

Rare Plant Species and Wildlife Habitats

The habitat profiles created for the Wildlife Action Plan have been developed for the purpose of describing the full range of habitats that support New Hampshire's wildlife species. However, these habitats can also serve as useful units for identifying rare plant habitats. This appendix provides lists of rare plant species known to be associated with each WAP habitat type.

In accordance with the Native Plant Protection Act (NH RSA 217-A), the New Hampshire Natural Heritage Bureau (NHB) maintains a list of the state's rarest and most imperiled plant species. This list has been developed in cooperation with researchers, conservation organizations, and knowledgeable amateur botanists. Plant locations have been obtained from sources including herbarium specimens, personal contacts, the scientific literature, and through extensive field research. The list is updated regularly to reflect changes in information.

For each habitat, a list of associated rare plant species is presented. These rare plant – habitat associations are based on known occurrences of each species in New Hampshire. It is possible that an individual species will have different habitat associations elsewhere in its range. For more information on dominant and characteristic plant species for each habitat, refer to the individual habitat profiles.

For each species, the following information is provided:

Scientific name: The primary reference used is:

Haines, Arthur. 2011. *Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England*. Yale University Press. New Haven and London.

Common name: Many plant species have more than one common name, and some common names are applied to multiple species. As often as possible, the common names presented in the tables follow the same reference as the scientific names (Haines 2011). However, there are occasions where an alternate common name is preferred by NHB, in order to remain consistent with the nomenclature used in NHB's natural community classification.

Listing: All of the species presented in the tables are listed as either Endangered (E; in danger of extinction in the state) or Threatened (T; likely to become Endangered in the state) under the NH Native Plant Protection Act of 1987 (NH RSA 217-A). The most recent revision of the list was conducted in 2010. A few of these species are also listed under the federal Endangered Species Act of 1973 (42 USCA 4321-4370c).

Notes: This column can include notes on habitat or rarity, in particular global rarity (G-rank). G-ranks are established by NatureServe, the umbrella organization for Natural Heritage programs

Appendix D – Rare Plant Species and Wildlife Habitats

across the U.S. and internationally. These ranks are intended to convey the conservation status of a species across its entire range. An explanation of global rank codes is presented here:

G1	Critically imperiled because extreme rarity (generally one to five occurrences) or some factor of its biology makes it particularly vulnerable to extinction.
G2	Imperiled because rarity (generally six to 20 occurrences) or other factors demonstrably make it very vulnerable to extinction.
G3	Either very rare and local throughout its range (generally 21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range, or vulnerable to extinction because of other factors.
G4	Widespread and apparently secure, although the species may be quite rare in parts of its range, especially at the periphery.
G5	Demonstrably widespread and secure, although the species may be quite rare in parts of its range, particularly at the periphery.

Global ranks can indicate a range of uncertainty regarding the degree of rarity (e.g, G1G2).

Alpine

Although New Hampshire’s alpine habitat occupies a tiny fraction of the state, it supports a very high number of rare plant species. Most of these species are characteristic of arctic tundra habitats that are widespread hundreds of miles to the north, but in NH are restricted to high mountain peaks. A few of these species are globally rare or uncommon, including Robbins' cinquefoil (*Potentilla robbinsiana*), which occurs at two small locations in the White Mountains and nowhere else in the world.

Scientific name	Common name	Listing	Notes
<i>Anthoxanthum monticola</i>	alpine sweet grass	T	
<i>Arctous alpina</i>	alpine bearberry	E	
<i>Arnica lanceolata</i>	lance-leaved arnica	T	G3
<i>Barbarea orthoceras</i>	American yellow-rocket	E	
<i>Betula glandulosa</i>	glandular birch	T	
<i>Betula minor</i>	dwarf birch	T	
<i>Bistorta vivipara</i>	alpine bistort	E	
<i>Calamagrostis canadensis</i> var. <i>langsdorfii</i>	Harsh bluejoint	E	
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	northern neglected reed grass	T	
<i>Calamagrostis stricta</i> ssp. <i>stricta</i>	neglected reed grass	E	
<i>Cardamine bellidifolia</i>	alpine bitter-cress	E	
<i>Carex arctogena</i>	capitate sedge	E	
<i>Carex atratiformis</i>	scabrous black sedge	E	
<i>Carex bigelowii</i>	Bigelow's sedge	T	
<i>Carex capillaris</i> ssp. <i>fuscidula</i>	hair-like sedge	E	

