Raymond Eugene Stotler (1940–2013) - Remembering an American hepaticologist

Dale H. Vitt and Barbara Crandall-Stotler

Department of Plant Biology, Southern Illinois University, Carbondale, IL 62901, U.S.A.

Since the late 1970’s, the standard authority for North American liverwort and hornwort names and authors has been the ‘Checklist of North American Liverworts and Hornworts,’ compiled by Raymond Stotler and Barbara Crandall-Stotler and published in The Bryologist in 1977 (Stotler & Crandall-Stotler 1977). This checklist not only updated the classification scheme and list of taxa reported from North America in the list published by Evans in 1940, but for the first time included a list of synonyms and nomenclatural annotations. Ray loved puzzles and some of the great puzzles are to be found in the application of correct plant names. His thorough research into the nomenclature of liverwort and hornwort taxa, which included personal study of original descriptions and specimens to identify types, as well as an in depth knowledge of the ICBN, was a significant part of Ray’s professional life. He was a systematist in the broadest sense of the word, complementing his morphology-based taxonomic studies whenever possible with field observations, experimental manipulations of cultured plants, and insights gleaned from published molecular sequence analyses.

Raymond Stotler was born on March 30, 1940 in Peoria, Illinois and passed away at his home in rural Makanda, Illinois on December 4, 2013 after a two-year battle with esophageal cancer, a battle that even his doctors in St. Louis thought he was winning. His father (Charles Raymond) was a machinist while his mother (Margie Juanita) raised him and his two sisters. Ray attended elementary and high school in Peoria, IL and spent his undergraduate days at Western Illinois University in Macomb, IL. It was actually there that his fascination with liverworts and research began when he conducted his senior project on the ecological differences between two field populations of Reboulia hemispherica, under the direction of Dr. R. D. Henry. In 1962, he graduated from Western with a degree in Biology Education and began his botanical studies at Southern Illinois University in Carbondale. While at Carbondale, he spent one summer working for ecologist Dr. W. Clark Ashby at the LaRue-Pine Hills Research Station (currently a federal Research Natural Area), where he lived in a small cabin and made round-the-clock collections of Rhus radicans for analysis. Fortunately, he was not allergic to its toxins and this was an excellent introduction to the requirements for field work in southern Illinois, including snake-leggings, high boots, and a full-brimmed hat. His M.S. thesis research on the Characeae of Illinois was done under the direction of Dr. Robert H. Mohlenbrock, a respected authority of the Illinois flora and his mentor for nomenclature and systematics. As part of his study, Ray collected and processed specimens from pits left from former coalmines and lakes throughout the state and worked in various herbaria in Illinois and Indiana. Although his thesis work was on an algal group, he was still most interested in studying liverworts and often accompanied fellow students into the many canyons of southern Illinois, where liverworts were both abundant and diverse. While at SIU, he had the opportunity to meet Dr. Raymond E. Hatcher, an alumnus of SIUC and former Ph.D. student of Dr. Margaret Fulford, an authority on liverworts. Dr. Hatcher encouraged Ray to apply to do doctoral studies with Dr. Fulford, which he did after being awarded his Master’s degree in Botany in May of 1964.

