

# A Checklist of the Hornworts (Anthocerotophyta) and Liverworts (Marchantiophyta) of New Jersey

Version 2.12

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<https://www.huttonstreet.org/floras/NJliverworts.pdf>

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I published a preliminary checklist of New Jersey Hornworts and Liverworts more than ten years ago ([Barringer 2011](#)). Since then, new collections, taxonomic revisions, and work for the *Flora of North America* have added to our knowledge of these groups and my provisional list needs to be updated again. There are now 105 species of liverworts and hornworts known from New Jersey.

This list is alphabetical by genus, with the species listed alphabetically under each genus. The family that the genus is currently classified in is listed in parentheses after the genus name. Families follow the classification of Söderstrom, et al. (2016) as modified by the Flora of North America (in press). When available, data on the species preferred habitat and the time when capsules appear is included under each species. Vouchers are listed by county.

It is difficult sometimes to determine the collection locality for older specimens. I have tried to include citations only for those collections where the locality data is clear. In the few cases where I thought it was important to cite a specimen with a questionable locality, I have added a question mark in brackets, [?].

Many older collections were not given collections numbers and sometimes do not have clear collection dates. I have only included these when there was no alternative. With the collections of C. F. Austin, I have usually been able to cite the exsiccatae number from his 'Hepaticae Boreali Americanae' (Austin 1867).

I have not indicated those species that I think are rare in the state. State rarities with legal standing are determined by the State botanist and currently no liverworts or hornworts are officially listed. Our understanding of the distribution of bryophytes in New Jersey is poor and, unfortunately, inadequate for the determination of real rarity.

Species represented only by collections more than 100 years old are marked as historical collections. Unfortunately, many of these species may no longer be living in the state. Recent collection that found species not recorded since Austin's time, give

me hope that further careful collection and identification will relocate many of these species.

There will be more changes to our understanding of the liverworts in the future. While nomenclature has become more stable, additional collections are helping us better understand the distribution of species in the state. The continuing digitization of herbarium collections also adds to our knowledge of distribution and habitat preferences. Careful fieldwork will lead to the discovery of additional species and the rediscovery of species not seen for many years.

Please let me know of any corrections and any additional information on the species or the collections.

**Table.** Number of species of hornworts and liverworts in New Jersey based on herbarium records

	# of species	Only historic records
New Jersey	105	21
Atlantic	19	7
Bergen	70	50
Burlington	38	15
Camden	13	8
Cape May	6	2
Cumberland	16	2
Essex	10	8
Gloucester	22	9
Hudson	12	11
Hunterdon	20	4
Mercer	12	2
Middlesex	14	4
Monmouth	37	27
Morris	33	8
Ocean	28	5
Passaic	34	7
Salem	9	3
Somerset	5	1
Sussex	50	4
Union	11	1
Warren	45	7

## Acknowledgements

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## Hornworts (Anthocerotophyta)

### *Anthoceros* (Anthocerotaceae)

#### *Anthoceros agrestis* Paton

capsules in fall and early winter

on dripping basalt cliffs, also reported from harvested cornfields, ditches

Bergen: *W. Wiegmann* 1212 (BKL, NY)

Monmouth: *N. Britton* s.n., 2 Oct 1886 (CHRB)

*Anthoceros laevis* L. - see *Phaeoceros laevis*

*Anthoceros punctatus* L. - ours are *Anthoceros agrestis*

### *Aspiromitus* (Anthcerotaceae)

*Aspiromitus punctatus* ssp. *agrestis* (Paton) R. M. Schuster see *Anthoceros agrestis*

### *Notothylas* (Notothyladaceae)

#### *Notothylas orbicularis* (Schweinitz) Sullivant

capsules: Aug-Nov

on wet soil at the edges of corn fields, in ruts and trails, ditches

Bergen: *C. Austin* s.n., Oct 1863 (MO, NY)

Hunterdon: *E. Britton* 15 (CHRB)

Monmouth: *C. Haynes* 1647 (FH)

Sussex: *G. Nearing* s.n., 27 Sep 1947 (NY)

Warren: *N. Holmgren* 30 (UTC)

### *Phaeoceros* (Notothyladaceae)

#### *Phaeoceros laevis* (L.) Proskauer

capsules in fall and early winter

on wet soil in harvested cornfields, ditches

Bergen: *M. Howe* 112 (MICH)  
Mercer: *G. Milly* 49 (CHRB)  
Monmouth: *C. Haynes* 1638 [Amer. Hep. 20] (BKL, NY, MICH, TRH)  
Morris: *N. Britton* s.n., 21 Sep 1886 (CHRB)  
Passaic: *A. Beals* s.n., 7 Jul 1916 (NY)  
Sussex: *N. Britton* s.n., 20 Sep 1887 (CHRB)  
Warren: *L. Underwood* s.n., Sep 1886 (NY)

### Liverworts (Marchantiophyta)

#### *Aneura* (Aneuraceae)

##### *Aneura maxima* (Schiffner) Stephani

Seeps, springs, and along brooks, on rocks and soil  
Morris: *K. Barringer* 28393 (CHRB, PH)

##### *Aneura pinguis* (L.) Dumortier

capsules: Mar -- May  
swamps, bogs, or wet traprock ledges  
Bergen: *A. Eaton* s.n. [Hep. Bor.-Amer. 112] (BKL, FH, MICH, MU, NY, PH, WIS)  
Burlington: *N. Holmgren* 23 (USU)  
Hudson: *E. Kiviat* s.n., 4 Oct 2013 (CHRB)  
Monmouth: *C. Haynes* s.n., 25 Aug 1902 (FH)  
Morris: *R. Torrey* s.n., 8 Jan 1922 (NY)  
Ocean: *C. Austin* s.n., 1863 (FH, NY)

#### *Asperifolia* (Calypogeiaceae)

##### *Asperifolia sullivantii* (Austin) A. V. Troitsky, Bakalin, & Maltseva

on soil or acid rocks in shade  
Burlington: *A. Evans* s.n., 12 Aug 1892 (MICH, NY)  
Monmouth: *A. Lorenz* 855 (YU)  
Somerset: *Stevenson* s.n., 19 Mar 1962 (CHRB)  
Sussex: *K. Barringer* 7273 (BKL)  
Warren: *C. Austin* s.n. [Hep. Bor. Amer. 74b] (BKL, NY, S, US, WIS, YU)

#### *Asterella* (Aytoniaceae)

##### *Asterella tenella* (L.) P. Beauv.

capsules: Mar -- Jun  
on soil-covered ledges on traprock or limestone, usually dripping wet  
Bergen: *M. Howe* 15 (CINC, LSU, MICH, NY, TENN)  
Hudson: *s.l. s.n.*, [probably J. Torrey] (NY)  
Hunterdon: *H. Fisher* 15870 (WIS)  
Passaic: *L. Underwood* s.n., 9 May 1897 (NY)  
Somerset: *A. Strout* s.n., 12 May 1916 (NY)

Sussex: *K. Barringer* 25315 (BKL)  
Union: *W. Wiegmann* 5002 (NY)

***Barbilophozia* (Scapaniaceae)**

***Barbilophozia barbata (Schmidel) Loeske* (historic)**

On cliffs, outcrops, and rocky banks  
Sussex: *E. Britton* 21 (CHRB)

***Bazzania* (Lepidoziaceae)**

***Bazzania denudata (Torrey) Trevisan***

On wet, shaded rock outcrops  
Morris: *K. Barringer & J. Rosenbaum* 24974 (CHRB, PH)