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Carex scirpoidea</i>	scirpus-like sedge	T	
<i>Castilleja septentrionalis</i>	northern painted-cup	E	
<i>Diapensia lapponica</i>	diapensia	T	
<i>Diphasiastrum sitchense</i>	Sitka ground-cedar	E	
<i>Epilobium anagallidifolium</i>	pimpernel willow-herb	E	
<i>Epilobium hornemannii</i>	Hornemann's willow-herb	T	
<i>Epilobium lactiflorum</i>	white-flowered willow-herb	E	
<i>Euphrasia oakesii</i>	Oakes' eyebright	E	
<i>Festuca prolifera</i>	proliferous fescue	E	
<i>Geum peckii</i>	White Mountain avens	T	G2
<i>Harrimanella hypnoides</i>	moss-plant	E	
<i>Huperzia appressa</i>	mountain firmoss	E	
<i>Kalmia procumbens</i>	alpine-azalea	T	
<i>Luzula confusa</i>	northern wood ruE	E	
<i>Luzula spicata</i>	spiked wood ruE	E	
<i>Nabalus boottii</i>	Boott's rattlesnake-root	E	G2
<i>Omalotheca supina</i>	alpine arctic-cudweed	E	
<i>Oxyria digyna</i>	mountain-sorrel	E	
<i>Paronychia argyrocoma</i>	silverling	T	
<i>Phleum alpinum</i>	mountain Timothy	E	
<i>Phyllodoce caerulea</i>	purple mountain-heath	T	
<i>Poa glauca</i>	glaucous blue grass	E	
<i>Poa laxa</i> ssp. <i>fernaldiana</i>	wavy blue grass	E	
<i>Poa pratensis</i> ssp. <i>alpigena</i>	alpine Kentucky blue grass	E	
<i>Potentilla robbinsiana</i>	Robbins' cinquefoil	E	G1
<i>Rhinanthus minor</i> ssp. <i>groenlandicus</i>	Greenland little yellow-rattle	E	
<i>Rhododendron lapponicum</i>	Lapland rosebay	E	
<i>Rubus chamaemorus</i>	baked apple berry	T	
<i>Salix argyrocarpa</i>	Labrador willow	E	
<i>Salix herbacea</i>	snow-bed willow	E	
<i>Salix planifolia</i>	tea-leaved willow	T	
<i>Salix uva-ursi</i>	bearberry willow	T	
<i>Saxifraga cernua</i>	nodding saxifrage	E	
<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>	White Mountain saxifrage	E	
<i>Saxifraga rivularis</i>	alpine-brook saxifrage	E	
<i>Sibbaldia procumbens</i>	sibbaldia	E	
<i>Silene acaulis</i>	moss campion	E	
<i>Solidago leiocarpa</i>	Cutler's goldenrod	T	
<i>Vaccinium boreale</i>	northern blueberry	T	
<i>Vaccinium cespitosum</i>	dwarf blueberry	T	
<i>Vahlodea atropurpurea</i>	arctic hair grass	E	
<i>Veronica wormskjoldii</i>	American alpine speedwell	E	
<i>Viola palustris</i>	northern marsh violet	E	

Appendix D – Rare Plant Species and Wildlife Habitats

Appalachian oak – pine forest

Appalachian oak – pine forests are found in southern New Hampshire, particularly in the southeastern portion of the state, and many of the characteristic plant species of this habitat reach their northern limit in NH. Many of the rare plant species listed for this habitat are restricted to areas of mineral-enriched soils that actually comprise a very small portion of the Appalachian oak – pine forest in the state. These species are indicated with an “R” in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Asclepias quadrifolia</i>	four-leaved milkweed	E	R
<i>Aureolaria virginica</i>	downy false foxglove	E	R
<i>Boechera canadensis</i>	sicklepod rockcress	T	R
<i>Bromus pubescens</i>	hairy wood brome	E	R
<i>Carex glaucoidea</i>	blue sedge	E	R
<i>Carex polymorpha</i>	variable sedge	E	G3
<i>Desmodium marilandicum</i>	smooth small-leaved tick-trefoil	E	
<i>Desmodium rotundifolium</i>	round-leaved trailing tick-trefoil	T	R
<i>Dichanthelium sphaerocarpon</i>	round-fruited rosette-panicgrass	E	
<i>Eupatorium pubescens</i>	hairy thoroughwort	E	R
<i>Galium pilosum</i>	hairy bedstraw	E	R
<i>Hypoxis hirsuta</i>	common star-grass	T	
<i>Isotria verticillata</i>	large whorled pogonia	E	
<i>Lechea tenuifolia</i>	narrow-leaved pinweed	E	
<i>Lespedeza procumbens</i>	trailing bush-clover	E	
<i>Lespedeza virginica</i>	slender bush-clover	E	
<i>Packera obovata</i>	running groundsel	E	R
<i>Paronychia canadensis</i>	smooth forked whitlow-wort	E	R
<i>Polygonum tenue</i>	slender knotweed	E	R
<i>Pycnanthemum incanum</i>	hoary mountain-mint	E	R
<i>Ranunculus fascicularis</i>	early crowfoot	E	R
<i>Sericocarpus linifolius</i>	narrow-leaved white-topped-aster	E	
<i>Solidago odora</i>	licorice goldenrod	E	
<i>Symphyotrichum patens</i>	late purple American-aster	T	R
<i>Tephrosia virginiana</i>	wild goat's-rue	E	
<i>Thalictrum revolutum</i>	waxy-leaved meadow-rue	E	R
<i>Thalictrum thalictroides</i>	anemone meadow-rue	E	R
<i>Trichophorum planifolium</i>	bashful clubsedge	E	R
<i>Triosteum aurantiacum</i>	orange-fruited horse-gentian	E	R
<i>Uvularia perfoliata</i>	perfoliate bellwort	E	R
<i>Viburnum rafinesquianum</i>	downy arrowwood	E	R
<i>Viola palmata</i>	palmate violet	E	R
<i>Viola pedata</i>	bird-foot violet	T	

Appendix D – Rare Plant Species and Wildlife Habitats

Coastal islands

The coastal island habitat profile focuses primarily on the Isles of Shoals, but also includes areas of coastal rocky headland on the mainland that experience stresses of wind exposure and salt spray similar to conditions on the islands.

Scientific name	Common name	Listing	Notes
<i>Chenopodium rubrum</i>	red goosefoot	E	
<i>Eleocharis uniglumis</i>	one-glumed spikesedge	T	
<i>Leymus mollis</i>	American lyme grass	E	
<i>Potentilla litoralis</i>	coast cinquefoil	E	
<i>Rumex pallidus</i>	seabeach dock	E	
<i>Sagina nodosa</i> ssp. <i>borealis</i>	boreal knotted pearlwort	E	

Dunes

New Hampshire has only 18 miles of ocean shoreline, and of that, less than 2 miles historically had natural occurring dunes. This naturally-restricted habitat has since been severely impacted by development, with less than 200 acres of dune remaining.

