

Appendix A



Bill Thompson

Prairie warbler

Species Known or Suspected on Massasoit National Wildlife Refuge

Table A-1. Fish Species in Crooked Pond on Massasoit NWR

No formal fish surveys have been conducted by Service on refuge property, but several fish have been observed by staff and partners during other ongoing work in Crooked Pond (U.S. Fish and Wildlife Service unpublished data). Therefore, this does not represent a comprehensive list of fish in Crooked Pond or other ponds on the refuge.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	North Atlantic LCC Representative Species ⁵
Centrarchidae Family						
Black Crappie	<i>Pomoxis nigromaculatus</i>	-	-	G5	-	-
Largemouth Bass	<i>Micropterus salmoides</i>	-	-	G5	-	-
Smallmouth Bass	<i>Micropterus dolomieu</i>	-	-	G5	-	-
Pumpkinseed	<i>Lepomis gibbosus</i>	-	-	G5	-	-
Redbreast Sunfish	<i>Lepomis auritus</i>	-	-	G5	-	-
Ictaluridae Family						
Brown Bullheads	<i>Ameiurus nebulosus</i>	-	-	G5	-	-
Esocidae Family						
Chain Pickerel	<i>Esox niger</i>	-	-	G5	-	-
Moronidae Family						
White Perch	<i>Morone americana</i>	-	-	G5	-	-
Percidae Family						
Yellow Perch	<i>Perca flavescens</i>	-	-	G5	-	-

Source: Graham Annual Reports, 1987-2000, Massasoit NWR Master Plan 1985 and per conversation Graham 2000

¹ Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; "-"=no status.

² State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; "-"=no status.

³ Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and "?"=inexact numeric rank.

⁴ Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; "-"=no rank given. State rarity ranks were only provided for "species in greatest need of conservation", therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.

⁵ North Atlantic Landscape Conservation Cooperative Representative Species: NNE=northern New England; SNE = southern New England; MA=mid Atlantic; "-"=not listed. (http://www.fws.gov/northeast/science/pdf/nalcc_terrestrial_rep_species_table.pdf)

Table A-2. Amphibians and Reptiles Confirmed on Massasoit NWR

Few standardized surveys for amphibians and reptiles have been conducted on Massasoit NWR, but several species have been confirmed during anuran calling surveys (2001 and 2002) and/or observed by staff and partners during other ongoing work (U.S. Fish and Wildlife Service unpublished data). Therefore, this does not represent a comprehensive list of amphibians and reptiles on the Refuge.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	North Atlantic LCC Representative Species ⁵
Plethodontidae Family						
Red-backed Salamander	<i>Plethodon cinereus cinereus</i>	-	-	G5	-	-
Salamandridae Family						
Red-spotted Newt	<i>Notophthalmus viridescens</i>	-	-	G5	-	-
Ranidae Family						
American Bullfrog	<i>Lithobates catesbeianus</i>	-	-	G5	-	-
Green Frog	<i>Lithobates clamitans</i>	-	-	G5	-	-
Northern Leopard Frog	<i>Lithobates pipiens</i>	-	-	G5	S4	-
Wood Frog	<i>Lithobates sylvaticus</i>	-	-	G5	-	NNE, SNE, MA _t
Bufo_nidae Family						
American Toad	<i>Anaxyrus americanus</i>	-	-	G5	-	-
Fowler's Toad	<i>Anaxyrus fowleri</i>	-	-	G5	-	-
Hylidae Family						
Northern Spring Peeper	<i>Pseudacris crucifer</i>	-	-	G5	-	-
Gray Treefrog	<i>Hyla versicolor</i>	-	-	G5	-	-
Colubridae Family						
Eastern Hognose Snake	<i>Heterodon platirhinos</i>	-	-	G5	S4	SNE, MA _t
Eastern Ribbon Snake	<i>Thamnophis sauritus</i>	-	-	G5	S5	-
Milk Snake	<i>Lampropeltis triangulum</i>	-	-	G5	-	-
Emydidae Family						
Painted Turtle	<i>Chrysemys picta</i>	-	-	G5	-	MA _t
Northern Red-Bellied Cooter	<i>Pseudemys rubriventris</i>	E	E	G5T2Q	S1	-
Chelydridae Family						
Snapping Turtle	<i>Chelydra serpentina</i>	-	-	G5	-	-
Kinosternidae Family						
Common Musk Turtle	<i>Stemotherus odoratus</i>	-	-	G5	-	-

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⁵ North Atlantic Landscape Conservation Cooperative Representative Species: NNE=northern New England; SNE = southern New England; MA=mid Atlantic; "-"=not listed. (http://www.fws.gov/northeast/science/pdf/nalcc_terrestrial_rep_species_table.pdf)

Table A-3. Birds Confirmed on Massasoit NWR

Standardized breeding bird surveys (for land birds) were conducted at the Crooked Pond parcel of Massasoit NWR twice each year (generally in May and June) from 2001 through 2010 and then once each year in 2014 and 2015. Additionally, bird species were recorded opportunistically by staff and partners during other ongoing work (U.S. Fish and Wildlife Service unpublished data). However, because staff presence at Massasoit NWR has not been consistent, this list is certainly not inclusive of all species that are present throughout the calendar year.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	North Atlantic LCC Representative Species ⁵	BCC Region 5 ⁶	BCR 30 ⁷	PIF Area 9 ⁸
Gaviidae Family (Loons)									
Common Loon	<i>Gavia immer</i>	-	SC	G5	S1	NNE, SNE	-	-	-
Ardeidae Family (Wading Birds)									
Great Blue Heron	<i>Ardea herodias</i>	-	-	G5	-	-	-	-	V
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	-	-	G5	S2	-	-	M	V
Anatidae Family (Swans, Geese, Ducks)									
Mute Swan	<i>Cygnus olor</i>	-	-	G5	-	-	-	-	-
Canada Goose	<i>Branta canadensis</i>	-	-	G5	-	-	-	HH	-
Wood Duck	<i>Aix sponsa</i>	-	-	G5	-	MAt	-	-	-
Mallard	<i>Anas platyrhynchos</i>	-	-	G5	-	-	-	H	-
American Black Duck	<i>Anas rubripes</i>	-	-	G5	S4	NNE, SNE, MAt	-	HH	IIC
Blue-winged Teal	<i>Anas discors</i>	-	-	G5	-	-	-	-	-
Green-winged Teal	<i>Anas crecca</i>	-	-	G5	-	-	-	M	-
Cathartidae, Accipitridae, and Pandionidae Families (Diurnal Raptors and Osprey)									
Turkey Vulture	<i>Cathartes aura</i>	-	-	G5	-	-	-	-	-
Red-shouldered Hawk	<i>Buteo lineatus</i>	-	-	G5	-	MAt	-	-	V
Red-tailed Hawk	<i>Buteo jamaicensis</i>	-	-	G5	-	-	-	-	-
Bald Eagle	<i>Haliaeetus leucocephalus</i>	-	T	G5	S1	-	Y	M	-
Osprey	<i>Pandion haliaetus</i>	-	-	G5	-	-	-	-	V
Phasianidae and Odontophoridae Families (Upland Game Birds)									
Northern Bobwhite	<i>Colinus virginianus</i>	-	-	G5	S5	-	-	H	-
Ruffed Grouse	<i>Bonasa umbellus</i>	-	-	G5	S5	NNE	-	-	-
Wild Turkey	<i>Meleagris gallopavo</i>	-	-	G5	-	-	-	-	-

