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OHIO LIVERWORTS

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The liverworts (Hepaticae) known to occur in Ohio have been cited in numerous publications but no recent attempt has been made to account for species present or their distribution within the state. With the increasing interest now being shown in providing detailed distributional data for the Ohio vascular plant flora (as implied, e.g., by Cooperrider, 1961), similar data for Hepaticae should be of interest also.

Liverworts are less abundant than mosses in Ohio and fewer species are known. Nonetheless, 122 species of hepatics compared to 331 species of mosses (Giesy, 1957) suggests a relatively rich hepatic flora for a mesophytic temperate region. The wealth of species already known for a heavily collected region, i.e., south-eastern Ohio, suggests that additions to the present list and meaningful range extensions can be expected when collections are made from the many unexplored counties (fig. 1).

The collections deposited in The Ohio State University Herbarium reflect that moss collectors (see Giesy, 1957) are also hepatic collectors. Thus, specimens prepared by Hannah J. Biddlecome, E. Jane Spence, W. C. Werner, Edo Claassen, H. C. Beardslee, C. H. Coles, and R. C. Wareham comprise a significant part of the collections. In addition, there were abundant collections from Hocking and nearby counties made by Mary S. (Mrs. Bayard R.) Taylor. It is clear from the richness of the collections that Mrs. Taylor has made a considerable contribution to Ohio hepaticology and has probably collected more species of Hepaticae in Ohio than anyone else.

We have not attempted to account for every collection cited for Ohio or to examine every specimen ever collected. Every county record listed is based on a specimen in The Ohio State University Herbarium unless noted MU for the Miami University Herbarium or ABSH for The American Bryological Society Hepatic Herbarium at The University of Cincinnati. It is obvious from figure 1 that much field work remains to be done before margins of the distributional patterns can be established.

The numerous changes in nomenclature and many new discoveries within Ohio since the last list appeared over fifty years ago are incorporated below. If the species is reported from one or more adjacent states, we have noted that fact, but we have not attempted to outline the total distribution for any species. It is hoped that this preliminary report will stimulate a renewed interest in Ohio liverworts.

LIST OF SPECIES OCCURRING IN OHIO

Ptilidaceae

Blepharostoma trichophyllum (L.) Dum. Athens (Hall, 1958); Cuyahoga; Fairfield; Hocking; ABSH; Trumbull; Washington. Reported from all adjacent states.

Herberta adunca (Dicks.) S. F. Gray ssp. tennis (Evans) H. A. Miller. Hocking. Reported from the adjacent states of Kentucky, Pennsylvania, and West Virginia.

Ptilidium pulcherrimum (Web.) Hampe. Ashtabula; Athens; Clark; Coshocton; Cuyahoga, ABSH; Fairfield; Geauga, ABSH; Green, ABSH; Hocking; Jackson; Lake; Logan; Montgomery, ABSH; Portage; Summit. Reported from all adjacent states.

Trichocola tomentella (Brhr.) Dum. Ashtabula; Athens (Hall, 1958); Champaign; Hocking; Lawrence; Monroe. Reported from all adjacent states.

Figure 1. Known distribution of Hepaticae in Ohio, by counties. The number of species presently known for each county is indicated. Counties with no reported species are hatched, those with 1 to 9 species are shaded, those with 10 to 19 species are stippled, and those with 20 or more species are white. (Base map courtesy of Miami University Geography Department, details by Miss J. Gotter).
Bazzania denudata (Torr.) Trevis. Athens (Hall, 1958); Fairfield; Hocking. Reported from the adjacent states of Kentucky, New York, and West Virginia.

Bazzania tricrenata (Wahl.) Trevis. Hocking, ABSH. Reported from the adjacent states of Kentucky, New York and West Virginia.

Bazzania trilobata (L.) S. F. Gray. Ashtabula; Athens (Hall, 1958); Champaign; Cuyahoga; Fairfield; Franklin; Hocking; Jackson; Lake; Licking; Portage; Ross; Vinton (Hall, 1958); Washington. Reported from all adjacent states.

Lepidiozia reptans (L.) Dum. Athens (Hall, 1958); Fairfield; Hocking, ABSH; Lake; Portage. Reported from all adjacent states.

