

## THE MOSSES OF MONROE COUNTY, INDIANA, III.

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The collection and classification of the mosses of Monroe County, as has been reported by the authors at the winter meetings of the Indiana Academy of Science for 1912 and 1913, was again resumed in the spring of 1914. The present list will include a few forms from Hamilton and Lake counties of Indiana, and Berrien County of Michigan.

The 1914 list of mosses includes twenty-nine new species, from eleven families and twenty-six genera, of which are representatives of one family and thirteen genera not reported in former reports. Material has been prepared, as described in former lists and left in the herbarium of the Botany Department at Indiana University with notes as to time, place, and habitat of the collection as well as condition of specimens. The entire collection in the herbarium now contains specimens, many of them in duplicate from different collections of ninety-five species and five varieties, representing fifty-three genera and seventeen families of the Bryales. In this report, as in former ones, the numbers within the parentheses after the name of the specimen is the accession number.

A great number of the specimens collected this year have been sent to A. J. Grout of Brooklyn, N. Y., or to G. B. Kaiser of Germantown, Pa., for verification or identification and the credit of such will be given in the list.

### Order SPHAGNALES.

#### Family *Sphagnaceae*.

*Sphagnum acutifolium* Ehrh. (189). Determined by G. B. Kaiser.

In swamps south of Gary, Lake County, Ind. Sterile.

### Order BRYALES.

#### Suborder NEMATOBONTEAE.

#### Family *Buxbaumiacae*.

*Buxbaumia aphylla* L. (134).

Matures spores from December to April. On sandy soil in moist ravine.

I. C. pond. Fruiting.

*Webera sessilis* (Schmid.) Lindb. (145).

Matures spores in spring and early summer. On clay in moist ravine,  
I. U. pond. Fruiting.

Suborder ARTHRODONTÆÆ.

Family *Dicranaceæ*.

*Ceratodon purpureus* (L.) Brid. (163, 199). Verified by G. B. Kaiser.  
Matures in spring and early summer. On sandy soil about Gary, Lake  
County, Ind. Common. Fruiting.

*Dicranella heteromalla* var. *orthocarpa*. (Hedw.) E. G. B. (136). Ver-  
ified by A. J. Grout.

Capsules mature in November and December. On clay on hillside  
northeast of Bloomington, Ind. Fruiting.

*Dicranum fulvum* Hook. (151). Determined by G. B. Kaiser.

Yellowish green mats on beech tree on south side of Griffy Creek,  
north of Bloomington, Ind. Sterile.

Family *Grimmiaceæ*.

*Hedwigia albicans* (Web.) Lindb. (142, 160). Verified by G. B.  
Kaiser.

Matures spores in spring. All material collected was sterile. In dark  
brownish green mats on decaying wood near I. U. pond.

*Grimmia doniana* Smith. (130). Determined by G. B. Kaiser.

In thin hoary patches on limestone, I. U. Campus.

Family *Tortulaceæ*.

*Tortella cæspitosa* (Schwaegr.) Limp. (291). Verified by G. B. Kaiser.

Matures spores in spring. Specimen robust and fruiting. Found on  
moist rocks above spring, Clear Creek, Ind., Monroe County.

Family *Orthotrichaceæ*.

*Drummondia clavellata*. Hook. (120, 135).

Matures spores in spring and summer. Found fruiting on bark of tree.  
Hamilton County and Monroe County, Ind.

*Orthotrichum porteri* Aust. (123). Determined by Mrs. E. G. Britton.

Matures spores in the spring. In black-green mats upon limestone.  
Fruiting. Rare.

*Orthotrichum schimperi* Hamm. (173). Determined by G. B. Kaiser.

Matures spores in spring. In dark green cushions upon trees and  
stumps in dry places.

Family *Bartramiaceæ*.

*Philonotis fontana* (L.) Brid. (186). Determined by G. B. Kaiser.

Matures spores in May and June. Found on moist rocks above spring, Clear Creek, Monroe County, Ind.

Family *Bryaceae*.

*Mniobryum albicans* (Wahl.) Limp. (178). Determined by G. B. Kaiser.

In thick green mats or tufts on rocks near water, northwest of Harrodsburg, Monroe County, Ind. Sterile. Fruits infrequently.

*Bryum caespiticium*. L. (172). Determined by G. B. Kaiser.

Spores mature in spring. On a decayed log in tufts. Bloomington, Ind. Common.

Family *Leskeaceae*.

*Anomodon minor* (P. B.) Förn. (133). Verified by G. B. Kaiser.

Sterile specimen. Found on retaining wall along north pike, Bloomington, Ind.

Family *Hypnaceae*.

*Rhytidium rugosum* (L.) Kindb. (141). Verified by G. B. Kaiser.

Sterile form. In dense light green masses on stone, Harrodsburg, Monroe County, Ind.

*Brachythecium rivulare* B. S. (132, 185). Verified by G. B. Kaiser.

Sterile, never found fruiting here. In very moist places or in water.

*Bryhnia graminicolor* (Brid.) Grout. (154). Determined by A. J. Grout. Sterile form, rarely found fruiting. On moist clay and stones just above water line in Griffy Creek, northeast of Bloomington, Ind.

*B. Novae-angliae* (S. & L.) Grout. (197). Determined by G. B. Kaiser. On edge of swamp, north of Gary, Ind., in loose light green mats. Sterile.

*Cirrophyllum bosci* (Schwaegr.) Grout. (138, 181, 182). Verified by G. B. Kaiser.

Spores mature in autumn. Found on soil in moist ravine in bright green mats. Sterile form.

*Cratoneuron filicinum* (L.) Roth. (179). Determined by G. B. Kaiser. Sterile specimen found in bluish green tufts just above water line in shaded spring.

*Amblystegium irriguum* (Wils.) B. HS. (180). Verified by G. B. Kaiser.

Sterile specimen. Found just above water line in shaded spring in deep olive to blackish green mats on rocks and clay.

*Hypnum molluscum* Hedw. (166). Determined by G. B. Kaiser.

Sterile form. On soil on wooded hillside, I. U. dam.

*H. patientiae* Lindb. (176). Verified by G. B. Kaiser.

Matures spores in spring. Fruiting. Yellowish green mats on decayed log, near Buchanan, Berrien County, Mich.

*Plagiothecium deplanatum* (Sch.) Grout. (170). Determined by G. B. Kaiser.

Sterile. On limestone in open ravine north of Bloomington, Ind.

*Amblystegiella adnata*. (Hedw.) Nichols. (170, 184). Determined by G. B. Kaiser.

Matures in summer. Specimen sterile. Found on limestone and on base of tree in dark green mats, about Bloomington, Ind.

Family *Leucodontaceae*.

*Leucodon brachypus* Brid. (152).

Matures spores in winter. Specimen sterile. In blackish green mats resembling *Hedwigia albicans*. Found on log north of Bloomington, Ind.

*Forsstroemia trichomitrium* var. *immersum* (Sulliv.) Lindb. (204). Verified by G. B. Kaiser.

Matures spores in summer. Fruiting. On tree in ravine southeast of I. U. dam.

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