Massachusetts Natural Heritage Program

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GOVERNMENT DOCUMENTS
COLLECTION

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EQUISETACEAE (Horsetails)

<u>Equisetum palustre</u>	X
Marsh Horsetail	
<u>E. scirpoides</u>	SC
Dwarf Scouring-rush	

LYCOPODIACEAE (Clubmosses)

<u>Lycopodium alopecuroides</u>	X
Foxtail Clubmoss	
<u>L. carolinianum</u>	X
Carolina Clubmoss	
<u>L. selago</u>	E
Fir Clubmoss	

ISOETACEAE (Quillworts)

<u>Isoetes acadiensis</u>	E
Acadian Quillwort	
<u>I. eatonii</u>	E
Eaton's Quillwort	
<u>I. macrospora</u>	E
Lake Quillwort	

OPHIOGLOSSACEAE (Adder's-tongue Ferns)

<u>Ophioglossum vulgatum</u>	T
Adder's-tongue Fern	

SCHIZAEACEAE (Climbing & Curly Grass Ferns)

<u>Lygodium palmatum</u>	SC
Climbing Fern	

HYMENOPHYLLACEAE (Filmy-ferns)

<u>Trichomanes sp.</u>	T
a Filmy-fern	

ADIANTACEAE (Cliff & Maidenhair Ferns)

<u>Cryptogramma stelleri</u>	T
Fragile Rock-brake	
<u>Pellaea atropurpurea</u>	SC
Purple Cliff-brake	

ASPLENIACEAE (True Ferns)

<u>Asplenium montanum</u>	E
Mountain Spleenwort	
<u>A. ruta-muraria</u>	T
Wall-rue Spleenwort	
<u>Polystichum braunii</u>	E
Braun's Holly-fern	
<u>Woodsia glabella</u>	E
Smooth Woodsia	

SPARGANIACEAE (Bur-reeds)

<u>Sparganium minimum</u>	E
Small Bur-reed	

POTAMOGETONACEAE (Pondweeds)

<u>Potamogeton alpinus</u>	X
Northern Pondweed	
<u>P. friesii</u>	T
Fries's Pondweed	
<u>P. strictifolius</u>	E
Straight-leaved Pondweed	

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ALISMATACEAE (Arrowheads, Water-plantains)

<u>Echinodorus parvulus</u>	E
Burhead	
<u>Sagittaria calycina</u> ssp. <u>spongiosa</u>	E
Estuary Arrowhead	
<u>S. cuneata</u>	T
Wapato	
<u>S. subulata</u> var. <u>subulata</u>	E
River Arrowhead	
<u>S. teres</u>	SC
Terete Arrowhead	

POACEAE (Grasses)

<u>Aristida purpurascens</u>	T
Purple Needlegrass	
<u>A. tuberosa</u>	SC
Seabeach Needlegrass	
<u>Calamagrostis pickeringii</u>	X
Reed Bentgrass	
<u>Dichanthelium acuminatum</u>	
var. <u>wrightianum</u>	SC
Wright's Panic-grass	
<u>D. ovale</u> var. <u>addisonii</u>	SC
Commons's Panic-grass	
<u>D. scoparium</u>	H
Broom Panic-grass	
<u>Diplachne maritima</u>	T
Saltpond Grass	
<u>Elymus mollis</u>	E
Sea Lyme-grass	
<u>Eragrostis frankii</u>	SC
Frank's Love-grass	
<u>Milium effusum</u>	T
Millet Grass	
<u>Muhlenbergia capillaris</u>	X
Hairgrass	
<u>Panicum gattingeri</u>	SC
Gattinger's Panic-grass	
<u>P. longifolium</u>	E
Long-leaved Panic-grass	
<u>P. philadelphicum</u>	SC
Philadelphia Panic-grass	
<u>Paspalum laeve</u> var. <u>circulare</u>	X
Meadow Paspalum	
<u>Puccinellia langeana</u> ssp. <u>alaskana</u>	H
Northern Alkali-grass	

