

## Vermont Bryophyte List Changes

2024-02-05     **Species added to list:** *Lindbergia brachyptera*, *Rhytidiadelphus subpinnatus*. **Species removed from list:** *Rosulabryum pseudocapillare*, *Tortella inclinata* s.l. **Species synonymized:** *Sphagnum viride* with *Sphagnum cuspidatum*. **Rank changes:** *Bucklandiella venusta* from SU to S2; *Drepanocladus polygamus* from S1S3 to S2S3; *Fontinalis sphagnifolia* from S1 to S2; *Grimmia trichophylla* from S1 to SH; *Physcomitrium serratum* from S1S3 to S2S3; *Platyhypnum duriusculum* from S1 to S2; *Scorpidium revolvens* from S1S3 to S2S3; *Splachnum ampullaceum* from S2 to S3; *Thuidium delicatulum* var. *radicans* from S5 to SU; *Calypogeia neogaea* from S4 to S5; *Clevea hyalina* from S1 to SH; *Frullania bolanderi* from S3 to S2; *Frullania brittoniae* from S2 to S1; *Frullania riparia* from S3 to S2; *Gymnocola inflata* from S1 to S2; *Gymnomitrium concinnatum* from S1 to SH; *Marsupella emarginata* from S5 to S3. **Names updated:** *Elodium blandowii* becomes *Helodium blandovii*; *Elodium elodioides* becomes *Helodium elodioides*; *Orthotrichum obtusifolium* becomes *Nyholmiella obtusifolia*; *Tortella inclinata* var. *densa* becomes *Tortella densa*.

2024-01-11     **Species added to list:** *Plagiothecium latebricola* Schimp., *Tetradontium brownianum* (Dicks.) Schwägr. **Names updated:** *Dicranum montanum* becomes *Orthodicranum montanum*; *Philonotis fontana* var. *caespitosa* becomes *Philonotis caespitosa*; *Philonotis fontana* var. *pumila* becomes *Philonotis tomentella*; *Philonotis muehlenbergii* elevated to a distinct species from *P. marchica*, as *P. muhlenbergii*; *Phaeoceros laevis* becomes *Phaeoceros carolinianus*. **Name replacements:** *Metzgeria setigera* is removed from synonymy with *Metzgeria furcata* var. *ulvula* and removed from list; *Metzgeria furcata* var. *ulvula* is added, following Bakalin, Bryophyte Flora of North America Provisional Publication, 2019; see also notes in Natureserve Explorer for *M. setigera*. **Rank changes:** *Grimmia olneyi* from SH to S1; *Grimmia pilifera* from S1 to S2; *Hyophila involuta* from S1 to S2; *Lewinskya elegans* from SH to S1; *Thelia asprella* from S1 to S2. *Metzgeria furcata* var. *ulvula* from S4T4 to S5. *Notothylas orbicularis* from S1 to S2.

2023-04-06     **Names updated:** *Anomodon tristis* becomes *Haplohypnum triste*; *Arrhenopterum heterostichum* becomes *Aulacomnium heterostichum*; *Brachythecium curtum* becomes *Sciuro-hypnum curtum*; *Brachythecium plumosum* becomes *Sciuro-hypnum plumosum*; *Brachythecium populeum* becomes *Sciuro-hypnum populeum*; *Brachythecium reflexum* var. *reflexum* becomes *Sciuro-hypnum reflexum*; *Brachythecium velutinum* becomes *Brachytheciastrum velutinum*; *Bryhnia graminicolor* becomes *Koponeniella graminicolor*; *Bryhnia novae-angliae* becomes *Brachythecium novae-angliae*; *Dicranella rufescens* becomes *Ruficaulis rufescens*; *Dicranella schreberiana* becomes *Aongstroemia canadensis*; *Dicranella subulata* becomes *Dicranellopsis subulata*; *Dicranella varia* becomes *Calcidicranella varia*.