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	North Atlantic LCC Representative Species ⁵	BCC Region 5 ⁶	BCR 30 ⁷	PIF Area 9 ⁸
Columbidae Family (Pigeons and Doves)									
Mourning Dove	<i>Zenaida macroura</i>	-	-	G5	-	-	-	-	-
Cuculidae Family (Cuckoos and Allies)									
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	-	-	G5	-	-	-	-	-
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	-	-	G5	-	-	-	-	IA
Caprimulgidae Family (Goatsuckers)									
Whip-poor-will	<i>Caprimulgus vociferous</i>	-	SC	G5	S4	MAt	Y	H	-
Alcedinidae Family (Kingfishers)									
Belted Kingfisher	<i>Megaceryle alcyon</i>	-	-	G5	-	-	-	-	-
Picidae Family (Woodpeckers)									
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	-	-	G5	-	-	-	-	-
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	-	-	G5	-	-	-	-	-
Downy Woodpecker	<i>Picoides pubescens</i>	-	-	G5	-	-	-	-	-
Hairy Woodpecker	<i>Picoides villosus</i>	-	-	G5	-	-	-	-	IIA
Northern Flicker	<i>Colaptes auratus</i>	-	-	G5	-	-	-	H	-
Tyrannidae Family (Tyrant Flycatchers)									
Eastern Wood-Pewee	<i>Contopus virens</i>	-	-	G5	-	MAt	-	-	IIA
Eastern Phoebe	<i>Sayornis phoebe</i>	-	-	G5	-	-	-	-	-
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	-	-	G5	-	-	-	H	-
Eastern Kingbird	<i>Tyrannus tyrannus</i>	-	-	G5	-	-	-	H	-
Vireonidae Family (Vireos)									
Red-eyed Vireo	<i>Vireo olivaceus</i>	-	-	G5	-	-	-	-	-
Corvidae Family (Crows and Jays)									
Blue Jay	<i>Cyanocitta cristata</i>	-	-	G5	-	-	-	-	-
American Crow	<i>Corvus brachyrhynchos</i>	-	-	G5	-	-	-	-	-
Fish Crow	<i>Corvus ossifragus</i>	-	-	G5	-	-	-	-	-

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Hirundinidae Family (Swallows)									
Barn Swallow	<i>Hirundo rustica</i>	-	-	G5	-	-	-	-	-
Tree Swallow	<i>Tachycineta bicolor</i>	-	-	G5	-	-	-	-	-
Paridae Family (Chickadees and Titmice)									
Tufted Titmouse	<i>Baeolophus bicolor</i>	-	-	G5	-	-	-	-	-
Black-capped Chickadee	<i>Poecile atricapillus</i>	-	-	G5	-	-	-	-	-
Sittidae Family (Nuthatches)									
Red-breasted Nuthatch	<i>Sitta canadensis</i>	-	-	G5	-	-	-	-	-
White-breasted Nuthatch	<i>Sitta carolinensis</i>	-	-	G5	-	-	-	-	-
Troglodytidae Family (Wrens)									
Carolina Wren	<i>Thryothorus ludovicianus</i>	-	-	G5	-	-	-	-	-
Sylviidae Family (Gnatcatchers)									
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	-	-	G5	-	-	-	-	-
Turdidae Family (Thrushes)									
Eastern Bluebird	<i>Sialia sialis</i>	-	-	-	-	-	-	-	-
American Robin	<i>Turdus migratorius</i>	-	-	G5	-	-	-	-	-
Wood Thrush	<i>Hylocichla mustelina</i>	-	-	G5	S5	NNE, SNE, MAAt	Y	HH	IA
Hermit Thrush	<i>Catharus guttatus</i>	-	-	G5	-	-	-	-	-
Mimidae Family (Mimids)									
Gray Catbird	<i>Dumetella carolinensis</i>	-	-	G5	-	-	-	M	-
Northern Mockingbird	<i>Mimus polyglottos</i>	-	-	G5	-	-	-	-	-
Brown Thrasher	<i>Toxostoma rufum</i>	-	-	G5	S5	MAAt	-	H	-
Bombycillidae Family (Waxwings)									
Cedar Waxwing	<i>Bombycilla cedrorum</i>	-	-	G5	-	-	-	-	-

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Parulidae Family (Wood Warblers)									
Yellow Warbler	<i>Dendroica petechia</i>	-	-	G5	-	-	-	-	-
Prairie Warbler	<i>Dendroica discolor</i>	-	-	G5	S5	SNE, MAt	Y	HH	IA
Palm Warbler	<i>Dendroica palmarum</i>	-	-	G5	-	NNE	-	-	-
Pine Warbler	<i>Dendroica pinus</i>	-	-	G5	-	-	-	-	-
Blackpoll Warbler	<i>Dendroica striata</i>	-	SC	G5	S1	NNE	-	-	-
Black-and-white Warbler	<i>Mniotilta varia</i>	-	-	G5	-	MAt	-	H	IIA
Ovenbird	<i>Seiurus aurocapilla</i>	-	-	G5	-	NNE, SNE, MAt	-	-	-
Common Yellowthroat	<i>Geothlypis trichas</i>	-	-	G5	-	-	-	-	-
Thraupidae Family (Tanagers)									
Scarlet Tanager	<i>Piranga olivacea</i>	-	-	G5	-	-	-	H	IA
Cardinalidae Family (Cardinals and Grosbeaks)									
Northern Cardinal	<i>Cardinalis cardinalis</i>	-	-	G5	-	-	-	-	-
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	-	-	-	-	-	-	-	IIA
Emberizidae Family (Emberizine Sparrows and Allies)									
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	-	-	G5	S5	NNE, MAt	-	H	IIA
Field Sparrow	<i>Spizella pusilla</i>	-	-	G5	S5	-	-	H	-
Chipping Sparrow	<i>Spizella passerina</i>	-	-	G5	-	-	-	-	-
Song Sparrow	<i>Melospiza melodia</i>	-	-	G5	-	-	-	-	-
Icteridae Family (Icterids)									
Brown-headed Cowbird	<i>Molothrus ater</i>	-	-	G5	-	-	-	-	-
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	-	-	G5	-	-	-	-	-
Common Grackle	<i>Quiscalus quiscula</i>	-	-	G5	-	-	-	-	-
Baltimore Oriole	<i>Icterus galbula</i>	-	-	G5	-	-	-	H	IA

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Fringillidae Family (Finches)									
Purple Finch	<i>Carpodacus purpureus</i>	-	-	G5	-	-	-	-	IIA
House Finch	<i>Carpodacus mexicanus</i>	-	-	G5	-	-	-	-	-
American Goldfinch	<i>Carduelis tristis</i>	-	-	G5	-	-	-	-	-

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⁶U.S. Fish and Wildlife Service Division of Migratory Birds, Birds of Conservation Concern for Region 5 (Northeast) (USFWS 2008). Y=species identified as a species of conservation concern in Region 5; “-“=species not identified.