<u>Setaria geniculata</u>	SC
Bristly Foxtail	
<u>Spartina cynosuroides</u>	SC
Salt Reed-grass	
<u>Sporobolus heterolepis</u>	X
Northern Dropseed	
<u>S. neglectus</u>	E
Small Dropseed	
<u>Tripsacum dactyloides</u>	E
Northern Gama-grass	
<u>Trisetum spicatum</u> var. <u>molle</u>	E
Spiked False-oats	

CYPERACEAE (Sedges)

<u>Carex alopecoidea</u>	T
Foxtail Sedge	
<u>C. baileyi</u>	H
Bailey's Sedge	
<u>C. bushii</u>	E
Bush's Sedge	
<u>C. castanea</u>	E
Chestnut-colored Sedge	
<u>C. chordorrhiza</u>	E
Creeping Sedge	
<u>C. davisii</u>	E
Davis's Sedge	
<u>C. flaccosperma</u> var. <u>glaucodea</u>	E
Glaucous Sedge	
<u>C. formosa</u>	T
Handsome Sedge	
<u>C. grayi</u>	T
Gray's Sedge	
<u>C. hitchcockiana</u>	SC
Hitchcock's Sedge	
<u>C. lenticularis</u>	T
Shore Sedge	
<u>C. livida</u> var. <u>grayana</u>	E
Glaucous Sedge	
<u>C. michauxiana</u>	E
Michaux's Sedge	
<u>C. oligocarpa</u>	H
Rich Woods Sedge	
<u>C. oligosperma</u>	T
Few-fruited Sedge	
<u>C. pauciflora</u>	E
Few-flowered Sedge	

<u>Carex polymorpha</u>	H	<u>Scirpus ancistrochaetus</u>	X
Variable Sedge		Barbed-bristle Bulrush	
<u>C. salina</u> var. <u>kattegatensis</u>	H	<u>S. fluviatilis</u>	SC
Saline Sedge		River Bulrush	
<u>C. schweinitzii</u>	E	<u>S. hallii</u>	X
Schweinitz's Sedge		Hall's Bulrush	
<u>C. sterilis</u>	T	<u>S. longii</u>	X
Dioecious Sedge		Long's Bulrush	
<u>C. tetanica</u>	T	<u>S. pendulus</u>	SC
Rigid Sedge		Pendulous Bulrush	
<u>C. trichocarpa</u>	T	<u>Scleria pauciflora</u> var. <u>caroliniana</u>	E
Hairy-fruited Sedge		Papillose Nut-rush	
<u>C. typhina</u>	T	<u>S. triglomerata</u>	E
Cat-tail Sedge		Tall Nut-rush	
<u>C. walteriana</u> var. <u>brevis</u>	E		
Walter's Sedge			
<u>C. wiegandii</u>	E	ARACEAE (Arums)	
Wiegand's Sedge			
<u>C. willdenowii</u>	H	<u>Arisaema dracontium</u>	T
Willdenow's Sedge		Green Dragon	
<u>Cyperus engelmannii</u>	SC	<u>Orontium aquaticum</u>	T
Engelmann's Umbrella-sedge		Golden Club	
<u>Eleocharis equisetoides</u>	X		
Horsetail Spike-rush		ERIOCAULACEAE (Pipeworts)	
<u>E. fallax</u>	E		
Deceitful Spike-rush		<u>Eriocaulon parkeri</u>	E
<u>E. intermedia</u>	T	Estuary Pipewort	
Intermediate Spike-rush			
		JUNCACEAE (Rushes)	
<u>E. obtusa</u> var. <u>ovata</u>	E		
Ovate Spike-rush		<u>Juncus biflorus</u>	E
<u>E. quadrangulata</u>	X	Two-flowered Rush	
Squarestem Spike-rush		<u>J. pervetus</u>	X
<u>E. tricostata</u>	E	Cape Cod Rush	
Three-angled Spike-rush		<u>Luzula parviflora</u> ssp. <u>melanocarpa</u>	E
<u>Psilocarya nitens</u>	T	Black-fruited Woodrush	
Short-beaked Bald-rush			
<u>P. scirpoides</u>	SC		
Long-beaked Bald-rush		LILIACEAE (Lilies)	
<u>Rhynchospora capillacea</u>	E		
Capillary Beak-rush		<u>Chamaelirium luteum</u>	E
<u>R. inundata</u>	T	Devil's-bit	
Inundated Horned-rush			
<u>R. torreyana</u>	E	HAEMODORACEAE (Bloodworts, Redroots)	
Torrey's Beak-rush			
		<u>Lachnanthes caroliniana</u>	SC
		Redroot	

