

1956

## Mosses and Liverworts of Iowa

Henry S. Conard

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### Recommended Citation

Conard, Henry S. (1956) "Mosses and Liverworts of Iowa," *Proceedings of the Iowa Academy of Science*, 63(1), 345-354.

Available at: <https://scholarworks.uni.edu/pias/vol63/iss1/32>

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## Mosses and Liverworts of Iowa

HENRY S. CONARD

In 1945 I published three papers on the Atracheata (Bryophytes) of Iowa in *The Bryologist*, vol. 48:I. The species and the counties from which they were known, with the herbaria in which specimens could be seen. II. Names that have been published but were not recognized in my list, and why not. III. Papers on the subject, with notes about the authors.

Since that time several additional species have been collected in the State, many new county records have been made, some mis-identifications are to be corrected, and some changes in names must be made. As I am not likely to see additional collections from Iowa, it seems right to present a corrected list at this time.

My herbarium, *b* in the previous report, is now incorporated with that of the State University, *c*, at Iowa City.

In 1945 I completely misunderstood *Leptodictyum laxirete*. The plants reported under that name belong in *L. brevipes*.

I am, for the most part, using the names given in Grout's Moss Flora of North America and Frye & Clark's Hepaticae of North America, without citing authorities. Counties are designated by numbers according to the map used in 1945, reproduced herewith.

One paper was missed in my former report. It is, following the format of the previous paper:

In 1905 Anderson, Jacob P. b. Apr. 7, 1874. d. Feb. 15, 1953. B. S. Iowa State College 1913; M. S. 1916. Sc. D. Univ. of Alaska 1940. Principal publication: Flora of Alaska, in Iowa State College Journ. of Science 1941-1952. Biography in Proc. Iowa Acad. Sci. 60:53-54.

Thalloid liverworts of Decatur County. Iowa Naturalist 1:33-34. Iowa City, Apr. 1905. Eight species are listed. I have been unable to locate the specimens. There is no reason to doubt the report, except as to *Riccia crystallina*, which has not been again recognized in Iowa until 1955, and then only much farther north.

Three recent papers must be added:

1952 Drexler, R. V. The Genus Sphagnum in Iowa. Proc. Iowa Acad. Sci. 59:85-88.

1955 Grant, Martin L., and Robert F. Thorne. A Sphagnum bog in Iowa. Proc. Iowa Acad. Sci. 62:197-210.

1953 Schuster, R. M. Boreal Hepaticae: A Manual of the Liverworts of Minnesota and adjacent regions. Amer. Midl. Nat. 49:257-684.

I am greatly indebted to Dr. E. B. Wittlake for the privilege of adding in this report the new data on *Riccia* which he has discovered. Dr. R. V. Drexler has furnished data on *Sphagnum*.

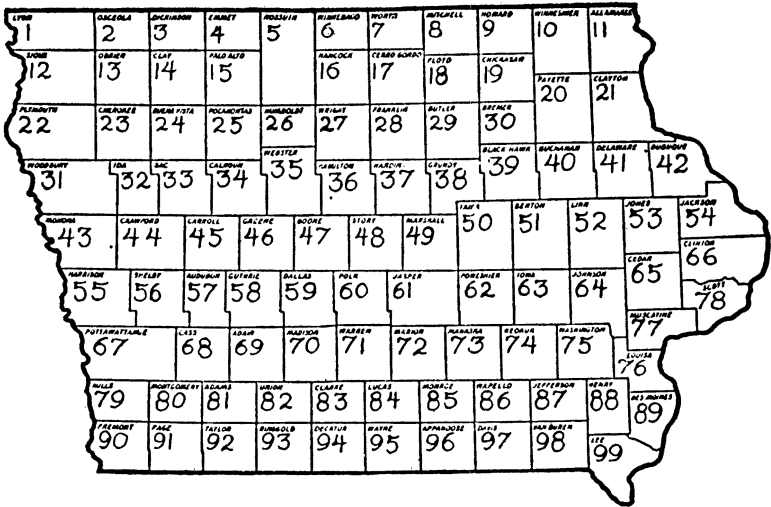


Fig. 1. Map of Iowa with counties numbered.