Bazzania trilobata (L.) S. F. Gray. Ashtabula; Athens (Hall, 1958); Champaign; Cuyahoga; Fairfield; Franklin; Hocking; Jackson; Lake; Licking; Portage; Ross; Vinton (Hall, 1958); Washington. Reported from all adjacent states.

Microlepidozia setacea (Web.) Joerg. Athens, ABSH; Clark, ABSH; Fairfield; Highland. Reported from the adjacent states of Michigan, New York, West Virginia and questionably from Indiana.

Microlepidozia sylvatica (Evans) Joerg. Athens (Hall, 1958); Hocking; Vinton (Hall, 1958). Reported from the adjacent states of Kentucky, New York, Pennsylvania and West Virginia.

Calypogeia fissa (L.) Raddi. Ashtabula; Champaign; Cuyahoga; Logan; Scioto. Reported from the adjacent states of Michigan, New York and West Virginia.

Calypogeia muelleriana (Schiffn.) K. Mull. Cuyahoga; Hocking. Reported from the adjacent states of Michigan and New York but only recently recognized (Schuster, 1949) and so further distribution is unknown.


Calypogeia sullivantii Aust. Hocking. Reported from the adjacent states of Indiana, Kentucky and West Virginia.

Calypogeia trichomanis (L.) Corda. Athens (Hall, 1958); Champaign; Clinton, MU; Cuyahoga; Geauga; Hocking; Meigs (Hall, 1958); Vinton (Hall, 1958). Reported from all adjacent states.

Cephaloziaceae


Cephalozia bicuspida (L.) Dum. Athens; Cuyahoga; Hocking; Jackson; Logan; Summit. Reported from all adjacent states.

Cephalozia catenulata (Huben.) Spr. Hocking. Reported from all adjacent states except Indiana.

Cephalozia connivens (Dicks.) Lindb. Ashtabula; Champaign; Clark; Jackson; Licking. Reported from all adjacent states.

Cephalozia media Lindb. Adams, ABSH; Ashtabula; Athens (Hall, 1958); Champaign; Cuyahoga; Hocking; Jackson; Lake. Reported from all adjacent states.

Cephalozia planiceps (Aust.) Lindb. Champaign, ABSH; Hocking; Lake. Reported from the adjacent states of Indiana, Michigan and New York.

Cladopodiella fluilans (Nees) Buch. Champaign. Reported from the adjacent states of Michigan, New York and West Virginia.

Novella curvifolia (Dicks.) Mitt. Adams, ABSH; Ashtabula; Athens (Hall, 1958); Champaign; Clark; Cuyahoga; Franklin; Hocking; Jackson; Lake; Madison; Medina, ABSH; Portage; Vinton (Hall, 1958). Reported from all adjacent states.

Odontoschisma denudatum (Nees) Dum. Athens (Hall, 1958); Champaign; Clark; Licking; Summit. Reported from all adjacent states except Indiana.

Odontoschisma prostratum (Sw.) Trevis. Athens (Hall, 1958); Clark, ABSH; Hocking; Jackson; Vinton (Hall, 1958). Reported from Indiana, Kentucky, New York and West Virginia.

Chiloscyphus pallescens (Ehrh.) Dum. including var. fragilis (Roth) K. Mull. Athens (Hall, 1958); Butler, MU; Champaign; Clark; Franklin; Hocking; Lake; Madison; Preble, MU. Reported from all adjacent states.

Chiloscyphus polyanthus (L.) Corda. Athens (Hall, 1958); Geauga, ABSH; Hocking. Reported from the adjacent states of Indiana, New York, Pennsylvania and West Virginia.

Chiloscyphus rivularis (Schrad.) Loeske. Hocking; Jackson; Richland. We have not seen a report from Indiana of the adjacent states.

Geocalyx graveolens (Schrad.) Nees. Adams, ABSH; Ashtabula; Athens, ABSH; Champaign; Clinton, MU; Fairfield; Hocking; Jefferson, MU; Tuscarawas; Vinton (Hall, 1958). Reported from all adjacent states.

Harpanthaceae

Harpanthus scutatus (Web. and Mohr) Spr. Clark; Fairfield; Green; Hocking; Jackson; Lake. Reported from all adjacent states.

Lophocolea bidentula (L.) Dum. Hocking. We have seen reports from all adjacent states except Michigan.

