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A Preliminary List of Bryophytes of Linn County, Iowa

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A PRELIMINARY LIST OF BRYOPHYTES OF LINN COUNTY, IOWA*

R. V. DREXLER

In the rather extensive literature on Iowa bryophytes little mention is made of Linn county. Published records, however, do not represent all collecting for Dr. H. S. Conard of Grinnell College has collected fifty species and one variety of mosses and fifteen species of liverworts. Of the above number nine species of mosses and seven species of liverworts have not been collected by the author. This paper is an attempt to bring together under one title the names of bryophytes collected in Linn county.

Considerable collecting has been done by Dr. L. R. Wilson of Coe College and several fine records (*Bruchia Sullivanti* and *Lepidozia reptans*) are due to his activity. Rather extensive collections have been made by the author either alone or in company of members of a class in bryophytes. Some of this material, especially the *Brachythecium*s and *Leskeas*, has not been identified with certainty and is not included in this report.

The total known bryophyte flora of Linn county consists of ninety one species and five varieties of mosses and eighteen species of liverworts. In addition there is one species of moss from the literature which is of doubtful validity. One species of moss is not represented in the collections of either Dr. Conard or the author. Nomenclature follows that of Andrews (1940, b), Evans (1940),

The author wishes to thank Dr. H. S. Conard for permission to use his list of Linn county collections and for many other favors too numerous to enumerate. Miss Irma Schnoberger, a student of Dr. W. C. Steere of the University of Michigan, kindly identified the *Sphagna*.

MUSCI

Sphagnaceae

Sphagnum magellanicum Brid.

Known from but one station in a seepage area on Lindley Fine Sand two miles northwest of Cedar Rapids. Identification confirmed by Miss Schnoberger.

Sphagnum capillaceum (Weiss) Schrank.

Growing near the above but on drier soil. Identified by Miss Schnoberger.

* Contributions from the Science Laboratories of Coe College N. S. No. 5.

Polytrichaceae

Atrichum angustatum (Brid.) Bry. Eur.

Common on soil in more xeric places than *A. undulatum*.

Atrichum crispum (James) Sull.

From prairie bog three miles south of Coggon. Communicated by Dr. H. S. Conard.

Atrichum Macmillani (Holz.) Frye

On sandy soil in woods northwest of Cedar Rapids.

Atrichum undulatum (Hedw.)

Common on soil in moist woods. Also collected by Dr. Conard.

Polytrichum commune Hedw.

Rather frequent on ground in woods. It is especially common in sandy soil areas.

Polytrichum juniperinum Hedw.

Common, especially on sandy soil.

Polytrichum ohioense Ren. & Card.

Not common. Also collected by Dr. Conard.

Fissidentaceae

Fissidens cristatus Wils.

Not common.

Fissidens minutulus Sull.

Frequent on moist limestone rocks in woods. All material collected was sterile. Also collected by Dr. Conard.

Fissidens taxifolius Hedw.

Common on soil in moist woods. Also collected by Dr. Conard.

Fissidens viridulus (Web. & Mohr) Wahlend.

On soil in prairie bog north of Cedar Rapids.

Ditrichaceae

Bruchia Sullivanti Aust.

Collected in Cedar Rapids by Dr. L. R. Wilson. Dr. Conard checked the identification and informed the author that this is the second recognizable Iowa collection.

Ceratodon purpureus (Hedw.) Brid.

Common. Reported from Cedar Rapids by Savage (1899). Also collected by Dr. Conard.

Ditrichum pallidum (Hedw.) Hampe

Common. Also collected by Dr. Conard.

Ditrichum pusillum (Hedw.) E. G. Britton

Common on soil. Also collected by Dr. Conard.

Pleuroidium subulatum (Hedw.) Lindb.

Not frequently collected but probably not rare.

Dicranaceae

Dicranella heteromalla (Hedw.) Schimp.

Dicranella varia (Hedw.) Schimp.

Also collected by Dr. Conard.

Dicranum scoparium Hedw.

Frequent on sandy soil only.