***Bazzania trilobata (L.) Gray***

on wet soil, rocks, decaying logs, or tree bases in moist forests, swamps  
Bergen: *C. Austin s.n.* [Hep. Bor. Amer. 79] (BKL, WIS, NY, PH, WIS)  
Burlington: *H. Webster s.n.*, 27 Feb 1968 (CHRB)  
Cumberland: *B. Long* 1376 (PH)  
Gloucester: *B. Long* 1395 (PH, YU)  
Hunterdon: *J. Cantlon & E. Moul* 1001 (CHRB, F)  
Monmouth: *J. Cantlon & M. Buell s.n.*, 13 Apr 1949 (CHRB)  
Morris: *K. Barringer & J. Rosenbaum* 29094 (CHRB, PH)  
Ocean: *B. Long* 2232 (PH)  
Passaic: *R. Schmidt* 139 (CHRB)  
Salem: *B. Long* 995 (PH)  
Sussex: *K. Barringer* 20623 (BKL, DUKE, NY, VT)  
Warren: *J. A. Churchill* 7032814 (MSC)

***Blasia* (Blasiaceae)**

***Blasia pusilla L.***

capsules: spring  
wet, disturbed roadbanks, ditches, rarely on rocks in streambeds  
Bergen: *W. Wiegmann s.n.*, 12 Oct 1916 (NY)  
Essex: *C. Haynes s.n.*, 10 May 1902 (NY)  
Monmouth: *M. Howe s.n.*, 15 Jun 1918 (NY)  
Morris: *E. Britton s.n.*, 21 Sep 1886 (CHRB)  
Sussex: *E. Lawton* 544 (NY)  
Warren: *J. Churchill* 70401 (MSC)

***Blepharostoma* (Blepharostomataceae)**

***Blepharostoma trichophyllum (L.) Dumortier***

usually mixed with bryophytes in coastal plain swamps or on moist, shaded rocks in mountains  
Atlantic: *M. Robertson* 7206 (PH)

Bergen: *C. Austin s.n.*, 1863 (NY)  
Burlington: *B. Thiers* 1254 (NY)  
Cumberland: *B. Thiers* 1255 (NY)  
Gloucester: *A. Rau s.n.*, Jul 1882 (NY)  
Morris: *K. Barringer & J. Rosenbaum* 28221 (CHRB, PH)  
Ocean: *E. Matzke s.n.*, Oct 1933 (NY)

***Calypogeia* (Calypogeiaceae)**

*Calypogeia fissa* (L.) Raddi see *C. neogea*

***Calypogeia muelleriana* (Schiffner) Muller Frib.**

Atlantic: *B. Long* 1340 (PH)  
Monmouth: *K. Barringer & D. Barringer* 21594 (BKL)  
Morris: *K. Barringer & J. Rosenbaum* 28222 (CHRB, PH)  
Sussex: *C. Reed* 133691 (MO)  
Warren: *N. Miller* 10121 (NYS)

***Calypogeia neogea* (R. Schuster) Bakalin**

on various moist substrates in shaded woods, esp. near streams  
Bergen: *A. Beals s.n.*, 28 Nov 1946 (NY)  
Hudson: *C. Austin s.n.*, 1862 (NY)  
Monmouth: *C. Haynes s.n.*, 28 May 1908 (NDA, NY, PH)  
Morris: *K. Barringer* 22587 (BKL)  
Ocean: *H. Reynolds* 7225 (WIS)  
Passaic: *K. Barringer* 20503 (BKL)  
Sussex: *N. Miller* 10068 (NYS)  
Union: *K. Barringer* 20528 (BKL)  
Warren: *K. Barringer* 26972 (BKL)

***Calypogeia sphagnicola* (Arnell & J. Persson) Warnstorf & Loeske**

peat bogs and *Sphagnum* stands  
Burlington: *B. Thiers* 1249 (NY)  
Camden: *A. Krout s.n.*, Aug 1914 (PH)  
Cape May: *C. Wonderly* 818 (NY)  
Gloucester: *A. Rau s.n.*, Jun 1882 (NY)  
Middlesex: *E. Moul* 6995 (CHRB)  
Monmouth: *C. Haynes* 1123 (BKL, MO, NY)

*Calypogeia sullivantii* Austin see *Asperifolia sullivantii*

*Calypogeia trichomanis* (L.) Corda - for ours see *C. fissa* or *C. sullivantii*

***Cephalozia* (Cephaloziaceae)**

***Cephalozia bicuspidata* (L.) Dumortier**

on shaded, usually peaty, soils along stream and trails, rarely on acidic rocks  
Bergen: *J. Wurdack & R. Cowan* 8 (MICH, NY)  
Gloucester: *K. Barringer* 21205 (BKL)  
Hunterdon: *K. Barringer* 20752 (BKL)  
Monmouth: *C. Haynes* 1260 (FH, NYS)

Ocean: *C. Gilly s.n.*, 25 Oct 1941 (NY)

Sussex: *K. Barringer 20627* (BKL)

Warren: *I. Henely s.n.*, 1940 (NY)

***Cephalozia catenulata* (Heubener) Lindberg** (historic)

on decaying logs, *Chamaecyparis* swamps

Bergen: *M. Howe s.n.*, 22 Sep 1898 (F, NY)

Burlington: *A. Evans s.n.*, 11 Aug 1892 (NY, YU)

Camden: *W. Haydock s.n.*, 23 Nov 1906 (FH, SIU, YU)

Monmouth: *M. Howe s.n.*, 15 Jun 1918 (NY)

Ocean: *W. Taylor 2180* (DUKE, MICH)

*Cephalozia connivens* (Dickson) Lindberg see *Fuscocephaloziopsis connivens*

*Cephalozia fluitans* (Nees) Spruce see *Odontoschisma fluitans*

***Cephalozia lunulifolia* (Dumortier) Dumortier**

on peaty soils, rotting wood and in bogs and swamps with *Sphagnum*

Bergen: *A. Howe s.n.*, 5 Nov 1898 (F, MICH, NY)

Burlington: *L. Underwood s.n.*, 1855 (NY)

Gloucester: *B. Long 1388* (PH)

Monmouth: *C. Haynes 1630* (FH)

Salem: *C. Reed 134102* (MO)

Sussex: *N. Miller 10074* (NYS)

***Cephaloziella* (Cephaloziellaceae)**

***Cephaloziella divaricata* (Sm.) Warnstorf**

on soil in woods

Bergen: *M. Howe s.n.*, 6 Oct 1898 (NY)

Burlington: *J. Githens 1398* (PH)

Monmouth: *C. Haynes 1643* (YU)

Ocean: *E. Matzke s.n.*, Nov 1947 (NY)

Sussex: *A. Beals s.n.*, 11 Oct 1947 (NY)

***Cephaloziella elachista* (J. B. Jack) Schiffner** (historic)

in *Sphagnum* bogs often with *Mylia*

Bergen: *C. Austin [Hep. Bor.-Amer. 54]* (BKL, F, FH, NY, PH, UBC, WIS, YU)

***Cephaloziella hampeana* (Nees) Schiffner** (historic)

On soil and rocks often mixed in with other mosses

'Pine Barrens': *C. Austin s.n. [Hep. Bor.-Amer 51]* (BKL, NY, YU)

Burlington: *A. Evans s.n.*, 12 Aug 1892 (NY, YU)

Monmouth: *A. Lorenz 852* (YU)

***Cephaloziella rubella* (Nees) Warnstorf**

on peaty soil, wet roadbanks, and sometimes on rotting wood

'New Jersey': *C. Austin s.n. [Hep. Bor.-Amer. 50]* (MICH, NY)

Sussex: *G. Nearing s.n.*, Dec 1946 (NY, SIU, WTU)