IRIDACEAE (Irises)

Sisyrinchium arenicola SC
Sandplain Blue-eyed Grass

ORCHIDACEAE (Orchids)

Aplectrum hyemale E
Putty-root
Arethusa bulbosa T
Arethusa
Corallorhiza odontorhiza SC
Autumn Coralroot
Cypripedium arietinum E
Ram's-head Lady's-slipper
C. calceolus var. parviflorum E
Small Yellow Lady's-slipper
C. reginae SC
Showy Lady's-slipper
Isotria medeoloides FE
Small Whorled Pogonia
Listera cordata E
Heartleaf Twayblade
Malaxis brachypoda T
White Adder's-mouth
Platanthera ciliaris X
Orange Fringed Orchis
P. cristata X
Crested Fringed Orchis
P. dilatata T
Leafy White Orchis
P. flava var. herbiola T
Pale Green Orchis
P. obtusata X
Bluntleaf Orchis
Spiranthes vernalis SC
Grass-leaved Ladies'-tresses
Tipularia discolor E
Cranefly Orchid
Triphora trianthophora E
Nodding Pogonia

SALICACEAE (Willows)

Salix exigua SC
Sandbar Willow
S. serissima SC
Autumn Willow

BETULACEAE (Birches, Alders)

Alnus viridis ssp. crispa SC
Mountain Alder
Betula pumila T
Swamp Birch

FAGACEAE (Oaks, Beeches)

Quercus macrocarpa SC
Bur or Mossy-cup Oak
Q. muhlenbergii SC
Yellow Oak

LORANTHACEAE (Mistletoes)

Arceuthobium pusillum SC
Dwarf Mistletoe

POLYGONACEAE (Docks, Knotweeds)

Polygonum puritanorum SC
Pondshore Knotweed
P. setaceum var. interjectum SC
Strigose Knotweed
Rumex pallidus T
Seabeach Dock

CHENOPODIACEAE (Saltworts, Sea-blites)

Suaeda americana SC

AMARANTHACEAE (Amaranths)

Amaranthus pumilus X
Seabeach Amaranth

PORTULACACEAE (Purslanes, Spring Beauties)

Claytonia virginica T
Narrow-leaved Spring Beauty

CARYOPHYLLACEAE (Pinks, Sandworts)

<u>Minuartia stricta</u>	SC
Rock Sandwort	
<u>Moehringia macrophylla</u>	E
Large-leaved Sandwort	
<u>Paronychia argyrocoma</u>	E
var. <u>albimontana</u>	
Silverling	
<u>Sagina nodosa</u> ssp. <u>nodosa</u>	T
Knotted Pearlwort	

RANUNCULACEAE (Buttercups, Crowfoots)

<u>Cimicifuga racemosa</u>	E
Black Cohosh	
<u>Clematis occidentalis</u>	SC
Purple Clematis	
<u>Hydrastis canadensis</u>	E
Golden Seal	
<u>Ranunculus circinatus</u>	X
var. <u>subrigidus</u>	
Stiff White Water-crowfoot	
<u>R. micranthus</u>	T
Tiny-flowered Buttercup	

MAGNOLIACEAE (Magnolias)

<u>Magnolia virginiana</u>	E
Sweetbay Magnolia	

PAPAVERACEAE (Poppies)

<u>Adlumia fungosa</u>	T
Climbing Fumitory	

BRASSICACEAE (Mustards)

<u>Arabis lyrata</u>	T
Lyre-leaved Rock-cress	
<u>Cardamine douglassii</u>	E
Purple Cress	
<u>C. longii</u>	X
Long's Bitter-cress	
<u>Draba reptans</u>	X
Carolina Whitlow-grass	

PODOSTEMACEAE (Threadfoots)

<u>Podostemum ceratophyllum</u>	SC
Threadfoot	

CRASSULACEAE (Sedums)

<u>Crassula aquatica</u>	T
Pygmyweed	

SAXIFRAGACEAE (Saxifrages, Currants)