Leucobryaceae

Leucobryum glaucum (Hedw.) Schimp.

Distribution similar to that of *Dicranum scoparium* but more abundant.

Pottiaceae

Barbula fallax Hedw.

Common on clay soil, especially in exposed habitats. Collected by Dr. Conard also.

Barbula unguiculata Hedw.

A weedy species. Collected by Dr. Conard also.

Desmatodon obtusifolius (Schwaegr.) Jur.

Communicated by Dr. Conard.

Desmatodon Porteri James

Collected from crevices in low limestone cliffs along the Cedar River at Palisades State Park.

Gymnostomum calcareum Nees & Hornsch.

Communicated by Dr. Conard.

Phascum cuspidatum Hedw. var. *americanum* Ren. & Card.

Communicated by Dr. Conard.

Tortula mucronifolia Schwaegr.

Communicated by Dr. Conard.

Tortula ruralis (Hedw.) Smith

Communicated by Dr. Conard.

Weisia viridula Hedw.

A weedy species.

Grimmiaceae

Grimmia apocarpa Hedw.

Frequent on rocks but not abundant.

Hedwigia ciliata Hedw.

Has been found on erratic granite boulders only.

Funariaceae

Funaria hygrometrica Hedw.

Common. Also collected by Dr. Conard.

Physcomitrium accuminatum (Schleich.) Bry. Eur.

Reported from Cedar Rapids by Savage (1899) as *P. accuminatum*

Br. & Schimp. Savage specimen not seen.

Physcomitrium turbinatum (Mx.) Brid.

Common on clay soil. Probably the only species of *Physcomitrium* to be found in Linn County. Also collected by Dr. Conard.

Orthotrichaceae

Orthotrichum pumilum Dicks.

From bark of an American Elm growing in forest northwest of Cedar Rapids.

Orthotrichum strangulatum Schwaegr.

On rocks. Communicated by Dr. Conard.

Timmiaceae

Timmia megapolitiana Hedw.

On soil and moist limestone in woods. Some of the material has broad leaves and is referred to the variety *cucullata*. Also collected by Dr. Conard.

Aulacomniaceae

Aulacomnium heterostichum (Hedw.) Bry. Eur.

Common on moist banks in woods.

Aulacomnium palustre (Web. & Mohr) Schwaegr.

Common in boggy pastures. Reported by Cavanaugh (1929) as *A. palustre* Schwaegr. Collected by Dr. Conard in bog south of Coggon.

Bartramiaceae

Bartramia pomiformis Hedw.

Frequent on moist banks with *Aulacomnium heterostichum*.

Bryaceae

Bryum argenteum (L.) Hedw.

Common in exposed habitats. Also collected by Dr. Conard.

Bryum caespiticum (L.) Hedw.

On soil, especially exposed road cuts. Also collected by Dr. Conard.

Bryum cuspidatum (Bry. Eur.) Schimp.

Reported from Cedar Rapids by Savage (loc. cit.) as *B. intermedium* Brid. Andrews (1940, a) writes that *B. intermedium* (Ludw.) Brid. is a European species credited to America by early bryologists because, at that time, *B. cuspidatum* had not been segregated from *Bryum bimum* Schreb. The author has not seen Savage's collection.

Pohlia nutans (Hedw.) Lindb.

Common.

Pohlia Wahlenbergii (Web. & Mohr) Andrews

Frequent in wet habitats. Also collected by Dr. Conard.

Rhodobryum roseum (Bry. Eur.) Limpr.

On soil and in rock crevices in deep woods. Also collected by Dr. Conard.

Mniaceae

Mnium affine Bland.

Common in woods. Also collected by Dr. Conard.

Mnium cuspidatum Hedw.

A common species on a variety of substrata in woods. Also collected by Dr. Conard.

Mnium orthorhynchum Brid.

Communicated by Dr. Conard.

Mnium serratum Brid.

Collected at Palisades State Park on low cliffs and on soil in woods. Similar to the last but with larger leaf cells whose walls are thickened at the corners.

Mnium stellare Hedw.