SYSTEMATIC LIST

MUSCI

- Acaulon rufescens* 52, 62
- Acaulon schimperianum* 31
- Acaulon triquetrum* 62
- Aloina rigida* 31, 67
- Amblystegiella confervoides* 8, 10, 11, 20, 21, 41, 42, 47, 50, 53, 98
- Amblystegium americanum* 1, 11, 21
- Amblystegium compactum* 11, 20, 21, 41, 42, 53
- Amblystegium juratzkanum* 2-4, 6-8, 10, 11, 13, 14, 16, 17, 20, 21, 23, 26, 27, 29-32, 34, 37, 38, 42, 47, 52-54, 58, 60, 62, 63, 70, 73-75, 77, 80, 85, 86, 94-96, 99
- Amblystegium serpens* 3, 4, 7, 11, 14, 20-22, 25, 29-31, 37, 42, 50, 52, 54, 59, 62, 64, 73, 77, 79, 88, 97
- Amblystegium serpens* var. *tenue* 4, 11, 42,
- Amblystegium varium* 1-13, 15-18, 20-26, 29-37, 39-42, 44-58, 60-68, 70, 71, 73-80, 82-84, 87-99
- Amblystegium varium* var. *ovatum* 7, 10, 11, 31, 41, 42, 50, 61-63, 68, 77, 90
- Amblystegium varium* var. *parvulum* 37, 42, 49, 52, 54, 64,
- Anomodon attenuatus* 3-6, 8-11, 14, 17, 18, 20, 21, 26, 30, 31, 35-37, 39-42, 45-48, 50-55, 58-66, 68, 70-73, 76-78, 85, 87-89, 93-95, 98, 99
- Anomodon minor* 1, 3-15, 17, 19-33, 35-38, 40-42, 45, 47-59, 61-67, 69-71, 73-78, 80-85, 88-99
- Anomodon rostratus* 3, 4, 6, 8-11, 14, 17, 18, 20, 21, 24, 27, 30, 31, 33, 37, 39, 41, 42, 47, 48, 50-55, 60-66, 70-74, 76-78, 82, 84, 85, 87-89, 93, 95, 97-99
- Aphanorhagma patens* 37, 50, 60, 70
- Aphanorhagma serratum* 4, 11, 21, 37, 39, 47, 60-64, 72, 73, 76, 77, 98

