



Rare and Uncommon Bryophytes of Vermont
Vermont Fish & Wildlife Department
Nongame and Natural Heritage Program
28 August 2009



This list of rare and uncommon bryophytes (mosses, liverworts and hornworts) is produced by the Vermont Nongame and Natural Heritage Program (NNHP). NNHP is housed in the Vermont Fish and Wildlife Department of the Vermont Agency of Natural Resources. NNHP is the state's official repository for records of rare, threatened, and endangered species. Information in the NNHP database is the result of work of botanists, natural resource professionals and interested amateurs. This list represents early efforts to assess the status of nonvascular plants in Vermont and is primarily the result of the contributions of Dr. Dorothy Allard. Additional species may be added to the list or species removed as further information is obtained on their presence in Vermont and state ranks will continue to be assessed accordingly. This list can be expected to change more often than that of vascular plants until the distribution and abundance of bryophytes in Vermont is better understood through additional inventory. A list of all Vermont bryophytes, including common species, can be found at <http://dorothy.allard.googlepages.com/vtbryolist>.

The state and global ranks are informational categories regarding the rarity and extirpation/extinction risk of the species. A brief explanation of legal status and informational ranks is attached to the end of this list. Global ranks are developed and reviewed by NatureServe and its international network of natural heritage data centers. Synonyms are only listed when the species is Threatened or Endangered.

If you locate a taxon found on this list, NNHP would appreciate receiving information on it. A rare plant report form is available to summarize information on a rare plant occurrence. Contact NNHP for a form or visit the website at http://www.vtfishandwildlife.com/wildlife_nongame.cfm. Please obtain landowner permission before accessing private property.

For further information, or with suggestions or comments about this list please contact:

Robert Popp, NNHP Botanist (802) 476-0127; Bob.Popp@state.vt.us
Nongame and Natural Heritage Program, Vermont Fish & Wildlife Department,
5 Perry Street Suite 40, Barre, VT 05641-4266

