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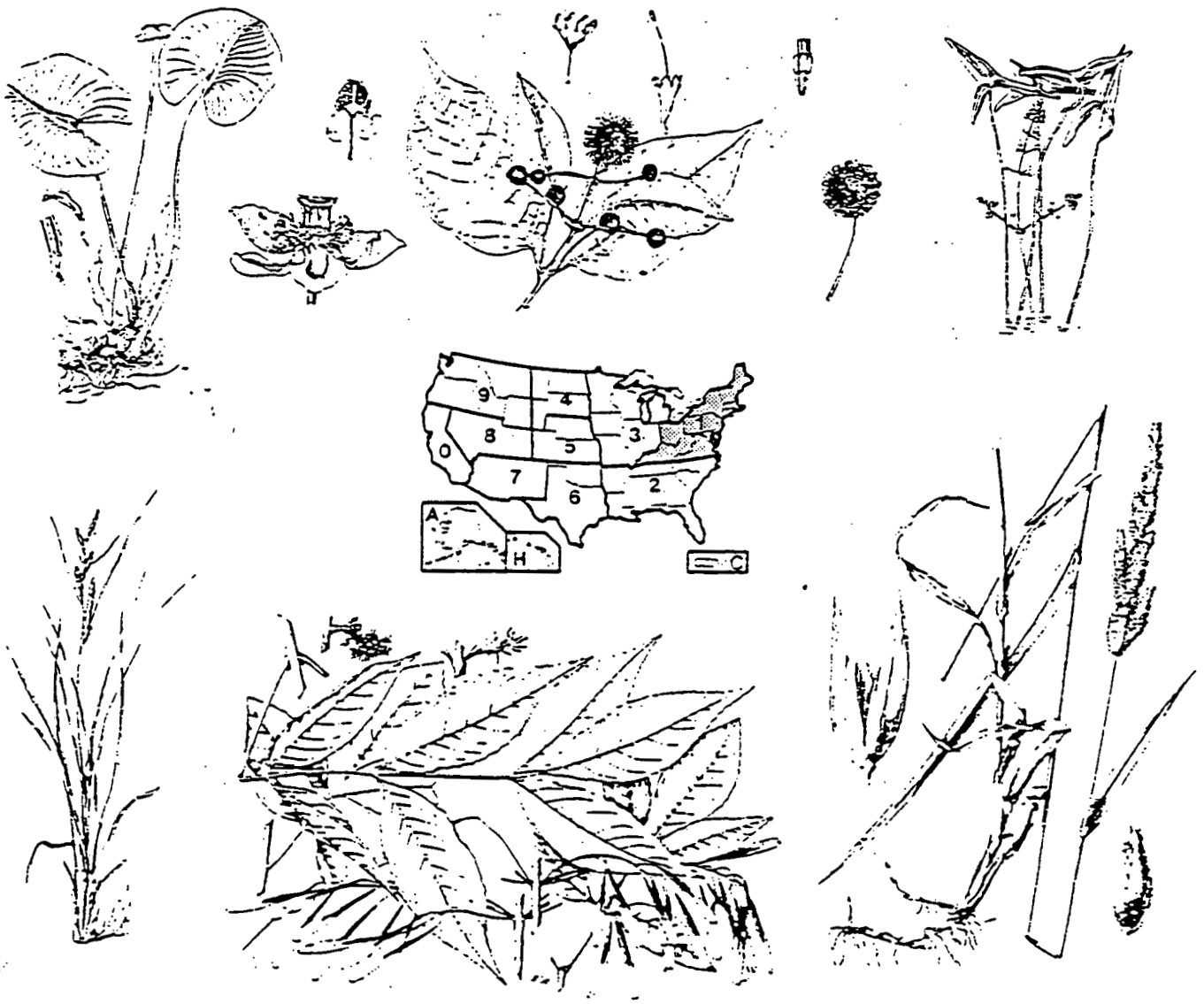
NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1)



Fish and Wildlife Service

In Cooperation with the National and Regional Interagency Review Panels

U.S. Department of the Interior

000001

Biological Report 88 (26.1)
May 1988
Supersedes WELUT-86/W13.01

NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1)

by

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for

National Wetlands Inventory
U.S. Fish and Wildlife Service

In cooperation with the National and Regional
Interagency Review Panels:

U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Soil Conservation Service

U.S. Department of the Interior
Fish and Wildlife Service
Research and Development
Washington, DC 20240

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COMPOSITION OF THE LISTS

The National, regional, and State lists are reported in a variety of formats. All of the lists are initially arranged alphabetically by scientific name followed by a second list, also alphabetical by scientific name, of those species with infra-specific (subspecies, variety, or form) Indicator assignments. A third list, alphabetic by scientific name, provides a list of synonyms related to the equivalent accepted name shown in the alphabetical scientific name list. The State lists also contain a fourth compilation, following the synonymy report, of the species found in each State, alphabetized by common name and subdivided into eight separate lists by life form (trees, shrubs, vines, forbs, grasses, grasslikes [sedges and rushes], ferns and allies, and aquatics).

Nomenclature and distribution follow the National List of Scientific Plant Names (1982) except as modified by State distribution data from an unpublished plant species geographic data base (Kartesz).

Epiphytic (e.g., mistletoes and some orchids) and nonrooted species (e.g., dodder) were excluded from the National List because their roots were respectively either never exposed to ground-level soil conditions or were not in existence during all or part of the plant's life span. The current National List contains only vascular plants, but a companion list of Bryophytes (mosses and liverworts) that occur in wetlands is being developed to further define the wetland flora of the United States. The Algae have also been excluded from the current list.

Listings of the members of the National and appropriate Regional Interagency Review Panels and the regional reviewers are included at the end of each list (Appendix D). Not all categories listed below are displayed in each National, regional, or State report. The National alphabetical scientific name list is reported by SCI-NAME, NAT-IND, R1IND, R2IND, R3IND, R4IND, R5IND, R6IND, R7IND, R8IND, R9IND, R0IND, RAIND, RCIND, RHIND, and REGION. The National trinomial list is reported by SCI-NAME, TRINOM, R1IND, R2IND, R3IND, R4IND, R5IND, R6IND, R7IND, R8IND, R9IND, R0IND, RAIND, RCIND, RHIND, and REGION. The National, regional, and State synonym lists are reported by SYNONYMY, SCI-NAME, AUTHOR, and REGION. The regional and State alphabetical scientific name lists are reported by SCI-NAME,AUTHOR, COMMON-NAME, R_IND, NAT-IND, and HABIT. The regional and State trinomial lists are reported by SCI-NAME, AUTHOR, TRINOM, R_IND, NAT-IND, and HABIT. The State alphabetical common-name lists are reported within life forms (HABIT) by COMMON-NAME, R_IND, NAT-IND, SYMBOL, SCI-NAME, and HABIT.

The information in these lists is presented in the following categories. A brief definition of the categories reported in the various lists is given below:

SCI-NAME (Scientific Name)

The genus and species applied to the taxon by the National List of Scientific Plant Names (1982).

SYMBOL

Symbol assigned in the National List of Scientific Plant Names (1982), consisting of the first two letters of the genus name and the first two letters of the specific epithet, with additional numbers added in numeric sequence to the four-letter symbol to break ties. Tentative plant symbols for species not in the National List of Scientific Plant Names (1982) have been created by taking the first two letters of the genus and specific epithet, adding a numeric tie breaker, if necessary, and ending with a question mark. All species have a unique symbol.

AUTHOR

The author of the scientific name as cited by the National List of Scientific Plant Names (1982).

SYNONYMY

Alternate scientific names applied to the species by major regional or State floras.

TRINOM (Trinomial)

Varieties, subspecies, or forms which differ in Indicator assignment from the species.

NAT-IND (National Range Of Indicators)

The National Indicators reflect the range of estimated probabilities (expressedas a frequency of occurrence) of a species occurring in wetland versus nonwetland across the entire distribution of the species. A frequency, for example, of 67%-99% (Facultative Wetland) means that 67%-99% of sample plots containing the species randomly selected across the range of the species would be wetland. Aquestion mark (?) following an Indicator denotes a tentative assignment based on the botanical literature and not confirmed by regional review. When two indicators are given, they reflect the range from the lowest to the highest frequency of occurrence in wetlands across the regions in which the species is found. A positive (+) or negative (-) sign was used with the Facultative Indicator categories to more specifically define the regional frequency of occurrence in wetlands. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign

indicates a frequency toward the lower end of the category (less frequently found in wetlands).

Indicator Categories

Obligate Wetland (OBL). Occur almost always (estimated probability >99%) under natural conditions in wetlands.

Facultative Wetland (FACW). Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands.

Facultative (FAC). Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%).

Facultative Upland (FACU). Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL). Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National List.

The wetland Indicator categories should not be equated to degrees of wetness. Many obligate wetland species occur in permanently or semipermanently flooded wetlands, but a number of obligates also occur and some are restricted to wetlands which are only temporarily or seasonally flooded. The facultative upland species include a diverse collection of plants which range from weedy species adapted to exist in a number of environmentally stressful or disturbed sites (including wetlands) to species in which a portion of the gene pool (an ecotype) always occurs in wetlands. Both the weedy and ecotype representatives of the facultative upland category occur in seasonally and semipermanently flooded wetlands.

R_IND (Regional Indicator)

The estimated probability (likelihood) of a species occurring in wetlands versus nonwetlands in the region. Regional Indicators reflect the unanimous agreement of the Regional Interagency Review Panel. If a regional panel was not able to reach a unanimous decision on a species, NA (no agreement) was recorded in the regional indicator (R_IND) field. An NI (no indicator) was recorded for those species for which insufficient information was available to determine an indicator status. A nonoccurrence (NO) designation indicates that the species does not occur in that region. An asterisk (*) following a regional Indicator identifies tentative assignments based on limited information from which to determine the indicator status. In the listings for the States divided into two regions (Montana, Wyoming, and Colorado), both regional Indicators are reported.

REGION

The distribution of the species expressed by the regional codes used in the National List of Scientific Plant Names (1982). These code numbers and regions are displayed in Figure 1.

REGION CODE	REGION	STATE(S) IN REGION
1	Northeast	ME,NH,VT,MA,CT,RI,WV,KY,NY,PA, NJ,MD,DE,VA,OH
2	Southeast	NC,SC,GA,FL,TN,AL,MS,LA,AR
3	North Central	MO,IA,MN,MI,WI,IL,IN
4	North Plains	ND,SD,MT(Eastern),WY(Eastern)
5	Central Plains	NE,KS,CO(Eastern)
6	South Plains	TX,OK
7	Southwest	AZ,NM
8	Intermountain	NV,UT,CO(Western)
9	Northwest	WA,OR,ID,MT(Western),WY(Western)
0	California	CA
A	Alaska	AK
C	Caribbean	PR(Puerto Rico), VI(U.S. Virgin Isls.), CZ(Canal Zone), SQ (Swan Isls.)
H	Hawaii	HI(Hawaiian Isls.), AQ(American Samoa), GU(Guam), IQ(U.S. Misc. Pacific Isls.), MQ(Midway Isls.), TQ(Trust territories of the Pacific Isls.), WQ(Wake Isl.), YQ(Ryukyu Isls. Southern)

COMMON-NAME

A popular name applied to the species. Common name selection generally follows Common Names for North American Plants (Kartesz and Thieret, in press), but some common names follow the current common name list maintained by the Soil Conservation Service.

HABIT

The plant characteristics and life forms assigned to each species in the National List of Scientific Plant Names (1982) and by the Soil Conservation Service. Family names are listed alphabetically under specific life forms restricted to these families.

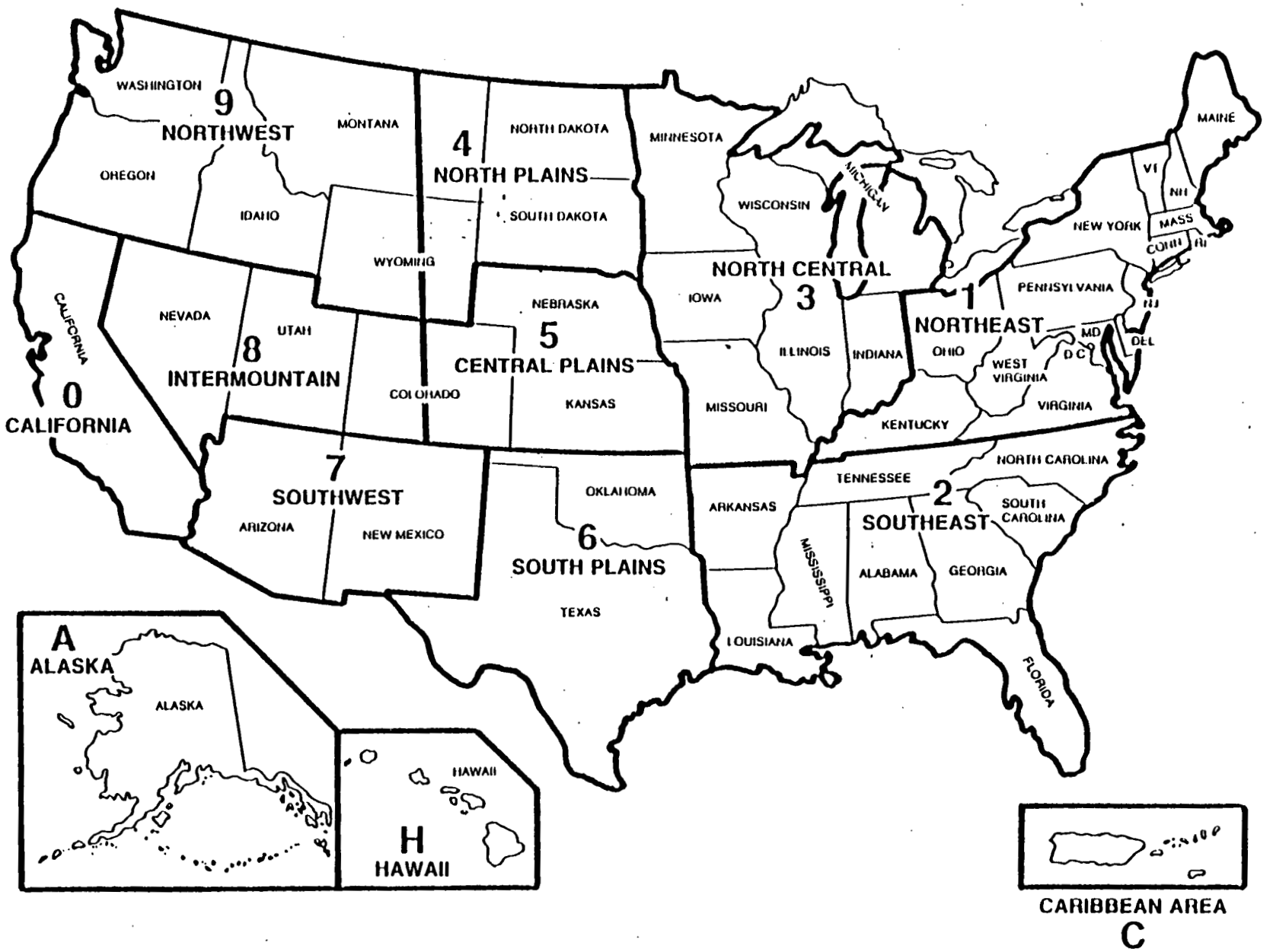

Figure 1. Regions of distribution for the National List of Scientific Plant Names (1982).

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SYMBOL		CHARACTERISTIC OR LIFE FORM	SYMBOL		CHARACTERISTIC OR LIFE FORM
A	=	Annual	G	=	Grass
B	=	Biennial			POACEAE
C	=	Clubmoss	GL	=	Grasslike
		LYCOPODIACEAE			CYPERACEAE
		SELAGINELLACEAE			JUNCACEAE
E	=	Emergent	H	=	Partly woody
@	=	Epiphytic	HS	=	Half shrub
F	=	Forb	H2	=	Horsetail
/	=	Floating			EQUISETACEAE
F3	=	Fern	I	=	Introduced
		ADIANTACEAE	N	=	Native
		ASPLENIACEAE	P	=	Perennial
		BLECHNACEAE	+	=	Parasitic
		CYATHEACEAE	P3	=	Pepperwort
		DAVALLIACEAE			MARSILEACEAE
		DENNSTAEDTIACEAE	Q	=	Quillwort
		DRYOPTERIDACEAE			ISOETACEAE
		GLEICHENIACEAE	S	=	Shrub
		GRAMMITIDACEAE	-	=	Saprophytic
		HYMENOPHYLLACEAE	Z	=	Submerged
		LOMARIOPSIDACEAE	$	=	Succulent
		MARATTIACEAE	T	=	Tree
		OPHIOGLOSSACEAE	V	=	Herbaceous Vine
		OSMUNDACEAE	W	=	Waterfern
		PARKERIACEAE			AZOLLACEAE
		POLYPODIACEAE			SALVINIACEAE
		PSILOTACEAE	WV	=	Woody vine
		PTERIDAC EAE			
		SCHIZAEACEAE			

The HABIT symbols are combined to describe the life form of the species (e.g., ANG means annual native grass, IT means introduced tree).

DIGITAL DATA BASE AVAILABILITY

The National List of Plant Species that Occur in Wetlands is maintained in a microcomputer data base. This data base was created to track and document the decisions made by the Regional Interagency Review Panels and to facilitate generation of National, regional and State reports. The data base is organized into 26 fixed-length and 3 variable-length fields and contains information on plant taxonomy, geography, and wetland Indicator status. We expect to make regional subdivisions of the data base and a user's manual available on selected magnetic media. An announcement of the format and ordering procedures will be distributed widely when the data base is available in digital form.

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
ABIES BALSAMEA	(L.) MILL.	FIR,BALSAM	FAC	FAC,FACW	NI
ABIES FRASERI	(PURSH) POIR.	FIR,FRASER'S	FACU	FACU	NI
ACALYPHA RHOMBOIDEA	RAF.	COPPER-LEAF,COMMON	FACU-	UPL,FAC-	ANF
ACALYPHA VIRGINICA	L.	MERCURY,THREE-SEEDED	FACU-	UPL,FACU	ANF
ACER NEGUNDO	L.	BOX-ELDER	FAC+	FAC,FACW	NI
ACER PENSYLVANICUM	L.	MAPLE,STRIPED	FACU	FACU-,FACU	NI
ACER RUBRUM	L.	MAPLE,DRUMMOND RED	FACW+	FACW,OBL	NI
ACER RUBRUM	L.	MAPLE,TRIDENT RED	FACW+	FACW+,OBL	NI
ACER RUBRUM	L.	MAPLE,RED	FAC	FAC	NI
ACER SACCHARINUM	MARSHALL	MAPLE,SILVER	FACW	FAC,FACW	NI
ACER SACCHARUM	LAM.	MAPLE,SUGAR	FACU-	UPL,FACU	NI
ACER SPICATUM	L.	MAPLE,MOUNTAIN	FACU-	FACU-,FACU	NST
ACHILLEA MILLEFOLIUM	L.	YARROW,COMMON	FACU	FACU	PNF
ACORUS CALAMUS	L.	SWEETFLAG	OBL	OBL	PIEF
ADIANTUM CAPILLUS-VENERIS	L.	FERN,SOUTHERN MAIDEN-HAIR	FACU	FACU,FACW+	PNF3
ADIANTUM PEDATUM	L.	FERN,NORTHERN MAIDEN-HAIR	FAC-	FACU,FAC	PNF3
ADOXA MOSCHATELLINA	L.	MUSK-ROOT	FAC*	FACU,FAC	PNF
AEGOPODIUM PODAGRARIA	(L.) B.S.P.	GOUTWEED,BISHOPS	FACU	FACU,FACW	PIF
AESCHYNOMENE VIRGINICA	WILLD.	JOINT-VETCH,VIRGINIA	OBL	FACW,OBL	NI
AESCULUS GLABRA	L.	BUCKEYE,OHIO	FACU+	FACU,FAC+	NI
AESCULUS PAVIA	W. BARTRAM	BUCKEYE,RED	FAC	FAC-,FAC+	NST
AESCULUS SYLVATICA	(ELLIOTT) RAF.	BUCKEYE,PAINTED	FAC	FAC	NI
AGALINIS FASCICULATA	(NUTT.) BRITTON	FALSE-FOXGLOVE,BEACH	FAC	FAC,FACW	ANF
AGALINIS LINIFOLIA	(RAF.) RAF.	FALSE-FOXGLOVE,FLAX-LEAF	FACW	FACW	PNF
AGALINIS MARITIMA	(RAF.) PENNELL	FALSE-FOXGLOVE,SALTMARSH	FACW+	FACW+,OBL	ANF
AGALINIS OBTUSIFOLIA	(GRAY) BRITTON	FALSE-FOXGLOVE,TEN-LOBE	FACU	FACU,FAC	AN+F
AGALINIS PAUPERCULA	(L.) RAF.	FALSE-FOXGLOVE,SMALL-FLOWER	FACW+	FACW+,OBL	ANF
AGALINIS PURPUREA	(VAHL) RAF.	FALSE-FOXGLOVE,LARGE PURPLE	FACW-	FAC,FACW	ANF
AGALINIS TENUIFOLIA	RAF.	FALSE-FOXGLOVE,SLENDER	FAC	FACU,FACW	AF
AGALINIS VIRGATA	(L.) KUNTZE	FALSE-FOXGLOVE,PINE BARREN	FAC	FAC	ANF
AGASTACHE NEPETOIDES	(L.) K.M. KING & H. ROB.	GIANT-HYSSOP,YELLOW	FACU	FACU,FAC	PNF
AGERATINA ALTISSIMA	WALTR.	SNAKEROOT,WHITE	FACU-	UPL,FAC	N
AGRIMONIA GRYPOSEPALA	SOLAND. IN AIT.	GROOVEBUR,TALL HAIRY	FAC	FACU,FACW-	PNF
AGRIMONIA PARVIFLORA	WALLR.	GROOVEBUR,SMALL-FLOWER	FACU	FAC,FACW	PNF
AGRIMONIA ROSTELLATA	MICHX.	GROOVEBUR,BEAKED	FACU	FACU,FAC	PNF
AGRIMONIA STRIATA	BEAUV.	GROOVEBUR,WOODLAND	FACU-	FACU-,FAC	PIG
AGROPYRON CANINUM	(PERS.) ROEM. AND J.A. SCHULTES	WHEATGRASS,CUTTING	FACU	FACU,FAC	PIG
AGROPYRON PUNGENS	(L.) BEAUV.	QUACKGRASS,STIFF-LEAF	FACW	FACW	PIG
AGROPYRON REPENS	(LINK) MALTE EX H.F. LEWIS	QUACKGRASS	FACU-	UPL,FAC	PNG
AGROPYRON TRACHYCAULUM	L.	WHEATGRASS,SLENDER	FACU	FACU,FAC	PIG
AGROSTIS ALBA	J.F. GMEL.	REDTOP	FACW	FACW,OBL	PIG
AGROSTIS AVENACEA	HARTM.	BENTGRASS,HAIRY-FLOWER	NI	FACW	PNG
AGROSTIS BOREALIS	L.	BENTGRASS,NORTHERN	FACU	FACU	PNG
AGROSTIS CANINA	ROTH	BENTGRASS,BROWN	FACU	UPL,FACU	PNG
AGROSTIS GIGANTEA	(WALTER) B.S.P.	BENTGRASS,BLACK	NI	FAC?	PNG
AGROSTIS HYEMALIS	(WALTER) TUCKERMAN	BENTGRASS,WINTER	FAC	FACU,FACW	PNG
AGROSTIS PERENNANS	WILLD.	BENTGRASS,PERENNIAL	FACU	FACU,FACW	PNG
AGROSTIS SCABRA	(FORSK.) C. CHR.	BENTGRASS,ROUGH	FAC	FAC,FAC+	PIG
AGROSTIS SEMIVERTICILLATA	L.	BENTGRASS,WATER	FACW	FACW,OBL	PNG
AGROSTIS STOLONIFERA	(MILL.) SHINGLE	BENTGRASS,SPREADING	FACW	FAC+,FACW	II
AILANTHUS ALTISSIMA	WALTER	TREE-OF-HEAVEN	NI	FACU	PNF
ALETRIS AUREA		COLIC-ROOT,GOLDEN	FACW	FACW,FACW+	

ABIES BALSAMEA

ALETRIS AUREA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
ALETRIS FARINOSA	L.	COLIC-ROOT,WHITE	FAC	FAC,FAC+	PNF
ALETRIS LUTEA	SMALL	COLIC-ROOT,YELLOW	FACW	FACW,FACW+	PNF
ALISMA GRAMINEUM	GMEL.	WATER-PLANTAIN,NARROW-LEAF	OBL	OBL	PNEF
ALISMA PLANTAGO-AQUATICA	L.	WATER-PLANTAIN,BROAD-LEAF	OBL	OBL	PNEF
ALISMA SUBCORDATUM	RAF.	WATER-PLANTAIN,SUBCORDATE	OBL	OBL	PNEF
ALLIARIA PETIOLATA	(M. BIEB.) CAVARA & GRANDE	MUSTARD,GARLIC	FACU-	FACU-,FACW	BIF
ALLIUM BIVALVE	(L.) KUNTZE	GARLIC,FALSE	FACU	FACU-,FAC	PNF
ALLIUM CANADENSE	L.	ONION,MEADOW	FACU	FACU-,FACU	PNF
ALLIUM SCHOENOPRASUM	L.	CHIVES	FACU	FACU,FACW+	PNF
ALLIUM TRICOCCUM	AIT.	LEEK,SMALL WHITE	FACU+	FACU,FAC	PNF
ALLIUM VINEALE	L.	GARLIC,FIELD	FACU-	FACU-,FACU	PIF
ALNUS CRISPA	(DRYAND. IN AIT.) PURSH	ALDER,GREEN	FAC	FAC,FACW	NS
ALNUS GLUTINOSA	(L.) GAERTN.	ALDER,EUROPEAN	FACW-	FACW-	IT
ALNUS INCANA	(L.) MOENCH	ALDER,SPECKLED	NI	FACU,FACW	NS
ALNUS MARITIMA	(MARSH.) MUHL.	ALDER,SEASIDE	OBL	OBL	NI
ALNUS RUGOSA	(DU ROI) SPRENG.	ALDER,SPECKLED	FACW+	FAC,OBL	NI
ALNUS SERRULATA	(AIT.) WILLD.	ALDER,BROOK-SIDE	OBL	FACW+,OBL	NI
ALOPECURUS AEQUALIS	SOBOL.	FOXTAIL,SHORT-AWN	OBL	OBL	PNG
ALOPECURUS CAROLINIANUS	WALTER	FOXTAIL,TUFTED	FACW	FAC+,FACW	ANG
ALOPECURUS GENICULATUS	L.	FOXTAIL,MEADOW	OBL	FACW+,OBL	PNG
ALOPECURUS MYOSUROIDES	HUDS.	FOXTAIL,MOUSE	FACW	FACW-,FACW	AIG
ALOPECURUS PRATENSIS	L.	FOXTAIL,MEADOW	FACW	FAC,FACW	PIG
ALTERNANTHERA PHILOXEROIDES	GRISEB.	WEED,ALLIGATOR	OBL	OBL	PIEF
ALTHAEA OFFICINALIS	L.	MARSH-MALLOW,COMMON	FACW+	FACW+	PIF
AMARANTHUS ALBUS	L.	AMARANTH,WHITE	FACU	FACU-,FACU	ANF
AMARANTHUS BLITOIDES	S. WATS.	AMARANTH,PROSTRATE	NI	FACU,FACW	AIF
AMARANTHUS CANNABINUS	(L.) SAUER	AMARANTH,TIDEMARSH	OBL	OBL	PNEF
AMARANTHUS PALMERI	S. WATS.	AMARANTH,PALMER'S	FACU	FACU-,FACU	ANF
AMARANTHUS PUMILUS	RAF.	AMARANTH,SEABEACH	FACW*	FACW	ANF
AMARANTHUS RETROFLEXUS	L.	AMARANTH,RED-ROOT	FACU	FACU-,FAC-	ANF
AMARANTHUS RUDIS	SAUER	AMARANTH,TALL	FACW-	FACU-,FACW	ANF
AMARANTHUS SPINOSUS	L.	AMARANTH,SPINY	FACU	FACU-,FACU	ANF
AMARANTHUS TUBERCULATUS	(MOQ.) SAUER	AMARANTH,ROUGH-FRUIT	FACW	FACW,OBL	ANF
AMBROSIA ARTEMISIIFOLIA	L.	RAGWEED,ANNUAL	FACU	FACU-,FACU+	ANF
AMBROSIA PSILOSTACHYA	DC.	RAGWEED,NAKED-SPIKE	FACU-	FACU-,FAC	PNF
AMBROSIA TRIFIDA	L.	RAGWEED,GREAT	FAC	FAC,FACW	ANF
AMELANCHIER ARBOREA	(MICHX. F.) FERN.	SERVICE-BERRY,DOWNY	FAC-	FACU,FAC	NI
AMELANCHIER BARTRAMIANA	(TAUSCH) ROEMER	SERVICE-BERRY,BARTRAM'S	FAC	FAC	NS
AMELANCHIER CANADENSIS	(L.) MEDIC.	SERVICE-BERRY,OBLONG-LEAF	FAC	FACU,FAC	NS
AMELANCHIER OBOVALIS	(MICHX.) ASHE	SERVICE-BERRY,OBOVATE COASTAL	FACU	FACU,FACW	NS
AMELANCHIER SPICATA	(LAM.) K. KOCH	JUNE-BERRY,LOW	FACU	FACU	NS
AMELANCHIER X INTERMEDIA	SPACH	SHADBUSH,SWAMP	FACW	FACW	NS
AMEROREXIS ROTUNDIFOLIA	(BANKS EX PURSH) HULTEN	ORCHID,ROUND-LEAF	OBL	FACW,OBL	PNF
AMIANTHIUM MUSCAETOXICUM	(WALTER) GRAY	FLYPOISON	FAC	FAC	PNF
AMMANNIA COCCINEA	ROTTB.	AMMANNIA,PURPLE	OBL	FACW+,OBL	ANF
AMMANNIA LATIFOLIA	L.	AMMANNIA,PINK	NI	OBL	ANF
AMMOPHILA ARENARIA	(L.) LINK	BEACHGRASS,EUROPEAN	FACU-	FACU-,FACU	PIG
AMMOPHILA BREVILIGULATA	FERNALD	BEACHGRASS,AMERICAN	FACU-	UPL,FACU-	PNG
AMORPHA FRUTICOSA	L.	INDIGO-BUSH,FALSE	FACW	FAC,OBL	NS
AMORPHA GEORGIANA	WILBUR	INDIGO-BUSH,GEORGIA	NI	FACW	NS
AMORPHA NITENS	BOYNTON	INDIGO-BUSH,SHINING	NI	FAC,FACW	NS
AMPELAMUS ALBIDUS	(NUTT.) BRITTON	SANDVINE	FAC	FAC	PNF

ALETRIS FARINOSA

AMPELAMUS ALBIDUS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
AMPELOPSIS ARBOREA	(L.) KOEHNE	PEPPER-VINE	FACW	FAC,FACW	NWV
AMPELOPSIS CORDATA	MICHX.	PEPPER-VINE,HEART-LEAF	FAC+	UPL,FAC+	NWVS
AMPHICARPAEA BRACTEATA	(L.) FERNALD	HOG-PEANUT,AMERICAN	FAC	FACU,FACW	APNFV
AMPHICARPUM PURSHII	KUNTH	GOOBERGRASS,ANNUAL	FACW	FACW	ANG
AMSONIA ILLUSTRIS	WOODSON	SLIMPOD,GREAT PLAINS	NI	FAC,FAC+	PNF
AMSONIA TABERNAEMONTANA	WALTER	SLIMPOD,EASTERN	FACW	FACW-,FACW	PNF
ANDROMEDA GLAUCOPHYLLA	LINK	ROSEMARY,DOWNY BOG	OBL	OBL	NS
ANDROMEDA POLIFOLIA	L.	ROSEMARY,BOG	OBL	OBL	NS
ANDROPOGON GERARDII	VITMAN	BLUESTEM,BIG	FAC	FACU,FAC	PNG
ANDROPOGON GLOMERATUS	(WALTER) B.S.P.	BLUESTEM,BUSHY	FACW+	FACW,OBL	PNG
ANDROPOGON HOWITII	HACK.	BLUESTEM,HOWI'S	FACW	FACW,OBL	PNG
ANDROPOGON TERNARIUS	MICHX.	BLUESTEM,SILVER	FACU	FACU	PNG
ANDROPOGON VIRGINICUS	L.	BROOM-SEDGE	FACU	FACU,FAC	PNG
ANEMONE CANADENSIS	L.	THIMBLE-WEED,CANADA	FACW	FAC,FACW	PNF
ANEMONE QUINQUEFOLIA	L.	THIMBLE-WEED,AMERICAN WOODLAND	FACU	FACU,FAC	PNF
ANEMONE RIPARIA	FERNALD	THIMBLE-WEED,RIVER	NI	NI	PNF
ANEMONE VIRGINIANA	L.	THIMBLE-WEED,TALL	NI	NI	PNF
ANGELICA ATROPURPUREA	L.	ANGELICA,PURPLE-STEM	OBL	OBL	PNF
ANGELICA LUCIDA	L.	ANGELICA,SEAWATCH	FACW	FACU,FAC	PNF
ANTHEMIS COTULA	L.	MAYWEED	FACU-	UPL,FACU+	AIF
ANTHOXANTHUM ODORATUM	L.	GRASS,SWEET VERNAL	FACU	UPL,FACU	PIG
APIOS AMERICANA	MEDIC.	POTATO-BEAN,AMERICAN	FACW	FAC,FACW	PNF
APIUM GRAVEOLENS	L.	CELERY	FAC	FAC-,FACW	PIF
APLECTRUM HYEMALE	(WILLD.) TORR.	PUTTYROOT	FAC	FAC-,FACW	PNF
APOCYNUM CANNABINUM	L.	DOGBANE,CLASPING-LEAF	FACU	FACU,FAC+	PNF
APOCYNUM SIBIRICUM	JACQ.	DOGBANE,PRAIRIE	FAC	FAC-,FAC+	PNF
AQUILEGIA CANADENSIS	L.	COLUMBINE,WILD	FAC	FAC-,FACW	PNF
ARABIS ALPINA	L.	ROCKCRESS,ALPINE	FAC+	FAC+,FACW-	PIF
ARABIS DIVARICARPA	A. NELS.	ROCKCRESS,LIMESTONE	FACU	FACU	BNF
ARABIS DRUMMONDII	GRAY	ROCKCRESS,DRUMMOND'S	FACU	FACU	BNF
ARABIS HIRSUTA	(L.) SCOP.	ROCKCRESS,HAIRY	FACU	FACU	PNF
ARABIS LYRATA	L.	ROCKCRESS,LYRE-LEAF	FACU	FACU-,FACU	BNF
ARALIA NUDICAULIS	L.	SARSAPARILLA,WILD	FACU	FACU,FAC	PNF
ARALIA SPINOSA	L.	CLUB,HERCULES	FAC	FAC,FACW-	NI
ARCTOSTAPHYLOS ALPINA	(L.) SPRENG.	MANZANITA,ALPINE	FAC	FAC	NS
ARCTOSTAPHYLOS UVA-URSI	(L.) SPRENG.	BEARBERRY	NI	UPL,FACU	NS
ARENARIA LANUGINOSA	(MICHX.) HOHRB.	SANDWORT,SPREADING	FAC	FACU,FAC	PNF
ARENARIA SERPYLLIFOLIA	L.	SANDWORT,THYME-LEAF	FAC	FACU,FAC	AIF
ARETHUSA BULBOSA	L.	SWAMP-PINK	OBL	OBL	PNF
ARISAEMA DRACONTIUM	(L.) SCHOTT	DRAGON,GREEN	FACW	FACW	PNF
ARISAEMA QUINATUM	(NUTT.) SCHOTT	JACK-IN-THE-PULPIT,FIVE-LEAF	NI	FAC-	PNF
ARISAEMA TRIPHYLLUM	(L.) SCHOTT	JACK-IN-THE-PULPIT,SWAMP	FACW-	FAC,FACW	PNF
ARISTIDA AFFINIS	(J.A. SCHULTES) KUNTH	GRASS,LONG-LEAF THREE-AWN	FACW+	FACW-,OBL	PNG
ARISTIDA VIRGATA	TRIN.	GRASS,WAND-LIKE THREE-AWN	FAC	FAC,FACW-	PNG
ARISTOLOCHIA TOMENTOSA	SIMS	DUTCHMAN'S-PIPE,WOOLLY	FAC	FAC	PNF
ARMERIA MARITIMA	WILLD.	THRIFT,WESTERN	NI	FACU	PNF
ARMORACIA AQUATICA	(A. EAT.) WIEGAND	LAKECRESS	OBL	OBL	PNZF
ARMORACIA RUSTICANA	P. GAERTN., B. MEYER & SCHERB.	HORSERADISH	NI	FAC	PIEF
ARNICA ACAULIS	(WALTER) B.S.P.	LEOPARD'S-BANE	FACU	FACU,FAC	PNF
ARNICA NOLLIS	HOOK.	ARNICA,HAIRY	FAC	FAC,FACW	PNF
ARNOGLOSSUM PLANTAGINEUM	RAF.	INDIAN-PLANTAIN,GROOVE-STEM	FACW	FACU,FACW	PNF
ARONIA ARBUTIFOLIA	(L.) ELLIOTT	CHOKEBERRY,RED	FACW	FACW	NS

AMPELOPSIS ARBOREA

ARONIA ARBUTIFOLIA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
ARONIA MELANOCARPA	(MICHX.) ELLIOTT	CHOKEBERRY,BLACK	FAC	FAC,FACW-	NS
ARONIA PRUNIFOLIA	(MARSH.) REHDER.	CHOKEBERRY,PURPLE	FACW	FACW	NS
ARRHENATHERUM ELATIUS	(L.) J. & K. PRESL	OATGRASS,TALL	FACU	UPL,FACU	PIG
ARTEMISIA ANNUA	L.	WORMWOOD,ANNUAL	FACU	UPL,FACU	AIF
ARTEMISIA BIENNIS	WILLD.	WORMWOOD,BIENNIAL	FACU-	FACU-,FACW	AIF
ARTEMISIA CANA	PURSH	SAGEBRUSH,SILVER	NI	FACU,FACW	NS
ARTEMISIA STELLERIANA	BESSER	SAGEBRUSH,HOARY	FACU	UPL,FACU	PIF
ARTHRAXON HISPIDUS	(THUNB.) MAKINO	ARTHRAXON,JOINT-HEAD	NI	FACU+,FACW	AIG
ASCUNCUS DIOICUS	(WALTER) FERNALD	GOATSBEARD,HAIRY	FACU	UPL,FACW	PNF
ARUNDINARIA GIGANTEA	(WALTER) WALTER EX MUHL.	CANE,GIANT	FACW	FACW	PNG
ARUNDO DONAX	L.	REED,GIANT	FACU-	FACU-,FACW	PIG
ASARUM ARIFOLIUM	MICHX.	LITTLE-BROWN-JUG	FACU	FACU,FAC-	PNF
ASARUM SHUTTLEWORTHII	BRITTEN & BAKER	WILDGINGER	NI	FACU	PNF
ASARUM VIRGINICUM	L.	HEARTLEAF,VIRGINIA	FACU*	FACU	PNF
ASCLEPIAS EXALTATA	L.	MILKWEED,POKE	FACU*	FACU	PNF
ASCLEPIAS INCARNATA	L.	MILKWEED,SWAMP	OBL	FACW+,OBL	PNF
ASCLEPIAS LANCEOLATA	WALTER	MILKWEED,FEN-FLOWER	OBL	OBL	PNF
ASCLEPIAS LONGIFOLIA	MICHX.	MILKWEED,LONG-LEAF	OBL	FACW+,OBL	PNF
ASCLEPIAS PERENNIS	WALTER	MILKWEED,AQUATIC	NI	OBL	PNF
ASCLEPIAS PURPURASCENS	L.	MILKWEED,PURPLE	FACU	FACU,FACU+	PNF
ASCLEPIAS RUBRA	L.	MILKWEED,RED	OBL	OBL	PNF
ASCLEPIAS VARIEGATA	L.	MILKWEED,WHITE	FACU	FACU	PNF
ASCYRUM HYPERICOIDES	L.	CROSS,ST. ANDREW'S	FACU	FACU,FAC	PNF
ASCYRUM STANS	MICHX.	ST. PETERSWORT	FACU	FACU,FACW-	NS
ASIMINA TRILOBA	(L.) DUNAL	PAWPAW,COMMON	FACU+	FACU+,FAC	NS
ASPARAGUS OFFICINALIS	L.	ASPARAGUS-FERN,GARDEN	FACU	FACU-,FACU	NT
ASPLENIUM PLATYNEURON	(L.) OAKES	SPLEENWORT,EBONY	FACU	FACU-,FACU	PIF
ASTER BRACHYACTIS	BLAKE	ASTER,RAYLESS ALKALI	NI	FAC,FACW	PNF 3
ASTER DUMOSUS	L.	ASTER,BUSH	FAC	FAC,FAC+	ANF
ASTER ELLIOTTII	TORR. & GRAY	ASTER,ELLIOTT'S	OBL	OBL	PNF
ASTER ERICOIDES	LINDL.	ASTER,WHITE HEATH	FACU	UPL,FACU	PNF
ASTER FOLIACEUS	(NUTT.) TORR. & GRAY	ASTER,LEAFY-BRACTED	FAC	FACU,FACW	PNF
ASTER FRONDOSUS	NUTT.	ASTER,LEAFY	NI	FACW+,OBL	PNF
ASTER GRACILIS	E.J. ALEX.	ASTER,SLENDER	FACU	FACU	ANF
ASTER HEMISPHERICUS	RYDB.	ASTER,TENNESSEE	NI	FACU,FAC	PNF
ASTER JUNCIFORMIS	(L.) BRITTON	ASTER,RUSH	OBL	OBL	PNF
ASTER LATERIFLORUS	(GRAY) WIEGAND	ASTER,CALICO	FACW-	FAC,FACW+	PNF
ASTER LUCIDULUS	AIT.	ASTER,SHINING	FACW	FACW,FACW+	PNF
ASTER NEMORALIS	L.	ASTER,BOG	FACW+	FACW+,OBL	PNF
ASTER NOVAE-ANGLIAE	L.	ASTER,NEW ENGLAND	FACW-	FACW-,FACW	PNF
ASTER NOVI-BELGII	WIEGAND	ASTER,NEW YORK	FACW+	FACW,OBL	PNF
ASTER ONTARIONIS	POIR.	ASTER,ONTARIO	FAC	FAC	PNF
ASTER PRAEALTUS	MUHL.	ASTER,WILLOW-LEAF	FACW	FACW-,FACW	PNF
ASTER PRENANTHOIDES	L.	ASTER,CROOKED-STEM	FAC	FAC	PNF
ASTER PUNICEUS	ELLIOTT	ASTER,SWAMP	OBL	OBL	PNF
ASTER RACEMOSUS	AIT.	ASTER,COASTAL-PLAIN	FACW	FACW	PNF
ASTER RADULA	WILLD.	ASTER,LOW ROUGH	OBL	OBL	PNF
ASTER SIMPLEX	MICHX.	ASTER,PANICLED	FACW	FACW	PNF
ASTER SUBULATUS	L.	ASTER,ANNUAL SALTMARSH	OBL	FACW,OBL	ANF
ASTER TENUIFOLIUS	L.	ASTER,PERENNIAL SALTMARSH	OBL	OBL	PNF
ASTER TRADESCANTI	MILL.	ASTER,TRADESCANT	FACW	FAC+,FACW	PNF
ASTER UMBELLATUS		ASTER,FLAT-TOP WHITE	FACW	FACW,OBL	PNF

