

Notes on Indiana Liverworts—III. Some New County and State Records

KENNETH A. WAGNER, Florida State University

During the summer of 1947 and again in 1949 the writer visited several Indiana counties in which little or no liverwort collecting had been done. These counties are in the eastern central and in the southeastern part of the state. The new county records found on these trips together with some collections by Dr. Friesner in Clay county and a few miscellaneous collections are reported here.

Cephalozia bicuspidata (L.) Dum. Ripley Co.: on rotten wood, creek along route 129, July 18, 1949, Wagner 2461, 2462. This species has been reported previously in Indiana only from Parke county.

C. pleniceps (Austin) Lindb. Parke Co.: on sandy soil, along Sugar Creek, Turkey Run State Park, Sept. 4, 1946, Wagner 1327; on sandstone, along Sugar Creek, Turkey Run State Park, Sept. 4, 1946, Wagner 1318. This is a new state record.

Cephaloziella hampeana (Nees) Schiffn. Ripley Co.: on rotten wood, stream along route 129, July 18, 1949, Wagner 2463. A minute species formerly reported in Indiana from three counties.

Chiloscyphus pallescens (Ehrh.) Dum. Dearborn Co.: on soil, mixed with *Hypnum*, 1 mile southwest of Dillsboro, July 18, 1949, Wagner 2403. Ripley Co.: on rotten log, stream along route 129, July 18, 1949, Wagner 2407.

Cololejeunea biddlecomiae (Austin) Evans. Union Co.: on bark, woods 4 miles north of Liberty, June 8, 1947, Wagner 1409. This species has not been found in Indiana north of Madison county.

Conocephalum conicum (L.) Dum. Brown Co.: on soil along stream, Brown County State Park, June 8, 1947, Wagner 1429. Clay Co.: on sandstone cliff along route 40 near Harmony, Sept. 19, 1946, Friesner 21246. Huntington Co.: Oct., 1946, Fred Loew. A very common species in damp habitats, especially around water falls. It grows on both limestone and sandstone, and is known from 33 counties in Indiana.

Frullania eboraensis Gott. Blackford Co.: on tree trunk, woods 6 miles northwest of Pennville, June 4, 1947, Wagner 1403. Dearborn Co.: on black locust, 3 miles east of Dillsboro, July 18, 1949, Wagner 2404. Jay Co.: on tree, 2 miles north of Red Key, June 4, 1947, Wagner 1422. Ohio Co.: on tree trunk, along route 262 northwest of Rising Sun, July 18, 1949, Wagner 2448. Ripley Co.: on rotten log along route 129, July 18, 1949, Wagner 2432, 2434. Known from 39 counties in Indiana,

it is one of the most common liverworts growing on tree trunks. It may be found in relatively dry localities, and probably could be collected in every county in Indiana.

F. riparia Hampe. Brown Co.: on tree 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. Switzerland Co.: on sycamore bark, 3 miles east of Florence, July 18, 1949, Wagner 2447, 2458. Wells Co.: on bark, woods 3 miles west of Poneto, June 4, 1947, Wagner 1418. In this species, nearly all of the lobules are explanate.

F. squarrosa (R. Bl. & Nees) Dum. Ripley Co.: on rotten bark, stream along route 129, July 18, 1949, Wagner 2433, 2437, 2439. Rather infrequent in Indiana, it has been reported from 9 counties. It is easily recognized by its large size and the way the leaves roll tightly around the stem when dry. When moist, the leaves are squarrose-spreading.

Lophocolea heterophylla (Schrad.) Dum. Blackford Co.: on decayed wood, 6 miles northwest of Pennville, June 4, 1947, Wagner 1401. Brown Co.: on humus, Brown County State Park, June 8, 1947, Wagner 1423. Dearborn Co.: on soil with mosses, 1 mile southwest of Dillsboro, July 18, 1949, Wagner 2402, 2405, 2445. Jay Co.: on decayed wood, 2 miles north of Red Key, June 4, 1947, Wagner 1420. Ripley Co.: on rotten log, along route 129, July 18, 1949, Wagner 2446, 2450. Common throughout Indiana on rotten wood and clay banks; known from 39 counties.

Nowellia curvifolia (Dicks.) Mitt. Ripley Co.: on rotten log over stream, along route 129, July 18, 1949, Wagner 2400.

Pellia epiphylla (L.) Corda. Clay Co.: on sandstone cliff, one half mile northeast of Harmony, Sept. 19, 1946, Friesner 21245. This species has not been reported in Indiana from any county north of Delaware and Warren. It would seem that it might be collected frequently in the lake country of northern Indiana.

Plectocolea hyalina (Lyell) Mitten. Ripley Co.: on rotten wood, stream along route 129, July 18, 1949, Wagner 2401.

Porella pinnata L. Switzerland Co.: in mud at tree base, 3 miles east of Florence, July 18, 1949, Wagner 2458. Reported from 8 counties in Indiana, none north of Randolph. It is found most frequently in areas which are inundated more or less regularly; occasionally it is found growing continuously submerged.

P. platyphylla (L.) Lindb. Blackford Co.: in woods, 6 miles northwest of Pennville, June 4, 1947, Wagner 1402. Brown Co.: on tree base, Brown County State Park, June 8, 1947, Wagner 1431. Dearborn Co.: on limestone, 1 mile southwest of Dillsboro, July 18, 1949, Wagner 2444, 2449. Jay Co.: in woods 2 miles north of Red Key, June 4, 1947, Wagner 1420. Ohio Co.: on hickory, along route 262, northwest of Rising Sun, July 18, 1949, Wagner 2406. Posey Co.: May 13, 1934, W. H. Welch 7820. Ripley Co.: on bark, along route 129, July 18, 1949, Wagner 2418; on limestone, Wagner 2459. Union Co.: on tree base, woods 4 miles

north of Liberty, June 8, 1947, Wagner 1408. Known in Indiana from 46 counties.

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 with moss, Brown County State Park, June 8, 1947, Wagner 1425.

Riccardia palmata (Hedw.) Carruth. Parke Co.: on rotten log at Wedge Rock, Turkey Run State Park, Sept. 4, 1946, Wagner 1332. This is a new state record.

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

This report removes seven Indiana counties from the list of those in which no liverworts have been collected, leaving twenty yet untouched. The total number of species now known to occur in Indiana is seventy-three. The specimens mentioned in this paper are deposited in the DePauw University Herbarium.