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Acaulon muticum</i> var. <i>rufescens</i>	S1	G4G5T4		
<i>Amphidium lapponicum</i>	S2	G5		
<i>Amphidium mougeotii</i>	S1	G5		
<i>Anacamptodon splachnoides</i>	S2	G3G5		
<i>Andreaea rothii</i>	S2	G5		
<i>Anomobryum filiforme</i>	S1	G4G5		
<i>Aphanorrhegma serratum</i>	S1S3	G4G5		
<i>Archidium alternifolium</i>	SH	G4G5		
<i>Arctoa fulvella</i>	S1	G3G5		
<i>Atrichum crispum</i>	S2S3	G4?		
<i>Atrichum tenellum</i>	S1	G4G5		
<i>Aulacomnium androgynum</i>	S1	G5		
<i>Aulacomnium heterostichum</i>	S3	G5		
<i>Barbula convoluta</i> var. <i>convoluta</i>	S2S3	G5TNR		
<i>Barbula indica</i> var. <i>indica</i>	S1	G5?T5?		
<i>Blindia acuta</i>	S2S3	G5		
<i>Brachythecium acuminatum</i>	SH	G5		
<i>Brachythecium acutum</i>	S1	GNRQ		
<i>Brachythecium albicans</i>	SH	G5		
<i>Brachythecium calcareum</i>	SH	G3G4		
<i>Brachythecium campestre</i>	S2	G4G5Q		
<i>Brachythecium digastrum</i>	S1S2	G4?		
<i>Brachythecium erythrorrhizon</i>	S1	G5		
<i>Brachythecium turgidum</i>	S1	G4		
<i>Bryhnia graminicolor</i>	S2S3	G5		
<i>Bryoandersonia illecebra</i>	SH	G5		
<i>Bryohaplocladium microphyllum</i>	S2	G5		
<i>Bryohaplocladium virginianum</i>	SH	G5		
<i>Bryum algovicum</i>	SH	G4G5		
<i>Bryum pallens</i>	S2	G4G5		
<i>Bryum pallescens</i>	S1	G5		
<i>Bryum weigelii</i>	S2	G4G5		
<i>Bucklandiella microcarpa</i>	S1	GNRQ		
<i>Bucklandiella sudetica</i>	SH	G5?		
<i>Buxbaumia aphylla</i>	S2	G4G5		
<i>Buxbaumia minakatae</i>	S1	G2G3		
<i>Calliargon obtusifolium</i>	S2	G3G4		
<i>Calliargon richardsonii</i>	S3	G4		
<i>Calliargon stramineum</i>	S3	G5		
<i>Calliargon trifarium</i>	S1	G4		
<i>Campylium polygamum</i>	S1S3	G5		
<i>Campylium radicale</i>	S2	G3G5		
<i>Cinclidium stygium</i>	S1	G5		
<i>Cirriphyllum piliferum</i>	S2	G5		
<i>Climacium kindbergii</i>	S1	G5?		
<i>Codriophorus acicularis</i>	S3	G5		
<i>Codriophorus aduncoides</i>	S1	GNR		
<i>Codriophorus fascicularis</i>	S1	G5		
<i>Conardia compacta</i>	S1	G3G5		
<i>Ctenidium molluscum</i>	S3	G5		
<i>Cynodontium alpestre</i>	S1	G3G5		
<i>Cynodontium strumiferum</i>	S1	G3G5		
<i>Cynodontium tenellum</i>	S1	G3G5Q		
<i>Cyrto-hypnum minutulum</i>	SH	G5		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Cyrto-hypnum pygmaeum</i>	S1	G4G5		
<i>Cyrtomnium hymenophylloides</i>	S1	G5?		
<i>Dichelyma capillaceum</i>	S1	G5		
<i>Dichelyma falcatum</i>	S1	G4G5		
<i>Dichelyma pallescens</i>	S2	G3G5		
<i>Dichodontium pellucidum</i>	S2S3	G4G5		
<i>Dicranella cerviculata</i>	S1	G5?		
<i>Dicranella rufescens</i>	S2S3	G5?		
<i>Dicranella schreberiana</i>	S1	G5		
<i>Dicranella subulata</i>	SH	G5?		
<i>Dicranella varia</i>	S3	G5		
