
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**XX SIMPÓSIO
DE BOTÂNICA CRIPTOGÂMICA**
PORTO, 22 A 25 DE JULHO DE 2015



22/07/2015

Wednesday- Quarta - Miercoles

3

08h30 **Registration** | Hotel Tuela Porto, Top floor

ROOM SUL

09h30 Inaugural session

10h00 Plenary session | **Biodiversity and Conservation**: Anne Magurran (UStA) "*Biological diversity in a changing world*"

11h00 Coffee-break | **ROOM DOURADA**

11h30 Invited thematic conference | **Biodiversity and Conservation**: Sílvia Carvalho (CIBIO-InBIO) "*Incorporating evolutionary processes into systematic conservation planning*"

12h00 BC1.01 | Blowing in the wind... Phenotypic variability or speciation event in the lichen genus

12h15 BC1.02 | Bryophyte beta diversity along an elevational gradient in Terceira Island, Azores

12h30 BC1.03 | Checklist de los briófitos de la Comunidad Autónoma del País Vasco (España): actualización y bases para una lista roja

12h45 BC1.04 | El género *Prorocentrum* (Dinophyceae, Prorocentrales) en aguas neríticas y costeras de Canarias: nuevas aportaciones

13h00 BC1.05 | Aspectos bioquímicos de la tolerancia a la deshidratación en *Pleurozium schreberi* durante la época seca en el páramo de Chingaza (Colombia)

13h15 BC1.06 | Macrofungal communities of two native oak woods (*Quercus faginea* subsp. *broteroi* and *Q. rotundifolia*) in Central Portugal, with a study of sampling methods

13h30 Lunch | Restaurant Hotel Tuela

ROOM SUL

15h00 BC2.01 | Diversidad y ecología de cianobacterias bentónicas en los ríos de Castilla-La Mancha

15h15 BC2.02 | Epiphytic lichen diversity in broadleaved forests in Cadí-Moixeró Natural Park: assessing habitat status.

15h30 BC2.03 | Filling knowledge gaps on the diversity of Iberian epiphytic bryophytes

15h45 BC2.04 | Keeping up with the Bryophytes: richness, diversity and threatened taxa patterns and conservation in headwater streams

16h00 BC2.05 | LEGE Culture Collection and its cyanobacterial diversity: strains data survey analysis highlights the increasing importance of this biological resource

16h15 BC2.06 | Limitaciones al establecimiento del líquen *Pectenium plumbea* a escala de paisaje inferidas a partir de modelización del hábitat y análisis de ocupación del hábitat potencial

16h30 BC2.07 | Líquenes en los cocones del karst del Parc del Garraf (Catalunya)

16h45 BC2.08 | Los líquenes epífitos del monte verde canario y su supervivencia en plantaciones

17h00 Coffee-break | **ROOM DOURADA**

ROOM DOURADA

17h30 Communications in poster | **Biodiversity and Conservation** (Session BC)

