

A TAXONOMIC REVISION  
OF THE ERPODIACEAE  
(Bryophyta)

MEMOIRS OF THE NEW YORK BOTANICAL GARDEN  
(ISSN 0077-8931)

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A TAXONOMIC  
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Edited by Bruce Allen

MEMOIRS OF THE NEW YORK BOTANICAL GARDEN, VOLUME 116

NEW YORK BOTANICAL GARDEN  
BRONX, NEW YORK, USA

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Published by NYBG Press  
2900 Southern Boulevard  
Bronx, NY 10458-5126 USA  
NYBGPress.org

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Memoirs of The New York Botanical Garden,  
Volume 116 was issued on XX October 2017.

ISSN 0077-8931  
ISBN 978-0-89327-545-7

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## ABSTRACT

Pursell, Ronald A.<sup>†</sup> (Missouri Botanical Garden, Bryology Section, P.O. Box 299, Saint Louis, MO 63166-0299, U.S.A.). 2017. A taxonomic revision of the Erpodiaceae. *Memoirs of The New York Botanical Garden* 116: 1–106.

The Erpodiaceae (Bryophyta) are very small to small, pleurocarpous mosses most closely related to the Orthotrichaceae. They are found mainly in drier areas of the tropical and subtropical regions of the world. The family is characterized by autoicous plants; prostrate stems (usually with erect branches); the absence of a stem/branch central strand; ecostate leaves with plane, entire margins (marginal papillae in species with pluripapillose laminal cells); unistratose, tumid laminal cells; conspicuous primordial utricles in species with smooth laminal cells; sporophytes one (rarely two) per perichaetium; setae erect, smooth, very short to nearly lacking; capsules erect, usually cylindric, radially symmetric, immersed to shortly exserted; stomata phaneroporous on the lower parts of the capsules; peristomes (when present) with 16 fragile, undivided, densely papillose or spiculate teeth, or rudimentary with irregular segments formed by the rupturing of thin, densely papillose, hyaline membranes; annuli simple or complex in most species; calyptrae twisted, long-campanulate, mitrate, rarely cucullate; and spores mostly large and thick-walled.

Five genera are recognized in this study—*Aulacopilum* (2 species, 3 subspecies), *Erpodium* (2 species), *Solmsiella* (2 species), *Tricherpodium* (1 species, 2 subspecies), and *Venturiella* (8 species, 7 subspecies). There are two sections in *Aulacopilum* (sects. *Aulacopilum* and *Obscuropapillae*), and three sections in *Venturiella* (sects. *Leptocalpe*, *Stephanostoma*, and *Venturiella*). A neotype is designated for *E. hodgkinsoniae*. Lectotypes are designated for *A. balansae*, *A. japonicum*, *E. balansae*, *E. beccarii*, *E. brasiliense*, *E. distichum*, *E. grossirete*, *E. joannis-meyeri*, *E. lorentzianum*, *E. mangiferae*, *E. pringlei*, *E. schimperi*, *E. schweinfurthii*, *S. javanica*, and *S. paraguayensis*. New distribution records are recorded for *A. glaucum* subsp. *glaucum* (Kenya and Malawi), *T. beccarii* subsp. *beccarii* (Nicaragua), *V. coronata* subsp. *coronata* (Thailand), *V. schimperi* subsp. *pringlei* (Guatemala), and *V. perrottetii* (Cape Verde Islands, Senegal, Yemen, China). *Aulacopilum tumidulum* is excluded from the Americas, *E. domingense* from Costa Rica, *T. beccarii* subsp. *beccarii* from Australia, and *V. glaziovii* from India and Yemen. Keys are provided to the genera, sections, species, and subspecies. All genera, sections, species, and subspecies are described; illustrations and distribution maps are provided for each species and subspecies.