<i>Dicranodontium denudatum</i>	S2	G4G5		
<i>Dicranoweisia crispula</i>	SH	G4G5		
<i>Dicranum muehlenbeckii</i>	S1	G3G5		
<i>Dicranum ontariense</i>	S2	G4G5		
<i>Dicranum spurium</i>	SH	G5		
<i>Didymodon fallax</i>	S1	G5		
<i>Didymodon ferrugineus</i>	S1	G5?		
<i>Didymodon rigidulus</i> var. <i>rigidulus</i>	S1	G5T4?		
<i>Didymodon tophaceus</i>	S1	G5		
<i>Distichium capillaceum</i>	S2	G5		
<i>Ditrichum flexicaule</i>	S1	G5		
<i>Ditrichum pallidum</i>	S2S4	G5		
<i>Ditrichum rhynchostegium</i>	SH	G3G5		
<i>Ditrichum tortuloides</i>	S1	GNR		
<i>Drepanocladus longifolius</i>	S1	GNR		
<i>Drummondia prorepens</i>	S2	G5		
<i>Encalypta ciliata</i>	S3	G5		
<i>Encalypta rhaptocarpa</i>	SH	G4G5		
<i>Entodon brevisetus</i>	S1	G4?		
<i>Ephemerum cohaerens</i>	S1S3	G4G5		
<i>Ephemerum spinulosum</i>	S1S3	G4G5		
<i>Eurhynchium hians</i>	S2	G5		
<i>Fissidens exilis</i>	S1	G3G4		
<i>Fissidens fontanus</i>	SH	G5		
<i>Fissidens subbasilaris</i>	S1	G4G5		
<i>Fontinalis hypnoides</i> var. <i>duriaei</i>	S1	G4G5TNR		
<i>Fontinalis sphagnifolia</i>	SH	G3G5		
<i>Fontinalis sullivantii</i>	SH	G3G5		
<i>Forsstroemia trichomitria</i>	S1	G5		
<i>Grimmia donniana</i>	SH	G4G5		
<i>Grimmia hartmanii</i>	S1	G4G5		
<i>Grimmia laevigata</i>	SH	G5		
<i>Grimmia longirostris</i>	S1	G4G5		
<i>Grimmia muehlenbeckii</i>	S1	G3G5		
<i>Grimmia olneyi</i>	SH	G3G5		
<i>Grimmia pilifera</i>	S1	G4G5		
<i>Grimmia torquata</i>	SH	G3G5		
<i>Grimmia trichophylla</i>	S1	G5?		
<i>Grimmia unicolor</i>	S1	G4G5		
<i>Hamatocaulis vernicosus</i>	S2	G5		
<i>Haplomenium triste</i>	S1S3	G5		
<i>Helodium blandowii</i> var. <i>blandowii</i>	S3	G5T5		
<i>Helodium blandowii</i> var. <i>elodioides</i>	S1	G5T3		
<i>Helodium paludosum</i>	S1	G3G5		
<i>Herzogiella turfacea</i>	S2S3	G4G5		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Heterocladium dimorphum</i>	S1	G4G5		
<i>Homalotheciella subcapillata</i>	SH	G5?		
<i>Hygrohypnum closteri</i>	S1	G3		
<i>Hygrohypnum duriusculum</i>	S1	G3G5		
<i>Hygrohypnum luridum</i>	S2	G5		
<i>Hygrohypnum micans</i>	S1	G3G5		
<i>Hygrohypnum molle</i>	S2	G4G5		
<i>Hygrohypnum montanum</i>	S1	G3G5		
<i>Hygrohypnum subeugyrium</i>	S1	G3		
<i>Hylocomiastrum pyrenaicum</i>	S2	G4G5		
<i>Hymenostylium recurvirostre</i>	S3	G5		
<i>Hyophila involuta</i>	S1	G4G5		
<i>Hypnum cupressiforme</i> var. <i>cupressiforme</i>	SU	G5T5		
<i>Hypnum cupressiforme</i> var. <i>filiforme</i>	SU	G5TNR		
<i>Hypnum cupressiforme</i> var. <i>resupinatum</i>	SNA	G5TNR		
<i>Hypnum fauriei</i>	S1S3	G5		
<i>Hypnum plicatulum</i>	S1S3	G5		
<i>Hypnum pratense</i>	S3	G5		
<i>Hypnum recurvatum</i>	S1	G3G5		
<i>Isopterygiopsis muelleriana</i>	S2S3	G5		
