

Vermont Bryophyte List Changes

Name updates are based upon accepted names in the Bryophyte Nomenclator (bryonames.org). State conservation ranks are loosely based on NatureServe ranking criteria.

2026-05-07 **Taxa added to list:** *Blindiadelphus campylopodus*, *Buxbaumia viridis*, *Fissidens exiguus*, *Fissidens viridulus*, *Hypnum andoi*, *Isopterygiopsis catagonioides*, *Isopterygium tenerum*, *Jochenia protuberans*, *Microbryum floerkeanum*, *Neckera oligocarpa*, *Pseudotaxiphyllum subfalcatum*, *Schistidium trichodon*, *Tayloria tenuis*, *Riccia canaliculata*, *Scapania subalpina*. **Taxa removed from list:** *Anomobryum julaceum*, *Longiella distichacea* (according to Liu et al. 2015 this taxon does not occur in North America; we have *Pseudotaxiphyllum subfalcatum* instead), *Polytrichum commune* var. *commune*, *Tayloria serrata* **State rank changes:** *Aquilonium plicatulum*, S1S3 to S1; *Codriophorus aduncooides*, S1 to S2; *Conardia compacta*, S1 to SH; *Dichelymna capillaceum*, S1 to S2; *Dichelyma falcatum*, S1 to SH; *Forsstroemia trichomitria*, S1 to S2; *Isopterygiopsis muelleriana*, S2S3 to SU; *Brachythecium acutum*, S1 to S2; *Plagiomnium drummondii*, S2 to SH; *Pseudocampylium radicale*, S2 to SH; *Cephaloziella elegans*, S1 to SH; *Cephaloziella massalongoi*, S1 to SH; *Cephaloziella varians*, S1 to SH; *Endogemma caespiticia*, S1 to SH; *Lophozia ascendens*, S2 to S1; *Mesoptychia heterocolpos*, S1 to SH; *Nardia scalaris* var. *scalaris*, S1 to SH; *Scapania lingulata* var. *lingulata*, S1 to SH; *Solenostoma sphaerocarpum*, S1 to SH; *Sphenolobus saxicola*, S1 to SH. **Names updated:** *Brachythecium rotaeantum* becomes *Brachythecium capillaceum*, *Didymodon rigidulus* var. *rigidulus* becomes *Didymodon rigidulus*, *Ditrichum pallidum* becomes *Pleuridium pallidum*, *Ditrichum rhynchostegium* becomes *Pleuridium rhynchostegium*, *Eurhynchiastrum pulchellum* becomes *Eurhynchiastrum pulchellum* var. *pulchellum*, *Fontinalis hypnoides* becomes *Fontinalis hypnoides* var. *duriaei*, *Gemmabryum caespitium* becomes *Ptychostomum imbricatulum*, *Imbribryum gemmiparum* becomes *Bryum gemmiparum*, *Kiaeria starkei* becomes *Arctoa starkei*, *Neckera pennata* becomes *Neckera pennata* var. *pennata*, *Philonotis fontana* becomes *Philonotis fontana* var. *fontana*, *Polytrichastrum longisetum* becomes *Polytrichum longisetum*, *Polytrichum commune* var. *perigoniale* becomes *Polytrichum perigoniale*, *Pseudocalliergon turgescens* becomes *Drepanocladus turgescens*, *Rhizomnium punctatum* becomes *Rhizomnium chlorophyllosum*, *Sphagnum fimbriatum* becomes *Sphagnum fimbriatum* subsp. *fimbriatum*, *Metzgeria furcata* var. *ulvula* becomes *Metzgeria furcata*, *Nardia scalaris* subsp. *scalaris* becomes *Nardia scalaris* var. *scalaris*, *Radula tenax* becomes *Cladoradula tenax*, *Schistochilopsis grandiretis* becomes *Protochilopsis grandiretis*, *Tritomaria quinquedentata* var. *quinquedentata* becomes *Trilophozia quinquedentata*. **Taxa synonymized:** *Climacium kindbergii* with *Climacium americanum*