<u>Ribes lacustre</u>	SC
Bristly Black Currant	
<u>R. triste</u>	SC
Swamp Red Currant	

ROSACEAE (Roses, Shadbushes)

<u>Agrimonia pubescens</u>	T
Hairy Agrimony	
<u>Amelanchier bartramiana</u>	T
Bartram's Shadbush	
<u>A. nantucketensis</u>	SC
Nantucket Shadbush	
<u>A. sanguinea</u>	SC
Roundleaf Shadbush	
<u>Prunus pumila</u> var. <u>depressa</u>	SC
Sandbar Cherry	
<u>Rosa acicularis</u>	E
Prickly Rose	
<u>Sorbus decora</u>	E
Northern Mountain-ash	
<u>Waldsteinia fragarioides</u>	SC
Barren Strawberry	

FABACEAE (Beans, Peas, Clovers)

<u>Desmodium sessilifolium</u>	X
Sessile-leaved Tick-trefoil	

OXALIDACEAE (Wood-sorrels)

<u>Oxalis violacea</u>	T
Violet Wood-sorrel	

LINACEAE (Flaxes)

<u>Linum intercursum</u>	SC
Sandplain Flax	
<u>L. sulcatum</u>	X
Grooved Flax	

POLYGALACEAE (Milkworts)

<u>Polygala senega</u>	X
Seneca Snakeroot	

CALLITRICHACEAE (Water-starworts)

<u>Callitriche anceps</u>	E
Northern Water-starwort	
<u>C. terrestris</u>	E
Terrestrial Starwort	

EMPETRACEAE (Crowberries)

<u>Corema conradii</u>	SC
Broom Crowberry	

LIMNANTHACEAE (False Mermaids)

<u>Floerkea proserpinacoides</u>	X
False Mermaid	

AQUIFOLIACEAE (Hollies)

<u>Ilex montana</u>	T
Mountain Winterberry	

ACERACEAE (Maples)

<u>Acer nigrum</u>	SC
Black Maple	

CLUSIACEAE (St. John's-worts)

<u>Hypericum adpressum</u>	T
Creeping St. John's-wort	
<u>H. stragulum</u>	E
St. Andrew's Cross	

CISTACEAE (Rockroses, Frostweeds)

<u>Helianthemum dumosum</u>	SC
Bushy Rockrose	

VIOLACEAE (Violets)

<u>Viola adunca</u>	E
Sand Violet	
<u>V. brittoniana</u>	T
Britton's Violet	
<u>V. nephrophylla</u>	T
Northern Bog Violet	

CACTACEAE (Cacti)

<u>Opuntia humifusa</u>	SC
Prickly Pear	

LYTHRACEAE (Loosestrifes)

<u>Cuphea viscosissima</u>	X
Blue Waxweed	
<u>Rotala ramosior</u>	X
Toothcup	

MELASTOMATACEAE (Meadow Beauties)

<u>Rhexia mariana</u>	T
Maryland Meadow Beauty	

ONAGRACEAE (Evening Primroses)

<u>Ludwigia polycarpa</u>	T
Many-fruited False-loosestrife	
<u>L. sphaerocarpa</u>	T
Round-fruited False-loosestrife	

HALORAGIDACEAE (Water-milfoils)

<u>Myriophyllum alterniflorum</u>	T
Alternate-flowered Water-milfoil	
<u>M. pinnatum</u>	SC
Pinnate Water-milfoil	

ARALIACEAE (Ginsengs)

<u>Panax quinquefolius</u>	SC
Ginseng	

APIACEAE (Parsleys, Angelicas)

<u>Angelica villosa</u>	X
Hairy Angelica	
<u>Conioselinum chinense</u>	SC
Hemlock Parsley	
<u>Hydrocotyle verticillata</u>	SC
Saltpond Pennywort	

ERICACEAE (Laurels, Blueberries)

<u>Pterospora andromedea</u>	X
Pinedrops	
<u>Pyrola asarifolia</u> var. <u>purpurea</u>	E
Pink Pyrola	
<u>Rhododendron maximum</u>	T
Great Laurel	
<u>Vaccinium vitis-idaea</u> ssp. <u>minus</u>	E
Mountain Cranberry	