<i>Isopterygiopsis pulchella</i>	S1	G5		
<i>Leptodictyum humile</i>	S2	G5		
<i>Lescuraea saxicola</i>	SH	G4G5		
<i>Leskea gracilescens</i>	S2	G5		
<i>Leskea obscura</i>	S2	G5		
<i>Leucobryum albidum</i>	S3	G5		
<i>Leucodon brachypus</i> var. <i>brachypus</i>	S1	G5T5		
<i>Leucodon julaceus</i>	SH	G5		
<i>Limprichtia cossonii</i>	S1	GU		
<i>Limprichtia revolvens</i>	S1S3	G4G5		
<i>Lindbergia brachyptera</i>	S1	G5		
<i>Loeskeobryum brevirostre</i>	S1	G5		
<i>Meesia triquetra</i>	S2	G5		
<i>Meesia uliginosa</i>	SH	G4		
<i>Microbryum davallianum</i>	S1	G5		
<i>Micromitrium tenerum</i>	S1	G4G5		
<i>Mnium ambiguum</i>	S3	G5		
<i>Mnium spinulosum</i>	S3	G5		
<i>Mnium thomsonii</i>	S1	G5		
<i>Myurella julacea</i>	S2	G5		
<i>Neckera besseri</i>	S1	G4G5		
<i>Neckera complanata</i>	S1	G5		
<i>Niphotrichum canescens</i> ssp. <i>canescens</i>	S2	G5TNR		
<i>Oncophorus virens</i>	SH	G5		
<i>Orthotrichum obtusifolium</i>	S2S3	G5		
<i>Orthotrichum ohioense</i>	S2	G4		
<i>Orthotrichum pumilum</i>	S1	G5		
<i>Orthotrichum sordidum</i>	S3	G5		
<i>Orthotrichum speciosum</i>	S3	G5		
<i>Orthotrichum speciosum</i> var. <i>elegans</i>	SH	G5T5		
<i>Orthotrichum strangulatum</i>	S3	G4		
<i>Paludella squarrosa</i>	S2	G3G5		
<i>Palustriella commutata</i>	S1	G4G5		
<i>Philonotis marchica</i>	S2	G5		
<i>Philonotis muehlenbergii</i>	S1	G3G4		
<i>Philonotis yezoana</i>	SH	G2G3		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Physcomitrium immersum</i>	S1	G4		
<i>Plagiobryum zieri</i>	S1	G4G5	E	
<i>Plagiomnium drummondii</i>	S2	G4G5		
<i>Plagiomnium rostratum</i>	S2	G5		
<i>Platydictya confervoides</i>	S2S4	G4G5		
<i>Platydictya jungermannioides</i>	S1	G5		
<i>Platydictya subtilis</i>	S2	G3G5		
<i>Platylomella lescurii</i>	SH	G5		
<i>Pleuridium subulatum</i>	S2S3	G5		
<i>Pogonatum dentatum</i>	S2	G3G5		
<i>Pogonatum urnigerum</i>	S3	G5		
<i>Pohlia andalusica</i>	S1	G3G5		
<i>Pohlia annotina</i>	S2	G4G5		
<i>Pohlia bulbifera</i>	S1	G4G5		
<i>Pohlia drummondii</i>	S1	G3G4		
<i>Pohlia elongata</i> var. <i>elongata</i>	SH	G4G5TNR		
<i>Pohlia longicolla</i>	SH	G4G5		
<i>Pohlia prolifera</i>	S1S3	G4G5		
<i>Pohlia wahlenbergii</i>	S3	G5		
<i>Polytrichastrum formosum</i>	S2	G5		
<i>Polytrichastrum longisetum</i>	S1	G5		
<i>Polytrichum commune</i> var. <i>perigoniale</i>	SH	G5T5		
<i>Polytrichum strictum</i>	S3	G4		
<i>Pseudobryum cinclidioides</i>	S2S3	G5		
<i>Pseudotaxiphyllum distichaceum</i>	S2S3	G4G5		
<i>Pseudotaxiphyllum elegans</i>	S2S4	G5		
<i>Pterigynandrum filiforme</i>	S3	G4G5		
<i>Ptychomitrium incurvum</i>	S1	G4		
<i>Pylaisiella polyantha</i>	S2S4	G5		
<i>Raiella scita</i>	S3	G3G5		