- Astomum muhlenbergianum* 2-4, 31, 36, 42, 50, 53, 56, 61-64, 72, 75, 77, 79, 80, 85, 88
- Atrichum angustatum* 3-5, 7-11, 14, 17, 19-22, 26, 29, 30, 33, 35, 37-42, 46-49, 51-54, 58, 59, 61-64, 66, 68, 70-78, 82-84, 86-88, 92, 94-99
- Atrichum crispum* 52
- Atrichum undulatum* 3-11, 16-18, 20, 21, 31, 33, 35, 37, 39, 41, 42, 44, 45, 47, 48, 50, 52, 53, 55, 59-65, 69, 71, 73, 75-77, 79, 82, 84, 86-89, 94, 95, 98, 99
- Atrichum undulatum* var. *altecristatum* (formerly reported as var. *selwynii*, by mistake) 3, 4, 6-9, 11, 17, 21, 24, 26, 31, 42, 46, 51-55, 58, 60, 62-65, 70, 75, 80, 81, 87, 89, 90, 93
- Atrichum undulatum* var. *hausknechtii* 64
- Atrichum undulatum* var. *minus* 42
- Aulacomnium heterostichum* 10, 11, 21, 37, 47, 50, 52, 54, 62, 63, 71-73, 77, 86-88, 97, 99
- Aulacomnium palustre* 3, 4, 10, 11, 16, 52, 77
- Barbula fallax* 1, 3-5, 8, 10, 11, 15, 17, 18, 20, 21, 25, 30, 36, 37, 41-43, 47-50, 52-54, 61, 63, 64, 70-72, 75, 77, 85, 89, 98, 99
- Barbula reflexa* 8, 18
- Barbula unguiculata* 1-6, 8, 10, 11, 13, 14, 17-23, 25, 27, 30-37, 41, 42, 44, 45, 47-58, 60-71, 73, 75-77, 80, 83, 85, 87-93, 96, 98, 99
- Bartramia pomiformis* 4, 10, 11, 20, 21, 35, 37, 41, 42, 47-52, 54, 61, 63, 64, 68, 70-73, 75, 77, 86-88, 96, 99.
- Brachythecium acutum* 16
- Brachythecium campestre* 59, 62, 64, 77
- Brachythecium flagellare* (*plumosum*) 3, 4, 10, 21, 39, 42, 72, 73, 77, 86
- Brachythecium flexicaule* 3, 4, 11, 30, 35, 42, 77, 96, 99
- Brachythecium oxycladon* 1, 3-43, 45-99
- Brachythecium populeum* 11, 39
- Brachythecium rivulare* 3, 4, 8-11, 17, 20, 21, 35, 37, 42, 50, 52, 54, 63, 70, 72, 76, 77
- Brachythecium rotabulum* 3, 4, 10, 11, 14, 21, 37, 48, 62-64, 72, 99
- Brachythecium salebrosum* 2-6, 8, 10-12, 15-18, 20, 21, 29-32, 35, 37, 39, 41-43, 45, 48, 52, 53, 57, 61-64, 66, 69, 71, 74, 76, 77, 87, 88, 90, 98
- Brachythecium velutinum* 10, 11, 21, 53, 77
- Brothera leana* 21, 47
- Brotherella recurvans* 11, 42
- Brotherella tenuirostris* 11
- Bruchia sullivanii* 52, 62, 77
- Bryhnia graminicolor* 4, 5, 8-11, 14, 20, 21, 26, 31, 33, 35, 37, 42, 46, 47, 50-54, 60, 62-66, 68, 71-73, 75-77, 87-90, 96, 99
- Bryum argenteum* 1, 3-7, 9-11, 13-15, 17-23, 25, 27, 30-32, 35, 37, 39, 41, 42, 44, 46, 48-50, 52-57, 60-64, 66-68, 71, 72, 75-79, 86, 87, 89, 90, 92, 96, 99
- Bryum caespiticium* 2-4, 6, 8-11, 14, 18, 20-23, 30-32, 36-42, 46, 48, 50-53, 55, 57, 58, 60-64, 66, 68-72, 76-78, 80, 88-90, 93-96, 99
- Bryum capillare* 2, 3, 37, 52
- Bryum cuspidatum* 1, 3, 9-11, 14, 17, 20, 21, 30, 36, 37, 41, 42, 46, 50, 53, 54, 61-64, 68, 74, 77, 84
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- Campylium hispidulum* 1, 3-11, 13-22, 24, 25, 29-31, 33, 37-39, 41-43, 47-55, 57-75, 77, 86-88, 90, 92-94, 96-99
- Campylium polygamum* 52
- Campylium radicale* 16
- Campylium stellatum* 3, 4, 15, 52