⁷Bird Conservation Region 30: New England/Mid-Atlantic Coast Conservation Priority Category: HH=highest priority; H=high priority; M=moderate priority (http://www.acjv.org/BCR_30/BCR30_June_23_2008_final.pdf).

⁸Partners in Flight Bird Conservation Plan for Southern New England: Physiographic Area 09 (Dettmers and Rosenberg 2000). IA=high continental priority and high regional responsibility; IB=high continental priority and low regional responsibility; IIA=high regional concern; IIC=high regional threats; V=additional state listed.

⁹Not detected during refuge surveys/monitoring, but listed in chapter or appendix text in this CCP/EA.

Table A-4. Mammals Confirmed on Massasoit NWR

Few standardized surveys for mammals have been conducted on Massasoit NWR, but several species have been confirmed during acoustic bat surveys (2012 and 2013) and/or observed by staff and partners during other ongoing work (U.S. Fish and Wildlife Service unpublished data). Therefore, this does not represent a comprehensive list of mammals on the Refuge.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	North Atlantic LCC Representative Species ⁵
Canidae Family						
Coyote	<i>Canis latrans</i>	-	-	G5	-	-
Gray Fox	<i>Urocyon cinereoargenteus</i>	-	-	G5	-	-
Red Fox	<i>Vulpes vulpes</i>	-	-	G5	-	-
Procyonidae Family						
Raccoon	<i>Procyon lotor</i>	-	-	G5	-	-
Mephitidae Family						
Striped Skunk	<i>Mephitis mephitis</i>	-	-	G5	-	-
Mustelidae Family						
Fisher	<i>Martes pennanti</i>	-	-	G5	-	-
Cervidae Family						
White-tailed Deer	<i>Odocoileus virginianus</i>	-	-	G5	-	-
Sciuridae Family						
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	-	-	G5	-	-
Vespertilionidae Family						
Big Brown Bat	<i>Eptesicus fuscus</i>	-	-	G5	-	-
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	-	-	G5	SU	-
Eastern Red Bat	<i>Lasiurus borealis</i>	-	-	G5	S4	NNE, SNE, MAAt
Tri-colored Bat	<i>Pipistrellus subflavus</i>	-	-	G3	-	MAAt
Eastern Small-footed Myotis	<i>Myotis leibii</i>	-	SC	G1G3	S1	-

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⁶ Not detected during refuge surveys/monitoring, but listed in chapter or appendix text in this CCP/EA.

Table A-5. Invertebrates Recorded at Massasoit NWR

No formal invertebrate surveys have been conducted by refuge staff on Massasoit NWR, but several invertebrates have been observed by staff and partners during other ongoing work at the refuge (U.S. Fish and Wildlife Service unpublished data). Therefore, this does not represent a comprehensive list of invertebrates on the refuge.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴
Libellulidae Family					
Blue Dasher	<i>Pachydiplax longipennis</i>	-	-	G5	-
Calico Pennant	<i>Celithemis elisa</i>	-	-	G5	-
Common Whitetail	<i>Libellula lydia</i>	-	-	G5	-
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	-	-	G5	-
Golden-Winged Skimmer	<i>Libella auripennis</i>	-	-	G5	-
Slaty Skimmer	<i>Libellula incesta</i>	-	-	G5	-
White Corporal	<i>Libellula exusta</i>	-	-	G4	-
Nymphalidae Family					
Eastern Comma	<i>Polygonia comma</i>	-	-	G5	-
Great Spangled Fritillary	<i>Speyeria cybele</i>	-	-	G5	-
Mourning Cloak	<i>Nymphalis antiopa</i>	-	-	G5	-
Red Admiral	<i>Vanessa atalanta</i>	-	-	G5	-
Red-spotted Purple	<i>Limenitis artemis astyanax</i>	-	-	G5T5	-
Lycaenidae Family					
Striped Hairstreak	<i>Satyrium liparops</i>	-	-	G5	-
Hesperiidae Family					
True Skipper sp. (tauny-orange or brown)	<i>Hesperia spp.</i>	-	-	G5	-
Saturniidae Family					
Polyphemus moth	<i>Antheraea polyphemus</i>	-	-	G5	-
Carabidae Family					
Six-spotted Green Tiger Beetle	<i>Cicindela sexguttata</i>	-	-	G5	-
Erebidae Family					
Gypsy moth	<i>Lymantria dispar</i>	-	-	GNR	-
Ixodidae Family					
Deer (Blacklegged) tick	<i>Ixodes scapularis</i>	-	-	GNR	-

Source: U.S. Fish and Wildlife Service Unpublished

¹Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; "-"=no status.

²State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; "-"=no status.

- ³ Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and "? "=inexact numeric rank.
- ⁴ Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; "- "=no rank given. State rarity ranks were only provided for "species in greatest need of conservation", therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.

Table A-6. State-Listed Moths and Butterflies Documented in Myles Standish State Forest

Several State-listed moths and butterflies have been documented in Myles Standish State Forest (Massachusetts Department of Conservation and Recreation (MADCR) 2011). These species have not been confirmed on Massasoit NWR but are listed below because of their dependence on habitat that is found on Massasoit NWR.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Habitat
Saturniidae Family						
Barrens Buckmoth	<i>Hemileuca maia</i>	-	SC	G5	S3	Shrubland
Geometridae Family						
Buckholz's Grey Moth	<i>Hypomecis buchholzaria</i>	-	E	G3G4	S1	Shrubland
Coastal Swamp Metarranthis	<i>Metarranthis pilosaria</i>	-	SC	G3G4	S1	Pine Barrens Wetland
Lycaenidae Family						
Frostin Elfin Butterfly	<i>Callophrys irus</i>	-	SC	G3	S2S3	Sandplain Grassland
Noctuidae Family						
Gerhard's Underwing Moth	<i>Catocala herodias gerhardi</i>	-	SC	G3T3	S3	Shrubland
Pine Barrens Zale	<i>Zale lunifera</i>	-	SC	G3G4	S2S3	Shrubland
Water-willow Stem Borer	<i>Papaipema cataphracta</i>	-	T	G5	S2	Pond Shore Wetland
Barrens Daggermoth	<i>Acronicta albarufa</i>	-	T	G3G4	S2S3	Shrubland
Coastal Heathland Cutworm	<i>Abagrotis nefascia</i>	-	SC	G4	S3	Shrubland
Pale Green Pinion Moth	<i>Lithophane viridipallens</i>	-	SC	G5	S1S3	Pine Barrens Wetland
Pine Barrens Speranza Moth	<i>Speranza exonerata</i>	-	SC	G3G4	-	Shrubland
Pine Barrens Zanclognatha	<i>Zanclognatha martha</i>	-	T	G4	S2	Shrubland
Pink Sallow Moth	<i>Psectraglaea camosa</i>	-	SC	G3	S2S3	Shrubland
Waxed Sallow Moth	<i>Chaetoglaea cerata</i>	-	SC	G3G4	S2S3	Pine Barrens
Mimallodinae Family						
Melsheimer's Sack Bearer	<i>Cicinnus melsheimeri</i>	-	T	G4	S2S3	Shrubland
Sphingidae Family						
Slender Clearwing Sphinx Moth	<i>Hemiris gracilis</i>	-	SC	G3G4	S2S3	Shrubland