Scientific name	Common name	Listing	Notes
<i>Ammophila breviligulata</i>	beach grass	T	
<i>Aristida tuberculosa</i>	seaside threeawn	E	
<i>Artemisia campestris</i> ssp. <i>caudata</i>	field wormwood	E	
<i>Cenchrus longispinus</i>	long-spined sandbur	E	
<i>Cyperus grayi</i>	Gray's umbrella sedge	E	
<i>Euphorbia polygonifolia</i>	seaside sandmat	E	
<i>Hudsonia tomentosa</i>	hairy hudsonia	T	
<i>Sporobolus cryptandrus</i>	sand dropseed	E	
<i>Suaeda maritima</i> ssp. <i>richii</i>	Rich's herbaceous sea-blite	E	

Floodplain forest

The floodplain forest profile focuses primarily on the actual forest habitat, dominated by trees. However, there are several natural communities that occupy very small areas that support a large number of rare plant species. In particular, occurrences of *circumneutral riverbank outcrops* and *calcareous riverside seeps* may occupy areas as small as 0.1 acre, but support as many as 10 rare plant species. Species characteristic of these riverside communities are indicated with an “R” in the Notes column. One plant species of *circumneutral riverbank outcrops* is Jesup's milk-vetch (*Astragalus robbinsii* var. *jesupii*), which is listed as federally-endangered by the USFWS. This plant is known from 3 locations, 1 in Vermont and 2 in New Hampshire, along a 16-mile stretch of the Connecticut River, and nowhere else.

Appendix D – Rare Plant Species and Wildlife Habitats

Scientific name	Common name	Listing	Notes
<i>Acer nigrum</i>	black maple	T	
<i>Allium canadense</i>	meadow garlic	E	R
<i>Allium schoenoprasum</i>	wild chives	E	R
<i>Argentina anserina</i>	common silverweed	E	R
<i>Arisaema dracontium</i>	green-dragon	E	
<i>Astragalus robbinsii</i> var. <i>jesupii</i>	Jesup's milk-vetch	E	R, G1
<i>Betula nigra</i>	river birch	T	
<i>Bromus kalmii</i>	Kalm's brome	E	
<i>Cardamine bulbosa</i>	bulbous bitter-cress	E	
<i>Cardamine concatenata</i>	cut-leaved toothwort	E	
<i>Cardamine maxima</i>	large toothwort	T	
<i>Carex aurea</i>	golden-fruited sedge	T	R
<i>Carex cephaloidea</i>	thin-leaved sedge	T	
<i>Carex cristatella</i>	crested sedge	E	R
<i>Carex garberi</i>	elk sedge	T	R
<i>Carex granularis</i>	limestone-meadow sedge	E	R
<i>Cyperus squarrosus</i>	incurved umbrella sedge	E	
<i>Eleocharis erythropoda</i>	red-footed spikesedge	E	
<i>Equisetum palustre</i>	marsh horsetail	E	R
<i>Erythranthe moschata</i>	musky monkey-flower	E	R
<i>Eutrochium fistulosum</i>	hollow Joe-Pye weed	E	
<i>Gentianella quinquefolia</i>	stiff dwarf-gentian	E	R
<i>Gentianopsis crinita</i>	greater fringed-gentian	T	R
<i>Geum fragarioides</i>	Appalachian barren-strawberry	T	
<i>Hackelia virginiana</i>	Virginia stickseed	E	
<i>Halenia deflexa</i>	American spurred-gentian	T	R
<i>Hieracium robinsonii</i>	Robinson's hawkweed	E	G2G3
<i>Hypericum ascyron</i>	great St. John's-wort	E	R
<i>Juncus brachycephalus</i>	small-headed rush	E	R
<i>Liparis loeselii</i>	Loesel's wide-lipped orchid	T	R
<i>Lobelia kalmii</i>	brook lobelia	T	R
<i>Lobelia siphilitica</i>	great lobelia	E	
<i>Lygodium palmatum</i>	American climbing fern	E	
<i>Menispermum canadense</i>	Canada moonseed	E	
<i>Neottia auriculata</i>	auricled twayblade	E	
<i>Packera paupercula</i>	balsam groundsel	T	R
<i>Panicum philadelphicum</i>	Philadelphia panicgrass	E	
<i>Parnassia glauca</i>	fen grass-of-Parnassus	T	R
<i>Pilea fontana</i>	lesser clearweed	E	
<i>Pyrola asarifolia</i>	pink shinleaf	E	
<i>Rhynchospora capillacea</i>	needle beaksedge	E	R
<i>Salix pellita</i>	satiny willow	E	

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Senna hebecarpa</i>	northern wild senna	E	
<i>Spiranthes lucida</i>	shining ladies'-tresses	E	R
<i>Sporobolus neglectus</i>	small dropseed	E	
<i>Staphylea trifolia</i>	American bladdernut	T	
<i>Triantha glutinosa</i>	sticky false asphodel	E	R

Freshwater aquatic habitats

These are plants that occur as floating-leaved or submerged (to occasionally emergent) aquatic plants in fresh waterbodies. More work is needed to assign them more accurately to specific WAP habitats such as Warmwater Lakes and Ponds or Coldwater Rivers and Streams.