Warren: *N. Miller 10124* (NYS)

***Cephaloziella spinigera* (S. O. Lindberg) Jorgenson**

Warren: *N. Miller 10115* (NYS)

*Cheilolejeunea* (Lejeuneaceae)

*Cheilolejeunea clypeata* (Schweinitz) W. Ye & R. L. Zhu

on trees, but in uplands can grow on rocks

Cumberland: *B. Theirs* 1257 (NY)

Gloucester: *K. Barringer* 21201 (BKL)

Sussex: *N. Miller* 10088 (NYS)

Warren: *E. Rau* s.n., s.d. (NY)

*Chiloscyphus* (Lophocoleaceae)

*Chiloscyphus cuspidatus* (Nees) J. Engel & R. M. Schuster

on wet rocks along streams

Sussex: *E. Frank* NJ-68 (CHRB)

*Chiloscyphus minor* (Nees) J. J. Engel & R. M. Schuster

Dry calcareous soil or decaying logs

Passaic: *C. Gilly* s.n., 18 Oct 1941 (NY)

Sussex: *E. Britton* 23 (NY)

*Chiloscyphus pallescens* (Ehrh.) Dumortier

on moist soil and decorticated logs near streams

Passaic: *T. Barkley* s.n., 10 Oct 1958 (NY)

*Chiloscyphus polyanthos* (L.) Corda

on shaded moist soil or rocks near water

Bergen: *E. Matzke* s.n., 10 Apr 1947 (NY)

Burlington: *T. James* s.n., Jul 1851 (NY)

*Chiloscyphus profundus* (Nees) J. J. Engel & R. M. Schuster

on soil and tree bases, occasionally on rotting wood

Atlantic: *B. Long* 2036 (PH)

Bergen: *W. Wiegmann* 5008 (NY)

Burlington: *B. Long* 1360 (PH, YU)

Cumberland: *M. Robertson* 3145 (PH)

Essex: *C. Haynes* s.n., 10 May 1902 (FH, NY, PH)

Gloucester: *B. Long* 1926 (PH)

Hunterdon: *H. Fischer* 65 (PH)

Mercer: *H. Conard* 0-1521 (NY)

Middlesex: *E. Britton* s.n., 19 Apr 1884 (CHRB, NY)

Monmouth: *K. Barringer* & *D. Barringer* 21591 (BKL)

Morris: *K. Barringer* 20115 (BKL)

Ocean: *E. Britton* s.n., 28 May 1887 (CHRB)

Passaic: *N. Holmgren* 8 (UTC)

Salem: *B. Long* 2117 (PH)

Sussex: *T. Nash* s.n., 9 Apr 1968 (ASU, CHRB)

Union: *F. Wynne* 2789 (FH, SIU, TENN)

Warren: *C. Reed* 46708 (MO)

*Chiloscyphus rivularis* (Schrad.) Hazsl. – for ours see *C. polyanthos*

*Cladopodiella* (Cephaloziaceae)

*Cladopodiella fluitans* (Nees) Jörg. (see *Odontoschisma fluitans*)

*Cololejeunea* (Lejeuneaceae)

*Cololejeunea biddlecomiae* (Austin) A. Evans (historic)

on tree bark, rarely on rocks in shaded ravines

Bergen: M. Howe s.n., 5 Nov 1898 (NY)

*Conocephalum* (Conocephalaceae)

*Conocephalum conicum* (L.) Underw. - ours are *C. salebrosum*

*Conocephalum salebrosum* Szweyk., Buczkowska and Ordzyoski

on soil along streams, occasionally on rocks and wood in streams and swamps

Atlantic: *C. Gross* 497 (CHRB)

Bergen: *E. Kiviat LW-76* (CHRB)

Essex: *C. Haynes* s.n., 10 May 1902 (NY)

Hunterdon: *G. Tees 603* (PH)

Mercer: *B. Long 1886* (PH)

Monmouth: *C. Haynes 12* (NY)

Morris: *E. Moul 6840* (CHRB)

Ocean: *K. Barringer 22149* (BKL)

Passaic: *N. Holmgren 9* (UTC)

Sussex: *A. Hoiberg 222* (CHRB)

Warren: *R. Schaeffer 165* (PH)

*Diplophyllum* (Scapaniaceae)

*Diplophyllum apiculatum* (A. Evans) Stephani

on peaty soil on roadbanks, thin soil over rocks, steep roadcuts

Atlantic: *C. Haynes 1632* (FH, NY)

Bergen: *C. Austin s.n., s.d.* (YU)

Monmouth: *A. Lorenz 849* (YU)

Morris: *K. Barringer & J. Rosenbaum 28043* (CHRB)

Passaic: *K. Barringer 22545* (BKL)

Sussex: *E. Lawton 967* (WTU)

Warren: *R. Cowan & J. Wurdack 183* (F, NY)

*Diplophyllum obtusifolium* (Hook.) Dumort. - ours are *D. apiculatum*

*Fossombronia* (Fossombroniaceae)

*Fossombronia cristula* Austin (historic)

Streambanks, moist disturbed sites

Burlington: *C. Austin* [Hep. Bor.-Amer. 121] (BKL, FH, MICH, NY, PH, US, YU)

*Fossombronia foveolata* Lindberg (historic)

on clay at bottom of drained pond, lawns, disturbed sites

no county designated: *C. Austin* s.n. (NY)  
Atlantic: *C. Reed* 134267A (MO)  
Monmouth: *C. Haynes* s.n., 5 Nov 1912 (BKL, FH, OS, TRH, YU)  
Ocean: *B. Allen* 16897 (MO)

***Fossumbronia salina* Lindberg** (ours may be *F. foveolata*)

Swamps on the coastal plain

***Frullania* (Frullaniaceae)**

***Frullania asagrayana* Montagne**

on acid rocks and tree bark  
Atlantic: *H. Green* s.n., 1881-1882 (NY)  
Bergen: *C. Austin* s.n., 1861 (NY)  
Burlington: *A. Evans* s.n., Aug 1892 (YU)  
Cumberland: *K. Barringer* 25684 (BKL)  
Gloucester: *A. Rau* s.n., 1882 (NY)  
Ocean: *E. Lawton* 252 (WTU)

***Frullania brittoniae* A. Evans**

On tree bark, rarely on rocks  
Bergen: *E. Kiviat* s.n., 19 Apr 2014 (CHRB)  
Essex: *C. Haynes* s.n., 10 May 1902 (NY, YU)

***Frullania eboracensis* Gottsche**

on tree bark and rock outcrops  
Atlantic: *C. Reed* 134384 (MO)  
Bergen: *C. Austin* s.n., 17 Jun 1865 (BKL, NY)  
Burlington: *B. Thiers* 1245 (NY)  
Cape May: *B. Long* 2012 (PH)  
Cumberland: *B. Long* 854 (PH)  
Essex: *C. Haynes* 510 (NY)  
Gloucester: *B. Long* 918 (PH)  
Hunterdon: *s.l.* 1003 (CHRB)  
Mercer: *M. Barbun* s.n., Jul 1900 (PH)  
Monmouth: *K. Barringer & D. Barringer* 21606 (BKL)  
Morris: *K. Barringer & J. Rosenbaum* 28194 (CHRB, PH)  
Ocean: *Copeland* 660 (NY)  
Salem: *B. Long* 927a (PH)  
Sussex: *K. Barringer* 20327b (BKL)  
Warren: *K. Barringer* 20933 (BKL, DUKE, NY, VT)

***Frullania ericoides* (Nees) Montagne**

on rock outcrops and tree bark  
Bergen: *C. Austin* s.n., Sep 1867 (NY)  
Burlington: *M. Haines* s.n., s.d. (NY)  
Ocean: *H. Mozingo* s.n., Nov 1947 (COLO)