Source: MADCR Resource Management Plan Myles Standish State Forest Planning Unit-December, 2011

¹Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; "-"=no status.

²State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; "-"=no status.

³Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and "? "=inexact numeric rank.

⁴Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; "- "=no rank given. State rarity ranks were only provided for "species in greatest need of conservation", therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.

Table A-7. Plant Species Confirmed on Massasoit NWR

An inventory of plants was conducted in 2012 by volunteer botanists (Zinovjev and Kadis, unpublished report) and the results are included in table A-7.

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Aceraceae Family (Maple)							
Red Maple	<i>Acer rubrum</i>	-	-	G5	S5	N / -	NE, GEP, NW
Anacardiaceae Family (Sumac)							
Winged Sumac	<i>Rhus copallinum</i>	-	-	G5	S4S5	N / -	IP
Poison Ivy	<i>Toxicodendron radicans</i>	-	-	G5	S5	N / -	NE
Apocynaceae Family (Dogbane)							
Spreading Dogbane	<i>Apocynum androsaemifolium</i>	-	-	G5	S5	N / -	NE
Araliaceae Family (Ivy)							
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	-	-	G5	S5	N / -	Main
Asclepiadaceae Family (Milkweed)							
Common Milkweed	<i>Asclepias syriaca</i>	-	-	G5	S5	N / -	NE
Asteraceae (Daisy or Aster)							
Annual Ragweed	<i>Ambrosia artemisiifolia</i>	-	-	G5	S5	N / -	NE
Bushy Aster (Rice Button Aster)	<i>Symphotrichum dumosum</i>	-	-	G5	S5	N / -	IP, CP
Calico Aster	<i>Symphotrichum lateriflorum</i>	-	-	G5	S5	N / -	IP
New York Aster	<i>Symphotrichum novi-belgii</i> Nesom var. <i>novi-belgii</i>	-	-	G5T5	S5	N / -	CP, GEP
Aster species	<i>Symphotrichum</i> sp.	-	-	-	-	NA	NE
Swamp Beggarticks (Purple-stem Beggarticks)	<i>Bidens connata</i>	-	-	G5	S5	N / -	IP, CP, HP
Bull Thistle	<i>Cirsium vulgare</i>	-	-	GNR	-	NN / -	Main
Horseweed, Hogweed, Butterweed (Canada Horseweed)	<i>Erigeron Canadensis</i> (<i>Conyza canadensis</i>)	-	-	G5	S5	N / -	NE, CP
Pink Tickseed (Rose coreopsis)	<i>Coreopsis rosea</i>	-	WL	G3	S3	N / -	IP, CP, GEP

Species Known or Suspected on Massasoit National Wildlife Refuge

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Fireweed, Pilewort (American Burnweed)	<i>Erechtites hieraciifolius</i> var. <i>hieraciifolius</i>	-	-	G5	S5	N / -	CP, GEP
Fireweed, Seaside Pilewort (American Burnweed)	<i>Erechtites hieraciifolius</i> var. <i>megalocarpus</i>	-	WL	G5T3	S2S3	N / -	CP
Showy Aster	<i>Eurybia spectabilis</i>	-	-	G5	S4	N / -	ROW
Atlantic Joe-Pye-weed (Coastal Plain Joepyeweed)	<i>Eutrochium dubium</i>	-	-	G5	S5	N / -	IP
Boneset (Common Boneset)	<i>Eupatorium perfoliatum</i>	-	-	G5	S5	N / -	IP, CP
Rough Boneset	<i>Eupatorium pilosum</i>	-	-	G5	S5	N / -	IP
Slender-leaved Flat-topped Goldenrod	<i>Euthamia caroliniana</i>	-	-	G5	S5	N / -	NE, IP, GEP
Sweet Everlasting (Rabbit-tobacco)	<i>Pseudognaphalium obtusifolium</i>	-	-	G5	S5	N / -	CP, GEP
Hairy Hawkweed (Gronovis Hawkweed)	<i>Hieracium gronovii</i>	-	-	G5	S4	N / -	NE
Smooth Hawkweed (Tall Hawkweed)	<i>Hieracium piloselloides</i>	-	-	GNR	SNA	NN / -	Main, CP
King-devil (Meadow Hawkweed)	<i>Hieracium caespitosum</i>	-	-	GNR	SNA	* / IP	GEP
Spotted Cat's Ear (Hairy Cat's Ear)	<i>Hypochaeris radicata</i>	-	-	GNR	SNA	NN / IP	NE, GEP
Yellow Wild Lettuce (Canada Lettuce, Wild Lettuce)	<i>Lactuca canadensis</i>	-	-	G5	S5	N / -	IP
Toothed White-topped Aster (Toothed Whitetop Aster)	<i>Sericocarpus asteroides</i>	-	-	G5	S5	N / -	NE, Main
Narrow-leaved White-topped Aster (Narrowleaf Whitetop Aster)	<i>Sericocarpus linifolius</i>	-	-	G5	S4	N / -	NE
Pearly Everlasting	<i>Anaphalis margaritaceae</i>	-	-	G5	S5	N / -	ROW
Spotted Knapweed	<i>Centaurea biebersteinii</i>	-	-	GNR	SNA	NN / LI	ROW
Grass-leaf Goldenrod	<i>Euthamia graminifolia</i>	-	-	G5T5	S5	N	POND