Lophocolea heterophylla (Schrad.) Dum. Athens (Hall, 1958); Butler, MU; Champaign; Clark, ABSH; Clinton, MU; Coshocton; Fairfield; Franklin; Hocking; Jefferson, MU; Lake; Madison; Medina, ABSH; Montgomery, ABSH; Preble, MU; Ross, ABSH. Reported from all adjacent states.

Lophocolea minor Nees. Cuyahoga; Delaware; Lake; Wayne, MU. Reported from all adjacent states.

Jungermanniaceae

Anastrophyllum hellerianum (Nees) Schuster. Champaign; Hocking, ABSH. Reported from adjacent states of Michigan, New York and West Virginia.

Barbilophozia barbata (Schmid.) Loeske. Geauga. We have seen reports from the adjacent states of Indiana, Michigan, and New York.

Isopaches bicrenatus (Schmid.) Buch. Hocking, ABSH. We have seen reports from the adjacent states of Michigan, New York, Pennsylvania, and West Virginia.

Jamesoniella autumnalis (DC) Steph. Adams, ABSH; Athens (Hall, 1958); Champaign; Clark; Coshocton, ABSH; Cuyahoga; Fairfield; Franklin; Hocking; Holmes; Jackson; Lawrence; Montgomery, ABSH; Vinton (Hall, 1958).

Reported from all adjacent states.

Jungermannia autumnalis (DC) Steph. Adams, ABSH; Athens (Hall, 1958); Champaign; Clark; Coshocton; Fairfield; Franklin; Hocking; Holmes; Jackson; Lawrence; Montgomery, ABSH; Vinton (Hall, 1958). Reported from all adjacent states.

Jungermannia lanceolata L. Athens (Hall, 1958); Hocking; Jackson, ABSH; Lake; Monroe.

Reported from all adjacent states.

Leiocolea badensis (Gott.) Jeorg. Cuyahoga; Greene; Ottawa. We have seen reports from Michigan and New York.

Leiocolea gillmanii (Aust.) Evans. Greene. Apparently reported only from adjacent state of Michigan.

Leiocolea heterocolpa (Thed.) Buch. Hocking. Apparently reported only from Michigan and adjacent states.

Lophosia incisa (Schrad.) Dum. Athens (Hall, 1958); Champaign; Hocking. Apparently not reported from Indiana or the adjacent states.

Lophosia mildiana (Gott.) Schiffn. Ashtabula; Hocking. Apparently not yet reported from Indiana and Kentucky.

Nardia geoscyphus (De Not.) Lindb. Hocking. Reported from Kentucky and Pennsylvania.

Plectocolea crenuliformis (Aust.) Mitt. Athens (Hall, 1958); Cuyahoga; Hocking, ABSH; Jackson, ABSH; Meigs, ABSH; Scioto, ABSH. Reported from all adjacent states.

Plectocolea fossombronioides (Aust.) Mitt. Ashtabula; Cuyahoga; Hocking. Apparently known only from West Virginia of the adjacent states.

Plectocolea kyalina (Lyell) Mitt. Adams, ABSH; Athens (Hall, 1958); Cuyahoga; Geauga; Hocking; Jackson; Scioto; Washington. Reported from all adjacent states.

Solenostoma crenulatum (Smith) Mitt. Athens (Hall, 1958); Cuyahoga; Hocking. Reported from all adjacent states.

Solenostoma foeniculatum (With.) Steph. Athens (Hall, 1958); Clinton, MU; Cuyahoga; Hocking; Scioto. Apparently not yet reported from Indiana.

Tritomaria exsecta (Schmid.) Schiffn. Hocking. We have not seen reports for Indiana or Pennsylvania.


Marsupellaceae

Marsupella emarginata (Ehrh.) Dum. Hocking. We have seen no reports from Indiana or Pennsylvania.

Marsupella spachelata (Gieseke) Dum. Hocking. We have seen no report from Indiana.

Plagiochilaceae

Pedinophyllum interruptum (Nees) Lindb. Champaign; Cuyahoga. Reported from Indiana and New York.

Plagiochila asplenoides (L.) Dum. Adams, ABSH; Athens (Hall, 1958); Belmont; Champaign; Fairfield; Greene; Hocking; Lake; Madison; Meigs (Hall, 1958); Monroe; Vinton (Hall, 1958). Reported from all adjacent states.