Collected on bank of small creek in a deep, forested ravine northwest of Cedar Rapids.

Hypnaceae

Climaceae

Climacium americanum Brid.

Collected only at Chain Lakes on wet, sandy soil in woods.

Brachytheciae

Brachythecium oxycladon (Brid.) Jaeger & Sauerb.

Common on soil. Also collected by Dr. Conard.

Bryhnia graminicolor (Brid.) Grout

Frequent on soil and on moist limestone in woods. Also collected by Dr. Conard.

Chamberlainia accuminata (Hedw.) Grout.

Frequent on logs and tree bases in woods. Also collected by Dr. Conard.

Chamberlainia cyrtophylla (Kindb.) Grout

On logs in woods.

Eurhynchium hians (Hedw.) Jaeger & Sauerb.

Frequent on soil in shaded and partly shaded habitats. Seldom in fruit. Also collected by Dr. Conard.

Eurhynchium serrulatum (Hedw.) Kindb.

Frequent in moist shaded habitats. Also collected by Dr. Conard.

Amblystegiae

Amblystegium Juratzkanum Schimp.

On soil and logs in moist woods. Also collected by Dr. Conard.

Amblystegium serpens (Hedw.) Bry. Eur.

Frequent on rotten wood in moist habitats.

Amblystegium varium (Hedw.) Lindb.

Frequent in moist habitats. Some of the material collected is the variety *parvulum* (Aust.) Mitt.

Calliergonella cuspidata (Brid.) Loeske.

Common on a wet prairie north of Cedar Rapids.

Campylium chrysophyllum (Brid.) Bryhn.

On rotten wood in moist habitats.

Campylium hispidulum (Brid.) Mitt.

On rotten wood in moist habitats. Also collected by Dr. Conard.

Drepanocladus aduncus (Hedw.) Warnst.

Common in wet prairie north of Cedar Rapids.

Hydroamblystegium irriguum (Wils.) Loeske.

Frequent on rocks in stream beds. Also collected by Dr. Conard.

Hydroamblystegium orthocladon (Beauv.) Grout

On rocks in stream beds.

Leptodictyum riparium (Hedw.) Warnst.

Frequent on soil and logs in wet habitats. Some of the Linn County material is the variety *abbreviatum* (Bry. Eur.) Grout.

Leptodictyum trichopodium (Schultz) Warnst.

This species and its variety *Kochii* (Bry. Eur.) Broth. communicated by Dr. Conard.

Hylocomieae

Rhytidiadelphus triquetrus (Hedw.) Warnst.

Collected from *Polytrichum jumiperinum* mat at Chain Lakes.

Hypneae

Homomallium adnatum (Hedw.) Broth.

On rocks in woods.

Hypnum Patientiae Lindb.

Frequent on logs and on ground. Also collected by Dr. Conard.

Pylaisia Selwynii Kindb.

Probably common on tree trunks.

Platygyrium repens (Brid.) Bry. Eur.

Common on logs; trees, sometimes high on the trunks; and logs in woods. Also collected by Dr. Conard.

Plagiothecieae

Plagiothecium deplanatum (Sull.) Grout

Frequent in moist woods. Also collected by Dr. Conard.

Plagiothecium Roeseanum (Hampe) Bry. Eur.

On soil in moist woods.

Entodontaeae

Entodon cladorrhizans (Hedw.) C. Müll.

Frequent on logs in woods.

Entodon compressus (Hedw.) C. Müll.

Frequent on tree bases in woods.

Entodon seductrix (Hedw.) C. Müll.

Frequent on logs in woods. Also collected by Dr. Conard. The variety *tenuis* Grout, was collected about five feet from the ground on the trunk of an American Elm growing in a deep, wooded ravine northwest of Cedar Rapids. Dr. Conard identified this material. To the authors knowledge this variety has not been reported for Iowa previously.

Leskeaceae

Anomodon attenuatus (Hedw.) Hüben

Frequent on tree bases and limestone rocks in woods, occasionally on soil. Also collected by Dr. Conard

Anomodon minor (Beauv.) Lindb.