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Narrow-leaf Goldenrod	<i>Euthamia tenuifolia (galeorum)</i>	-	-	G3	S5	NN /	POND
Rough (-leafed) Goldenrod	<i>Solidago rugosa</i>	-	-	G5	S5	N	ROW
Betulaceae Family (Birch)							
Smooth Alder (Brook-side Alder)	<i>Alnus serrulata</i>	-	-	G5	S5	N / -	GEP
Buddlejaceae Family (Butterfly Bush)							
Butterfly-bush (Orange Eye Butterflybush)	<i>Buddleja davidii</i>	-	-	G4G5	SNA	* / IP	Main
Cabombaceae Family (Water-Shield)							
Water-shield (Watershield)	<i>Brasenia schreberi</i>	-	-	G5	S5	N / -	CP, HP
Campanulaceae Family (Bellflower / Bellwort)							
Water-lobelia (Dortmann's Cardinalflower)	<i>Lobelia dortmanna</i>	-	-	G4G5	S4	N / -	GEP
Caprifoliaceae Family (Honeysuckle)							
Morrow Honeysuckle (Morrow's Honeysuckle)	<i>Lonicera morrowii</i>	-	-	GNR	SNA	NN / I	Main
Wild Raisin (Withe-rod)	<i>Viburnum nudum var. cassinoides</i>	-	-	G5T5	S5	N / -	NE
Caryophyllaceae Family (Pink)							
Mouse-ear Chickweed (Common Mouse-ear Chickweed)	<i>Cerastium fontanum ssp. vulgare</i>	-	-	GNRTNR	SNA	NN / -	Main
Celastraceae Family (Bittersweet)							
Oriental Bittersweet	<i>Celastrus orbiculatus</i>	-	-	GNR	SNA	NN / I	IP
Cistaceae Family (Rockrose)							
Canadian Frostweed (Longbranch Frostweed)	<i>Crocanthemum canadense (Helianthemum canadense)</i>	-	-	G5	S4S5	N / -	NE, Main, CP
Low Frostweed	<i>Crocanthemum propinquum (Helianthemum propinquum)</i>	-	-	G4	S4	N / -	NE
Large-podded Pinweed (Largepod Pinweed)	<i>Lechea intermedia</i>	-	-	G5	S4	N / -	CP

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Beach-pinweed (Beach Pinweed)	<i>Lechea maritima</i>	-	-	G5	S5	N / -	NE, CP
Clethraceae Family (White Alder / Sweet Pepperbush)							
Sweet Pepper-bush (Coastal Sweet Pepperbush)	<i>Clethra alnifolia</i>	-	-	G4G5	S5	N / -	NE, CP, GEP, NW
Clusiaceae Family (St. John's Wort)							
Canadian St. John's-wort (Lesser Canadian St. Johnswort)	<i>Hypericum canadense</i>	-	-	G5	S5	N / -	IP, CP, GEP, HP
Pale St. John's-wort (Pale St. Johnswort)	<i>Hypericum ellipticum</i>	-	-	G5	S5	N / -	IP, HP
Orange Grass (Orangegrass)	<i>Hypericum gentianoides</i>	-	-	G5	S5	N / -	CP
Dwarf St. John's-wort (Dwarf St. Johnswort)	<i>Hypericum mutilum</i>	-	-	G5	S5	N / -	IP
Spotted St. John's-wort (Spotted St. Johnswort)	<i>Hypericum punctatum</i>	-	-	G5	S5	N / -	NE
Marsh St. John's-wort (Marsh St. John's Wort)	<i>Triadenum virginicum</i>	-	-	G5	S5	N / -	IP, HP
Cupressaceae Family							
Eastern Red Cedar	<i>Juniperus virginiana</i>	-	-	G5	S5	N / -	-
Droseraceae Family (Sundew)							
Spatulate-leaved Sundew (Spoonleaf Sundew)	<i>Drosera intermedia</i>	-	-	G5	S4S5	N / -	CP
Round-leaved Sundew (Roundleaf Sundew)	<i>Drosera rotundifolia</i>	-	-	G5	S4S5	N / -	Main, CP
Ericaceae Family (Heath)							
Leatherleaf	<i>Chamaedaphne calyculata</i>	-	-	G5	S5	N / -	IP, NW
Bearberry	<i>Arctostaphylos uva-ursi</i>	-	-	G5	S5	N / -	ROW
Mayflower (Trailing Arbutus, Ground-laurel)	<i>Epigaea repens</i>	-	-	G5	S5	N / -	NE, Main, CP
Wintergreen (Eastern Wintergreen, Eastern Teaberry)	<i>Gaultheria procumbens</i>	-	-	G5	S5	N / -	NE

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Black Huckleberry	<i>Gaylussacia baccata</i>	-	-	G5	S5	N / -	NE, Main
Dangleberry (Blue Huckleberry)	<i>Gaylussacia frondosa</i>	-	-	G5	S4S5	N / -	O
Sheep-laurel (Sheep Laurel)	<i>Kalmia angustifolia</i>	-	-	G5	S5	N / -	NE, Main, CP
Swamp-sweetbells (Coastal Fetterbush, Swamp Doghobble)	<i>Eubotrys racemosa</i>	-	-	G5	S4	N / -	CP, GEP, NW
Maleberry	<i>Lyonia ligustrina</i>	-	-	G5	S5	N / -	IP, CP, GEP
Low Sweet Blueberry, Late Sweet Blueberry, Lowbush (Lowbush Blueberry)	<i>Vaccinium angustifolium</i>	-	-	G5	S5	N / -	NE
Highbush-blueberry (Highbush Blueberry)	<i>Vaccinium corymbosum</i>	-	-	G5	S5	N / -	NE, Main, CP, GEP, NW
Early Sweet Blueberry (Hillside Blueberry)	<i>Vaccinium pallidum</i>	-	-	G5	S5	N / -	NE, Main
Fabaceae Family (Bean)							
Yellow Wild Indigo	<i>Baptisia tinctoria</i>	-	-	G5	S5	N / -	NE
Hairy Bush-clover (Hairy Lespedeza)	<i>Lespedeza hirta</i>	-	-	G5	S5	N / -	NE
Wand Bush-clover (Violet Lespedeza)	<i>Lespedeza violacea</i>	-	-	G5	S5	N / -	NE
Round Headed Bush-clover	<i>Lespedeza capitata</i>			G5		N / -	ROW
Black Locust	<i>Robinia pseudoacacia</i>	-	-	G5	SNA	NN / I	NE
Rabbit-foot Clover	<i>Trifolium arvense</i>	-	-	GNR	SNA	NN	ROW
Palmate Hop-clover (Golden Clover)	<i>Trifolium aureum</i>	-	-	GNR	SNA	N / -	Main
Fagaceae Family (Beech or Oak)							
American Beech	<i>Fagus grandifolia</i>	-	-	G5	S5	N / -	Main
White Oak	<i>Quercus alba</i>	-	-	G5	S5	N / -	NE, Main, CP
Scarlet Oak	<i>Quercus coccinea</i>	-	-	G5	S5	N / -	NE
Scrub-oak (Bear Oak)	<i>Quercus ilicifolia</i>	-	-	G5	S5	N / -	NE, Main