***Frullania inflata* Gottsche**

on dry rock walls, often traprock, and tree trunks

Atlantic: *C. Reed* 134385 (MO)  
Bergen: *C. Austin* [Hep Bor.-Amer. 104] (BKL, F, NY, NYS, PH, YU)  
Gloucester: *K. Barringer* 21202b (BKL)  
Salem: *C. Reed* 134060 (MO)

***Frullania plana* Sullivant** (historic)

rock ledges, boulders, occasionally on tree trunks  
Bergen: *C. Austin* [Hep. Bor.-Amer. 102] (BKL, FH, NY, PH, YU)

*Frullania riparia* Hampe - ours are *Frullania inflata*

*Frullania tamarisci* (L.) Dumortier - ours are *Frullania asagrayana*

*Frullania virginica* Gottsche - ours are *Frullania eboracensis*

***Fuscocephaloziopsis* (Cephaloziaceae)**

***Fuscocephaloziopsis connivens* (Dicks.) Vana & L. Soderstr.**

in swamps and bogs with *Sphagnum*

Atlantic: *B. Long* 1984 (PH)  
Bergen: *K. Barringer* 21757 (BKL)  
Burlington: *K. Barringer* 20696 (BKL, DUKE, NY, VT)  
Camden: *J. Lowe* s.n., Jun 1899 (PH)  
Cumberland: *W. Cook* s.n., 18 Sep 1982 (CGCC)  
Gloucester: *A. Rau* s.n., Jun 1882 (NY)  
Mercer: *B. Long* 1885 (PH)  
Middlesex: *W. Rissanen* s.n., 15 May 1945 (BRIT)  
Monmouth: *C. Haynes* 683a (COLO, F, FH, ILL, IND, MT, NY, NYS, PH, WIS, WVA)  
Morris: *K. Barringer & J. Rosenbaum* 28223 (CHRB, PH)  
Ocean: *R. Cowan* 146 (NY)  
Passaic: *J. Ellis* s.n., May 1882 (TENN)  
Sussex: *K. Barringer* 22039 (BKL)  
Warren: *N. Miller* 10109 (NYS)

***Geocalyx* (Geocalycaceae)**

***Geocalyx graveolens* (Schrader) Nees**

on rotting wood or humus in conifer woods, usually mixed with bryophytes  
Ocean: *E. Matzke* s.n., Nov 1947 (NY)  
Warren: *N. Miller* 10110 (NYS)

***Gymnocolea* (Anastrophyllaceae)**

***Gymnocolea inflata* (Huds.) Dumortier**

on soil in *Sphagnum* bogs, swamps, occasionally on wet rock faces  
Burlington: *B. Thiers* 1253 (NY)  
Ocean: *E. Britton* s.n., 30 Jun 1900 (NY)  
Passaic: *G. Nearing* s.n., 15 Dec 1946 (NY)

***Herbertus* (Herbertaceae)**

***Herbertus aduncus* (Dickson) Gray** (historic)

on rocks and trees in conifer woods, in gorges on rock under ledges  
Passaic: *C. Austin* 52a (MO, NY)

***Heterogemma*** (Scapaniaceae)

*Heterogemma capitata* (Hooker) Konstat. & Vilnet - see *Tritomaria capitata*

***Jamesoniella*** (Jungermanniaceae)

*Jamesoniella autumnalis* (DC.) Stephani - see *Syzygiella autumnalis*

***Jubula*** (Jubulaceae)

***Jubula hutchinsiae*** (Hooker) Dumortier (ours is ssp. *pennsylvanica*)

Shaded, wet rocks along streams in ravines often with *Rhododendron maximum*  
Bergen E. Matzke s.n., Oct 1931 (NY)  
Morris: *E. Lawton* 138 (WTU)  
Passaic: *K. Barringer* 26933 (BKL)  
Sussex: *N. Miller* 10093 (NYS)  
Warren: *K. Barringer & D. Barringer* 21832 (BKL)  
*Jubula pennsylvanica* (Stephani) A. Evans - see *J. hutchinsiae*

***Jungermannia*** (Jungermanniaceae)

*Jungermannia biformis* Austin - see *Plectocolea hyalina*

*Jungermannia crenuliformis* Austin - see *Pletocolea crenuliformis*

*Jungermannia divaricata* Sm. - see *Cephaloziella divaricata*

*Jungermannia fossombronioides* Austin - see *Plectocolea fossombronioides*

*Jungermannia gracillima* Sm. - see *Solenostoma gracillum*

*Jungermannia hyalina* Lyell - see *Plectocolea hyalina*

*Jungermannia lanceolata* L. - see *Liochlaena lanceolata*

*Jungermannia leiantha* Grolle - see *Liochlaena lanceolata*

*Jungermannia laxa* Lindb. - see *Lophozia laxa*

*Jungermannia novae-caesareae* A. Evans - see *Tritomaria capitata*

***Jungermannia pumila*** Withering (historic)

on damp, shaded, acidic rocks, ravines

Bergen: *C. Austin* [Hep. Bor.-Amer. 33] (BKL, F, MU, NY, PH, WIS, YU)

***Kurzia*** (Lepidoziaceae)

***Kurzia sylvatica*** (A. Evans) Grolle

on peaty soil beside streams, sometimes mixed with bryophytes on logs

Bergen: *R. Cowan & J. Wurdack* 22 (NY)

Burlington: *N. Miller* 5690 (NY, NYS)

Camden: *A. Krout* s.n., Aug 1914 (BKL, CHRB, DUKE, PH)

Gloucester: *E. Rau* s.n., 13 Jul 1882 (NY)

Mercer: *B. Long* 1886 (PH)

Middlesex: *W. Rissanen* 1105 (BRIT)

Monmouth: *C. Haynes* s.n., 15 May 1910 (BKL, FH, IND, NY, TRH, YU)

Ocean: *R. Cowan & J. Wurdack* 135 (NY)  
Sussex: *A. Beals s.n.* 10 Nov 1947 (NY)  
Union: *E. Rudolph & W. Rissnen s.n.*, 19 Jun 1949 (NY)  
Warren: *N. Holmgren* 40 (UTC)

***Lejeunea*** (Lejeuneaceae)

***Lejeunea cavifolia* (Ehrh.) Lindberg**

on bark

Cumberland: *B. Long* 885 (PH)  
Passaic: *H. Whittier s.n.*, Oct 1965 (NY)  
Sussex: *N. Miller* 10082 (NYS)  
Warren: *K. Barringer & D. Barringer* 21834 (BKL)

***Lepidozia*** (Lepidoziaceae)

***Lepidozia reptans* (L.) Dumortier** (historic)

on soil, tree bases, rotting wood, on old, very rotten stumps in cedar swamps  
without county: *C. Austin* [Hep. Bor.-Amer. 75] (BKL, F, FH, MO, NY)

***Leucolejeunea*** (Lejeuneaceae)

***Leucolejeunea clypeata* (Schweinitz) A. Evans** - see *Cheilolejeunea clypeata*

***Lioclaena*** (Jungermanniaceae)

***Lioclaena lanceolata* Nees**

on wet soil, usually near streams and falls, on wet rocks in ravines  
Hunterdon: *K. Barringer* 20743b (BKL)  
Monmouth: *C. Haynes* 989 (YU)  
Sussex: *G. Nearing s.n.*, 27 Sep 1947 (NY)  
Union: *S. Stephenson s.n.*, Mar 1962 (CHRB)  
Warren: *N. Holmgren* 38 (UTC)