Plagiochila sharpii Blomquist. Hocking. Apparently previously known from only North Carolina and Tennessee.

Plagiochila sullivantii Gott. Hocking, ABSH (not seen, but reported by Conklin, 1923). Reported from West Virginia.

Scapaniaceae

Diplophyllum aspiculatum (Evans) Steph. Athens (Hall, 1958); Fairchild; Hocking; Jackson; Monroe; Vinton (Hall, 1958). Reported from all adjacent states.
Scapania curta (Mart.) Dum. Jackson. Reported from the adjacent states of Indiana and Michigan.

Scapania nemorosa (L.) Dum. Athens (Hall, 1958); Champaign; Cuyahoga; Fairfield; Geauga, ABSH; Hocking; Lawrence; Vinton (Hall, 1958). Reported from all adjacent states.

Scapania undulata (L.) Dum. Adams, ABSH; Ashtabula; Athens (Hall, 1958); Franklin; Geauga; Hocking; Licking; Montgomery, ABSH; Richland. Reported from all adjacent states.

Porellaceae

Porella pinnata L. Athens (Hall, 1958); Delaware; Greene; Madison. Reported from all adjacent states.

Porella platyphylla (L.) Lindb. Athens (Hall, 1958); Champaign; Clinton; Franklin; Greene, ABSH; Hocking; Montgomery, ABSH; Muskingum; Ottawa; Vinton (Hall, 1958). Reported from all adjacent states.

Porella platyphyllidea (Schwein.) Lindb. Adams; Ashtabula; Auglaize; Butler, MU; Champaign; Clark; Clinton, MU; Coshocton, ABSH; Cuyahoga; Defiance; Delaware; Franklin; Greene; Guernsey; Hamilton, ABSH; Hocking; Jefferson; Lake; Logan; Medina; Muskingum; Pickaway; Portage; Preble, MU; Trumbull; Wayne, MU. Reported from all adjacent states.

Radulaceae

Radula complanata (L.) Dum. Adams, ABSH; Ashland; Athens (Hall, 1958); Belmont; Champaign; Clark; Coshocton, ABSH; Greene; Jefferson, MU; Lake; Madison. Reported from all adjacent states.

Radula obconica Sulliv. Athens (Hall, 1958); Champaign; Clark; Hocking; Lake; Meigs and Vinton (Hall, 1958). Reported from all adjacent states.


Frullaniaceae

Frullania asagrayana Mont. Adams, ABSH; Athens (Hall, 1958); Champaign; Fairfield; Hocking; Jackson; Lawrence; Meigs (Hall, 1958).

Frullania bolanderi Aust. Athens; Champaign; Delaware; Fairfield; Hocking; Jackson; Montgomery; Pickaway; Pike; Ross; Scioto; Wayne. We have seen reports of this easily overlooked species only from Michigan.

Frullania brittoniae Evans. Athens (Hall, 1958); Champaign; Clark; Franklin; Hocking; Warren, MU. Reported from all adjacent states.

Frullania eboracensis Gott. Athens (Hall, 1958); Butler, MU; Champaign; Clark; Clinton, MU; Delaware; Franklin; Greene; Hocking; Lake; Montgomery; Wayne, MU. Reported from all adjacent states.

Frullania plana Sulliv. Athens (Hall, 1958, specimen not seen). Reported from Kentucky, Michigan and West Virginia.

Frullania riparia Hampe. Adams, ABSH; Athens (Hall, 1958); Champaign; Clark; Delaware; Fairfield; Franklin; Greene, ABSH; Jackson, ABSH; Madison; Montgomery, ABSH; Vinton (Hall, 1958); Warren, MU.

Frullania selvyaniana Pears. Champaign. We have seen only reports for Michigan of the adjacent states.

Frullania squarrosa (Reinw., Bl., & Nees) Dum. Adams; Champaign; Clark, ABSH; Lawrence; Madison; Montgomery, ABSH. We have not seen reports for Michigan or Pennsylvania.

Frullania saxicola Aust. Muskingum. Perhaps conspecific with F. inflata (Frye and Clark, 1947; Schuster, 1958) reported from West Virginia.

Jubula pennsylvanica (Steph.) Evans. Adams, ABSH; Athens (Hall, 1958); Hocking; Meigs (Hall, 1958). Reported from all adjacent states except Michigan.