Ray was accepted into the doctoral program of the Botany Department of the University of Cincinnati to begin work with Dr. Fulford in the Fall of 1964, but first in the summer of 1964 he took field courses in bryophytes and lichens with Dr. Aaron J. Sharp at the University of Michigan Biological Station (UMBS) in Pellston, MI. Beginning a Ph.D. program is always momentous for a person, but 1964 was more noteworthy for Ray for another reason. During the summer at UMBS he met Barbara Crandall—the beginning of a lifelong relationship. Ray and Barbara both completed their doctoral degrees at the University of Cincinnati in 1968.
Although initially financed as a teaching assistant, Ray worked as a research assistant for Margaret Fulford from 1965 through 1968. In this capacity, he worked through thousands of herbarium specimens from Latin America, pulling out all the different taxa of liverworts in each collection and mounting them in Hoyer’s media on ‘mica’ slides for Margaret to study. In this process he became familiar with the vast diversity of tropical hepatics. In 1967, Ray and Barbara accompanied Margaret on a ten-day collecting trip into the cloud forests of the Luquillo Mountains of Puerto Rico. They made extensive collections from all the major peaks in the Luquillo Range, including the rarely visited Pico del Oeste, where staff from the Arnold Arboretum had established a weather-monitoring tower and permanent sampling stations. The processing and identification of the 740 specimens collected on the trip was a team effort and resulted in three publications, two co-authored with Margaret and one with E. H. Bryant, a colleague from the University of Houston. While in Cincinnati, Ray developed not only a passion for Barbara, but also for all things Cincinnati—including Cincinnati chili, German beer gardens and mettwurst sausages and the bleachers at Crosley Field, home of the Cincinnati Reds baseball team. In addition to their work on Puerto Rican hepatics, he and Barbara began working together on a monographic treatise of the liverwort genus *Bryopteris* while still students. Ray completed his dissertation, a monograph of *Frullania* subgenus *Frullania* in Latin America (Stotler 1970), in August 1968 and began a post-doctoral position at the University of Wisconsin Milwaukee (UWM) in September, while Barbara moved to a post doc position at the University of Texas at Austin. Ray’s job description at UWM was to establish an axenic culture collection of algae for Dr. John Blum and maintain the culture collection of Ray Hatcher, who had died unexpectedly in 1967, with the understanding that he would be hired to replace Dr. Hatcher in a tenure-track position the next year; however, the position was lost due to widespread budgetary constraints, which were being felt in universities across the U.S.

In the summer of 1969, Barbara and Ray were married in Munich, Germany and both accepted term contracts at SIUC in the fall of that year. Ray’s term appointments continued until in 1971 he was awarded a tenure-track position as an Assistant Professor. With the promise of greater job security, Ray and Barbara bought a wonderful old farmhouse, south of Carbondale and over the years restored and refurbished it to a perfect home complete with greenhouse, antique furnishings and wonderful gardens.

In these early years, the Botany Department was very field-oriented, which was reflected in several of Ray’s early publications. But he never abandoned his love for systematic research, including botanical documentation and nomenclature, as evidenced in his 1977 checklist for North America, his nomenclatural papers in *Taxon*, his papers that contributed new classification schemes for hepatics, published in 2000 (Crandall-Stotler & Stotler 2000) and 2009 (Crandall-Stotler et al. 2009). In addition, he served as the PI for graduate student training in liverwort systematics under the sponsorship of two NSF-financed Partnership for Enhancing Expertise in Taxonomy (PEET) grants from 1995 to 2005. Ray’s interest in bryological literature was also put to good use when, in 1978, he and Barbara began compiling the ‘Recent Literature Lists on Hepatics’ for *The Bryologist*, a task that continued until 1993. These annotated lists have served as the bibliographic basis for our literature for these groups of plants. Ray insisted on actually reviewing each and every reference that went into the list and each reference received a short summary. Ray’s interest in nomenclatural puzzles surfaced not only in his publications on liverwort nomenclature, but also in his service on the ‘International Committee for Plant Nomenclature’ from 1975 to 2007. As a member of the Committee on Bryophytes, he spent much time researching the rules of the Code and their application to the correct names for many bryophytes. Ray’s service contributions to ABLS and to the International Association of Bryologists (IAB) were many: In addition to the Recent Literature Lists and his nomenclatural contributions, he served as a contributor to two volumes of Index Hepaticarum, edited by Geissler and Bischler (Stotler 1985, 1989), and a compiler of the English version of the Glossarum Polyglottum Bryologicae, a multilingual Glossary for Bryology (Stotler 1990). He was a member of the ABLS Executive Committee from 1972 to 1982, curator of the ABLS hepatic herbarium from 1972 to 2012 (ABSH was moved to F in 2012), and Director of the ABLS Hepatic exchange from 1982 to 2004 (who cannot remember the blue mimeographed quarterly exchange mailings?). He was on the Editorial Board for the ‘Flora of North America, Bryophytes’ project from its inception in 1991 until 2002, and worked to develop the initial guidelines for contributors. From 2008 until his death, he contributed to the compilation of the Global Checklist of Liverworts and Hornworts as part of the Early Land Plants Today Initiative, headed by Lars Söderström, Anders Hagborg and Matt von Konrat, which is soon to be published in PhytoKeys.