***Lophocolea*** (Lophocoleaceae)

***Lophocolea bidentata* (L.) Dumortier** - ours are *Chiloscyphus profundus*

***Lophocolea heterophylla* (Schrader) Dumortier** - see *Chiloscyphus profundus*

***Lophocolea minor* Nees** - see *Chiloscyphus minor*

***Lophozia*** (Scapaniaceae)

***Lophozia bicrenata* (Schmidel) Dumortier**

moist, acid, leached, sandy soils, abandoned farmland  
Monmouth: *C. Haynes* 1490 (BKL, FH, NY)  
Passaic: *R. Cowan & J. Wurdack* 95 (NY)  
Sussex: *N. Miller* 10107 (NYS)

***Lophozia capitata* (Hooker) Macoun** - see *Schistochilopsis capitata*

***Lophozia excisa* (Dickson) Dumortier** (historic)

On wet soil in woods, esp. at higher elevations, steep riversides

"along the Passaic, Delaware, and Hudson Rivers" *C. Austin s.n., sd.* (FH, MO)

*Lophozia laxa* (Lindberg) Grolle - see *Schistochilopsis laxa*

*Lophozia marchica* (Nees) Stephani - see *Schistochilopsis laxa*

***Lophozia ventricosa* (Dickson) Dumortier**

Rock outcrops, decaying logs, peat bogs

Warren: *N. Miller 10108* (NYS)

***Lunularia* (Lunulariaceae)**

***Lunularia cruciata* (L.) Dumortier**

weedy in greenhouses, non-native, reproducing only by gemmae

Passaic: *Nash s.n.*, 29 Nov 1893 (NY)

Middlesex: *R. Forman s.n.*, 16 Feb 1967 (OS)

***Mannia* (Aytoniaceae)**

*Mannia barbifrons* Shimuzu & S. Hatt. - ours are *M. fragrans*

***Mannia fragrans* (Balbis) Frye & L. Clark** (historic)

on rock or thin soil over siliceous rocks in sun

Bergen: *C. Austin s.n.*, [Hep. Bor.-Amer. 133] (F, FH, NY, NYS, YU)

Warren: *T. Porter s.n.*, 4 May 1869 (PH)

***Marchantia* (Marchantiaceae)**

***Marchantia polymorpha* L.**

on soil or rocks, farm fields, recently burned sites, a weed in greenhouses

Atlantic: *E. Moul 6138* (CHRB)

Bergen: *H. Reynolds 7053* (CHRB)

Burlington: *A. Krout s.n.* Jun 1907 (BKL, F)

Camden: *E. Gadsby s.n.*, 15 Jun 1910 (PH)

Essex: *G. Nash 910* (NY)

Gloucester: *C. Lippincott s.n.*, 3 Jun 1894 (PH)

Hudson: *J. Torrey s.n.*, s.d. (NY)

Hunterdon: *G. Merrill 11593* (KSP)

Mercer: *W. Stowell 2* (NY)

Monmouth: *C. Haynes 11* (NY)

Morris: *R. Schmidt 74* (CHRB)

Passaic: *G. Nash 625* (NY)

Salem: *B. Heritage s.n.*, 14 Jun 1888 (CHRB)

Somerset: *E. Moul 10827* (CHRB)

Sussex: *G. Tees s.n.*, 2 Dec 1934 (YU)

Warren: *T. Porter s.n.*, 31 Aug 1868 (BKL)

***Marsupella* (Gymnomitriaceae)**

***Marsupella emarginata* (Ehrhart) Dumortier**

on thin soil over acidic rock outcrops near upland streams

Bergen[?]: *C. Austin s.n.*, 1862 (FH)  
Warren: *J. Churchill 7032837* (MSU)

***Metzgeria* (Metzgeriaceae)**

***Metzgeria conjugata* Lindberg**

shaded rock outcrops and on trees in uplands  
Bergen: *W. Wiegmann s.n.*, 9 July 1915 (NY)  
Hunterdon: *K. Barringer 20742b* (BKL)  
Morris: *E. Britton s.n.*, Sep 1887 (BKL, CHRB)  
Passaic: *T. Cowan & J. Wurdack 46* (NY)  
Somerset: *E. Lawton 1541* (WTU)  
Sussex: *N. Miller 10084* (NYS)  
Union: *W. Rissanen s.n.*, 19 Jun 1949 (NY)  
Warren: *K. Barringer 24775* (BKL)

***Metzgeria furcata* (L.) Dumortier**

on bark, coves near streams  
Passaic: *N. Holmgren 10* (UTC)  
Union: *E. Lawton 244* (WTU)  
Sussex: *K. Barringer 22367* (BKL)  
Warren: *K. Barringer 21217* (BKL)

***Mylia* (Myliaceae)**

***Mylia anomala* (Hooker) Gray**

in sphagnum bogs in uplands  
Bergen: *C. Austin [Hep. Bor.-Amer. 25]* (BKL, F, NY, NYS, PH)  
Sussex: *A. Beals s.n.*, 11 Oct 1947 (NY)

***Nardia* (Gymnomitriaceae)**

***Nardia geoscyphus* (De Not.) Lindberg**

thin soil over acid rocks, streambanks  
Atlantic: *B. Long 1314* (YU)  
Bergen: *R. Cowan & J. Wurdack 18* (NY)  
Burlington: *A. Evans s.n.*, Aug 1892 (NY, YU)  
Gloucester: *J. Ellis s.n.*, 1936 (TENN)  
Monmouth: *C. Haynes 803* (BKL, COLO, PH)  
Morris: *E. Britton 12* (CHRB)  
Ocean: *N. Holmgren 92* (UTC)

*Nardia lescurii* (Austin) Underw. - ours are *N. geoscyphus*)

***Nowellia* (Cephaloziaceae)**

***Nowellia curvifolia* (Dickson) Mitten**

on decorticated, rotting logs, rarely on adjacent soil  
ecoregions: Ridge and Valley, Highlands  
Bergen: *M. Howe 65* (F, MICH, NY, OS, TRN)

Hunterdon: *G. Merrill* 11561 (KSP)  
Middlesex: *K. Barringer* 21763 (BKL)  
Morris: *K. Barringer & J. Rosenbaum* 28195 (CHRB, PH)  
Passaic: *K. Barringer* 20668 (BKL)  
Sussex: *K. Barringer* 20989 (BKL, DUKE, NY, VT)  
Warren: *K. Barringer* 21230 (BKL)

***Odontoschisma* (Cephaloziaceae)**

***Odontoschisma denudatum* (Nees) Dumortier**

on soil and rotting logs

Atlantic: *B. Long* 208 (PH)  
Bergen: *C. Austin s.n., s.d.* (NY)  
Burlington: *M. Robertson* 7212 (PH)  
Cumberland: *B. Thiers* 1256 (NY)  
Gloucester: *B. Long* 2115 (NY)  
Middlesex: *K. Barringer* 21780 (BKL)  
Monmouth: *C. Haynes s.n.*, 29 Apr 1908 (BKL, FH, MICH, NY, OS, SIU, TRH)  
Morris: *K. Barringer* 22608 (BKL)  
Ocean: *R. Cowan & J. Wurdack* 131 (NY)  
Passaic: *K. Barringer* 22558 (BKL)  
Sussex: *N. Miller* 10076C (NYS)  
Warren: *K. Barringer* 22428 (BKL)

***Odontoschisma fluitans* (Nees) Soderstrom & Vana** (formerly *Cladopodiella fluitans*)

peat bogs, in sun

Bergen: *C. Austin* [Hep. Bor.-Amer. 35] (BKL, MICH, NY, PH, WIS)  
Burlington: *E. Leonard* 6395 (NY)  
Ocean: *B. Allen* 16892 (MO)