ARONIA MELANOCARPA

ASTER UMBELLATUS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
ASTER VIMINEUS	LAM.	ASTER,SMALL WHITE	FAC	FAC,FACW-	PNF
ASTER X BLAKEI	(T. PORTER) HOUSE	ASTER,BLAKE'S	FACW+	FACW+	PNF
ASTER X LANCEOLATUS	WILLD.	ASTER,WHITE PANICLE	NI	NI	F
ASTILBE BITERNATA	(VENTENAT) BRITTON	GOAT'S-BEARD,FALSE	FACU	FACU	PNF
ASTRAGALUS ALPINUS	L.	MILKVETCH,ALPINE	FACU	FACU,FAC	PNF
ASTRAGALUS CANADENSIS	L.	MILKVETCH,CANADA	FAC	FACU,FACW	PNF
ASTRAGALUS EUCOSMUS	B. ROB.	MILKVETCH,ELEGANT	FACU	UPL,FAC	PNF
ASTRAGALUS NEGLECTUS	(TORR. & GRAY) SHELDON	MILKVETCH,COOPER'S	FACU	UPL,FACU	PNF
ATHYRIUM DISTENTIFOLIUM	TAUSCH	FERN,ALPINE LADY	NI	FACU,FAC	PNF3
ATHYRIUM FILIX-FEMINA	(L.) ROTH	FERN,SUBARCTIC LADY	FAC	FAC,FAC+	PNF3
ATHYRIUM PYCNOCARPON	(SPRENG.) TIDEST.	FERN,NARROW-LEAF LADY	FAC	FACU,FAC	PNF3
ATHYRIUM THELYPTEROIDES	(MICHX.) DESV.	FERN,SILVERY LADY	FAC	FAC	PNF3
ATRIPLEX ARENARIA	NUTT.	ORACHE,SEABEACH	FAC-	FAC-,FAC	ANF
ATRIPLEX ARGENTEA	NUTT.	SALTBUSH,SILVER-SCALE	NI	FACU,FAC	ANF
ATRIPLEX GLABRIUSCULA	EDMONST.	SALTBUSH,NORTHEASTERN	NI	NI	ANF
ATRIPLEX PATULA	L.	SALTBUSH,HALBERD-LEAF	FACW	FAC,FACW	ANF
ATRIPLEX ROSEA	L.	ORACHE,TUMBLING	FACU	FACU-,FACU+	AIF
AVONOPUS AFFINIS	CHASE	GRASS,SOUTHERN CARPET	FACW-	FAC,FACW-	PNG
AVONOPUS FURCATUS	(FLUEGGE) A. HITCHC.	GRASS,BIG CARPET	FACW	FACW,OBL	PNG
AZOLLA CAROLINIANA	WILLD.	FERN,CAROLINA MOSQUITO	OBL	OBL	AN/W
AZOLLA FILICULOIDES	LAM.	FERN,FERN-LIKE MOSQUITO	OBL	OBL	PN/W
BACCHARIS HALIMIFOLIA	L.	FALSE-WILLOW,EASTERN	FACW	FAC,FACW	NS
BACOPA CAROLINIANA	(WALTER) B. ROB.	WATER-HYSSOP,CAROLINA	OBL	OBL	PNF
BACOPA CYCLOPHYLLA	FERNALD	WATER-HYSSOP,COASTAL-PLAIN	OBL	OBL	PNF
BACOPA MONNIERI	(L.) WETTST.	WATER-HYSSOP,COASTAL	OBL	OBL	PNF
BACOPA REPENS	(SWARTZ) WETTST.	WATER-HYSSOP,CREEPING	NI	OBL	EF
BACOPA ROTUNDIFOLIA	(MICHX.) WETTST.	WATER-HYSSOP,DISK	NI	OBL	PNF
BACOPA SIMULANS	FERNALD	WATER-HYSSOP,CHICKAHOMINY	OBL	OBL	PN$F
BACOPA STRAGULA	FERNALD	WATER-HYSSOP,MAT-FORMING	OBL	OBL	PN$F
BAPTISIA LACTEA	(RAF.) THIERET	WILD-INDIGO,WHITE	FACU*	FACU,FAC	PNF
BARBAREA ORTHOCERAS	LEDEB.	WINTER-CRESS,AMERICAN	OBL	FACW,OBL	BNEF
BARBAREA VULGARIS	R. BR.	ROCKET,YELLOW	FACU	FACU,FACW	BIF
BARTONIA PANICULATA	(MICHX.) MUHL.	SCREWSTEM,TWINING	OBL	OBL	ANF
BARTONIA VERNA	(MICHX.) MUHL.	SCREWSTEM,WHITE	FACW	FACW,OBL	ANF
BARTONIA VIRGINICA	(L.) B.S.P.	SCREWSTEM,YELLOW	FACW	FACW,FACW+	ANF
BASSIA HIRSUTA	(L.) ASCHERS.	SMOTHER-WEED,HAIRY	OBL	OBL	AIF
BASSIA HYSSOPIFOLIA	(PALLAS) KUNTZE	SMOTHER-WEED,FIVE-HORN	NI	FAC,FACW	AIF
BECKMANNIA ERUCIFORMIS	(L.) HOST	GRASS,BECKMANN'S	OBL	OBL	G
BECKMANNIA SYZIGACHNE	(STEUD.) FERNALD	SLOUGHGRASS,AMERICAN	OBL	OBL	ANG
BERBERIS THUNBERGII	DC.	BARBERRY,JAPANESE	FACU	UPL,FACU	IS
BERBERIS VULGARIS	L.	BARBERRY,EUROPEAN	FACU	UPL,FACU	IS
BERCHEMIA SCANDENS	(J. HILL) K. KOCH	SUPPLE-JACK,ALABAMA	FACW	FAC+,FACW	NWV
BERULA ERECTA	(HUDS.) COV.	PARSNIP,CUT-LEAF WATER	NI	OBL	PIF
BETA VULGARIS	L.	BEET,CULTIVATED	NI	UPL,FACU	AIF
BETULA ALBA	L.	BIRCH,WHITE	FAC+	FACU,FAC+	NTS
BETULA ALLEGHANIENSIS	BRITTON	BIRCH,YELLOW	FAC	FACU+,FAC	NT
BETULA GLANDULOSA	MICHX.	BIRCH,TUNDRA DWARF	OBL	FAC,OBL	NS
BETULA LENTA	L.	BIRCH,SWEET	FACU	FACU	NT
BETULA NIGRA	L.	BIRCH,RIVER	FACW	FACW,OBL	NT
BETULA PAPYRIFERA	MARSHALL	BIRCH,PAPER	FACU	FACU,FACU+	NT
BETULA POPULIFOLIA	MARSHALL	BIRCH,GRAY	FAC	FAC	NT
BETULA PUMILA	L.	BIRCH,BOG	OBL	OBL	NS

ASTER VIMINEUS

BETULA PUMILA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
BETULA X PURPUSII	SCHNEID.	BIRCH,PURPUS'	NI	OBL	NT
BIDENS ARISTOSA	(MICHX.) BRITTON	BEGGAR-TICKS,BEARDED	FACW-	FACW-,FACW	ANF
BIDENS BIDENTOIDES	(NUTT.) BRITTON	BEGGAR-TICKS,SWAMP	FACW	FACW	ANF
BIDENS CERNUA	L.	BEGGAR-TICKS,NODDING	OBL	FACW+,OBL	AIF
BIDENS COMOSA	(GRAY) WIEGAND	BEGGAR-TICKS,LEAFY-BRACT	FACW	FACW	ANF
BIDENS CONNATA	MUHL. EX WILLD.	BEGGAR-TICKS,PURPLE-STEM	FACW+	FACW+,OBL	ANF
BIDENS CORONATA	(L.) BRITTON	BEGGAR-TICKS,LARGE-FRUIT	OBL	OBL	ANF
BIDENS DISCOIDEA	(TORR. & GRAY) BRITTON	BEGGAR-TICKS,SWAMP	FACW	FACW,FACW+	ANF
BIDENS EATONI	FERNALD	BEGGAR-TICKS,EATON'S	OBL	OBL	ANF
BIDENS FRONDOSA	L.	BEGGAR-TICKS,DEVIL'S	FACW	FACW,FACW+	ANF
BIDENS HETEROODXA	(FERNALD) FERNALD & H. ST. JOHN	BEGGAR-TICKS,CONNECTICUT	FACW+	FACW+	ANF
BIDENS HYPERBOREA	GREENE	BEGGAR-TICKS,ESTUARY	OBL	OBL	ANF
BIDENS LAEVIS	(L.) B.S.P.	BEGGAR-TICKS,SMOOTH	OBL	OBL	PNF
BIDENS MARIANA	BLAKE		OBL	OBL	ANF
BIDENS MITIS	(MICHX.) SHERFF	BEGGAR-TICKS,SMALL-FRUIT	NI	FACW-,FACW	ANF
BIDENS PILOSA	L.	BEGGAR-TICKS,HAIRY	FACW	FACW-,FACW	ANF
BIDENS POLYLEPIS	BLAKE	BEGGAR-TICKS,AWNLESS	FACW	FACW-,FACW	ANF
BIDENS TENUISECTA	GRAY	BEGGAR-TICKS,SLIM-LOBE	NI	FAC,FACW	ANF
BIDENS TRIPARTITA	L.	BEGGAR-TICKS,THREE-LOBE	OBL	FACW,OBL	AIF
BIGNONIA CAPREOLATA	L.	CROSSVINE	FAC+	FAC,FACW	NHV
BLEPHILIA HIRSUTA	(PURSH) BENTH.	WOODMINT,HAIRY	FACU-	FACU-	PNF
BOEHMERIA CYLINDRICA	(L.) SWARTZ	FALSE-NETTLE,SMALL-SPIKE	FACW+	FACW,OBL	PNF
BOLTONIA ASTEROIDES	(L.) L'HER.	BOLTONIA,WHITE	FACW	FACW,OBL	PNF
BOLTONIA CAROLINIANA	(WALTER) FERNALD	BOLTONIA,CAROLINA	FACW	FACW	PNF
BOLTONIA DIFFUSA	ELLIOTT	BOLTONIA,SMALL-HEAD	FAC	FAC,FACW	PNF
BORRICHIA FRUTESCENS	(L.) DC.	OXEYE,SEA	OBL	FACW+,OBL	NS
BOTRYCHIUM BITERNATUM	(SAVIGNY) UNDER.	GRAPEFERN,SPARSE-LOBE	FAC	FAC-,FAC	PNF3
BOTRYCHIUM DISSECTUM	SPRENG.	GRAPEFERN,CUTLEAF	FAC	FAC	PNF3
BOTRYCHIUM LANCEOLATUM	(S.G. GMEL.) RUPR.	MOONWORT,TRIANGLE	FACW	FAC,FACW	PNF3
BOTRYCHIUM LUNARIA	(L.) SWARTZ	MOONWORT	FACW	FAC,FACW	PNF3
BOTRYCHIUM MATRICARIIFOLIUM	A. BRAUN	MOONWORT,DAISY-LEAF	FACU	FACU	PNF3
BOTRYCHIUM MULTIFIDUM	(J.F. GMEL.) RUPR.	GRAPEFERN,LEATHERY	FACU	FACU,FAC	PNF3
BOTRYCHIUM SIMPLEX	E. HITCHC.	GRAPEFERN,LEAST	FACU	FACU,FAC	PNF3
BOTRYCHIUM VIRGINIANUM	(L.) SWARTZ	FERN,RATTLESNAKE	FACU	FACU	PNF3
BOYKINIA ACONITIFOLIA	NUTT.	BROOKFOAM,ALLEGHANY	FACW	FACW	PNF
BRACHIARIA PLANTAGINEA	(LINK) A. HITCHC.	GRASS,PLANTAIN SIGNAL	NI	FAC	ANG
BRACHIARIA PLATYPHYLLA	(GRISEB.) NASH	GRASS,BROAD-LEAF SIGNAL	NI	FAC,FAC+	ANG
BRASENIA SCHREBERI	J.F. GMEL.	WATERSHIELD	OBL	OBL	PNZF
BRIZA MEDIA	L.	GRASS,PERENNIAL QUAKING	FAC	FACU,FAC	PIG
BRIZA MINOR	L.	GRASS,LITTLE QUAKING	FACW	FAC,FACW	AIG
BROMUS CILIATUS	L.	BROME,FRINGED	FACW	FACU,FACW	PNG
BROMUS DUDLEYI	FERNALD	BROME,DUDLEY'S	FAC+	FAC+	G
BROMUS JAPONICUS	THUNB.	BROME,JAPANESE	FACU-	UPL,FACU	AIG
BROMUS KALMII	GRAY	BROME,KALM'S	FAC-	FACU-,FAC	PNG
BROMUS LATIGLUMIS	(SHEAR) HITCHC.	BROME,EARLEAF	FACW	FACW-,FACW+	PNG
BROMUS PURGANS	L.	BROME,CANADA	FACU	FACU,FACU+	PNG
BROMUS RUBENS	L.	BROME,RIPGUT	NI	FACU?	AIG
BRUNNICHIA CIRRHOSA	GAERTN.	REDVINE	FACW	FACW-,FACW	PNF
BUCHNERA AMERICANA	L.	BLUEHEARTS,AMERICAN	FACU	FACU,FAC	PNF
BULBOSTYLIS CAPILLARIS	(L.) C.B. CLARKE	HAIRSEDGE,DENSE-TUFT	FACU	FACU,FAC	APNGL
BULBOSTYLIS CILIATIFOLIA	(ELLIOTT) FERNALD	HAIRSEDGE,CAPILLARY	FACU	FACU,FAC	ANGL
BUMELIA LYCIOIDES	(L.) PERS.	BUMELIA,BUCKTHORN	FACW	FAC,FACW	NT

BETULA X PURPUSII

BUMELIA LYCIOIDES

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
BURMANNIA BIFLORA	L.	BURMANNIA,NORTHERN	OBL	OBL	AN-F
BUTOMUS UMBELLATUS	L.	FLOWERING-RUSH	OBL	OBL	PIEF
CABOMBA CAROLINIANA	GRAY	FANWORT,CAROLINA	OBL	OBL	PNZ/F
CAKILE EDENTULA	(BIGEL.) HOOK.	SEAROCKET,AMERICAN	FACU	FACU	ANSF
CAKILE MARITIMA	SCOP.	SEAROCKET,EUROPEAN	NI	FACU,FACW	AISF
CALAMAGROSTIS CANADENSIS	(MICHX.) BEAUV.	REEDGRASS,BLUE-JOINT	FACW+	FAC,OBL	PNG
CALAMAGROSTIS CINNOIDES	(MUHL.) BARTON	SMALL-REEDGRASS,NUTTALL'S	OBL	OBL	PNG
CALAMAGROSTIS EPIGEIOS	(L.) ROTH	REEDGRASS,CHEE	FAC	FAC	PIG
CALAMAGROSTIS FERNALDII	LOUIS-MARIE	SMALL-REEDGRASS,FERNALD'S	OBL	OBL	PNG
CALAMAGROSTIS INEXPANSA	A. GRAY	SMALL-REEDGRASS,NARROW-SPIKE	FACW	FACW,FACW+	PNG
CALAMAGROSTIS NEGLECTA	(EHRH.) P. GARTN., B. MEYER & SCHERB.	REEDGRASS,SLIMSTEM	FACW	FACW,OBL	PNG
CALAMAGROSTIS PERPLEXA	SCRIBN.	REEDGRASS,POND	FAC+	FAC+,FACW	PNG
CALAMAGROSTIS PICKERINGII	GRAY	BENTGRASS,REED	FACW	FACW	PNG
CALAMOVILFA BREVIPILIS	(TORR.) SCRIBN.	SAND-REEDGRASS,PINEBARREN	OBL	OBL	PNG
CALLA PALUSTRIS	L.	CALLA,WILD	OBL	OBL	PNEF
CALLICARPA AMERICANA	L.	BEAUTY-BERRY,AMERICAN	FACU+	FACU-,FACU+	NS
CALLICARPA DICHOTOMA	(LOUREIRO) K. KOCH.	BEAUTY-BERRY,PURPLE	OBL*	OBL	IS
CALLITRICHE ANCEPS	FERNALD	WATER-STARWORT,TWO-EDGE	OBL	OBL	ANZF
CALLITRICHE DEFLEXA	A. BRAUN	WATER-STARWORT,TERRESTRIAL	FACW+	FACW-,FACW+	ANF
CALLITRICHE HERMAPHRODITICA	L.	WATER-STARWORT,AUTUMNAL	OBL	OBL	PNZF
CALLITRICHE HETEROPHYLLA	PURSH	WATER-STARWORT,LARGER	OBL	OBL	PIZ/F
CALLITRICHE STAGNALIS	SCOP.	WATER-STARWORT,POND	OBL	OBL	PNZF
CALLITRICHE VERNA	L.	WATER-STARWORT,SPINY	OBL	OBL	PNZ/F
CALLUNA VULGARIS	(L.) HULL	HEATHER	FAC*	FAC	IS
CALOPOGON PALLIDUS	CHAPM.	GRASS-PINK,PALE	OBL	OBL	PNF
CALOPOGON TUBEROSUS	(L.) B.S.P.	GRASS-PINK,TUBEROUS	FACW+	FACW+,OBL	PNF
CALTHA PALUSTRIS	L.	MARSH-MARIGOLD,COMMON	OBL	OBL	PNF
CALYCANTHUS FERTILIS	WALTER	SWEETSHRUB	FACU	FACU,FACU+	NS
CALYCANTHUS FLORIDUS	L.	SWEETSHRUB,EASTERN	NI	FACU+	NS
CALYCOCARPUM LYONII	(PURSH) GRAY	CUPSEED	FACW	FACW-,FACW	NWV
CALYPSO BULBOSA	(L.) OAKES	SLIPPER,FAIRY	FACW	FACU,FACW	PNF
CALYSTEGIA SEPIUM	(L.) R. BR.	BINDWEED,HEDGE	FAC-	FACU,OBL	PIF
CAMASSIA SCILLOIDES	(RAF.) CORY	CAMASSIA,ATLANTIC	FAC	FAC,FACW	PNF
CAMPANULA AMERICANA	L.	BELLFLOWER,AMERICAN	FAC	FAC	ANF
CAMPANULA APARINOIDES	PURSH	BELLFLOWER,MARSH	OBL	OBL	PNF
CAMPANULA ROTUNDIFOLIA	L.	BELLFLOWER,SCOTCH	FACU	UPL,FAC	PNF
CAMPSIS RADICANS	(L.) SEEM.	TRUMPET-CREEPER	FAC	FACU,FAC	NWV
CANNA X GENERALIS	L.H. BAILEY	CANNA,COMMON GARDEN	NI	OBL	PIF
CANNABIS SATIVA	L.	MARIJUANA	FACU	FACU-,FAC	AIF
CAPSELLA BURSA-PASTORIS	(L.) MEDIC.	PURSE,COMMON SHEPHERD'S	FACU	FACU,FAC	AIF
CARDAMINE ANGUSTATA	O. SCHULZ	TOOTHWORT,SLENDER	FACU	FACU,FAC+	PNF
CARDAMINE BELLIDIFOLIA	L.	BITTER-CRESS,ALPINE	FACW	FAC,FACW	PNF
CARDAMINE BULBOSA	(SCHREB. EX MUHL.) B.S.P.	BITTER-CRESS,BULBOUS	OBL	OBL	PNF
CARDAMINE CLEMATITIS	SHUTTLEW.	BITTER-CRESS,MOUNTAIN	OBL	OBL	PNF
CARDAMINE CONCATENATA	(MICHX.) O. SCHWARZ	TOOTHWORT,CUT-LEAF	FACU	FACU	PNF
CARDAMINE DIPHYLLA	(MICHX.) A. WOOD	TOOTHWORT,TWO-LEAF	FACU*	FACU,FAC	PNF
CARDAMINE DOUGLASSII	(TORR.) BRITTON	BITTER-CRESS,PURPLE	FACW+	FACW,OBL	PNEF
CARDAMINE FLEXUOSA	WITH.	BITTER-CRESS,FLEXUOUS	OBL*	FACU,OBL	AIF
CARDAMINE HIRSUTA	L.	BITTER-CRESS,HAIRY	FACU	FACU,FAC	AIF
CARDAMINE LONGII	FERNALD	BITTER-CRESS,LONG'S	OBL	OBL	PNF
CARDAMINE OLIGOSPERMA	NUTT.	BITTER-CRESS,FEW-SEED	NI	FACW	ANF
CARDAMINE PARVIFLORA	L.	BITTER-CRESS,SMALL-FLOWER	FACU	FACU,FACW	AIF

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BURMANNIA BIFLORA

CARDAMINE PARVIFLORA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CARDAMINE PENSYLVANICA	MUHL. EX WILLD.	BITTER-CRESS,PENNSYLVANIA	OBL	FACW,OBL	ANF
CARDAMINE PRATENSIS	L.	BITTER-CRESS,MEADOW	OBL	OBL	PNF
CARDAMINE ROTUNDIFOLIA	MICHX.	BITTER-CRESS,ROUND-LEAF	OBL	OBL	PNF
CARDAMINE X ANOMALA	(E. EAMES) K. SCHUM. (PRO SP.)	BITTER-CRESS	FACU*	FACU	F
CARDAMINE X INCISA	K. SCHUM. (PRO. SP.)	BITTER-CRESS	FACU*	FACU	F
CARDIOSPERMUM HALICACABUM	L.	BALLOONVINE	FACU*	FACU,FAC	AIF
CAREX ABSCONDITA	MACKENZ.	SEDGE,THICKET	FAC	FACU,FACW	PNGL
CAREX ACUTIFORMIS	EHRH.	SEDGE,SWAMP	OBL	OBL	PIGL
CAREX AENAE	FERNALD	SEDGE,BRONZE	NI	FACW?	PNGL
CAREX ALBOLUTESCENS	SCHWEINITZ	SEDGE,GREENISH-WHITE	FACW	FAC+,FACW	PNGL
CAREX ALOPECOIDEA	TUCKERMAN	SEDGE,FOXTAIL	FACW	FACW,OBL	PNGL
CAREX AMPHIBOLA	STEUD.	SEDGE,NARROW-LEAF	FAC	FAC,OBL	PNGL
CAREX ANNECTENS	(BICKN.) BICKN.	SEDGE,YELLOW-FRUIT	FACW	FAC+,FACW+	PNGL
CAREX AQUATILIS	WAHLENB.	SEDGE,WATER	OBL	OBL	PNEGL
CAREX ARCTA	BOOTT	SEDGE,NORTHERN CLUSTERED	OBL	FACW+,OBL	PNGL
CAREX ATHERODES	SPRENG.	SEDGE,SLOUGH	OBL	OBL	PNEGL
CAREX ATLANTICA	L.H. BAILEY	SEDGE,PRICKLY BOG	FACW+	FACW,OBL	PNEGL
CAREX ATRATA	L.	SEDGE,BLACK-SCALE	NI	FACU,FAC	PNGL
CAREX ATRATIFORMIS	BRITTON	SEDGE,BLACK	FACW-	FACW-,FACW	PNGL
CAREX AUREA	NUTT.	SEDGE,GOLDEN-FRUIT	FACW	FACW,OBL	PNGL
CAREX BAILEYI	BRITTON	SEDGE,BAILEY'S	OBL	FACW,OBL	PNGL
CAREX BARRATTII	SCHWEINITZ & TORR.	SEDGE,BARRATT'S	OBL	OBL	PNGL
CAREX BEBBII	(L.H. BAILEY) OLNEY EX FERNALD	SEDGE,BEBB'S	OBL	OBL	PNGL
CAREX BICKNELLII	BRITTON	SEDGE,BICKNELL'S	FACU	FACU,FACW	PNGL
CAREX BIGELOWII	TORR. EX SCHWEINITZ	SEDGE,BIGELOW'S	FACW-	FAC,FACW	PNGL
CAREX BLANDA	DEWEY	SEDGE,WOODLAND	FAC	FACU+,FAC	PNGL
CAREX BROMOIDES	SCHKUHR	SEDGE,BROME-LIKE	FACW	FACW,FACW+	PNGL
CAREX BRUNNESCENS	(PERS.) POIR.	SEDGE,BROWNISH	FACW	FAC,OBL	PNGL
CAREX BULLATA	SCHKUHR	SEDGE,BUTTON	OBL	OBL	PNGL
CAREX BUSHII	MACKENZ.	SEDGE,BUSH'S	FACW	FAC,OBL	PNGL
CAREX BUXBAUMII	WAHLENB.	SEDGE,BROWN BOG	OBL	FACW,OBL	PNEGL
CAREX CANESCENS	L.	SEDGE,HOARY	OBL	FACW+,OBL	PNGL
CAREX CAPILLARIS	L.	SEDGE,HAIR-LIKE	FACW	FACW	PNGL
CAREX CAPITATA	L.	SEDGE,CAPITATE	FAC	FAC,FACW	PNGL
CAREX CAROLINIANA	SCHWEINITZ	SEDGE,HIRSUTE	FACU	FACU,OBL	PNGL
CAREX CASTANEA	WAHLENB.	SEDGE,CHESTNUT-COLOR	OBL	FACW+,OBL	PNEGL
CAREX CEPHALOIDEA	DEWEY	SEDGE,THIN-LEAF	FAC+	FACU+,FAC+	GI
CAREX CEPHALOPHORA	MUHL. EX WILLD.	SEDGE,OVAL-LEAF	FACU	UPL,OBL	PNGL
CAREX CHAPMANII	STEUD.	SEDGE,CHAPMAN'S	FACW	FACW	PNGL
CAREX CHEROKEENSIS	SCHWEINITZ	SEDGE,CHEROKEE	FACW	FACW-,FACW	PNGL
CAREX CHORDORRHIZA	L.F.	SEDGE,CREEPING	OBL	OBL	PNGL
CAREX COLLINSII	NUTT.	SEDGE,COLLINS'	OBL	OBL	PNEGL
CAREX COMOSA	BOOTT	SEDGE,BEARDED	OBL	FACU-,OBL	PNGL
CAREX COMPLANATA	TORR. & HOOK.	SEDGE,HIRSUTE	FACW	FAC,FACW	PNGL
CAREX CONJUNCTA	BOOTT	SEDGE,SOFT FOX	FACU	FACU,FACW+	PNGL
CAREX CONOIDEA	SCHKUHR	SEDGE,FIELD	FACW	FACW,OBL	PNGL
CAREX CRAWEI	DEWEY	SEDGE,CRAWE'S	FAC	FACU,FAC+	PNGL
CAREX CRAWFORDII	FERNALD	SEDGE,CRAWFORD'S	OBL	FACW+,OBL	PNEGL
CAREX CRINITA	LAM.	SEDGE,FRINGED	FACW	FAC,FACW+	PNGL
CAREX CRISTATELLA	BRITTON	SEDGE,CRESTED	OBL	OBL	PNGL
CAREX CRUS-CORVI	SHUTTLEW. EX KUNZE	SEDGE,RAVEN-FOOT	OBL	OBL	PNGL
CAREX CRYPTOLEPIS	MACKENZ.	SEDGE,NORTHEASTERN			

CARDAMINE PENSYLVANICA

CAREX CRYPTOLEPIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CAREX CUMULATA	(L.H. BAILEY) MACKENZ.	SEDGE,CLUSTERED	FACU	FACU-,FACU	PNGL
CAREX DAVISII	SCHWEINITZ & TORR.	SEDGE,DAVIS'	FAC-	FACU,FAC+	PNGL
CAREX DEBILIS	MICHX.	SEDGE,WHITE-EDGE	FAC	FAC,OBL	PNGL
CAREX DECOMPOSITA	MUHL.	SEDGE,CYPRESS-KNEE	OBL	OBL	PNGL
CAREX DEWEYANA	SCHWEINITZ	SEDGE,SHORT-SCALE	FACU	UPL,FACW	PNGL
CAREX DIANDRA	SCHRANK	SEDGE,LESSER PANICLED	OBL	OBL	PNGL
CAREX DISPERMA	DEWEY	SEDGE,SOFT-LEAF	FACW+	FACW,OBL	PNGL
CAREX DIVISA	HUDS.	SEDGE,SEPARATED	FACW+	FACW+,OBL	PIGL
CAREX EBURNEA	BOOTT	SEDGE,BRISTLE-LEAF	FACU	FACU-,FACU+	PNGL
CAREX ECHINATA	MURRAY	SEDGE,LITTLE PRICKLY	OBL*	OBL	PNGL
CAREX EMORYI	DEWEY	SEDGE,EMORY'S	OBL	OBL	PNGL
CAREX EXILIS	DEWEY	SEDGE,COAST	OBL	OBL	PNGL
CAREX EXTENSA	S. GOODENOUGH	SEDGE,LONG-BRACT	OBL	OBL	PIGL
CAREX FESTUCACEA	SCHKUHR EX WILLD.	SEDGE,FESCUE	FAC	FAC,FACW	PNGL
CAREX FLACCOSPERMA	DEWEY	SEDGE,THIN-FRUIT	FAC	FAC,FACW	PNGL
CAREX FLAVA	L.	SEDGE,YELLOW	OBL	OBL	PNGL
CAREX FOENEA	WILLD.	SEDGE,DRY-SPIKE	NI	FAC+?	PNGL
CAREX FORMOSA	DEWEY	SEDGE,HANDSOME	FAC	FAC,FACW-	PNGL
CAREX FRANKII	KUNTH	SEDGE,FRANK'S	OBL	OBL	PNEGL
CAREX GARBERI	FERNALD	SEDGE,ELK	FACW	FACW-,FACW	PNGL
CAREX GIGANTEA	RUDGE	SEDGE,LARGE	OBL	OBL	PNEGL
CAREX GLAUCESCENS	ELLIOTT	SEDGE,SOUTHERN WAXY	OBL	OBL	PNEGL
CAREX GRACILLIMA	SCHWEINITZ	SEDGE,GRACEFUL	FACU*	FACU	PNGL
CAREX GRANULARIS	MUHL. EX WILLD.	SEDGE,MEADOW	FACW+	FACW,OBL	PNGL
CAREX GRAYI	J. CAREY	SEDGE,ASA GRAY'S	FACW+	FACW,FACW+	PNGL
CAREX GYNOCRATES	WORMSKJ. EX DREJER	SEDGE,NORTHERN BOG	OBL	OBL	PNGL
CAREX HASSEI	L.H. BAILEY	SEDGE,HASSE'S	FACW	FACW	PNGL
CAREX HAYDENII	DEWEY	SEDGE,CLOUD	OBL	FACW+,OBL	PNEGL
CAREX HORMATHODES	FERNALD	SEDGE,MARSH-STRAW	OBL	OBL	PNGL
CAREX HOWEI	MACKENZ.	SEDGE,HOWE	OBL	OBL	PNGL
CAREX HYALINOLEPIS	STEUD.	SEDGE,SHORELINE	OBL	OBL	PNEGL
CAREX HYSTERICINA	MUHL. EX WILLD.	SEDGE,PORCUPINE	OBL	OBL	PNEGL
CAREX INTERIOR	L.H. BAILEY	SEDGE,INLAND	OBL	FACW-,OBL	PNGL
CAREX INTUMESCENS	RUDGE	SEDGE,BLADDER	FACW+	FACW,OBL	PNGL
CAREX JOORII	L.H. BAILEY	SEDGE,CYPRESS-SWAMP	OBL	OBL	PNEGL
CAREX LACUSTRIS	WILLD.	SEDGE,LAKEBANK	OBL	OBL	PNEGL
CAREX LAEVIVAGINATA	(KUEKENTH.) MACKENZ.	SEDGE,SMOOTH-SHEATH	OBL	OBL	PNGL
CAREX LANUGINOSA	MICHX.	SEDGE,WOOLY	OBL	OBL	PNGL
CAREX LAPPONICA	O. LANG	SEDGE,LAPLAND	NI	OBL	PNGL
CAREX LASIOCARPA	EHRH.	SEDGE,WOOLLY-FRUIT	OBL	OBL	PNEGL
CAREX LAXIFLORA	LAM.	SEDGE,LOOSE-FLOWERED	FACU*	UPL,FACU	PNGL
CAREX LENTICULARIS	MICHX.	SEDGE,SHORE	OBL	FACW+,OBL	PNGL
CAREX LEPIDOCARPA	TAUSCH	SEDGE,SMALL YELLOW	OBL	OBL	PNGL
CAREX LEPORINA	L.	SEDGE,HARE'S-FOOT	FAC	FAC,OBL	PIGL
CAREX LEPTALEA	WAHLENB.	SEDGE,BRISTLY-STALK	OBL	OBL	PNGL
CAREX LEPTONERVIA	FERNALD	SEDGE,NERVELESS WOOD	FACW	FAC,FACW	PNGL
CAREX LIMOSA	L.	SEDGE,MUD	OBL	OBL	PNGL
CAREX LIVIDA	(WAHLENB.) WILLD.	SEDGE,LIVID	OBL	OBL	PNGL
CAREX LONGII	MACKENZ.	SEDGE,GREENISH-WHITE	OBL	OBL	PNEGL
CAREX LOUISIANICA	L.H. BAILEY	SEDGE,LOUISIANA	OBL	OBL	PNEGL
CAREX LUPULIFORMIS	SARTW. EX DEWEY	SEDGE,FALSE HOP	FACW+	FACW+,OBL	PNGL
CAREX LUPULINA	MUHL. EX WILLD.	SEDGE,HOP	OBL	FACW+,OBL	PNEGL

CAREX CUMULATA

CAREX LUPULINA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CAREX LURIDA	WAHLENB.	SEDGE,SHALLOW	OBL	FACW+,OBL	PNEGL
CAREX MEADII	DEWEY	SEDGE,MEAD'S	FAC	FACU,OBL	PNGL
CAREX MEDIA	R. BR.	SEDGE,INTERMEDIATE	NI	FACW	PNGL
CAREX MICHAUXIANA	BOECK.	SEDGE,MICHAUX'S	OBL	OBL	PNGL
CAREX MUSKINGUMENSIS	SCHWEINITZ	SEDGE,MUSKINGUM	OBL	OBL	PNGL
CAREX NIGRA	(L.) REICHARD	SEDGE,BLACK	FACW+	FACW+	PNGL
CAREX NORMALIS	MACKENZ.	SEDGE,LARGER STRAW	FACU	FACU,OBL	PNGL
CAREX NORVEGICA	RETZ.	SEDGE,SCANDINAVIAN	NI	FACW	PNGL
CAREX NOVAE-ANGLIAE	SCHWEINITZ	SEDGE,NEW ENGLAND	FACU+	FACU	PNGL
CAREX OLIGOSPERMA	MICHX.	SEDGE,FEW-SEED	OBL	OBL	PNGL
CAREX OXYLEPIS	TORR. & HOOK.	SEDGE,SHARP-SCALE	FACW	FACW-,OBL	PNGL
CAREX PALEACEA	SCHREB. EX WAHLENB.	SEDGE,CHAFFY	OBL	OBL	PGL
CAREX PAUCIFLORA	LIGHTF.	SEDGE,FEW-FLOWER	OBL	OBL	PNGL
CAREX PAUPERCULA	MICHX.	SEDGE,POOR	OBL	OBL	PNEGL
CAREX POLYMORPHA	MUHL.	SEDGE,VARIABLE	FACU	FACU	PNGL
CAREX PRAEGRACILIS	W. BOOTT	SEDGE,CLUSTERED FIELD	NI	FACW-,FACW+	PNGL
CAREX PRAIREA	DEWEY	SEDGE,PRAIRIE	FACW	FACW,OBL	PNGL
CAREX PRASINA	WAHLENB.	SEDGE,DROOPING	OBL	OBL	PNGL
CAREX PRATICOLA	RYDB.	SEDGE,NORTHERN MEADOW	FAC	FACU,FACW	PNGL
CAREX PROJECTA	MACKENZ.	SEDGE,NECKLACE	FACW	FACW,FACW+	PNGL
CAREX PSEUDOCYPERUS	L.	SEDGE,CYPRESS-LIKE	OBL	OBL	PNEGL
CAREX RARIFLORA	(WAHLENB.) J.E. SMITH	SEDGE,LOOSE FLOWERED	OBL	OBL	PNGL
CAREX RECTA	BOOTT	SEDGE,CUSPIDATE	OBL	OBL	PNGL
CAREX RENIFORMIS	(L.H. BAILEY) SMALL	SEDGE,KIDNEY-SHAPE	FACW	FACW,OBL	PNGL
CAREX RETRORSA	SCHWEINITZ	SEDGE,RETRORSE	FACW+	FAC,OBL	PNGL
CAREX ROSTRATA	J. STOKES	SEDGE,BEAKED	OBL	OBL	PNEGL
CAREX SALINA	WAHLENB.	SEDGE,SALTMARSH	OBL	OBL	PNGL
CAREX SARTWELLII	DEWEY	SEDGE,SARTWELL'S	OBL	FACW,OBL	PNGL
CAREX SAXATILIS	L.	SEDGE,RUSSET	FACW+	FACW,OBL	PNGL
CAREX SCABRATA	SCHWEINITZ	SEDGE,ROUGH	OBL	OBL	PNGL
CAREX SCHWEINITZII	DEWEY	SEDGE,SCHWEINITZ'S	OBL	OBL	PNEGL
CAREX SCIRPOIDEA	MICHX.	SEDGE,CANADIAN SINGLE-SPIKE	FACU	FACU,FACU+	PNGL
CAREX SCOPARIA	SCHKUHR EX WILLD.	SEDGE,POINTED BROOM	FACW	FACW	PNGL
CAREX SEORSA	E.C. HOWE	SEDGE,WEAK STELLATE	FACW	FACW,FACW+	PNGL
CAREX SHORTIANA	DEWEY	SEDGE,SHORT'S	FAC	FAC,FACW+	PNGL
CAREX SPARGANIOIDES	MUHL. EX WILLD.	SEDGE,BUR-REED	FACU	FACU,FAC+	PNGL
CAREX SPRENGELII	DEWEY EX. SPRENG.	SEDGE,LONG-BEAK	FACU	FACU,FAC	PNGL
CAREX SQUARROSA	L.	SEDGE,SQUARROSE	FACW	FACW,OBL.	PNGL
CAREX STERILIS	WILLD.	SEDGE,DIOECIOUS	OBL	OBL	PNGL
CAREX STRAMINEA	WILLD.	SEDGE,STRAW	OBL	OBL	PNGL
CAREX STRICTA	LAM.	SEDGE,UPTIGHT	OBL	OBL	PNEGL
CAREX STYLOFLEXA	BUCKLEY	SEDGE,BENT	FACW-	FAC,OBL	PNGL
CAREX SUBERECTA	(OLNEY) BRITTON	SEDGE,PRAIRIE STRAW	OBL	OBL	PNGL
CAREX SWANII	(FERNALD) MACKENZ.	SEDGE,SWAN'S	FACU	UPL,FACU	PNGL
CAREX SYCHNOCEPHALA	J. CAREY	SEDGE,MANY-HEAD	FACW	FACW,FACW+	PNGL
CAREX TENERA	DEWEY	SEDGE,SLENDER	FAC	FACU+,FACW	PNGL
CAREX TENUIFLORA	WAHLENB.	SEDGE,SPARSE-FLOWER	OBL	OBL	PNGL
CAREX TETANICA	SCHKUHR	SEDGE,RIGID	FACW	FACW,FACW+	PNGL
CAREX TORTA	BOOTT	SEDGE,TWISTED	FACW	FACW,OBL	PNGL
CAREX TRIANGULARIS	BOECK.	SEDGE,FOX	NI	FACW,OBL	PNGL
CAREX TRIBULOIDES	WAHLENB.	SEDGE,BLUNT BROOM	FACW+	FACW,OBL	PNGL
CAREX TRICHOCARPA	MUHL. EX WILLD.	SEDGE,HAIRY-FRUIT	OBL	OBL	PNEGL

CAREX LURIDA

CAREX TRICHOCARPA

NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
CAREX TRISPERMA	DEWEY	SEDGE,THREE-SEED	OBL	OBL	PNGL
CAREX TUCKERMANII	BOOTT	SEDGE,TUCKERMAN'S	OBL	OBL	PNGL
CAREX TYPHINA	MICHX.	SEDGE,CAT-TAIL	FACW+	FACW+,OBL	PNEGL
CAREX VACINATA	TAUSCH	SEDGE,SHEATHED	OBL	OBL	PNGL
CAREX VENUSTA	DEWEY	SEDGE,DARK GREEN	OBL	FACW+,OBL	PNGL
CAREX VERRUCOSA	MUHL.	SEDGE,WARTY	OBL	OBL	PNGL
CAREX VESICARIA	L.	SEDGE,INFLATED	OBL	OBL	PNEGL
CAREX VIRIDULA	MICHX.	SEDGE,LITTLE GREEN	OBL	FACW+,OBL	PNGL
CAREX VULPINOIDEA	MICHX.	SEDGE,FOX	OBL	OBL	PNEGL
CAREX WALTERANA	L.H. BAILEY	SEDGE,WALTER'S	OBL	OBL	PNGL
CAREX WIEGANDII	MACKENZ.	SEDGE,WIEGAND'S	OBL	OBL	PNGL
CAREX X AESTIVALIFORMIS	MACKENZ.	SEDGE,FALSE SUMMER	FAC*	FAC	PNGL
CAREX X ALATA	TORR.	SEDGE,BROADWING	OBL	OBL	PNGL
CAREX X CREBRIFLORA	WIEGAND	SEDGE,COASTAL-PLAIN	FACW	FACW-,OBL	PNGL
CAREX X MAINENSIS	T. PORTER EX BRITTON	SEDGE,MAINE	FAC	FAC	PGL
CAREX X MOLESTA	MACKENZ.	SEDGE,TROUBLESOME	FACU	FACU,FACW	PNGL
CAREX X STIPATA	MUHL. EX WILLD.	SEDGE,STALK-GRAIN	OBL	OBL	PNGL
CAREX X SUBIMPRESSA	CLOKEY	SEDGE,IMPRESSED	NI	OBL	PNGL
CARPHEPHORUS TOMENTOSUS	(MICHX.) TORR. & GRAY	CHAFFHEAD,WOOLLY	FACW	FACW	PNF
CARPINUS CAROLINIANA	WALTER	HORNBEAM,AMERICAN	FAC	FAC	NT
CARYA AQUATICA	(MICHX. F.) NUTT.	HICKORY,WATER	OBL	OBL	NT
CARYA CORDIFORMIS	(WANGENH.) K. KOCH	HICKORY,BITTER-NUT	FACU+	FACU+,FAC	NT
CARYA GLABRA	(MILL.) SWEET	HICKORY,SWEET PIGNUT	FACU-	FACU-,FACU	NT
CARYA ILLINOENSIS	(WANGENH.) K. KOCH	HICKORY,PECAN	FACU	FACU,FACW	NT
CARYA LACINIOSA	(MICHX. F.) LOUD.	HICKORY,BIG SHELLBARK	FAC	FAC,FACW	NT
CARYA OVALIS	(WANGENH.) SARG.	HICKORY,RED	NI	UPL,FACU	NT
CARYA OVATA	(MILL.) K. KOCH	HICKORY,SHAG-BARK	FACU-	FACU-,FACU+	NT
CARYA X LECONTEI	LITTLE	PECAN,BITTER	NI	OBL	NT
CASSIA FASCICULATA	MICHX.	PEA,PARTRIDGE	FACU	FACU-,FACU	ANF
CASSIA HEBECARPA	FERNALD	SENNA,WILD	FAC	FAC,FACW	PNF
CASSIA MARILANDICA	L.	SENNA,MARYLAND	FAC+	FAC,FACW	PNF
CASSIA NICTITANS	L.	PEA,SENSITIVE PARTRIDGE	FACU-	UPL,FACU	ANF
CASTILLEJA COCCINEA	(L.) SPRENG.	INDIAN-PAINTBRUSH,SCARLET	FAC	FACU,FAC	ANF
CATALPA SPECIOSA	(WARDER EX BARNEY) WARDER EX ENGELM.	CATALPA,NORTHERN	FAC	FACU,FAC	NT
CAYAPONIA GRANDIFOLIA	(TORR. & GRAY) SMALL	CAYAPONIA,SOUTHERN	NI	FAC,FACW	ANF
CELASTRUS SCANDENS	L.	BITTER-SWEET,AMERICAN	FACU-	UPL,FACU	NSHV
CELTIS LAEVIGATA	WILLD.	SUGAR-BERRY	FACW	UPL,FACW	NT
CELTIS OCCIDENTALIS	L.	HACKBERRY,COMMON	FACU	FACU,FAC	NTS
CELTIS RETICULATA	TORR.	HACKBERRY,NETLEAF	NI	UPL,FACW	NTS
CENTAURIUM PULCHELLUM	(SWARTZ) DRUCE	CENTAURY,BRANCHING	FAC	FACU-,FAC	ANF
CENTAURIUM SPICATUM	(L.) FRITSCH	CENTAURY,SPIKED	FACW+	FACW+	AIF
CENTAURIUM UMBELLATUM	GILIB. EX FERNALD	CENTAURY	FAC-	FAC-	AIF
CENTELLA ASIATICA	(L.) URBAN	COINLEAF,ASIAN	FACW	FACW	PNF
CENTELLA ERECTA	(L.F.) FERNALD	COINLEAF,ERECT	FACW	FACW	PNF
CENTUNCULUS MINIMUS	L.	CHAFFWEED	FACW	FACU-,OBL	ANF
CEPHALANTHUS OCCIDENTALIS	L.	BUTTONBUSH,COMMON	OBL	OBL	NT
CERASTIUM BRACHYPODUM	(ENGELM. EX GRAY) B. ROB.	CHICKWEED,SHORT-STALK	FACU-	FACU-,FAC	AIF
CERASTIUM NUTANS	RAF.	CHICKWEED,NODDING	FAC	FACU,FAC	ANF
CERASTIUM VULGATUM	L.	CHICKWEED,COMMON MOUSE-EAR	FACU-	FACU-,FAC-	PIF
CERATOPHYLLUM DEMERSUM	L.	HORNWORT,COMMON	OBL	OBL	PN/F
CERATOPHYLLUM MURICATUM	CHAM.	HORNWORT,PRICKLY	OBL	OBL	PNZF
CERCIS CANADENSIS	L.	REDBUD,EASTERN	FACU-	UPL,FACU	NTS