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Dwarf Chinquapin-oak (Dwarf Chinquapin Oak)	<i>Quercus prinoides</i>	-	-	G5	S5	N / -	Main
Red Oak (Northern Red Oak)	<i>Quercus rubra</i>	-	-	G5	S5	N / -	NE
Black Oak	<i>Quercus velutina</i>	-	-	G5	S5	N / -	NE
Gentianaceae Family (Gentian)							
Screw-stem (Yellow Screwstem)	<i>Bartonia virginica</i>	-	-	G5	S4	N / -	0
Plymouth Gentian (Plymouth Rose Gentian)	<i>Sabatia kennedyana</i>	-	SC	G3	S3	N / -	IP
Haloragaceae Family (Watermilfoil)							
Lowly Water-milfoil (Low Water-milfoil)	<i>Myriophyllum humile</i>	-	-	G5	S5	N / -	IP, CP, GEP, HP
Lamiaceae Family (Mint)							
Sessile Water-horehound (Clasping Water Horehound)	<i>Lycopus amplexans</i>	-	WL	G5	S2S3	N / -	IP
Northern Water-horehound	<i>Lycopus uniflorus</i>	-	-	G5	S5	N / -	IP, CP, HP
Short-toothed Mountain-mint (Clustered Mountainmint)	<i>Pycnanthemum muticum</i>	-	-	G5	S4	N / -	Main
Lauraceae Family (Laurel)							
Sassafras	<i>Sassafras albidum</i>	-	-	G5	S5	N / -	IP, Main
Lentibulariaceae Family (Bladderwort)							
Horned Bladderwort	<i>Utricularia cornuta</i>	-	-	G5	S5	N / -	HP
Purple Bladderwort	<i>Utricularia purpurea</i>	-	-	G5	S5	N / -	HP
Small Floating Bladderwort (Little Floating Bladderwort)	<i>Utricularia radiata</i>	-	-	G4	S5	N / -	CP
Lythraceae Family (Loosestrife)							
Water-willow (Swamp Loosestrife)	<i>Decodon verticillatus</i>	-	-	G5	S5	N / -	HP

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Melastomataceae Family (Melastome)							
Northern Meadow-beauty, (Common Meadowbeauty, Handsome Harry)	<i>Rhexia virginica</i>	-	-	G5	S4	N / -	IP, CP
Molluginaceae Family (Mollugo / Carpetweed)							
Carpetweed	<i>Mollugo verticillata</i>	-	-	GNR	SNA	NN / -	IP, CP
Monotropaceae Family (Indian Pipe)							
Indian Pipe	<i>Monotropa uniflora</i>	-	-	G5	S5	N / -	IP
Moraceae Family (Mulberry)							
White Mulberry	<i>Morus alba</i>	-	-	GNR	SNA	NN / -	IP
Myricaceae Family (Bayberry)							
Sweet-fern (Sweet Fern)	<i>Comptonia peregrina</i>	-	-	G5	S5	N / -	NE, Main
Sweet Gale (Sweetgale)	<i>Myrica gale</i>	-	-	G5	S5	N / -	HP
Bayberry (Northern Bayberry)	<i>Morella pensylvanica</i>	-	-	G5	S5	N / -	NE, CP
Nymphaeaceae Family (Waterlily)							
Yellow Water-lily, Cow-lily (Variegated Yellow Pond-Lily)	<i>Nuphar variegata</i>	-	-	G5T5	S5	N / -	CP, HP
White Water-lily, Fragrant Water-lily (American White Waterlily)	<i>Nymphaea odorata</i>	-	-	G5	S5	N / -	CP
Onagraceae Family (Evening Primrose)							
American Willow-herb (Fringed Willowherb, Hairy Willowherb)	<i>Epilobium ciliatum</i>	-	-	G5	S5	N / -	IP
Water Purslane (Marsh Primrose-willow, Marsh Seedbox)	<i>Ludwigia palustris</i>	-	-	G5	S5	N / -	IP, HP
Oxalidaceae Family (Wood-Sorrel)							
Common Yellow Wood-sorrel (Sheep Sorrel)	<i>Oxalis stricta</i>	-	-	G5	S5	N / -	Main
Phytolaccaceae Family (Pokeweed)							
Pokeweed	<i>Phytolacca americana</i>	-	-	G5T5	S5	N / -	IP

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Poaceae Family							
Bent-grass	<i>Agrostis sp.</i>	-	-	G5	S5	N / -	ROW
Poverty Grass (Poverty Oatgrass)	<i>Danthonia spicata</i>	-	-	G5	S5	N / -	ROW
Polygonaceae Family (Buckwheat / Smartweed)							
Carey's Smartweed	<i>Persicaria careyi</i>	-	-	G4	S?	N / -	IP, CP, GEP
Lady's Thumb (Spotted Ladysthumb)	<i>Persicaria maculosa</i>	-	-	G3G5	SNA	NN / -	IP, CP
Perennial Water-smartweed, Dotted Smartweed	<i>Persicaria punctata</i>	-	-	G5	S5	N / -	IP, GEP
Bitter Dock	<i>Rumex obtusifolius</i>	-	-	GNR	SNA	NN / -	IP
Primulaceae Family (Primrose)							
Whorled Loosestrife	<i>Lysimachia quadrifolia</i>	-	-	G5	S5	N / -	NE
Swamp Candles	<i>Lysimachia terrestris</i>	-	-	G5	S5	N / -	CP, GEP
American Starflower (Northern Starflower)	<i>Lysimachia borealis (Trientalis borealis)</i>	-	-	G5	S5	N / -	NE, Main
Pyrolaceae Family (Shinleaf)							
Striped Pipsissewa (Striped Prince's Pine)	<i>Chimaphila maculata</i>	-	-	G5	S5	N / -	NE
Glossy Shinleaf (American Wintergreen)	<i>Pyrola americana</i>	-	-	G5	S5	N / -	NE
Ranunculaceae Family (Buttercup / Crowfoot)							
Wood Anemone	<i>Anemone quinquefolia</i>	-	-	G5	S5	N / -	Main
Tall Meadow-rue (King of the Meadow)	<i>Thalictrum pubescen</i>	-	-	G5	S5	N / -	Main
Rhamnaceae Family (Buckthorn)							
Glossy Alder-buckthorn	<i>Frangula alnus (Rhamnus frangula)</i>	-	-	GNR	SNA	NN / I	NE, Main, CP
Rosaceae Family (Rose)							
Thicket Shadbush (Canadian Serviceberry)	<i>Amelanchier canadensis</i>	-	-	G5	S5	N / -	Main, CP
Black Chokeberry	<i>Aronia melanocarpa</i>	-	-	G5	S5	N / -	Main