2023-03-29     **Species added to list:** *Pseudohygrohypnum appalachianum*. **Species removed from list:** *Hygrohypnum eugyrium*. **Names updated:** *Hygrohypnum duriusculum* becomes *Platyhypnum duriusculum*; *Hygrohypnum montanum* becomes *Campylophyllum montanum*; *Hygrohypnum subeugyrium* becomes *Pseudohygrohypnum subeugyrium*; *Hypnum fauriei* becomes *Pseudohygrohypnum fauriei*; *Bryum mildeanum* becomes *Imbribryum mildeanum*.

2023-03-26     **Rank changes:** *Lewinskya elegans* from SH to S1, *Plagiothecium succulentum* from SH to SU, *Calypogeia suecica* from S2 to SH, *Moerckia hibernica* from S4 to S3, *Riccia bifurca* from SH to S1, *Riccia fluitans* from S3 to S4, *Riccia huebeneriana* ssp. *sullivantii* from S1 to S2. **Species added to list:** *Ctenidium subrectifolium* (S1, see Evansia 21:38-39, 2004), *Plagiothecium nemorale* (SU, see Wolski,

Brittonia, 2020), *Schistidium boreale* (S1), *Schistidium dupretii* (SH), *Syntrichia papillosa* (S1), *Tetradontium ovatum* (S1), *Moerckia flotoviana* (S2, but see Faubert Vol. 1 p. 63). **Names updated:** *Cynodontium alpestre* becomes *Cnestrum alpestre*; *Hygrohypnum ochraceum* becomes *Hygrohypnella ochracea*; *Neckera complanata* becomes *Alleniella complanata*; *Orthotrichum elegans* becomes *Lewinskya elegans*; *Schistidium apocarpum* ssp. *canadense* becomes *Schistidium canadense*; *Trichostomum tenuirostre* var. *tenuirostre* becomes *Chionoloma tenuirostre*; *Liochlaena leiantha* becomes *Liochlaena lanceolata*. **Species removed from list:** *Ctenidium molluscum*.

2022-03-30 **Rank change:** *Andreaea rothii* from S1 to S2. **Species added to list:** mosses *Andreaea crassinervia* (S1), *Anomobryum concinnatum* (S1), *Ptychostomum cernuum* (SH), *Rosulabryum pseudocapillare* (S1), and liverworts *Calypogeia azurea* (SH) and *Mesoptychia collaris* (S1). **Names updated:** *Anomodon rugellii* becomes *Anomodontopsis rugellii*, *Barbula convoluta* var. *convoluta* becomes *Streblotrichum convolutum*, *Barbula indica* var. *indica* becomes *Hydrogonium orientale*, *Brachythecium starkei* becomes *Sciuro-hypnum starkei*, *Brachythecium velutinum* becomes *Brachytheciastrum velutinum*, *Didymodon fallax* becomes *Geheebia fallax*, *Didymodon ferrugineus* becomes *Geheebia ferruginea*, *Didymodon tophaceus* becomes *Geheebia tophacea*, *Eurhynchium pulchellum* var. *pulchellum* becomes *Eurhynchiastrum pulchellum*, *Pseudocalliergon trifarium* becomes *Drepanocladus trifarius*, *Ptychostomum pendulum* becomes *Ptychostomum compactum*, *Rosulabryum laevifilum* becomes *Rosulabryum moravicum*, *Serpoleskea subtilis* becomes *Pseudoamblystegium subtile*. Removed *Kurzia setacea* and *Microlepidozia setacea* as synonyms of *Kurzia pauciflora* (See Soderstrom et al. 2016). Added a few synonyms and made one minor typographic correction.

2022-01-03 Changed the following ranks based upon new data: *Calliergonella curvifolia* from S4 to S5; *Orthotrichum lescurii* from SH to S1. Corrected a few typos.

2021-11-10 Changed the following ranks based upon new data: *Dicranella varia* from S3 to S2S3; *Hygrohypnum luridum* from S2 to S2S3; *Orthotrichum strangulatum* from S1 to S2; *Apopellia endiviifolia* from SH to S2; *Fuscolepidoziopsis pleniceps* from S3 to S2; *Lophocolea minor* from S1 to S2. Added *Gemmabryum klinggraeffii* as a new species, S1. Corrected a few typos.