CAREX TRISPERMA

CERCIS CANADENSIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CHAEROPHYLLUM PROCUMBENS	(L.) CRANTZ	CHERVIL,SPREADING	FACW	FAC,FACW	ANF
CHAEROPHYLLUM TAINTURIERI	HOOK.	CHERVIL,HAIRY-FRUIT	FACW	UPL,FACW	ANF
CHAMAECYPARIS THYOIDES	(L.) B.S.P.	CEDAR,ATLANTIC WHITE	OBL	OBL	NT
CHAMAEDAPHNE CALYCULATA	(L.) MOENCH	LEATHERLEAF	OBL	FACW,OBL	NS
CHAMAELIRIUM LUTEUM	(L.) GRAY	FAIRY-WAND	FAC	FACU-,FAC	PNF
CHAMAESYCE SERPENS	(H.B.K.) SMALL	BROOM-SPURGE,MATTED	FACW	UPL,FACW	ANF
CHASMANTHIUM LATIFOLIUM	(MICHX.) H. YATES	SEA-OATS,INDIAN	FACU	UPL,FACW	PNG
CHASMANTHIUM LAXUM	(L.) H. YATES	SPIKEGRASS,SLENDER	FAC	FAC,FACW	PNG
CHASMANTHIUM SESSILIFLORUM	(POIR.) H. YATES	SPIKEGRASS,LONG-LEAF	FAC	FAC,FAC+	PNG
CHELONE CUTHBERTII	SMALL	TURTLEHEAD,CUTHBERT'S	OBL	OBL	PNF
CHELONE GLABRA	L.	TURTLEHEAD,WHITE	OBL	OBL	PNF
CHELONE LYONII	PURSH	TURTLEHEAD,PINK	FACW+	FACW+	PNF
CHELONE OBLIQUA	L.	TURTLEHEAD,RED	OBL	OBL	PNF
CHENOPODIUM ALBUM	L.	GOOSEFOOT,WHITE	FACU+	FACU,FAC	PNF
CHENOPODIUM AMBROSIOIDES	L.	WORMSEED,AMERICAN	FACU	FACU,FAC	AIF
CHENOPODIUM CHENOPODIOIDES	L.	GOOSEFOOT,RED	NI	FAC+,FACW	AIF
CHENOPODIUM FREMONTII	L.	GOOSEFOOT,FREMONT'S	NI	UPL,FAC	AIF
CHENOPODIUM GLAUCUM	(L.) AELLEN	GOOSEFOOT,OAKLEAF	FACW-	FAC,FACW	ANF
CHENOPODIUM HIANTE	S. WATS.	PIGWEED,MARSHLAND	NI	FAC+	AIF
CHENOPODIUM LEPTOPHYLLUM	L.	GOOSEFOOT,NARROW-LEAF	FAC	UPL,FAC	ANF
CHENOPODIUM RUBRUM	HOOK.	GOOSEFOOT,COAST-BLITE	FACW	FACW,OBL	ANF
CHENOPODIUM SALINUM	(MOQ.) NUTT. EX S. WATS.	PIGWEED,ROCKY MOUNTAIN	NI	UPL,FACU	ANF
CHIONANTHUS VIRGINICUS	L.	TREE,WHITE FRINGE	FAC+	FACU,FAC+	ANF
CHLORIS CILIATA	STANDL.	GRASS,FRINGED WINDMILL	NI	UPL	NT
CHLORIS CRINITA	L.	FALSE-RHODESGRASS	NI	UPL,FACU	PNG
CHRYSOSPLENIUM AMERICANUM	SWARTZ	GOLDEN-SAXIFRAGE,AMERICAN	OBL	OBL	G
CICLOSPERMUM LEPTOPHYLLUM	LAG.	PARSLEY,MARSH	NI	UPL,FAC+	PNF
CICUTA BULBIFERA	SCHWEINITZ	WATER-HEMLOCK,BULBLET-BEARING	OBL	OBL	ANF
CICUTA MACULATA	(PERS.) T.A. SPRAGUE EX BRITTON & P. WILSON	WATER-HEMLOCK,SPOTTED	OBL	OBL	PNF
CICUTA MEXICANA	L.	WOOD-REEDGRASS,MEXICAN	OBL	OBL	PNF
CINNA ARUNDINACEA	L.	WOOD-REEDGRASS,STOUT	OBL	OBL	PNF
CINNA LATIFOLIA	COULT. & ROSE	WOOD-REEDGRASS,SLENDER	OBL	OBL	PNG
CIRCAEA ALPINA	L.	NIGHTSHADE,SMALL ENCHANTER'S	FACW+	FACW,FACW+	PNG
CIRCAEA LUTETIANA	(TREVIR.) GRISEB.	NIGHTSHADE,SOUTHERN BROAD-LEAF ENCHANTER'S	FACW	FACW,OBL	PNF
CIRSIUM ARVENSE	L.	THISTLE,CREEPING	FACW	FAC,FACW	PNF
CIRSIUM FLODMANII	L.	THISTLE,FLODMAN'S	FACU	FACU	PIF
CIRSIUM HORRIDULUM	(L.) SCOP.	THISTLE,YELLOW	FACU	FACU-,FAC	PNF
CIRSIUM MUTICUM	(RYDB.) ARTH.	THISTLE,SWAMP	NI	FACU?	ABNF
CIRSIUM NUTTALLII	MICHX.	THISTLE,NUTTALL'S	FACU-	FACU-,FAC+	BNF
CIRSIUM VIRGINIANUM	MICHX.	THISTLE,VIRGINIA	OBL	FACW+,OBL	PNF
CIRSIUM VULGARE	DC.	THISTLE,BULL	FAC	FAC	BNF
CLADIUM JAMAICENSE	(L.) MICHX.	SAWGRASS,JAMAICA	FACW	FACW,OBL	BIF
CLADIUM MARISCOIDES	(SAVI) TEMORE	SAWGRASS,SMOOTH	FACU-	UPL,FAC	PNEGL
CLAYTONIA CAROLINIANA	CRANTZ	SPRINGBEAUTY,BROAD-LEAF	OBL	OBL	PNEGL
CLAYTONIA VIRGINICA	(MUHL.) TORR.	SPRINGBEAUTY,NARROW-LEAF	OBL	OBL	PNF
CLEISTES DIVARICATA	MICHX.	POGONIA,SPREADING	FACU	FACU	PNF
CLEMATIS ADDISONII	L.	VIRGIN'S-BOWER,ADDISON'S	FACU	FACU-,FACU	PNF
CLEMATIS CATESBYANA	(L.) AMES	SATIN-CURLS	FAC	FAC,FAC+	NII
CLEMATIS CRISPA	BRITTON	VIRGIN'S-BOWER,SWAMP	FACU	FACU	NWV
CLEMATIS GLAUCOPHYLLA	PURSH	VIRGIN'S-BOWER,WHITE-LEAF	NI	FAC+	NWV
CLEMATIS LIGUSTICIFOLIA	L.	VIRGIN'S-BOWER,WESTERN	FACW	FAC,OBL	NWV
CLEMATIS PITCHERI	SMALL	VIRGIN'S-BOWER,PITCHER'S	FACW	FAC-,FACW	NWV
	NUTT.		NI	FACU,FACW	NWV
	TORR. & GRAY		NI	FACU	NWV

CHAEROPHYLLUM PROCUMBENS

CLEMATIS PITCHERI

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CLEMATIS TERNIFLORA	DC.	VIRGIN'S-BOWER,JAPANESE	FACU-	UPL,FAC-	IWV
CLEMATIS VIRGINIANA	L.	VIRGIN'S-BOWER,VIRGINIA	FAC	FACU,FAC+	PNV
CLEOME SERRULATA	PURSH	SPIDER-FLOWER,BEE	NI	FACU-,FAC	ANF
CLEOME SPINOSA	JACQ.	SPIDER-FLOWER,SPINY	FACU-	FACU-,FACU+	AIF
CLETHRA ALNIFOLIA	L.	PEPPER-BUSH,COAST	FAC+	FAC+,FACW	NS
CLINTONIA BOREALIS	(AIT.) RAF.	BEADLILY,BLUE	FAC	FACU,FAC+	PNF
COCCULUS CAROLINUS	(L.) DC.	CORAL-BEADS,CAROLINA	FAC	FACU,FAC	NWV
COELOGLOSSUM VIRIDE	(L.) HARTM.	ORCHID,LONG-BRACT GREEN	FACU	FACU,FACW	PNF
COELORACHIS RUGOSA	(NUTT.) NASH	JOINTGRASS,WRINKLED	OBL	FACW,OBL	PNG
COIX LACRYMA-JOBI	L.	TEARS,JOB'S	FACW	FACW	AIG
COLLINSIA VERNA	NUTT.	MARY,SPRING BLUE-EYE	FAC-	FACU,FAC	ANF
COLLINSONIA CANADENSIS	L.	HORSE-BALM,CANADA	FAC+	FAC,FAC+	PNF
COMANDRA UMBELLATA	(L.) NUTT.	TOAD-FLAX,UMBELLATE BASTARD	FACU-	UPL,FACU	PH+F
COMMELINA CAROLINIANA	WALTER	DAYFLOWER,CREEPING	NI	FACU,FAC	ANF
COMMELINA COMMUNIS	L.	DAYFLOWER,ASIATIC	FAC-	FAC-,FAC	AIF
COMMELINA DIFFUSA	N.L. BURM.	DAYFLOWER,SPREADING	FACW	FACW	AIF
COMMELINA VIRGINICA	L.	DAYFLOWER,VIRGINIA	FACW	FAC,FACW	PIF
CONIOSELINUM CHINENSE	(L.) B.S.P.	HEMLOCK-PARSLEY	FACW	FAC,FACW	PNF
CONIUM MACULATUM	L.	POISON-HEMLOCK	FACW	FAC,OBL	BIF
CONOCLINIUM COELESTINUM	(L.) DC.	MISTFLOWER	FAC	FAC,FACW	PNI
CONRADINA VERTICILLATA	JENNISON	ROSEMARY,CUMBERLAND	FACW+	FACW-,FACW+	NS
COPTIS TRIFOLIA	(L.) SALISB.	GOLDTHREAD,ALASKA	FACW	FAC,FACW	PNF
CORALLORHIZA MACULATA	(RAF.) RAF.	CORALROOT,SPOTTED	FACU	UPL,FAC-	PH-F
CORALLORHIZA STRIATA	(RYDB.) L.C. WILLIAMS	CORALROOT,STRIPED	FACU+	UPL,FACU+	PH-F
CORALLORHIZA TRIFIDA	CHAT.	CORALROOT,EARLY	FACW	FAC,FACW	PH-F
CORALLORHIZA WISTERIANA	S. CONRAD	CORALROOT,SPRING	FAC	UPL,FAC	PH-F
COREOPSIS GLADIATA	WALTER	TICKSEED,SOUTHEASTERN	FACW	FACW	PNF
COREOPSIS LANCEOLATA	L.	TICKSEED,LANCE-LEAF	FACU	UPL,FAC	PNF
COREOPSIS LINIFOLIA	NUTT.	TICKSEED,TEXAS	FACW	FACW	PNF
COREOPSIS ROSEA	NUTT.	TICKSEED,PINK	FACW	FACW	PNF
COREOPSIS TINCTORIA	NUTT.	TICKSEED,GOLDEN	FAC-	FACU,FAC	ANF
COREOPSIS TRIPTERIS	L.	TICKSEED,TALL	FAC	FAC	PNF
CORISPERMUM HYSSOPIFOLIUM	L.	TICK-SEED,COMMON	FACU	FACU	AIF
CORNUS AMOMUM	MILL.	DOGWOOD,SILKY	FACW	FACW,FACW+	NS
CORNUS ASPERIFOLIA	MICHX.	DOGWOOD,ROUGH-LEAF	FAC+	FAC-,FACW-	NS
CORNUS CANADENSIS	L.	BUNCHBERRY,CANADA	FAC-	FACU,FAC	NS
CORNUS DRUMMONDII	C.A. MEYER	DOGWOOD,ROUGH-LEAF	FAC	FAC	NI
CORNUS FLORIDA	L.	DOGWOOD,FLOWERING	FACU-	FACU-,FACU	NI
CORNUS FOEMINA	MILL.	DOGWOOD,STIFF	FAC	FAC,FACW	NS
CORNUS STOLONIFERA	MICHX.	DOGWOOD,RED-OSIER	FACW+	FAC,FACW+	NS
CORYDALIS FLAVULA	(RAF.) DC.	CORYDALIS,YELLOW	FACU	FACU,FAC	ANF
CORYLUS AMERICANA	WALTER	HAZEL-NUT,AMERICAN	FACU-	UPL,FACU	NS
CORYLUS CORNUTA	MARSHALL	HAZEL-NUT,BEAKED	FACU-	UPL,FACU	NS
COSMOS BIPINNATUS	CAV.	COSMOS,GARDEN	FACU-	FACU-,FACW	AIF
COSMOS PARVIFLORUS	(JACQ.) H.B.K.	COSMOS,SOUTHWEST	NI	FAC-	AIF
CRASSULA AQUATICA	(L.) SCHOENL.	PYGMY-WEED,WATER	OBL	OBL	ANSF
CRATAEGUS BERBERIFOLIA	TORR. & GRAY	HAWTHORN,BARBERRY-LEAF	FACU	FACU-,FAC+	NI
CRATAEGUS CRUS-GALLI	L.	HAWTHORN,COCKSPUR	FACU	FACU,FAC	NTS
CRATAEGUS MARSHALLII	EGGLEST.	HAWTHORN,PARSLEY	FACU+	FACU+,FACW	NST
CRATAEGUS MOLLIS	SCHEELE	HAWTHORN,DOWNY	FACU	FACU,FACW-	NI
CRATAEGUS PHAENOPYRUM	(L.F.) MEDIC.	HAWTHORN,WASHINGTON	FAC	FAC-,FAC	NI
CRATAEGUS PULCHERRIMA	ASHE	HAWTHORN,BEAUTIFUL	NI	FAC	N

CLEMATIS TERNIFLORA

CRATAEGUS PULCHERRIMA

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SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
CRATAEGUS SPATHULATA	MICHX.	HAWTHORN,LITTLE-HIP	FAC	FAC,FACW	NST
CRATAEGUS VIRIDIS	L.	HAWTHORN,GREEN	FACW	FAC,FACW	NT
CRATAEGUS X NITIDA	(ENGELM.) SARG.	HAWTHORN,GLOSSY	FACU+	FACU+,OBL	NT
CRYPSIS ALOPECUROIDES	(PILLER & MITTERP.) SCHRAD.	TIMOTHY,FOX-TAIL	NI	OBL	AIG
CRYPSIS SCHOENOIDES	(L.) LAM.	TIMOTHY,SWAMP	NI	FACU,OBL	AIG
CRYPTOGRAMMA STELLERI	(S.G. GMEL.) PRANTL	ROCKBRAKE,FRAGILE	FACU-	UPL,FAC	PNF3
CRYPTOTAENIA CANADENSIS	(L.) DC.	HONEWORT,CANADA	FAC	FACU,FAC+	PHF
CTENIUM AROMATICUM	(WALTER) A. WOOD	GRASS,TOOTHACHE	FACW	FACW	PNG
CUPHEA VISCOSISSIMA	JACQ.	WAXWEED,BLUE	FAC-	UPL,FAC	ANF
CYCLOLOMA ATRIPLICIFOLIUM	(SPRENG.) COULT.	PIGWEED,WINGED	FACU-	UPL,FAC	ANF
CYNOCTONUM MITREOLA	(L.) BRITTON	HORNPOD,LAX	FACW+	FACW,FACW+	ANF
CYNOCTONUM SESSILIFOLIUM	(WALTER) J.F. GMEL.	HORNPOD,SWAMP	FACW+	FACW+	ANF
CYNODON DACTYLON	(L.) PERS.	GRASS,BERMUDA	FACU	FACU,FAC	PIG
CYPERUS ACUMINATUS	TORR. & HOOK.	FLATSEDGE,SHORT-POINT	OBL	OBL	ABPNGL
CYPERUS ALBOMARGINATUS	MART. & SCHRAD.	CYPERUS,WHITE-EDGE	FAC	FACU,FAC	ANGL
CYPERUS ALTERNIFOLIUS	L.	FLATSEDGE,ALTERNATE-LEAF	NI	FACW+,OBL	PIGL
CYPERUS ARISTATUS	ROTTB.	FLATSEDGE,AWNED	FACW+	FACW+,OBL	ANGL
CYPERUS BREVIFOLIOIDES	THIERET & DELAH.	FLATSEDGE,PASTURE	NI	FACU	PHGL
CYPERUS BREVIFOLIUS	(ROTTB.) HASSK.	FLATSEDGE,SHORT-LEAF	FACW	FACW	PNGL
CYPERUS COMPRESSUS	L.	FLATSEDGE,POORLAND	FAC+	FAC+,FACW+	PNGL
CYPERUS DENTATUS	TORR.	FLATSEDGE,TOOTHED	FACW+	FACW+,OBL	PNGL
CYPERUS DIANDRUS	TORR.	FLATSEDGE,UMBRELLA	FACW	FACW,FACW+	ANGL
CYPERUS DIFFORMIS	L.	FLATSEDGE,VARIABLE	OBL	OBL	AIGL
CYPERUS ENGELMANNII	STEUD.	FLATSEDGE,ENGELMANN	FACW+	FACW+,OBL	ANGL
CYPERUS ERAGROSTIS	LAM.	FLATSEDGE,TALL	NI	FACW	PHEGL
CYPERUS ERYTHRORHIZOS	MUHL.	FLATSEDGE,RED-ROOT	FACW+	FAC,FACW	APNEGL
CYPERUS ESCULENTUS	L.	CHUFA	FACW	FACW	PNGL
CYPERUS FERAX	L.C. RICH.	CYPERUS,COARSE	FACW	FAC,OBL	ANGL
CYPERUS FERRUGINESCENS	BOECK.	FLATSEDGE,RUSTY	OBL	FACW+,OBL	ANGL
CYPERUS FILICINUS	VAHL	FLATSEDGE,SLENDER	OBL	OBL	ANGL
CYPERUS FLAVESCENS	L.	FLATSEDGE,YELLOW	NI	FAC	ANGL
CYPERUS FLAVUS	(VAHL) VAHL EX NEES NON J. & K. PRESL	FLATSEDGE,INFLATED-SCALE	FAC	FAC,FACW	PNGL
CYPERUS FUSCUS	L.	FLATSEDGE,BROWN	FACU	FACU,FAC+	ANGL
CYPERUS GLOBULOSUS	AUBL.	FLATSEDGE,BALDWIN	FACW	FACW,OBL	ANGL
CYPERUS GRANITIPHILUS	MCVAUGH	FLATSEDGE,GRANITE-LOVING	FACU	FACW	PNGL
CYPERUS HASPAN	L.	FLATSEDGE,SHEATHED	FACW	OBL	GL
CYPERUS IRIA	L.	FLATSEDGE,IRIA	OBL	FACW	PNEGL
CYPERUS LANCASTRIENSIS	T. PORTER EX GRAY	FLATSEDGE,MANY-FLOWER	FACW	FACU,FAC+	ANGL
CYPERUS OCHRACEUS	VAHL	FLATSEDGE,POND	FACU	FACW	PNGL
CYPERUS ODORATUS	L.	FLATSEDGE,RUSTY	NI	FACW,FACW+	PNGL
CYPERUS OVULARIS	(MICHX.) TORR.	FLATSEDGE,GLOBOSE	FACW	FACU,FAC+	APNGL
CYPERUS POLYSTACHYOS	ROTTB.	FLATSEDGE,MANY-SPIKE	FACU	FACW	PNGL
CYPERUS PSEUDOVEGETUS	STEUD.	FLATSEDGE,MARSH	FACW	FACW	PNGL
CYPERUS REFRACTUS	ENGELM. EX BOECK.	FLATSEDGE,REFLEXED	FACW	FACU+,FAC-	PNEGL
CYPERUS RETROFRSUS	CHAPM.	FLATSEDGE,RETRORSE	FACU+	FACU+,FAC	PNGL
CYPERUS RIVULARIS	KUNTH	FLATSEDGE,SHINING	FAC-	FACW,OBL	PNGL
CYPERUS ROTUNDUS	L.	FLATSEDGE,PURPLE	FACW+	FAC-,FAC	ANGL
CYPERUS SCHWEINITZII	TORR.	FLATSEDGE,SCHWEINITZ'S	FAC	UPL,FAC	PIGL
CYPERUS SEROTINUS	ROTTB.	FLATSEDGE,TIDAL-MARSH	FACU	OBL	PNGL
CYPERUS STRIGOSUS	L.	FLATSEDGE,STRAW-COLOR	OBL	FACW	GL
CYPERUS TENUIFOLIUS	(STEUD.) DANDY	FLATSEDGE,THIN-LEAF	FACW	FACW	PNEGL
CYPERUS VIRENS	MICHX.	FLATSEDGE,GREEN	FACW	FACW	ANGL
					PNEGL

CRATEGUS SPATHULATA

CYPERUS VIRENS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
CYPRIPEDIUM ACAULE	AIT.	LADY'S-SLIPPER,PINK	FACU	FACU,FACW	PNF
CYPRIPEDIUM ARIETINUM	R. BR.	LADY'S-SLIPPER,RAM'S-HEAD	FACW+	FACW+	PNF
CYPRIPEDIUM CALCEOLUS	L.	LADY'S-SLIPPER,SMALL YELLOW	FAC+	FACU,FACW	PNF
CYPRIPEDIUM CANDIDUM	MUHL. EX WILLD.	LADY'S-SLIPPER,SMALL WHITE	OBL	OBL	PNF
CYPRIPEDIUM REGINAE	WALTER	LADY'S-SLIPPER,SHOWY	FACW	FACW-,FACW+	PNF
CYRILLA RACEMIFLORA	L.	CYRILLA,SWAMP	FACW	FACW,FACW+	NT
CYSTOPTERIS BULBIFERA	(L.) BERNH.	FERN,BULBLET	FAC	FAC,FACW	PNF3
CYSTOPTERIS FRAGILIS	(L.) BERNH.	FERN,BRITTLE	FACU	FACU,FACU+	PNF3
CYSTOPTERIS MONTANA	(LAM.) BERNH. EX DESV.	FERN,MOUNTAIN BLADDER	NI	FAC,FAC+	PNF3
DACTYLIS GLOMERATA	L.	GRASS,ORCHARD	FACU	FACU,FACU+	PIG
DALEA LEPORINA	(AIT.) A.A. BULLOCK	PRAIRIE-CLOVER,FOX-TAIL	NI	NI	ANF
DALIBARDA REPENS	L.	ROBIN-RUN-AWAY	FAC	FACU-,FACW+	PNF
DANTHONIA COMPRESSA	AUST.	OATGRASS,FLATTENED	FACU-	FACU-	PNG
DANTHONIA SERICEA	NUTT.	OATGRASS,SILKY	FACU	FACU-,FACU	PNG
DASISTOMA MACROPHYLLA	(NUTT.) RAF.	FOXGLOVE,MULLEIN	FACU	FACU-,FAC	ANHF
DECODON VERTICILLATUS	(L.) ELLIOTT	SWAMP-LOOSESTRIFE,HAIRY	OBL	OBL	PNF
DECUMARIA BARBARA	L.	DECUMARIA,SOUTHEAST	OBL	FACW,OBL	NWV
DENDRANTHEMA ARCTICUM	(L.) TZVEL.	DAISY,ARCTIC	NI	FACW	PNF
DESCHAMPSIA CESPITOSA	(L.) BEAUV.	HAIRGRASS,TUFTED	FACW	FAC,FACW+	PNG
DESCHAMPSIA DANTHONIOIDES	(TRIN.) MUNRO	HAIRGRASS,ANNUAL	NI	FAC,FACW	ANG
DESCHAMPSIA ELONGATA	(HOOK.) MUNRO	HAIRGRASS,SLENDER	NI	FAC,FACW	PNG
DESMANTHUS ILLINOENSIS	(MICHX.) MACMIL. EX B. ROB. & FERNALD	BUNDLE-FLOWER,PRAIRIE	FAC	UPL,FAC	PNF
DESMODIUM CANADENSE	(L.) DC.	TICK-TREFOIL,SHOWY	FAC	FACU,FAC	PNF
DESMODIUM TENUIFOLIUM	TORR. & GRAY	TICK-TREFOIL,SLIM-LEAF	FAC*	FACU,FAC	PNF
DIAMORPHA SMALLII	BRITTON	SMALL'S-STONECROP	FACW+	FACW+	ANHF
DICHANTHELIUM ACICULARE	(DESV. EX POIR.) GOULD & C.A. CLARK	WITCHGRASS,NEEDLE-LEAF	FACU	FACU-,FACU	PNG
DICHANTHELIUM ACUMINATUM	(SWARTZ) GOULD & C.A. CLARK	GRASS,PANIC	FAC	FAC,FACW	PNG
DICHANTHELIUM BOREALE	(NASH) FRECKM.	WITCHGRASS,NORTHERN	FACU	FACU,FACU+	PNG
DICHANTHELIUM CLANDESTINUM	(L.) GOULD	WITCHGRASS,DEER-TONGUE	FAC+	FAC+,FACW	PNG
DICHANTHELIUM COMMUTATUM	(J.A. SCHULTES) GOULD	WITCHGRASS,VARIABLE	FACU+	FACU+,FAC	PNG
DICHANTHELIUM CONSANGUINEUM	(KUNTH) GOULD & C.A. CLARK	WITCHGRASS,BLOOD	FACU	FACU,FAC	PNG
DICHANTHELIUM DICHOTOMUM	(L.) GOULD	WITCHGRASS,CYPRESS	FAC	FAC-,FAC	PNG
DICHANTHELIUM LATIFOLIUM	(L.) HARVILL	WITCHGRASS,BROAD-LEAF	FACU-	FACU-,FACU	PNG
DICHANTHELIUM LAXIFLORUM	(L.) GOULD	WITCHGRASS,LAX-FLOWER	FACU	FACU,FAC	PNG
DICHANTHELIUM LEIBERGII	(VASEY) FRECKM.	WITCHGRASS,LEIBERG'S	FACU	FACU,FAC	PNG
DICHANTHELIUM OLIGOSANTHES	(J.A. SCHULTES) GOULD	WITCHGRASS,HELLER'S	FACU	FACU,FAC	PNG
DICHANTHELIUM OVALE	(ELLIOTT) GOULD & C.A. CLARK	WITCHGRASS,EGG-LEAF	FACU	FACU-,FACU	PNG
DICHANTHELIUM RAVENELII	(SCRIBN.) GOULD	WITCHGRASS,RAVENEL'S	FACU-	FACU-,FAC	PNG
DICHANTHELIUM SABULORUM	(LAM.) GOULD & C.A. CLARK	WITCHGRASS,HEMLOCK	FACU	FACU,FAC	PNG
DICHANTHELIUM SCABRIUSCULUM	(ELLIOTT) GOULD & C.A. CLARK	GRASS,WOOLLY PANIC	OBL	OBL	PNG
DICHANTHELIUM SCOPARIUM	(LAM.) GOULD	GRASS,BROOM PANIC	FACW	FAC,FACW	PNG
DICHANTHELIUM SPHAEROCARPON	(ELLIOTT) GOULD	GRASS,ROUND-SEED PANIC	FACU	FACU	PNG
DICHONDRA CAROLINENSIS	MICHX.	PONY-FOOT,CAROLINA	FACW	FAC+,FACW	PNF
DICHROMENA COLORATA	(L.) HITCHC.	WHITE-TOP-SEDGE,STARBRUSH	FACW	FACW	PNGL
DICLIPTERA BRACHIATA	(PURSH) SPRENG.	MUDWORT,WILD	FACW	FACW	ANF
DIDIPLIS DIANDRA	(NUTT. EX DC.) A. WOOD	WATER-PURSLANE	OBL	OBL	ANZEF
DIGITARIA INSULARIS	(L.) MEZ	SOURGRASS	NI	UPL,FAC	PNG
DIGITARIA SANGUINALIS	(L.) SCOP.	CRABGRASS,HAIRY	FACU-	FACU-,FAC-	AIG
DIGITARIA SEROTINA	(WALTER) MICHX.	CRABGRASS,DWARF	FAC	FAC	ANG
DIOCLEA MULTIFLORA	(TORR. & GRAY) C. MOHR	CLUSTER-PEA,BOYKIN	FAC	FACU,FACW-	PNS
DIODIA VIRGINIANA	L.	BUTTON-WEED,VIRGINIA	FACW	FACW,OBL	APNEF
DIOSCOREA HIRTICAULIS	H.H. BARTLETT	YAM,HAIRY-STEM	FACW	FACW,OBL	PNF

CYPRIPEDIUM ACAULE

DIOSCOREA HIRTICAULIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
DIOSCOREA QUATERNATA	(WALTER) J.F. GMEL.	YAM,FOUR-LEAF	FACU	UPL,FAC	PNVF
DIOSCOREA VILLOSA	L.	YAM,YELLOW	FAC+	FACU,FAC+	PNV
DIOSPYROS VIRGINIANA	L.	PERSIMMON,COMMON	FAC-	FACU,FAC	NT
DIPHYLLEIA CYMOSA	MICHX.	UMBRELLA-LEAF,AMERICAN	FACU+	FACU+	PNF
DIPSACUS SYLVESTRIS	HUDS.	TEASEL	NI	FAC?	BIF
DIRCA PALUSTRIS	L.	LEATHER-WOOD,EASTERN	FAC	FACU-,FAC	NS
DISTICHLIS SPICATA	(L.) GREENE	SALTGRASS,SEASHORE	FACW+	FAC+,FACW+	PNG
DODECATHEON MEADIA	L.	SHOOTING-STAR,COMMON	FACU	FACU,FAC	PNF
DRACOCEPHALUM PARVIFLORUM	NUTT.	DRAGON-HEAD,AMERICAN	FACU-	FACU-,FACU	PNF
DROSERA ANGLICA	HUDS.	SUNDEW,ENGLISH	NI	OBL	PNF
DROSERA BREVIFOLIA	PURSH	SUNDEW,DWARF	OBL	OBL	PNF
DROSERA CAPILLARIS	POIR.	SUNDEW,PINK	OBL	OBL	PNEF
DROSERA FILIFORMIS	RAF.	SUNDEW,THREAD-LEAF	OBL	OBL	PNF
DROSERA INTERMEDIA	HAYNE	SUNDEW,SPOON-LEAF	OBL	OBL	PNEF
DROSERA LINEARIS	GOLDIE	SUNDEW,SLENDER-LEAF	OBL	OBL	PNF
DROSERA LONGIFOLIA	L.	SUNDEW,NARROW-LEAF	OBL	OBL	N
DROSERA ROTUNDIFOLIA	L.	SUNDEW,ROUND-LEAF	OBL	OBL	PNEF
DRYOPTERIS AEROPALUSTRIS	SMALL	WOODFERN	OBL	OBL	F3
DRYOPTERIS CELSA	(W. PALMER) SMALL	FERN,LOG	OBL	OBL	F3
DRYOPTERIS CLINTONIANA	(D.C. EAT.) P. DOWEL	WOODFERN,CLINTON	OBL	FAC+,OBL	PNF3
DRYOPTERIS CRISTATA	(L.) GRAY	SHIELD-FERN,CRESTED	FACW+	FACW+	PNEF3
DRYOPTERIS GOLDIANA	(HOOK.) GRAY	WOODFERN,GOLDIE	FACW+	FACW,OBL	PNF3
DRYOPTERIS INTERMEDIA	(WILLD.) GRAY	WOODFERN,EVERGREEN	FAC+	FAC-,FAC+	PNF3
DRYOPTERIS LUDOVICIANA	(KUNZE) SMALL	SHIELD-FERN,SOUTHERN	FACU	FACU,FAC	PNF3
DRYOPTERIS MARGINALIS	(L.) GRAY	SHIELD-FERN,MARGINAL	NI	FACW,FACW+	PNF3
DRYOPTERIS SPINULOSA	(O.F. MUELL.) WATT	WOODFERN,SPINULOSE	FACU-	FACU-,FACU	PNF3
DRYOPTERIS X AUSTRALIS	(HERRY) SMALL	WOODFERN,SOUTHERN	FAC+	FAC+,FACW	F3
DRYOPTERIS X BOOTII	(TUCKERMAN) UNDERW.	WOODFERN,BOOTT	NI	FACW	F3
DRYOPTERIS X TRIPLOIDEA	HERRY	WOODFERN,FRUITY SHIELD	FACW	FACW	PNF3
DRYOPTERIS X ULIGINOSA	DRUCE	WOODFERN,OVIEDO	FAC	FAC	PNF3
DUCHESNEA INDICA	(ANDRZ.) FOCKE	MOCK-STRAWBERRY,INDIAN	FAC	FAC	F3
DULICHIUM ARUNDINACEUM	(L.) BRITTON	SEDGE,THREE-WAY	FACU-	UPL,FAC	PIF
ECHINOCHLOA COLONA	(L.) LINK	JUNGLE-RICE	OBL	OBL	PNEGL
ECHINOCHLOA CRUS-PAVONIS	(H.B.K.) J.A. SCHULTES	COCKSPUR,GULF	FACW	FAC,FACW	AIG
ECHINOCHLOA CRUSGALLI	(L.) BEAUV.	GRASS,BARNYARD	FACW+	FACW,OBL	AIEG
ECHINOCHLOA MURICATA	(BEAUV.) FERNALD	GRASS,ROUGH BARNYARD	FACU	FACU,FACW	AIG
ECHINOCHLOA WALTERI	(PURSH) A. HELLER	COCKSPUR,COAST	FACW+	FAC,OBL	ANG
ECHINOCYSTIS LOBATA	(MICHX.) TORR. & GRAY	MOCK-CUCUMBER,WILD	FACW+	FACW+,OBL	ANEG
ECHINODORUS CORDIFOLIUS	(L.) GRISEB.	BURHEAD,CREEPING	FAC	FACU,FACW-	ANF
ECHINODORUS PARVULUS	ENGELM.	BURHEAD,DWARF	OBL	OBL	PNEF
ECHINODORUS ROSTRATUS	(NUTT.) ENGELM.	BURHEAD,UPRIGHT	OBL	FACW,OBL	PNEF
ECLIPTA ALBA	(L.) HASSK.	YERBA DE TAJO	OBL	OBL	PNEF
EGERIA DENSA	PLANCH.	WATER-WEED,BRAZILIAN	FAC	FAC,OBL	ANF
EICHHORNIA CRASSIPES	(MART.) SOLMS.	WATER-HYACINTH,COMMON	OBL	OBL	PNZF
ELAEAGNUS ANGUSTIFOLIA	L.	OLIVE,RUSSIAN	OBL	OBL	PNE/F
ELAEAGNUS COMMUTATA	BERNH. EX RYDB.	SILVER-BERRY,AMERICAN	FACU	FACU-,FACW-	IST
ELATINE AMERICANA	(PURSH) ARN.	WATER-WORT,AMERICAN	NI	UPL	NS
ELATINE BRACHYSPERMA	GRAY	WATER-WORT,SHORT-SEED	OBL	OBL	ANEF
ELATINE MINIMA	(NUTT.) FISCH. & C.A. MEYER	WATER-WORT,SMALL	OBL	FACW,OBL	ANE/F
ELATINE TRIANDRA	SCHKUHR	WATER-WORT,THREE-STAMEN	OBL	OBL	ANEF
ELEOCHARIS ACICULARIS	(L.) ROEM. & J.A. SCHULTES	SPIKERUSH,LEAST	OBL	OBL	ANE/F
ELEOCHARIS ALBIDA	TORR.	SPIKERUSH,WHITE	OBL	OBL	PNEGL
					PNEGL

DIOSCOREA QUATERNATA

ELEOCHARIS ALBIDA

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SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
ELEOCHARIS BALDWINII	(TORR.) CHAPM.	SPIKERUSH,BALDWIN'S	OBL	FACW,OBL	APNGL
ELEOCHARIS CARIBAEA	(ROTTB.) BLAKE	SPIKERUSH,CAPITATE	FACW	FACW	ANGL
ELEOCHARIS COMPRESSA	SULLIVANT	SPIKERUSH,FLAT-STEM	FACW+	FACW,FACW+	PNEGL
ELEOCHARIS ENGELMANNII	STEUD.	SPIKERUSH,ENGELMANN'S	FACW+	FACW,OBL	ANGL
ELEOCHARIS EQUISETOIDES	(ELLIOTT) TORR.	SPIKERUSH,HORSE-TAIL	OBL	OBL	PNEGL
ELEOCHARIS ERYTHROPODA	STEUD.	SPIKERUSH,BALD	OBL	OBL	PNGL
ELEOCHARIS FALLAX	HEATHERBY	SPIKERUSH,CREEPING	OBL	OBL	PNGL
ELEOCHARIS FLAVESCENS	(POIR.) URBAN	SPIKERUSH,PALE	OBL	OBL	PNGL
ELEOCHARIS GENICULATA	(L.) ROEM. & J.A. SCHULTES	SPIKERUSH,CLUSTERED	OBL	FACW,OBL	ANEGL
ELEOCHARIS HALOPHILA	(FERNALD & A. BRACKETT) FERNALD & A. BRACKETT	SPIKERUSH,SALTMARSH	OBL	OBL	GL
ELEOCHARIS INTERMEDIA	J.A. SCHULTES	SPIKERUSH,MATTED	FACW+	FACW,FACW+	PNGL
ELEOCHARIS MACROSTACHYA	BRITTON	SPIKERUSH,CREEPING	OBL	OBL	PNEGL
ELEOCHARIS MELANOCARPA	TORR.	SPIKERUSH,BLACK-FRUIT	FACW+	FACW,FACW+	PNGL
ELEOCHARIS MICROCARPA	TORR.	SPIKERUSH,SMALL-FRUIT	OBL	OBL	ANEGL
ELEOCHARIS NITIDA	FERNALD	SPIKERUSH,SLENDER	OBL	OBL	PNGL
ELEOCHARIS OBTUSA	(WILLD.) J.A. SCHULTES	SPIKERUSH,BLUNT	OBL	OBL	APNEGL
ELEOCHARIS OLIVACEA	TORR.	SPIKERUSH,BRIGHT-GREEN	OBL	OBL	PNGL
ELEOCHARIS OVATA	(ROTH) ROEM. & J.A. SCHULTES	SPIKERUSH,OVATE	OBL	OBL	ANEGL
ELEOCHARIS PALUSTRIS	(L.) ROEM. & J.A. SCHULTES	SPIKERUSH,CREEPING	OBL	OBL	PNEGL
ELEOCHARIS PARVULA	(ROEM. & J.A. SCHULTES) LINK EX BLUFF & FINGERH.	SPIKERUSH,SMALL	OBL	OBL	PNGL
ELEOCHARIS PAUCIFLORA	(LIGHTF.) LINK	SPIKERUSH,FEW-FLOWER	OBL	OBL	PNGL
ELEOCHARIS QUADRANGULATA	(MICHX.) ROEM. & J.A. SCHULTES	SPIKERUSH,SQUARE-STEM	OBL	OBL	PNGL
ELEOCHARIS RADICANS	(A. DIETR.) KUNTH	SPIKERUSH,ROOTED	OBL	OBL	PNGL
ELEOCHARIS ROBBINSII	OAKES	SPIKERUSH,ROBBINS'	OBL	OBL	PNGL
ELEOCHARIS ROSTELLATA	(TORR.) TORR.	SPIKERUSH,BEAKED	FACW+	FACW,FACW+	PNGL
ELEOCHARIS SMALLII	BRITTON	SPIKERUSH,SMALL'S	FACW+	FACW,FACW+	PNGL
ELEOCHARIS TENUIS	(WILLD.) J.A. SCHULTES	SPIKERUSH,SLENDER	OBL	FACW+,OBL	GL
ELEOCHARIS TORTILIS	(LINK) J.A. SCHULTES	SPIKERUSH,TWISTED	OBL	FACW+,OBL	PNGL
ELEOCHARIS TRICOSTATA	TORR.	SPIKERUSH,THREE-ANGLE	OBL	OBL	PNGL
ELEOCHARIS TUBERCULOSA	(MICHX.) ROEM. & J.A. SCHULTES	SPIKERUSH,LONG-TUBERCLE	OBL	OBL	ANGL
ELEOCHARIS UNIGLUMIS	(LINK) J.A. SCHULTES	SPIKERUSH,CREEPING	OBL	OBL	PNEGL
ELEOCHARIS VIVIPARA	LINK	SPIKERUSH,VIVIPAROUS	OBL	OBL	PNF
ELEOCHARIS WOLFII	(GRAY) GRAY EX BRITTON	SPIKERUSH,WOLF'S	FACU	FACU,FAC	PNF
ELEPHANTOPUS CAROLINIANUS	RAFINESQ.	ELEPHANT-FOOT,CAROLINA	FAC	FAC	AIG
ELEPHANTOPUS NUDATUS	GRAY	ELEPHANT-FOOT,SMOOTH	FACU-	UPL,FACU	ANF
ELEUSINE INDICA	(L.) GAERTN.	GOOSEGRASS,INDIA	FACU	UPL,FAC+	PNZF
ELLISIA NYCTELEA	L.	BABY-BLUE-EYES,FALSE	OBL	OBL	PNZF
ELODEA CANADENSIS	MICHX.	WATER-WEED,BROAD	OBL	OBL	PIG
ELODEA NUTTALLII	(PLANCH.) H. ST. JOHN	WATER-WEED,NUTTALL'S	FACU-	FACU-,FAC	PNG
ELYMUS ARENARIUS	L.	LYME-GRASS,SEA	FACU+	FACU,FAC+	PNG
ELYMUS CANADENSIS	L.	WILD-RYE,NODDING	FACU	FACU	PNG
ELYMUS GLAUCUS	BUCKLEY	WILD-RYE,BLUE	FACW	FACW	PNG
ELYMUS RIPARIUS	WIEGAND	WILD-RYE,RIVERBANK	FACU-	FACU-,FACU	PNG
ELYMUS VILLOSUS	MUHL. EX WILLD.	WILD-RYE,HAIRY	FACW-	FAC,FACW	PNG
ELYMUS VIRGINICUS	L.	WILD-RYE,VIRGINIA	FAC	FAC	G
ELYMUS WIEGANDII	FERNALD	WILD-RYE,WIEGAND'S	FACW	FACU,FACW	NS
EMPETRUM NIGRUM	L.	CROWBERRY,BLACK	FAC*	FAC	NS
EMPETRUM RUBRUM	VAHL	CROWBERRY,PURPLE	FACU-	UPL,FACW	PNF
ENCHION BITERNATUM	RAF.	RUE-ANEMONE,FALSE	FACW	FACU-,FACW	PNF
EPILOBIUM ANAGALLIDIFOLIUM	LAM.	WILLOW-HERB,PIMPERNEL	FAC	FACU,FAC	PNF
EPILOBIUM AVGUSTIFOLIUM	L.	FIREWEED	FAC-	FACU,OBL	PNF
EPILOBIUM CILIATUM	RAF.	WILLOW-HERB,HAIRY			

ELEOCHARIS BALDWINII

EPILOBIUM CILIATUM

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SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
EPILOBIUM COLORATUM	BIEHLER	WILLOW-HERB,PURPLE-LEAF	OBL	OBL	PNF
EPILOBIUM HIRSUTUM	L.	WILLOW-HERB,GREAT-HAIRY	FACW	FACW,FACW+	PIF
EPILOBIUM HORNEMANNII	REICHENB.	WILLOW-HERB,HORNEMANN'S	FACW	FACW-,FACW+	PNF
EPILOBIUM LACTIFLORUM	HAUSSKN.	WILLOW-HERB,WHITE-FLOWER	FACW	FACW	PNF
EPILOBIUM LEPTOPHYLLUM	RAF.	WILLOW-HERB,LINEAR-LEAF	OBL	FACW,OBL	PNF
EPILOBIUM PALUSTRE	L.	WILLOW-HERB,MARSH	OBL	OBL	PNF
EPILOBIUM STRICTUM	MUHL. EX SPRENG.	WILLOW-HERB,DOWNY	OBL	OBL	PNF
EQUISETUM ARVENSE	L.	HORSETAIL,FIELD	FAC	FACU,FACW-	PNH2
EQUISETUM FLUVIATILE	L.	HORSETAIL,WATER	OBL	OBL	PNH2
EQUISETUM HYEMALE	L.	HORSETAIL,ROUGH	FACW	FAC+,FACW	PNH2
EQUISETUM LAEVIGATUM	A. BRAUN	SCOURING-RUSH,SMOOTH	FACW	FAC,FACW	PNH2
EQUISETUM PALUSTRE	L.	HORSETAIL,MARSH	FACW	FACW	PNH2
EQUISETUM PRATENSE	EHRH.	HORSETAIL,MEADOW	FACW	FACW	PNH2
EQUISETUM SCIRPOIDES	MICHX.	SCOURING-RUSH,DWARF	FAC	FACU,FAC+	PNH2
EQUISETUM SYLVATICUM	L.	HORSETAIL,WOODLAND	FACW	FACU,FACW	PNH2
EQUISETUM TELMATEIA	EHRH.	HORSETAIL,GIANT	NI	FACW,OBL	PNH2
EQUISETUM VARIEGATUM	SCHLEICH. EX F. WEBER & D.M.H. MOHR	HORSETAIL,VARIEGATED	FACW	FACW,FACW+	PNH2
EQUISETUM X FERRISSII	CLUTE	SCOURING-RUSH,INTERMEDIATE	NI	FAC,FACW	PNH2
EQUISETUM X LITORALE	KUEHLEW.	HORSETAIL,SHORE	OBL	OBL	PNH2
EQUISETUM X NELSONII	(A.A. EATON) J.H. SCHAFFNER	HORSETAIL,NELSON VARIEGATED	NI	FAC+	PNH2
EQUISETUM X TRACHYODON	A. BRAUN	HORSETAIL,ROUGH-TOOTH	NI	FACW+	PH2
ERAGROSTIS CILIANENSIS	(ALL.) LINK EX MOSHER	STINKGRASS	FACU	FACU,FACU+	AIG
ERAGROSTIS FRANKII	C.A. MEYER	LOVEGRASS,FRANK'S	FACW	FAC,FACW	ANG
ERAGROSTIS HYPNOIDES	(LAM.) B.S.P.	LOVEGRASS,TEAL	OBL	FAC,OBL	ANG
ERAGROSTIS PECTINACEA	(MICHX.) NEES	LOVEGRASS,PURPLE	FAC	FACU,FAC	ANG
ERAGROSTIS PILOSA	(L.) BEAUV.	LOVEGRASS,INDIA	FACU	FACU	AIG
ERAGROSTIS REFRACTA	(CHAPM.) SCRIBN.	LOVEGRASS,MEADOW	FACW	FACW	PNG
ERAGROSTIS REPTANS	(MICHX.) NEES	LOVEGRASS,HAIRY CREEPING	FACW+	FACW+,OBL	ANG
ERECHTITES HIERACIFOLIA	(L.) RAF. EX DC.	BURN,AMERICAN	FACU	FACU,FAC	ANF
ERIANTHUS ALOPECUROIDES	(L.) ELLIOTT	PLUMEGRASS,WOOLLY	FAC	FACU-,FACW-	PNG
ERIANTHUS BREVIBARBIS	MICHX.	PLUMEGRASS,SHORT-BEARD	OBL	FACW,OBL	PNG
ERIANTHUS CONTORTUS	BALDW. EX ELLIOTT	PLUMEGRASS,BENT-AWN	FAC	FAC	PNG
ERIANTHUS GIGANTEUS	(WALTER) F.T. HUBB. NON MUHL.	PLUMEGRASS,SUGAR CANE	FACW+	FACW,FACW+	PNG
ERIANTHUS STRICTUS	BALDW.	PLUMEGRASS,NARROW	OBL	FACW+,OBL	PNG
ERICA TETRALIX	L.	HEATH,CROSS-LEAF	FACU	FACU	IS
ERIGERON ACRIS	L.	FLEABANE,BITTER	FACU	FACU,FAC	BPF
ERIGERON ANNUUS	(L.) PERS.	FLEABANE,WHITE-TOP	FACU	FACU,FAC	ANF
ERIGERON PHILADELPHICUS	MICHX.	FLEABANE,HYSSOP-LEAF	FACW	FACW	PNF
ERIGERON PULCHELLUS	L.	FLEABANE,PHILADELPHIA	FACU	FACU,OBL	BNF
ERIGERON QUERCIFOLIUS	MICHX.	PLANTAIN,ROBIN'S	FACU	FACU,FACU+	PNF
ERIGERON STRIGOSUS	LAM.	FLEABANE,OAK-LEAF	FACW	FAC+,FACW	ANF
ERIGERON VERNUS	MUHL. EX WILLD.	FLEABANE,PRAIRIE	FACU+	FACU,FAC	ANF
ERIOCAULON COMPRESSUM	(L.) TORR. & GRAY	FLEABANE,EARLY WHITETOP	OBL	OBL	PNF
ERIOCAULON DECANGULARE	LAM.	PIPEWORT,FLATTENED	OBL	OBL	PIEF
ERIOCAULON PARKERI	L.	PIPEWORT,TEN-ANGLE	OBL	OBL	PIEF
ERIOCAULON SEPTANGULARE	B. ROB.	PIPEWORT,ESTUARY	OBL	OBL	PIEF
ERIOCHLOA CONTRACTA	WITH.	BUTTONS,WHITE	OBL	OBL	PIEF
ERIOCHLOA GRACILIS	A. HITCHC.	CUPGRASS,PRAIRIE	FACU	FACU,FACW	ANG
ERIOPHORUM ALPINUM	(FOURN.) A. HITCHC.	CUPGRASS,SOUTHWESTERN	NI	FAC,FACW	ANG
ERIOPHORUM ANGUSTIFOLIUM	L.	COTTON-GRASS,ALPINE	OBL	OBL	PNGL
ERIOPHORUM GRACILE	HONCK.	COTTON-GRASS,NARROW-LEAF	OBL	OBL	PNGL
	W. KOCH	COTTON-GRASS,SLENDER	OBL	OBL	PNEGL