GENTIANACEAE (Gentians)

<u>Halenia deflexa</u>	E
Spurred Gentian	
<u>Sabatia campanulata</u>	E
Slender Marsh Pink	
<u>S. kennedyana</u>	SC
Plymouth Gentian	
<u>S. stellaris</u>	E
Sea Pink	

ASCLEPIADACEAE (Milkweeds)

<u>Asclepias verticillata</u>	T
Linear-leaved Milkweed	

HYDROPHYLLACEAE (Waterleafs)

<u>Hydrophyllum canadense</u>	E
Broad Waterleaf	

BORAGINACEAE (Borages)

<u>Cynoglossum boreale</u>	X
Northern Wild Comfrey	
<u>Mertensia maritima</u>	E
Oysterleaf	
<u>Onosmodium virginianum</u>	X
False Gromwell	

VERBENACEAE (Vervains)

<u>Verbena simplex</u>	E
Narrow-leaved Vervain	

LAMIACEAE (Mints)

<u>Agastache scrophulariifolia</u>	X
Purple Giant Hyssop	
<u>Blephilia ciliata</u>	E
Downy Wood-mint	
<u>B. hirsuta</u>	E
Hairy Wood-mint	
<u>Pycnanthemum clinopodioides</u>	E
Basil Mountain-mint	
<u>Scutellaria integrifolia</u>	X
Hyssop Skullcap	
<u>Trichostema brachiatum</u>	T
False Pennyroyal	

SCROPHULARIACEAE (Figworts)

<u>Agalinis acuta</u>	E
Sandplain Gerardia	
<u>Castilleja coccinea</u>	X
Indian Paintbrush	
<u>Mimulus alatus</u>	E
Winged Monkey-flower	
<u>M. moschatus</u>	T
Muskflower	
<u>Pedicularis lanceolata</u>	E
Swamp Lousewort	
<u>Schwalbea americana</u>	X
Chaffseed	
<u>Veronica catenata</u>	H
Sessile Water-speedwell	
<u>Veronicastrum virginicum</u>	SC
Culver's-root	

LENTIBULARIACEAE (Bladderworts)

<u>Utricularia biflora</u>	T
Two-flowered Bladderwort	
<u>U. fibrosa</u>	T
Fibrous Bladderwort	
<u>U. subulata</u>	SC
Subulate Bladderwort	

RUBIACEAE (Bedstraws, Bluets)

<u>Galium labradoricum</u>	SC
Labrador Bedstraw	

CAPRIFOLIACEAE (Honeysuckles)

<u>Lonicera hirsuta</u>	E
Hairy Honeysuckle	
<u>Symphoricarpos albus</u> var. <u>albus</u>	E
Snowberry	
<u>Viburnum rafinesquianum</u>	T
Downy Arrowwood	

CAMPANULACEAE (Bluebells, Lobelias)

<u>Lobelia siphilitica</u>	T
Great Blue Lobelia	

ASTERACEAE (Asters, Composites)

<u>Artemisia campestris</u> ssp. <u>borealis</u>	E
Boreal Wormwood	
<u>Aster concolor</u>	E
Eastern Silvery Aster	
<u>A. infirmus</u>	E
Cornel-leaved Aster	
<u>A. prenanthoides</u>	E
Crooked-stem Aster	
<u>A. tradescantii</u>	SC
Tradescant's Aster	
<u>Bidens eatonii</u>	T
Eaton's Beggar-ticks	
<u>B. hyperborea</u> var. <u>colpophila</u>	E
Estuary Beggar-ticks	
<u>Eupatorium aromaticum</u>	E
Lesser Snakeroot	
<u>E. leucolepis</u> var. <u>novae-angliae</u>	E
New England Boneset	
<u>Gnaphalium purpureum</u>	E
Purple Cudweed	
<u>Petasites frigidus</u> var. <u>palmatum</u>	T
Sweet Coltsfoot	
<u>Sclerolepis uniflora</u>	E
Sclerolepis	
<u>Solidago hispida</u>	H
Hispid Goldenrod	
<u>S. macrophylla</u>	T
Large-leaved Goldenrod	
<u>S. ptarmicoides</u>	T
(=Aster p.)	
Upland White Aster	
<u>S. rigida</u>	X
Stiff Goldenrod	
<u>S. spathulata</u> ssp. <u>randii</u>	E
Rand's Goldenrod	