Lejeuneaceae

Cololejeunea biddlecomiae (Aust.) Evans. Adams; Athens (Hall, 1958); Champaign; Hocking; Vinton (Hall, 1958).

Lejeunea cavitosa (Ehrh.) Lindb. Champaign; Lake. We have found reasonable reports from all adjacent states except Kentucky.


Leucolejeunea clypeatba (Schwein.) Evans. Adams; Athens (Hall, 1958); Champaign; Hocking; Jackson; Vinton (Hall, 1958). Reported from all adjacent states.

Microlejeunea laeviorens (Nees & Mont.) Evans. Fairfield; Hocking. Reported from Kentucky and West Virginia.

Microlejeunea ruthii Evans. Hocking, ABSH; Jackson, ABSH. Reported from Kentucky and West Virginia.

Fossombroniaceae

Fossombronia cristula Aust. Adams; Cuyahoga, ABSH; Hocking; Jackson, ABSH. We have seen reports from all but Kentuckey and Pennsylvania of the adjacent states.
**Fossmbronia foveolata** Lindb. Adams, ABSH; Hocking, ABSH. Reported from Indiana, Michigan, New York and West Virginia.

**Fossmbronia wondraczekii** (Corda) Dum. Athens (Hall, 1958); Cuyahoga, ABSH; Hocking; Perry. We have seen reports from Indiana, New York, Pennsylvania and West Virginia.

**Pelliaceae**

**Pellia endiviaefolia** (Dicks.) Dum. Champaign. This species has been reported from Michigan, New York and West Virginia.

**Pellia epiphylla** (L.) Corda. Ashtabula; Athens (Hall, 1958); Hocking; Jackson; Licking; Mahoning; Portage; Trumbull; Vinton (Hall, 1958). Reported from all adjacent states.

**Pellia neesiana** (Gott.) Limpr. Hocking. We have seen reports from all adjacent states except Indiana.

**Basiaceae**

**Blasia pusilla** L. Ashland; Athens (Hall, 1958); Hocking. We have not seen reports from either Indiana or Kentucky.

**Pallaviciniaceae**

**Pallavicinia lyellii** (Hook.) S. F. Gray. Athens (Hall, 1958); Delaware; Franklin; Geauga; Lake; Summit. Reported from all adjacent states.

**Metzgeriaceae**

**Metzgeria conjugata** Lindb. Athens (Hall, 1958); Hocking; Lawrence; Meigs (Hall, 1958). Reported from all adjacent states.

**Metzgeria crassipilis** Lindb. Fairfield; Hocking. We have not seen reports for either Indiana or Michigan.

**Metzgeria furcata** (L,) Dum. Cuyahoga; Hocking; Jackson. We have not seen a report from Indiana.

**Riccardiaceae**

**Riccardia latifrons** Lindb. Champaign; Franklin; Hocking. We have not seen a report from Indiana.

**Riccardia multifida** (L.) S. F. Gray. Athens (Hall, 1958); Champaign; Hocking. We have not seen a report from Indiana.

**Riccardia palmata** (Hedw.) Carruth. Champaign; Hocking. We have not seen a report for Indiana.

**Riccardia pinguis** (L.) S. F. Gray. Athens (Hall, 1958); Champaign; Coshocton; Vinton (Hall, 1958). Reported from all adjacent states.

**Marchantiaceae**

**Conocephalum conicum** (L.) Dum. Adams; Ashtabula; Athens; Champaign; Clinton, MU; Delaware; Fairfield; Franklin; Gallia; Highland; Hocking; Jackson; Jefferson, MU; Licking; Logan; Meigs (Hall, 1958); Ottawa; Portage; Shelby; Trumbull; Vinton. Reported from all adjacent states.

**Dumortiera hirsuta** (Sw.) Reinw. Fairfield. Reported from the adjacent states of Kentucky, Pennsylvania and West Virginia.

**Lunularia cruciata** (L.) Dum. Butler, MU; Lake; Wayne, MU. We have seen no report for Kentucky.

**Marchantia polymorpha** L. Ashtabula; Athens (Hall, 1958); Butler, MU; Clark; Coshocton; Cuyahoga; Defiance; Fairfield; Franklin; Greene; Lake; Logan; Richland. Reported from all adjacent states.