<i>Rhabdoweisia crispata</i>	S3	G5		
<i>Rhizomnium pseudopunctatum</i>	S1	G5		
<i>Rhytidium rugosum</i>	S3	G5		
<i>Saelania glaucescens</i>	S2	G4G5		
<i>Schistidium lancifolium</i>	SH	GNR		
<i>Schistidium papillosum</i>	S1	GNR		
<i>Schistidium viride</i>	S1	GNR		
<i>Schistostega pennata</i>	S2	G3G4		
<i>Schwetschkeopsis fabronia</i>	S1	G5		
<i>Scorpidium scorpioides</i>	S2	G4G5		
<i>Seligeria calcarea</i>	SH	G4?		
<i>Seligeria tristichoides</i>	SH	G4		
<i>Sematophyllum adnatum</i>	S1	G5		
<i>Sematophyllum demissum</i>	S1	G5		
<i>Sematophyllum marylandicum</i>	S1	G5		
<i>Sphagnum andersonianum</i>	S1	G3?		
<i>Sphagnum angermanicum</i>	S1	G3G4		
<i>Sphagnum atlanticum</i>	S1	GNR		
<i>Sphagnum austinii</i>	S1	G4		
<i>Sphagnum bartlettianum</i>	S1	G4G5		
<i>Sphagnum brevifolium</i>	S1	G5T4T5		
<i>Sphagnum compactum</i>	S1	G5		
<i>Sphagnum contortum</i>	S1	G5		
<i>Sphagnum henryense</i>	S1	G4?		
<i>Sphagnum inundatum</i>	S1S3	G4		
<i>Sphagnum isoviitae</i>	S1	GNR		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Sphagnum lescurii</i>	S3	G5		
<i>Sphagnum lindbergii</i>	S1	G5?		
<i>Sphagnum majus</i>	S2S4	G5?		
<i>Sphagnum mcqueenii</i>	S1	GNR		
<i>Sphagnum platyphyllum</i>	S1	G5		
<i>Sphagnum pulchrum</i>	S1	G5		
<i>Sphagnum quinquefarium</i>	S2	G5		
<i>Sphagnum recurvum</i>	S1	G5		
<i>Sphagnum riparium</i>	S1	G5		
<i>Sphagnum subfulvum</i> Synonym: <i>Sphagnum nitidum</i>	S1	GNR	E	
<i>Sphagnum subsecundum</i> var. <i>subsecundum</i>	S3	G5T4		
<i>Sphagnum tenellum</i>	S1	G5		
<i>Sphagnum torreyanum</i>	S1	G3G4		
<i>Sphagnum viride</i>	S2	GNR		
<i>Splachnum ampullaceum</i>	S2	G5		
<i>Splachnum pennsylvanicum</i>	SH	G4?		
<i>Syntrichia ruralis</i>	S2	GNR		
<i>Taxiphyllum deplanatum</i>	S2	G4G5		
<i>Tayloria serrata</i>	SH	G4		
<i>Tetraplodon mnioides</i>	SH	G4		
<i>Thamnobryum alleghaniense</i>	S3	G5?		
<i>Thelia asprella</i>	S1	G5		
<i>Thelia hirtella</i>	SH	G5		
<i>Timmia megapolitana</i> ssp. <i>megapolitana</i>	S2	G5T4?		
<i>Tomenthypnum falcifolium</i>	S1	G3G5		
<i>Tomenthypnum nitens</i>	S3	G5		
<i>Tortella fragilis</i>	S1	G5		
<i>Tortella humilis</i>	S3	G5		
<i>Tortella inclinata</i> var. <i>densa</i>	S1	G4G5TNR		
<i>Tortella inclinata</i> var. <i>inclinata</i>	S1	G4G5TNR		
<i>Tortula mucronifolia</i>	S2	G5		
<i>Tortula obtusifolia</i>	S1	G5		
<i>Tortula porteri</i>	SH	G3?		
<i>Tortula truncata</i>	S3	G3G5		
<i>Trematodon ambiguus</i>	S2S3	G5		
<i>Trematodon longicollis</i>	SH	G5		
<i>Trichostomum crispulum</i>	S1	G5?		
<i>Trichostomum tenuirostre</i>	S2S3	G4		
<i>Ulota curvifolia</i>	SH	G3G5		
<i>Warnstorfia exannulata</i>	S2S3	G5		
<i>Weissia muhlenbergiana</i>	S1S3	G5		