Scientific name	Common name	Listing	Notes
<i>Bidens beckii</i>	Beck's water-marigold	T	
<i>Heteranthera dubia</i>	grass-leaved mud-plantain	T	
<i>Hippuris vulgaris</i>	common mare's-tail	T	
<i>Hottonia inflata</i>	American featherfoil	E	
<i>Isoetes engelmannii</i>	Engelmann's quillwort	E	
<i>Isoetes lacustris</i>	lake quillwort	E	
<i>Isoetes riparia</i> var. <i>canadensis</i>	Canada shore quillwort	E	
<i>Lemna trisulca</i>	ivy-leaved duckweed	E	
<i>Lemna valdiviana</i>	pale duckweed	E	
<i>Potamogeton alpinus</i>	reddish pondweed	E	
<i>Potamogeton foliosus</i>	leafy pondweed	E	
<i>Potamogeton nodosus</i>	long-leaved pondweed	T	
<i>Potamogeton obtusifolius</i>	blunt-leaved pondweed	E	
<i>Potamogeton vaseyi</i>	Vasey's pondweed	E	
<i>Potamogeton zosteriformis</i>	flat-stem pondweed	E	
<i>Stuckenia pectinata</i>	Sago false pondweed	E	
<i>Subularia aquatica</i> ssp. <i>americana</i>	American water-awwort	E	
<i>Utricularia resupinata</i>	resupinate bladderwort	E	

Grasslands

These are plant species associated primarily with permanently maintained fields and openings. Other rare plants may occur in temporary openings or on the edges of fields, but are more consistently found in adjacent habitats, and are not listed here.

Scientific name	Common name	Listing	Notes
<i>Acalypha virginica</i>	Virginia three-seeded-Mercury	E	
<i>Asclepias tuberosa</i>	butterfly milkweed	E	
<i>Chamaecrista nictitans</i>	wild sensitive-pea	E	
<i>Liatris novae-angliae</i>	northern blazing star	E	

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Pycnanthemum virginianum</i>	Virginia mountain-mint	E	
<i>Rubus cuneifolius</i>	sand blackberry	E	
<i>Senna hebecarpa</i>	northern wild senna	E	
<i>Sericocarpus linifolius</i>	narrow-leaved white-topped-aster	E	
<i>Solidago speciosa</i>	showy goldenrod	E	
<i>Sporobolus neglectus</i>	small dropseed	E	
<i>Triosteum aurantiacum</i>	orange-fruited horse-gentian	E	
<i>Vulpia octoflora</i> var. <i>tenella</i>	eight-flowered six-weeks grass	E	

Hemlock – hardwood – pine forest

There are very few rare plant species associated with hemlock – hardwood – pine forests. Most of those listed here actually occur in *rich mesic forests*, which typically occur as small inclusions within the larger matrix forest. These species are indicated with an “R” in the Notes column. One exception to this is small whorled pogonia (*Isotria medeoloides*), a rare orchid that is listed as federally-threatened by the USFWS, and is associated primarily with this habitat.

Scientific name	Common name	Listing	Notes
<i>Adlumia fungosa</i>	Allegheny-vine	E	R
<i>Cardamine concatenata</i>	cut-leaved toothwort	E	R
<i>Carex albursina</i>	white bear sedge	E	R
<i>Carex hitchcockiana</i>	Hitchcock's sedge	E	R
<i>Carex sparganioides</i>	bur-reed sedge	E	R
<i>Corallorhiza odontorhiza</i>	fall coral-root	E	
<i>Galearis spectabilis</i>	showy orchid	T	R
<i>Hieracium umbellatum</i>	narrow-leaved hawkweed	E	
<i>Hydrophyllum virginianum</i>	eastern waterleaf	T	R
<i>Isotria medeoloides</i>	small whorled pogonia	T	G2
<i>Packera obovata</i>	running groundsel	E	R
<i>Panax quinquefolius</i>	American ginseng	T	R
<i>Pterospora andromedea</i>	pine-drops	E	
<i>Quercus macrocarpa</i>	mossy-cup oak	E	
<i>Sanicula odorata</i>	clustered sanicle	E	R
<i>Sanicula trifoliata</i>	large-fruited sanicle	T	R
<i>Uvularia grandiflora</i>	large-flowered bellwort	E	R
<i>Uvularia perfoliata</i>	perfoliate bellwort	E	R

High elevation spruce – fir forest

The harsh environmental conditions that give rise to high elevation spruce – fir forests—long, cold winters; thin, nutrient-poor soils—result in a habitat that has a relatively low diversity of plant species. High elevation spruce – fir forest is the primary habitat for only one rare plant

Appendix D – Rare Plant Species and Wildlife Habitats

species in the state, false toadflax (*Geocaulon lividum*), a small herb that outside of NH is found in boreal forests across North America.

Scientific name	Common name	Listing	Notes
<i>Geocaulon lividum</i>	false toadflax	E	

Lowland spruce – fir forest

Like high elevation spruce – fir forests, lowland spruce – fir forests tend to support a low diversity of vascular plant species, and there are no rare plants that are primarily associated with this habitat in NH.

Marsh and shrub wetlands

Freshwater marshes and shrub swamps are common and widespread wetlands in NH, and tend to support a high diversity of plant species. But it is actually two rare marsh types—the **sand plain basin marsh** and **sandy pond shore systems**—that support a significant number of rare plants associated with this habitat. These species are indicated with an “S” in the Notes column. One notable species associated with beaver-influenced drainage marshes is northeastern bulrush (*Scirpus ancistrochaetus*), which is listed as federally-threatened by the USFWS.