***Odontoschisma prostratum* (Sw.) Trevisan** - see *O. sphagni*

***Odontoschisma sphagni* (Dickson) Dumortier**

on peaty soil and rotting logs

Atlantic: *G. Tees* 1354 (NY)  
Bergen: *E. Matzke s.n.*, 6 Jul 1945 (NY)  
Burlington: *J. Shaw s.n.*, 11 Apr 1974 (DUKE)  
Camden: *W. Haydock* 10 (SIU)  
Cape May: *B. Long* 2154 (PH)  
Cumberland: *B. Long* 1175 (PH)  
Gloucester: *B. Long* 2115 (NY, PH)  
Mercer: *B. Long* 1888 (PH)  
Middlesex: *K. Barringer* 21808 (BKL)  
Monmouth: *G. Conklin & C. Haynes* 2794 (DUKE)  
Ocean: *R. Cowan* 133 (NY)  
Passaic: *K. Barringer* 21475 (BKL)  
Salem: *B. Long* 941 (PH)  
Sussex: *K. Barringer* 25330 (BKL)

Warren: J. Churchill 677239 (MSC)

***Pallavicinia* (Pallaviciniaceae)**

***Pallavicinia lyellii* (Hooker) Gray**

on acidic soils and bark in wet woods, swamps, pond edges

Atlantic: *L. Underwood s.n.*, 6 Sep 1884 (NY)

Bergen: *W. Wiegmann 5017* (NY)

Burlington: *K. Barringer 20699* (BKL, DUKE, NY, VT)

Camden: *K. Barringer 20872* (BKL)

Cumberland: *B. Long 1253* (NY, PH)

Gloucester: *W. Rapp s.n.*, 14 Aug 1943 (CHRB)

Hudson: *C. Austin s.n.*, 1861 (NY)

Middlesex: *K. Barringer 21810* (BKL)

Monmouth: *K. Barringer & D. Barringer 21598* (BKL)

Morris: *K. Barringer & J. Rosenbaum 28229* (CHRB, PH)

Ocean: *C. Gilly s.n.*, 25 Oct 1941 (NY)

Passaic: *K. Barringer 20612* (BKL)

Sussex: *N. Miller 5660* (NYS)

Union: *E. Moul s.n.*, 1947 (PH)

Warren: *K. Barringer 25069* (BKL)

***Pellia* (Pelliaceae)**

***Pellia epiphylla* (L.) Corda**

on soil along streams and on the edges of lakes and ponds

Bergen: *T. Barkley s.n.*, 3 Oct 1958 (NY)

Essex: *C. Haynes s.n.*, 10 May 1902 (NY)

Mercer: *s.l. s.n.*, 27 Apr 1909 (CHRB)

Monmouth: *C. Haynes 1641* (FH)

Morris: *K. Barringer 18238* (BKL, CHRB)

Passaic: *W. Rissanen 1157* (BRIT)

Sussex: *E. Frank NJ70* (CHRB)

Union: *W. Rissanen s.n.*, 19 Jun 1941 (NY)

Warren: *K. Barringer & D. Barringer 21844* (BKL)

***Pellia neesiana* (Gottsche) Limpricht**

on wet soil

Bergen: *J. Wurdack & R. Cowan 9* (NY)

Sussex: *N. Miller 10078* (NYS)

***Plagiochila* (Plagiochilaceae)**

***Plagiochila asplenoides* (L.) Dumortier**

Bergen: *M. Howe 51* (F, MICH)

Hunterdon: *B. Long 2075* (PH)

Morris: *R. Schmidt 156* (CHRB)

Passaic: *K. Barringer 26407* (BKL)

Sussex: *K. Barringer* 21495 (BKL)

***Plagiochila poreloides* (Torr.) Lindenb.**

on shaded rocks along streams

Bergen : *W. Wiegmann* s.n., 19 Jul 1915 (NY)

Burlington: *V. Montagne* s.n., Apr 1851 (NY)

Morris: *C. Austin* s.n., Aug 1867 (NY)

Passaic: *K. Barringer* 27368 (CHRB, PH)

Sussex: *N. Miller* 10079 NYS)

***Plectocolea* (Solenostemataceae)**

***Plectocolea crenuliformis* (Austin) Mitten**

on acid rocks along shaded streams

Bergen: *C. Austin* [Hep. Bor.-Amer. 31] (BKL, MO, NY, US, WTU, YU)

Burlington: *E. Moul* 7982 (CHRB)

Hunterdon: *J. Cantlon* 1024 (CHRB)

Middlesex: *E. Moul* 11052 (CHRB)

Monmouth: *C. Haynes* 6626 (MO)

Ocean: *E. Moul* 2667 (CHRB, NY, PH)

***Plectocolea fossombronioides* (Austin) Mitten** (historic)

thin soil over acid rocks, especially along streams

Bergen: *C. Austin* [Hep. Bor.-Amer. 32] (BKL, F, MO, NY, US, YU)

***Plectocolea hyalina* (Lyell) Mitten** (historic)

on soil over rocks in deciduous woods

Bergen: *C. Austin* [Hep. Bor.-Amer. 28] (BKL, F, MU, NY, PH, YU)

Warren: *C. Austin* s.n., s.d. (NY)

***Porella* (Porellaceae)**

***Porella pinnata* L.**

on rocks along streams

Bergen: *W. Wiegmann* s.n., 19 Jul 1915 (BKL)

Hunterdon: *J. Cantlon* 1010 (CHRB)

Morris: *E. Britton* s.n., 30 May 1882 (BKL)

Passaic: *J. Cowan* 100 (NY)

Somerset: *K. Barringer* 18129 (BKL)

Sussex: *K. Barringer* 20579 (BKL, DUKE, NY, VT)

Union: *E. Lawton* 240 (WTU)

Warren: *R. Schaeffer* 181 (NY, PH)

***Porella platyphylla* (L.) Pfeiff.**

on tree or occasionally rocks in moist woodlands

Atlantic: *B. Long* 2033 (NY, PH)

Burlington: *W. Stowell* 1 (NY)

Cape May: *B. Long* 2015 (PH)

Essex: *C. Haynes* s.n., 10 May 1902 (NY)

Gloucester: *E. Rau* s.n., Jun 1882 (NY)

Hudson: *E. Brainerd s.n.* (BKL)  
Hunterdon: *J. Cantlon 1011* (CHRB)  
Mercer: *J. Torrey s.n.*, 1831 (NY)  
Morris: *K. Barringer & J. Rosenbaum 28210* (CHRB, PH)  
Ocean: *R. Cowan & J. Wurdack 129* (NY)  
Passaic: *W. Manning 14* (MO)  
Salem: *B. Long 955* (PH)  
Sussex: *E. Lawton 2309* (WTU)  
Warren: *G. Tees 700* (PH)

***Porella platyphylloidea* (Schweinitz) Lindberg**

Bergen: *C. Haynes s.n.*, 29 Nov 1902 (FH, NY, SIU)  
Burlington: *D. Lee & R. Forman s.n.*, 10 Mar 1967 (OS)  
Camden: *W. Rissanen s.n.*, 25 May 1947 (BRIT)  
Hunterdon: *E. Moul 6789* (CHRB)  
Morris: *R. Schmidt 154* (CHRB)  
Ocean: *R. Cowan & J. Wurdack 129* (NY)  
Sussex: *H. Webster 170* (CHRB)  
Warren: *E. Matzke s.n.*, 10 Nov 1946 (NY)