Liverworts

<i>Anastrophyllum helleranum</i>	S2	G5		
<i>Anastrophyllum michauxii</i>	S2	G4		
<i>Anastrophyllum minutum</i> var. <i>minutum</i>	S3	G5T5		
<i>Anastrophyllum saxicola</i>	S1	G3G4		
<i>Aneura maxima</i>	S1	G4?		
<i>Apometzgeria pubescens</i>	SH	G5		
<i>Asterella tenella</i>	S3	G5		
<i>Athalamia hyalina</i>	S1	G5		
<i>Barbilophozia floerkei</i> var. <i>floerkei</i>	SH	G5T5?		
<i>Barbilophozia hatcheri</i>	S1	G5		
<i>Barbilophozia kunzeana</i>	S1	G5		
<i>Bazzania tricrenata</i>	S3	G4		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Calypogeia sphagnicola</i>	S2	G4		
<i>Calypogeia suecica</i>	S2	G5		
<i>Cephalozia catenulata</i>	SH	G5		
<i>Cephalozia connivens</i>	S2	G5		
<i>Cephalozia leucantha</i>	SH	G4		
<i>Cephalozia macrostachya</i> ssp. <i>macrostachya</i>	SH	G4T4		
<i>Cephalozia pleniceps</i> var. <i>pleniceps</i>	S3	G5T5		
<i>Cephaloziella arctica</i>	S1	G5		
<i>Cephaloziella divaricata</i>	S3	G5		
<i>Cephaloziella elachista</i>	S1	G4		
<i>Cephaloziella hampeana</i>	S3	G5		
<i>Cephaloziella massalongi</i>	S1	G3G5		
<i>Cephaloziella rubella</i> var. <i>elegans</i>	S1	G5T3?		
<i>Cephaloziella rubella</i> var. <i>rubella</i>	S1	G5T5		
<i>Cephaloziella stellulifera</i>	S1	G3G5		
<i>Chandonanthus setiformis</i>	S1	G5		
<i>Chiloscyphus pallescens</i> var. <i>fragilis</i>	S1	G5T4		
<i>Chiloscyphus pallescens</i> var. <i>pallescens</i>	SH	G5T5		
<i>Chiloscyphus polyanthos</i> var. <i>polyanthos</i>	SU	G5T4		
<i>Chiloscyphus polyanthos</i> var. <i>rivularis</i>	SU	G5T4		
<i>Cladopodiella fluitans</i>	S3	G5		
<i>Diplophyllum taxifolium</i> var. <i>taxifolium</i>	S3	G5T5		
<i>Fossombronia foveolata</i>	S2	G5		
<i>Fossombronia wondraczekii</i>	SH	G4		
<i>Frullania bolanderi</i>	S3	G4		
<i>Frullania brittoniae</i>	S2	G4		
<i>Frullania inflata</i>	S2	G5		
<i>Frullania oakesiana</i>	S2	G4		
<i>Frullania plana</i>	S1	G4		
<i>Frullania riparia</i>	S3	G4G5		
<i>Frullania selwyniana</i>	S1	G2G3		
<i>Gymnocolea inflata</i>	S1	G5		
<i>Gymnomitrium concinnatum</i>	S1	G5		
<i>Harpanthus drummondii</i>	S2	G4?		
<i>Harpanthus scutatus</i>	S1	G4		
<i>Jubula pennsylvanica</i>	S2	G5		
<i>Jungermannia caespiticia</i>	S1	G4		
<i>Jungermannia evansii</i>	S2	G2G4		
<i>Jungermannia exsertifolia</i> ssp. <i>cordifolia</i>	SH	G5?T3T5		
<i>Jungermannia hyalina</i>	SH	G5		
<i>Jungermannia obovata</i>	SH	G4G5		
<i>Jungermannia pumila</i>	S1	G5		
<i>Jungermannia sphaerocarpa</i>	S1	G5		
<i>Kurzia pauciflora</i>	S1	G3G5		
<i>Lejeunea lamacerina</i> ssp. <i>gemminata</i>	S1	G5T4		
<i>Lophocolea bidentata</i>	SH	G5		
<i>Lophocolea cuspidata</i> var. <i>alata</i>	S1	G5T3?		
<i>Lophocolea minor</i>	S1	G5		
<i>Lophozia alpestris</i>	S1	G5		
<i>Lophozia ascendens</i>	S2	G4		
<i>Lophozia badensis</i> var. <i>badensis</i>	S2	G5?T5?		
<i>Lophozia bicrenata</i>	S3	G5		
<i>Lophozia capitata</i>	SH	G4		
<i>Lophozia collaris</i>	S1	G5		
<i>Lophozia excisa</i>	S1	G5		
<i>Lophozia gillmanii</i>	S3	G5		