Frequent on tree bases and limestone rocks in woods. Also collected by Dr. Conard.

Anomodon rostratus (Hedw.) Schimp.

Frequent in moist woods on tree bases, on limestone rocks, and on soil. Also collected by Dr. Conard.

Helodium paludosum (Sull.) Aust.

Collected by Dr. Conard in bog south of Coggon.

Leskea gracilescens Hedw.

Common on tree bases. Also collected by Dr. Conard.

Lindbergia brachyptera (Mitt.) Kindb., var. *Austinii* (Sull.) Grout

On tree bases in woods. Probably not common. Also collected by Dr. Conard.

Thelia asprella Sull.

Probably frequent on tree bases in woods. Conard (1938) reports that it is found on white oaks especially. Also collected by Dr. Conard.

Thuidium delicatulum (Hedw.) Mitt.

On logs in woods. Not frequent.

Thuidium pygmaeum Bry. Eur.

Frequent with *Fissidens minutulus* on limestone rocks in deep, forested valleys at Palisades State Park.

Thuidium recognitum (Hedw.) Lindb.

Also collected by Dr. Conard.

Thuidium virginianum (Brid.) Lindb.

On logs, not frequent. Also collected by Dr. Conard. This species, in Iowa, seems to merge into *T. microphyllum*. Also collected by Dr. Conard.

HEPATICAЕ

Lepidoziaceae

Lepidozia reptans (L.) Dumort.

Collected at Chain Lakes by Dr. L. R. Wilson.

Cephaloziaceae

Cephalozia connivens (Dicks.) Lindb.

Reported from Linn county by Conard (1940) as *C. connivens* (Dicks.) Spruce.

Harpanthaceae

Lophocolea heterophylla (Schrad.) Dumort.

In moist woods on rotten wood and at times on soil. The most common leafy liverwort.

Jungermanniaceae

Plectocolea crenulata (Smith) Evans, var. *gracillema*

Collected by Dr. Conard in bog south of Coggon. Conard (1942)

Plagiochilaceae

Plagiochila asplenioides (L.) Dumort.

Frequent in wet habitats. All material collected has entire leaves. Dr. Conard informs the author that this condition is characteristic of Iowa material.

Porellaceae

Porella platyphylloidea (Schwein.) Lindb.

Neither abundant nor frequent. Found on tree trunks and rocks in moist woods. Also collected by Dr. Conard.

Frullaniaceae

Frullania eboracensis Gottsche

Frequent on tree trunks in moist woods. Also collected by Dr. Conard.

Frullania squarrosa (R. Bl. & N.) Dumort.

Collected by Dr. Conard at Palisades State Park. Conard (1942).

Blasiaceae

Blasia pusilla L.

Collected at Coggon pond by Dr. Conard. Conard (1942).

Marchantiaceae

Marchantia polymorpha L.

Frequent in moist shaded habitats. Also collected by Dr. Conard.

Preissia quadrata (Scop.) Nees

Collected by Dr. Conard at Palisades State Park. Conard (1942).

Conocephalum conicum (L.) Dumort.

More frequent than *Marchantia polymorpha* in similar habitats. Also collected by Dr. Conard.

Rebouliaeeae

Reboulia hemisphaerica (L.) Raddi

Frequent on soil and in rock crevices in moist woods. Also collected by Dr. Conard.

Mannia rupestris (Nees) Frye & Clark

Reported by Shimek (1899) as *Grimaldia barbifrons* Besch.
Shimek collection not seen by the present author.

Mannia fragrans (Balb.) Frye & Clark

Conard (1942).

Ricciaceae

Ricciocarpus natans (L.) Corda

Abundant on wet soil and in water at Chain Lakes. Previously reported
by Conard (1940).

Riccia fluitans L.

Reported from Cedar Rapids by Shimek (loc. cit.). Also reported
from Linn county by Conard (1942).

Anthocerotaceae

Anthoceros laevis L.

Collected by Dr. Conard on shore of pond south of Coggon.
Conard (1942).

COE COLLEGE,

CEDAR RAPIDS, IOWA

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