19h30 **Porto wine tasting** | Porto Botanical Garden



23/07/2015 Thursday - Quinta -Jueves	
ROOM SUL	
09h00	Plenary session Technology and Heritage: Patrícia Sanmartín (USC) " <i>Biology for cultural heritage preservation</i> "
10h00	Invited thematic conference Technology and heritage: Rui Pereira (Alga ⁺) " <i>Portuguese Seaweeds - heritage and potential value</i> "
ROOM SUL ROOM NORTE	
10h30	TH1.O1 SEACOLORS: Natural pigments from selected microalgae with potential application in the textile industry
10h45	TH1.O2 Lichen-induced geochemical weathering of schist surfaces in Cõa Valley Archaeological Park (NE Portugal)
11h00	BC3.O1 Diversidad y ecología de los briófitos acuáticos y semiacuáticos de los ríos de Castilla-La Mancha
11h00	BC3.O2 Meloneis (Rhaphoneidaceae, Fragilariophyceae), nuevas y raras diatomeas asociadas a praderas de Cymodocea nodosa (Ucria) Ascherson
Coffee-break ROOM DOURADA	
ROOM SUL	
11h30	Invited thematic conference Bioindication and Environmental Management: João Honrado (CIBIO-InBIO) " <i>Indicators of what, for what, and for whom? Biodiversity, ecosystems and the governance of socio-ecological systems</i> "
12h00	BEM1.O1 Airborne fungal spores in Badajoz (SW Spain) and weather influence in their seasonal distributor
12h15	BEM1.O2 Airborne fungal spores in Payerne (Switzerland)
12h30	BEM1.O3 Airborne spores of Alternaria in three cities of Extremadura (SW Spain) and different factors influence in their seasonal distribution
12h45	BEM1.O4 An ecophysiological study across the Drake Passage on the saxicole tundra forming lichens of Usnea genus
13h00	BEM1.O5 Assessing the impact of alkaline dust pollution on the genetic variation of lichen Usnea subfloridana (lichenized Ascomycota, Parmeliaceae)
13h15	BEM1.O6 Briófitos asociados a minas de cobre en la Sierra Norte de la Comunidad de Madrid
13h30	TH2.O1 Lichen biota on stone monuments in the Iberian Peninsula
13h30	TH2.O2 Evaluación de tres abonos comerciales como fuentes de nitrógeno en la acumulación de ficobiliproteína y biomasa en Arthrospira maxima (Phormidiaceae).
13h30	BC4.O1 Una oportunidad para una Lista de Algas Bentónicas Marinas de España
13h45	BC4.O2 Viabilidad de la introducción de algas caráceas para naturalizar estanques en la ciudad de Barcelona
13h00	BC4.O3 Where the wild things are: is the higher taxa approach an effective method for selecting important areas for bryophyte conservation?
Lunch Restaurant Hotel Tuela	
ROOM SUL ROOM NORTE	
15h00	BC5.O1 Modelação da influência de alterações climáticas sobre micro-habitats e padrões de atividade de molusco terrestre (Geomalacus maculosus): contributos para a conservação de micro-comunidades biológicas dominadas por criptogâmicas
15h15	BC5.O2 Notas sobre la herbivoría en esporófitos de Buxbaumia viridis en el Pirineo
15h30	BC5.O3 Nueva aproximación para la descripción de las comunidades líquénicas y el comportamiento específico
15h45	BC5.O4 Phymatolithon calcareum in maerl beds from Atlantic Europe: insights from a species-specific microsatellite study reveal considerable clonality
16h00	BC5.O5 Produção de túberas (Terfezia spp.)– Novas espécies para Portugal
16h15	BC5.O6 Project MOVECLIM: Studying bryophyte macroecological patterns along elevation transects across archipelagos
16h30	BC5.O7 Saxicolous lichen diversity in a complex landscape in NE Iberian Peninsula
16h45	BC5.O8 The new World Checklist of Hornworts and Liverworts
17h00	SEB1.O1 Estudio monográfico de las especies epífitas y hemiepífitas de Blechnum (Blechnaceae, Polypodiopsida)
17h00	SEB1.O2 Coexistence and prevalence of symbiotic microalgae in Buellia zoharyi lichen: are substrata and/or biogeographic barriers involved?
17h00	SEB1.O3 Phylogenetic analysis of symbiotic Trebouxia microalgae within the genus Parmelia reveal new monophyletic lineages.
17h00	SEB1.O4 Molecular data indicate too extensive lumping in the moss genus Amphidium (Bryophyta)
17h00	SEB1.O5 Homalothecium meridionale (M. Fleissch. & Warnst.) Hedenäs a segregated species from H. sericeum (Hedw.) Schimp. (Brachytheciaceae, Bryopsida) in the Iberian Peninsula
17h00	SEB1.O6 Potential distribution and identity of introduced Amanita muscaria worldwide
17h00	SEB1.O7 Variación de rasgos morfológicos foliares en aspleniáceas ibéricas saxícolas en función de variables climatológicas
Coffee-break ROOM DOURADA	
ROOM DOURADA	
17h30	Communications in poster Bioindication and Environmental Management; Systematics, Evolution and Biogeography & Technology and Heritage (Sessions BEM, SEB & TH)
ROOM GT 332 (FLOOR 3)	
19h30	Extraordinary session " <i>O Museu de História Natural e da Ciência da Universidade do Porto</i> "
20h30	Extraordinary session Rui Figueira (IICT): " <i>Promote biodiversity data publishing and usage: the role of data papers</i> "



