

Notes on Indiana Liverworts—I*

KENNETH A. WAGNER, University of Tennessee

This paper begins a series dealing with the taxonomic, ecological, and other problems concerning the liverworts known to occur in Indiana. The results of two collecting trips in June 1947 are reported, together with other data compiled during the past year. Two species, *Cephalozia pleniceps* and *Riccardia palmata*, are reported for Indiana for the first time. All collections cited are deposited in the DePauw University herbarium and in the herbarium of the University of Tennessee.

Cephalozia pleniceps (Austin) Lindb. Parke Co., Turkey Run State Park, on sandy soil along Sugar Creek, Sept. 4, 1946, Wagner 1327; on sandstone along Sugar Creek, Sept. 4, 1946, Wagner 1318.

Cololejeunea Biddlecomiae (Austin) Evans. Union Co., on bar, woods 4 miles north of Liberty, June 6, 1947, Wagner 1409.

Conocephalum conicum (L.) Dum. Brown Co., on soil along stream, Brown County State Park, June 8, 1947, Wagner 1429. Huntington Co., Oct. 1946, Fred Loew.

Frullania eboracensis Gottsche. Blackford Co., on bark, woods 6-7 miles northwest of Pennville, June 4, 1947, Wagner 1403. Jay Co., on tree, 2 miles north of Red Key, June 4, 1947, Wagner 1422.

Frullania riparia Hampe. Brown Co., on bark, Brown County State Park, June 9, 1947, Wagner 1433. Randolph Co., with moss, 8 miles south of Union City, June 8, 1947, Wagner 1404. Wells Co., on tree trunk, woods 3 miles west of Poneto, June 4, 1947, Wagner 1418.

Lophocolea heterophylla (Schrad.) Nees. Blackford Co., on decayed wood, 6-7 miles northwest of Pennville, June 4, 1947, Wagner 1401. Brown Co., on humus, Brown County State Park, June 8, 1947, Wagner 1423. Jay Co., on decayed wood, 2 miles north of Red Key, June 4, 1947, Wagner 1420.

Metzgeria conjugata Lindb. was first reported for Parke County by Dorothy Parker in volume 51 of the proceedings of this Academy. The location of the collection was Turkey Run State Park. The present writer also collected this species at Turkey Run (Wagner 1325) and examined 26 other collections, all from that same area. Why only one station has been found for this species in Indiana presents a problem and the answer is not apparent at this time. The range of *M. conjugata* is rather general in the United States. It occurs from Maine to Florida and Louisiana, in the Pacific coast states, in Tennessee, Kentucky, Indiana and Wisconsin. It might be found in cool sandstone raivnes such as occur at Fern and Fallen Rock, and all collectors should look for it.

* Contributions from the Botanical Laboratory, The University of Tennessee.

Porella platyphylla (L.) Lindb. Blackford Co., in woods, 6-7 miles northwest of Pennville, June 4, 1947, Wagner 1402.

Porella platyphylloidea (Schwein.) Lindb. Brown Co., on tree base, Brown County State Park, June 8, 1947, Wagner 1431. Jay Co., in woods, 2 miles north of Red Key, June 4, 1947, Wagner 1420. Posey Co., May 13, 1934, W. H. Welch 7820. Union Co., on tree base, woods 4 miles north of Liberty, June 8, 1947 Wagner 1408.

Preissia quadrata (Scop.) Nees. Brown Co., on damp hillside, Brown County State Park, June 9, 1947, Wagner 1431.

Reboulia hemisphaerica (L.) Raddi. Brown Co., on soil, Brown County State Park, June 8, 1947, Wagner 1425.

Depauperate growth of this species is easily confused with similar growth of *Preissia quadrata*. Examination of a good cross section of the thallus will enable the observer to readily distinguish between these two species, but such sections are sometimes difficult to make, especially for the beginner. The writer examined numerous collections of both species and found that there is a consistent difference in the rhizoids which can be observed with a hand lens. When dry, the rhizoids of *R. hemisphaerica* glisten; those of *P. quadrata* do not. This difference in light reflection apparently is due to the greater number of pegs in the rhizoids of the former species. The rhizoids are also smaller, ranging from 6 to 21 microns in cross section, the majority being about 15 microns. The rhizoids of *P. quadrata* range from 7 to 37 microns in cross section, the majority being from 20 to 30 microns.

Scapania nemorosa (L.) Dum. Brown Co., on soil along stream, Brown County State Park, June 9, 1947, Wagner 1432.