Scientific name	Common name	Listing	Notes
<i>Bartonia iodandra</i>	purple screwstem	E	S
<i>Bartonia paniculata</i>	twining screwstem	E	S
<i>Bidens laevis</i>	smooth beggar-ticks	E	S
<i>Bromus kalmii</i>	Kalm's brome	E	
<i>Calamagrostis cinnoides</i>	Nuttall's reed grass	E	
<i>Carex aurea</i>	golden-fruited sedge	T	
<i>Carex baileyi</i>	Bailey's sedge	T	
<i>Carex bullata</i>	button sedge	E	
<i>Carex buxbaumii</i>	brown bog sedge	E	
<i>Carex cristatella</i>	crested sedge	E	
<i>Carex nigra</i>	smooth black sedge	E	
<i>Carex rostrata</i>	beaked sedge	E	
<i>Cuscuta cephalanthi</i>	buttonbush dodder	E	S
<i>Cyperus erythrorhizos</i>	red-root umbrella sedge	E	
<i>Cyperus squarrosus</i>	incurved umbrella sedge	E	S
<i>Eleocharis erythropoda</i>	red-footed spikesedge	E	
<i>Eleocharis intermedia</i>	mudflat spikesedge	E	
<i>Eleocharis ovata</i>	ovoid spikesedge	E	
<i>Eleocharis quinqueflora</i> ssp. <i>fernaldii</i>	few-flowered spikesedge	E	
<i>Equisetum palustre</i>	marsh horsetail	E	
<i>Euthamia caroliniana</i>	coastal plain grass-leaved-	T	S

Appendix D – Rare Plant Species and Wildlife Habitats

	goldenrod		
<i>Eutrochium fistulosum</i>	hollow Joe-Pye weed	E	
<i>Gentianella quinquefolia</i>	stiff dwarf-gentian	E	
<i>Gentianopsis crinita</i>	greater fringed-gentian	T	
<i>Glyceria acutiflora</i>	sharp-flowered mannagrass	E	S
<i>Halenia deflexa</i>	American spurred-gentian	T	
<i>Hippuris vulgaris</i>	common mare's-tail	T	
<i>Huperzia selago</i>	northern firmoss	E	
<i>Iris prismatica</i>	slender blue iris	E	
<i>Isoetes engelmannii</i>	Engelmann's quillwort	E	S
<i>Isoetes riparia</i> var. <i>canadensis</i>	Canada shore quillwort	E	S
<i>Juncus brachycephalus</i>	small-headed rush	E	S
<i>Lindernia dubia</i> var. <i>anagallidea</i>	unpretentious yellow-seeded false pimpernel	E	S
<i>Liparis loeselii</i>	Loesel's wide-lipped orchid	T	
<i>Lobelia kalmii</i>	brook lobelia	T	
<i>Lycopodiella alopecuroides</i>	foxtail bog-clubmoss	E	S
<i>Lycopodiella appressa</i>	appressed bog-clubmoss	E	S
<i>Lysimachia thyrsiflora</i>	tufted yellow-loosestrife	T	
<i>Mikania scandens</i>	climbing hempvine	E	
<i>Ophioglossum pusillum</i>	northern adder's-tongue fern	E	
<i>Panicum philadelphicum</i>	Philadelphia panicgrass	E	S
<i>Parnassia glauca</i>	fen grass-of-Parnassus	T	
<i>Persicaria robustior</i>	stout dotted smartweed	E	S
<i>Petasites frigidus</i> var. <i>palmatus</i>	northern sweet-coltsfoot	E	
<i>Platanthera flava</i> var. <i>herbiola</i>	northern tubercled bog-orchid	E	
<i>Ranunculus ambigens</i>	water-plantain crowfoot	E	
<i>Rhynchospora capillacea</i>	needle beaksedge	E	
<i>Sagittaria cuneata</i>	northern arrowhead	E	
<i>Sagittaria filiformis</i>	narrow-leaved arrowhead	E	
<i>Sagittaria teres</i>	quill-leaved arrowhead	E	S, G3
<i>Scirpus ancistrochaetus</i>	northeastern bulrush	E	G3
<i>Scirpus georgianus</i>	Georgia bulrush	E	
<i>Scirpus longii</i>	Long's bulrush	E	G2G3
<i>Scirpus pendulus</i>	rufous bulrush	E	
<i>Scirpus polyphyllus</i>	leafy bulrush	E	S
<i>Scleria reticularis</i>	netted nutsedge	E	S
<i>Sclerolepis uniflora</i>	sclerolepis	E	S
<i>Sparganium eurycarpum</i>	great bur-reed	T	
<i>Sparganium natans</i>	arctic bur-reed	T	
<i>Spiranthes casei</i>	Case's ladies'-tresses	E	
<i>Subularia aquatica</i> ssp. <i>americana</i>	American water-awwort	E	S
<i>Triantha glutinosa</i>	sticky false asphodel	E	