EPILOBIUM COLORATUM

ERIOPHORUM GRACILE

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
ERIOPHORUM POLYSTACHION	L.	COTTON-GRASS,COLDSWAMP	OBL	OBL	PNGL
ERIOPHORUM SPISSUM	FERNALD	HARE'S-TAIL	OBL	OBL	PNGL
ERIOPHORUM TENELLUM	NUTT.	COTTON-GRASS,FEW-NERVE	OBL	OBL	PNGL
ERIOPHORUM VAGINATUM	L.	COTTON-GRASS,TUSSOCK	OBL	FACW,OBL	PNGL
ERIOPHORUM VIRGINICUM	L.	COTTON-GRASS,TAWNY	OBL	OBL	PNEGL
ERIOPHORUM VIRIDICARINATUM	(ENGELM.) FERNALD	COTTON-GRASS,GREEN-KEEL	OBL	OBL	PNEGL
ERYNGIUM AQUATICUM	L.	COYOTE-THISTLE,MARSH	OBL	OBL	BNF
ERYNGIUM CAMPESTRE	L.	COYOTE-THISTLE,SNAKEROOT	NI	NI	PNF
ERYNGIUM INTEGRIFOLIUM	WALTER	COYOTE-THISTLE,BLUE-FLOWER	NI	FACW,FACW+	PNF
ERYNGIUM PROSTRATUM	NUTT. EX DC.	COYOTE-THISTLE,CREEPING	OBL	FACW,OBL	PNF
ERYNGIUM YUCCIFOLIUM	MICHX.	RATTLESNAKE-MASTER	FAC	FAC,FACW	PNF
ERYSIMUM CHEIRANTHOIDES	L.	WALLFLOWER,WORM-SEED	FAC	UPL,FAC	ANF
ERYTHRONIUM UMBILICATUM	C.R. PARKS & J.W. HARDIN	FAWNLILY,DIMPLED	FAC	FAC	PNF
EULALIA VIMINEA	(TRIN.) KUNTZE	MICROSTEGIUM,NEPAL	FAC	FAC,FAC+	G
EUONYMUS AMERICANUS	L.	STRAWBERRY-BUSH,AMERICAN.	FAC	FACU,FACW	NS
EUONYMUS ATROPURPUREUS	JACQ.	BURNING-BUSH,EASTERN	FACU	FACU,FAC+	NST
EUPATORIADELPHUS DUBIUS	(WILLD. EX POIR.) R.M. KING & H. ROB.	JOE-PYE-WEED,COASTAL-PLAIN	FACW	FACW	PNF
EUPATORIADELPHUS FISTULOSUS	(BARRATT EX HOOK.) R.M. KING & H. ROB.	JOE-PYE-WEED,HOLLOW	FACW	FAC+,OBL	PNF
EUPATORIADELPHUS MACULATUS	(L.) R.M. KING & H. ROB.	JOE-PYE-WEED,SPOTTED	FACW	FACW-,OBL	PNF
EUPATORIADELPHUS PURPUREUS	(L.) R.M. KING & H. ROB.	JOE-PYE-WEED,SWEET	FAC	FAC	PNF
EUPATORIUM CAPILLIFOLIUM	(LAM.) SMALL	THOROUGH-WORT,SMALL DOG-FENNEL	FACU-	FACU-,FACU	PNF
EUPATORIUM LEUCOLEPIS	(DC.) TORR. & GRAY	THOROUGH-WORT,WHITE-BRACT	FACW+	FACW+	PNF
EUPATORIUM PERFOLIATUM	L.	BONESET,COMMON	FACW+	FACW+,OBL	PNF
EUPATORIUM PILOSUM	WALTER	THOROUGH-WORT,HAIRY	FACW	FACW	PNF
EUPATORIUM RECURVANS	SMALL	THOROUGH-WORT,COASTAL-PLAIN	FAC+	FAC+,FACW-	PNF
EUPATORIUM RESINOSUM	TORR.	THOROUGH-WORT,PINEBARRENS	OBL	OBL	PNF
EUPATORIUM ROTUNDIFOLIUM	L.	THOROUGH-WORT,ROUND-LEAF	FAC-	FAC-,FAC	PNF
EUPATORIUM SEMISERRATUM	DC.	THOROUGH-WORT,SMALL-FLOWER	FACW	FAC,FACW	PNF
EUPATORIUM SEROTINUM	MICHX.	THOROUGH-WORT,LATE-FLOWERING.	FAC-	FAC-,FAC+	PNF
EUPHORBIA COMMUTATA	ENGELM.	SPURGE,TINTED WOOD	FACU	UPL,FACU	ANF
EUPHORBIA HETEROPHYLLA	L.	SPURGE,PAINTED	FACU-	UPL,FAC	ANF
EUPHORBIA HUMISTRATA	ENGELM.	BROOMSPURGE,SPREADING	FACU	FACU,FACW	ANF
EUPHORBIA MACULATA	L.	BROOMSPURGE,SPOTTED	FACU-	UPL,FACU	ANF
EUPHORBIA NUTANS	LAG.	BROOMSPURGE,EYEBANE	FACU-	FACU-,FACU	AIF
EUPHORBIA OBTUSATA	PURSH	SPURGE,BLUNT-LEAF	FACU-	FACU-,FAC	ANF
EUPHORBIA POLYGONIFOLIA	L.	BROOMSPURGE,SEASIDE	FACU	UPL,FACU	ANF
EUPHORBIA PURPUREA	FERNALD	SPURGE,GLADE	FAC	FAC,FACW	PNF
EUPHRASIA RANDII	B. ROB.	EYEBRIGHT,SMALL	FACW	FACW	NF
EUSTACHYS PETRAEA	(SWARTZ) DESV.	GRASS,PINEWOODS FINGER	NI	FACU-,FAC-	NG
EUTHAMIA CAMPORUM	GREENE	FRAGRANT-GOLDEN-ROD,VISCID	FACU	FACU,FACW	PNF
EUTHAMIA GALETORUM	GREENE	FRAGRANT-GOLDEN-ROD,NARROW-LEAF	FAC	FAC	PNF
EUTHAMIA GRAMINIFOLIA	(L.) NUTT.	FRAGRANT-GOLDEN-ROD,FLAT-TOP	FAC	FAC,FACW	PNF
EUTHAMIA LEPTOCEPHALA	(TORR. & GRAY) GREENE	FRAGRANT-GOLDEN-ROD,BUSHY	NI	FAC+,FACW	PNF
EUTHAMIA MINOR	(MICHX.) GREENE	FRAGRANT-GOLDEN-ROD,SLENDER	FACU	FACU,FAC	PNF
FAGUS GRANDIFOLIA	EHRH.	BEECH,AMERICAN	FACU	FACU	NT
FAGUS GRANDIFOLIA	EHRH.	BEECH	FAC+	FAC+	NT
FESTUCA ARUNDINACEA	SCHREB.	FESCUE,KENTUCKY	FACU	UPL,FACW-	PIG
FESTUCA OBTUSA	BIEHLER	FESCUE,NODDING	FACU	FACU,FAC	PNG
FESTUCA PARADOXA	DESV.	FESCUE,CLUSTER	FAC	FACU,FAC	PNG
FESTUCA PRATENSIS	HUDS.	FESCUE,MEADOW	FACU-	FACU-,FAC	PIG
FESTUCA RUBRA	L.	FESCUE,RED	FACU	FACU,FACW-	PNG
FILAGINELLA ULIGINOSA	(L.) OPIZ	CUDWEED,LOW	FAC	UPL,FACW	N

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ERIOPHORUM POLYSTACHION

FILAGINELLA ULIGINOSA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
FILIPENDULA RUBRA	(J. HILL) B. ROB.	QUEEN-OF-THE-PRAIRIE	FACW	FACW,OBL	PNF
FIMBRISTYLIS ANNUA	(ALL.) ROEM. & J.A. SCHULTES	FIMBRY,ANNUAL	FAC	FACU-,FACW	ANGL
FIMBRISTYLIS AUTUMNALIS	(L.) ROEM. & J.A. SCHULTES	FIMBRY,SLENDER	FACW+	FACW+,OBL	GL
FIMBRISTYLIS CAROLINIANA	(LAM.) FERNALD	FIMBRY,CAROLINA	FACW+	FACU,FACW+	PNGL
FIMBRISTYLIS CASTANEA	(MICHX.) VAHL	FIMBRY,MARSH	OBL	OBL	PNEGL
FIMBRISTYLIS DICHOTOMA	(L.) VAHL	FIMBRY,TALL	NI	FACW+,OBL	APNEGL
FIMBRISTYLIS MILIACEA	(L.) VAHL	FIMBRY,GRASSY-LIKE	NI	OBL	ANGL
FIMBRISTYLIS PERPUSILLA	R.M. HARPER EX SMALL & BRITTON	FIMBRY,HARPER'S	NI	FACW+	ANGL
FIMBRISTYLIS PUBERULA	(MICHX.) VAHL	FIMBRY,VAHL'S HAIRY	OBL	FACW,OBL	PNEGL
FIMBRISTYLIS VAHLII	(LAM.) LINK	FIMBRY,VAHL'S	NI	FACW,OBL	ANEGL
FLEISCHMANNIA INCARNATA	(WALTER) R.M. KING & H. ROB.	THOROUGH-WORT,PINK	FAC	FACU+,FAC	N
FLOERKEA PROSERPINACOIDES	WILLD.	MERMAID-WEED,FALSE	FAC	FAC,OBL	ANF
FORESTIERA ACUMINATA	(MICHX.) POIR.	PRIVET,SWAMP	OBL	OBL	NST
FORESTIERA LIGUSTRINA	(MICHX.) POIR.	SWAMP PRIVET,UPLAND	NI	FAC	NS
FOTHERGILLA GARDENII	MURRAY	WITCH-ALDER,DWARF	FACW	FACW	NS
FRAGARIA VIRGINIANA	DUCHESNE	STRAWBERRY,VIRGINIA	FACU	UPL,FAC	PNF
FRAXINUS AMERICANA	L.	ASH,WHITE	FACU	FACU	NT
FRAXINUS CAROLINIANA	MILL.	ASH,CAROLINA	OBL	OBL	NETS
FRAXINUS NIGRA	MARSHALL	ASH,BLACK	FACW	FACW,FACW+	NT
FRAXINUS PENNSYLVANICA	MARSHALL	ASH,GREEN	FACW	FAC,FACW	NI
FRAXINUS PROFUNDA	(BUSH) BUSH	ASH,PUMPKIN	OBL	OBL	NT
FUIRENA BREVISETA	COVILLE	UMBRELLA-SEDGE,SALTMARSH	OBL	OBL	PNGL
FUIRENA PUMILA	TORR.	UMBRELLA-SEDGE,DWARF	OBL	OBL	ANGL
FUIRENA SIMPLEX	VAHL	UMBRELLA-SEDGE,WESTERN	NI	OBL	PNGL
FUIRENA SQUARROSA	MICHX.	UMBRELLA-SEDGE,HAIRY	OBL	OBL	PNGL
GALACTIA MACREEI	M.A. CURT.	MILKPEA,DOWNY	FAC+	FACU,FAC+	PNV
GALIUM APARINE	L.	BEDSTRAW,CATCHWEED	FACU	FACU,FAC-	ANF
GALIUM ASPRELLUM	MICHX.	BEDSTRAW,ROUGH	OBL	FACW+,OBL	PNF
GALIUM BOREALE	L.	BEDSTRAW,NORTHERN	FACU	FACU,FAC	PNF
GALIUM BREVIPES	FERNALD & WIEGAND	BEDSTRAW,LIMESTONE SWAMP	OBL	OBL	PNF
GALIUM LABRADORICUM	(WIEGAND) WIEGAND	BEDSTRAW,NORTHERN BOG	OBL	OBL	PNF
GALIUM OBTUSUM	BIGEL.	BEDSTRAW,BLUNT-LEAF	FACW+	FACW-,OBL	PNF
GALIUM PALUSTRE	L.	BEDSTRAW,MARSH	OBL	OBL	PNF
GALIUM PARISIENSE	L.	BEDSTRAW,WALL	FACU	UPL,FACU	AIF
GALIUM TINCTORIUM	L.	BEDSTRAW,STIFF MARSH	OBL	FACW,OBL	PNF
GALIUM TRIFIDUM	L.	BEDSTRAW,SMALL	FACW+	FACW,OBL	PNF
GALIUM TRIFLORUM	MICHX.	BEDSTRAW,SWEET-SCENT	FACU	FACU,FACU+	PNF
GASTRIDIUM VENTRICOSUM	(GOUAN) SCHINZ & THELL.	NITGRASS	FACU	FACU	AIG
GAULTHERIA HISPIDULA	(L.) MUHL. EX TORR.	SNOWBERRY,CREEPING	FACW	FACW	NS
GAULTHERIA PROCUMBENS	L.	TEABERRY	FACU	FACU	NS
GAURA BIENNIS	L.	BUTTERFLY-WEED,BIENNIAL	FACU	FACU-,FACU	BNF
GAURA PARVIFLORA	DOUGL. EX LEHM.	BUTTERFLY-WEED,VELVET-LEAF	NI	FACU?	ANF
GAYLUSSACIA BACCATA	(WANGENH.) K. KOCH	HUCKLEBERRY,BLACK	FACU	FACU	NS
GAYLUSSACIA DUMOSA	(ANDR.) TORR. & GRAY	HUCKLEBERRY,DWARF	FAC	FAC	NS
GAYLUSSACIA FRONDOSA	(L.) TORR. & GRAY	DANGLE-BERRY	FAC	FAC	NS
GELSEMIUM SEMPERVIRENS	(L.) W.T. AIT.	JESSAMINE,YELLOW	FAC	FAC	NWVS
GENTIANA ALBA	MUHL. EX NUTT.	GENTIAN,YELLOW	FACU	FACU,FAC	PF
GENTIANA ANDREWSII	GRISEB.	GENTIAN,FRINGE-TOP BOTTLE	FACW	FAC,FACW+	PNF
GENTIANA AUTUMNALIS	L.	GENTIAN,PINEBARREN	FACW	FACW,FACW+	PNF
GENTIANA CALESBAEI	WALTER	GENTIAN,ELLIOTT'S	OBL	OBL	PNF
GENTIANA CLAUSA	RAF.	GENTIAN,CLOSED	FACW	FAC,FACW+	PNF
GENTIANA LINEARIS	FROEL.	GENTIAN,NARROW-LEAF	OBL	OBL	PNF

FILIPENDULA RUBRA

GENTIANA LINEARIS

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SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
GENTIANA PROSTRATA	HAENKE	GENTIAN,PYGMY	NI	FACW,OBL	ABNF
GENTIANA RUBRICAULIS	SCHWEINITZ	GENTIAN,CLOSED	OBL	OBL	PNF
GENTIANA SAPONARIA	L.	GENTIAN,SOAPWORT	FACW	FACW-,FACW	PNF
GENTIANELLA AMARELLA	(L.) BOERNER	GENTIAN,NORTHERN	FAC	FAC,OBL	ABNF
GENTIANELLA QUINQUEFOLIA	(L.) SMALL	GENTIAN,STIFF	FAC	FAC,FACW-	ANF
GENTIANOPSIS CRINITA	(FROEL.) MA	GENTIAN,FRINGED	OBL	FACW+,OBL	ABF
GENTIANOPSIS PROCERA	(TH. HOLM) MA	GENTIAN,LESSER FRINGED	NI	OBL	ANF
GENTIANOPSIS VIRGATA	(RAF.) J. HOLUB	GENTIAN,LESSER FRINGED	FACW+	FACW+,OBL	ANF
GEOCAULON LIVIDUM	(RICHARDS.) FERNALD	TOADFLAX,NORTHERN RED-FRUIT	FAC	FACU,FACW-	N
GERANIUM MACULATUM	L.	CRANE'S-BILL,PURPLE	FACU	FACU	PNF
GEUM ALEPPICUM	JACQ.	AVENS,YELLOW	FAC	FACU,FACW+	PNF
GEUM CANADENSE	JACQ.	AVENS,WHITE	FACU	FACU,FAC	PNF
GEUM LACINIATUM	MURRAY	AVENS,ROUGH	FAC+	FAC+,FACW	PNF
GEUM MACROPHYLLUM	WILLD.	AVENS,LARGE-LEAF	FACW	FACW,OBL	PNF
GEUM PECKII	PURSH	AVENS,MOUNTAIN	OBL	OBL	PNF
GEUM RIVALE	L.	AVENS,PURPLE	OBL	FAC,OBL	PNF
GEUM VERNUM	(RAF.) TORR. & GRAY	AVENS,SPRING	FACU	FACU-,FAC	PIF
GEUM VIRGINIANUM	L.	AVENS,PALE	FAC-	FACU-,FACW-	PNF
GLAUX MARITIMA	L.	SEA-MILKWORT	OBL	FACW+,OBL	PISF
GLECOMA HEDERACEA	L.	IVY,GROUND	FACU	UPL,FACU+	PIF
GLEDITSIA AQUATICA	MARSHALL	WATER-LOCUST	OBL	OBL	NETS
GLEDITSIA TRIACANTHOS	L.	HONEY-LOCUST	FAC-	FACU,FAC	NTS
GLYCERIA ACUTIFLORA	TORR.	GRASS,CREEPING MANNA	OBL	OBL	PNG
GLYCERIA BOREALIS	(NASH) BATCH.	GRASS,SMALL FLOATING MANNA	OBL	OBL	PNEG
GLYCERIA CANADENSIS	(MICHX.) TRIN.	GRASS,CANADA MANNA	OBL	OBL	PNG
GLYCERIA FLUITANS	(L.) R. BR.	GRASS,WATER MANNA	OBL	OBL	PIG
GLYCERIA MAXIMA	(HARTM.) O.R. HOLMBERG	MEADOWGRASS,REED	OBL	OBL	PIG
GLYCERIA HELICARIA	(MICHX.) F.T. HUBB.	GRASS,RELIC MANNA	OBL	OBL	PNG
GLYCERIA OBTUSA	(MUHL.) TRIN.	GRASS,ATLANTIC MANNA	OBL	OBL	PNG
GLYCERIA SEPTENTRIONALIS	A. HITCHC.	GRASS,EASTERN MANNA	OBL	OBL	PNEG
GLYCERIA STRIATA	(LAM.) A. HITCHC.	GRASS,FOWL MANNA	OBL	OBL	PNEG
GNAPHALIUM CHILENSE	SPRENG.	CUDWEED,COTTON-BATTING	FAC	FAC-,FAC+	ABIF
GOODYERA OBLONGIFOLIA	RAF.	RATTLESNAKE-PLANTAIN,GIANT	FACU-	UPL,FACU	PNF
GOODYERA PUBESCENS	(WILLD.) R. BR.	RATTLESNAKE-PLANTAIN,DOWNY	FACU-	UPL,FAC	PNF
GOODYERA REPENS	(L.) R. BR. IN W.T. AIT.	RATTLESNAKE-PLANTAIN,DWARF	FACU+	UPL,FACW	PNF
GOODYERA TESSELATA	LODDIG.	RATTLESNAKE-PLANTAIN,CHECKERED	FACU-	FACU-,FACU	PNF
GRATIOLA AUREA	PURSH	HEDGEHYSSOP,GOLDEN	OBL	OBL	PNF
GRATIOLA NEGLECTA	TORR.	HEDGEHYSSOP,CLAMMY	OBL	OBL	ANEF
GRATIOLA PILOSA	MICHX.	HEDGEHYSSOP,SHAGGY	FACU	FACU,FACW+	PNF
GRATIOLA RAMOSA	WALTER	HEDGEHYSSOP,BRANCHING	FACW	FACW	PNF
GRATIOLA VIRGINIANA	L.	HEDGEHYSSOP,ROUND-FRUIT	OBL	OBL	ABNEF
GRATIOLA VISCIDULA	PENNELL	HEDGEHYSSOP,SHAGGY	OBL	OBL	PNF
GRINDELIA SQUARROSA	(PURSH) DUNAL	GUMWEED,CURLY-CUP	FACU	UPL,FACU	ABPNF
GYMNOPOGON BREVIFOLIUS	TRIN.	GRASS,SLIM SKELETON	FACU	FACU	PNG
HACKELIA FLORIBUNDA	(LEHM.) I. JOHNST.	STICKSEED,DAVIS MOUNTAIN	FACU*	FACU-,FAC	BPNF
HACKELIA VIRGINIANA	(L.) I. JOHNST.	STICKSEED,VIRGINIA	FACU	FACU,FAC+	BPNF
HALENIA DEFLEXA	(J.F. SMITH) GRISEB.	SPURRED-GENTIAN,AMERICAN	FAC	FAC	ANF
HALESIA CAROLINA	L.	SILVER-BELL,CAROLINA	FACU	FACU,FAC	NST
HAMAMELIS VIRGINIANA	L.	WITCH-HAZEL,AMERICAN	FAC-	FACU,FAC-	NST
HASTEOLA SUAVEOLENS	(L.) POJARK.	INDIAN-PLANTAIN,SWEET-SCENT	FAC-	FAC-,OBL	PNF
HEDYSARUM ALPINUM	L.	SWEETVETCH,ALPINE	FAC-	FACU,FAC-	PNF
HELENIUM AMARUM	(RAF.) H. ROCK	SNEEZEWEED,FIVE-LEAF	FACU-	FACU-,FACU	ANF

GENTIANA PROSTRATA

HELENIUM AMARUM

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SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
HELENIUM AUTUMNALE	L.	SNEEZEWEED,COMMON	FACW+	FACW-,OBL	PNF
HELENIUM BREVIFOLIUM	(NUTT.) A. WOOD	SNEEZEWEED,SHORT-LEAF	OBL	OBL	PNF
HELENIUM FLEXUOSUM	RAF.	SNEEZEWEED,PURPLE-HEAD	FAC-	FAC-,FACW	PNF
HELIANTHUS ANGUSTIFOLIUS	L.	SUNFLOWER,SWAMP	FACW	FAC,FACW	ANF
HELIANTHUS ANNUUS	L.	SUNFLOWER,COMMON	FAC-	FACU,FAC	ANF
HELIANTHUS DECAPETALUS	L.	SUNFLOWER,THIN-LEAF	FACU	UPL,FACU	PNF
HELIANTHUS GIGANTEUS	L.	SUNFLOWER,TALL	FACW	FACW	PNF
HELIANTHUS GROSSESERRATUS	M. MARTENS	SUNFLOWER,SAW-TOOTH	FACW	FAC,FACW	PNF
HELIANTHUS MICROCEPHALUS	TORR. & GRAY	SUNFLOWER,SMALL-HEAD	NI	FACU-	PNF
HELIANTHUS TUBEROSUS	L.	JERUSALEM-ARTICHOKE	FAC	FACU,FAC	PNF
HELIOTROPIUM CURASSAVICUM	L.	HELIOTROPE,SEASIDE	OBL	FACW,OBL	APISF
HELIOTROPIUM INDICUM	L.	HELIOTROPE,INDIAN	FAC+	FAC+,FACW	AIF
HELONIAS BULLATA	L.	SWAMP-PINK	OBL	OBL	PNEF
HEMARTHRIA ALTISSIMA	STAPF & HUBB.	JOINTGRASS,AFRICAN	NI	FACW	PIG
HEMIANTHUS MICRANTHEMOIDES	NUTT.	MUDFLOWER,DELAWARE RIVER	OBL	OBL	ANF
HEMICARPHA MICRANTHA	(VAHL) PAX	DWARF-BULLRUSH	FACW+	FACW,OBL	ANGL
HEMIZONIA PUNGENS	(HOOK. & ARN.) TORR. & GRAY	TARWEED,COMMON	NI	UPL,FACW+	ANF
HERACLEUM LANATUM	MICHX.	COW-PARSNIP	FACU-	FACU-,OBL	PNF
HETERANTHERA LIMOSA	(SWARTZ) WILLD.	MUD-PLANTAIN,BLUE	OBL	OBL	ANEF
HETERANTHERA RENIFORMIS	RUIZ & PAVON	MUD-PLANTAIN,KIDNEY-LEAF	OBL	OBL	PNE/F
HEUCHERA AMERICANA	L.	ALUM-ROOT,AMERICAN	FACU-	FACU-,FACU	PNF
HIBISCUS LAEVIS	ALL.	ROSEMALLOW,HALBERD-LEAF	OBL	OBL	PNF
HIBISCUS MOSCHEUTOS	L.	ROSEMALLOW,SWAMP	OBL	OBL	PNEF
HIERACIUM TRAILII	GREENE	HAWKWEED,MARYLAND	FACU	UPL,FACU	PNF
HIEROCHLOE ODORATA	(L.) BEAUV.	GRASS,HOLY	FACW	FACU,FACW+	PNG
HIPPURIS VULGARIS	L.	MARE'S-TAIL,COMMON	OBL	OBL	PNZF
HOLCUS LANATUS	L.	GRASS,COMMON VELVET	FACU	FACU-,FACW	PNG
HOTTONIA PEPLOIDES	(L.) EHRH.	SANDWORT,SEABEACH	FACU	FACU,OBL	PNF
HORDEUM BRACHYANTHERUM	NEVSKII	BARLEY,MEADOW	FAC+	FAC,FACW	PNG
HORDEUM GENICULATUM	ALL.	BARLEY	NI	NI	AIG
HORDEUM HYSTRIX	ROTH	BARLEY,MEDITERRANEAN	NI	FACU,FAC	AIG
HORDEUM JUBATUM	L.	BARLEY,FOX-TAIL	FAC	FAC,FACW	PNG
HORDEUM LEPORINUM	LINK	BARLEY	NI	FACU?	AIG
HORDEUM PUSILLUM	NUTT.	BARLEY,LITTLE	FAC	FACU,FAC	ANG
HOTTONIA INFLATA	ELLIOTT	FEATHERFOIL,AMERICAN	OBL	OBL	ANZ/F
HOUSTONIA CAERULEA	L.	INNOCENCE	FACU	FACU,FAC	PNF
HOUSTONIA MINIMA	L.C. BECK	STAR-VIOLET	NI	UPL,FAC-	ANF
HOUSTONIA SERPYLLIFOLIA	MICHX.	BLUET,MICHAUX'S	FAC	FAC,FACW	PNF
HUMULUS JAPONICUS	SIEBOLD & ZUCCAR.	HOP,JAPANESE	FACU	FACU,FAC-	APIVF
HUMULUS LUPULUS	L.	HOP,COMMON	NI	FACU	PNVF
HYBANTHUS CONCOLOR	(T.F. FORST.) SPRENG.	VIOLET,GREEN	FACU-	FACU-,FACU+	PNF
HYDRANGEA ARBORESCENS	L.	HYDRANGEA,WILD	FACU	UPL,FACU	NS
HYDRANGEA PANICULATA	SIEBOLD	HYDRANGEA,PANICLE	FAC*	FAC	IS
HYDROCHARIS MORSUS-RANAE	L.	FROGBIT,COMMON	OBL	OBL	PZF
HYDROCOTYLE AMERICANA	L.	PENNY-WORT,AMERICAN MARSH	OBL	OBL	PIEF
HYDROCOTYLE RANUNCULOIDES	L.F.	PENNY-WORT,FLOATING	OBL	OBL	PN/F
HYDROCOTYLE UMBELLATA	L.	PENNY-WORT,MANY-FLOWER	OBL	OBL	PN/F
HYDROCOTYLE VERTICILLATA	THUNB.	PENNY-WORT,WHORLED	OBL	OBL	PNF
HYDROLEA OVATA	NUTT. EX CHOISY	FALSE-FIDDLE-LEAF,OVATE	NI	OBL	PNF
HYDROLEA QUADRIVALVIS	WALTER	WATER-POD	OBL	OBL	PNF
HYDROLEA UNIFLORA	RAF.	FALSE-FIDDLE-LEAF,ONE-FLOWER	NI	OBL	PNF
HYDROPHYLLUM CANADENSE	L.	WATER-LEAF,BLUNT-LEAF	FACU	FACU,FACW	PNF

HELENIUM AUTUMNALE

HYDROPHYLLUM CANADENSE

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
HYDROPHYLLUM VIRGINIANUM	L.	WATER-LEAF,VIRGINIA	FAC	FAC,FACW	PNF
HYMENOCALLIS CAROLINIANA	(L.) HERB.	SPIDER-LILY,CAROLINA	NI	FACW	PNF
HYMENOCALLIS OCCIDENTALIS	(LECONTE) KUNTH	SPIDER-LILY,NORTHERN	OBL	OBL	PNF
HYPERICUM ADPRESSUM	W. BARTON	ST. JOHN'S-WORT,CREEPING	OBL	OBL	PNF
HYPERICUM APOCYNIFOLIUM	SMALL	ST. JOHN'S-WORT	NI	FACW,OBL	NES
HYPERICUM BOREALE	(BRITTON) BICKN.	ST. JOHN'S-WORT,NORTHERN	OBL	OBL	PNF
HYPERICUM CANADENSE	L.	ST. JOHN'S-WORT,CANADIAN	FACW	FACW	ANF
HYPERICUM CISTIFOLIUM	LAM.	ST. JOHN'S-WORT,ROUND-POD	FACW	FACW-,FACW	ANF
HYPERICUM DENSIFLORUM	PURSH	ST. JOHN'S-WORT,BUSHY	FAC+	FAC+,FACW-	NS
HYPERICUM DENTICULATUM	WALTER	ST. JOHN'S-WORT,COPPERY	FACW-	FACW-,FACW	PNF
HYPERICUM DISSIMULATUM	BICKN.	ST. JOHN'S-WORT,DISGUISED	FACW	FACW	PNF
HYPERICUM ELLIPTICUM	HOOK.	ST. JOHN'S-WORT,PALE	OBL	FACW,OBL	PNF
HYPERICUM GYMNANTHUM	ENGELM. & GRAY	ST. JOHN'S-WORT,CLASPING-LEAF	OBL	FACW,OBL	PNF
HYPERICUM KALMIANUM	L.	ST. JOHN'S-WORT,KALM'S	FAC	FAC,FACW-	NS
HYPERICUM MAJUS	(GRAY) BRITTON	ST. JOHN'S-WORT,LARGE CANADIAN	FACW	FAC,FACW	ANF
HYPERICUM MITCHELLIANUM	RYDB.	ST. JOHN'S-WORT,BLUE RIDGE	FACU	FACU,FACW	PNF
HYPERICUM MUTILUM	L.	ST. JOHN'S-WORT,SLENDER	FACW	FACW,FACW+	PNF
HYPERICUM NUDIFLORUM	MICHX.	ST. JOHN'S-WORT,PRETTY	OBL	FACW,OBL	NS
HYPERICUM PROLIFICUM	L.	ST. JOHN'S-WORT,SHRUBBY	FACU	FACU	NS
HYPERICUM PUNCTATUM	LAM.	ST. JOHN'S-WORT,DOTTED	FAC-	FACU,FAC+	PNF
HYPERICUM PYRAMIDATUM	AIT.	ST. JOHN'S-WORT,GREAT	FAC	FAC,FAC+	PNF
HYPERICUM SETOSUM	L.	ST. JOHN'S-WORT,HAIRY	OBL	FACW,OBL	PNF
HYPERICUM SPHAEROCARPUM	MICHX.	ST. JOHN'S-WORT,ROUND-FRUIT	FACU	FACU,FAC	NHS
HYPOXIS HIRSUTA	(L.) COVILLE	STARGRASS,EASTERN YELLOW	FAC	FAC,FACW	PNF
HYPOXIS LEPTOCARPA	(ENGELM. & GRAY) ENGELM. & GRAY EX SMALL	GOLDSTAR,CLUBPOD	FACW	FACW	PNEF
HYPOXIS MICRANTHA	POLLARD	STARGRASS,PINELAND YELLOW	FAC	FAC,FACW	PNF
HYPOXIS SESSILIS	L.	STARGRASS,GLOSS-SEED	FACU-	FACU-,FAC-	PNF
HYPTIS MUTABILIS	(A. RICH.) BRIQ.	BUSHMINT,TROPICAL	FAC	FAC	PIF
ILEX AMELANCHIER	M.A. CURT.	HOLLY,SARVIS	OBL	OBL	NS
ILEX CORIACEA	(PURSH) CHAPM.	HOLLY,BAY-GALL	FACW	FACW	NS
ILEX DECIDUA	WALTER	HOLLY,DECIDUOUS	FACW	FACW-,FACW	NT
ILEX GLABRA	(L.) GRAY	INK-BERRY	FACW-	FACW-,FACW	NS
ILEX LAEVIGATA	(PURSH) A. GRAY	HOLLY,SMOOTH	OBL	FACW+,OBL	NS
ILEX LONGIPES	CHAPM. EX TRELEASE	HOLLY,GEORGIA	NI	FAC,FACW	NS
ILEX OPACA	SOLAND. IN AIT.	HOLLY,AMERICAN	FACU+	FACU,FAC-	NTS
ILEX VERTICILLATA	(L.) GRAY	WINTERBERRY,COMMON	FACW+	FACW,OBL	NST
ILEX VOMITORIA	SOLAND. IN AIT.	YAUPON	FAC-	FAC-,FAC	NST
IMPATIENS CAPENSIS	MEERB.	TOUCH-ME-NOT,SPOTTED	FACW	FACW,FACW+	ANF
IMPATIENS PALLIDA	NUTT.	TOUCH-ME-NOT,PALE	FACW	FACW	ANF
IODANTHUS PINNATIFIDUS	(MICHX.) STEUD.	PURPLE-ROCKET	FACW	FACW-,OBL	PNF
IPOMOEA COCCINEA	L.	MORNING-GLORY,RED	FACU	FACU,FAC	AIV
IPOMOEA HEDERACEA	JACQ.	MORNING-GLORY,IVY-LEAF	FACU	FACU,FAC	AIV
IPOMOEA HEDERIFOLIA	L.	MORNING-GLORY,IVY-LEAF	NI	FACU,FACW	AIV
IPOMOEA LACUNOSA	L.	MORNING-GLORY,SMALL-FLOWER WHITE	FACW	FAC+,FACW	ANVF
IPOMOEA LITTORALIS	BLUME	MORNING-GLORY,HAWAII	NI	FACU?	PNV
IPOMOEA PANDURATA	(L.) G.F.W. MEYER	VINE,WILD SWEET-POTATO	FACU	FACU,FAC-	PNF
IRESINE RHIZOMATOSA	STANDL.	BLOODLEAF,ROOTSTOCK	FACW-	FACW-,FACW	PNF
IRIS BREVICAULIS	RAF.	IRIS,LAMANCE	OBL	OBL	PNF
IRIS FULVA	KER-GAWL.	IRIS,COPPER	OBL	OBL	PNF
IRIS HOOKERI	G. PENNY EX D. DON	IRIS,BEACH-HEAD	FACU-	FACU-	PNF
IRIS LACUSTRIS	NUTT.	IRIS,DWARF LAKE	NI	FAC	PNF
IRIS PRISMATICA	PURSH	IRIS,SLENDER BLUE	OBL	OBL	PIF

HYDROPHYLLUM VIRGINIANUM

IRIS PRISMATICA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
IRIS PSEUDACORUS	L.	IRIS,YELLOW	OBL	OBL	PIEF
IRIS SETOSA	PALLAS	IRIS,BEACH-HEAD	NI	FAC	PNF
IRIS SHREVEI	SMALL	BLUEFLAG,SOUTHERN	OBL	OBL	PNEF
IRIS VERSICOLOR	L.	BLUEFLAG	OBL	OBL	PNF
IRIS VIRGINICA	L.	BLUEFLAG,VIRGINIA	OBL	OBL	PNF
ISOETES BUTLERI	ENGELM.	QUILLWORT,BUTLER'S	FACW+	FACW+,OBL	PNQ
ISOETES ECHINOSPORA	DURIEU	QUILLWORT,SPINY-SPORE	OBL	OBL	PZQ
ISOETES ENGELMANNII	A. BRAUN	QUILLWORT,APPALACHIAN	OBL	OBL	PNZQ
ISOETES MACROSPORA	DURIEU	QUILLWORT,LAKE	OBL	OBL	PNZQ
ISOETES MELANOPODA	J. GAY	QUILLWORT,BLACKFOOT	OBL	OBL	PNEQ
ISOETES RIPARIA	ENGELM. EX A. BRAUN	QUILLWORT,SHORE	OBL	OBL	PNEQ
ISOETES TUCKERMANII	A. BRAUN EX ENGELM.	QUILLWORT,TUCKERMAN'S	OBL	OBL	Q
ISOETES VIRGINICA	N.E. PFEIFFER	QUILLWORT,VIRGINIA	OBL	OBL	Q
ISOETES X EATONII	R. DODGE	QUILLWORT,EATON'S	OBL	OBL	Q
ISOETES X FOVEOLATA	A.A. EAT.	QUILLWORT,PITTED	OBL	OBL	NQ
ISOTRIA MEDEOLOIDES	(PURSH) RAF.	POGONIA,SMALL WHORLED	FACU	FACU	PNF
ISOTRIA VERTICILLATA	(MUHL. EX WILLD.) RAF.	POGONIA,LARGE WHORLED	FACU	FACU,FAC	PNF
ITEA VIRGINICA	L.	WILLOW,VIRGINIA	OBL	FACW+,OBL	NS
IVA ANNUA	L.	SUMPWEED,ANNUAL	FAC	FAC	AIF
IVA FRUTESCENS	L.	SUMPWEED,BIG-LEAF	FACW+	FACW,FACW+	PNHSF
IVA IMBRICATA	WALTER	SUMPWEED,SEACOAST	FACU	FACU,FACW	PNHSF
IVA XANTHIFOLIA	NUTT.	SUMPWEED,COARSE	FAC	FACU,FAC+	ANF
JACQUEMONTIA TAMNIFOLIA	(L.) GRISEB.	CLUSTER-VINE,HAIRY	FACU-	FACU-	AIFV
JUGLANS CINEREA	L.	BUTTERNUT	FACU+	FACU-,FACU+	NT
JUGLANS NIGRA	L.	WALNUT,BLACK	FACU	FACU	NT
JUNCUS ABORTIVUS	CHAPM.	RUSH,PINEBARREN	OBL	OBL	PNGL
JUNCUS ACUMINATUS	MICHX.	RUSH,TAPER-TIP	OBL	OBL	PNEGL
JUNCUS ALPINUS	VILLARS	RUSH,RICHARDSON'S	OBL	OBL	PNGL
JUNCUS ARCTICUS	WILLD.	RUSH,ARCTIC	OBL	FACW,OBL	PNGL
JUNCUS ARTICULATUS	L.	RUSH,JOINTED	OBL	OBL	PNGL
JUNCUS BALTICUS	WILLD.	RUSH,BALTIC	FACW+	FACW,OBL	PNGL
JUNCUS BIFLORUS	ELLIOTT	RUSH,TURNFLOWER	FACW	FACW	PNGL
JUNCUS BRACHYCARPUS	ENGELM.	RUSH,WHITE-ROOT	FACW	FACW	PNGL
JUNCUS BRACHYCEPHALUS	(ENGELM.) BUCHENAU	RUSH,SMALL-HEAD	OBL	OBL	PNGL
JUNCUS BREVICAUDATUS	(ENGELM.) FERNALD	RUSH,NARROW-PANICLE	OBL	OBL	PNGL
JUNCUS BUFONIUS	L.	RUSH,TOAD	FACW	FACW,OBL	ANGL
JUNCUS CAESARIENSIS	COVILLE	RUSH,NEW JERSEY	OBL	OBL	PNGL
JUNCUS CANADENSIS	J. GAY	RUSH,CANADA	OBL	OBL	PNGL
JUNCUS CORIACEUS	MACKENZ.	RUSH,LEATHERY	FACW+	FACW,OBL	PNGL
JUNCUS DEBILIS	GRAY	RUSH,WEAK	OBL	FACW,OBL	APNGL
JUNCUS DICHOTOMUS	ELLIOTT	RUSH,FORKED	FACW	FACW	PNGL
JUNCUS DIFFUSISSIMUS	BUCKLEY	RUSH,SLIM-POD	FACW	FACW,FACW+	PNGL
JUNCUS EFFUSUS	L.	RUSH,SOFT	FACW+	FACW+,OBL	PNEGL
JUNCUS ELLIOTTII	CHAPM.	RUSH,BOG	FACW+	FACW+,OBL	PNGL
JUNCUS FILIFORMIS	L.	RUSH,THREAD	FACW	FACW,OBL	PNGL
JUNCUS FILIPENDULUS	BUCKLEY	RUSH,PLAIN'S	NI	FAC,FAC+	PNEGL
JUNCUS GERARDII	LOISELEUR	RUSH,SALTMEADOW	FACW+	FAC,OBL	PNGL
JUNCUS GREENEI	OAKES & TUCKERMAN	RUSH,GREENE'S	FAC	FAC	PNGL
JUNCUS GRISCOMII	FERNALD	RUSH,GRISCOM'S	OBL	OBL	PNGL
JUNCUS GYMNOCARPUS	COVILLE	RUSH,FEW-FLOWER	OBL	OBL	PNGL
JUNCUS INFLEXUS	L.	RUSH,EUROPEAN MEADOW	FACW	FACW	PIGL
JUNCUS INTERIOR	WIEGAND	RUSH,INLAND	FACU	FACU,FACW	PNGL

IRIS PSEUDACORUS

JUNCUS INTERIOR

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RI IND	NAT-IND	HABIT
JUNCUS LONGII	FERNALD	RUSH,LONG'S	OBL	OBL	PNGL
JUNCUS LONGISTYLIS	TORR.	RUSH,LONG-STYLE	NI	FACW,FACW+	PNGL
JUNCUS MARGINATUS	ROSTK.	RUSH,GRASS-LEAF	FACW	FACW,FACW+	PNGL
JUNCUS MEGACEPHALUS	M.A. CURT.	RUSH,BIG-HEAD	OBL	OBL	PNGL
JUNCUS MILITARIS	BIGEL.	RUSH,BAYONET	OBL	OBL	PNGL
JUNCUS MODATUS	COVILLE	RUSH,STOUT	NI	OBL	PNGL
JUNCUS NODOSUS	L.	RUSH,KNOTTED	OBL	OBL	PNGL
JUNCUS PELOCARPUS	E. MEYER	RUSH,BROWN-FRUIT	OBL	OBL	PNGL
JUNCUS PERVETUS	FERNALD	RUSH,CAPE COD	OBL	OBL	PNGL
JUNCUS PLATYPHYLLUS	(WIEGAND) FERNALD	RUSH,FLAT-LEAF	FAC	FACU,FACW-	PNGL
JUNCUS POLYCEPHALUS	MICHX.	RUSH,MANY-HEAD	OBL	OBL	PNGL
JUNCUS REPENS	MICHX.	RUSH,CREEPING	OBL	OBL	PNGL
JUNCUS ROEMERANUS	SCHEELE	RUSH,NEEDLEGRASS	OBL	OBL	PNGL
JUNCUS SCIRPOIDES	LAM.	RUSH,NEEDLE-POD	FACW	FACW,FACW+	PNGL
JUNCUS SECUNDUS	BEAUV.	RUSH,SECUND	FACU	FACU,FAC	PNGL
JUNCUS STYGIUS	L.	RUSH,MOOR	OBL	OBL	PNGL
JUNCUS SUBCAUDATUS	(ENGELM.) COVILLE & BLAKE	RUSH,WOODS	OBL	FAC,OBL	PNGL
JUNCUS SUBTILIS	E. MEYER	RUSH,CREEPING	OBL	OBL	PNGL
JUNCUS TENUIS	WILLD.	RUSH,SLENDER	FAC-	FAC-,FACW	PNGL
JUNCUS TORREYI	COVILLE	RUSH,TORREY'S	FACW	FACW,FACW+	PNGL
JUNCUS VALIDUS	COVILLE	RUSH,ROUND-HEAD	FACW	FAC,FACW+	PNGL
JUNCUS VASEYI	ENGELM.	RUSH,VASEY'S	FACW	FACW,OBL	PNGL
JUNCUS X OROWENSIS	FERNALD	RUSH,MAINE	FACW	FACW	PNGL
JUNIPERUS HORIZONTALIS	MOENCH	JUNIPER,CREEPING	FACU	UPL,FAC-	NS
JUNIPERUS VIRGINIANA	L.	CEDAR,EASTERN RED	FACU	FACU-,FACU	NT
JUSTICIA AMERICANA	(L.) VAHL	WATER-WILLOW,COMMON	OBL	OBL	PNF
JUSTICIA MORTUIFLUMINIS	FERNALD	WATER-WILLOW,DEAD	OBL	OBL	PNF
JUSTICIA OVATA	(WALTER) LINDAU	WATER-WILLOW,LOOSE-FLOWER	OBL	OBL	PNF
KALMIA ANGUSTIFOLIA	L.	SHEEP-LAUREL	FAC	FAC	NS
KALMIA CAROLINA	SMALL	KALMIA,CAROLINA	FAC	FAC,FACW	NS
KALMIA LATIFOLIA	L.	LAUREL,MOUNTAIN	FACU	FACU-,FACU	NST
KALMIA POLIFOLIA	WANGENH.	LAUREL,PALE	OBL	FACW,OBL	NS
KICKXIA ELATINE	(L.) DUMORT.	FLUELLIN,SHARP-POINT	FAC	UPL,FAC	AIF
KOBRESIA SIBIRICA	TURCZ.	KOBRESIA,SIBERIAN	NI	FAC+,FACW	PNGL
KOSTELETZKYA ALTHAEIFOLIA	(CHAPM.) GRAY	MALLOW,ALTHEA SEASHORE	OBL	OBL	PNF
KOSTELETZKYA VIRGINICA	(L.) K. PRESL EX GRAY	MALLOW,VIRGINIA SEASHORE	OBL	OBL	PNEF
KRIGIA BIFLORA	(WALTER) BLAKE	DWARF-DANDELION,TWO-FLOWER	FACU	UPL,FACU	PNF
KRIGIA CESPITOSA	(RAF.) K. CHAMB.	DWARF-DANDELION,COMMON	FAC	FACU,FAC	ANF
KRIGIA DANDELION	(L.) NUTT.	DWARF-DANDELION,POTATO	FAC	FACU,FAC	PNF
LACHNANTHES CAROLINIANA	(LAM.) DANDY	REDROOT,CAROLINA	OBL	OBL	PNF
LACHNOCAULON ANCEPS	(WALTER) MOHONG	BOGBUTTON,WHITE-HEAD	OBL	OBL	PNZEF
LACTUCA BIENNIS	(MOENCH) FERNALD	LETTUCE,BIENNIAL	FACU	FACU,FAC+	ABNF
LACTUCA CANADENSIS	L.	LETTUCE,TALL YELLOW	FACU-	FACU-,FAC+	ABNF
LACTUCA FLORIDANA	(L.) GAERTN.	LETTUCE,WOODLAND	FACU-	FACU-,FAC+	ABNF
LACTUCA LUDOVICIANA	(NUTT.) RIDDELL	LETTUCE,BIENNIAL	NI	UPL,FAC	BPNF
LACTUCA PULCHELLA	(PURSH) DC.	LETTUCE,CHICORY	FAC	FACU,FAC	PNF
LACTUCA SERRIOLA	L.	LETTUCE,PRICKLY	FAC-	FACU,FAC	ABIF
LAPORTEA CANADENSIS	(L.) WEDD.	WOOD-NETTLE,CANADA	FACW	FAC,FACW	PNF
LARIX DECIDUA	MILL.	LARCH,EUROPEAN	NI	NI	IT
LARIX LARICINA	(DU ROI) K. KOCH	LARCH,AMERICAN	FACW	FACW	NT
LATHYRUS JAPONICUS	WILLD.	PEAVINE,BEACH	FACU-	FACU-,FAC	PNF
LATHYRUS PALUSTRIS	L.	PEAVINE,VETCHLING	FACW+	FAC,OBL	PNF