Scientific Name	State Rank	Global Rank	State Status	Federal Status
<i>Lophozia grandiretis</i> var. <i>grandiretis</i>	SH	G3?T3?		
<i>Lophozia guttulata</i>	S3	G4G5		
<i>Lophozia heterocolpos</i> var. <i>heterocolpos</i>	S1	G5TU		
<i>Lophozia laxa</i>	S2	G4		
<i>Lophozia longidens</i> ssp. <i>longidens</i>	S3	G5T5?		
<i>Lophozia rutheana</i>	SH	G4?		
<i>Lophozia sudetica</i>	S1	G3G5		
<i>Lophozia ventricosa</i> var. <i>longiflora</i>	SU	G5T3T5		
<i>Lophozia ventricosa</i> var. <i>silvicola</i>	SU	G5T5		
<i>Lophozia wenzelii</i> var. <i>wenzelii</i>	SH	G4G5T4		
<i>Lunularia cruciata</i>	SH	G5		
<i>Mannia fragrans</i>	SH	G5		
<i>Mannia pilosa</i>	SH	G4?		
<i>Mannia triandra</i>	SH	G3G4		
<i>Marchantia alpestris</i>	S1	G3G5		
<i>Marchantia aquatica</i>	S2	GNR		
<i>Marsupella sphacelata</i>	S1	G5		
<i>Marsupella ustulata</i> var. <i>ustulata</i>	SH	G5T5		
<i>Metzgeria crassipilis</i>	S1	G4G5		
<i>Mylia taylorii</i>	S1	G5		
<i>Nardia scalaris</i> ssp. <i>scalaris</i>	S1	G5T5		
<i>Odontoschisma denudatum</i> var. <i>denudatum</i>	S3	G5T5		
<i>Odontoschisma prostratum</i>	SH	G4G5		
<i>Pellia megaspora</i>	S2	G5		
<i>Plagiochila austinii</i>	S1	G3		
<i>Porella pinnata</i>	SH	G5		
<i>Radula obconica</i>	S2	G5		
<i>Radula tenax</i>	SH	G3G4		
<i>Reboulia hemisphaerica</i>	S3	G5		
<i>Riccardia palmata</i>	S2	G5		
<i>Riccia bifurca</i>	SH	G5		
<i>Riccia cavernosa</i>	SH	G5		
<i>Riccia fluitans</i>	S3	G5		
<i>Riccia frostii</i>	SH	G5		
<i>Riccia huebeneriana</i> ssp. <i>sullivantii</i>	S1	G4Q		
<i>Scapania curta</i> var. <i>curta</i>	SH	G5T5		
<i>Scapania cuspiduligera</i> var. <i>cuspiduligera</i>	S1	G5T5		
<i>Scapania glaucocephala</i>	SH	G4G5		
<i>Scapania gymnostomophila</i>	S2	G4		
<i>Scapania irrigua</i> ssp. <i>irrigua</i>	S2	G5T5?		
<i>Scapania lingulata</i> var. <i>lingulata</i>	S1	G2G4TU		
<i>Scapania mucronata</i> ssp. <i>mucronata</i>	S1	G5T5		
<i>Scapania paludicola</i> var. <i>paludicola</i>	S1	G5T3T5		
<i>Scapania paludosa</i>	SH	G5		
<i>Scapania umbrosa</i>	S1	G4G5		
<i>Tritomaria exsecta</i>	S3	G5		
<i>Tritomaria exsectiformis</i> ssp. <i>exsectiformis</i>	S1	G5T5		
<i>Tritomaria quinquedentata</i> var. <i>quinquedentata</i>	S2	G5T5		