Appendix D – Rare Plant Species and Wildlife Habitats

Northern hardwood – conifer forest

There are very few rare plant species associated with northern hardwood – conifer forests. Most of those listed here actually occur in *rich mesic forests*, which typically occur as small inclusions within the larger matrix forest. These species are indicated with an “R” in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Adlumia fungosa</i>	Allegheny-vine	E	R
<i>Carex albursina</i>	white bear sedge	E	R
<i>Carex hitchcockiana</i>	Hitchcock's sedge	E	R
<i>Carex sparganioides</i>	bur-reed sedge	E	R
<i>Corallorhiza odontorhiza</i>	fall coral-root	E	
<i>Cynoglossum virginianum</i> ssp. <i>boreale</i>	wild hound's-tongue	E	R
<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	large yellow lady's-slipper	T	R
<i>Diplazium pycnocarpon</i>	narrow-leaved glade fern	E	R
<i>Galearis spectabilis</i>	showy orchid	T	R
<i>Isotria medeoloides</i>	small whorled pogonia	T	G2
<i>Osmorhiza berteroi</i>	mountain sweet-cicely	E	R
<i>Panax quinquefolius</i>	American ginseng	T	R
<i>Sanicula odorata</i>	clustered sanicle	E	R
<i>Sanicula trifoliata</i>	large-fruited sanicle	T	R
<i>Triphora trianthophora</i>	three-birds orchid	T	
<i>Uvularia grandiflora</i>	large-flowered bellwort	E	R

Northern swamps

The northern swamp habitat includes both nutrient-rich and nutrient-poor communities. Similarly to other forested habitats, the rich swamps—often dominated by northern white cedar (*Thuja occidentalis*)—tend to support a greater number of rare plant species. These species are indicated with an “R” in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Cypripedium arietinum</i>	ram's-head lady's-slipper	E	R, G3
<i>Cypripedium parviflorum</i> var. <i>makasin</i>	greater yellow lady's-slipper	E	R
<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	large yellow lady's-slipper	T	R
<i>Galium brevipes</i>	limestone swamp bedstraw	E	R
<i>Halenia deflexa</i>	American spurred-gentian	T	R
<i>Hydrophyllum virginianum</i>	eastern waterleaf	T	R
<i>Lysimachia thyrsiflora</i>	tufted yellow-loosestrife	T	
<i>Malaxis monophyllos</i> ssp.	white adder's-mouth	E	

Appendix D – Rare Plant Species and Wildlife Habitats

<i>brachypoda</i>			
<i>Malaxis unifolia</i>	green adder's-mouth	T	
<i>Neottia convallarioides</i>	broad-leaved twayblade	T	R
<i>Neottia cordata</i>	heart-leaved twayblade	T	R
<i>Petasites frigidus</i> var. <i>palmatus</i>	northern sweet-coltsfoot	E	R
<i>Pyrola asarifolia</i>	pink shinleaf	E	R
<i>Symphotrichum ciliolatum</i>	Lindley's American-aster	T	
<i>Valeriana uliginosa</i>	marsh valerian	E	R

Peatlands

Most peatlands in New Hampshire have soil conditions that range from mildly to extremely acidic. The most acidic peatland types—kettle hole bogs and poor level fens—support a highly specialized flora that includes a number of rare plant species. However, many of the rare plants associated with peatlands are associated with two types of rich fens—the **calcareous sloping fen** and **patterned fen systems**—both of which are extremely rare and found almost entirely in the northern part of the state. Species associated with these rich peatlands are indicated by an “R” in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Arethusa bulbosa</i>	dragon's-mouth	E	
<i>Betula pumila</i>	bog birch	E	
<i>Calamagrostis cinnoides</i>	Nuttall's reed grass	E	
<i>Carex aurea</i>	golden-fruited sedge	T	R
<i>Carex bullata</i>	button sedge	E	
<i>Carex buxbaumii</i>	brown bog sedge	E	R
<i>Carex castanea</i>	chestnut sedge	E	R
<i>Carex chordorrhiza</i>	rope-root sedge	E	
<i>Carex diandra</i>	lesser tussock sedge	T	
<i>Carex exilis</i>	meager sedge	E	R
<i>Carex livida</i>	livid sedge	E	R
<i>Carex rostrata</i>	beaked sedge	E	
<i>Carex striata</i>	Walter's sedge	E	
<i>Carex tenuiflora</i>	sparse-flowered sedge	E	R
<i>Carex wiegandii</i>	Wiegand's sedge	E	
<i>Coleataenia longifolia</i> ssp. <i>longifolia</i>	long-leaved redtop-panicgrass	E	
<i>Cypripedium reginae</i>	showy lady's-slipper	E	R
<i>Eleocharis erythropoda</i>	red-footed spikesedge	E	
<i>Eleocharis intermedia</i>	mudflat spikesedge	E	R
<i>Eleocharis nitida</i>	quill spikesedge	E	
<i>Eleocharis quinqueflora</i> ssp. <i>fernaldii</i>	few-flowered spikesedge	E	R

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Eleocharis tuberculosa</i>	long-tubercled spikesedge	E	
<i>Equisetum palustre</i>	marsh horsetail	E	R
<i>Eriophorum angustifolium</i>	tall cottonsedge	E	
<i>Galium brevipes</i>	limestone swamp bedstraw	E	R
<i>Gaylussacia bigeloviana</i>	dwarf huckleberry	T	
<i>Juncus alpinoarticulatus</i> ssp. <i>americanus</i>	northern green rush	E	
<i>Juncus stygius</i> ssp. <i>americanus</i>	moor rush	E	R
<i>Liparis loeselii</i>	Loesel's wide-lipped orchid	T	
<i>Lobelia kalmii</i>	brook lobelia	T	R
<i>Lycopodiella alopecuroides</i>	foxtail bog-clubmoss	E	
<i>Lycopodiella appressa</i>	appressed bog-clubmoss	E	
<i>Lysimachia thyrsiflora</i>	tufted yellow-loosestrife	T	
<i>Ophioglossum pusillum</i>	northern adder's-tongue fern	E	
<i>Parnassia glauca</i>	fen grass-of-Parnassus	T	R
<i>Petasites frigidus</i> var. <i>palmatus</i>	northern sweet-coltsfoot	E	R
<i>Rhynchospora capillacea</i>	needle beaksedge	E	R
<i>Rubus chamaemorus</i>	baked apple berry	T	
<i>Salix pedicellaris</i>	bog willow	T	
<i>Scirpus longii</i>	Long's bulrush	E	G2G3
<i>Sparganium natans</i>	arctic bur-reed	T	
<i>Triantha glutinosa</i>	sticky false asphodel	E	R
<i>Valeriana uliginosa</i>	marsh valerian	E	R