24/07/2015

Friday - Sexta - Viernes

5

ROOM SUL	
09h00	Plenary session Systematics, Evolution and Biogeography : Christopher Ellis (RBGE) " <i>The cryptogamic epiphyte response to climate change: scaling from biogeography to habitat management</i> "
10h00	Invited thematic conference Systematics, Evolution and Biogeography : Mariana Ricca (UZ) " <i>Gene expression variation in Physcomitrella patens sporophytes</i> "
	<div style="width: 48%; background-color: #FFD700;"> <p style="text-align: center;">ROOM SUL</p> </div> <div style="width: 48%; background-color: #FFD700;"> <p style="text-align: center;">ROOM NORTE</p> </div>
10h30	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB2.01 A preliminary evaluation of lineage differentiation in European Aneura</p> </div> <div style="width: 48%;"> <p>BEM2.01 The herbivoral interaction between midge species, <i>Scatopsciara cunicularius</i> (Sciaridae: Diptera) and the thallose bryophyte, <i>Marchantia polymorpha</i></p> </div> </div>
10h45	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB2.02 Advances into the evolutionary history and biogeography of Parmeliaceae (Ascomycota)</p> </div> <div style="width: 48%;"> <p>BEM2.02 Distribución altitudinal de los líquenes terrícolas en los prados alpinos de Andorra</p> </div> </div>
11h00	Coffee-break ROOM DOURADA
11h30	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.01 A taxonomic study on cleistocarpous species of <i>Weissia</i> (Pottiaceae, Bryophyta) in Japan</p> </div> <div style="width: 48%;"> <p>BEM3.01 The photoreceptor of ultraviolet-B radiation (UVR8) in <i>Marchantia polymorpha</i>.</p> </div> </div>
11h45	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.02 An ecogeographical approach to the genetic structure of <i>Parmelina carporrhizans</i> using specific microsatellites (SSR) markers</p> </div> <div style="width: 48%;"> <p>BEM3.02 Brioflora terrícola en olivares no labrados de la provincia de Jaén (Andalucía, España)</p> </div> </div>
12h00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.03 Assessing the taxonomical significance of bistratose leaf in <i>Orthotrichum anomalum</i>-like populations from western Iberian Peninsula</p> </div> <div style="width: 48%;"> <p>BEM3.03 Detección y control de cianobacterias en fuentes ornamentales urbanas de la ciudad de Barcelona</p> </div> </div>
12h15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.04 Evaluación del crecimiento vegetativo y del éxito reproductivo en <i>Grimmia decipiens</i> en un gradiente ambiental</p> </div> <div style="width: 48%;"> <p>BEM3.04 Efectos de las microcistinas y los extractos de cianófitos en la fotosíntesis de algas fluviales. Implicaciones ecológicas y de gestión.</p> </div> </div>
12h30	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.05 Dancing with the distinction of <i>Orthotrichum</i> affine and <i>O. fastigiatum</i>, a morpho-molecular approach.</p> </div> <div style="width: 48%;"> <p>BEM3.05 How to protect bryophytes from being drowned or lost? A framework for the efficient monitoring of priority bryophyte diversity</p> </div> </div>
12h45	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"></div> <div style="width: 48%;"> <p>BEM3.06 Long-term effects of dangerous substances on diatoms (Bacillariophyta) and their communities as measured in the Ebro River Basin (NE Spain)</p> </div> </div>
13h00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.07 El nuevo orden Collemopsidiales (Dothideomyceta) alberga una gran diversidad de especies marinas del género <i>Collemopsisidium</i>.</p> </div> <div style="width: 48%;"> <p>BEM3.07 Pulp mill industry emissions biomonitoring, and impacts on the photosynthetic performance of lichen transplants</p> </div> </div>
13h15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SEB3.08 Estructura genética poblacional y flujo génico de <i>Mastodia tessellata</i> (Ascomycota, Fungi) en el eje bipolar Alaska-Antártida</p> </div> <div style="width: 48%;"> <p>BEM3.08 Respuesta de líquenes y musgos como bioindicadores de altas concentraciones de CO₂</p> </div> </div>
13h30	Lunch Restaurant Hotel Tuela
ROOM SUL	
15h00	Extraordinary session Patrícia Tiago (Biodiversity4All): " <i>BioDiversity4All - a Portuguese citizen science project</i> "
15h30	General Assembly and Closing Ceremony
Coffee-break ROOM DOURADA	
ROOMS SUL & NORTE	
17h30	<i>Meetings of Societies</i>