JUNCUS LONGII

LATHYRUS PALUSTRIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
LATHYRUS PRATENSIS	L.	PEAVINE,MEADOW	FACU	UPL,FACU	PIF
LATHYRUS PUSILLUS	ELLIOTT	PEAVINE,LOW	FAC	FAC,FACW-	ANFV
LATHYRUS VENOSUS	MUHL. EX WILLD.	PEAVINE,SMOOTH VEINY	FACW	FAC,FACW	PNF
LEAVENWORTHIA AUREA	TORR.	GLADECRESS,GOLDEN	NI	FACW+	ANF
LEAVENWORTHIA TORULOSA	GRAY	GLADECRESS,NECKLACE	OBL	FACU,OBL	ANF
LEAVENWORTHIA UNIFLORA	(MICHX.) BRITTON	GLADECRESS,MICHAUX'S	FAC	FACU-,FAC	ANF
LEDUM GROENLANDICUM	OEDER	LABRADOR-TEA,GREENLAND	OBL	FACW,OBL	NS
LEERSIA HEXANDRA	SWARTZ	CUTGRASS,CLUB-HEAD	OBL	OBL	PNG
LEERSIA LENTICULARIS	MICHX.	CUTGRASS,CATCHFLY	OBL	OBL	PNG
LEERSIA ORYZOIDES	(L.) SWARTZ	CUTGRASS,RICE	OBL	OBL	PNG
LEERSIA VIRGINICA	WILLD.	WHITEGRASS	FACW	FACW	PNG
LETOPHYLLUM BUXIFOLIUM	(BERG) ELLIOTT	SAND-MYRTLE	FACU-	FACU-	NS
LEMNA MININA	HUMB. EX PHILIPPI NOMEN SUPERFL. NONCHEV.	DUCKWEED,LEAST	OBL	OBL	PN/F
LEMNA MINOR	L.	DUCKWEED,LESSER	OBL	OBL	PN/F
LEMNA PERPUSILLA	TORR.	DUCKWEED,MINUTE	OBL	OBL	PN/F
LEMNA TRINERVIS	(AUST.) SMALL	DUCKWEED	NI	OBL	PN/F
LEMNA TRISULCA	L.	DUCKWEED,STAR	OBL	OBL	PN/F
LEMNA VALDIVIANA	PHILIPPI	DUCKWEED,PALE	OBL	OBL	PN/F
LEONTODON LEYSSERI	(WALLR.) G. BECK	HAWKBIT,HAIRY	FACU	UPL,FACU	PIF
LEPIDIUM DENSIFLORUM	SCHRAD.	PEPPER-GRASS,DENSE-FLOWER	FAC	FACU,FAC	ABNF
LEPIDIUM LATIFOLIUM	L.	PEPPER-GRASS,BROAD-LEAF	FACU	FACU,FACW	AIF
LEPIDIUM VIRGINICUM	L.	PEPPER-GRASS,POOR-MAN'S	FACU-	UPL,FAC-	ABNF
LEPTOCHLOA FASCICULARIS	(LAM.) GRAY.	SPRANGLE-TOP,BEARDED	FACW	FACW,OBL	ANG
LEPTOCHLOA FILIFORMIS	(LAM.) BEAUV.	SPRANGLE-TOP,RED'	FACW	FAC,OBL	ANG
LEPTOCHLOA PANICOIDES	(J. PRESL) A. HITCHC.	SPRANGLE-TOP,AMAZON	NI	FACW,OBL	AIG
LEPTOCHLOA UNINERVIA	(J. PRESL) A. HITCHC. & CHASE	SPRANGLE-TOP,MEXICAN	FACW-	FACW-,FACW	ANG
LESPEDEZA ANGUSTIFOLIA	(PURSH) ELLIOTT	BUSHCLOVER,NARROW-LEAF	FAC	FACU,FAC	PNF
LESPEDEZA CAPITATA	MICHX.	BUSHCLOVER,ROUND-HEAD	FACU-	UPL,FACU	PNF
LESPEDEZA CUNEATA	(DUM. COURS.) G. DON	BUSHCLOVER,CHINESE	NI	NI	PIFH
LESPEDEZA STIPULACEA	MAXIM.	LESPEDEZA,KOREAN	FACU	UPL,FACU	AIF
LESPEDEZA STRIATA	(THUNB.) HOOK. & ARN.	CLOVER,JAPANESE	FACU	UPL,FAC-	AIF
LEUCOSPORA MULTIFIDA	(MICHX.) NUTT.	PALESEED,NARROW-LEAF	OBL	FACW+,OBL	ANF
LEUCOTHOE AXILLARIS	(LAM.) D. DON	DOG-HOBBLE,COASTAL	FACW+	FACW,FACW+	NS
LEUCOTHOE RACEMOSA	(L.) GRAY	FETTER-BUSH	FACW	FACW	NS
LEUCOTHOE RECURVA	(BUCKLEY) GRAY	DOG-HOBBLE,RED-TWIG	FACU	FACU	NS
LIATRIS PYCNOSTACHYA	MICHX.	GAYFEATHER,CATTAIL	FACU	FACU,FAC+	PNF
LIATRIS SPICATA	(L.) WILLD.	GAYFEATHER,SPIKED	FAC+	FACU,FAC+	PNF
LIGUSTICUM CANADENSE	(L.) BRITTON	LOVAGE,NONDO	FAC	FAC	PNF
LIGUSTICUM SCOTHICUM	L.	LOVAGE,SCOTCH	FAC	FAC	PNF
LIGUSTRUM SINENSE	LOUREIRO	PRIVET,CHINESE	FACU	UPL,FAC	IS
LIGUSTRUM VULGARE	L.	PRIVET,EUROPEAN	FACU	FACU,FAC-	IS
LILAEOPSIS ATTENUATA	(HOOK. & ARN.) FERNALD	LILAEOPSIS,CAROLINA	OBL	FACW,OBL	PNEF
LILAEOPSIS CHINENSIS	(L.) KUNTZE	LILAEOPSIS,EASTERN	OBL	OBL	PNEF
LILIUM CANADENSE	L.	LILY,CANADA	FAC+	FAC,FACW	PNF
LILIUM CATESBAEI	WALTER	LILY,SOUTHERN RED	FACW	FAC+,FACW	PNF
LILIUM GRAYI	S. WATS.	LILY,GRAY'S	FACU	FACU	PNF
LILIUM MICHAUXII	POIR.	LILY,CAROLINA	FAC	FAC-,FAC	PNF
LILIUM PHILADELPHICUM	L.	LILY,WOOD	FACU+	FACU-,FACW+	PNF
LILIUM SUPERBUM	L.	LILY,TURK'S-CAP	FACW+	FACW,FACW+	PF
LIMNOBIUM SPONGIA	(BOSC.) L.C. RICH. EX STEUD.	FROGBIT,AMERICAN	OBL	OBL	PN/F
LIMONIUM CAROLINIANUM	(WALTER) BRITTON	SEA-LAVENDER,CAROLINA	OBL	OBL	PNF
LIMONIUM NASHII	SMALL	SEA-LAVENDER,NORTHERN	OBL	OBL	PNF

LATHYRUS PRATENSIS

LIMONIUM NASHII

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
LIMOSELLA AQUATICA	L.	MUDWORT,NORTHERN	OBL	OBL	APNEF
LIMOSELLA SUBULATA	E. IVES	MUDWORT,SOUTHERN	OBL	OBL	ANF
LINDERA BENZOIN	(L.) BLUME	SPICEBUSH,NORTHERN	FACW-	FACW-,FACW	NST
LINDERNIA ANAGALLIDEA	(MICHX.) PENNELL	FALSE-PIMPERNEL	OBL	FACW+,OBL	ANF
LINDERNIA DUBIA	(L.) PENNELL	FALSE-PIMPERNEL,YELLOW-SEED	OBL	OBL	ANF
LINDERNIA GRANDIFLORA	NUTT.	FALSE-PIMPERNEL,SAVANNAH	NI	OBL	ANF
LINDERNIA PROCUMBENS	(KROCK.) PHILCOX	FALSE-PIMPERNEL,EUROPEAN	FACW	FACW	PNF
LINNAEA BOREALIS	L.	TWINFLOWER	FAC	UPL,FAC	PNWF
LINUM FLORIDANUM	(PLANCH.) TRELEASE	FLAX,FLORIDA YELLOW	FAC	FAC	PNF
LINUM MEDIUM	(PLANCH.) BRITTON	FLAX,STIFF YELLOW	FACU	UPL,FAC	PNF
LINUM STRIATUM	WALTER	FLAX,RIDGED YELLOW	FACW	FACW-,FACW+	PNF
LINUM VIRGINIANUM	L.	FLAX,VIRGINIA	FACU	FACU,FACW	PNF
LIPARIS LILIFOLIA	(L.) L.C. RICH. EX KER-GAWL.	THAYBLADE,LARGE	FACU-	FACU-,FACU	PNF
LIPARIS LOESELII	(L.) L.C. RICH.	ORCHID,FEN	FACW	FACW-,OBL	PNF
LIPOCARPHA MACULATA	(MICHX.) TORR.	LIPOCARPHA,AMERICAN	OBL	OBL	ANGL
LIQUIDAMBAR STYRACIFLUA	L.	GUM,SWEET	FAC	FAC,FACW	NT
LIRIODENDRON TULIPIFERA	L.	TREE,TULIP	FACU	FACU,FAC	NT
LISTERA AURICULATA	WIEGAND	THAYBLADE,AURICLED	FACW	FACW,FACW+	PNF
LISTERA AUSTRALIS	LINDL.	THAYBLADE,SOUTHERN	FACW	FACW	PNF
LISTERA CONVALLARIOIDES	(SWARTZ) NUTT. EX ELLIOTT	THAYBLADE,BROAD-LEAF	FACW	FACU,FACW	PNF
LISTERA CORDATA	(L.) R. BR.	THAYBLADE,HEART-LEAF	FACW+	FACU,FACW+	PNF
LISTERA SMALLII	WIEGAND	THAYBLADE,KIDNEY-LEAF	FACW	FACW-,FACW	PNF
LITSEA AESTIVALIS	(L.) FERNALD	PONDSPICE	OBL	OBL	NS
LITTORELLA UNIFLORA	(L.) ASCHERS.	SHOREWEED,EUROPEAN	OBL	OBL	PNF
LOBELIA AMOENA	MICHX.	LOBELIA,SOUTHERN	OBL	OBL	PNF
LOBELIA BOYKINII	TORR. & GRAY	LOBELIA,BOYKIN'S	OBL	OBL	PNF
LOBELIA CANBYI	GRAY	LOBELIA,CANBY'S	OBL	OBL	PNF
LOBELIA CARDINALIS	L.	FLOWER,CARDINAL	FACW+	FACW+,OBL	PNF
LOBELIA DORTMANNA	L.	LOBELIA,WATER	OBL	OBL	PNEF
LOBELIA ELONGATA	SMALL	LOBELIA,ELONGATED	OBL	OBL	PNF
LOBELIA GEORGIANA	MCVAUGH	LOBELIA,GEORGIA	FACW	FACW	PNF
LOBELIA GLANDULOSA	WALTER	LOBELIA,GLANDULAR	OBL	OBL	PNF
LOBELIA INFLATA	L.	INDIAN-TOBACCO	FACU	FACU-,FAC	ANF
LOBELIA KALMII	L.	LOBELIA,BROOK	OBL	OBL	PNF
LOBELIA NUTTALLII	J.A. SCHULTES	LOBELIA,NUTTALL'S	FACW	FACW	PNF
LOBELIA PUBERULA	MICHX.	LOBELIA,DOWNY	FACW-	FACW-,FACW	PNF
LOBELIA SIPHILITICA	L.	LOBELIA,GREAT BLUE	FACW+	FACW+,OBL	PNF
LOBELIA SPICATA	LAM.	LOBELIA,PALE-SPIKE	FAC-	FAC-,FAC	PNF
LOLIUM PERENNE	L.	RYEGRASS,PERENNIAL	FACU-	FACU-,FAC	PIG
LONATOGONIUM ROTATUM	(L.) FR. EX FERNALD	FELWORT,MARSH	OBL	OBL	ABNF
LONICERA CAERULEA	L.	HONEYSUCKLE,SWEET-BERRY	FACW+	FAC,FACW+	NS
LONICERA CANADENSIS	MARSHALL	FLY-HONEY-SUCKLE,AMERICAN	FACU	FACU	NS
LONICERA DIOICA	L.	HONEYSUCKLE,MOUNTAIN	FACU	FACU	NHV
LONICERA HIRSUTA	A. EAT.	HONEYSUCKLE,HAIRY	FAC	FAC	NHV
LONICERA JAPONICA	THUNB.	HONEYSUCKLE,JAPANESE	FAC-	FACU,FAC+	NSHV
LONICERA MORROWII	GRAY	HONEYSUCKLE,MORROW'S	NI	NI	IS
LONICERA OBLONGIFOLIA	(GOLDIE) HOOK.	FLY-HONEY-SUCKLE,SWAMP	OBL	OBL	NS
LONICERA SEMPERVIRENS	L.	HONEYSUCKLE,TRUMPET	FACU	FACU,FAC	PNSHV
LONICERA TATARICA	L.	HONEYSUCKLE,TARTARIAN	FACU*	FACU	IS
LONICERA X BELLA	ZABEL	HONEYSUCKLE	FACU-	FACU-	IS
LOPHIOLA AMERICANA	(PURSH) A. WOOD	GOLDEN-CREST	OBL	OBL	PNF
LOTUS CORNICULATUS	L.	TREFOIL,BIRDS-FOOT	FACU-	FACU-,FAC	PIF

LIMOSELLA AQUATICA

LOTUS CORNICULATUS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
LUDWIGIA ALATA	ELLIOTT	SEEDBOX,WINGED	OBL	OBL	PNEF
LUDWIGIA ALTERNIFOLIA	L.	SEEDBOX,BUSHY	FACW+	FACW+,OBL	PNEF
LUDWIGIA BREVIPES	(B. LONG EX BRITTON, A. BR. & SMALL) E. EAMES	SEEDBOX,LONG BEACH	OBL	OBL	PNEF
LUDWIGIA DECURRENS	WALTER	WILLOW,PRIMROSE	OBL	OBL	NEF
LUDWIGIA GLANDULOSA	WALTER	SEEDBOX,CYLINDRIC-FRUIT	OBL	OBL	PNEF
LUDWIGIA HIRTELLA	RAF.	SEEDBOX,HAIRY	OBL	FACW+,OBL	PNEF
LUDWIGIA LEPTOCARPA	(NUTT.) H. HARA	SEEDBOX,RIVER	OBL	OBL	PNEF
LUDWIGIA LINEARIS	WALTER	SEEDBOX,NARROW-LEAF	OBL	OBL	PNEF
LUDWIGIA PALUSTRIS	(L.) ELLIOTT	SEEDBOX,MARSH	OBL	OBL	PNEF
LUDWIGIA PEPLOIDES	(H.B.K.) RAVEN	SEEDBOX,FLOATING	OBL	OBL	PNEF
LUDWIGIA PILOSA	WALTER	SEEDBOX,HAIRY	OBL	OBL	PNE/F
LUDWIGIA POLYCARPA	SHORT & PETER	SEEDBOX,MANY-FRUIT	OBL	OBL	PNEF
LUDWIGIA SPHAEROCARPA	ELLIOTT	SEEDBOX,GLOBE-FRUIT	OBL	OBL	PNEF
LUDWIGIA URAGUAYENSIS	(CAMBESS.) H. HARA	SEEDBOX,URAGUAY	OBL	OBL	PNEF
LUDWIGIA VIRGATA	MICHX.	SEEDBOX,SAVANNA	OBL	OBL	PH/F
LUDWIGIA X LACUSTRIS	E. EAMES	SEEDBOX	OBL	OBL	PNEF
LUPINUS POLYPHYLLUS	LINDL.	LUPINE,LARGE-LEAVED	OBL	OBL	NF
LUZULA ACUMINATA	RAF.	WOODRUSH,HAIRY	NI	FACU-,FACW	PNF
LUZULA BULBOSA	(A. WOOD.) RYDB.	WOODRUSH,SOUTHERN	FAC	FAC-,FAC	PNGL
LUZULA CONFUSA	LINDEB.	WOODRUSH,NORTHERN	FACU	FACU,FACU+	PNGL
LUZULA ECHINATA	(SMALL) F.J. HERM.	WOODRUSH,HEDGEHOG	NI	FAC	PNGL
LUZULA MULTIFLORA	(EHRH. EX HOFFM.) LEJ.	WOODRUSH,COMMON	FACU	FACU,FAC	PNGL
LUZULA PARVIFLORA	(EHRH.) DESV.	WOODRUSH,SMALL-FLOWER	FACU	FACU-,FAC	PNGL
LYCHNIS FLOS-CUCULI	L.	RAGGED-ROBIN	FACU+	FACU,FAC	PIGL
LYCOPODIUM ALOPECUROIDES	L.	CLUBMOSS,FOX-TAIL	FACU	FACU	PIF
LYCOPODIUM ANNOTINUM	L.	CLUBMOSS,STIFF	FACW+	FACW+,OBL	PNC
LYCOPODIUM APPRESSUM	(CHAPM.) LLOYD & UNDERW.	CLUBMOSS,SOUTHERN BOG	FAC	FACU,FAC	PNC
LYCOPODIUM CAROLINIANUM	L.	CLUBMOSS,SLENDER	FACW+	FACW+,OBL	PNC
LYCOPODIUM CLAVATUM	L.	PINE,RUNNING	FACW+	FACW+,OBL	PNC
LYCOPODIUM COMPLANATUM	L.	CLUBMOSS,TRAILING	FAC	UPL,FAC	PNC
LYCOPODIUM DENDROIDEUM	MICHX.	CLUBMOSS,TREE-LIKE	FACU-	UPL,FAC	PNC
LYCOPODIUM INUNDATUM	L.	CLUBMOSS,NORTHERN BOG	FACU	FACU,FAC	C
LYCOPODIUM LUCIDULUM	MICHX.	CLUBMOSS,SHINING	OBL	OBL	ANC
LYCOPODIUM OBSCURUM	L.	CLUBMOSS,TREE	FACW-	FAC+,FACW	PNC
LYCOPODIUM POROPHILUM	LLOYD & UNDERW.	CLUBMOSS,ROCK	FACU	FACU-,FACU	PNC
LYCOPODIUM PROSTRATUM	R.M. HARPER	CLUBMOSS,FEATHER-STEM	FACU-	UPL,FACU-	PNC
LYCOPODIUM SELAGO	L.	CLUBMOSS,FIR	NI	OBL	C
LYCOPODIUM X CHAPMANII	UNDERW. EX MAXON	CLUBMOSS,INTERMEDIATE	FAC	UPL,FAC	PNC
LYCOPODIUM X COPELANDII	EIGER	CLUBMOSS	NI	OBL	PNC
LYCOPUS AMERICANUS	MUHL. EX W. BARTON	BUGLEWEED,AMERICAN	NI	NI	NC
LYCOPUS AMPLECTENS	RAF.	BUGLEWEED,SESSILE-LEAF	OBL	OBL	PNF
LYCOPUS ASPER	GREENE	BUGLEWEED,ROUGH	OBL	OBL	PNF
LYCOPUS EUROPAEUS	L.	BUGLEWEED,EUROPEAN	OBL	OBL	PNEF
LYCOPUS RUBELLUS	MOENCH	BUGLEWEED,TAPER-LEAF	OBL	OBL	PIF
LYCOPUS UNIFLORUS	MICHX.	BUGLEWEED,NORTHERN	OBL	OBL	PNEF
LYCOPUS VIRGINICUS	L.	BUGLEWEED,VIRGINIA	OBL	OBL	PNF
LYGODIUM PALMATUM	(BERNH.) SWARTZ	FERN,AMERICAN CLIMBING	OBL	OBL	PNF
LYONIA LIGUSTRINA	(L.) DC.	MALEBERRY	FACW	FACW-,FACW	PNF3
LYONIA LUCIDA	(LAM.) K. KOCH	FETTER-BUSH	FACW	FACW	NS
LYONIA MARIANA	(L.) D. DON	STAGGER-BUSH,PIEDMONT	FACW	FACW	NS
LYSIMACHIA CILIATA	L.	LOOSESTRIFE,FRINGED	FAC-	FACU-,FAC	NS
LYSIMACHIA FRASERI	DUBY	LOOSESTRIFE,FRASER'S	FACW	FACW-,FACW+	PNF
			NI	FAC	PNF

LUDWIGIA ALATA

LYSIMACHIA FRASERI

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SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
LYSIMACHIA HYBRIDA	MICHX.	LOOSESTRIFE,LOWLAND	OBL	OBL	PNF
LYSIMACHIA LANCEOLATA	WALTER	LOOSESTRIFE,LANCE-LEAF	FAC	FAC,FACW-	PNF
LYSIMACHIA NUMMULARIA	L.	JENNIE,CREEPING	OBL	FACW,OBL	PIF
LYSIMACHIA PUNCTATA	L.	LOOSESTRIFE,SPOTTED	OBL	OBL	PIF
LYSIMACHIA QUADRIFLORA	SIMS	LOOSESTRIFE,FOUR-FLOWER	FACW+	FACW,OBL	PNF
LYSIMACHIA QUADRIFOLIA	L.	LOOSESTRIFE,WHORLED	FACU-	UPL,FACU	PNF
LYSIMACHIA RADICANS	HOOK.	LOOSESTRIFE,TRAILING	OBL	FACW+,OBL	PNF
LYSIMACHIA TERRESTRIS	(L.) B.S.P.	LOOSESTRIFE,SWAMP	OBL	OBL	PNF
LYSIMACHIA THYRSIFLORA	L.	LOOSESTRIFE,TUFTED	OBL	OBL	PIF
LYSIMACHIA VULGARIS	L.	LOOSESTRIFE,GOLDEN	FAC+	FAC+,FACW-	PIF
LYSIMACHIA X PRODUCTA	(GRAY) FERNALD	LOOSESTRIFE	FAC*	FAC	PNF
LYTHRUM ALATUM	PURSH	LOOSESTRIFE,WINGED	FACW+	FACW+,OBL	PNH
LYTHRUM HYSSOPIFOLIA	L.	LOOSESTRIFE,HYSSOP	OBL	FACW,OBL	AIF
LYTHRUM LINEARE	L.	LOOSESTRIFE,SALTMARSH	OBL	OBL	PNF
LYTHRUM SALICARIA	L.	LOOSESTRIFE,PURPLE	FACW+	FACW+,OBL	PIF
MADIA GLOMERATA	HOOK.	TARWEED,MOUNTAIN	NI	UPL,FACU	ANF
MAGNOLIA FRASERI	WALTER	MAGNOLIA,FRASER'S	FACU	FACU,FAC	NT
MAGNOLIA GRANDIFLORA	L.	MAGNOLIA,LARGE-FLOWER	FACU	FACU,FAC+	NT
MAGNOLIA TRIPETALA	(L.) L.	MAGNOLIA,UMBRELLA	FACU	FACU,FAC	NT
MAGNOLIA VIRGINIANA	L.	MAGNOLIA,SWEETBAY	FACW+	FACW+,OBL	NT
MAIANTHEMUM CANADENSE	DESF.	WILD-LILY-OF-THE-VALLEY	FAC-	FACU,FAC	PNF
MALAXIS MONOPHYLLOS	SWARTZ	ADDER'S-MOUTH,WHITE	FACW	FACW	PNF
MALAXIS SPICATA	SWARTZ	ADDER'S-MOUTH,FLORIDA	FACW*	FACW,OBL	PNF
MALAXIS UNIFOLIA	MICHX.	ADDER'S-MOUTH,GREEN	FAC	FAC,FAC+	PNF
MARSHALLIA GRAMINIFOLIA	(WALTER) SMALL	BARBARA'S-BUTTONS,GRASS-LEAF	NI	OBL	PNF
MARSHALLIA GRANDIFLORA	BEADLE & F. BOYNT.	BARBARA'S-BUTTONS,LARGE-FLOWER	FAC	FAC	PNF
MARSHALLIA TRINERVIA	(WALTER) TRELEASE	MARSHALLIA,BROAD-LEAF	FACU-	FACU-	PNF
MARSILEA QUADRIFOLIA	L.	FERN,EUROPEAN WATER	OBL	OBL	PIEP3
MATELEA SUBEROSA	(L.) SHINNERS	MILKVINE,ANGULAR-FRUIT	FACW	FACW	PNV
MATRICARIA MATRICARIOIDES	(LESS.) T. PORTER	PINEAPPLE-WEED	FACU	UPL,FACU	ANF
MATTEUCCIA STRUTHIOPTERIS	(L.) TODARO	FERN,OSTRICH	FACW	FACW	PNF3
MAYACA AUBLETII	MICHX.	BOG-MOSS,AUBLET'S	OBL	OBL	PNZEF
MAZUS JAPONICUS	(THUNB.) KUNTZE	MAZUS,JAPANESE	FACU-	UPL,FACW	AIF
MECARDONIA ACUMINATA	(WALTER) SMALL	MECARDONIA,PURPLE	OBL	FACW,OBL	PNF
MEGALODONTA BECKII	(TORR.) GREENE	WATER-MARIGOLD,BECK'S	OBL	OBL	PNZF
MELAMPYRUM LINEARE	DESR.	COW-WHEAT,AMERICAN	FACU	FACU,FAC	AIF
MELANTHERA NIVEA	(L.) SMALL	SQUARESTEM,SNOW	NI	FACU	PNF
MELANTHIUM LATIFOLIUM	DESV.	BUNCHFLOWER,SLENDER	FACU	FACU-,FACU	PNF
MELANTHIUM VIRGINICUM	L.	BUNCHFLOWER,VIRGINIA	FACW+	FACW,OBL	PNF
MELILOTUS ALBA	MEDIC.	SWEETCLOVER,WHITE	FACU-	FACU-,FACU+	ABIF
MELILOTUS INDICA	(L.) ALL.	SWEETCLOVER,INDIAN	FACU	FACU-,FAC	AIF
MELILOTUS OFFICINALIS	LAM.	SWEETCLOVER,YELLOW	FACU-	FACU-,FACU+	ABIF
MELOCHIA CORCHORIFOLIA	L.	CHOCOLATE-WEED	NI	FAC,FACW-	IEH
MELOTHRIA PENDULA	L.	CUCUMBER,CREEPING	FAC	FAC-,FACW-	PNV
MENISPERMUM CANADENSE	L.	MOONSEED,CANADA	NI	FAC	NWV
MENTHA AQUATICA	L.	MINT,WATER	OBL	OBL	PIF
MENTHA ARVENSIS	L.	MINT,FIELD	FACW	FAC,FACW	PNF
MENTHA CARDIACA	BAKER	MINT,SMALL-LEAF	FACW	FAC,OBL	PIF
MENTHA CITRATA	EHRH.	MINT,BERGAMOT	FACW+	FACW,OBL	PIF
MENTHA LONGIFOLIA	L.	MINT,HORSE	FACU	FACU,FACW	PIF
MENTHA PULEGIUM	L.	PENNY-ROYAL	NI	OBL	PIF
MENTHA ROTUNDIFOLIA	(L.) HUDS.	MINT,APPLE	FACW	FAC,FACW	PIF

LYSIMACHIA HYBRIDA

MENTHA ROTUNDIFOLIA

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SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
MENTHA SPICATA	L.	SPEARMINT	FACW+	FACW,OBL	PIF
MENTHA X PIPERITA	L.	PEPPERMINT	FACW+	FACW,OBL	PIEF
MENYANTHES TRIFOLIATA	L.	BUCKBEAN	OBL	OBL	PNEF
MENZIESIA PILOSA	(MICHX. EX LAM.) JUSS. EX PERS.	MINNIEBUSH	FAC-	FACU,FAC-	NS
MERKEMIA DISSECTA	(JACQ.) H. HALLIER	VINE,NOYAU	NI	FACU,FAC	PNF
MERTENSIA MARITIMA	(L.) S.F. GRAY	OYSTERLEAF	FACW	FAC,FACW	PNF
MERTENSIA VIRGINICA	(L.) PERS.	BLUEBELLS,VIRGINIA	FACW	FAC+,FACW	PNF
MICHAUXIANUM UMBROSUM	(WALTER) BLAKE	MUDFLOWER,SHADE	OBL	OBL	PIF
MIKANIA SCANDENS	(L.) WILLD.	HEMPWEED,CLIMBING	FACW+	FACW+,OBL	PNV
MIMULUS ALATUS	AIT.	MONKEY-FLOWER,SHARP-WING	OBL	OBL	PNF
MIMULUS GUTTATUS	DC.	MONKEY-FLOWER,COMMON LARGE	OBL	OBL	ANF
MIMULUS MOSCHATUS	DOUGL. EX LINDL.	MUSKFLOWER	OBL	FACW+,OBL	PNF
MIMULUS RINGENS	L.	MONKEY-FLOWER,ALLEGHANY	OBL	OBL	PNF
MIRABILIS NYCTAGINEA	(MICHX.) MACMIL.	FOUR-O'CLOCK,HEART-LEAF	FACU-	UPL,FACU	PNF
MISCANTHUS SINENSIS	ANDERSS.	GRASS,CHINESE SILVER	FACU	UPL,FACU	PIG
MITCHELLA REPENS	L.	PARTRIDGE-BERRY	FACU	FACU,FAC	PNF
MITELLA DIPHYLLA	L.	BISHOP'S-CAP,TWO-LEAF	FACU	FACU-,FACU+	PNF
MITELLA NUDA	L.	BISHOP'S-CAP,NAKED	FACW-	FAC,OBL	PNF
MODIOLA CAROLINIANA	G. DON	BRISTLE-MALLOW,CAROLINA	FACU	FACU,FAC	BPM
MOEHRINGIA LATERIFLORA	(L.) FENZL	SANDWORT,GROVE	FAC	UPL,FAC	PNF
MOLLUGO VERTICILLATA	L.	CARPET-WEED,GREEN	FAC	FAC-,FAC	ANF
MONARDA DIDYMA	L.	BEEBALM,OSWEGO TEA	FAC+	UPL,FAC+	PNF
MONOLEPIS NUTTALLIANA	(J.A. SCHULTES) GREENE	POVERTY-WEED,NUTTALL'S	NI	UPL,FACW	ANF
MONOTROPA UNIFLORA	L.	INDIAN-PIPE	FACU-	UPL,FACU	PH-SF
MONTIA CHAMISSOI	(LEDEB. EX SPRENG.) GREENE	MINER'S-LETTUCE,CHAMISSO'S	NI	OBL	PNEF
MONTIA FONTANA	L.	MINER'S-LETTUCE,FOUNTAIN	OBL	OBL	ANEF
MONTIA LAMPROSPERMA	CHAM.	BLINKS	FACW+	FACW+,OBL	ANF
MORUS RUBRA	L.	MULBERRY,RED	FACU	FACU,FAC	NT
MOSLA DIANTHERA	(BUCHENAU) MAXIM		FACU*	FACU	AIF
MUHLENBERGIA ASPERIFOLIA	(NEES & MEYEN EX TRIN.) PARODI	MUHLY,ALKALI	FACW	FACW,FACW+	PNG
MUHLENBERGIA CAPILLARIS	(LAM.) TRIN.	MUHLY,LONG-AWN	FACU-	FACU-,FACU	PNG
MUHLENBERGIA EXPANSA	(DC.) TRIN.	MUHLY,CUT-OVER	FACW	FACW-,FACW	PNG
MUHLENBERGIA FRONDOSA	(POIR.) FERNALD	MUHLY,WIRE-STEM	FAC	FAC,FACW	PNG
MUHLENBERGIA GLOMERATA	(WILLD.) TRIN.	MUHLY,MARSH	FACW	FACW,FACW+	PNG
MUHLENBERGIA MEXICANA	(L.) TRIN.	MUHLY,MEXICAN	FACW	FAC,FACW	PNG
MUHLENBERGIA RACEMOSA	(MICHX.) B.S.P.	MUHLY,GREEN	FAC	FACU,FACW	PNG
MUHLENBERGIA RICHARDSONIS	(TRIN.) RYDB.	MUHLY,MAT	FAC	FACU,FACW	PNG
MUHLENBERGIA SCHREBERI	J.F. GMEL.	NIMBLE-WILL	FAC	FACU,FAC	PNG
MUHLENBERGIA SYLVATICA	TORR. EX GRAY	MUHLY,FOREST	FAC+	FAC+,FACW	PNG
MUHLENBERGIA TORREYANA	(J.A. SCHULTES) A. HITCHC.	MUHLY,NEW JERSEY	FACW+	FACW,FACW+	PNG
MUHLENBERGIA UNIFLORA	(MUHL.) FERNALD	MUHLY,BOG	OBL	OBL	PNG
MURDANNIA KEISAK	(HASSK.) HAND.-MAZZ.	DEWFLOWER,MARSH	OBL	OBL	I
MYOSOTIS LAXA	LEHM.	FORGET-ME-NOT,BAY	OBL	OBL	PNF
MYOSOTIS MACROSPERMA	ENGELM.	FORGET-ME-NOT,LARGE-SEED	FAC	FAC	ANF
MYOSOTIS SCORPIOIDES	L.	FORGET-ME-NOT,TRUE	OBL	FAC,OBL	PIF
MYOSOTIS VERNA	NUTT.	FORGET-ME-NOT,SPRING	FAC-	FAC-,FAC	AIF
MYOSOTON AQUATICUM	(L.) MOENCH	CHICKWEED,GIANT	FACW	FAC+,FACW+	PIF
MYOSURUS MINIMUS	L.	MOUSE-TAIL,TINY	FACW+	FACW-,OBL	ANF
MYRICA CERIFERA	L.	BAYBERRY,SOUTHERN	FAC	FAC,FAC+	NST
MYRICA GALE	L.	SWEETGALE	OBL	OBL	NS
MYRICA HETEROPHYLLA	RAF.	BAYBERRY,EVERGREEN	FAC	FAC,FACW	NS
MYRICA PENSYLVANICA	LOISELEUR	BAYBERRY,NORTHERN	FAC	FAC	NS

MENTHA SPICATA

MYRICA PENSYLVANICA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
MYRICA PUSILLA	RAF.	BAYBERRY,DWARF	FACU	FACU,FAC	NS
MYRIOPHYLLUM ALTERNIFLORUM	DC.	WATER-MILFOIL,ALTERNATE-FLOWER	OBL	OBL	PZF
MYRIOPHYLLUM BRASILIENSE	CAMBESS.	PARROT-FEATHER	OBL	OBL	PNZF
MYRIOPHYLLUM FARWELLII	MORONG	WATER-MILFOIL,FARWELL'S	OBL	OBL	PNZF
MYRIOPHYLLUM HETEROPHYLLUM	MICHX.	WATER-MILFOIL,TWO-LEAF	OBL	OBL	PNZF
MYRIOPHYLLUM HIPPUROIDES	NUTT.	WATER-MILFOIL,WESTERN	OBL	OBL	PNZF
MYRIOPHYLLUM HUMILE	(RAF.) MORONG	WATER-MILFOIL,LOW	OBL	OBL	PNEZF
MYRIOPHYLLUM PINNATUM	(WALTER) B.S.P.	WATER-MILFOIL,CUT-LEAF	OBL	OBL	PNZF
MYRIOPHYLLUM SPICATUM	L.	WATER-MILFOIL,EURASIAN	OBL	OBL	PNZF
MYRIOPHYLLUM TENELLUM	BIGEL.	WATER-MILFOIL,SLENDER	OBL	OBL	PNZF
MYRIOPHYLLUM VERTICILLATUM	L.	WATER-MILFOIL,WHORLED	OBL	OBL	ANZF
NAJAS FLEXILIS	(WILLD.) ROSTK. & W.L.E. SCHMIDT	NAIAD,SLENDER	OBL	OBL	ANZF
NAJAS GRACILLIMA	(A. BRAUN) MAGNUS	NAIAD,THREAD-LIKE	OBL	OBL	ANZF
NAJAS GUADALUPENSIS	(SPRENG.) MORONG	NAIAD,SOUTHERN	OBL	OBL	ANZF
NAJAS MARINA	L.	NAIAD,SPINY	OBL	OBL	AIZF
NAJAS MINOR	ALL.	NAIAD,BRITTLE	FACW	FACW-,FACW	PNF
NAPAEA DIOICA	L.	MALLOW,GLADE	FACW+	FACW+	PNF
NARTHECIUM AMERICANUM	KER-GAWL.	ASPHODEL,YELLOW	OBL	OBL	PIZEF
NASTURTIUM MICROPHYLLUM	(BOENN.) REICHENB.	WATER-CRESS,ONE-ROW	OBL	OBL	PIZEF
NASTURTIUM OFFICINALE	R. BR. IN W.T. AIT.	WATER-CRESS,TRUE	OBL	OBL	PNZ/F
NELUMBO LUTEA	(WILLD.) PERS.	LOTUS,AMERICAN	OBL	OBL	PIZF
NELUMBO NUCIFERA	GAERTN.	LOTUS,SACRED	OBL	OBL	NS
NEMOPANTHUS MUCRONATUS	(L.) TRELEASE	CATBERRY	FACW	FAC,FACW	ANF
NEMOPHILA APHYLLA	(L.) BRUMMITT	BABY-BLUE-EYES,SMALL-FLOWER	FACU	FACU-,FACW-	PIF
NEPETA CATARIA	L.	CATNIP	OBL	OBL	PNZF
NUPHAR LUTEUM	(L.) SIBTH. & J.E. SMITH	COW-LILY,YELLOW	OBL	OBL	PIZ/F
NYMPHAEA ALBA	L.	WATER-LILY,EUROPEAN WHITE	OBL	OBL	PNZ/F
NYMPHAEA ODORATA	SOLAND. IN AIT.	WATER-LILY,WHITE	OBL	OBL	PNZF
NYMPHAEA TETRAGONA	GEORGI	WATER-LILY,PYGMY	OBL	OBL	PNZF
NYMPHAEA TUBEROSA	PAINE	WATER-LILY,WHITE	OBL	OBL	PNZ/F
NYMPHOIDES AQUATICA	(WALTER EX J.F. GMEL.) KUNTZE	FLOATING-HEART,BIG	OBL	OBL	PNZ/F
NYMPHOIDES CORDATA	(ELLIOTT) FERNALD	FLOATING-HEART,LITTLE	OBL	OBL	PIZ/F
NYMPHOIDES PELTATA	(S.G. GMEL.) KUNTZE	FLOATING-HEART,YELLOW	OBL	OBL	NI
NYSSA AQUATICA	L.	WATER-TUPELO	FACW+	FACW+,OBL	NI
NYSSA SYLVATICA	MARSHALL	TUPELO,SWAMP	FAC	FAC	NI
NYSSA SYLVATICA	MARSHALL	GUM,BLACK	OBL	OBL	PIZF
OENANTHE AQUATICA	(L.) LAM.	DROPWORT,MARSH	FACU-	FACU-,FACU+	BIF
OENOTHERA BIENNIS	L.	EVENING-PRIMROSE,COMMON	NI	FACU-,FACW	BPNF
OENOTHERA ELATA	H.B.K.	EVENING-PRIMROSE,HOOKER'S	FAC	FACU,FAC	PNF
OENOTHERA FRUTICOSA	L.	SUNDROPS,NARROW-LEAF	FACU-	FACU-,FAC	ANF
OENOTHERA LACINIATA	J. HILL	EVENING-PRIMROSE,CUT-LEAF	FACU-	FACU-,FACU	BIF
OENOTHERA PARVIFLORA	L.	EVENING-PRIMROSE,NORTHERN	FAC-	FAC-,FAC	PNF
OENOTHERA PERENNIS	L.	EVENING-PRIMROSE,SMALL	FAC	FACU+,FAC	PNF
OENOTHERA PILOSELLA	RAF.	EVENING-PRIMROSE,MEADOW	FACU	FACU-,FACU	ABNF
OENOTHERA RHOMBIPETALA	NUTT. EX TORR. & GRAY	EVENING-PRIMROSE,FOUR-POINT	FAC	FACU,FACW	BPNF
OENOTHERA VILLOSA	THUNB.	EVENING-PRIMROSE,HAIRY	FACW	FACW-,OBL	PNF
OLDENLANDIA BOSCII	(DC.) CHAPM.	BLUET,BOSC'S	FACW	FACW-,FACW+	AIF
OLDENLANDIA UNIFLORA	L.	BLUET,CLUSTERED	FACW	FACW	PNEF3
ONOCLEA SENSIBILIS	L.	FERN,SENSITIVE	FACU	FACU-,FACW	PNF3
OPHIOGLOSSUM ENGELMANNII	PRANTL	ADDER'S-TONGUE,LIMESTONE	FACW	FAC,FACW	PNF3
OPHIOGLOSSUM VULGATUM	L.	ADDER'S-TONGUE,NORTHERN	FACU	FACU,FAC-	PIF
ORNITHOGALUM UMBELLATUM	L.	STAR-OF-BETHLEHEM,COMMON			