2021-09-04 Several changes to *Hypnum* or former *Hypnum* species, based upon Schlesak, Hedenäs, Nebel and Quandt 2018: *Hypnum cupressiforme* var. *resupinatum* becomes *H. resupinatum*; *Hypnum imponens* becomes *Callicladium imponens*; *Hypnum pallescens* becomes *Jochenia pallescens*; *Hypnum plicatulum* becomes *Aquilonium plicatulum*; *Hypnum pratense* becomes *Stereodon pratensis*; *Hypnum recurvatum* becomes *Drepanium fastigiatum*.

2021-04-18 Hornworts: added *Anthoceros macounii*. Retained *A. agrestis* as a stand-in for whatever we have in NE NA. Replaced *Phaeoceros laevis* with *carolinianus*.

2021-02-10 Added *Bryum mildeanum* (Jur.) J.R. Spence based upon specimen from Winooski River outcrops collected in 2006-7 and det. by me and Spence at the Bryaceae workshop in Eagle Hill, 2011.

Changed rank of *Encalypta procera* from S4 to S5 based upon new data.

Removed *Hygrohypnum molle* from list based upon statement in Allen that it is strictly a western species.

October 11, 2020 changes: Rank changes for *Philonotis marchica*, *Jungermannia pumila*, *Dicranum bonjeanii*, *Ptychostomum pseudotriquetrum*, *Marsupella emarginata* ssp. *emarginata*. *Hypnum curvifolium* becomes *Calliergonella curvifolia*. *Anomodon attenuatus* becomes *Pseudanomodon attenuatus*. *Anomodon rostratus* becomes *Claopodium rostratum*. *Hygroamblystegium fluviatile* and *tenax* are synonymized with *Hygroamblystegium varium* var. *varium*. *Bryum blindii*, *Schistidium crassithecium* and *Orthotrichum strangulatum* are added.

June 19, 2020 changes: *Hygrohypnum molle* added. *Hypnum cupressiforme* var. *resupinatum* added. *Hypnum lindbergii* becomes *Calliergonella lindbergii*. *Platydictya confervoides* becomes *Serpoleskea confervoides*. *Platydictya subtilis* becomes *Serpoleskea subtilis*. Minor changes to spellings for authors.

April 22, 2020 changes: Updated the global ranks for liverworts and hornworts so that they match those provided by NatureServe. Name changes for several liverworts, following accepted names in Stotler and Crandall-Stotler 2017: *Bazzania tricrenata* becomes *Bazzania tricrenata* var. *tricrenata*; *Calypogeia muelleriana* subsp. *muelleriana* becomes *Calypogeia muelleriana*, *Jungermannia leiantha* becomes *Leiochlaena leiantha*; *Lophocolea cuspidata* becomes *Lophocolea coadunata*; *Lophozia guttulata* is included in *Lophozia ventricosa* var. *longiflora*; rank change for *Lophozia ventricosa* var. *longiflora*; *Jubula hutchinsiae* subsp. *pennsylvanica* becomes *Jubula pennsylvanica* subsp. *pennsylvanica*; *Marchantia polymorpha* subsp. *ruderalis* is added to the list; *Preissia quadrata* becomes *Marchantia quadrata*; *Preissia quadrata* subsp. *hyperborea* is synonymized with *Marchantia quadrata*; the variety *epiphylla* is added to *Pellia epiphylla*; *Pellia endiviifolia* becomes *Apopellia endiviifolia*; *Pellia megaspora* becomes *Apopellia megaspora*; *Trilophozia quinquentata* becomes *Tritomaria quinquentata*; the rank of *Mannia fragrans* is updated to S1.

February 6, 2020 changes: Rank changes for *Sphagnum affine*, *Sphagnum contortum*, *Sphagnum flexuosum*, *Sphagnum lescurii*, *Sphagnum quinquefarium*, *Sphagnum subfulvum*, *Sphagnum subsecundum*, *Sphagnum tenellum*, and *Sphagnum torreyanum*. *Sphagnum divinum* and *Sphagnum medium* are added to the list, replacing *Sphagnum magellanicum*. *Sphagnum subtile*, *brevifolium*, *inundatum*, *henryense*, *andersonianum*, *bartlettianum*, and *atlanticum* are placed into synonymy with other species.