Pine barrens

There are two primary areas of pine barren habitat remaining in New Hampshire: the Concord Pine Barrens and the Ossipee Pine Barrens. While the Ossipee Pine Barrens occupy a much larger area and have far greater ecological integrity, the majority of the rare plants listed here occur primarily or exclusively in Concord.

Scientific name	Common name	Listing	Notes
<i>Aristida longespica</i> var. <i>geniculata</i>	red threeawn	E	
<i>Asclepias amplexicaulis</i>	clasping milkweed	T	
<i>Asclepias tuberosa</i>	butterfly milkweed	E	
<i>Calystegia spithamea</i>	upright false bindweed	E	
<i>Cenchrus longispinus</i>	long-spined sandbur	E	
<i>Cyperus houghtonii</i>	Houghton's umbrella sedge	E	
<i>Hudsonia ericoides</i>	golden heather	E	
<i>Hypoxis hirsuta</i>	common star-grass	T	
<i>Liatris novae-angliae</i>	northern blazing star	E	

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Lupinus perennis</i>	wild lupine	T	
<i>Solidago odora</i>	licorice goldenrod	E	

Rocky ridge, cliff, and talus

As it is current described in the WAP, this habitat contains a large number of natural community types in a variety of landscape positions. To refine the distinctions between the various component landscape features, each species will be indicated with an “R” for rocky ridge, “C” for cliff, and/or “T” for talus slope in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Adlumia fungosa</i>	Allegheny-vine	E	T
<i>Arabis pycnocarpa</i>	hairy eared-rockcress	E	T
<i>Arnica lanceolata</i>	lance-leaved arnica	T	C, G3
<i>Aureolaria virginica</i>	downy false foxglove	E	R
<i>Boechera canadensis</i>	sicklepod rockcress	T	T
<i>Boechera laevigata</i>	smooth rockcress	E	T
<i>Boechera missouriensis</i>	green rockcress	T	T
<i>Bromus pubescens</i>	hairy wood brome	E	T
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	northern neglected reed grass	T	C, R
<i>Calystegia spithamea</i>	upright false bindweed	E	R, T
<i>Cardamine bellidifolia</i>	alpine bitter-cress	E	C
<i>Cardamine maxima</i>	large toothwort	T	T
<i>Carex aestivalis</i>	summer sedge	E	T
<i>Carex backii</i>	Back's sedge	E	R
<i>Carex cumulata</i>	clustered sedge	T	R
<i>Carex eburnea</i>	bristle-leaved sedge	E	C
<i>Carex retroflexa</i>	reflexed sedge	E	T
<i>Carex scirpoidea</i>	scirpus-like sedge	T	C
<i>Carex siccata</i>	dry land sedge	E	R
<i>Carex umbellata</i>	parasol sedge	E	R
<i>Chenopodium foggii</i>	Fogg's goosefoot	E	T, G2G3
<i>Clematis occidentalis</i>	purple virgin's bower	E	T
<i>Crepidomanes intricatum</i>	Appalachian bristle fern	E	C
<i>Cryptogramma stelleri</i>	slender rock-brake	E	C
<i>Diapensia lapponica</i>	diapensia	T	C
<i>Digitaria filiformis</i> var. <i>laeviglumis</i>	smooth slender crabgrass	E	R
<i>Diplazium pycnocarpon</i>	narrow-leaved glade fern	E	T
<i>Draba cana</i>	canescent whitlow-mustard	E	C
<i>Dryopteris filix-mas</i> ssp. <i>brittonii</i>	male wood fern	E	R,T