MYRICA PUSILLA

ORNITHOGALUM UMBELLATUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
OROBANCHE UNIFLORA	L.	BROOMRAPE,ONE-FLOWER	FACU	UPL,FACU	AN-F
ORONTIUM AQUATICUM	L.	CLUB,GOLDEN	OBL	OBL	PNZF
ORYZA SATIVA	L.	RICE,CULTIVATED	OBL	OBL	AIG
OSMANTHUS AMERICANUS	(L.) BENTH. & HOOK. EX GRAY	DEVIL-WOOD	FAC	FAC	NT
OSMORHIZA CLAYTONII	(MICHX.) C.B. CLARKE	SWEETCICELY,HAIRY	FACU-	FACU-,FAC-	PNF
OSMORHIZA LONGISTYLIS	(TORR.) DC.	SWEETCICELY,SMOOTHER	FACU	FACU-,FACW	PNF
OSMUNDA CINNAMOMEA	L.	FERN,CINNAMON	FACW	FACW,FACW+	PNEF3
OSMUNDA CLAYTONIANA	L.	FERN,INTERRUPTED	FAC	FAC,FAC+	PNF3
OSMUNDA REGALIS	L.	FERN,ROYAL	OBL	OBL	PNF3
OSMUNDA X RUGGII	TRYON	FERN	NI	NI	F3
OSTRYA VIRGINIANA	(MILL.) K. KOCH	HOP-HORNBEAM,EASTERN	FACU-	FACU-,FACU+	NT
OXALIS CORNICULATA	L.	WOODSORREL,CREEPING	FACU	UPL,FACU	PIF
OXALIS MONTANA	RAF.	WOODSORREL,WHITE	FAC-	UPL,FAC-	PNF
OXYDENDRUM ARBOREUM	(L.) DC.	SOURWOOD	NI	FACU?	NT
OXYPOLIS CANBYI	(COULT. & ROSE) FERNALD	COWBANE,CANBY'S	OBL	OBL	PNF
OXYPOLIS FILIFORMIS	(WALTER) BRITTON	COWBANE,WATER	OBL	FACW,OBL	PNF
OXYPOLIS RIGIDIOR	(L.) RAF.	COWBANE,STIFF	OBL	OBL	PNF
OXYPOLIS TERNATA	(NUTT.) A. HELLER	COWBANE,PIEDMONT	FACW	FACW,OBL	PNF
OXYRIA DIGYNA	(L.) J. HILL	MOUNTAIN-SORREL,ALPINE	FACW	UPL,FACW	PNF
PANICUM AMARUM	ELLIOTT	GRASS,BITTER PANIC	FACU-	FACU-,FAC	PNG
PANICUM ANCEPS	MICHX.	GRASS,BEAKED PANIC	FAC	FAC-,FACW	PNG
PANICUM CAPILLARE	L.	WITCHGRASS	FAC-	FACU,FAC	ANG
PANICUM DICHOTOMIFLORUM	MICHX.	GRASS,FALL PANIC	FACW-	FAC,FACW	ANG
PANICUM DIFFUSUM	SWARTZ	GRASS,SPREADING PANIC	NI	FAC	PNG
PANICUM FLEXILE	(GATT.) SCRIBN.	WITCHGRASS,WIRY	FACU	FACU,FACW+	ANG
PANICUM GATTINGERI	NASH	GRASS,GATTINGER PANIC	FAC	FAC	ANG
PANICUM HEMITOMON	J.A. SCHULTES	MAIDEN-CANE	FACW+	FACW+,OBL	PNEG
PANICUM HIRSTII	SWALLEN	GRASS,HIRST'S PANIC	OBL	OBL	G
PANICUM LONGIFOLIUM	TORR.	GRASS,PANIC	OBL	OBL	PNG
PANICUM RIGIDULUM	BOSC EX NEES	GRASS,RED-TOP PANIC	FACW+	FAC,FACW+	PNG
PANICUM TUCKERMANII	FERNALD	GRASS,TUCKERMAN PANIC	FAC-	FAC-,FACW	ANG
PANICUM VERRUCOSUM	MUHL.	GRASS,WARTY PANIC	FACW	FACW-,FACW	ANG
PANICUM VIRGATUM	L.	SWITCHGRASS	FAC	FAC,FACW	PNG
PARAPHOLIS INCURVA	(L.) HUBB.	GRASS,SICKLE	OBL	FAC,OBL	AIG
PARIETARIA FLORIDANA	NUTT.	PELLITORY,FLORIDA	NI	FAC-	ANF
PARIETARIA PENSYLVANICA	MUHL. EX WILLD.	PELLITORY,PENNSYLVANIA	FACU-	FACU-,FACW-	ANF
PARNASSIA ASARIFOLIA	VENTENAT	GRASS-OF-PARNASSUS,KIDNEY-LEAF	OBL	OBL	PNF
PARNASSIA GLAUCA	RAF.	GRASS-OF-PARNASSUS,WAXY	OBL	OBL	PNF
PARNASSIA GRANDIFOLIA	DC.	GRASS-OF-PARNASSUS,LARGE-FLOWER	OBL	OBL	PNF
PARNASSIA PALUSTRIS	L.	GRASS-OF-PARNASSUS,NORTHERN	NI	FACW,OBL	PNF
PARTHENOCISSUS QUINQUEFOLIA	(L.) PLANCH.	CREEPER,VIRGINIA	FACU	FACU,FAC	NHV
PARTHENOCISSUS VITACEA	(KNERR) A. HITCHC.	CREEPER,THICKET	FACU	FACU,FACW-	NHV
PASPALUM BIFIDUM	(BERTOL.) NASH	PASPALUM,PITCHFORK	FACW	FAC+,FACW	PNG
PASPALUM BOSCIANUM	FLUEGGE	PASPALUM,BULL	FACW	FACW-,FACW	ANG
PASPALUM DILATATUM	POIR.	DALLISGRASS	FAC+	FAC,FAC+	PIG
PASPALUM DISSECTUM	(L.) L.	PASPALUM,MUDBANK	OBL	OBL	PNG
PASPALUM DISTICHUM	L.	PASPALUM,JOINT	FACW+	FACW,OBL	PNEG
PASPALUM FLORIDANUM	MICHX.	PASPALUM,FLORIDA	FACW	FACW-,FACW	PNG
PASPALUM FLUITANS	(ELLIOTT) KUNTH	PASPALUM,WATER	OBL	OBL	AN/EG
PASPALUM LAEVE	MICHX.	PASPALUM,FIELD	FAC+	FAC,FACW-	PNG
PASPALUM NOTATUM	FLUEGGE	GRASS,BAHIA	FACU+	FACU+,FAC	PIG
PASPALUM ORBICULARE	G. FORST.	PASPALUM,INDIA	NI	NI	PIG

OROBANCHE UNIFLORA

PASPALUM ORBICULARE

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
PASPALUM PRAECOX	WALTER	PASPALUM,EARLY	FACW+	FACW,OBL	PNG
PASPALUM PUBIFLORUM	RUPR. EX FOURN.	PASPALUM,HAIRY-SEED	FAC	FAC,FACW	PNG
PASPALUM REPENS	BERGIUS	PASPALUM,WATER	OBL	OBL	G
PASPALUM SETACEUM	MICHX.	PASPALUM,THIN	FACU+	UPL,FAC	PNG
PASPALUM URVILLEI	STEUD.	GRASS,VASEY	FAC	FAC	PIG
PASPALUM VAGINATUM	SWARTZ	PASPALUM,SEASHORE	NI	FACW,OBL	PNG
PEDICULARIS CANADENSIS	L.	LOUSEWORT,EARLY WOOD	FACU	FACU,FAC+	PNF
PEDICULARIS FURBISHIAE	S. WATS.	LOUSEWORT,FURBISH	FACW+	FACW+	PNF
PEDICULARIS LANCEOLATA	MICHX.	LOUSEWORT,SWAMP	FACW	FACW,OBL	PNF
PELTANDRA LUTEOSPADIX	FERNALD	ARUM,GREEN ARROW	OBL	OBL	PNEF
PELTANDRA VIRGINICA	(L.) KUNTH	ARUM,ARROW	OBL	OBL	PNEF
PENSTEMON ALLUVIORUM	PENNELL	BEARDTONGUE,LOWLAND	FACW	FACW,FACW+	PNF
PENSTEMON DIGITALIS	NUTT.	BEARDTONGUE,FOXGLOVE	FAC	FAC-,FACW-	PNF
PENSTEMON LAEVIGATUS	SOLAND.	BEARDTONGUE,SMOOTH	FACU	FACU,FAC	PNF
PENSTEMON PALLIDUS	SMALL	BEARDTONGUE,PALE	FACU	UPL,FACU	PNF
PENTHORUM SEDOIDES	L.	DITCH-STONECROP	OBL	OBL	PNF
PERILLA FRUTESCENS	(L.) BRITTON	PLANT,BEEF-STEAK	FACU+	FACU+,FAC+	AIF
PERSEA BORBONIA	(L.) SPRENG.	BAY,RED	FACW	FACW	NI
PETASITES FRIGIDUS	(L.) FR.	COLTSFOOT,ARCTIC SWEET	FACW	FAC,FACW	PNF
PETASITES PALMATUS	(AIT.) GRAY	COLTSFOOT,SWEET	FACW	FAC,FACW+	PNF
PETUNIA PARVIFLORA	JUSS.	PETUNIA,SEASIDE	FACW	FAC,FACW	ANF
PHACELIA RANUNCULACEA	(NUTT.) CONSTANCE	SCORPION-WEED,BLUE	FACW	FACW	ANF
PHACELIA VISCIDA	(BENTH. EX LINDL.) TORR.	SCORPION-WEED,STICKY	NI	UPL	ANF
PHALARIS ARUNDINACEA	L.	GRASS,REED CANARY	FACW+	FACW,OBL	PNG
PHALARIS CANARIENSIS	L.	GRASS,COMMON CANARY	FACU	UPL,FACU+	AIG
PHALARIS CAROLINIANA	WALTER	GRASS,CAROLINA CANARY	FACW	FACW	ANG
PHLEUM ALPINUM	L.	TIMOTHY,ALPINE	FACW	FACU,FACW	PNG
PHLEUM PRATENSE	L.	TIMOTHY	FACU	FACU	PIG
PHLOX CAROLINA	L.	PHLOX,THICK-LEAF	FACU	FACU,FACW	PNF
PHLOX DIVARICATA	L.	PHLOX,WOODLAND	FACU	UPL,FACU	PNF
PHLOX GLABERRIMA	L.	PHLOX,SMOOTH	FAC	FAC,FACW	PNF
PHLOX MACULATA	L.	PHLOX,MEADOW	FACW	FAC,FACW+	PNF
PHLOX PANICULATA	L.	PHLOX,FALL	FACU	FACU	PNF
PHLOX PILOSA	L.	PHLOX,DOWNY	FACU	FACU,FAC	PNF
PHRAGMITES AUSTRALIS	(CAV.) TRIN. EX STEUD.	REED,COMMON	FACW	FACW,FACW+	PNEG
PHYLA LANCEOLATA	(MICHX.) GREENE	FROG-FRUIT,LANCE-LEAF	OBL	FACW,OBL	PNF
PHYLA NODIFLORA	(L.) GREENE	FROG-FRUIT,COMMON	FACW	FACW,OBL	PNF
PHYLLANTHUS CAROLINIENSIS	WALTER	LEAF-FLOWER,CAROLINA	FAC+	FAC,FAC+	ANF
PHYSALIS ANGULATA	L.	GROUND-CHERRY,CUT-LEAF	FAC	FACU,FAC	ANF
PHYSALIS PUBESCENS	L.	GROUND-CHERRY,LOW HAIRY	FACU-	UPL,FAC	ANF
PHYSOCARPUS OPULIFOLIUS	(L.) MAXIM.	NINEBARK,EASTERN	FACW-	UPL,FACW-	NS
PHYSOSTEGIA INTERMEDIA	(NUTT.) ENGELM. & GRAY	DRAGON-HEAD,SLENDER	FACW-	FACW-,OBL	PNF
PHYSOSTEGIA LEPTOPHYLLA	SMALL	DRAGON-HEAD,SLENDER-LEAF	OBL	OBL	PNF
PHYSOSTEGIA PURPUREA	(WALTER) BLAKE	DRAGON-HEAD,PURPLE	FACW	FACW	PNF
PHYSOSTEGIA VIRGINIANA	(L.) BENTH.	DRAGON-HEAD,FALSE	FAC+	FAC+,OBL	PNF
PHYTOLACCA AMERICANA	L.	POKEWEED,COMMON	FACU+	FACU+,FAC	PNF
PICEA GLAUCA	(MOENCH) VOSS	SPRUCE,WHITE	FACU	FACU	NT
PICEA MARIANA	(MILL.) B.S.P.	SPRUCE,BLACK	FACW-	FACW-,FACW	NT
PICEA RUBENS	SARG.	SPRUCE,RED	FACU	FACU	NT
PILEA FONTANA	(LUNELL) RYDB.	CLEARWEED,SPRINGS	FACW+	FACW,OBL	ANF
PILEA PUMILA	(L.) GRAY	CLEARWEED,CANADA	FACW	FAC,FACW	ANF
PINGUICULA VULGARIS	L.	BUTTERWORT,COMMON	OBL	OBL	PNF

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PASPALUM PRAECOX

PINGUICULA VULGARIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
PINUS BANKSIANA	LAMB.	PINE,JACK	FACU	FACU	NT
PINUS ELLIOTTII	ENGELM.	PINE,SLASH	NI	FACW	NT
PINUS PALUSTRIS	MILL.	PINE,LONG-LEAF	FAC	FACU+,FAC	NT
PINUS RESINOSA	SOLAND. IN AIT.	PINE,RED	FACU	FACU	NT
PINUS RIGIDA	MILL.	PINE,PITCH	FACU	FACU-,FACU	NT
PINUS SEROTINA	MICHX.	PINE,POND	OBL	FACW+,OBL	NT
PINUS STROBUS	L.	PINE,EASTERN WHITE	FACU	FACU	NT
PINUS TAEDA	L.	PINE,LOBLOLLY	FAC-	UPL,FAC	NT
PISTIA STRATIOTES	L.	WATER-LETTUCE	NI	OBL	PN/F
PLANERA AQUATICA	WALTER EX J.F. GMEL.	PLANER-TREE	OBL	OBL	NET
PLANTAGO CORDATA	LAM.	PLANTAIN,HEART-LEAF	OBL	OBL	PNF
PLANTAGO CORNOPUS	L.	PLANTAIN,CUT-LEAF	NI	UPL,FACW	AIF
PLANTAGO ERIOPODA	TORR.	PLANTAIN,SALINE	FAC	FACU,FACW	PNF
PLANTAGO HETEROPHYLLA	NUTT.	PLANTAIN,SLENDER	FAC+	FAC+,FACW	ANF
PLANTAGO MAJOR	L.	PLANTAIN,COMMON	FACU	FACU,FACW	PIF
PLANTAGO MARITIMA	L.	PLANTAIN,SEASIDE	FACW	UPL,FACW+	PF
PLANTAGO RHODOSPERMA	DECNE.	PLANTAIN,RED-SEED	NI	UPL,FAC+	ANF
PLANTAGO RUGELII	DECNE.	PLANTAIN,BLACK-SEED	FACU	FACU,FAC	PNF
PLATANTHERA BLEPHARIGLOTTIS	(WILLD.) LINDL.	ORCHID,WHITE FRINGE	OBL	OBL	PNF
PLATANTHERA CILIARIS	(L.) LINDL.	ORCHID,YELLOW-FRINGE	FACW	FACW	PNF
PLATANTHERA CRISTATA	(MICHX.) LINDL.	ORCHID,YELLOW-CREST	FACW+	FACW+,OBL	PNF
PLATANTHERA DILATATA	(PURSH) LINDL. EX BECK	ORCHID,LEAFY WHITE	FACW	FACW,FACW+	PNF
PLATANTHERA FLAVA	(L.) LINDL.	ORCHID,PALE GREEN	FACW	FACW	PNF
PLATANTHERA GRANDIFLORA	(BIGEL.) LINDL.	ORCHID,LARGE PURPLE-FRINGE	FACW	FACW	PNF
PLATANTHERA HOOKERI	(TORR.) LINDL.	ORCHID,HOOKER'S	FAC	FAC,FAC+	PNF
PLATANTHERA HYPERBOREA	(L.) LINDL.	ORCHID,NORTHERN GREEN	FACW	FACW,FACW+	PNF
PLATANTHERA INTEGRA	(NUTT.) GRAY EX L.C. BECK	ORCHID,YELLOW FRINGELESS	OBL	OBL	PNF
PLATANTHERA INTEGRILABIA	(CORRELL) LUER	ORCHID,WHITE FRINGELESS	OBL	OBL	PNF
PLATANTHERA LACERA	(MICHX.) G. DON	ORCHID,GREEN-FRINGE	FACW	FACW	PNF
PLATANTHERA LEUCOPHAEA	(NUTT.) LINDL.	ORCHID,PRAIRIE WHITE-FRINGE	FACW+	FACW,OBL	PNF
PLATANTHERA NIVEA	(NUTT.) LUER	ORCHID,SNOW	FACW	FACW	PNF
PLATANTHERA OBTUSATA	(BANKS EX PURSH) LINDL.	BOGORCHID,SMALL NORTHERN	FACW	FACW	PNF
PLATANTHERA ORBICULATA	(PURSH) LINDL.	ORCHID,LARGE ROUND-LEAF	FAC	FACU,FACW	PNF
PLATANTHERA PERAMOENA	GRAY	ORCHID,PURPLE FRINGELESS	FACW	FACW	PNF
PLATANTHERA PSYCHODES	(L.) LINDL.	ORCHID,SMALL PURPLE-FRINGE	FACW	FACW-	PNF
PLATANTHERA X ANDREWSII	(M. WHITE) LUER	REINORCHID,ANDREW'S	OBL	FAC,OBL	PNF
PLATANTHERA X CHAPMANII	(SMALL) LUER	BOGORCHID	NI	FACW	PNF
PLATANTHERA X CLAVELLATA	(MICHX.) LUER	ORCHID,SMALL GREEN WOODLAND	FACW+	FACW+,OBL	PNF
PLATANUS OCCIDENTALIS	L.	SYCAMORE,AMERICAN	FACW-	FAC,FACW	NT
PLUCHEA CAMPHORATA	(L.) DC.	CAMPHOR-WEED,SALT MARSH	FACW	FACW-,FACW	APIF
PLUCHEA FOETIDA	(L.) DC.	CAMPHOR-WEED,STINKING	OBL	FACW+,OBL	PNF
PLUCHEA PURPURASCENS	(SWARTZ) DC.	CAMPHOR-WEED,SALTMARSH	OBL	FACW+,OBL	AIEF
POA ALPIGENA	(FR. EX M.N. BLYTT) C. LINDMAN	BLUEGRASS,LOW	FACW-	FACU,FACW-	PNG
POA ALPINA	L.	BLUEGRASS,ALPINE	FACU	FACU,FAC	PNG
POA ALSODES	GRAY	BLUEGRASS,GROVE	FACW-	UPL,FACW-	PNG
POA ANGUSTIFOLIA	L.	BLUEGRASS,BROAD-LEAF KENTUCKY	FACU-	FACU-,FACU	PIG
POA ANNUA	L.	BLUEGRASS,ANNUAL	FACU	FACU,FACW-	AIG
POA AUTUMNALIS	MUHL. EX ELLIOTT	BLUEGRASS,AUTUMN	FAC	FAC-,FACW-	PNG
POA COMPRESSA	L.	BLUEGRASS,CANADA	FACU	FACU-,FAC	PIG
POA NEMORALIS	L.	BLUEGRASS,WOODS	FAC	FAC-,FACW	PNG
POA PALUDIGENA	FERNALD & WIEGAND	BLUEGRASS,BOG	FACW+	FACW+,OBL	PNG
POA PALUSTRIS	L.	BLUEGRASS,FOWL	FACW	FACU,FACW+	PNG

PINUS BANKSIANA

POA PALUSTRIS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
POA PRATENSIS	L.	BLUEGRASS,KENTUCKY	FACU	FACU,FAC-	PNG
POA SYLVESTRIS	GRAY	BLUEGRASS,WOODLAND	FACW	FACU,FACW	PNG
POA TRIVIALIS	L.	BLUEGRASS,ROUGH	FACW	FAC,FACW	PIG
PODOPHYLLUM PELTATUM	L.	MAY-APPLE	FACU	FACU-,FACU	PNF
PODOSTEMUM CERATOPHYLLUM	MICHX.	RIVERWEED,HORN-LEAF	OBL	OBL	PNZF
POGONIA OPHIOGLOSSOIDES	(L.) JUSS.	POGONIA,ROSE	OBL	OBL	PNEF
POLANISIA DODECANDRA	(L.) DC.	CLAMMY-WEED,ROUGH-SEED	FACU	UPL,FACU	ANF
POLEMONIUM ACUTIFLORUM	WILLD. EX ROEM. & J.A. SCHULTES	JACOB'S-LADDER,STICKY TALL	NI	FAC	PNF
POLEMONIUM REPTANS	L.	VALERIAN,GREEK	FACU	FACU,FAC	PNF
POLEMONIUM VAN-BRUNTIAE	BRITTON	JACOB'S-LADDER,BOG	FACW	FACW	PNF
POLYGALA BREVIFOLIA	NUTT.	MILKWORT,LITTLE-LEAF	OBL	OBL	ANF
POLYGALA CRUCIATA	L.	MILKWORT,CROSS-LEAF	FACW+	FACW+,OBL	ANF
POLYGALA CYNOSA	WALTER	MILKWORT,TALL PINEBARREN	OBL	OBL	BNF
POLYGALA LUTEA	L.	MILKWORT,ORANGE	FACW+	FACW+	BNF
POLYGALA MARIANA	MILL.	MILKWORT,MARYLAND	FACW	FACW	ANF
POLYGALA NUTTALLII	TORR. & GRAY	MILKWORT,NUTTALL'S	FAC	FAC	ANF
POLYGALA PAUCIFOLIA	WILLD.	GAY-WINGS	FACU	FACU	PNF
POLYGALA RAMOSA	ELLIOTT	MILKWORT,LOW PINEBARREN	FACW+	FACW+,OBL	ANF
POLYGALA SANGUINEA	L.	MILKWORT,RED	FACU	FACU,FACW	ANF
POLYGALA SENEGA	L.	SNAKEROOT,SENECA	FACU	FACU	PNF
POLYGONATUM BIFLORUM	(WALTER) ELLIOTT	SOLOMON'S-SEAL,SMALL	FACU	UPL,FAC-	PNF
POLYGONATUM COMMUTATUM	(J.A. & J.H. SCHULTES) A. DIETR.	SOLOMON'S-SEAL,GREAT	FACU	UPL,FAC	PNF
POLYGONUM ACHOREUM	BLAKE	KNOTWEED,LEATHERY	FACU	FACU,FAC	ANF
POLYGONUM AMPHIBIUM	L.	SMARTWEED,WATER	OBL	OBL	PNE/F
POLYGONUM ARGYROCOLEON	STEUD. EX KUNZE	KNOTWEED,SILVER-SHEATH	NI	FAC,OBL	AIF
POLYGONUM ARIFOLIUM	L.	TEARTHUMB,HALBERD-LEAF	OBL	OBL	ANEF
POLYGONUM AVICULARE	L.	KNOTWEED,PROSTRATE	FACU	UPL,FACW	APIF
POLYGONUM BISTORTA	L.	BISTORT,MEADOW	FACW	FAC,FACW	PIF
POLYGONUM CAREYI	OLNEY	SMARTWEED,CAREY'S	FACW	FACW,FACW+	ANF
POLYGONUM CESPITOSUM	BLUME	KNOTWEED,CESPITOSE	FACU-	UPL,FACW-	AIF
POLYGONUM CONVOLVULUS	L.	BINDWEED,BLACK	FACU	FACU-,FAC	AIVF
POLYGONUM CUSPIDATUM	SIEBOLD & ZUCCAR.	KNOTWEED,JAPANESE	FACU-	UPL,FACU	PIF
POLYGONUM DENSIFLORUM	MEISN.	SMARTWEED,DENSE-FLOWER	OBL	OBL	PNEF
POLYGONUM ERECTUM	L.	KNOTWEED,ERECT	FACU	FACU-,OBL	ANEF
POLYGONUM GLAUCUM	NUTT.	KNOTWEED,SEABEACH	FACU	FACU	ANF
POLYGONUM HYDROPIPER	L.	SMARTWEED,MARSHPEPPER	OBL	FACW,OBL	AIEF
POLYGONUM HYDROPIPEROIDES	MICHX.	SMARTWEED,SWAMP	OBL	OBL	PNEF
POLYGONUM LAPATHIFOLIUM	L.	WILLOW-WEED	FACW+	FAC,OBL	ANF
POLYGONUM MINIMUM	S. WATS.	KNOTWEED,BROAD-LEAF	NI	FACU+,FACW	ANF
POLYGONUM OPELOUSANUM	RIDDELL EX SMALL	PEPPER,LITTLE WATER	OBL	OBL	PNF
POLYGONUM ORIENTALE	L.	FEATHER,PRINCE'S	FACU-	UPL,FACW	AIF
POLYGONUM PATULUM	M. BIEB.	SMARTWEED,BELLARD'S	NI	UPL,FACW	ANEF
POLYGONUM PENSYLVANICUM	L.	SMARTWEED,PENNSYLVANIA	FACW	FACW-,OBL	ANEF
POLYGONUM PERFOLIATUM	L.	TEARTHUMB,ASIATIC	FAC*	FAC	AIF
POLYGONUM PERSICARIA	L.	THUMB,LADY'S	FACW	FAC,OBL	AIF
POLYGONUM POLYSTACHYUM	WALLICH EX MEISN.	KNOTWEED,CULTIVATED	NI	FAC	PIF
POLYGONUM PUNCTATUM	ELLIOTT	SMARTWEED,DOTTED	OBL	FACW,OBL	PNEF
POLYGONUM RAMOSISSIMUM	MICHX.	KNOTWEED,BUSHY	FAC	FACU-,FACW	ANF
POLYGONUM ROBUSTIUS	(SMALL) FERNALD	SMARTWEED,STOUT	OBL	OBL	PNF
POLYGONUM SAGITTATUM	L.	TEARTHUMB,ARROW-LEAF	OBL	OBL	APNF
POLYGONUM SCANDENS	L.	FALSE-BUCKWHEAT,CLIMBING	FAC	FACU,FACW	PNV
POLYGONUM SETACEUM	BALDW.	SMARTWEED,SWAMP	OBL	FACW,OBL	PNEF

POA PRATENSIS

POLYGONUM SETACEUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
POLYGONUM VIRGINIANUM	L.	KNOTWEED,VIRGINIA	FAC	FAC,FACW	APNF
POLYGONUM VIVIPARUM	L.	KNOTWEED,VIVIPAROUS	FAC	FAC,FACW	PNF
POLYPOGON MONSPELIENSIS	(L.) DESF.	GRASS,ANNUAL RABBIT-FOOT	FACW+	FACW,OBL	AIG
POLYSTICHUM ACROSTICHOIDES	(MICHX.) SCHOTT	FERN,CHRISTMAS	FACU-	UPL,FAC	PNF3
POLYSTICHUM LONCHITIS	(L.) ROTH	FERN,NORTHERN HOLLY	NI	UPL,FAC	PNF3
PONTEDERIA CORDATA	L.	WEED,PICKEREL	OBL	OBL	PNEF
POWHIEVA RACEMOSA	(WALTER) C. MOHR	SHADOW-WITCH	OBL	FACW,OBL	PNF
POPULUS BALSAMIFERA	L.	POPLAR,BALSAM	FACW	FACU,FACW	NI
POPULUS DELTOIDES	W. BARTRAM EX MARSHALL	COTTON-WOOD,EASTERN	FAC	FAC,FACW	NI
POPULUS GRANDIDENTATA	MICHX.	ASPEN,BIG-TOOTH	FACU-	FACU-,FACU	NI
POPULUS HETEROPHYLLA	L.	COTTON-WOOD,SWAMP	FACW+	FACW+,OBL	NI
POPULUS TREMULA	L.	ASPEN,QUAKING	FACU	FACU,FAC+	IT
PORTULACA OLERACEA	L.	PURSLANE,COMMON	FAC	FACU,FAC	ANSF
PORTULACA PILOSA	L.	PURSLANE,PINK	NI	FACU	AISF
POTAMOGETON ALPINUS	BALB.	PONDWEED,ALPINE	OBL	OBL	PN/F
POTAMOGETON AMPLIFOLIUS	TUCKERMAN	PONDWEED,LARGE-LEAF	OBL	OBL	PN/F
POTAMOGETON BICUPULATUS	FERNALD	PONDWEED,SNAIL-SEED	OBL	OBL	PN/F
POTAMOGETON CONFERVOIDES	REICHENB.	PONDWEED,TUCKERMAN'S	OBL	OBL	PNZF
POTAMOGETON CRISPUS	L.	PONDWEED,CURLY	OBL	OBL	PIZF
POTAMOGETON DIVERSIFOLIUS	RAF.	PONDWEED,WATER-THREAD	OBL	OBL	PN/F
POTAMOGETON EPIHYDRUS	RAF.	PONDWEED,RIBBON-LEAF	OBL	OBL	PN/F
POTAMOGETON FILIFORMIS	PERS.	PONDWEED,FINE-LEAF	OBL	OBL	PNZF
POTAMOGETON FOLIOSUS	RAF.	PONDWEED,LEAFY	OBL	OBL	PNZF
POTAMOGETON FRIESII	RUPR.	PONDWEED,FRIES'S	OBL	OBL	PNZF
POTAMOGETON GRAMINEUS	L.	PONDWEED,GRASSY	OBL	OBL	PNZF
POTAMOGETON HILLII	MORONG	PONDWEED,HILL'S	OBL	OBL	PNZF
POTAMOGETON ILLINOENSIS	MORONG	PONDWEED,ILLINOIS	OBL	OBL	PNZF
POTAMOGETON LATERALIS	MORONG	PONDWEED,OPPOSITE-LEAF	OBL	OBL	PN/F
POTAMOGETON NATANS	L.	PONDWEED,FLOATING-LEAF	OBL	OBL	PN/F
POTAMOGETON NODOSUS	POIR.	PONDWEED,LONG-LEAF	OBL	OBL	PN/F
POTAMOGETON OAKESIANUS	J.W. ROBBINS	PONDWEED,OAKE'S	OBL	OBL	PN/F
POTAMOGETON OBTUSIFOLIUS	F. MERTENS & W. KOCH	PONDWEED,BLUNT-LEAF	OBL	OBL	PN/F
POTAMOGETON PECTINATUS	L.	PONDWEED,SAGO	OBL	OBL	PNZF
POTAMOGETON PERFOLIATUS	L.	PONDWEED,CLASPING-LEAF	OBL	OBL	PNZF
POTAMOGETON PRAELONGUS	WULFEN	PONDWEED,WHITE-STEM	OBL	OBL	PNZF
POTAMOGETON PULCHER	TUCKERMAN	PONDWEED,SPOTTED	OBL	OBL	PNZF
POTAMOGETON PUSILLUS	L.	PONDWEED,SMALL	OBL	OBL	PN/F
POTAMOGETON RICHARDSONII	(AR. BENN.) RYDB.	PONDWEED,RICHARDSON	OBL	OBL	PNZF
POTAMOGETON ROBBINSII	OAKES	PONDWEED,ROBBIN'S	OBL	OBL	PNZF
POTAMOGETON SPIRILLUS	TUCKERMAN	PONDWEED,SPIRAL	OBL	OBL	PNZF
POTAMOGETON STRICTIFOLIUS	AR. BENN.	PONDWEED,NARROW-LEAF	OBL	OBL	PN/F
POTAMOGETON TENNESSEENSIS	FERNALD	PONDWEED,TENNESSEE	OBL	OBL	PNZF
POTAMOGETON VAGINATUS	TURCZ.	PONDWEED,SHEATHED	OBL	OBL	PN/F
POTAMOGETON VASEYI	J.W. ROBBINS	PONDWEED,VASEY'S	OBL	OBL	PNZF
POTAMOGETON X FAXONII	MORONG	PONDWEED,FAXON'S	OBL	OBL	PN/F
POTAMOGETON X HAGSTROEMII	AR. BENN.	PONDWEED	OBL	OBL	PNZF
POTAMOGETON X LONGILIGULATUS	FERNALD	PONDWEED,LONG-TONGUE	NI	OBL	PNZF
POTAMOGETON X MYSTICUS	MORONG	PONDWEED,MYSTIC POND	OBL	OBL	PNZF
POTAMOGETON X RECTIFOLIUS	AR. BENN.	PONDWEED	OBL	OBL	PNZF
POTAMOGETON X SPATHULIFORMIS	(J.W. ROBBINS) MORONG	PONDWEED	NI	OBL	PNZF
POTAMOGETON ZOSTERIFORMIS	FERNALD	PONDWEED,FLAT-STEM	OBL	OBL	PNZF
POTENTILLA ANSERINA	L.	SILVERWEED	OBL	OBL	PNZF
			OBL	FACW,OBL	PNF

POLYGONUM VIRGINIANUM

POTENTILLA ANSERINA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
POTENTILLA FRUTICOSA	L.	CINQUEFOIL,SHRUBBY	FACW	FAC-,FACW	NS
POTENTILLA HILLEGRANA	ENGELM. EX LEHM.	CINQUEFOIL,DIFFUSE	OBL	FAC+,OBL	ABNF
POTENTILLA NORVEGICA	L.	CINQUEFOIL,NORWEGIAN	FACU	FACU,FAC	ABPNF
POTENTILLA PALUSTRIS	(L.) SCOP.	CINQUEFOIL,MARSH	OBL	OBL	PNF
POTENTILLA PARADOXA	NUTT.	CINQUEFOIL,BUSHY	OBL	FAC,OBL	ABPNF
POTENTILLA RIVALIS	NUTT.	CINQUEFOIL,BROOK	NI	FACW,OBL	ANF
POTENTILLA SIMPLEX	MICHX.	CINQUEFOIL,OLD FIELD	FACU-	UPL,FACU	PNF
PRENANTHES ALBA	L.	RATTLESNAKE-ROOT,WHITE	FACU	FACU	PNF
PRENANTHES ALTISSIMA	L.	RATTLESNAKE-ROOT,TALL	FACU-	UPL,FACU	PNF
PRENANTHES AUTUMNALIS	WALTER	RATTLESNAKE-ROOT,SLENDER	FAC	FAC	PNF
PRENANTHES CREPIDINEA	MICHX.	RATTLESNAKE-ROOT,NODDING	FACU	UPL,FAC+	PNF
PRENANTHES RACEMOSA	MICHX.	RATTLESNAKE-ROOT,GLAUCOUS	FACW-	FACU-,FACW	PNF
PRIMULA LAURENTIANA	FERNALD	PRIMROSE,BIRDSEYE	FAC	FAC	PNF
PRIMULA MISTASSINICA	MICHX.	PRIMROSE,MISTASSINI	FACW	FACW	PNF
PRIONOPSIS CILIATA	(NUTT.) NUTT.	GOLDEN-WEED,FALSE	NI	UPL,FAC	ANF
PROBOSCIDEA LOUISIANICA	(MILL.) THELL.	UNICORN-PLANT,LOUISIANA	FACU	UPL,FAC+	ANF
PROSERPINACA PALUSTRIS	L.	MERMAID-WEED,MARSH	OBL	OBL	PNEZF
PROSERPINACA PECTINATA	LAM.	MERMAID-WEED,COMB-LEAF	OBL	OBL	PNZF
PROSERPINACA X INTERMEDIA	MACKENZ.	MERMAID-WEED,INTERMEDIATE	OBL	OBL	PNZF
PRUNELLA VULGARIS	L.	HEAL-ALL	FACU+	FACU,FACW	PIF
PRUNUS AMERICANA	MARSHALL	PLUM,AMERICAN	FACU-	UPL,FACU	NST
PRUNUS PENSYLVANICA	L.F.	CHERRY,FIRE	FACU-	FACU-,FAC-	NST
PRUNUS SEROTINA	EHRH.	CHERRY,BLACK	FACU	FACU	NT
PRUNUS VIRGINIANA	L.	CHERRY,CHOKE	FACU	FACU-,FAC	NST
PSILOCARYA NITENS	(VAHL) A. WOOD	BALDRUSH,SHORT-BEAK	OBL	OBL	APNEGL
PSILOCARYA SCIRPOIDES	TORR.	BALDRUSH,LONG-BEAK	OBL	OBL	ANGL
PSILOTUM NUDUM	(L.) BEAUV.	FERN,WHISK	NI	FACU+,FACW+	PNF3
PSORALEA PSORALIOIDES	(WALTER) CORY	SCURFPEA,FALSE	FACU-	UPL,FACU	PNF
PTELEA TRIFOLIATA	L.	WAFER-ASH	FAC	UPL,FAC	NST
PTERIDIUM AQUILINUM	(L.) KUHN	FERN,BRACKEN	FACU	FACU,FAC-	PNF3
PTILIMNIUM CAPILLACEUM	(MICHX.) RAF.	BISHOP-WEED,HAIR-LIKE MOCK	OBL	FACW,OBL	ANEF
PTILIMNIUM COSTATUM	(ELLIOTT) RAF.	BISHOP-WEED,RIBBED MOCK	NI	FACW,OBL	ANEF
PTILIMNIUM FLUVIATILE	(ROSE) MATHIAS	BISHOP-WEED,RIVER MOCK	OBL	FACW+,OBL	ANF
PTILIMNIUM NUTTALLII	(DC.) BRITTON	BISHOP-WEED,NUTTALL'S MOCK	FACW	FAC+,FACW+	ANF
PUCCINELLIA AIROIDES	(NUTT.) S. WATS. & COULT.	GRASS,NUTTALL ALKALI	OBL	FACW,OBL	PNG
PUCCINELLIA DISTANS	(L.) PARLAT.	GRASS,WEEPING ALKALI	OBL	FACW,OBL	PIG
PUCCINELLIA FASCICULATA	(TORR.) BICKN.	GRASS,SALTMARSH ALKALI	OBL	OBL	PNG
PUCCINELLIA FERNALDII	(A. HITCHC.) E.G. VOSS	GRASS,FERNALD ALKALI	OBL	OBL	PNEG
PUCCINELLIA LANGEANA	(BERLIN) SORENS. EX HULTEN	GRASS,SHARK ALKALI	FACW+	FACW,OBL	PNEG
PUCCINELLIA MARITIMA	(HUDS.) PARLAT.	GRASS,SEASIDE ALKALI	OBL	OBL	PIEG
PUCCINELLIA NUTTALLIANA	(J.A. SCHULTES) A. HITCHC.	GRASS,NUTTALL'S ALKALI	FAC	FAC,OBL	PNG
PUCCINELLIA PALLIDA	(TORR.) H.T. CLAUSEN	GRASS,PALE MANNA	OBL	OBL	PNG
PUCCINELLIA PUMILA	(VASEY) A. HITCHC.	GRASS,DWARF ALKALI	FACW	FACW,FACW+	PNG
PYCNANTHEMUM FLEXUOSUM	(WALTER) B.S.P.	MOUNTAIN-MINT,NARROW-LEAF	FACW	FACU,FACW	PNF
PYCNANTHEMUM MUTICUM	(MICHX.) PERS.	MOUNTAIN-MINT,BLUNT	FACW	UPL,FACW	PNF
PYCNANTHEMUM SETOSUM	NUTT.	MOUNTAIN-MINT,AWNED	FACU	FACU,FAC	N
PYCNANTHEMUM TENUIFOLIUM	SCHRAD.	MOUNTAIN-MINT,SLENDER	FACW	FAC-,FACW	PNF
PYCNANTHEMUM VERTICILLATUM	(MICHX.) PERS.	MOUNTAIN-MINT,WHORLED	FAC	UPL,FAC	N
PYCNANTHEMUM VIRGINIANUM	(L.) TH. DURAND & B.D. JACKS. EX B. ROB. & FERNALD	MOUNTAIN-MINT,VIRGINIA	FAC	FAC,FACW+	PNF
PYROLA ASARIFOLIA	MICHX.	WINTERGREEN,PINK	FACW	FACU,FACW	PNF
PYROLA MINOR	L.	WINTERGREEN,LESSER	FAC	UPL,FAC+	PNF
PYROLA ROTUNDIFOLIA	L.	WINTERGREEN,ROUND-LEAF	FAC	FACU,FAC	PNF

POTENTILLA FRUTICOSA

PYROLA ROTUNDIFOLIA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
PYROLA SECUNDA	L.	WINTERGREEN,ONE-SIDED	FAC	UPL,FAC+	PNF
PYROLA ULIGINOSA	TORR.	WINTERGREEN,BOG	FACW	FACW-,FACW	PNF
PYROLA UNIFLORA	L.	WINTERGREEN,ONE-FLOWERED	FAC	FACU,FAC	PNF
PYXIDANTHERA BARBULATA	MICHX.	PYXIE-MOSS,FLOWERING	FACU-	FACU-,FAC	PNF
QUERCUS ALBA	L.	OAK,WHITE	FACU-	FACU-,FACU+	NI
QUERCUS BICOLOR	WILLD.	OAK,SWAMP WHITE	FACW+	FACW+,OBL	NI
QUERCUS FALCATA	MICHX.	OAK,SOUTHERN RED	FACU-	FACU-,FACU	NI
QUERCUS FALCATA	MICHX.	OAK,CHERRY-BARK	FACW	FAC+,FACW	NI
QUERCUS IMBRICARIA	MICHX.	OAK,SHINGLE	FAC	FACU,FAC	NI
QUERCUS LAURIFOLIA	MICHX.	OAK,LAUREL	FACW-	FACW-,FACW	NI
QUERCUS LYRATA	WALTER	OAK,OVERCUP	OBL	OBL	NI
QUERCUS MACROCARPA	MICHX.	OAK,BUR	FAC-	FACU,FAC	NI
QUERCUS MICHAUXII	NUTT.	OAK,SWAMP CHESTNUT	FACW	FACW-,FACW	NTS
QUERCUS MUHLENBERGII	ENGELM.	OAK,CHINKAPIN	NI	FAC	NI
QUERCUS NIGRA	L.	OAK,WATER	FAC	FAC,FACW	NI
QUERCUS PALUSTRIS	MUENCHH.	OAK,PIN	FACW	FAC,FACW	NI
QUERCUS PHELLOS	L.	OAK,WILLOW	FAC+	FAC+,FACW	NI
QUERCUS PRINOIDES	WILLD.	OAK,DWARF CHINKAPIN	NI	UPL,FACU-	NS
QUERCUS RUBRA	L.	OAK,NORTHERN RED	FACU-	FACU-,FACU+	NI
QUERCUS SHUMARDII	BUCKLEY	OAK,SHUMARD	FAC+	FAC,FACW-	NI
QUERCUS VIRGINIANA	MILL.	OAK,LIVE	FACU	FACU,FACU+	NI
QUERCUS X BEADLEI	TRELEASE	OAK,BEADLE	NI	FACW-,FACW	NI
RANUNCULUS ABORTIVUS	L.	BUTTER-CUP,SUBALPINE	FACW-	FAC,FACW	BPNF
RANUNCULUS ACRIS	L.	BUTTER-CUP,TALL	FAC+	FAC+,FACW	PIF
RANUNCULUS ALLEGHENIENSIS	BRITTON	BUTTER-CUP,ALLEGHENY MOUNTAIN	FAC	FACU,FAC	PNF
RANUNCULUS AMBIGENS	S. WATS.	SPEARWORT,WATER-PLANTAIN	OBL	OBL	PNEF
RANUNCULUS AQUATILIS	L.	BUTTER-CUP,WHITE WATER	OBL	OBL	PNZF
RANUNCULUS ARVENSIS	L.	BUTTER-CUP,CORN	NI	UPL,FAC	AIF
RANUNCULUS CAROLINIANUS	DC.	BUTTER-CUP,CAROLINA	FACW	FACW	PNEF
RANUNCULUS CYMBALARIA	PURSH	BUTTER-CUP,SEASIDE	OBL	OBL	PNEF
RANUNCULUS FASCICULARIS	MUHL. EX BIGEL.	BUTTER-CUP,EARLY	FACU	FACU,FAC	PNF
RANUNCULUS FLABELLARIS	RAF.	BUTTER-CUP,YELLOW WATER	OBL	OBL	PNEF
RANUNCULUS FLAMMULA	L.	BUTTER-CUP,SPEARWORT	FACW	FACW	PNEF
RANUNCULUS GMELINII	DC.	BUTTER-CUP,SMALL YELLOW WATER	FACW	FACW,OBL	PNEF
RANUNCULUS HEDERACEUS	L.	BUTTER-CUP,IVY	OBL	OBL	PNZF
RANUNCULUS HISPIDUS	MICHX.	BUTTER-CUP,BRISTLY	FAC	FAC,FACW	PNF
RANUNCULUS LAPPONICUS	L.	BUTTER-CUP,LAPLAND	OBL	OBL	PNF
RANUNCULUS LAXICAULIS	(TORR. & GRAY) DARBY	BUTTER-CUP,MISSISSIPPI	OBL	OBL	APNEF
RANUNCULUS LONGIROSTRIS	GODR.	BUTTER-CUP,LONG-BEAK WATER	OBL	OBL	PNZ/F
RANUNCULUS MACOUNII	BRITTON	BUTTER-CUP,MACOUN'S	OBL	FACW,OBL	PNF
RANUNCULUS MICRANTHUS	NUTT.	BUTTER-CUP,ROCK	FACU	FACU,FAC	PNF
RANUNCULUS PARVIFLORUS	L.	BUTTER-CUP,SMALL-FLOWER	FAC	FAC	AIF
RANUNCULUS PENSYLVANICUS	L.F.	BUTTER-CUP,PENNSYLVANIA	OBL	FACW,OBL	APNEF
RANUNCULUS PUSILLUS	POIR.	SPEARWORT,LOW	OBL	FACW+,OBL	ANEF
RANUNCULUS RECURVATUS	POIR.	BUTTER-CUP,HOOKED	FAC+	FAC,FACW+	PNF
RANUNCULUS REPENS	L.	BUTTER-CUP,CREEPING	FAC	FAC,FACW+	PIF
RANUNCULUS SCELERATUS	L.	BUTTER-CUP,CELERY-LEAF	OBL	OBL	APNEF
RANUNCULUS SEPTENTRIONALIS	POIR.	BUTTER-CUP,NORTHERN SWAMP	OBL	FACW+,OBL	PNF
RANUNCULUS SUBRIGIDUS	W.B. DREW	BUTTER-CUP,POND	OBL	OBL	PNZ/F
RANUNCULUS TRICHOPHYLLUS	D. CHAIX	WATER-CROWFOOT,WHITE	OBL	OBL	PN/F
RHAMNUS ALNIFOLIA	L'HER.	BUCKTHORN,ALDER-LEAF	OBL	FACU,OBL	NS
RHAMNUS CAROLINIANA	WALTER	BUCKTHORN,CAROLINA	FAC	FACU-,FAC	NST