***Preissia* (Marchantiaceae)**

***Preissia quadrata* (Scop.) Nees** (historic)

calciphile, on rocks near running water, ravines, dripping cliffs  
not designated: *C. Austin s.n.* [Hep. Bor.-Amer. 129] (BKL, NY)  
Middlesex: *A. Vail s.n.*, May 1891 (NY)  
Warren: *C. Jones s.n.*, 15 Oct 1965 (CHRB)

***Ptilidium* (Ptilidiaceae)**

***Ptilidium ciliare* (L.) Hampe** – ours are *P. pulcherrimum*

Thin soil over rock on dry hilltops and acidic wetlands

***Ptilidium pulcherrimum* (Weber) Hampe**

on fallen logs and rock outcrops near streams in uplands or lowland swamps  
Atlantic: *B. Long 1996* (PH)  
Bergen: *M. Howe s.n.*, 6 Oct 1898 (NY, TENN)  
Camden: *B. Long 1527* (PH)  
Cumberland: *B. Long 774* (PH)  
Essex: *D. Lee & R. Forman s.n.*, 14 Mar 1967 (OS)  
Hudson: *C. Austin s.n.*, s.d. (NY)  
Hunterdon: *J. Cantlon & Moul 1022* (CHRB)  
Middlesex: *K. Barringer 21784* (BKL)  
Morris: *K. Barringer & J. Rosenbaum 28280* (CHRB, PH)  
Middlesex: *K. Barringer 21784* (BKL)  
Ocean: *K. Barringer 22122* (BKL)  
Passaic: *K. Barringer 20657* (BKL)  
Sussex: *K. Barringer & J. Rosenbaum 28029* (CHRB, PH))

Warren: J. Churchill 7081625 (MSC)

***Radula* (Radulaceae)**

***Radula complanata* (L.) Dumortier**

on tree bark and rock outcrops

Bergen: C. Austin [Hep. Bor.-Amer. 86] (FH, MO, NY, YU)

Hunterdon: J. Cantlon 1008 (CHRB)

Morris: K. Barringer & J. Rosenbaum 28250 (CHRB, PH)

Warren: G. Jones s.n., 15 Oct 1965 (CHRB)

***Radula obconica* Sull.** (historic)

on rock outcrops or bark in deep shade

Bergen: C. Austin [Hep. Bor.-Amer. 88] (MO, NEB, NY)

Hunterdon: J. Cantlon 1008 (CHRB)

Sussex: N. Miller 10087 (NYS)

Union: J. Benedict s.n., 26 Feb 1892 (TENN)

***Reboulia* (Aytoniaceae)**

***Reboulia hemisphaerica* (L.) Raddi**

capsules: Mar -- Aug

on soil over rocks, humid sites, a calciphile, but not exclusively

Bergen: W. Wiegmann 5018 (NY)

Hudson: J. Torrey 3 (NY)

Hunterdon: B. Long 1078 (PH)

Sussex: C. Reed 133592 (MO)

Warren: R. Cowan & J. Wurdack 174 (NY)

***Riccardia* (Aneuraceae)**

***Riccardia chamedryfolia* (Withering) Grolle** (historic)

on dripping rocks near streams

Bergen: C. Austin s.n., 1873 (FH, MICH, PH)

Monmouth: C. Haynes 14 (FH, NY)

Passaic: E. Lawton 312 (WTU)

***Riccardia latifrons* (Lindberg) Lindberg**

on rotting wood

Burlington: D. Lee & R. Forman s.n. 10 Mar 1967 (OS)

Ocean: W. Taylor s.n., 26 May 1923 (PH)

***Riccardia multifida* (L.) Gray**

in N on soil or rocks in wet seeps and near falls, in S on trees in cedar swamps

Burlington: A. Evans s.n., 10 Aug 1892 (NY, YU)

Gloucester: K. Barringer 21204 (BKL)

Hudson: C. Austin s.n., 1861 (NY)

Ocean: K. Barringer 20911b (BKL)

Passaic: W. Rissanen 1158 (BRIT)

***Riccardia palmata* (Hedwig) Carruth.**

on wet, rotting wood, especially in streams, shaded gorges  
Bergen: *M. Howe s.n.*, 22 Sep 1898 (NY)  
Camden: *K. Barringer 20883b* (CHRB)  
Cumberland: *B. Long 882B* (PH)  
Sussex: *K. Barringer 21130* (BKL)

***Riccia* (Ricciaceae)**

*Riccia austinii* Stephani - see *R. lamellosa*

***Riccia beyrichiana* Hampe** (historic)

on soil in wet fields and ditches, usually in partial shade  
Bergen: *C. Austin [Hep. Bor.-Amer. 143]* (BKL, F, FH, MICH, NEB, NY, PH, WIS, YU)

***Riccia bifurca* Hoffm.**

on wet soil at edges of plowed fields or along streams  
Bergen: *C. Austin [Hep. Bor.-Amer. 141]* (F, MO, NY, PH, YU)  
Monmouth: *C. Haynes 1649* (NY, YU)  
Warren: *N. Holmgren 29* (UTC)

***Riccia cavernosa* Hoffm.** (in NJ?)

spores: Sep-Oct  
on wet or seasonally wet soil in distrubed sites  
no county designated: *C. Austin s.n.*, 1863 (MO, NY)

***Riccia fluitans* L.**

on still water of ditches and ponds or along their margins  
Bergen: *C. Curtis s.n.*, 22 Sep 1898 (NY)  
Burlington: *R. Sim s.n.*, 1934 (PH)  
Camden: *L. Underwood s.n.*, Oct 1855 (NY)  
Cape May: *B. Heritage s.n.*, 7 May 1857 (PH)  
Gloucester: *B. Long 2905* (PH)  
Hudson: *M. Howe s.n.*, 22 Sep 1898 (CHRB, F, MICH, NY)  
Morris: *K. Barringer 23529* (BKL)  
Ocean: *R. Cowan & J. Wurdack 136* (NY)  
Salem: *B. Long 1246* (PH, YU)  
Sussex: *K. Barringer 19930* (BKL)

***Riccia heubeneriana* Lindenb.**

on soil in grassy ditches or at the edges of ponds  
Atlantic: *A. Tuckerman s.n.*, 12 Oct 1970 (CHRB)  
Bergen: *R. Cowan & J. Wurdack 27* (NY)  
Camden: *T. James s.n.*, 1867 (NY)  
Monmouth: *C. Haynes [Amer. Hep. 116]* (BKL, FH, NY, SIU, TRN)

***Riccia hirta* (Austin) Underwood** (historic)

on wet soil in stubble fields or along the banks of streams  
Bergen: *C. Austin 669* (NY)

***Riccia lamellosa* Raddi** (historic)

on thin soil of exposed outcrops, often in full sun

Bergen: *C. Austin s.n.*, 1864 (FH, NY, YU)

***Riccia membranacea* Gottsche & Lindenb.** (historic)

on soil in periodically flooded sites

Bergen: *C. Austin* [Hep. Bor.-Amer. 150] (BKL, CHRB, FH, MO, NY, YU)

***Riccia sorocarpa* Bisch.**

on soil in ditches and periodically flooded fields

Bergen: *C. Austin* [Hep. Bor.-Amer. 139] (BKL, F, MICH, NEB, NY, WIS, YU)

Monmouth: *C. Haynes* 1493 (BUT, NY, YU)

*Riccia sullivantii* Austin - see *R. huebneriana*

*Riccia tenuis* Austin - see *R. membranacea*

***Ricciocarpus* (Ricciaceae)**

***Ricciocarpus natans* (L.) Corda**

floating on still water, swamps

Bergen: *W. Wiegmann* 1119 (BKL, NY)