Common Name	Scientific Name	Federal Legal Status ¹	MA Legal Status ²	Global Rarity Rank ³	MA Rarity Rank ⁴	Native or Introduced/ Invasive Status ⁵	Location ⁶
Northern Wild Strawberry (Wild Strawberry)	<i>Fragaria virginiana</i> <i>Duchesne ssp. glauca</i>	-	-	G5	S4?	* / -	Main
Dwarf Cinquefoil	<i>Potentilla canadensis</i>	-	-	G5	S5	N / -	NE, Main
Three-finger (Norwegian Cinquefoil)	<i>Potentilla norvegica</i>	-	-	G5	S5	N / -	IP
Black Cherry (Black Chokecherry)	<i>Prunus serotina</i>	-	-	G5	S5	N / -	NE, Main
Swamp-rose	<i>Rosa palustris</i>	-	-	G5	S5	N / -	IP
Northern Dewberry	<i>Rubus flagellaris</i>	-	-	G5	S5	N / -	Main
Bristly Dewberry	<i>Rubus hispida</i>	-	-	G5	S5	N / -	NE
Meadowsweet (White Meadowsweet)	<i>Spiraea alba var. latifolia</i>	-	-	G5T5	S5	N / -	IP, GEP, NW
Steeple-bush (Steeplebush)	<i>Spiraea tomentosa</i>	-	-	G5	S4	N / -	Main, CP
Rubiaceae Family (Bedstraw or Coffee)							
Buttonbush (Common Buttonbush)	<i>Cephalanthus occidentalis</i>	-	-	G5	S5	N / -	IP, HP
Clayton's Marsh-bedstraw (Dye Bedstraw)	<i>Galium tinctorium</i>	-	-	G5	S5	N / -	IP
Bluets, Innocence, Quaker Ladies (Azure Bluet)	<i>Houstonia caerulea</i>	-	-	G5	S5	N / -	OMNWR
Salicaceae Family (Willow)							
Big-toothed Aspen (Bigtooth Aspen)	<i>Populus grandidentata</i>	-	-	G5	S5	N / -	Main
Gray Willow (Large Gray Willow)	<i>Salix cinerea ssp. oleifolia</i>	-	-	G5TNR	SNA	* / I	NE, IP, Main, GEP, HP
Dwarf Prairie Willow (Prairie Willow)	<i>Salix occidentalis (Salix. humilis var tristis)</i>	-	-	G5T4T5	S5	N / -	Main
Scrophulariaceae Family (Figwort)							
Purple Gerardia (Purple False Foxglove)	<i>Agalinis purpurea</i>	-	-	G5	S4	N / -	CP
Golden Pert (Golden Hedge-hyssop)	<i>Gratiola aurea</i>	-	-	G5	S5	N / -	IP, CP, GEP, HP

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Mud Hedge-hyssop (Clammy Hedge-hyssop)	<i>Gratiola neglecta</i>	-	-	G5	S4	N / -	CP
False Pimpernel (Moistbank Pimpernel, Yellowseed False Pimpernel)	<i>Lindernia dubia</i>	-	-	G5	S5	N / -	IP, HP
Cow-wheat (Narrowleaf Cowwheat)	<i>Melampyrum lineare</i>	-	-	G5	S5	N / -	NE
Blue Toadflax (Oldfield Toadflax, Canada Toadflax)	<i>Nuttallanthus canadensis</i>	-	-	G5	S5	N / -	NE, CP, GEP
Common Mullein (Velvet Dock)	<i>Verbascum thapsus</i>	-	-	GNR	SNA	NN / -	Main
Fern-leaf False Foxglove	<i>Aureolaria pedicularia</i>			G5		N / -	-
Smilacaceae Family							
Saw-brier (Cat Greenbrier)	<i>Smilax glauca</i>	-	-	G5	S5	N / -	-
Bullbrier (Common Greenbrier)	<i>Smilax rotundifolia</i>	-	-	G5	S5	N / -	-
Violaceae Family (Violet)							
Lance-leaf Violet (Bog White Violet, Lanceleaf Violet)	<i>Viola lanceolata</i>	-	-	G5	S5	N / -	NE, IP, CP, HP
Bird's Foot Violet (Birdfoot Violet)	<i>Viola pedata</i>	-	-	G5	S5	N / -	NE
Arrow-leaf Violet (Arrow-leaved Violet, Arrowleaf Violet)	<i>Viola sagittata</i>	-	-	G5	S5	N / -	NE, Main
Primrose-leaf Violet	<i>Viola primulifolia</i>	-	-	GNA	S?	N / -	NE
Vitaceae Family (Grape)							
Virginia Creeper (American Ivy, Woodbine)	<i>Parthenocissus quinquefolia</i>	-	-	G5	S5	N / -	NE
Alismataceae Family (Water-Plantain or Arrowhead)							
Pondshore-arrowhead, Terete-Arrowhead (Slender Arrowhead)	<i>Sagittaria teres</i>	-	SC	G3	S3	N / -	IP, CP, GEP, HP

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Cyperaceae Family (Sedge)							
Howe's Prickly Sedge (Prickly Bog Sedge)	<i>Carex atlantica ssp. capillacea</i>	-	-	G5T5?	S5	N / -	OMNWR
Pennsylvania Sedge	<i>Carex pensylvanica</i>	-	-	G5	S5	N / -	Main
Broom Sedge	<i>Carex scoparia</i>	-	-	G5	S5	N / -	IP, Main, CP
Pondshore Flatsedge (Toothed Flatsedge)	<i>Cyperus dentatus</i>	-	-	G4	S5	N / -	IP, CP, GEP
Slender Sand-flatsedge, Button-flatsedge (Great Plains Flatsedge)	<i>Cyperus lupulinus</i>	-	-	G5	S4	N / -	NE, CP
Threeway Sedge	<i>Dulichium arundinaceum</i>	-	-	G5	S5	N / -	IP, Main, CP
Little Spike-rush (Needle Spikerush)	<i>Eleocharis acicularis</i>	-	-	G5	S5	N / -	GEP, HP
Black-fruited Spike-rush (Blackfruit Spikerush)	<i>Eleocharis melanocarpa</i>	-	WL	G4	S3	N / -	IP, CP, HP
Soft-stemmed Spike-rush (Blunt Spikerush)	<i>Eleocharis obtusa</i>	-	-	G5	S5	N / -	CP, HP
Robbins' Spike-rush (Robbins' spikerush)	<i>Eleocharis robbinsii</i>	-	-	G4G5	S5	N / -	GEP
Autumn Fimbry (Slender Fimbry)	<i>Fimbristylis autumnalis</i>	-	-	G5	S5	N / -	IP
Annual Umbrella-sedge (Dwarf Umbrella-sedge)	<i>Fuirena pumila</i>	-	WL	G4	S3	N / -	IP
Brown Beak-rush (Brownish Beakrush)	<i>Rhynchospora capitellata</i>	-	-	G5	S5	N / -	IP, CP
Wool-grass (Bulrush, Woolgrass)	<i>Scirpus cyperinus</i>	-	-	G5	S5	N / -	IP, CP, HP
Eriocaulaceae Family (Pipewort)							
Pipewort (Sevenangle Pipewort)	<i>Eriocaulon aquaticum</i>	-	-	G5	S5	N / -	CP, GEP, HP
Iridaceae Family (Iris)							
Northern Blue Flag (Harlequin Blueflag)	<i>Iris versicolor</i>	-	-	G5	S5	N / -	CP