PYROLA SECUNDA

RHAMNUS CAROLINIANA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
RHAMNUS FRANGULA	L.	BUCKTHORN,GLOSSY	FAC	FAC,FAC+	IS
RHAMNUS LANCEOLATA	PURSH	BUCKTHORN,LANCE-LEAF	NI	NI	NS
RHEXIA ARISTOSA	BRITTON	MEADOW-BEAUTY,AWN-PETAL	OBL	OBL	PNF
RHEXIA MARIANA	L.	MEADOW-BEAUTY,MARYLAND	OBL	FACW+,OBL	PNF
RHEXIA NASHII	SMALL	MEADOW-BEAUTY,NASH'S	OBL	FACW,OBL	PNF
RHEXIA PETIOLATA	WALTER	MEADOW-BEAUTY,CILIATE	OBL	FACW+,OBL	PNF
RHEXIA VIRGINICA	L.	MEADOW-BEAUTY,VIRGINIA	FAC	FACU-,FAC	AN+F
RHINANTHUS CRISTA-GALLI	L.	YELLOW-RATTLE,LITTLE	FAC	FAC,FACW-	NS
RHODODENDRON ARBORESCENS	(PURSH) TORR.	AZALEA,SMOOTH	FAC	FAC,FAC+	NS
RHODODENDRON ATLANTICUM	(ASHE) REHD.	AZALEA,DWARF	FACW	FACW	NS
RHODODENDRON CANADENSE	(L.) B.S.P.	RHODORA	FACW	FACW-,FACW	NS
RHODODENDRON CANESCENS	(MICHX.) SWEET	AZALEA,HOARY	FAC	FAC-,FAC	NT
RHODODENDRON MAXIMUM	L.	RHODODENDRON,ROSEBAY	FAC	FAC	NS
RHODODENDRON PERICLYMENOIDES	(MICHX.) SHINNERS	AZALEA,PINK	FAC	FAC,FAC+	NS
RHODODENDRON PRINOPHYLLUM	(SMALL) MILLAIS	AZALEA,EARLY	FACW+	FACW+,OBL	NS
RHODODENDRON SERRULATUM	(SMALL) MILLAIS	AZALEA,HAMMOCK SWEET	OBL	FACW+,OBL	NS
RHODODENDRON VISCOSUM	(L.) TORR.	AZALEA,SWAMP	NI	UPL	NST
RHUS COPALLINUM	L.	SUMAC,WINGED	OBL	OBL	PNGL
RHYNCHOSPORA ALBA	(L.) VAHL	BEAKRUSH,WHITE	OBL	OBL	PNGL
RHYNCHOSPORA CAIUCA	ELLIOTT	BEAKRUSH,FALLING	OBL	OBL	PNGL
RHYNCHOSPORA CAPILLACEA	TORR.	BEAKRUSH,NEEDLE	OBL	OBL	PNGL
RHYNCHOSPORA CAPITELLATA	(MICHX.) VAHL	BEAKRUSH,BROWNISH	OBL	OBL	PNGL
RHYNCHOSPORA CEPHALANTHA	GRAY	BEAKRUSH,CLUSTERED	OBL	OBL	GL
RHYNCHOSPORA CHALAROCEPHALA	FERNALD & S. GALE	BEAKRUSH,LOOSE-HEAD	OBL	OBL	PNEGL
RHYNCHOSPORA CORNICULATA	(LAM.) GRAY	BEAKRUSH,SHORT-BRISTLE	OBL	FACW,OBL	APNGL
RHYNCHOSPORA DISTANS	(MICHX.) VAHL	BEAKRUSH,BROWN	OBL	FACW+,OBL	PNGL
RHYNCHOSPORA FASCICULARIS	(MICHX.) VAHL	BEAKRUSH,FASCICULATE	FAC	FAC,FACW-	PNGL
RHYNCHOSPORA FILIFOLIA	GRAY	BEAKRUSH,THREAD-LEAF	OBL	OBL	PNGL
RHYNCHOSPORA FUSCA	(L.) W.T. AIT.	BEAKRUSH,BROWN	FACW	FACW,OBL	PNGL
RHYNCHOSPORA GLOBULARIS	(CHAPM.) SMALL	BEAKRUSH,GLOBE	OBL	OBL	PNEGL
RHYNCHOSPORA GLOMERATA	(L.) VAHL	BEAKRUSH,CLUSTERED	OBL	OBL	PNGL
RHYNCHOSPORA GRACILENTA	GRAY	BEAKRUSH,SLENDER	FAC	FACU-,FAC+	PNGL
RHYNCHOSPORA GRAYI	KUNTH	BEAKRUSH,GRAY'S	FAC	FAC,FAC+	PNGL
RHYNCHOSPORA HARVEYI	W. BOOTT	BEAKRUSH,HARVEY'S	FACW	FACW	PNGL
RHYNCHOSPORA INEXPANSA	(MICHX.) VAHL	BEAKRUSH,NODDING	OBL	OBL	GL
RHYNCHOSPORA INUNDATA	(OAKES) FERNALD	BEAKRUSH,HORNED	OBL	OBL	PNEGL
RHYNCHOSPORA KNIESKERNII	J. CAREY	BEAKRUSH,KNIESKERN'S	OBL	OBL	GL
RHYNCHOSPORA MACROSTACHYA	TORR.	BEAKRUSH,TALL	FACW+	FACW+,OBL	PNEGL
RHYNCHOSPORA MICROCEPHALA	(BRITTON) BRITTON	BEAKRUSH,CAPITATE	OBL	OBL	PNEGL
RHYNCHOSPORA MILIACEA	(LAM.) GRAY	BEAKRUSH,MILLET	OBL	OBL	GL
RHYNCHOSPORA OLIGANTHA	GRAY	BEAKRUSH,FEW-FLOWER	OBL	OBL	PNGL
RHYNCHOSPORA PALLIDA	M.A. CURT.	BEAKRUSH,PALE	FACW+	FACW+,OBL	PNGL
RHYNCHOSPORA PERPLEXA	BRITTON	BEAKRUSH,PINELAND	OBL	OBL	APNGL
RHYNCHOSPORA RARIFLORA	(MICHX.) ELLIOTT	BEAKRUSH,FEW-FLOWER	OBL*	OBL	PNGL
RHYNCHOSPORA SMALLII	BRITTON	BEAKRUSH,SMALL'S	FACW+	FACW+,OBL	APNGL
RHYNCHOSPORA TORREYANA	GRAY	BEAKRUSH,TORREY'S	OBL	OBL	NS
RHYNCHOSPORA WRIGHTIANA	BOECK.	BEAKRUSH,WRIGHT'S	FACW	FAC,FACW	NS
RIBES AMERICANUM	MILL.	CURRANT,WILD BLACK	FACW	FACU,FACW	NS
RIBES GLANDULOSUM	GRAUER	CURRANT,SKUNK	FAC	FAC,FACW	NS
RIBES HIRTELLUM	MICHX.	GOOSEBERRY,HAIRY-STEM	FACW	FAC,FACW	NS
RIBES LACUSTRE	(PERS.) POIR.	CURRANT,PRICKLY	FACU	FACU,FAC	NS
RIBES ODORATUM	H.L. WENDL.	CURRANT,BUFFALO			

RHAMNUS FRANGULA

RIBES ODORATUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
RIBES TRISTE	PALLAS	CURRANT,SWAMP RED	OBL	FAC,OBL	IS
ROBINIA PSEUDOACACIA	L.	LOCUST,BLACK	FACU-	UPL,FAC	NT
RORIPPA AMPHIBIA	(L.) BESSER	YELLOW-CRESS,AMPHIBIOUS	FACW	FACW	PIEF
RORIPPA AUSTRIACA	(CRANTZ) BESSER	YELLOW-CRESS,AUSTRIAN	FAC-	FAC-,FACW	PIEF
RORIPPA PALUSTRIS	(L.) BESSER	YELLOW-CRESS,BOG	OBL	FAC,OBL	ANEF
RORIPPA PROSTRATA	(BERGERET) SCHINZ. & THELL.	YELLOW-CRESS,PROSTRATE	FAC	FAC	PIEF
RORIPPA SESSILIFLORA	(NUTT.) A. HITCHC.	YELLOW-CRESS,STALKLESS	OBL	FACW+,OBL	ANEF
RORIPPA SINUATA	(NUTT.) A. HITCHC.	YELLOW-CRESS,SPREADING	NI	FAC+,FACW	PNF
RORIPPA SYLVESTRIS	(L.) BESSER	YELLOW-CRESS,CREEPING	FACW	FACW,OBL	PIEF
ROSA ACICULARIS	LINDL.	ROSE,PRICKLY	FACU	FACU	NS
ROSA ARKANSANA	T. PORTER	ROSE,PRAIRIE	NI	FAC?	NSH
ROSA BLANDA	AIT.	ROSE,SMOOTH	FACU	FACU-,FACU	NS
ROSA BRACTEATA	J.C. WENDL.	ROSE,MACARTNEY	NI	FACU	IWV
ROSA MICRANTHA	J.E. SMITH	ROSE,SMALL-FLOWER	FACU	FACU-,FACU	IS
ROSA MULTIFLORA	THUNB.	ROSE,MULTIFLORA	FACU	UPL,FACU	IS
ROSA NITIDA	WILLD.	ROSE,SHINING	FACW+	FACW+	NS
ROSA PALUSTRIS	MARSHALL	ROSE,SWAMP	OBL	OBL	NS
ROSA RUGOSA	THUNB.	ROSE,RUGOSA	FACU-	FACU-,FACU	IS
ROSA SETIGERA	MICHX.	ROSE,PRAIRIE	FACU	FACU-,FACU+	NWV
ROSA VIRGINIANA	MILL.	ROSE,VIRGINIA	FAC	FAC	NS
ROTALA RAMOSIOR	(L.) KOEHNE	TOOTHCUP	OBL	OBL	ANF
RUBUS ACAULIS	MICHX.	RASPBERRY,DWARF	NI	FAC,OBL	PNF
RUBUS AKERMANII	FERNALD	BLACKBERRY,AKERMAN'S	FAC+	FAC+	NS
RUBUS ALLEGHENIENSIS	T. PORTER	BLACKBERRY,ALLEGHENY	FACU-	UPL,FACW	NS
RUBUS ALLEGNUS	L.H. BAILEY	BLACKBERRY,OLD FIELD	FACU-	FACU-,FAC-	NS
RUBUS AMBIGENS	FERNALD	DEWBERRY,SAVANNA	FACW	FACW	NS
RUBUS ANNICOLUS	W.H. BLANCH.	BLACKBERRY,RIVERSIDE	FACU*	FACU	NS
RUBUS ARCTICUS	L.	RASPBERRY,ARCTIC	NI	FAC	NS
RUBUS ARGUTUS	LINK	BLACKBERRY,SERRATE-LEAF	FACU	FACU-,FAC-	IS
RUBUS ASCENDENS	W.H. BLANCH.	BLACKBERRY,EDGE	FAC	FAC	NS
RUBUS CHAMAEMORUS	L.	CLOUDBERRY	FACW	FACW	NS
RUBUS DISCOLOR	WEIHE & NEES	BLACKBERRY,HIMALAYAN	NI	UPL,FACW	PNF
RUBUS ENSLENII	TRATT.	DEWBERRY,ENSLEN'S	FACU	UPL,FACU	I
RUBUS FLORICOMUS	W.H. BLANCH.	BLACKBERRY,MANY-FLOWER	FACU	FACU	NS
RUBUS HISPIDOIDES	L.H. BAILEY	BLACKBERRY,BOG	FACW	FACW	NS
RUBUS HISPIDUS	L.	BLACKBERRY,BRISTLY	FACW	FACW	NS
RUBUS HYPOLASIUS	FERNALD	DEWBERRY,PINELAND	OBL*	OBL	NS
RUBUS IDAEUS	L.	RASPBERRY,COMMON RED	FAC-	UPL,FAC	NS
RUBUS LAWRENCEI	L.H. BAILEY	BLACKBERRY,LAWRENCE'S	OBL	OBL	IS
RUBUS LONGII	FERNALD	BLACKBERRY,LONG'S	FAC	FAC	NS
RUBUS LOUISIANUS	BERGER	BLACKBERRY,LOUISIANA	FACU	FACU,FACW-	NS
RUBUS MISSOURICUS	L.H. BAILEY	BLACKBERRY,MISSOURI	NI	FACU	NS
RUBUS MULTIFORMIS	W.H. BLANCH.	BLACKBERRY,VARIABLE	FAC	FAC	NS
RUBUS PAGANUS	L.H. BAILEY	DEWBERRY,ST. LAWRENCE	FAC	FAC	NS
RUBUS PROBABILIS	L.H. BAILEY	BLACKBERRY,TREE	FAC	FAC	NS
RUBUS PUBESCENS	RAF.	BLACKBERRY,DWARF	FACW	FAC,FACW+	NS
RUBUS SEMISETOSUS	W.H. BLANCH.	BLACKBERRY,NEW ENGLAND	FAC	FAC	PNF
RUBUS SETOSUS	BIGEL.	BLACKBERRY,SETOSE	FACW+	FACW-,FACW+	NS
RUBUS STRIGOSUS	MICHX.	RASPBERRY,RED	NI	FACU,FACW	NS
RUBUS SUBIRACTUS	L.H. BAILEY	BLACKBERRY,HIGHBUSH	NI	NI	PNS
RUBUS SUUS	L.H. BAILEY	BLACKBERRY,BRANCHED	NI	FAC-	NS
RUBUS TARDATUS	W.H. BLANCH.	BLACKBERRY,VERMONT	FAC	FAC	NS

RIBES TRISTE

RUBUS TARDATUS

NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
RUBUS TRIVIALIS	MICHX.	DEWBERRY,SOUTHERN	FACU	FACU,FAC	NS
RUBUS UVIDUS	L.H. BAILEY	BLACKBERRY	NI	FAC	NS
RUBUS VIGIL	L.H. BAILEY	DEWBERRY,WET-WOODS	FACW	FACW	NS
RUBUS WHEELERI	L.H. BAILEY	DEWBERRY	FACW	FAC,FACW	NS
RUBUS X GROUTIANUS	W.H. BLANCH.	BRISTLEBERRY	FAC	FAC,FAC+	NS
RUDBECKIA FULGIDA	AIT.	CONEFLOWER,ORANGE	FAC	FAC,OBL	PNF
RUDBECKIA HIRTA	L.	SUSAN,BLACK-EYED	FACU-	FACU-,FACU	BPNF
RUDBECKIA LACINIATA	L.	CONEFLOWER,CUT-LEAF	FACW	FACU,FACW+	PNF
RUDBECKIA SUBTOMENTOSA	PURSH	CONEFLOWER,SWEET	FAC	FACU+,FAC+	PNF
RUDBECKIA TRILOBA	L.	SUSAN,BROWN-EYED	FACU	FACU-,FAC-	PNF
RUELLIA STREPENS	L.	WILD-PETUNIA,LIMESTONE	FAC	FAC-,FAC+	PNF
RUMEX ACETOSA	L.	SORREL,GARDEN	FACU	UPL,FAC	PIF
RUMEX ALTISSIMUS	A. WOOD	DOCK,PALE	FACW-	FAC,FACW+	PNF
RUMEX BRITANNICA	L.	DOCK,GREAT WATER	OBL	FACW+,OBL	F
RUMEX CONGLOMERATUS	MURRAY	DOCK,CLUSTERED	FAC	FAC,FACW	PIF
RUMEX CRISPUS	L.	DOCK,CURLY	FACU	FACU,FACW	PIF
RUMEX DOMESTICUS	HARTM.	DOCK,DOORYARD	FAC	FACU,FAC+	PIF
RUMEX FUEGINUS	PHILIPPI	DOCK,SEA-SIDE	FACW	FACW,OBL	ABNF
RUMEX HASTATULUS	BALDW.	SORREL,HEART-WING	FACU-	FACU-,FAC	PNF
RUMEX MARITIMUS	L.	DOCK,GOLDEN	FACW	FACW-,OBL	ABNF
RUMEX MEXICANUS	MEISN.	DOCK,MEXICAN	FAC	FAC-,FACW	PNF
RUMEX OBTUSIFOLIUS	L.	DOCK,BITTER	FACU-	FACU-,FACW	PIF
RUMEX OCCIDENTALIS	S. WATS.	DOCK,WESTERN	OBL	FACW+,OBL	PNF
RUMEX ORBICULATUS	GRAY	DOCK,GREAT WATER	OBL	OBL	PNEF
RUMEX PALLIDUS	BIGEL.	DOCK,SEABEACH	FACW	FACW	PNF
RUMEX PULCHER	L.	DOCK,FIDDLE	FACW-	FAC-,FACW	PIF
RUMEX TRIANGULIVALVIS	(DANSER) RECH. F.	DOCK,TRIANGULAR-VALVE	FACU	FACU,FACW	PNF
RUMEX VERTICILLATUS	L.	DOCK,SWAMP	OBL	FACW,OBL	PNEF
RUPPIA MARITIMA	L.	WIDGEON-GRASS	OBL	OBL	PNZF
SABATIA ANGULARIS	(L.) PURSH	ROSE-GENTIAN,SQUARE-STEM	FAC+	FAC,FAC+	ANF
SABATIA BRACHIATA	ELLIOTT	ROSE-GENTIAN,NARROW-LEAF	FACU	UPL,FAC	BNF
SABATIA CALYCINA	(LAM.) A. HELLER	ROSE-GENTIAN,COAST	OBL	FACW+,OBL	PNF
SABATIA CAMPANULATA	(L.) TORR.	ROSE-GENTIAN,SLENDER	FACW	FACW	PNF
SABATIA CAMPESTRIS	NUTT.	ROSE-GENTIAN,PRAIRIE	FACU	FACU	ANF
SABATIA DIFFORMIS	(L.) DRUCE	ROSE-GENTIAN,LANCE-LEAF	OBL	OBL	PNF
SABATIA DODECANDRA	(L.) B.S.P.	ROSE-GENTIAN,LARGE	OBL	OBL	PNF
SABATIA KENNEDYANA	FERNALD	ROSE-GENTIAN,PLYMOUTH	OBL	OBL	PNF
SABATIA QUADRANGULA	WILBUR	ROSE-GENTIAN,FOUR-ANGLE	FAC	FAC	ANF
SABATIA STELLARIS	PURSH	ROSE-GENTIAN,SALTMARSH	FACW+	FACW+,OBL	ANF
SACCIOLEPIS STRIATA	(L.) NASH	CUPSCALE,AMERICAN	OBL	OBL	PNG
SAGINA DECUMBENS	(ELLIOTT) TORR. & GRAY	PEARLWORT,TRAILING	FAC	FACU+,FACW	ANF
SAGINA NODOSA	(L.) FENZL	PEARLWORT,KNOTTED	FAC	FACU+,FAC	PIF
SAGINA PROCUMBENS	L.	PEARLWORT,PROCUMBENT	FACW-	FAC,OBL	PIF
SAGITTARIA BREVIROSTRA	MACKENZ. & BUSH	ARROW-HEAD,SHORT-BEAK	OBL	OBL	PNEF
SAGITTARIA CALYCINA	ENGELM.	ARROW-HEAD,HOODED	OBL	OBL	PNEF
SAGITTARIA CUNEATA	SHELDON	ARROW-HEAD,NORTHERN	OBL	OBL	PNEF
SAGITTARIA ENGELMANNIANA	J.G. SMITH	ARROW-HEAD,ENGELMANN	OBL	OBL	PNEF
SAGITTARIA FALCATA	PURSH	ARROW-HEAD,COASTAL	OBL	OBL	PNEF
SAGITTARIA GRAMINEA	MICHX.	ARROW-HEAD,GRASS-LEAF	OBL	OBL	PNEF
SAGITTARIA LATIFOLIA	WILLD.	ARROW-HEAD,BROAD-LEAF	OBL	OBL	PNEF
SAGITTARIA MONTEVIDENSIS	CHAM. & SCHLECHT.	ARROW-HEAD,LONG-LOBED	OBL	OBL	PIEF
SAGITTARIA PLATYPHYLLA	(ENGELM.) J.G. SMITH	ARROW-HEAD,DELTA	OBL	OBL	PNEF

RUBUS TRIVIALIS

SAGITTARIA PLATYPHYLLA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
SAGITTARIA RIGIDA	PURSH	ARROW-HEAD,STIFF	OBL	OBL	PNEF
SAGITTARIA STAGNORUM	SMALL	ARROW-HEAD,WATER	OBL	OBL	PNZ/F
SAGITTARIA SUBULATA	(L.) BUCHENAU	ARROW-HEAD,AWL-LEAF	OBL	OBL	PNEF
SALICORNIA BIGELOVII	TORR.	GLASSWORT,DWARF	OBL	OBL	ANESF
SALICORNIA EUROPAEA	L.	GLASSWORT,SLENDER	OBL	OBL	AIESF
SALICORNIA PERENNIS	MILL.	GLASSWORT,WOODY	OBL	OBL	PNESF
SALICORNIA RUBRA	A. NELS.	SALTWORT,RED	NI	OBL	ANSF
SALICORNIA VIRGINICA	L.	GLASSWORT,VIRGINIA	OBL	OBL	NESH
SALIX ALBA	L.	WILLOW,WHITE	FACW	FACW-,FACW	IT
SALIX AMYGDALOIDES	ANDERSS.	WILLOW,PEACH-LEAF	FACW	FACW	NT
SALIX ARCTOPHILA	COCKLL. EX A. HELLER	WILLOW,OVAL-LEAF	FACW	FACW,OBL	NS
SALIX ARGYROCARPA	ANDERSS.	WILLOW,LABRADOR	FACU	FACU	NS
SALIX BABYLONICA	L.	WILLOW,WEEPING	FACW-	FAC+,FACW	IT
SALIX BEBBIANA	SARG.	WILLOW,BEBB	FACW	FAC,FACW+	NS
SALIX CANDIDA	FLUEGGE EX WILLD.	WILLOW,HOARY	OBL	OBL	NS
SALIX CAROLINIANA	MICHX.	WILLOW,COASTAL-PLAIN	OBL	FACW+,OBL	NT
SALIX COMMUTATA	BEBB	WILLOW,UNDER-GREEN	NI	FAC,OBL	NS
SALIX CORDATA	MICHX.	WILLOW,HEART-LEAF	FACW	FAC,FACW	NS
SALIX DISCOLOR	MUHL.	WILLOW,PUSSY	FACW	FACW	NS
SALIX ERIOCEPHALA	MICHX.	WILLOW,MISSOURI RIVER	FACW	FACW	NS
SALIX EXIGUA	NUTT.	WILLOW,SANDBAR	OBL	FACW,OBL	NS
SALIX FRAGILIS	L.	WILLOW,CRACK	FAC+	FAC,FAC+	IT
SALIX HUMILIS	MARSHALL	WILLOW,TALL PRAIRIE	FACU	FACU	NS
SALIX LUCIDA	MUHL.	WILLOW,SHINING	FACW	FACW,FACW+	NT
SALIX LUTEA	NUTT.	WILLOW,YELLOW	NI	FACW+,OBL	NS
SALIX MYRICOIDES	MUHL.	WILLOW,BAYBERRY	FAC	FAC,FACW	NS
SALIX NIGRA	MARSHALL	WILLOW,BLACK	FACW+	UPL,OBL	NT
SALIX PEDICELLARIS	PURSH	WILLOW,BOG	OBL	UPL,OBL	NS
SALIX PELLITA	ANDERSS. EX C.K. SCHNEID.	WILLOW,SATINY	FACW	FACW	NS
SALIX PETIOLARIS	J.E. SMITH	WILLOW,MEADOW	OBL	FACW+,OBL	NS
SALIX PLANIFOLIA	PURSH	WILLOW,DIAMOND-LEAF	OBL	FACW,OBL	NS
SALIX PURPUREA	L.	WILLOW,PURPLE-OSIER	NI	FACW	IS
SALIX PYRIFOLIA	ANDERSS.	WILLOW,BALSAM	FACW	FACW,FACW+	NS
SALIX RIGIDA	MUHL.	WILLOW,HEART-LEAF	OBL	UPL,OBL	NS
SALIX SERICEA	MARSHALL	WILLOW,SILKY	OBL	OBL	NS
SALIX SERISSIMA	(L.H. BAILEY) FERNALD	WILLOW,AUTUMN	OBL	OBL	NS
SALIX VIMINALIS	L.	WILLOW,OSIER	FACW-	FACW-	IT
SALIX X SUBSERICEA	(ANDERSS.) C.K. SCHNEID.	WILLOW	FACW	FACW	NS
SALSOLA KALI	L.	THISTLE,RUSSIAN	FACU	FACU-,FACU+	AIF
SALSOLA PESTIFER	A. NELS.	THISTLE,RUSSIAN	FACU-	FACU-,FACU	I
SALVINIA AURICULATA	AUBL.	WATER-MOSS,EARED	NI	NI	PNW
SAMBUCUS CANADENSIS	L.	ELDER,AMERICAN	FACW-	UPL,FACW	NS
SAMBUCUS RACEMOSA	L.	ELDER,EUROPEAN RED	FACU	FACU,FACU+	NS
SAMOLUS PARVIFLORUS	RAF.	PIMPERNEL,WATER	OBL	OBL	PNF
SANGUINARIA CANADENSIS	L.	BLOODROOT	NI	UPL,FACU-	PNF
SANGUISORBA CANADENSIS	L.	BURNET,CANADA	FACW+	FACW,FACW+	PNF
SANGUISORBA MINOR	SCOP.	BURNET,SMALL	FAC	UPL,FAC	PNF
SANGUISORBA OFFICINALIS	L.	BURNET,GREAT	FACW	FAC,FACW+	PNF
SANICULA GREGARIA	BICKN.	BLACK-SNAKEROOT,CLUSTERED	FACU	FACU,FAC+	PNF
SANICULA MARILANDICA	L.	BLACK-SNAKEROOT	NI	FACU?	PNF
SAPONARIA OFFICINALIS	L.	BOUNCING-BET	FACU-	UPL,FACU	PIF
SARRACENIA FLAVA	L.	PITCHER-PLANT,YELLOW	OBL	OBL	PNF

SAGITTARIA RIGIDA

SARRACENIA FLAVA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RI IND	NAT-IND	HABIT
SARRACENIA PURPUREA	L.	PITCHER-PLANT,NORTHERN	OBL	OBL	PNF
SASSAFRAS ALBIDUM	(NUTT.) NEES	SASSAFRAS	FACU-	FACU-,FACU	NT
SATUREJA ARKANSANA	(NUTT.) BRIQ.	SAVORY,LIMESTONE	FACU	FACU,FACW	PNF
SAURURUS CERNUUS	L.	TAIL,LIZARD'S	OBL	OBL	PNEF
SAXIFRAGA AIZOIDES	L.	SAXIFRAGE,YELLOW MOUNTAIN	FACW	FACW	PNF
SAXIFRAGA CAREYANA	GRAY	SAXIFRAGE,GOLDEN-EYE	FAC	FAC	PNF
SAXIFRAGA CAROLINIANA	GRAY	SAXIFRAGE,CAROLINA	FACW	FAC-,FACW	PNF
SAXIFRAGA CERNUA	L.	SAXIFRAGE,NODDING	NI	UPL,FACW	PNF
SAXIFRAGA MICHAUXII	BRITTON	SAXIFRAGE,MICHAUX'S	FACU	FACU,FACW-	PNF
SAXIFRAGA MICRANTHIDIFOLIA	(HAW.) STEUD.	SAXIFRAGE,LETTUCE-LEAF	OBL	FACW+,OBL	PNF
SAXIFRAGA OPPOSITIFOLIA	L.	SAXIFRAGE,TWIN-LEAF	FAC	FACU-,FAC	PNF
SAXIFRAGA PENSYLVANICA	L.	SAXIFRAGE,SWAMP	OBL	OBL	PNF
SAXIFRAGA RIVULARIS	L.	SAXIFRAGE,ALPINE-BROOK	OBL	FAC+,OBL	PNF
SAXIFRAGA STELLARIS	L.	SAXIFRAGE,STAR	NI	FACW	PNF
SAXIFRAGA VIRGINIENSIS	MICHX.	SAXIFRAGE,VIRGINIA	FAC-	FAC-,FAC	PNF
SCHEUCHZERIA PALUSTRIS	L.	POD-GRASS	OBL	OBL	PNEF
SCHIZACHNE PURPURASCENS	(TORR.) SWALLEN	MELIC,FALSE	FACU-	UPL,FAC	PNG
SCHIZACHYRIUM SCOPARIUM	(MICHX.) NASH	BLUESTEM,LITTLE	FACU-	FACU-,FACU+	PNG
SCHIZAEA PUSILLA	PURSH	FERN,CURLY-GRASS	OBL	OBL	PNF 3
SCHWALBEA AMERICANA	L.	CHAFFSEED	FACU	UPL,FAC	PNF
SCIRPUS ACUTUS	MUHL. EX BIGEL.	BULRUSH,HARD-STEM	OBL	OBL	PNEGL
SCIRPUS AMERICANUS	PERS.	BULRUSH,OLNEY'S	OBL	OBL	PNEGL
SCIRPUS ANCISTROCHAETUS	SCHUYLER	BULRUSH,BARBED-BRISTLE	OBL	OBL	PNEGL
SCIRPUS ATROCINCTUS	FERNALD	BULRUSH,BLACK-GIRDLE	FACW+	FACW+,OBL	PNEGL
SCIRPUS ATROVIRENS	WILLD.	BULRUSH,GREEN	OBL	OBL	PNEGL
SCIRPUS CESPITOSUS	L.	BULRUSH,TUFTED	OBL	OBL	PNGL
SCIRPUS CLINTONII	GRAY	BULRUSH,CLINTON'S	FACU	FACU-,FACU	PNGL
SCIRPUS CYLINDRICUS	(TORR.) BRITTON	BULRUSH,NEW ENGLAND	OBL	OBL	PNEGL
SCIRPUS CYPERINUS	(L.) KUNTH	WOOL-GRASS	FACW+	FACW+,OBL	PNEGL
SCIRPUS DIVARICATUS	ELLIOTT	BULRUSH,SPREADING	OBL	OBL	PNEGL
SCIRPUS ETUBERCULATUS	(STEUD.) KUNTZE	BULRUSH,CANBY'S	OBL	OBL	PNZGL
SCIRPUS EXPANSUS	FERNALD	BULRUSH,WOODLAND	OBL	OBL	PNEGL
SCIRPUS FLACCIDIFOLIUS	(FERNALD) SCHUYLER	BULRUSH,RECLINING	OBL	OBL	PNEGL
SCIRPUS FLUVIATILIS	(TORR.) GRAY	BULRUSH,RIVER	OBL	OBL	PNEGL
SCIRPUS GEORGIANUS	R.M. HARPER	BULRUSH,DARK-GREEN	OBL	OBL	PNEGL
SCIRPUS HALLII	GRAY	BULRUSH,HALL'S	OBL	OBL	PNEGL
SCIRPUS HATTORIANUS	MAKINO	BULRUSH	NI	OBL	PNEGL
SCIRPUS HETEROCHAETUS	CHASE	BULRUSH,SLENDER	OBL	OBL	PNEGL
SCIRPUS KOILOLEPIS	(STEUD.) GLEASON	BULRUSH,KEELED	NI	FACW+,OBL	ANGL
SCIRPUS LONGII	FERNALD	BULRUSH,LONG'S	OBL	OBL	PNEGL
SCIRPUS MARITIMUS	L.	BULRUSH,SALTMARSH	OBL	OBL	PNEGL
SCIRPUS MICROCARPUS	J. & K. PRESL	BULRUSH,SMALL-FRUIT	OBL	OBL	PNGL
SCIRPUS PALLIDUS	(BRITTON) FERNALD	BULRUSH,CLOAKED	NI	OBL	PNEGL
SCIRPUS PECKII	BRITTON	BULRUSH,PECK'S	OBL	OBL	PNGL
SCIRPUS PEDICELLATUS	FERNALD	BULRUSH,STALKED	OBL	OBL	PNEGL
SCIRPUS PENDULUS	MUHL.	BULRUSH,DROOPING	OBL	OBL	PNEGL
SCIRPUS POLYPHYLLUS	VAHL	BULRUSH,LEAFY	OBL	OBL	PNEGL
SCIRPUS PUNGENS	VAHL	BULRUSH,THREE-SQUARE	FACW+	FACW+,OBL	PNEGL
SCIRPUS PURSHIANUS	FERNALD	BULRUSH,WEAK-STALK	OBL	OBL	ANEGL
SCIRPUS ROBUSTUS	PURSH	BULRUSH,ALKALI	OBL	OBL	PNEGL
SCIRPUS SAVIMONTANUS	FERNALD	BULRUSH,ROCKY MOUNTAIN	OBL	OBL	PNEGL
SCIRPUS SETACEUS	L.	BULRUSH,BRISTLE-LEAF	NI	FACW	PIGL

SARRACENIA PURPUREA

SCIRPUS SETACEUS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RI IND	NAT-IND	HABIT
SCIRPUS SMITHII	GRAY	BULRUSH,SMITH'S	OBL	OBL	ANEGL
SCIRPUS SUBTERMINALIS	TORR.	BULRUSH,SUBTERMINATE	OBL	OBL	PNZGL
SCIRPUS TORREYI	OLNEY	BULRUSH,TORREY'S	OBL	OBL	PNEGL
SCIRPUS TUBEROSUS	DESF.	BULRUSH,TUBEROUS	NI	OBL	PIEGL
SCIRPUS VALIDUS	VAHL	BULRUSH,SOFT-STEM	OBL	OBL	PNEGL
SCLERANTHUS ANNUUS	L.	KNAWEL,ANNUAL	FACU-	UPL,FACU	AIF
SCLERIA CILIATA	MICHX.	NUTRUSH,FRINGED	FAC	FAC	PNGL
SCLERIA FLACCIDA	STEUD.	NUTRUSH	FACW	FACW	GL
SCLERIA MINOR	(BRITTON) W. STONE	NUTRUSH,SLENDER	FACW	FACW-,FACW	GL
SCLERIA NITIDA	WILLD.	NUTRUSH,SHINING	FACU-	FACU-,FAC	GL
SCLERIA OLIGANTHA	MICHX.	NUTRUSH,LITTLE-HEAD	FACU+	FACU,FAC	PNGL
SCLERIA PAUCIFLORA	MUHL. EX WILLD. NOMEN SUPERFL.	NUTRUSH,FEW-FLOWER	FACU+	FACU,FACW	PNGL
SCLERIA RETICULARIS	MICHX.	NUTRUSH,NETTED	OBL	OBL	ANGL
SCLERIA SETACEA	POIR.	NUTRUSH,TORREY'S	FAC+	FAC,FAC+	PNGL
SCLERIA TRIGLOMERATA	MICHX.	NUTRUSH,WHIP	FAC	FACU+,FAC	PNGL
SCLERIA VERTICILLATA	MUHL. EX WILLD.	NUTRUSH,LOW	OBL	OBL	ANGL
SCLEROLEPIS UNIFLORA	(WALTER) B.S.P.	HARDSCALE,ONE-FLOWER	OBL	OBL	PNEF
SCROPHULARIA LANCEOLATA	PURSH	FIGWORT,LANCE-LEAF	FACU+	UPL,FACW	PNF
SCROPHULARIA MARILANDICA	L.	SQUARE,CARPENTER'S	FACU-	FACU-	PNF
SCUTELLARIA CHURCHILLIANA	FERNALD	SKULLCAP	FACW	FACW	PNF
SCUTELLARIA GALERICULATA	L.	SKULLCAP,HOODED	OBL	FACW+,OBL	PNF
SCUTELLARIA INTEGRIFOLIA	L.	SKULLCAP,HYSSOP	FACW	FAC,FACW	PNF
SCUTELLARIA LATERIFLORA	L.	SKULLCAP,BLUE	FACW+	FACW,OBL	PNF
SCUTELLARIA NERVOSA	PURSH	SKULLCAP,VEINED	FAC	FAC	PNF
SCUTELLARIA OVATA	J. HILL	SKULLCAP,EGG-LEAF	FACU	FACU	PNF
SEDUM PULCHELLUM	MICHX.	STONECROP,ROCK	FACU	UPL,FACU	ABNSF
SEDUM ROSEA	(L.) SCOP.	STONECROP,ROSEROOT	FACU-	FACU-,OBL	PNSF
SELAGINELLA APODA	(L.) SPRING	SPIKE-MOSS,MEADOW	FACW	FACW-,FACW+	PNC
SELAGINELLA SELAGINOIDES	(L.) LINK	SPIKE-MOSS,CLUB	FACW	FACU,OBL	PNC
SENECIO AUREUS	L.	RAGWORT,GOLDEN	FACW	FACW	PNF
SENECIO EREMOPHILUS	RICHARDS.	GROUNDSEL,DESERT	OBL	UPL,OBL	PNF
SENECIO GLABELLUS	POIR.	GROUNDSEL,GRASS-LEAF	OBL	FACW,OBL	ANF
SENECIO OBOVATUS	MUHL. EX WILLD.	GROUNDSEL,ROUND-LEAF	FACU-	FACU-,FACU+	PNF
SENECIO PAUPERCULUS	MICHX.	GROUNDSEL,BALSAM	FAC	FAC,FACW+	PNF
SENECIO PSEUDAUREUS	RYDB.	GROUNDSEL,GOLDEN	FAC*	FACU,FACW	PNF
SENECIO SCHWEINITZIANUS	NUTT.	GROUNDSEL,SCHWEINITZ'S	FACW	FACW	PNF
SENECIO TOMENTOSUS	MICHX.	GROUNDSEL,WOOLLY	FACU	FACU,FAC-	PNF
SENECIO VULGARIS	L.	GROUNDSEL,COMMON	FACU	UPL,FAC	AIF
SESBANIA EXALTATA	(RAF.) RYDB.	HEMP,SESBANIA	FAC	FAC,FACW	ANF
SESBANIA VESICARIA	(JACQ.) ELLIOTT	RATTLE-BUSH,BAG-POD	NI	FAC+	ANF
SESUVIUM MARITIMUM	(WALTER) B.S.P.	SEA-PURSLANE,PUERTO RICO	FACW	FACW	ANSF
SESUVIUM PORTULACASTRUM	(L.) L.	SEA-PURSLANE	NI	FACW	PNSF
SETARIA GENICULATA	(LAM.) BEAUV.	GRASS,KNOTROOT BRISTLE	FAC	FAC	PNG
SETARIA GLAUCA	(L.) BEAUV.	GRASS,YELLOW BRISTLE	FAC	FACU,FAC	AIG
SETARIA ITALICA	(L.) BEAUV.	GRASS,FOX-TAIL BRISTLE	FACU	FACU,FAC	AIG
SETARIA MAGNA	GRISEB.	GRASS,GIANT BRISTLE	FACW	FACW,FACW+	ANEG
SETARIA VERTICILLATA	(L.) BEAUV.	GRASS,BUR BRISTLE	FAC	FACU,FAC	AIG
SEYMERIA CASSIOIDES	(WALTER) BLAKE	BLACK-SENNA	FAC	UPL,FAC	ANF
SHEPHERDIA CANADENSIS	(L.) NUTT.	BUFFALO-BERRY,CANADA	NI	NI	PNS
SHORTIA GALACIFOLIA	TORR. & GRAY	OCONEE-BELLS	NI	FACU	PNF
SICYOS ANGULATUS	L.	BUR-CUCUMBER,ONE-SEED	FACU	FACU,FACW-	ANF
SIDA HERMAPHRODITA	(L.) RUSBY	MALLOW,VIRGINIA	FAC	UPL,FAC	PNF

SCIRPUS SMITHII

SIDA HERMAPHRODITA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
SILENE NIVEA	(NUTT.) OTTH	CAMPION,SNOWY	FAC	FAC,FACW	PNF
SILPHIUM PERFOLIATUM	L.	CUP-PLANT	FACU	FACU,FACW	PNF
SISYMBRIUM ALTISSIMUM	L.	MUSTARD,TALL TUMBLE	FACU-	UPL,FAC	ABIF
SISYRINCHIUM ANGUSTIFOLIUM	MILL.	BLUE-EYE-GRASS,POINTED	FACW-	FACU,FACW-	PNF
SISYRINCHIUM ARENICOLA	BICKN.	BLUE-EYE-GRASS,SANDPLAIN	FACU	FACU	PNF
SISYRINCHIUM ATLANTICUM	BICKN.	BLUE-EYE-GRASS,EASTERN	FACW	FACW-,FACW	PNF
SISYRINCHIUM CAPILLARE	BICKN.	BLUE-EYE-GRASS	FACW+	FACW+,OBL	PNF
SISYRINCHIUM MONTANUM	GREENE	BLUE-EYE-GRASS,STRICT	FAC	FACU,FACW	PNF
SISYRINCHIUM MUCRONATUM	MICHX.	BLUE-EYE-GRASS,MICHAUX'S	FAC+	FAC+,FACW-	PNF
SIUM CARSONII	E.M. DURAND EX GRAY	WATER-PARSNIP,CARSON'S	OBL	OBL	PNZ/F
SIUM FLORIDANUM	SMALL	WATER-PARSNIP,FLORIDA	OBL	OBL	PNZ/F
SIUM SUAVE	WALTER	WATER-PARSNIP,HEMLOCK	OBL	OBL	PNEF
SMILACINA RACEMOSA	(L.) DESF.	FALSE-SOLOMON'S-SEAL,FEATHER	FACU-	FACU-,FAC	PNF
SMILACINA STELLATA	(L.) DESF.	FALSE-SOLOMON'S-SEAL,STARRY	FACW	FACU,FACW	PNF
SMILACINA TRIFOLIA	(L.) DESF.	FALSE-SOLOMON'S-SEAL,THREE-LEAF	OBL	OBL	PNF
SMILAX BONA-NOX	L.	GREENBRIER,SAW	FACU	FACU,FAC	NWV
SMILAX GLAUCA	WALTER	GREENBRIER,CAT	FACU	UPL,FAC	NSWV
SMILAX HERBACEA	L.	CARRION-FLOWER,SMOOTH	FAC	FAC	PNVF
SMILAX HISPIDA	MUHL. EX TORR.	GREENBRIER,BRISTLY	FAC	FAC,FAC+	NWVS
SMILAX LAURIFOLIA	L.	GREENBRIER,LAUREL-LEAF	OBL	FACW+,OBL	NWV
SMILAX PSEUDOCHINA	L.	GREENBRIER,LONG-STALK	FAC+	FAC,FAC+	NWV
SMILAX PULVERULENTA	MICHX.	CARRION-FLOWER,DOWNY	FACU	FACU,FAC	PNV
SMILAX ROTUNDIFOLIA	L.	GREENBRIER,COMMON	FAC	FAC	NWV
SMILAX SMALLII	MORONG	GREENBRIER,LANCE-LEAF	NI	FACU	NWV
SMILAX TAMNOIDES	L.	GREENBRIER,HALBERD-LEAF	FAC	FAC,FAC+	NWV
SMILAX WALTERI	PURSH	GREENBRIER,CORAL	OBL	OBL	NWV
SOLANUM AMERICANUM	MILL.	NIGHTSHADE,BLACK	FACU-	FACU-,FAC	ANF
SOLANUM DULCAMARA	L.	NIGHTSHADE,CLIMBING	FAC-	FACU,FAC+	PIF
SOLANUM NIGRUM	L.	NIGHTSHADE,BLACK	FACU-	FACU-,FACU+	AIF
SOLANUM TUBEROSUM	L.	POTATO,WHITE	NI	NI	APIF
SOLIDAGO ALTISSIMA	L.	GOLDEN-ROD,TALL	FACU-	FACU-,FACU+	PNF
SOLIDAGO AUSTRINA	SMALL	GOLDEN-ROD	OBL	OBL	PNF
SOLIDAGO CAESIA	L.	GOLDEN-ROD,WREATH	FACU	FACU	PNF
SOLIDAGO CANADENSIS	L.	GOLDEN-ROD,CANADA	FACU	FACU,FACU+	PNF
SOLIDAGO ELLIOTTII	TORR. & GRAY	GOLDEN-ROD,ELLIOTT'S	OBL	OBL	PNF
SOLIDAGO ELONGATA	NUTT.	GOLDEN-ROD,CREEK	FACU	FACU,FAC-	PNF
SOLIDAGO FISTULOSA	MILL.	GOLDEN-ROD,PINEBARREN	FACW	FAC+,FACW	PNF
SOLIDAGO FLEXICAULIS	L.	GOLDEN-ROD,ZIGZAG	FACU	FACU	PNF
SOLIDAGO GIGANTEA	AIT.	GOLDEN-ROD,GIANT	FACW	FAC,FACW	PNF
SOLIDAGO GRACILLIMA	TORR. & GRAY	GOLDEN-ROD,VIRGINIA	NI	OBL	PNF
SOLIDAGO HOUGHTONII	TORR. & GRAY	GOLDEN-ROD,HOUGHTON'S	OBL	OBL	PNF
SOLIDAGO NUTTALLII	GREENE	GOLDEN-ROD,NUTTALL	FACU+	FACU+,FAC	PNF
SOLIDAGO OHIOENSIS	RIDDELL	GOLDEN-ROD,OHIO	OBL	OBL	PNF
SOLIDAGO PATULA	MUHL. EX WILLD.	GOLDEN-ROD,ROUGH-LEAF	OBL	OBL	PNF
SOLIDAGO PUBERULA	NUTT.	GOLDEN-ROD,DOWNY	FACU-	FACU-,FACU	PNF
SOLIDAGO RIDDELLII	J.C. FRANK EX RIDDELL	GOLDEN-ROD,RIDDELL'S	OBL	OBL	PNF
SOLIDAGO RUGOSA	MILL.	GOLDEN-ROD,WRINKLED	FAC	FAC,FAC+	PNF
SOLIDAGO SALICINA	ELLIOTT	GOLDEN-ROD,WILLOW	OBL	FACW,OBL	PNF
SOLIDAGO SEMPERVIRENS	L.	GOLDEN-ROD,SEASIDE	FACW	FACW-,FACW	PNSF
SOLIDAGO SPATHULATA	DC.	GOLDEN-ROD,COAST	FACU-	FACU-,FACU	PNF
SOLIDAGO STRICTA	AIT.	GOLDEN-ROD,WILLOW-LEAF	FACW	FACW-,OBL	PNF
SOLIDAGO ULIGINOSA	NUTT.	GOLDEN-ROD,BOG	OBL	OBL	PNF