**Preissia quadra** (Scop.) Nees. Adams, ABSH; Athens (Hall, 1958); Hocking. We have seen no report for West Virginia.

**Rebouliaeae**

**Asterella tenella** (L.) Beauv. Athens (Hall, 1958); Coshocton, ABSH; Franklin; Hocking; Jackson. We have not seen a report for Michigan.

**Mannia fragans** (Balbis) Frye & Clark. Clark. We have seen reports from the adjacent states of Indiana, New York and Pennsylvania.


**Reboulia hemisphaerica** (L.) Raddi. Athens (Hall, 1958); Champaign; Clark; Fairfield; Greene; Hocking; Lake; Licking; Richland. Reported from all adjacent states.

**Ricciaceae**

**Riccia fluitans** L. Delaware; Erie; Fairfield, MU; Hamilton, ABSH; Harrison; Jackson; Jefferson; Lake; Logan; Richland; Summit, ABSH; Warren. Reported from all adjacent states.

**Riccia sullivantii** Aust. Medina. Reported from all adjacent states except Indiana and Michigan.

**Ricciocarpus natans** (L.) Corda. Athens (Hall, 1958); Cuyahoga; Erie, ABSH; Franklin; Lake; Lucas; Madison, ABSH; Mahoning, MU; Stark; Union. Reported from all adjacent states.
**Anthocerotaceae**

*Anthoceros crispsulus* (Mont.) Douin. Ashland, ABSH. Previously reported from Indiana, New York, Pennsylvania and West Virginia.

*Anthoceros runcinatus* L. Adams, ABSH; Athens (Hall, 1958); Hocking, ABSH; Lake. We have seen reports from Indiana, New York and West Virginia.

*Pheaoecerae laevis* (L.) Prosk. Athens (Hall, 1958); Clinton, MU; Coshocton; Cuyahoga; Hamilton; ABSH; Hocking; ABSH; Lake; Lucas, ABSH; Perry; Richland. Reported from all adjacent states.

*Notothyllas orbicularis* (Schwein.) Sulliv. Athens (Hall, 1958); Hocking; Lake; Madison, ABSH. Reported from all adjacent states.

**EXCLUDED AND UNCERTAIN SPECIES RECORDED FROM OHIO**

*Anthoceros laevis* (Frye and Clark, 1947) = *Pheaoecerae laevis* (L.) Prosk. *Anthoceros laevis* var. minor (Beardslee, 1876) probably *Pheaoecerae laevis* (L.) Prosk.

*Anoerapalmata* (Beardslee, 1876) = *Riccardia palmata* (Hedw.) Carruth. *Anoerapinguis* (Beardslee, 1876) = *Riccardia pinguis* (L.) S. F. Gray.

*Anoera sessilis* (Sullivant, 1848) = *Riccardia pinguis* (L.) S. F. Gray.

*Maderella hemisphaerica* (Beardslee, 1876) = *Rebutella hemisphaeric* (L.) Raddi.

*Blepharocosa citarisi* Dum. (Beardslee, 1876) = *Ptilidium citarei* (L.) Hampe. Doubtfully present in Ohio. The record is apparently based on specimens of *Ptilidium pulcherrimum* (Web.) Hampe which we have seen. The two species were not distinguished by "Gray's Manual."

*Cephalosoria curvifolia* (Dicks.) Dum. (Beardslee, 1876) = *Nowella curvifolia* (Dicks.) Mitt. *Cephalosoria sullivantii* Aust. (Beardslee, 1876) = *Cephalosoria sullivantii* (Aust.) Evans.

*Chiloscyphus ascendens* Hook & Wils. (Beardslee, 1876) Misprint for *C. ascendens* (Hook & Wils.). *Sulliv. = Chiloscyphus pallescens* (Ehrth.) Dum.

*Chiloscyphus polyanthus* var. *rivularis* Syn. Hep. (Beardslee, 1876) = *Chiloscyphus rivularis* (Schrad.) Loeske.

*Fimbriaria tenella* Nees. (Beardslee, 1876) = *Asterella tenella* (L.) Beauv. *Frullania elongata* Gott. (Frye and Clark, 1947) Erroneously reported from Ohio. Evans’ (1897) revision of *Frullania* did not cite Ohio material.