REFERENCES AND ANNOTATED BIBLIOGRAPHY

- Brown, L. 1979. Grasses. An Identification Guide. Houghton Mifflin Co., Boston. Very helpful for beginners; treats some sedges and rushes also. Simplified keys; drawings of some northeastern species.
- Cobb, B. 1956. A Field Guide to the Ferns. Houghton Mifflin Co., Boston. Keys, drawings, descriptions of all northeastern species.
- Coddington, J.A. & K. G. Field. 1978. Rare and Endangered Vascular Plant Species in Massachusetts. New England Botanical Club in cooperation with U.S. Fish and Wildlife Service, Newton Corner, Massachusetts. Annotated list with county distributions, threats, habitats. No drawings or keys.
- Crow, G. E. 1982. New England's Rare, Threatened, and Endangered Plants. U.S. Fish and Wildlife Service in cooperation with New Hampshire Agricultural Experiment Station, University of New Hampshire, Durham. Descriptions of 101 species; drawings of 75; range maps.
- Elias, T.S. 1980. The Complete Trees of North America: Field Guide & natural History. Van Nostrand Reinhold, 864pp. Descriptions, drawings (many in color), range maps of all species.
- Fernald, M.L. 1950. Gray's Manual of Botany. 8th Ed. D. Van Nostrand Co., New York. Keys, detailed descriptions of all species: some drawings.
- Gleason, H. A. 1952. The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada. New York Botanical Garden, New York. Keys, drawings, detailed descriptions of all species. Beware of the Dover publication (1970) , a reprint of the 1913 edition, now badly out of date.
- Hellquist, C. B. & G. E. Crow. 1980-. Aquatic Vascular Plants of New England. New Hampshire Agricultural Experiment Station, University of New Hampshire, Durham. Continuing series of booklets. Keys, drawings, descriptions of all species; range maps.
- Kartesz, J. Y. & R. Kartesz. 1980. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. University of North Carolina Press, Chapel Hill. Up-to-date nomenclature and synonyms. Technical, a reference work for taxonomists.
- Luer, C.A. 1975. The Native Orchids of the United States and Canada excluding Florida. New York Botanical Garden, NY. Keys, descriptions, color photos, range maps of all species. The definitive work.
- Mitchell, R.S., editor. 1978-. Contributions to a Flora of New York State. NY State Museum, Albany. Continuing series of booklets, each covering specific families or genera. Keys, descriptions, drawings, range maps of all species. Extremely useful for New England.

- Newcomb, L. 1977. Newcomb's Wildflower Guide. Little, Brown & Co., Boston. Simplified keys, drawings (some color), brief descriptions of most northeastern species.
- Peterson, R. T. & M. McKenny. 1967. A Field Guide to the Wildflowers. Houghton Mifflin Co., Boston. Arranged by color of flowers. Drawings (many in color), brief descriptions of most northeastern species.
- Ricketts, H. W. 1965. Wildflowers of the United States. Vol. 1. New York Botanical Garden, New York. No keys; color photos, brief descriptions of most northeastern species.
- Seymour, F. C. 1982. The Flora of New England. 2nd Ed. Phytologia Memoirs V; H. N. Moldenke, 303 Parkside Road, Plainfield, New Jersey 07060. Keys, county ranges of all species; some drawings. Slightly revised from 1969 edition published by Tuttle, Rutland, Vermont..
- Soper, J. H. and M. L. Heimbürger. 1982. Shrubs of Ontario. Royal Ontario Museum, Toronto. 495pp. keys, descriptions, drawings, range maps of all species. Very useful for New England.
- Voss, E. G. 1972. Michigan Flora. Part 1, Gymnosperms and Monocots. Cranbrook Institute of Science and University of Michigan Herbarium, Bloomfield Hills. Keys, brief descriptions of all species; many drawings; range maps. Up-to-date, very useful over northeastern United States. 1985. Part II, Saururaceae to Cornaceae
- Wherry, E. T. 1961. The Fern Guide. Doubleday & Co., Garden City, New York. Keys, drawings, descriptions of all northeastern species.
- Williams, J. G. & A. E. Williams. 1983. Field Guide to Orchids of North America. Universe Books, New York. 143pp. Keys to genera and some species. Brief descriptions, color paintings of all species.

