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## **Evolutionary Biology of the Bryopsida (Mosses): A Synthesis—Introductory Comments**

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In 1995, the Green Plant Phylogeny Research Coordination Group (GPPRCG), funded through a USDA grant 94-37105-0713 (The Origins and Phylogeny of Green Plants: A Research Coordination Group) to Mark A. Buchheim, Brent D. Mishler, and Russell L. Chapman organized the first of a series of workshops to promote and coordinate national and international collaborative efforts towards addressing the evolution of green plants. At the end of the two day meeting in Berkeley, the nine muscologists present had proposed a list of about 80 priority taxa to be targeted as exemplars for reconstructing the phylogeny of mosses, and selected several DNA loci to be sequenced toward that goal. The project appeared overwhelming at first considering that by then, phylogenetic inferences were limited to a few groups, and DNA sequence data had not yet made their official entry (i.e., in the form of publication) into bryophyte systematics, except for addressing the relationships among basal land plants.

The two years following the Berkeley meeting saw a dramatic increase in DNA sequences gathered in various bryological laboratories, allowing for the first time for an entire symposium to be filled with phylogenetic studies focusing on the Bryophyta. During the 1997 ABLs meeting in Montreal, results of four studies inferring phylogenetic relationships within moss-clades from nucleotide data were presented at the symposium “Phylogeny within the major bryophyte clades” organized by Brent D. Mishler, Barbara Crandall-Stotler, and Efrain De Luna. A fifth study, and by far

the most elaborate in terms of its taxon and character sampling, was presented by Cymon Cox as a contributing paper in the general sessions of the Society. The annual meeting was followed by a workshop organized by the GPPRCG. The green plant phylogeny grant was in its third year, and funding was secure for another two years, until 1999, the year the International Botanical Congress was to be held in St. Louis. The GPPRCG offered to sponsor symposia on the phylogeny within each of the major lineages of land plants. We offered to organize the symposium on the phylogenetic relationships within the Bryopsida and invited six contributors to take the leadership for coordinating the efforts aimed at addressing the phylogeny within specific groups.

The GPPRCG-Bryopsida group would meet one more time, in Xalapa, at the Instituto de Ecología (Veracruz, Mexico), in 1999 just a few months before the congress for progress reports and previews of upcoming presentations. Although most projects were behind schedule, the goal to have multiple sequences for all taxa selected and many more, was within reach. In the following four months, most gaps in the matrices were filled, and final results began to emerge from various laboratories. Although a final count was not made, a fair estimate suggests that around a 1,000 sequences, representing maybe 250 taxa, were generated, and analyzed for the phylogenetic signal they carry.

Less than a year following the symposium, we are delighted to see six of the seven original oral contributions to be published in a single issue of