October 31, 2018 changes: *Campylostelium saxicola* added to the list. State rank change for *Jungermannia hyalina*.

June 11, 2018 changes: State rank changes for *Bucklandiella sudetica*, *Grimmia donniana*, and *Splachnum pensylvanicum* (all SH-->S1). Addition of *Pseudoleskeella tectorum*, *Barbilophozia lycopodioides*, *Cephalozia ambigua*, *Cephaloziella elegans*, and *Cephaloziella rubella* var. *bifida*; *Cephaloziella arctica* removed. A few liverwort names were updated. *Splachnum pensylvanicum* corrected to *Splachnum pensylvanicum*.

February 12, 2018 changes: *Lophozia silvicola*, *Lophozia ventricosa* var. *longiflora*, and *Lophozia ventricosa* var. *ventricosa* added; *Lophozia ventricosa* and *Tortella tortuosa* var. *fragilifolia* removed.

February 4, 2018 changes: State rank changes for *Tortella tortuosa* var. *fragilifolia* and *Porella pinnata*.

December 16, 2017 changes: *Tortella tortuosa* var. *fragilifolia* added back to the list (note that it was removed back in 2010); state rank changes for *Abietinella abietina*, *Amphidium mougeotii*, *Dicranella schreberiana*, *Lewinskya sordida*, and *Orthotrichum stellatum*.

November 7, 2017 changes: Rank changes for *Trematodon longicollis* and *Pohlia lescuriana*.

February 5, 2017 changes: Rank changes for *Lewinskya sordida*, *Fissidens bryoides* and *Dicranum spurium*.

December 31, 2016 changes: Rank changes for *Anacamptodon splachnoides* and *Andreaea rothii*. Three species of *Orthotrichum* moved to *Lewinskya*. *Brachythecium calcareum* synonymized with *B. campestre*.

November 22, 2016 changes: Two new taxa, *Ephemerum crassinervium* ssp. *crassinervium* and *Physcomitrium collenchymatum* added. Rank for *Lophozia wenzelii* changed from SH to S1. *Ulota crispa* removed; *Ulota crispula* added.

October 13, 2016 changes: Two new taxa, *Scapania carinthiaca* and *Tetraplodon angustatus* added. Rank change for *Tetraplodon mnioides*. *Riccia cavernosa* (the currently accepted name) replaces *R. crystallina*, and the rank is updated.

Nov. 14, 2015 changes: State rank changes for numerous species. Hornworts separated from liverworts and included at the end of the list. Two new taxa, *Brachythecium falcatum* and *Zygodon conoideus* added.

April 3, 2011 changes: Taxon removed from list: *Archidium alternifolium* (Hedw.) Schimp. (it was represented by a single mis-identified specimen). State rank changes for *Acaulon muticum* var. *rufescens*, *Atrichum crispulum*, *Barbula convoluta* var. *convoluta*, *Didymodon fallax*, and *Homomallium adnatum*. Global ranks reviewed and adjusted to match those in NatureServe Explorer. State ranks corrected to eliminate T-ranks and Q-ranks. Three typographical errors in species names corrected.

January 12, 2011 changes: Taxon removed from list: *Atrichum undulatum* (James) Sull. Taxon added to list: *Pohlia sphagnicola*. State rank changes for *Bryoandersonia illecebra*, *Helodium paludosum*, *Limprichtia cossonii*, *Sphagnum isoviitae*, *Calypogeia sphagnicola*, *Cephalozia elachista*, *Cladopodiella fluitans*, *Riccardia palmata*, and *Scapania paludicola*.