INDEX of ABSTRACTS	Page
Plenary sessions	7
Invited thematic conferences	11
Oral Presentations	
Biodiversity & Conservation	15
Bioindicators and Environmental Management	43
Systematics, Evolution and Biogeography	59
Technology and Heritage	75
Posters	
Biodiversity & Conservation	80
Bioindicators and Environmental Management	105
Systematics, Evolution and Biogeography	112
Technology and Heritage	115
Extraordinary conferences	116



Airborne fungal spores in Badajoz (SW Spain) and weather influence in their seasonal distribution 43

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¹ University of Extremadura (Spain)

² Hospital Infanta Cristina de Badajoz (Spain)

Introduction. Badajoz is located in the SW of Spain, close to Guadiana river. The main land uses some km around the location were irrigated crops, cereal crops and grassland pastures from green oaks dehesa. The aims of this work were to know the seasonal distribution of airborne fungal propagules for one year and analyses rain and temperature as the main influencing factors.

Material and Methods. Sampling was performed from April 2009 to March 2010 in Badajoz (SW of Spain). Air was aerobiological monitored with a Hirst spore trap 127 days distributed along the period studied. Petrolatum white was used as adhesive. Spore was identified and counted at 1000x magnification with one or two horizontal scans in the center of the slide. Data were provided as daily or hourly spores concentration per cubic meter. Weather data were provided by a meteorological station close to the spore trap.

Results. 86 spore types were identified including hyphae as propagules. Average spore concentration was 3634 spores/m³. Maximum values were reached on October 17th with 25603 spores/m³. 39 spore types reached average levels above 10 spores/m³. Twelve spore types or propagules represented more than 80% of total, in order with average concentration in spores/m³: *Cladosporium cladosporioides* (1565), *Cladosporium herbarum* (278), *Ustilago maydis* (170), *Ustilago cynodontis* (150), *Colletotrichum* (147), basidiospores no specified (126), *Aspergillus-Penicillium* (107), *Mycosphaerella* (92), hyphae (90), hyaline *Leptosphaeria* (78), *Amanita* (56) and *Alternaria* (49). Maximum concentration was reached in October due to *Cladosporium cladosporioides* mainly, nevertheless other fungal types reached maximum in June (*Cladosporium herbarum*), May (both *Ustilago* types) or August (hyphae). Total rain for the period studied was 781.4 mm, nearly twice as normal values, nevertheless nearly half of the rain appeared in winter.

Conclusions. Airborne fungal propagules at Badajoz were dominated by *Cladosporium cladosporioides* type that represented more than 40% of total reaching maximum values in autumn. In Spring *Ustilago* teliospores showed their maximum concentration and in summer a reduction in *Alternaria* and other basidiospores was appeared. Rain may play a relevant role for some spore types nevertheless temperature was a general more restrictive factor, both with low and very high values reducing spore concentration.