Burlington: *W. Stowell* 3 (NY)

Mercer: *L. Underwood* s.n., Dec 1888 (CHRB)

Monmouth: *C. Haynes* 1628 (FH)

Morris: *E. Moul* 73-2 (CHRB, PH)

Passaic: *K. Barringer* 26869 (BKL)

Sussex: *G. Nearing* s.n., 27 Sep 1947 (NY)

Warren: *K. Barringer* 25987 (BKL)

***Scapania* (Scapaniaceae)**

***Scapania glaucocephala* (Taylor) Austin** (historic)

on rotting wood in shade, usually evergreen logs

Bergen[?]: *Austin s.n.*, s.d. (NY)

Warren: *T. Nash* 150337 (ASU)

***Scapania irrigua* (Nees) Nees** (historic)

Bogs, wet decaying logs and wet soil

Ocean: *C. Austin* s.n. [Hep. Bor.-Amer. 15c] (BKL, F, MICH, NY, WIS)

***Scapania mucronata* Buch.**

On rotting wood, rocks and soil

Fide FNA, no specimens seen

***Scapania nemorea* (L.) Grolle**

in seeps and moist roadbanks

Bergen: *C. Austin* s.n., 1862 (NY)

Camden: *B. Long* 1458 (YU)

Cape May: *B. Long* 870 (PH)

Cumberland: *B. Long* 1111 (PH)

Gloucester: *B. Long* 2060a (PH)

Hudson: *R. Williams* s.n., 7 Nov 1899 (NY)

Hunterdon: *K. Barringer* 20746 (BKL)

Mercer: *A. Evans* 31 (YU)  
Monmouth: *C. Haynes* 987 (BKL, FH, NY, SIU)  
Morris: *E. Britton* 1672 (CHRB)  
Passaic: *K. Barringer* 23126 (BKL, DUKE, NY, VT)  
Sussex: *N. Miller* 10076B (NYS)  
Warren: *J. Churchill* 7038232 (MSC)

***Scapania nemorosa* (L.) Dumortier** - see *S. nemorea*

***Scapania undulata* (L.) Dumortier**

on rocks along streams, always near fast running water  
Bergen: *J. Wurdack & R. Cowan* 19 (NY)  
Burlington: *E. Moul* s.n., 23 Jul 1950 (PH)  
Morris: *K. Barringer & J. Rosenbaum* 28234 (CHRB, PH)  
Sussex: *K. Barringer* 21037 (BKL)  
Warren: *G. Jones* s.n., 15 Oct 1965 (CHRB)

***Schistochilopsis* (Scapaniaceae)**

***Schistochilopsis capitata* (Hooker) Konst.** (historic)

moist, sandy barrens and old dune swales  
Atlantic: *A. Evans* s.n., Apr 1893 (NY)  
Burlington: *A. Evans* s.n., Aug 1892 (NY)

***Schistochilopsis laxa* (Lindb.) Konst.** (historic)

capsules in autumn  
peat bogs  
Bergen: *C. Austin* s.n. [*Hep. Bor.-Amer.* 46] (BKL, NY, NYS)

***Solenostoma* (Solenostomataceae)**

***Solenostoma gracillimum* (Smith) R. M. Schuster**

on moist soils and acid rocks in woods  
Bergen: *G. Nearing* s.n., 28 Nov 1946 (NY)  
Burlington: *E. Frank* s.n., 18 Aug 1984 (CHRB)  
Monmouth: *C. Haynes* 809 (BUT, IND, NY, NYS, MO, PH, SIU)

***Syzygiella* (Adelanthaceae)**

***Syzygiella autumnalis* (DeCandolle) K. Feldberg**

coastal plain swamps or black spruce swamps, on soil or rotting logs  
Bergen: *M. Howe* s.n., 22 Sep 1898 (NY, YU)  
Cumberland: *B. Long* 853 (PH)  
Essex: *C. Haynes* 321 (FLAS)  
Hunterdon: *J. Cantlon* 1036 (CHRB)  
Morris: *K. Holmen & M. Martin* s.n., 14 Jun 1967 (UBC)  
Sussex: *N. Miller* 10086 (NYS)  
Warren: *B. Allen* 1498 (MO)

***Telaranea*** (Lepidoziaceae)

*Telaranea longifolia* (M. Howe) J. Engel & G. Merrill - see *Telaranea nematooides*

***Telaranea nematooides* (Austin) M. Howe**

in swamps

Burlington: *W. Buck* 28290 (NY)

Gloucester: *K. Barringer* 21206 (BKL)

Monmouth: *C. Haynes* s.n., [Amer. Hep. 19] (BKL, DUKE, FH, NY, TRH)

Morris: *K. Barringer & J. Rosenbaum* 28047 (CHRB, PH)

***Trichocolea*** (Trichocoleaceae)

***Trichocolea tomentella* (Ehrh.) Dumortier**

limey to neutral soils along shaded streams, swamps

Bergen: *M. Howe* s.n., 6 Oct 1898 (F, LSU, NY)

Hudson: *C. Austin* s.n., s.d. (NY)

Middlesex: *N. Marshall* [Amer. Hep. 56] (BKL, FH, MIN, NY, OS, TRH, YU)

Monmouth: *C. Haynes* 9 (NY)

Passaic: *K. Barringer* 26949 (CHRB)

Sussex: *E. Moul* 7186 (CHRB, NY)

***Tritomaria*** (Lophoziaceae)

*Tritomaria capitata* (Hooker) Stotler & Crandall-Stotler – see *Schistochilopsis*

***Tritomaria exsecta* (Schrader) Loeske** (historic)

on rocks or tree bark in uplands

Bergen: *C. Austin* [Hep. Bor.-Amer. 46] (BKL, F, NY, WIS, UBC)

## References

I used the preliminary drafts of the liverwort treatments for the Flora North America extensively. These are currently posted on the Bryophyte Flora North America web site <https://www.mobot.org/plantscience/bfna/SUMMARY.htm>. The treatments used were:

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Atwood, J. (2017) Frullaniaceae.

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Bakalin, V. (2018) Porellaceae.

Bakalin, V. (2020) *Lophozia*, *Schistochilopsis*.

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Eckel, P. (2019) Trichocoleaceae.

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### **Changes:**

- 2.01: Aug 13, 2021, from Ryan Schmidt, added Morris County records for *Porella platyphylloidea* and *Plagiochila asplenoides*.
- 2.02: Aug 16, 2021, from Erik Kiviat, added *Frullania brittoniae*
- 2.03 Sep 7, 2021: added Barringer & Rosenbaum Morris County collections.
- 2.04 Sep 22, 2021: corrected distribution of *Phaeoceros*
- 2.05 Nov 10 2021: corrected *Aneura pinguis* entry, added Morris County collection.
- 2.06 Dec 31 2021: typos corrected, added references.
- 2.07 Feb 19 2021: typos corrected, added records from Morris, Warren & Passaic Cos.
- 2.08 Mar 15 2021: added records from Morris and Passaic Counties.
- 2.09 Mar 22 2022: names brought into line with Söderstrom, et al, 2016
- 2.1 Apr 25 2022: added *Barbilophozia* based on Austin & Britton collections, *Scapania irrigua* & *S. mucronata* from FNA, *Schistochilopsis* from FNA, and references for above.
- 2.11 Jan 17 2023: updated *Phaeoceros*
- 2.12 Feb 2024: Lophoziaeae moved to Scapaniaceae, *Calypogeia* updated, *Asperifolia* added fide FNA, removed references to rarity, corrected additional typos and formatting
- 2.13 Jan 2025: typos corrected, Erik Kiviat's collections to CHRB