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Juncaceae Family (Rush)							
Sharp-fruited Rush (Sharp-fruit Rush)	<i>Juncus acuminatus</i>	-	-	G5	S5	N / -	IP, HP
Marsh Rush, Canada Rush (Canadian Rush)	<i>Juncus canadensis</i>	-	-	G5	S5	N / -	CP
Soft Rush (Common Rush)	<i>Juncus effusus</i>	-	-	G5	S5	N / -	IP, CP
Greene's rush	<i>Juncus greenei</i>	-	-	G5	S5	N / -	CP, GEP
Bayonet-rush (Bayonet Rush)	<i>Juncus militaris</i>	-	-	G4	S5	N / -	GEP, HP
Pondshore-rush (Brownfruit Rush)	<i>Juncus pelocarpus</i>	-	-	G5	S5	N / -	IP
Common Wood-rush	<i>Luzula multiflora</i>	-	-	G5	S5	N / -	Main
Liliaceae Family (Lily)							
Yellow Star-grass (Common Goldstar)	<i>Hypoxis hirsuta</i>	-	-	G5	S4S5	N / -	OMNWR
Wood Lily	<i>Lilium philadelphicum</i>	-	-	G5	S4	N / -	Main
Orchidaceae Family (Orchid)							
Pink Lady's-slipper (Moccasin Flower)	<i>Cypripedium acaule</i>	-	-	G5	S5	N / -	NE, Main
Poaceae Family (Grass)							
Northern Ticklegrass (Rough Bentgrass, Ticklegrass)	<i>Agrostis scabra</i>	-	-	G5	S5	N / -	CP, GEP
Woodgrass	<i>Brachyelytrum aristosum</i>	-	-	G4G5	S5	N / -	NE
Canada Bluejoint, Reedgrass (Bluejoint Reedgrass)	<i>Calamagrostis canadensis</i>	-	-	G5	S5	N / -	GEP
Common Hairgrass	<i>Deschampsia flexuosa</i>	-	-	G5	S5	N / -	NE, Main, CP
Fascicled Panic-grass (Tapered Rosette Grass, Western Panicgrass)	<i>Dichanthelium acuminatum var. fasciculatum</i>	-	-	G5T5	S5	N / -	CP
Deer-tongue (Deertongue)	<i>Dichanthelium clandestinum</i>	-	-	G5?	S5	N / -	IP
Forked Panic-grass (Cypress Panicgrass)	<i>Dichanthelium dichotomum</i>	-	-	G5	S5	N / -	NE, CP

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Smooth Panic-grass	<i>Dichanthelium acuminatum</i> var. <i>spretum</i>	-	-	G5	S4	N / -	IP
Barnyard-grass (Barnyard Grass)	<i>Echinochloa crus-galli</i>	-	-	GNR	SNA	NN / -	IP
Purple Lovegrass (Petticoat-climber)	<i>Eragrostis spectabilis</i>	-	-	G5	S5	N / -	NE
Sheep Fescue	<i>Festuca ovina</i>	-	-	GNR	SNA	NN / -	NE, Main, CP
Mannagrass (Rattlesnake Mannagrass)	<i>Glyceria canadensis</i>	-	-	G5	S5	N / -	HP
Rice Cut-grass (Rice Cutgrass)	<i>Leersia oryzoides</i>	-	-	G5	S5	N / -	IP, CP, HP
Common Reed, Phragmites	<i>Phragmites australis</i>	-	-	G5	SNA	NN / I	IP
Black Oatgrass (Blackseed Needlegrass)	<i>Piptochaetium avenaceum</i>	-	WL	G5	SNR	N / -	Main
Little Bluestem	<i>Schizachyrium scoparium</i>	-	-	G5	S5	N / -	NE, CP
Xyridaceae Family (Yelloweyed-Grass)							
Yellow-eyed-grass (Bog Yelloweyed Grass)	<i>Xyris difformis</i>	-	-	G5	S5	N / -	CP
Pinaceae Family (Pine)							
Norway Spruce	<i>Picea abies</i>	-	-	G5	SNR	* / IP	Main
Pitch-pine (Pitch Pine)	<i>Pinus rigida</i>	-	-	G5	S5	N / -	NE, Main
White Pine	<i>Pinus strobus</i>	-	-	G5	S5	N / -	NE, Main
Dennstaedtiaceae Family (Hay-Scented Fern)							
Hay-scented Fern	<i>Dennstaedtia punctilobula</i>	-	-	G5	S5	N / -	OMNWR
Bracken (Bracken Fern)	<i>Pteridium aquilinum</i>	-	-	G5	S5	N / -	Main
Onocleaceae Family (Sensitive Fern)							
Sensitive Fern	<i>Onoclea sensibilis</i>	-	-	G5	S5	N / -	OMNWR
Dryopteridaceae Family (Wood Fern)							
Christmas-fern (Christmas Fern)	<i>Polystichum acrostichoides</i>	-	-	G5	S5	N / -	OMNWR

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Osmundaceae Family (Royal Fern)							
Cinnamon Fern	<i>Osmundastrum cinnamomeum</i> (<i>Osmundastrum cinnamomea</i>)	-	-	G5	S5	N / -	OMNWR
Interrupted Fern	<i>Osmunda claytoniana</i>	-	-	G5	S5	N / -	OMNWR
Thelypteridaceae Family (Marsh Fern)							
Marsh-fern (Marsh Fern, Meadow Fern)	<i>Thelypteris palustris</i>	-	-	G5	S5	N / -	IP

¹ Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; “-”=no status.

² State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; “-”=no status.

³ Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and “?”=inexact numeric rank.

⁴ Massachusetts Rarity Rank from Dow Cullina et al. (2011): S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; “-”=no rank given. State rarity ranks were only provided for “species in greatest need of conservation”, therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.

⁵ Native or Introduced / Invasive Status information comes from Dow Cullina et al. (2011) for Plymouth County, and also from the Massachusetts Invasive Plants Advisory Group (http://www.massnrc.org/mipag/speciesreviewed_alpha.htm). Codes: N= native; NN=nonnative, I=invasive, LI=likely invasive, IP=invasive status pending in MA, “-”=noninvasive, “*”=not on record as occurring in Plymouth County (at time of publication).

⁶ Location information comes from Zinovjev and Kadis 2012. The three land parcels are coded as: Main=Crooked Pond parcel, NE=Northeast (Island Pond parcel), NW=Northwest (Hoyt Pond parcel). Each of the four ponds area also recognized as separate locations and coded as: IP=Island Pond, CP=Crooked Pond, HP=Hoyt Pond, GEP=Gunners Exchange Pond. Additionally, OMNWR=outside Refuge boundaries. Location from AECOM 2010. ROW=transmission line corridor, Pond=along edge of Island Pond, “-”=not recorded.