Hornworts

<i>Anthoceros agrestis</i>	S1	G4G5		
<i>Notothylas orbicularis</i>	SH	G5		
<i>Phaeoceros laevis</i> ssp. <i>laevis</i>	S3	G5T5		

Explanation of Legal Status and Information Ranks

State Rank - Value that best characterizes the relative rarity (abundance) of a native taxon within Vermont's geographic boundary. The following criteria for assigning bryophyte State Conservation Ranks were adapted from the Natural Heritage Network methodology expressly for Vermont.

Mosses:

- S1- Very rare: known from 5 or fewer towns with at least 1 extant*
- S2- Rare: six to 12 towns with at least one extant
- S3- Uncommon: 13 to 18 towns with at least one extant
- S4- Common to uncommon: 19 to 24 towns with at least one extant
- S5- Common: 25 or more towns with at least one extant
- SU- Unrankable; currently not enough information to assign a rank
- SNA- In this list, SNA means the taxon is Reported but Unconfirmed; we are seeking more information on its distribution.

Liverworts:

- S1-Very rare: 2 or fewer town with at least one extant
- S2- Rare: 3 to 4 town with at least one extant
- S3- Uncommon: 5-8 towns with at least one extant
- S4- Common to uncommon: 9-15 towns with at least one extant
- S5- Common: 16 or more towns with at least one extant
- SU- Unrankable; currently not enough information to assign a rank
- SNA- In this list, SNA means the taxon is Reported but Unconfirmed; we are seeking more information on its distribution.

*"Extant" for these purposes is defined as documented collections since 1960. Note that species with all collections prior to 1960 are ranked as SH.

Global Rank - Value that best characterizes the relative rarity (abundance) or endangerment of a native taxon throughout its range.

- 1 - Very rare (Critically imperiled): At very high risk of extinction or extirpation due to extreme rarity (often 5 or fewer populations or occurrences), very steep declines, or other factors
- 2 - Rare (Imperiled): At high risk of extinction or extirpation due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors
- 3 - Uncommon (Vulnerable): At moderate risk of extinction or extirpation due to restricted range, relatively few populations or occurrences (often 80 or fewer), recent and widespread declines, or other factors
- 4 - Common to uncommon (Apparently secure): locally common or widely scattered to uncommon, but not rare; some cause for long-term concern due to declines or other factors; or stable over many decades and not threatened but of restricted distribution or other factors
- 5 - Common (Secure): widespread and abundant
- H - Possibly extinct/extirpated: Missing; known from only historical occurrences but still some hope of rediscovery
- X - Presumed extinct/extirpated: Not located despite intensive searches and virtually no likelihood of rediscovery
- U = Unrankable: Currently unrankable due to lack of information or due to substantially conflicting information about status or trends
- NR = Not ranked: Not yet assessed
- NA = Not applicable. Element is not a suitable target for conservation for one of the following reasons:
Hybrid, Exotic Origin, Accidental/Nonregular, Not Confidently Present, No Definable Occurrences

An indicator of uncertainty about the rank, either in the form of a range rank (e.g. S1S3) or a ? qualifier, may follow a numeric rank. For global ranks only, an appended T-rank indicates an infraspecies. For global ranks only, a qualifier after the rank in the form of a Q indicates questionable taxonomy.

State Status - Legal protection under Vermont Endangered Species Law (10 V.S.A. Chap. 123)

E = Endangered: in immediate danger of becoming extirpated in the state
T = Threatened: with high possibility of becoming endangered in the near future

Federal Status - Legal protection under the federal Endangered Species Act, U.S. Fish & Wildlife Service

LE = Listed Endangered
LT = Listed Threatened