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*Chamberlainia acuminata* 1, 3-7, 9-34, 36-42, 45, 47-65, 67-71, 73-86, 88-99  
*Chamberlainia cyrtophylla* 3, 4, 10, 11, 17, 28, 33, 41, 45, 46, 53, 55, 64, 77, 87, 98  
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*Climacium americanum* 4, 10, 11, 16, 17, 20, 21, 35, 37, 40-42, 47, 48, 52-54, 59, 61, 63, 64, 70-73, 75-77, 86-88, 94, 96, 98, 99  
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*Desmatodon obtusifolius* 10, 11, 17, 20, 21, 35, 37, 41, 42, 46, 47, 50, 52-54, 61, 62, 64-66, 72, 74, 77, 78, 85, 88, 98, 99  
*Desmatodon plinthobius* 32, 41, 54, 62, 77, 88, 99  
*Desmatodon porteri* 11, 52, 53, 73, 77, 89  
*Dicranella heteromalla* 3, 4, 7, 8, 10, 11, 17, 19-21, 26, 30, 31, 33, 35, 37, 39, 40-42, 45, 47, 48, 51-53, 55, 58, 61-64, 66, 68, 71-78, 86-88, 92, 93, 96, 98, 99  
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*Dicranella varia* 3-5, 8, 10, 11, 21, 30, 31, 37, 41, 42, 44, 46, 47, 50, 52, 53, 55, 58, 61, 63, 64, 67, 73, 75-77, 83, 86, 88, 96, 98, 99  
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*Dicranum condensatum* 61, 63  
*Dicranum flagellare* 9-11, 21, 37, 42, 53, 62, 64, 72, 76, 77  
*Dicranum fulvum* 10, 11, 53, 72  
*Dicranum montanum* 8, 10, 11, 21, 35, 37, 40-42, 47, 53, 73, 77  
*Dicranum rugosum* 42, 64  
*Dicranum scoparium* 4, 10, 11, 21, 35, 37, 41, 42, 47, 48, 52-54, 61-64, 73, 77, 84, 86, 88, 96-99  
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*Didymodon tophaceus* 3, 11, 71, 89  
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*Ditrichum pusillum* 3, 9-11, 20, 21, 23, 37, 40, 41, 47, 52, 55, 61-65, 70, 75, 77, 86, 88, 96  
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*Drepanocladus aduncus* var. *typicus* 2-4, 6, 14-16, 42, 52, 63, 64  
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*Ephemerum cohaerens* var. *flotowianum* 62  
*Ephemerum crassinervium* 39, 50, 60, 62, 73, 77  
*Ephemerum crassinervium* var. *papillosum* 62, 96  
*Ephemerum spinulosum* 39, 50, 60-62, 64, 76, 77  
*Ephemerum spinulosum* var. *hystrix* 62  
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*Eurhynchium serrulatum* 3-5, 7-12, 14, 16, 17, 19-24, 27, 29, 30, 32, 33, 35-42, 46-48, 50-53, 55, 57, 58, 60-77, 79, 80, 83-90, 93-99  
*Eurhynchium strigosum* var. *praecox* 11, 61, 62  
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*Fabronia ciliaris* 3, 90  
*Fissidens bryoides* 96  
*Fissidens bushii* 4, 8, 11  
*Fissidens cristatus* 4, 8, 10, 11, 20, 21, 37, 41, 42, 47, 48, 52, 54, 61, 63, 77, 82, 88, 98, 99  
*Fissidens cristatus* var. *winonensis* 4, 9  
*Fissidens exiguus* 4, 8, 17, 20, 21, 36, 37, 42, 52, 75, 99  
*Fissidens debilis* (*julianus*) 1, 89  
*Fissidens minutulus* 3, 4, 9-11, 19-21, 30, 37, 42, 46, 47, 50, 52-55, 61, 62, 64-66, 68, 69, 71-73, 75, 77, 85, 86, 90, 96, 98, 99  
*Fissidens obtusifolius* 11, 20, 21, 36, 37, 41, 42, 47, 52, 61, 72, 77, 98, 99  
*Fissidens subbasilaris* 20, 42, 76, 77, 99  
*Fissidens taxifolius* 4, 9, 11, 16, 21, 35, 37, 39, 40, 48, 50, 52-54, 58, 60-66, 68-71, 73-77, 83, 84, 86, 87, 89, 90, 92-97, 99  
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*Grimmia apocarpa* 1, 3, 4, 8, 10, 11, 17, 18, 20, 21, 32, 35-37, 40-42, 47, 49-54, 60-62, 64, 65, 69, 70, 72, 73, 77, 85, 88, 89, 98, 99  
*Grimmia apocarpa* var. *alpicola* 10, 11, 21, 41, 42, 47, 54, 61, 88  
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*Leptodictyum trichopodium* var. *kochii* 1, 3-5, 8, 10, 11, 22, 26, 31, 32, 37, 40, 42, 47, 48, 50-52, 55, 58, 61-64, 69, 70, 76, 77, 80, 83, 84, 87, 90, 96  
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