RARE NATIVE PLANTS OF MASSACHUSETTS

Prepared by

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INTRODUCTION

The list identifies those native plants of the Commonwealth which are the rarest and most in need of conservation. All of the listed species are threatened by development, recreational pressures, or ecological succession, or are vulnerable because they occur only in rare or fragile habitats. The majority, such as Fir Clubmoss (Lycopodium selago) and Chaffseed (Schwalbea americana), have historically always been rare in the number of occurrences and/or overall state population size. Others, such as Arethusa (Arethusa bulbosa) and Purple Needlegrass (Aristida purpurascens), were once fairly numerous but have severely declined during the past 75 years due to habitat alteration. A few, such as Golden Seal (Hydrastis canadensis) and Smooth Woodsia (Woodsia glabella), have been newly discovered in Massachusetts only very recently; they may be new colonizers or may have been overlooked in the past. Several species are nearly endemic to Massachusetts; protection within this state is essential for the continued survival of such species as Terete Arrowhead (Sagittaria teres), Nantucket Shadbush (Amelanchier nantucketensis), Bushy Rockrose (Helianthemum dumosum), Plymouth Gentian (Sabatia kennedyana), and Sandplain Gerardia (Agalinis acuta).

The first comprehensive list of the rare plants of the state is "Rare and endangered vascular plant species in Massachusetts" (Coddington & Field, 1978). In this important publication, the authors document the historical distribution of 243 species and give clear and thoughtful discussions on floristic provinces of the state, preservation of critical habitats, causes of rarity, and criteria for inclusion of species. Since 1978, The Massachusetts Natural Heritage Program has tapped many sources, particularly additional herbarium specimens and published reports. In addition, the author has spent five field seasons **verifying** the locations and identities of rare plants across the state. That, combined with the reports of other professional and amateur botanists, has made the Natural Heritage Program's data base the largest repository of rare plant information in the state. From the Coddington & Field list 42 species have been deleted, primarily because recent intensive searches indicate that they are more common than previously thought. Similarly, 40 species have been added after careful consideration of their current and historical rarity and vulnerability of their habitats. Only native species are listed.

FUTURE REVISIONS

In any listing of rare species it is expected that changes will be made from time to time. This list is itself a revision of a 1985 list and is based on our current knowledge; it will be subject to revision as the circumstances of a species' rarity change and as our knowledge about the native flora increases. Submission of additional data on these species, or on other species which may warrant listing, is requested and encouraged. Please send information to the Massachusetts Natural Heritage Program, Division of Fisheries & Wildlife, 100 Cambridge St., Boston, MA 02202.

ABOUT THIS LIST

The list is arranged taxonomically by botanical family; within each family plants are arranged alphabetically by genus and species. Trinomials are used to indicate certain subspecies and varieties; in most cases only the listed taxon occurs in Massachusetts.

Status Codes

The status of each species is indicated by letter codes as defined below:

- FE = listed as Federally Endangered by U.S. Fish & Wildlife Service.
- FT = listed as Federally Threatened by U.S. Fish & Wildlife Service.
- E = Endangered. Any reproductively viable native species of wildlife or wild plant which has been documented by biological research and inventory to be in danger of extirpation from the Commonwealth.
- T = Threatened. Any reproductively viable native species of wildlife or wild plant which has been documented by biological research and inventory to be rare or declining within the Commonwealth and which is likely to become endangered in the Commonwealth in the foreseeable future.
- SC = Special Concern. Any native wildlife or wild plant species which has been documented by biological research and inventory to be suffering a decline that could threaten the species in the Commonwealth if allowed to continue unchecked, or that occurs in such small numbers or with such a restricted distribution or specialized habitat requirements that it could easily become threatened.
- X = Extirpated. No longer believed to occur in the Commonwealth; recent searches have failed to locate any populations.
- H = Historical. No current records in the Commonwealth, although suitable habitat exists. If found, species will be assigned one of the above codes.