November 5, 2010 changes: Taxa removed from list: *Tortella tortuosa* var. *fragilifolia*, *Tortella tortuosa* var. *tortuosa*. Taxa added to list: *Tortella bambergeri*, *Drepanocladus longifolius*. State rank changes for *Hypnum cupressiforme* var. *filiforme*, *H. cupressiforme* s.l., *H. cupressiforme* var. *cupressiforme*, *H. cupressiforme* var. *resupinatum*, *Brachythecium populeum*, *Mnium spinulosum*, *Fissidens taxifolius*, *Taxiphyllum deplanatum*, *Codriophorus acicularis*, *Schistidium*

liliputanum, *Ditrichum pallidum*, *Pohlia elongata* var. *elongata*, *Lophozia ventricosa* s.l., *Lophozia ventricosa* var. *silvicola*, *Lophozia ventricosa* var. *longiflora*.

April 17, 2009 changes: Taxon removed from list: *Dicranum gemmilucens*. *Atrichum oerstedianum* removed from synonymy with *A. crispulum*. State rank changes for *Hypnum cupressiforme* var. *resupinatum*, *H. fauriei*, *H. plicatulum*, *Acaulon muticum* var. *rufescens*, *Blepharostoma trichophyllum* ssp. *trichophyllum*, and two varieties of *Scapania undulata*. Numerous global ranks changed or added to conform with those provided by NatureServe.

February 16, 2009 changes: State rank changes for *Brachythecium acuminatum*, *Grimmia trichophylla*, *Hypnum cupressiforme* var. *resupinatum*, *Orthotrichum speciosum* var. *elegans*, *Polytrichum commune* var. *perigoniale*, *Schistidium lancifolium*, *Cephalozia leucantha*, *Jungermannia pumila*, *Odontoschisma prostratum*, and *Porella pinnata*.

January 17, 2009 changes: Taxa added to the list: *Drepanocladus longifolius*, *Grimmia muehlenbeckii*, *Pohlia andalusica*, *Schistidium papillosum*, *Sphagnum angermanicum*, *Sphagnum pulchrum*, and *Sphagnum tenellum*. State rank changes for *Brachythecium campestre*, *Grimmia hartmanii*, *Homomallium adnatum*, *Pohlia annotina*, *Sphagnum fallax*, *Aneura pinguis*, *Calypogeia integristipula*, *Chiloscyphus polyanthos* s.l. and its varieties, *Frullania brittoniae*, *Harpanthus scutatus*, *Jungermannia gracillima*, *Moerckia hibernica*, *Odontoschisma denudatum* var. *denudatum*, *Pellia neesiana*, *Plagiochila austinii*, and *Scapania paludicola* var. *paludicola*. One minor typographical correction.

November 15, 2008 changes: Taxon removed from the list: *Frullania squarrosa*. State rank changes for *Amphidium lapponicum* and *Fissidens bushii*.

May 21 2008 changes: Taxa added to the list: *Amblystegium serpens* var. *serpens*, *Hypnum plicatulum*, and *Tortella inclinata* var. *inclinata* (D. Lucas collection confirmed by P. Eckel).

May 5 2008 changes: Taxon removed from list: *Tortella inclinata* var. *inclinata*. Taxa added to list: *Acaulon muticum* var. *rufescens*, *Sphagnum lindbergii*. State rank changes for *Barbula unguiculata*, *Lindbergia brachyptera*, *Fissidens taxifolius*, and *Dichelyma pallescens*.

March 3 2008 changes: state rank changes for *Dicranum viride*, *Oncophorus wahlenbergii*, *Warnstorfia exannulata*, *Frullania brittoniae*, *Geocalyx graveolens*, *Lejeunea cavifolia*, *Pallavicinia lyellii*.

Feb. 29, 2008 changes: state rank changes for *Abietinella abietina*, *Atrichum angustatum*, *Barbula unguiculata*, *Bryum flaccidum*, *Bryum pallescens*, *Distichium capillaceum*, *Fissidens osmundioides*, *Gymnostomum aeruginosum*, *Helodium paludosum*, *Hylocomiastrum umbratum*, *Leskea polycarpa*, *Sphagnum wulfianum*, and *Jubula pennsylvanica*. One minor typographical correction.