*Grimaldia rupestris* (Nees) (Beardslee, 1895) = *Mannia rupestris* (Nees.) Frye & Clark.

*Jungermannia excisa* Dicks. (Beardslee, 1876) = *Lophozia excisa* (Dicks.) Dum. We have seen no specimens of this northern species which should, for the present, be excluded from the flora of Ohio.

*Jungermannia crenulata* Smith (Beardslee, 1876) = *Solenostoma crenulatum* (Smith) Mitt. *Jungermannia crenuliformis* Aust. (Beardslee, 1876) = *Plectocolea crenuliformis* (Aust.) Mitt.


*Lejeuneaa calcarea* Libert. (Sullivant, 1848) = *Cololejeunea biddlecomiae* (Aust.) Evans. a species not yet recognized in 1848 (See Frye and Clark, 1947).


*Liochloena lanceolata* Nees. (Beardslee, 1876) = *Jungermannia lanceolata* L. *Lophocolea macounii* Aust. (Beardslee, 1876) = *Lophocolea heterophylla* (Schrad.) Dum.


*Madotheca platyphylla* var. *navicularis* Nees. (Beardslee, 1876) We have been unable to find this combination cited in any of the usual places. It is most probable that the specimen involved was *Porella platyphyllaideae* (Schwein.) Lindb. *Porella navicularis* is a western species and its presence in Ohio would be most unusual.

*Madotheca pellalata* Nees. (Beardslee, 1876) = *Porella pinnata* L.

*Madotheca rivularis* Nees. (Beardslee, 1876) = *Porella cordeana* (Huben.) Evans a Pacific coast species most like *P. pinnata* L. to which this report doubtless should be assigned.

*Mastigobryum trilobatum* Nees. = *Bazzania trilobata* (L.) S. F. Gray.

*Notothythus melanospora* Sulliv. (Sullivant, 1848) = *Notothythus orbicularis* (Schwein.) Sulliv.

*Notothythus salutetata* Sulliv. (Sullivant, 1848) = *Notothythus orbicularis* (Schwein.) Sulliv.

*Nowellia ciclata* (L.) Dicks. (Beardslee, 1876) = *Nowellia curvifolia* (Dicks.) Mitt. (Hall, 1958) Misprint for *Nowellia*.


*Ondotacohsizma sphagni* (Dicks.) Dum. (Underwood, 1884) often confused with *Ondotacohsizma denudatum* (Mart.) Dum. (see Frye and Clark, 1944). Until specimens are found, *O. sphagni* should be excluded from the Ohio Flora.

*Phragmicha clypeata* Sulliv. (Beardslee, 1876) = *Leufcolejeunea clypeata* (Schwein.) Evans.
Plagiochila macrostoma Sulliv. (Sullivant, 1848) Misprinted "microstoma" in Frye and Clark (1943) = Pedinophyllum interruptum (Nees.) Lindb.

Plagiochila porelloides Lindb. (Beardslee, 1876) = Plagiochila asplenoides (L.) Dum.

Plagiochila sullivantii Gott. in Evans (Frye and Clark, 1944) Erroneously reported on basis of Conklin (1923) but it is not listed there.

Pliscocola crenulata (Smith) Evans. (Hall, 1958) = Solenostoma crenulata (Smith) Steph.

Riccia frostii Aust. (Underwood, 1894) Specimens not seen. Doubtfully present in Ohio.


Riccia lutescens Schwein. (Underwood, 1894) = Ricciocarpus natans (L.) Corda.

Riccia membranacea Gott. & Lindb. (Frye and Clark, 1937) Based on Underwood’s (1894) report of R. tenuis. No specimens have been seen and the species is doubtfully present in Ohio.

Riccia tenuis Aust. (Underwood, 1894) = Riccia membranacea Gott. & Lindb. which is doubtfully present in Ohio.

Sarcoscyphus sphacelatus Nees. (Beardslee, 1876) = Marsupella sphacelata (Gieseke) Dum.

Scapania albicans var. taxifolia minor Aust. (Beardslee, 1876) = Diplophyllum apiculatum (Evans) Steph.

Steezia lyellii Lehm. (Beardslee, 1876) = Pallavicinia lyellii (Hook.) S. F. Gray.

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REFERENCES