Appendix D – Rare Plant Species and Wildlife Habitats

<i>Dryopteris fragrans</i>	fragrant wood fern	T	C
<i>Eupatorium sessilifolium</i>	upland thoroughwort	E	R
<i>Geranium carolinianum</i>	Carolina crane's-bill	E	R
<i>Hackelia deflexa</i> ssp. <i>americana</i>	nodding stickseed	E	T
<i>Houstonia longifolia</i>	long-leaved bluet	E	T
<i>Juncus secundus</i>	lopsided rush	E	T
<i>Juniperus horizontalis</i>	creeping juniper	E	R
<i>Lechea tenuifolia</i>	narrow-leaved pinweed	E	R,T
<i>Minuartia glabra</i>	Appalachian sandplant	E	R
<i>Minuartia michauxii</i>	Michaux's sandplant	E	R
<i>Muhlenbergia sobolifera</i>	rock muhly	E	T
<i>Oligoneuron album</i>	white flat-topped-goldenrod	E	C,R
<i>Omalotheca supina</i>	alpine arctic-cudweed	E	C,T
<i>Osmorhiza berteroi</i>	mountain sweet-cicely	E	T
<i>Packera obovata</i>	running groundsel	E	T
<i>Panax quinquefolius</i>	American ginseng	T	T
<i>Paronychia argyrocoma</i>	silverling	T	C,T
<i>Paronychia canadensis</i>	smooth forked whitlow-wort	E	R
<i>Pellaea atropurpurea</i>	purple cliff-brake	E	C
<i>Pinguicula vulgaris</i>	violet butterwort	E	C
<i>Pinus banksiana</i>	Jack pine	T	R
<i>Piptatherum canadensis</i>	Canada mountain-rice grass	E	R
<i>Poa laxa</i> ssp. <i>fernaldiana</i>	wavy blue grass	E	C
<i>Polygonum douglasii</i>	Douglas' knotweed	T	R
<i>Polygonum tenue</i>	slender knotweed	E	R
<i>Ranunculus fascicularis</i>	early crowfoot	E	T
<i>Rosa acicularis</i> ssp. <i>sayi</i>	bristly rose	E	T
<i>Saxifraga cernua</i>	nodding saxifrage	E	C
<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>	White Mountain saxifrage	E	C
<i>Saxifraga rivularis</i>	alpine-brook saxifrage	E	C
<i>Sericocarpus linifolius</i>	narrow-leaved white-topped- aster	E	R
<i>Solidago leiocarpa</i>	Cutler's goldenrod	T	C
<i>Solidago odora</i>	licorice goldenrod	E	R
<i>Spiranthes casei</i>	Case's ladies'-tresses	E	R
<i>Symphyotrichum ciliolatum</i>	Lindley's American-aster	T	R
<i>Symphyotrichum patens</i>	late purple American-aster	T	T
<i>Thalictrum revolutum</i>	waxy-leaved meadow-rue	E	T
<i>Vulpia octoflora</i> var. <i>tenella</i>	eight-flowered six-weeks grass	E	R
<i>Woodsia glabella</i>	smooth cliff fern	E	C
<i>Woodsia obtusa</i>	blunt-lobed cliff fern	E	C,T

Appendix D – Rare Plant Species and Wildlife Habitats

Salt marsh

Because of the limited size of New Hampshire’s coastal zone, salt marshes are inherently a rare habitat type in the state, and support a number of rare plant species. But several of these plants are associated with an even more restricted subset of these tidal marshes: the **brackish riverbank marsh system**. These are narrow zones of marsh along the banks of brackish tidal rivers. Species from these communities are indicated with a “B” in the Notes column.

Scientific name	Common name	Listing	Notes
<i>Agalinis maritima</i>	saltmarsh agalinis	E	
<i>Bidens hyperborea</i>	northern beggar-ticks	E	B
<i>Chenopodium rubrum</i>	red goosefoot	E	
<i>Cirsium horridulum</i>	yellow thistle	E	
<i>Crassula aquatica</i>	pygmy-weed	E	B
<i>Echinochloa walteri</i>	coast barnyard grass	E	
<i>Eleocharis parvula</i>	little-headed spikeseed	T	B
<i>Eleocharis uniglumis</i>	one-glumed spikeseed	T	B
<i>Hibiscus moscheutos</i>	swamp rose-mallow	E	
<i>Iva frutescens</i>	marsh elder	T	
<i>Lilaeopsis chinensis</i>	eastern grasswort	E	B
<i>Lilium superbum</i>	Turk's-cap lily	E	
<i>Limosella australis</i>	Atlantic mudwort	E	B
<i>Phragmites americanus</i>	American reed	E	
<i>Pluchea odorata</i> var. <i>succulenta</i>	sweet-scented camphorweed	E	
<i>Polygonum ramosissimum</i> ssp. <i>prolificum</i>	prolific yellow-flowered knotweed	E	
<i>Puccinellia pumila</i>	tundra alkali grass	E	
<i>Sagittaria montevidensis</i> ssp. <i>spongiosa</i>	spongy-leaved arrowhead	E	B
<i>Salicornia ambigua</i>	perennial glasswort	E	
<i>Salicornia bigelovii</i>	dwarf glasswort	E	
<i>Samolus valerandi</i> ssp. <i>parviflorus</i>	seaside brookweed	E	B
<i>Suaeda maritima</i> ssp. <i>richii</i>	Rich's herbaceous sea-blite	E	
<i>Symphotrichum tenuifolium</i>	perennial saltmarsh American- aster	E	
<i>Zannichellia palustris</i>	horned-pondweed	E	

Temperate swamps

Temperate swamps are widespread and common in southern and central New Hampshire, and include a number of rare natural community types, such as Atlantic white cedar swamps, but tend to support a relatively low number of rare plant species.

Appendix D – Rare Plant Species and Wildlife Habitats

Scientific name	Common name	Listing	Notes
<i>Bartonia iodandra</i>	purple screwstem	E	
<i>Bartonia paniculata</i>	twining screwstem	E	
<i>Cardamine bulbosa</i>	bulbous bitter-cress	E	
<i>Carex seorsa</i>	weak stellate sedge	E	
<i>Eutrochium fistulosum</i>	hollow Joe-Pye weed	E	
<i>Glyceria acutiflora</i>	Sharp-flowered mannagrass	E	
<i>Liparis loeselii</i>	Loesel's wide-lipped orchid	T	
<i>Lygodium palmatum</i>	American climbing fern	E	
<i>Lysimachia thyrsoiflora</i>	tufted yellow-loosestrife	T	
<i>Malaxis unifolia</i>	green adder's-mouth	T	
<i>Mikania scandens</i>	climbing hempvine	E	
<i>Platanthera flava</i> var. <i>herbiola</i>	northern tubercled bog-orchid	E	
<i>Rhododendron maximum</i>	giant rhododendron	T	
<i>Scirpus polyphyllus</i>	leafy bulrush	E	
<i>Woodwardia areolata</i>	netted chain fern	E	