As a teacher, Ray was committed to his lectures, his graduate students, and to delivering a quality learning experience for every student he met. While at SIU, his undergraduate teaching included courses in ecology, organismal biology, lowland flora, plant systematics and plant diversity, and graduate level courses in nomenclature, botanical literature and field courses for both
bryology and lichenology. He mentored students for 9 Ph.D. and 16 M.S. degrees and served as External Examiner for the doctoral dissertation defenses of Wilbur Peterson, University of Alberta (1978), and David G. Long, Trinity College, Dublin Ireland (2000). He accumulated an outstanding library of bryological literature that more than filled 15 bookcases and contained original copies of such classics as Dillenius’ *Catalogus Plantarum* (1716) as well as his *Historia Muscorum* (1763), Hedwig’s *Historiae Naturalis Muscorum Frondosum* (1782), and Goebel’s *Organographie der Pflanzen* (1898–1901).

Ray’s research included 65 refereed articles—many with Barbara Crandall-Stotler. Ray was both a field botanist and monographer with interests in floristics, plant identification, and systematic relationships. In southern Illinois he knew in the field all of the bryophyte species, he loved each of them, and wanted to know their

**Figure 1.** American hepaticologist, Raymond E. Stotler. **A.** At the summit of El Yunque in the Luquillo Mountains, Puerto Rico, surrounded by clumps of *Frullania subtilissima* (Nees & Mont.) Lindenb., 1967. **B.** In the Colorado Rockies outside of Boulder, CO, as a participant in the first foray of the International Association of Bryologists (IAB), 1973. **C.** On Toluca Volcano, Mexico, IAB Foray, 1995. **D.** In the library at the Royal Botanic Garden, Edinburgh Scotland, 2009.
life histories and the correct names for each. He knew who was related to whom based on his field and microscope knowledge—not on their DNA. These interests complemented the anatomical, developmental, and morphological interests of Barbara. In 1985, he was elected a Fellow of the Linnean Society of London, and in 1988 became a Research Associate of the Missouri Botanical Garden.

Ray enjoyed people, he loved going to bryological events, annual meetings, working in herbaria around the world, and observing liverworts in the field with colleagues. Ray was a true scholar and much-respected American hepaticologist. His (and Barbara’s) detailed literature summaries left us with the most comprehensive literature base for the field, his meticulous curation of the Society’s liverwort herbarium left the Society and the future with a properly curated herbarium of nearly 30,000 historical specimens from North America, and his love of puzzles left hepatic nomenclature with a strong legacy of correct names.

In 2011, Sharon Bartholomew-Began and Dale Vitt wrote a tribute to Ray and Barbara that included a summary of their joint and individual contributions to bryology and included a bibliography of their publications up to that time (Bartholomew-Began & Vitt 2011). Ray spent many years working on updating the list of North American liverworts and hornworts that he and Barbara first published in 1977. A new checklist for the hornworts was published in The Bryologist in 2005; a new checklist for the liverworts, including comprehensive nomenclatural references and species level distributions was over 90% complete at the time of Ray’s death. It is currently being completed and when published next year, will serve as the recognized nomenclatural reference for North American hepatics for the next generation of hepaticologists and botanists. As paraphrased from Dale Vitt’s eulogy for Ray: Ray will be missed by all. We will miss his charm, his ability to always have some delightful response to the day’s problems, and his gentle guidance. We will miss his professionalism, his knowledge of plants, and for his enthusiasm for things old and unique. Raymond Stotler’s professional legacy will stand forever in his publications, but his true legacy will be his gentle influence and guidance to all of those around him.

**Literature Cited**


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**Supplementary documents online:**

Supplementary Table S1. Refereed publications of Raymond E. Stotler.