

MOLECULAR SYSTEMATICS OF BRYOPHYTES: PROGRESS, PROBLEMS AND PERSPECTIVES

**An international symposium sponsored by the Missouri
Botanical Garden and the Deep Gene Research Coordination
Network**



Organizers:
Bernard Goffinet (University of Connecticut)
Robert Magill (Missouri Botanical Garden)

St. Louis, Missouri
Sept. 6 and 7, 2003

Saturday, September 6

8.20 AM Welcoming address by Peter Raven director of the Missouri Botanical Garden

8.30 AM Introduction by Bernard Goffinet

SESSION I: EVOLUTION OF LAND PLANTS

8.40 AM **Qiu Y.-L.:** Evolution of Land plants

9.10 AM **Quandt D.,** M. Stech, W. Frey, K.W. Hilu & T. Borsch: Molecular evolution of the chloroplast *trnL-F* region in land plants.

9.30 AM **Knoop V.:** Bryophyte phylogeny: peculiarities and phylogenetic information in mitochondrial DNA

9.50 AM **Mishler B.D.,** A. Driskell, & D. G. Kelch. Getting to the bottom of the land plants: genomic characters vs. DNA sequence data, and compartmentalization vs. global analyses

10.10 AM Discussion

10.30 AM Break

SESSION II: EVOLUTIONARY HISTORIES OF HORNWORTS AND LIVERWORTS

10.50 AM **Szweykowska-Kulinska Z.:** Organellar inheritance in liverwort and mosses

11.10 PM **Duff J.:** Molecular and morphological diversification in the hornworts, an ancient land plant lineage

11.30 PM **Davis C.:** Molecular phylogeny of leafy liverworts

11.50 PM **He-Nygren X.,** I. Ahonen, A. Juslin & S. Piippo: Phylogeny of the Jungermanniidae

12.15 PM Lunch break

SESSION II: EVOLUTIONARY HISTORIES OF HORNWORTS AND LIVERWORTS (CONT.)

- 1.30 PM **Forrest L.** & B. Crandall-Stotler: A phylogeny of the simple thalloid liverworts (Jungermanniopsida, subclass Metzgeriidae) as inferred from the chloroplast genome
- 1.50 PM **Heinrichs J.**, H. Groth & M. Lindner: Molecular phylogeny and biogeography of the Plagiochilaceae
- 2.10 PM **Wilson R.** & S. R. Gradstein: Molecular phylogeny of the Lejeuneaceae.
- 2.30 PM **Schill D.**: Molecular relationships of Lophoziaceae and Scapaniaceae
- 3.00 PM Discussion or room for student papers

Sunday, September 7

SESSION III: EVOLUTIONARY HISTORIES OF MOSSES

- 8.30 AM **Goffinet B.**, C. J. Cox & A. J. Shaw. Significance of hybridization in the early diversification of arthrodontous mosses.
- 8.50 AM **Tsubota H.**, E. De Luna, D. Gonzalez & H. Deguchi: Molecular phylogeny and ordinal relationships of mosses based on large scale data set of *rbcL* sequences, with special reference to the Grimmiales and Seligeriales
- 9.10 AM **Hyvönen J.** & S. Koskinen: *Pogonatum* (Polytrichales, Bryophyta) revisited.
- 9.30 AM **LaFarge C.**: Evolution of dwarf males in *Dicranum* and *Dicranoloma* (Dicranaceae)
- 9.50 AM **Cox C.**: Phylogeny and patterns of diversification in the Mniaceae s.l." i.e including *Pohlia*
- 10.10 AM Break
- 10.30 AM **Holz I.**, W. R. Buck, S. Boles, C. Cox, J. Shaw, & B. Goffinet: Molecular phylogeny and character evolution in the Hypopterygiaceae.
- 10.50 AM **Newton A.**: Phylogeny of the Hypnodendraceae
- 11.10 AM **Deluna E.**: The limits of *rbcL* sequences in the inference of phylogenetic relationships among families of pleurocarps as estimated by parsimony, maximum likelihood and bayesian analyses
- 11.30 AM **Vanderpoorten A.**: Molecular and morphological evolution in the moss genus, *Amblystegium*
- 11.50 AM **Huttunen S.**: Phylogenetic relationships of Meteoriaceae, Brachytheciaceae and Lembophyllaceae

12.10 PM Discussion

12.30 PM Lunch break

SESSION IV: PHYLODEMOGRAPHY, PHYLOGEOGRAPHY AND CRYPTIC SPECIATION

- 1.30 PM **Shaw J.**, Melosik, I., and Cox, C. Patterns of peatmoss (Sphagnum) diversification inferred from molecular phylogenies.
- 1.50 PM **Van der Velde M.:** Cryptic speciation and mechanisms of reproductive isolation within *Polytrichum commune* s.l. as revealed by molecular markers
- 2.10 PM **Skotnicki M.L.**, P. Selkirk & A. Mackenzie: Mosses Surviving on the Edge: Origins, Genetic Diversity and Mutation in Antarctica
- 2.30 PM **McDaniel S.:** Molecular population genetics of the delta-6 fatty acid desaturase gene in *Ceratodon purpureus*: functional and evolutionary implications
- 2.50 PM **Stech M.:** Interrelationships and biogeography of two Gondwanan/subantarctic *Campylopus* species, *C. pilifer* and *C. introflexus*
- 3.10 PM **Hedderson T.:** Phylogeography of an amphi-atlantic disjunction - evidence for multiple histories in *Homalothecium sericeum*.
- 3.30 PM Discussion and room for student papers

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