2026-02-14 **Taxon added to the list:** *Riccia sorocarpa*. **Taxon removed from list:** *Tortella bambergeri* (this is a European species as currently circumscribed; see Köckinger and Hedenäs, 2017 and 2023). **Names updated:** *Acaulon muticum* var. *rufescens* becomes *Acaulon rufescens*; *Haplohymenium triste* becomes *Anomodon tristis*; *Anomodontopsis rugelii* becomes *Anomodon rugelii*; *Campyliadelphus chrysophyllus* becomes *Campylium chrysophyllum*; *Isopterygiopsis pulchella* becomes *Isopterygiella pulchella*; *Polytrichastrum ohioense* becomes *Polytrichum ohioense*; *Polytrichastrum pallidisetum* becomes *Polytrichum pallidisetum*; *Straminergon stramineum* becomes *Warnstorfia straminea*; *Thamnobryum alleghaniense* becomes *Thamnobryum subserratum*; *Thuidium delicatulum* var. *delicatulum* becomes *Thuidium delicatulum*; *Thuidium delicatulum* var. *radicans* becomes *Thuidium assimile*; *Timmia megapolitana* subsp. *megapolitana* becomes *Timmia megapolitana*; *Torrentaria riparioides* becomes *Rhynchostegium riparioides*; *Tortella tortuosa* var. *fragilifolia* becomes *Tortella nitida* var. *fragilifolia*; *Tortella tortuosa* var. *tortuosa* becomes *Tortella tortuosa*. **State rank changes:**

Acaulon rufescens, SH to S1; *Alleniella complanata* S1 to SH; *Pohlia bulbifera* S1 to S2; *Scorpidium cossonii* S2 to S3; *Apopellia endiviifolia* S2 to SU. **Global rank changes:** *Dicranum fuscescens* var. *fuscescens*, TNR to G5T5; several changes made to bring ranks in line with new nomenclature, mainly by removing T ranks. Several taxa that were out of alphabetic order were put where they should be, plus other minor editorial changes were made.

2025-09-30 **Taxon added to list:** *Hedwigia filiformis*. **Taxon removed from list:** *Lophocolea coadunata* (due to taxonomic confusion with *L. bidentata*), *Sphagnum mcqueenii* (type specimen determined to be *S. torreyanum*). **Names updated:** *Polytrichastrum formosum* var. *densifolium* becomes *Polytrichum densifolium*; *Pseudotaxiphyllum distichaceum* becomes *Longiella distichacea*; *Sarmentyphum exannulatum* returns to *Warnstorfia exannulata*. **State rank changes:** *Anomodontopsis rugelii*, S4 to S5; *Sphagnum majus*, S2S4 to S2; *Sphagnum papillosum*, S5 to S3; *Sphagnum tenellum*, SH to S1; *Sphagnum wulfianum* S4 to S3; *Lophocolea bidentata* SH to S1. **Global rank changes:** *Drepanocladus polycarpus* GNR to G5T5; *Hygroamblystegium humile* G5 to G5T5; *Timmia comata* GNR to G5TNR.

2025-04-01 **Taxa added to list:** *Seligeria pusilla*; *Marchantia quadrata* ssp. *hyperborea* removed from synonymy with *Marchantia quadrata*, following bryonames.org. **Names updated:** *Tortella inclinata* var. *inclinata* becomes *Tortella inclinata*, with corresponding rank change. *Jubula hutchinsiae* ssp. *pennsylvanica* is the correct name for *Jubula pennsylvanica* subsp. *pennsylvanica*, following bryonames.org (the names are switched from the previous version of the VT bryophyte list; *Jubula pennsylvanica* subsp. *pennsylvanica* is a synonym). **Global rank changes:** *Hygroamblystegium tenax*, GNR to G5. *Meesia uliginosa*, G4 to G5. *Polytrichum strictum*, G4 to G5. **State rank changes:** *Andreaea rothii*, S2 to S3; *Blindia acuta*, S2S3 to S3; *Cyrtomnium hymenophylloides*, S1 to S2; *Aongstroemia canadensis*, S2 to S3; *Drepanocladus polycarpus*, SH to S1; *Grimmia muehlenbeckii*, S1 to S2; *Hyophila involuta*, S2 to S3; *Niphotrichum canescens* ssp. *canescens*, S2 to S3; *Schistidium agassizii*, SU to S3; *Schistidium liliputanum*, S2 to S3; *Schistostega pennata*, S2 to S3; *Seligeria calcarea*, SH to S1; *Tetradontium brownianum*, S1 to S2; *Bucklandiella microcarpos*, S1 to S2; *Metzgeria crassipilis*, S1 to S2; *Sciuro-hypnum starkei*, SU to S1.

2025-01-05 **Taxa added to list:** *Timmia comata*, *Seligeria donniana*, *Hypnum cupressiforme* var. *julaceum*, *Lophozia guttulata*, *Schistidium apocarpum* s.s., *Gymnocolea inflata* var. *inflata*, *Gymnocolea inflata* subsp. *acutiloba*. **Taxa removed from list:** *Rosulabryum pseudocapillare* (this is a southeastern US species; the single collection from VT is probably *moravicum*). *Rhytidiadelphus squarrosus* (following treatment by Rohrer in FNA vol. 28). *Pohlia lescuriana* (specimen was mis-identified). *Schistidium apocarpum* s.l. *Gymnocolea inflata* (two infraspecific taxa now recognized). **Names updated:** *Sanionia uncinata* var. *uncinata* is treated as a species, *Sanionia uncinata*. *Hygroamblystegium varium* var. *varium* is treated as a species, *Hygroamblystegium varium*. *Hygroamblystegium varium* var. *humile* is treated as a species, *Hygroamblystegium humile*. *Jungermannia exsertifolia* ssp. *cordifolia* becomes *Jungermannia eucordifolia*. *Lophozia ventricosa* var. *longiflora* becomes *Lophozia longiflora* (and rank changes to S1 from S3). *Oncophorus wahlenbergii* becomes *Brideliella wahlenbergii*. *Leskeella nervosa* becomes *Pseudoleskeella nervosa*. **Taxa synonymized:** *Philonotis muhlenbergii* with *Philonotis marchica*. *Sphagnum isoviitae* with *Sphagnum fallax* (following Buck and Goffinet 2024). *Cephaloziella rubella* var. *bifida* with *Cephaloziella rubella*. **Taxa removed from synonymy:** *Hygroamblystegium fluviatile* is now treated as a species separate from *Hygroamblystegium varium* var. *varium*. *Hygroamblystegium tenax* is now treated as a species separate from *Hygroamblystegium varium* var. *varium*. **State Rank changes:**

Calcidicranella varia from S3 to S2S3; *Porella pinnata* from S1 to S2; *Chiloscyphus polyanthos* var. *polyanthos* from SU to S1; *Chiloscyphus polyanthos* var. *rivularis* from SU to SH; *Rhytidiadelphus subpinnatus* from SU to S5; *Chiloscyphus pallescens* var. *pallescens* from S1 to S2; *Brachythecium acuminatum* from SH? To SU; *Mnium thomsonii* from S1 to S2. *Schistidium canadense* from S5 to SU, *Schistidium dupretii* from SH to S1. **Global rank changes:** all global conservation ranks were checked against those in NatureServe, and about a quarter of these were revised. Thanks to Everett Marshall of the Vermont Natural Heritage Inventory for helping with this.

2024-04-30 **Species added to list:** *Dicranum condensatum*, *Diplophyllum obtusatum*, *Drepanocladus polycarpos*, *Frullania austinii*, *Pylaisia selwynii* (see Ignatova et al 2020). **Species removed from list:** *Frullania bolanderi*, *Pylaisia condensata* (Ignatova et al 2020). **Names updated:** *Neckera besseri* becomes *Alleniella besseri*, *Campylophyllum hispidulum* becomes *Campylophyllopsis hispidula*, *Campylophyllum sommerfeltii* becomes *Campylophyllopsis sommerfeltii*, *Codriophorus fascicularis* becomes *Dilutineuron fasciculare*, *Cyrto-hypnum minutulum* becomes *Pelekium minutulum*, *Cyrto-hypnum pygmaeum* becomes *Pelekium pygmaeum*, *Dicranoweisia crispula* becomes *Hymenoloma crispulum*, *Dicranum flagellare* becomes *Orthodicranum flagellare* again, *Dicranum fulvum* becomes *Orthodicranum fulvum*, *Ditrichum flexicaule* becomes *Flexitrichum flexicaule*, *Eurhynchium hians* becomes *Oxyrrhynchium hians*, *Leucodon andrewsianus* becomes *Leucodon sciuroides*. **Rank changes:** *Anomodontopsis rugelii* from S4 to S5; global rank for *Schistidium agassizii* changed from G3G5 to G5. *Pseudotaxiphyllum elegans* from S2S4 to S3.

Notes: 1. See key and notes in Allen for distinctions between *Drepanocladus aduncus* and *polycarpos*. Specimens identified as *aduncus* should be checked.

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; *Gymnocolea 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 Naturereserve 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 *Haplohymenium 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 quinquedentata* becomes *Tritomaria quinquedentata*; 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 pennsylvanicum* (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 pennsylvanicum* corrected to *Splachnum pennsylvanicum*.

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.