SILENE NIVEA

SOLIDAGO ULIGINOSA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	R1IND	NAT-IND	HABIT
SOLIDAGO X ASPERULA	DESF.	GOLDEN-ROD	OBL*	OBL	PNF
SONCHUS ASPER	(L.) J. HILL	SOWTHISTLE,PRICKLY	FAC	FACU,FACW	AIF
SORBUS AMERICANA	MARSHALL	MOUNTAIN-ASH,AMERICAN	FACU	FACU,FAC+	NT
SORBUS DECORA	C.K. SCHNEID.	MOUNTAIN-ASH,SHOWY	FAC*	UPL,FAC	NT
SORGHUM HALEPENSE	(L.) PERS.	GRASS,JOHNSON	FACU	FACU,FACU+	PIG
SPARGANIUM AMERICANUM	NUTT.	BURREED,AMERICAN	OBL	OBL	PNEF
SPARGANIUM ANDROCLADUM	(ENGELM.) MORONG	BURREED,BRANCHING	OBL	OBL	PNEF
SPARGANIUM CHLOROCARPUM	RYDB.	BURREED,GREENFRUIT	OBL	OBL	PNEF
SPARGANIUM EMERSUM	REHM.	BURREED,NARROW-LEAF	OBL	OBL	PNEF
SPARGANIUM EURYCARPUM	ENGELM. EX GRAY	BURREED,GIANT	OBL	OBL	PNEF
SPARGANIUM FLUCTUANS	(MORONG) B. ROB.	BURREED,FLOATING	OBL	OBL	PNEF
SPARGANIUM MINIMUM	(HARTM.) FR.	BURREED,SMALL	OBL	OBL	PNEF
SPARTINA ALTERNIFLORA	LOISELEUR	CORDGRASS,SALTMARSH	OBL	OBL	PNEG
SPARTINA CAESPITOSA	A.A. EAT.	GRASS,SALTMEADOW	OBL	OBL	PNG
SPARTINA CYNOSUROIDES	(L.) ROTH	CORDGRASS,BIG	OBL	OBL	PNEG
SPARTINA PATENS	(AIT.) MUHL.	CORDGRASS,SALTMEADOW	FACW+	FACW,OBL	PNG
SPARTINA PECTINATA	LINK	CORDGRASS,PRAIRIE	OBL	FACW,OBL	PNG
SPERGULARIA CANADENSIS	(PERS.) D. DON	SANDSPURRY,CANADA	OBL	FACW,OBL	ANF
SPERGULARIA MARINA	(L.) GRISEB.	SANDSPURRY,SALTMARSH	OBL	OBL	ANSF
SPERGULARIA MEDIA	(L.) K. PRESL EX GRISEB.	SANDSPURRY,MIDDLE-SIZE	FACW	FACU,FACW	AIF
SPERGULARIA RUBRA	(L.) J. & K. PRESL	SANDSPURRY,PURPLE	FACU	UPL,FAC	AIF
SPERMACOCE GLABRA	MICHX.	BUTTON-PLANT,SMOOTH	FACW	FACW,FACW+	PNF
SPERMOLEPIS DIVARICATA	(WALTER) RAF. EX SERINGE	SPERMOLEPIS,ROUGH-FRUIT	FACU	FACU,FACW	ANF
SPHENOPHOLIS OBTUSATA	(MICHX.) SCRIBN.	WEDGEGRASS,PRAIRIE	FAC-	FAC-,FACW+	APNG
SPHENOPHOLIS PENSYLVANICA	(L.) A. HITCHC.	WEDGESCALE,SWAMP	OBL	OBL	PNG
SPHENOPHOLIS X PALLENS	(BIEHLER) SCRIBN.	WEDGEGRASS,SLENDER	FAC	FAC,FACW	PNG
SPIRAEA ALBA	DU ROI	MEADOW-SWEET,NARROW-LEAF	FACW+	FACW,FACW+	NS
SPIRAEA BETULIFOLIA	PALLAS	MEADOW-SWEET,WHITE	NI	FAC-?	NS
SPIRAEA JAPONICA	L.F.	MEADOW-SWEET,JAPANESE	FACU-	UPL,FACU+	IS
SPIRAEA LATIFOLIA	(AIT.) BORKH.	MEADOW-SWEET,BROAD-LEAF	FAC+	FAC+,FACW	NS
SPIRAEA SALICIFOLIA	L.	MEADOW-SWEET,WILLOW-LEAF	FACW+	FACW,OBL	IS
SPIRAEA TOMENTOSA	L.	STEEPLE-BUSH	FACW	FACW	NS
SPIRAEA VIRGINIANA	BRITTON	MEADOW-SWEET,VIRGINIA	FACU	FACU,FACW	NS
SPIRANTHES BREVILABRIS	LINDL.	LADIES'-TRESSES,TEXAS	NI	FAC-,FACW-	PNF
SPIRANTHES CERNUA	(L.) L.C. RICH.	LADIES'-TRESSES,NODDING	FACW	FACW-,FACW+	PNF
SPIRANTHES GRAYI	AMES	LADIES'-TRESSES,LITTLE	FACU-	UPL,FACU-	PNF
SPIRANTHES LACERA	(RAF.) RAF.	LADIES'-TRESSES,NORTHERN SLENDER	FACU-	FACU-,FAC+	PNF
SPIRANTHES LACINIATA	(SMALL) AMES	LADIES'-TRESSES,LACE-LIP	OBL	FACW+,OBL	PNEF
SPIRANTHES LONGILABRIS	LINDL.	LADIES'-TRESSES,GIANT SPIRAL	OBL*	FACW,OBL	PNF
SPIRANTHES LUCIDA	(H.H. EAT.) AMES	LADIES'-TRESSES,SHINING	FACW	FACW,FACW+	PNF
SPIRANTHES MAGNICAMPORUM	SHEVIAK	LADIES'-TRESSES,GREAT PLAINS	NI	UPL,FAC	PNF
SPIRANTHES OCCRATA	(NUTT.) LINDL.	LADIES'-TRESSES,FRAGRANT	OBL	OBL	PNF
SPIRANTHES OVALIS	LINDL.	LADIES'-TRESSES,OVAL	FAC	FAC	PNF
SPIRANTHES PRAECOX	(WALTER) S. WATS.	LADIES'-TRESSES,GRASS,LEAF	OBL	FACW,OBL	PNEF
SPIRANTHES ROMANZOFFIANA	CHAM.	LADIES'-TRESSES,HOODED	OBL	FACW,OBL	PNF
SPIRANTHES VERNALIS	ENGELM. & GRAY	LADIES'-TRESSES,SPRING	FAC	FAC,FACW-	PNF
SPIRODELA OLIGORRHIZA	(KURZ) HEGELM.	DUCKWEED	OBL	OBL	PN/F
SPIRODELA POLYRHIZA	(L.) SCHLEID.	DUCKWEED,GREATER	OBL	OBL	PI/F
SPOROBOLUS AIROIDES	(TORR.) TORR.	SACATON,ALKALI	NI	FAC-,FAC+	PNG
SPOROBOLUS INDICUS	(L.) R. BR.	DROPSEED,WEST INDIAN	NI	FACU+	PIG
SPOROBOLUS JACQUEMONTII	KUNTH	RUSH-GRASS,WEST INDIAN	NI	NI	G
SPOROBOLUS NEGLECTUS	NASH	DROPSEED,PUFFSHEATH	FACU-*	UPL,FACU-	ANG

SOLIDAGO X ASPERULA

SPOROBOLUS NEGLECTUS

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
SPOROBOLUS VIRGINICUS	(L.) KUNTH	DROPSEED,SEASHORE	FACW+	FACW+	PNG
STACHYS ASPERA	MICHX.	HEDGENETTLE,ROUGH	FACW	FAC+,FACW+	ANF
STACHYS CLINGMANII	SMALL	HEDGENETTLE,CLINGMAN'S	FAC+	UPL,FAC+	ANF
STACHYS CORDATA	RIDDELL	HEDGENETTLE,NUTTALL'S	FAC	FAC	PNF
STACHYS EPLINGII	J. NELS.	HEDGENETTLE,EPLING'S	NI	FAC	PNF
STACHYS FLORIDANA	SHUTTLEW. EX BENTH.	ARTICHOKE,CHINESE	NI	FAC	PNF
STACHYS HISPIDA	PURSH	HEDGENETTLE,SMOOTH	OBL	FAC,OBL	PNF
STACHYS HYSSOPIFOLIA	MICHX.	HEDGENETTLE,HYSSOP-LEAF	FACW+	FACW+,OBL	PNF
STACHYS LATIDENS	SMALL EX BRITTON	HEDGENETTLE,BROAD-TOOTH	FAC	FAC	PNF
STACHYS PALUSTRIS	L.	HEDGENETTLE,MARSH	OBL	FACW,OBL	PIF
STACHYS TENUIFOLIA	WILLD.	HEDGENETTLE,SMOOTH	FACW+	FACW-,OBL	PNF
STAPHYLEA TRIFOLIA	L.	BLADDERNUT,AMERICAN+	FAC	FAC	NST
STEINCHISMA HIANS	(ELLIOTT) NASH	GRASS,GAPING PANIC	FACW	FACW-,OBL	PNG
STELLARIA ALSINE	J.F.C. GRIMM	STARWORT,BOG	OBL	FAC,OBL	AIF
STELLARIA CALYCANTHA	(LEDEB.) BONG.	STARWORT,NORTHERN	FACW	FACW,OBL	PNF
STELLARIA FONTINALIS	(SHORT & PETER) B. ROB.	STARWORT,WATER	FACW	FACW,OBL	PNF
STELLARIA GRAMINEA	L.	STARWORT,LESSER	FACU-	UPL,FAC	PNF
STELLARIA HUMIFUSA	ROTTB.	STARWORT,LOW	OBL	OBL	PNEF
STELLARIA LAETA	RICHARDS.	STARWORT,LONG-STALK	NI	FAC,FACW	PNF
STELLARIA LONGIFOLIA	MUHL. EX WILLD.	STARWORT,LONG-LEAF	FACW	FAC,OBL	PNF
STELLARIA LONGIPES	GOLDIE	STARWORT,LONG-STALK	FACU-	FACU-,OBL	PNF
STELLARIA PALUSTRIS	RETZ.	STARWORT,MARSH	FACU	FACU,FAC	AIF
STENANTHIUM GRAMINEUM	(KER-GAWL.) MORONG	FEATHER-BELLS,EASTERN	FACW	FAC,FACW	PNF
STENOTAPHRUM SECUNDATUM	(WALTER) KUNTZE	GRASS,ST. AUGUSTINE	NI	FAC,FAC+	PNG
STREPTOPUS AMPLEXIFOLIUS	(L.) DC.	TWISTED-STALK,CLASP-LEAF	FAC+	UPL,OBL	PNF
STREPTOPUS ROSEUS	MICHX.	TWISTED-STALK,ROSY	FAC-	FACU,FAC	PF
STROPHOSTYLES HELVOLA	(L.) ELLIOTT	WILDBEAN,TRAILING	FACU-	FACU-,FAC+	ANVF
STROPHOSTYLES UMBELLATA	(MUHL. EX WILLD.) BRITTON	WILDBEAN,PINK	FACU	FACU,FAC-	PNVF
STYLISMA AQUATICA	(WALTER) CHAPM.	MORNING-GLORY,WATER SOUTHERN	FACW	FACW-,FACW+	PNFV
STYRAX AMERICANA	LAM.	SNOWBELL,AMERICAN	OBL	FACW-,OBL	NST
STYRAX GRANDIFOLIA	AIT.	SNOWBELL,BIG-LEAF	FACU	FACU-,FACU	NI
SUAEDA AMERICANA	(PERS.) FERNALD	SEEPWEED,AMERICAN	OBL	OBL	PNEF
SUAEDA DEPRESSA	(PURSH) S. WATS.	SEEPWEED,PURSH	NI	FACW-,FACW+	APNF
SUAEDA LINEARIS	(ELLIOTT) MOQ.	SEEPWEED,ANNUAL	OBL	OBL	ANEF
SUAEDA MARITIMA	(L.) DUMORT.	SEEPWEED,WHITE	OBL	FACW+,OBL	PIEF
SUAEDA RICHII	FERNALD	SEEPWEED,RICH'S	OBL	OBL	PNEF
SUBULARIA AQUATICA	L.	AWLWORT,WATER	OBL	OBL	ANZF
SYMPHORICARPOS ALBUS	(L.) BLAKE	SNOWBERRY	FACU-	UPL,FACU+	NS
SYMPHYTUM TUBEROSUM	L.	COMFREY,TUBER	NI	NI	PIF
SYMPLOCARPUS FOETIDUS	(L.) SALISB.	SKUNK-CABBAGE	OBL	OBL	PNF
SYMPLOCOS TINCTORIA	(L.) L'HER.	HORSE-SUGAR	FAC+	FAC,FAC+	NTS
SYNANDRA HISPIDULA	BRITTON	BEAUTY,GYANDOTTE	FAC-	FACU,FAC	PNF
TAMARIX PARVIFLORA	DC.	TAMARISK,SMALL-FLOWER	NI	FAC,FACW	IT
TAMARIX RAMOSISSIMA	LEDEB.	SALTCEDAR	NI	FAC,FACW	IT
TARAXACUM OFFICINALE	G.H. WEBER	DANDELION,COMMON	FACU-	FACU-,FACU+	PIF
TAXODIUM DISTICHUM	(L.) L.C. RICH.	CYPRESS,BALD	OBL	OBL	NET
TAXUS CANADENSIS	MARSHALL	YEW,AMERICAN	FAC	FACU,FAC	NS
TEUCRIUM CANADENSE	L.	GERMANDER,AMERICAN	FACW-	FAC+,FACW	PNEF
THALICTRUM CLAVATUM	DC.	MEADOW-RUE,MOUNTAIN	FACW	FACW	PNF
THALICTRUM CONFINE	FERNALD	MEADOW-RUE,CRITICAL	FACW	FAC,FACW	PNF
THALICTRUM DASYCARPUM	FISCH. & AVE-LALL.	MEADOW-RUE,PURPLE	FACW	FAC,FACW	PNF
THALICTRUM DIOICUM	L.	MEADOW-RUE,EARLY	FAC	FACU+,FACW	PNF

SPOROBOLUS VIRGINICUS

THALICTRUM DIOICUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
THALICTRUM MACROSTYLUM	SMALL & A. HELLER	MEADOW-RUE,PIEDMONT	FACW	FAC+,FACW	PNF
THALICTRUM MIRABLE	SMALL	MEADOW-RUE,LITTLE MOUNTAIN	FAC*	FAC,OBL	PNF
THALICTRUM PUBESCENS	PURSH	MEADOW-RUE,TALL	FACW+	FAC,FACW+	PNF
THALICTRUM STEELEANUM	B. BOIVIN	MEADOW-RUE,STEELE'S	FACU	FACU	N
THELYPTERIS DENTATA	(FORSK.) E. ST. JOHN	FERN,DOWNY MAIDEN	NI	FAC,FACW	PIF3
THELYPTERIS HEXAGONOPTERA	(MICHX.) WEATHERBY	FERN,BROAD BEECH	FAC	FACU-,FAC	PNF3
THELYPTERIS NOVEBORACENSIS	(L.) NIEUWL.	FERN,NEW YORK	FAC	FAC,FAC+	PNF3
THELYPTERIS SIMULATA	(DAVENP.) NIEUWL.	FERN,MASSACHUSETTS	FACW	FACW	PNF3
THELYPTERIS THELYPTERIDOIDES	(MICHX.) J. HOLUB	FERN,MARSH	FACW+	FACW+,OBL	F3
THLASPI ARVENSE	L.	PENNY-CRESS,FIELD	NI	FACU?	AIF
THUJA OCCIDENTALIS	L.	CEDAR,NORTHERN WHITE	FACW	FACW	NT
TIARELLA CORDIFOLIA	L.	FOAMFLOWER,HEART-LEAF	FAC-	FAC-	PNF
TILIA AMERICANA	L.	BASSWOOD,AMERICAN	FACU	FACU	NT
TIPULARIA DISCOLOR	(PURSH) NUTT.	ORCHID,CRANEFLY	FACU	FACU-,FAC	PNF
TOFIELDIA GLUTINOSA	(MICHX.) PERS.	FALSE-ASPHODEL,STICKY	OBL	FACW,OBL	PNF
TOFIELDIA RACEMOSA	(WALTER) B.S.P.	FALSE-ASPHODEL,COASTAL	OBL	OBL	PNF
TOXICODENDRON QUERCIFOLIA	(MICHX.) GREENE	OAK,POISON	FACU	FACU	NS
TOXICODENDRON RADICANS	(L.) KUNTZE	IVY,POISON	FAC	FACU,FACW	NHVS
TOXICODENDRON RYDBERGII	(SMALL EX RYDB.) GREENE	IVY,RYDBERG POISON	FAC-	FACU,FACW	NHS
TOXICODENDRON VERNIX	(L.) KUNTZE	SUMAC,POISON	OBL	OBL	N
TRACHELOSPERMUM DIFFORME	(WALTER) GRAY	CLIMBING-DOGBANE	FACW	FACW	PNVH
TRADESCANTIA OHIENSIS	RAF.	SPIDER-WORT,OHIO	FAC	FACU,FACW	PNF
TRADESCANTIA VIRGINIANA	L.	SPIDER-WORT,VIRGINIA	FACU	UPL,FAC+	PNF
TRAPA NATANS	L.	CHESTNUT,WATER	OBL	OBL	PIF
TRAUTVETTERIA CAROLINIENSIS	(WALTER) VAIL	TASSEL-RUE,CAROLINA	FACW-	FAC-,FACW+	PNF
TREPOCARPUS AETHUSAE	NUTT.	TREPOCARPUS,AETHUSA-LIKE	NI	FACW	ANF
TRIADENUM FRASERI	(SPACH) GLEASON	ST. JOHN'S-WORT,MARSH	OBL	OBL	PNEF
TRIADENUM TUBULOSUM	(WALTER) GLEASON	ST. JOHN'S-WORT,LARGE MARSH	OBL	OBL	PNEF
TRIADENUM VIRGINICUM	(L.) RAF.	ST. JOHN'S-WORT,MARSH	OBL	OBL	PNEF
TRIADENUM WALTERI	(J.F. GMEL.) GLEASON	ST. JOHN'S-WORT,LARGER MARSH	OBL	OBL	PNEF
TRICHOMANES BOSCHIANUM	STURM.	FERN,APPALACHIAN BRISTLE	FACW	FACW,OBL	PNF3
TRIDENS FLAVUS	(L.) A. HITCHC.	TRIDENS,PURPLE-TOP	FACU*	UPL,FACU	PNG
TRIDENS STRICTUS	(NUTT.) NASH	TRIDENS,LONG-SPIKE	NI	FACU,FACW	PNG
TRIENTALIS BOREALIS	RAF.	STARFLOWER,AMERICAN	FAC	FAC,FAC+	PNF
TRIFOLIUM FRAGIFERUM	L.	CLOVER,STRAWBERRY	FACU	FACU,FACW-	PIF
TRIFOLIUM HYBRIDUM	L.	CLOVER,ALSIKE	FACU-	FACU-,FAC	PIF
TRIFOLIUM PRATENSE	L.	CLOVER,RED	FACU-	FACU-,FAC	BPIF
TRIFOLIUM REPENS	L.	CLOVER,WHITE	FACU-	FACU-,FAC	PIF
TRIGLOCHIN MARITIMUM	L.	ARROW-GRASS,SEASIDE	OBL	OBL	PNF
TRIGLOCHIN PALUSTRE	L.	ARROW-GRASS,MARSH	OBL	OBL	PNF
TRIGLOCHIN STRIATUM	RUIZ & PAVON	ARROW-GRASS,THREE-RIB	OBL	OBL	PNF
TRILISA ODORATISSIMA	(WALTER EX J.F. GMEL.) CASS.	VANILLA-LEAF	NI	FACW	PNF
TRILLIUM CERNUUM	L.	TRILLIUM,NODDING	FACW	FAC,FACW	PNF
TRILLIUM ERECTUM	L.	TRILLIUM,PURPLE	FACU-	UPL,FACU	PNF
TRILLIUM FLEXIPES	RAF.	TRILLIUM,WHITE	FAC	FACU,FAC	PNF
TRILLIUM LANCIFOLIUM	RAF.	TRILLIUM,NARROW-LEAF	NI	UPL	PNF
TRILLIUM PUSILLUM	MICHX.	TRILLIUM,CAROLINA	FACW	UPL,FACW	PNF
TRILLIUM SESSILE	L.	TRILLIUM,SESSILE	NI	FACU-	PNF
TRILLIUM UNDULATUM	WILLD.	TRILLIUM,PAINTED	FACU*	FACU-,FACU	PNF
TRIODANIS PERFOLIATA	(L.) NIEUWL.	VENUS'-LOOKING-GLASS,CLASP-LEAF	FAC	UPL,FAC	ANF
TRIPSACUM DACTYLOIDES	(L.) L.	GRASS,EASTERN GAMA	FACW	FAC,FACW	PNG
TRISETUM MELICOIDES	(MICHX.) SCRIBN.	FALSE-OATS,PURPLE	FAC*	FAC,FACW	PNG

THALICTRUM MACROSTYLLUM

TRISETUM MELICOIDES

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RI IND	NAT-IND	HABIT
TRISETUM SPICATUM	(L.) RICHTER	FALSE-OATS,SPIKED	FACU	UPL,FACW-	PNG
TROLLIUS LAXUS	SALISB.	GLOBEFLOWER,AMERICAN	OBL	OBL	PNF
TSUGA CANADENSIS	(L.) CARRIERE	HEMLOCK,EASTERN	FACU	FACU	NT
TUSSILAGO FARFARA	L.	COLT'S-FOOT	FACU	FACU	PIF
TYPHA ANGUSTIFOLIA	L.	CATTAIL,NARROW-LEAF	OBL	OBL	PNEF
TYPHA DOMINGENSIS	PERS.	CATTAIL,SOUTHERN	OBL	OBL	PNEF
TYPHA LATIFOLIA	L.	CATTAIL,BROAD-LEAF	OBL	OBL	PNEF
TYPHA X GLAUCA	GODR.	CATTAIL,BLUE	OBL	OBL	PNEF
ULMUS ALATA	MICHX.	ELM,WINGED	FACU	FACU,FACU+	NT
ULMUS AMERICANA	L.	ELM,AMERICAN	FACW-	FAC,FACW	NT
ULMUS RUBRA	MUHL.	ELM,SLIPPERY	FAC	FAC	NT
ULMUS SEROTINA	SARG.	ELM,SEPTEMBER	FAC+	UPL,FAC+	NT
ULMUS THOMASII	SARG.	ELM,ROCK	FACU+	UPL,FAC+	NT
UNIOLA PANICULATA	L.	SEA-OATS	FACU-	FACU-,FACU	PNG
URTICA CHAMAEDRYOIDES	PURSH	NETTLE,HEART-LEAF	FACU	FACU,FAC	ANF
URTICA DIOICA	L.	NETTLE,STINGING	FACU	FACU,FACW	PIF
UTRICULARIA BIFLORA	LAM.	BLADDERWORT,TWO-FLOWER	OBL	OBL	PNZ/F
UTRICULARIA CORNUTA	MICHX.	BLADDERWORT,HORNED	OBL	OBL	APN/F
UTRICULARIA FIBROSA	WALTER	BLADDERWORT,FIBROUS	OBL	OBL	PNZ/F
UTRICULARIA GEMINISCAPA	L. BENJ.	BLADDERWORT;HIDDEN-FRUIT	OBL	OBL	APNZ/
UTRICULARIA GIBBA	L.	BLADDERWORT,HUMPED	OBL	OBL	APNZ/
UTRICULARIA INFLATA	WALTER	BLADDERWORT,FLOATING	OBL	OBL	PN/ZF
UTRICULARIA INTERMEDIA	HAYNE	BLADDERWORT,FLAT-LEAF	OBL	OBL	ANZF
UTRICULARIA JUNCEA	VAHL	BLADDERWORT,RUSH	OBL	OBL	APN/F
UTRICULARIA MACRORHIZA	LECONTE	BLADDERWORT,COMMON	OBL	OBL	PN/F
UTRICULARIA MINOR	L.	BLADDERWORT;LESSER	OBL	OBL	PNZF
UTRICULARIA OCHROLEUCA	R.W. HARTM.	BLADDERWORT,DWARF	NI	OBL	PNZF
UTRICULARIA OLIVACEA	C. WRIGHT EX GRISEB.	BLADDERWORT,PIEDMONT	OBL	OBL	APNZF
UTRICULARIA PURPUREA	WALTER	BLADDERWORT,PURPLE	OBL	OBL	APNZ/
UTRICULARIA RADIATA	SMALL	BLADDERWORT,LITTLE FLOATING	OBL	OBL	APNZ/
UTRICULARIA RESUPINATA	B. GREENE	BLADDERWORT,LAVENDER	OBL	OBL	APNZF
UTRICULARIA SUBULATA	L.	BLADDERWORT,ZIGZAG	OBL	OBL	APNF
UVULARIA PERFOLIATA	L.	BELLWORT,PERFOLIATE	FACU	FACU	PNF
UVULARIA PUBERULA	MICHX.	BELLWORT,MOUNTAIN	FACU	FACU,FAC-	PNF
UVULARIA SESSILIFOLIA	L.	BELLWORT,SESSILE-LEAF	FACU-	FACU-,FAC+	PNF
VACCINIUM ANGUSTIFOLIUM	AIT.	BLUEBERRY,HIGHBUSH	FACW	FACU,FACW	NS
VACCINIUM ARBOREUM	MARSHALL	BLUEBERRY,LOWBUSH	FACU-	FACU-,FACU	NS
VACCINIUM AUSTRALE	SMALL	FARKLEBERRY	FACU	FACU	NST
VACCINIUM CAESARIENSE	MACKENZ.	BLUEBERRY,HIGHBUSH	OBL	FAC+,OBL	NS
VACCINIUM CAESIUM	GREENE	BLUEBERRY,NEW JERSEY	OBL	OBL	NS
VACCINIUM CESPITOSUM	MICHX.	DEERBERRY	FAC	FACU,FAC	NS
VACCINIUM CONSTABLAEI	GRAY	BLUEBERRY,DWARF	FACW	FACU,FACW	NS
VACCINIUM CORYMBOSUM	L.	BLUEBERRY,MOUNTAIN	FAC	FAC	NS
VACCINIUM CRASSIFOLIUM	ANDR.	BLUEBERRY,HIGHBUSH	FACW-	FACW-,FACW	NS
VACCINIUM ELLIOTTII	CHAPM.	BLUEBERRY,CREEPING	FAC	FAC,FAC+	NHV
VACCINIUM ERYTHROCARPUM	MICHX.	BLUEBERRY,ELLIOTT	FACW	FAC+,FACW	NS
VACCINIUM MACROCARPON	AIT.	CRANBERRY,SOUTHERN MOUNTAIN	FAC	FAC	NS
VACCINIUM MARIANUM	S. WATS.	CRANBERRY,LARGE	OBL	OBL	NS
VACCINIUM MYRTILLOIDES	MICHX.	BLUEBERRY,HIGHBUSH	FAC	FAC,OBL	NS
VACCINIUM OXYCOCCOS	L.	BLUEBERRY,VELVET-LEAF	FAC	FACU,FACW-	NS
VACCINIUM SIMULATUM	SMALL	CRANBERRY,SMALL	OBL	OBL	NS
		BLUEBERRY,HIGHBUSH	FACU	FACU,FAC	NS

TRISETUM SPICATUM

VACCINIUM SIMULATUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RI IND	NAT-IND	HABIT
VACCINIUM STAMINEUM	L.	DEERBERRY	FACU-	FACU-,FACU+	NS
VACCINIUM ULIGINOSUM	L.	BLUEBERRY,BOG	FACU+	FACU+,FACW+	IS
VACCINIUM VITIS-IDAEA	L.	CRANBERRY,MOUNTAIN	FAC	FAC	NS
VAHLODEA ATROPURPUREA	(WAHLENB.) FR.	HAIRGRASS,MOUNTAIN	FACW	FAC,FACW	PNG
VALERIANA EDULIS	NUTT. EX TORR. & GRAY	VALERIAN,EDIBLE	OBL	FAC,OBL	PNF
VALERIANA PAUCIFLORA	MICHX.	VALERIAN,LARGE-FLOWER	FACW	FAC,FACW	PNF
VALERIANA SITCHENSIS	BONG.	VALERIAN,SITKA	OBL	FAC,OBL	PNF
VALERIANELLA RADIATA	(L.) DUFR.	CORNSALAD,BEAKED	FAC	FAC-,FAC+	ANF
VALERIANELLA UMBILICATA	(SULLIVANT) A. WOOD	CORNSALAD,NAVEL-SHAPE	FAC	FAC,FACW	ANF
VALERIANELLA WOODSIANA	(TORR. & GRAY) WALPERS	CORNSALAD,WOODS'	FACU*	FACU,FACW-	ANF
VALLISNERIA AMERICANA	MICHX.	WILD-CELERY	OBL	OBL	PIZF
VERATRUM VIRIDE	AIT.	FALSE-HELLEBORE,AMERICAN	FACW+	FACU,OBL	PNF
VERBENA BOWARIENSIS	L.	VERVAIN,SOUTH AMERICAN	NI	FAC+,FACW+	PIF
VERBENA HASTATA	L.	VERVAIN,BLUE	FACW+	FAC,FACW+	PNF
VERBENA LASIOSTACHYS	LINK	VERVAIN,WESTERN	NI	FAC-	PNF
VERBENA OFFICINALIS	L.	VERVAIN,EUROPEAN	FACU-	FACU-	AIF
VERBENA RIPARIA	RAF.	VERVAIN,RIVER-BANK	FACW	FAC,FACW	ANF
VERBENA SCABRA	VAHL	VERVAIN,SANDPAPER	FACW	FACW,OBL	PNEFS
VERBENA URTICIFOLIA	L.	VERVAIN,WHITE	FACU	UPL,FAC+	APNF
VERBENA X ENGELMANNII	MOLDENKE	VERVAIN	NI	NI	PNF
VERBESINA ALTERNIFOLIA	(L.) BRITTON	WINGSTEM	FAC	FAC,FACW	PNF
VERBESINA ENCELIOIDES	(CAV.) BENTH. & HOOK. EX GRAY	CROWNBEARD,GOLDEN	FACU-	FACU-,FAC	ANF
VERNONIA ARKANSANA	DC.	IRONWEED,BUR	NI	FAC,FACW	PNF
VERNONIA FASCICULATA	MICHX.	IRONWEED,PRAIRIE'	FAC+	FAC,FACW	PNF
VERNONIA GIGANTEA	(WALTER) TRELEASE	IRONWEED,TALL	FAC	FAC,FACW	PNF
VERNONIA MISSURICA	RAF.	IRONWEED,MISSOURI	FACU+	FACU+,FACW	PNF
VERNONIA NOVEBORACENSIS	(L.) MICHX.	IRONWEED,NEW YORK	FACW+	FAC+,FACW+	PNF
VERONICA AMERICANA	SCHWEINITZ EX BENTH.	SPEEDWELL,AMERICAN	OBL	OBL	PNESF
VERONICA ANAGALLIS-AQUATICA	L.	SPEEDWELL,WATER	OBL	OBL	BPNEF
VERONICA ARVENSIS	L.	SPEEDWELL,CORN	NI	FACU?	AIF
VERONICA BECCABUNGA	L.	SPEEDWELL,EUROPEAN	OBL	OBL	PIF
VERONICA CATENATA	PENNELL	SPEEDWELL,PINK WATER	OBL	OBL	PNEF
VERONICA OFFICINALIS	L.	SPEEDWELL,COMMON	FACU-	UPL,FACU	PIF
VERONICA PEREGRINA	L.	SPEEDWELL,PURSLANE	FACU-	FACU-,OBL	ANEF
VERONICA SCUTELLATA	L.	SPEEDWELL,MARSH	OBL	OBL	PIF
VERONICA SERPYLLIFOLIA	L.	SPEEDWELL,THYME-LEAF	FAC+	FAC,OBL	PIF
VERONICA WORMSKJOLDII	ROEM. & J.A. SCHULTES	SPEEDWELL,AMERICAN ALPINE	FAC	FACU,FACW	PNF
VERONICASTRUM VIRGINICUM	(L.) FARW.	CULVER'S-ROOT	FACU	FACU,FACW	PNF
VIBURNUM CASSINOIDES	L.	WITHE-ROD	FACW	FACW	NS
VIBURNUM DENTATUM	L.	ARROW-WOOD	FAC	FAC	NTS
VIBURNUM EDULE	(MICHX.) RAF.	SQUASHBERRY	FACW	FACU,FACW	NS
VIBURNUM LANTANOIDES	MICHX.	HOBBLE-BUSH	FAC	FAC	NS
VIBURNUM LENTAGO	L.	NANNYBERRY	FAC	FACU,FAC+	NTS
VIBURNUM NUDUM	L.	VIBURNUM,POSSUM-HAW	OBL	FACW+,OBL	NST
VIBURNUM PLICATUM	THUNB.	SNOWBALL,JAPANESE	NI	NI	IS
VIBURNUM PRUNIFOLIUM	L.	BLACK-HAW	FACU	FACU,FACU+	NST
VIBURNUM RECOGNITUM	FERNALD	ARROW-WOOD,NORTHERN	FACW-	FACW-,FACW	NS
VIBURNUM TRILOBUM	MARSHALL	CRANBERRYBUSH,AMERICAN	FACW	FAC,FACW	N
VICIA AMERICANA	MUHL. EX WILLD.	VETCH,AMERICAN PURPLE	NI	FAC?	PNFV
VICIA CAROLINIANA	WALTER	VETCH,CAROLINA WOOD	FACU-	UPL,FACU	PNFV
VICIA SATIVA	L.	VETCH,COMMON	FACU-	UPL,FACW	AIFV
VIOLA ADUNCA	J.E. SMITH	VIOLET,HOOKED-SPUR	FAC	FACU,FAC	PNF

VACCINIUM STAMINEUM

VIOLA ADUNCA

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
VIOLA AFFINIS	LECONTE	VIOLET,LECONTE'S	FACW	FACW	PNF
VIOLA APPALACHIENSIS	HENRY	VIOLET,APPALACHIAN BLUE	FACU	FACU	NF
VIOLA BICOLOR	PURSH	PANSY,FIELD	FACU	UPL,FAC	ANF
VIOLA BLANDA	WILLD.	VIOLET,SWEET WHITE	FACW	FACW-,FACW	PNF
VIOLA BRITTONIANA	POLLARD	VIOLET,COASTAL	FAC	FAC	PNF
VIOLA CONSPERSA	REICHENB.	VIOLET,AMERICAN DOG	FACW	FACW-,FACW	PNF
VIOLA CUCULLATA	AIT.	VIOLET,MARSH BLUE	FACW+	FACW+,OBL	PNF
VIOLA ESCULENTA	ELLIOTT	VIOLET,EDIBLE	FACW	FACW-,FACW	PNF
VIOLA INCOGNITA	BRAINERD	VIOLET,LARGE-LEAF WHITE	FACW	FACU,FACW	PNF
VIOLA LABRADORICA	SCHRANK	VIOLET,ALPINE	FAC	FAC	PNF
VIOLA LANCEOLATA	L.	VIOLET,LANCE-LEAF	OBL	OBL	PNF
VIOLA MISSOURIENSIS	GREENE	VIOLET,MISSOURI	NI	FAC,FACW+	PNF
VIOLA NEPHROPHYLLA	GREENE	VIOLET,NORTHERN BOG	FACW	FACW,FACW+	PNF
VIOLA NOVAE-ANGLIAE	HOUSE	VIOLET,NEW ENGLAND BLUE	OBL	OBL	PNF
VIOLA PALLENS	(BANKS) BRAINERD	VIOLET,NORTHERN WHITE	OBL	UPL,OBL	NF
VIOLA PALUSTRIS	L.	VIOLET,MARSH	FACW+	FACW,OBL	PNF
VIOLA PAPILIONACEA	PURSH	VIOLET,COMMON BLUE	FAC	FACU,FAC	PNF
VIOLA PEDATIFIDA	G. DON	VIOLET,PRAIRIE	FACU-	UPL,FACU	PNF
VIOLA PENSYLVANICA	MICHX.	VIOLET,SMOOTH YELLOW	FACU	FACU,FACW	PNF
VIOLA PRATINCOLA	GREENE	VIOLET,BLUE PRAIRIE	NI	FACU,FAC	PNF
VIOLA PRIMULIFOLIA	L.	VIOLET,PRIMROSE-LEAF	FAC+	FAC,FACW+	PNF
VIOLA PUBESCENS	AIT.	VIOLET,DOWNY YELLOW	FACU-	FACU-,FAC-	PNF
VIOLA RENIFOLIA	GRAY	VIOLET,KIDNEY-LEAF WHITE	FACW	FAC,FACW	PNF
VIOLA ROSTRATA	PURSH	VIOLET,LONG-SPUR	FACU	FACU	PNF
VIOLA ROTUNDIFOLIA	MICHX.	VIOLET,ROUND-LEAF YELLOW	FAC+	FAC,FAC+	PNF
VIOLA SAGITTATA	AIT.	VIOLET,ARROW-LEAF	FACW	FAC-,FACW	PNF
VIOLA SEPTEMLOBA	LECONTE	VIOLET,SOUTHERN COAST	FACW	FAC-,FACW	PNF
VIOLA SEPTENTRIONALIS	GREENE	VIOLET,NORTHERN BLUE	FACU	FACU	PNF
VIOLA SORORIA	WILLD.	VIOLET,WOOLLY BLUE	FAC-	FAC-,FAC	PNF
VIOLA STRIATA	AIT.	VIOLET,STRIPED CREAM	FACW	FACW-,FACW	PNF
VIOLA VIARUM	POLLARD	VIOLET,TWO-FLOWER	NI	UPL,FACU	PNF
VIOLA VILLOSA	WALTER	VIOLET,CAROLINA	FACU-	FACU-,FACU	PNF
VITIS AESTIVALIS	MICHX.	GRAPE,SUMMER	FACU	UPL,FAC	NWV
VITIS CINEREA	ENGELM.	GRAPE,PIGEON	FACW	FAC,FACW	NWV
VITIS LABRUSCA	L.H. BAILEY	GRAPE,FOX	FACU	FACU,FAC+	NWV
VITIS NOVAE-ANGLIAE	FERNALD	GRAPE,NEW ENGLAND	NI	NI	NWV
VITIS PALMATA	VAHL	GRAPE,CAT	NI	FACW-,OBL	NWV
VITIS RIPARIA	MICHX.	GRAPE,RIVER-BANK	FACW	FACU,FACW	NWV
VITIS ROTUNDIFOLIA	MICHX.	GRAPE,MUSCADINE	FAC-	FAC-,FACW	NWV
VITIS VULPINA	L.	GRAPE,FROST	FAC	FAC,FACW-	NWV
VITTARIA LINEATA	(L.) J.E. SMITH	FERN,APPALACHIAN SHOESTRING	NI	FAC	PNF3
VULPIA BROMOIDES	(L.) S.F. GRAY	GRASS,BROME SIX-WEEKS	FACW	UPL,FACW	AIG
WISTERIA FRUTESCENS	(L.) POIR.	WISTERIA,AMERICAN	FACW-	FACW-,FACW	NWV
WISTERIA MACROSTACHYA	(TORR. & GRAY) NUTT. EX B. ROB. & FERNALD	WISTERIA,KENTUCKY	FACW+	FACW,FACW+	NWV
WOLFFIA COLUMBIANA	KARST.	WATER-MEAL,COLUMBIA	OBL	OBL	PN/F
WOLFFIA PAPULIFERA	C.H. THOMPS.	WATER-MEAL	OBL	OBL	PN/F
WOLFFIA PUNCTATA	GRISEB.	WATER-MEAL,DOTTED	OBL	OBL	PN/F
WOLFFIELLA FLORIDANA	(J.D. SMITH) C.H. THOMPS.	BOGMAT	OBL	OBL	PN/F
WOLFFIELLA GLADIATA	(HEGELM.) HEGELM.	BOGMAT,SWORD	NI	OBL	PN/F
WOODWARDIA AREOLATA	(L.) T. MOORE	CHAINFERN,NETTED	FACW+	FACW+,OBL	PNEF3
WOODWARDIA VIRGINICA	(L.) J.E. SMITH	CHAINFERN,VIRGINIA	OBL	OBL	PNF3
XANTHIUM SPINOSUM	L.	COCKLE-BUR,SPINY	FACU	FACU,FAC+	ANF

VIOLA AFFINIS

XANTHIUM SPINOSUM

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NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: 1988--NORTHEAST (REGION 1)

SCI-NAME	AUTHOR	COMMON-NAME	RIIND	NAT-IND	HABIT
XANTHIUM STRUMARIUM	L.	COCKLE-BUR,ROUGH	FAC	FAC-,FAC+	ANF
XANTHORHIZA SIMPLICISSIMA	MARSHALL	YELLOW-ROOT,SHRUBBY	FACW	FACW-,FACW	NS
XYRIS AMBIGUA	BEYR. EX KUNTH	YELLOW-EYED-GRASS,COASTAL-PLAIN	OBL	OBL	PNEF
XYRIS CAROLINIANA	WALTER	YELLOW-EYED-GRASS,CAROLINA	FACW+	FACW,FACW+	PNF
XYRIS DIFFORMIS	CHAPM.	YELLOW-EYED-GRASS,COMMON	OBL	OBL	PNEF
XYRIS FIMBRIATA	ELLIOTT	YELLOW-EYED-GRASS,FRINGED	OBL	OBL	PNEF
XYRIS IRIDIFOLIA	CHAPM.	YELLOW-EYED-GRASS,IRIS-LEAF	OBL	OBL	PNEF
XYRIS JUPICAI	L.C. RICH.	YELLOW-EYED-GRASS,RICHARD'S	OBL	OBL	APNEF
XYRIS MONTANA	RIES	YELLOW-EYED-GRASS,NORTHERN	OBL	OBL	PNEF
XYRIS PLATYLEPIS	CHAPM.	YELLOW-EYED-GRASS,TALL	OBL	OBL	PNEF
XYRIS SMALLIANA	NASH	YELLOW-EYED-GRASS,SMALL'S	OBL	OBL	PNEF
XYRIS TORTA	J.E. SMITH	YELLOW-EYED-GRASS,TWISTED	OBL	OBL	PNEF
YOUNGIA JAPONICA	(L.) DC.	HAWKSBEARD,ORIENTAL	NI	FACU	AIF
ZANNICHELLIA PALUSTRIS	L.	PONDWEED,HORNED	OBL	OBL	PNZF
ZANTHOXYLUM CLAVA-HERCULIS	L.	HERCULES-CLUB	FAC	FAC-,FAC	NST
ZENOBIA PULVERULENTA	(W. BARTRAM) POLLARD	ZENOBIA,DUSTY	FACW	FACW,OBL	NS
ZEPHYRANTHES ATAMASCA	(L.) HERB.	LILY,ATAMASCO	FACW	FACW	PNF
ZIGADENUS DENSUS	(DESH.) FERNALD	CROW-POISON	OBL	FACW,OBL	PNF
ZIGADENUS ELEGANS	PURSH	DEATHCAMAS,MOUNTAIN	NI	UPL,FACW+	PNF
ZIGADENUS GLABERRIMUS	MICHX.	DEATHCAMAS,ATLANTIC	OBL	FACW+,OBL	PNF
ZIGADENUS GLAUCUS	NUTT.	CAMAS,WHITE	FAC	FAC,FACW	PNF
ZIGADENUS LEIMANTHOIDES	GRAY	DEATHCAMAS,PINEBARREN	OBL	FACW,OBL	PNF
ZIZANIA AQUATICA	L.	WILDRICE,ANNUAL	OBL	OBL	ANEG
ZIZANIOPSIS MILIACEA	(MICHX.) DOELL & ASCHERS.	WILDRICE,SOUTHERN	OBL	OBL	PNG
ZIZIA APTERA	(GRAY) FERNALD	ALEXANDERS,HEART-LEAF	FAC	FACU,FACW-	PNF
ZIZIA AUREA	(L.) W. KOCH	ALEXANDERS,GOLDEN	FAC	FAC-,FAC+	PNF
ZOSTERA MARINA	L.	EEL-GRASS	OBL	OBL	PNZF
ZOSTERELLA DUBIA	(JACQ.) SMALL	STAR-GRASS,WATER	OBL	OBL	APN/F

XANTHIUM STRUMARIUM

ZOSTERELLA DUBIA

- 7337

BOTANY ILLUSTRATED

NTRODUCTION TO PLANTS
MAJOR GROUPS
LOWERING PLANT FAMILIES

BY JANICE GLIMN-LACY
AND PETER B. KAUFMAN

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Names and Terms

Names

Division. The major category is called a division and is equivalent to phylum in the animal kingdom. Division name endings indicate plants (-phyta) and fungi (-mycota). In the top illustration are some examples of Magnoliophyta, the flowering plant division. The endings of lesser categories indicate class (-opsida), subclass (-idae), order (-ales), and family (-aceae). Classification of one specific plant is shown.

Class. Flowering plants are divided into 2 classes: Magnoliopsida, the dicots, which have 2 seed leaves, and Liliopsida, the monocots, which have 1 seed leaf (di = two, mono = one, cotyledon = seed leaf). In the second illustration are examples of Liliopsida, the monocot class.

Family. The third group of plants shows some monocots in the lily family, Liliaceae (see 128).

Genus Species. Next are 3 lilies in the genus *Lilium*. A plant type is given a 2-part scientific name – a generic name, the genus, which is a noun and is always capitalized, and a specific epithet, the species, which is usually an adjective. The 2 parts of the name, called a binomial, are italicized in print and underlined when handwritten. The binomial is sometimes followed by a name abbreviation of the person who first described the plant in botanical literature. The specific lily here is *Lilium michiganense,* with the English common name Michigan lily. A spontaneously occurring variation of a species in nature also may have a **variety** (var.) name (see 101). A hybrid between 2 species is indicated by an × between the genus and new specific epithet (see 77). Hybrids may occur in nature or by plant breeding.

Common Names. As common names differ from region to region, a plant may have many names. Sometimes a common name is used for unrelated plants. So, to be universally understood, botanists use the binomial system of naming plants in Latin, a dead, unchanging language. A plant variety that exists only through cultivation has a common **cultivar** name (cv., **cultivated variety**) (see 93).

Terms

Habit vs. **Habitat.** The gross habit of a plant is how an individual looks in its entirety, the complete plant. Where a plant grows in its environment is called the habitat, such as a beech-maple forest, a pond, or a desert.

Herbaceous vs. **Woody.** Herbs have little or no secondary vascular tissue and usually die back at the end of the growing season. Herbs are considered to be more advanced in evolution than woody plants (shrubs and trees) with secondary vascular tissue, which persist in growth year after year.

Macroscopic vs. **Microscopic.** If a plant structure can be seen with the unaided eye, it is macroscopic; if a microscope has to be used to see it; it is microscopic in size.

Metric Equivalents

1 namometer (nm)	= 10^{-9} meter
1 micrometer (micron, μm)	= 10^{-6} meter
1 millimeter (mm)	= 0.001 meter, 0.04 inch
1 centimeter (cm), 10 mm	= 0.01 meter, 0.39 inch
2.54 centimeters	= 1 inch
1 decimeter, 10 cm	= 3.9 inches
0.91 meter	= 1 yard
1 meter (m), 100 cm	= 3.28 feet

COLOR CODE

orange:	tepals (a) (see 27)
brown:	stamens (b)
light green:	stigma (c)
green:	peduncle (d), leaves (e), stem (f)

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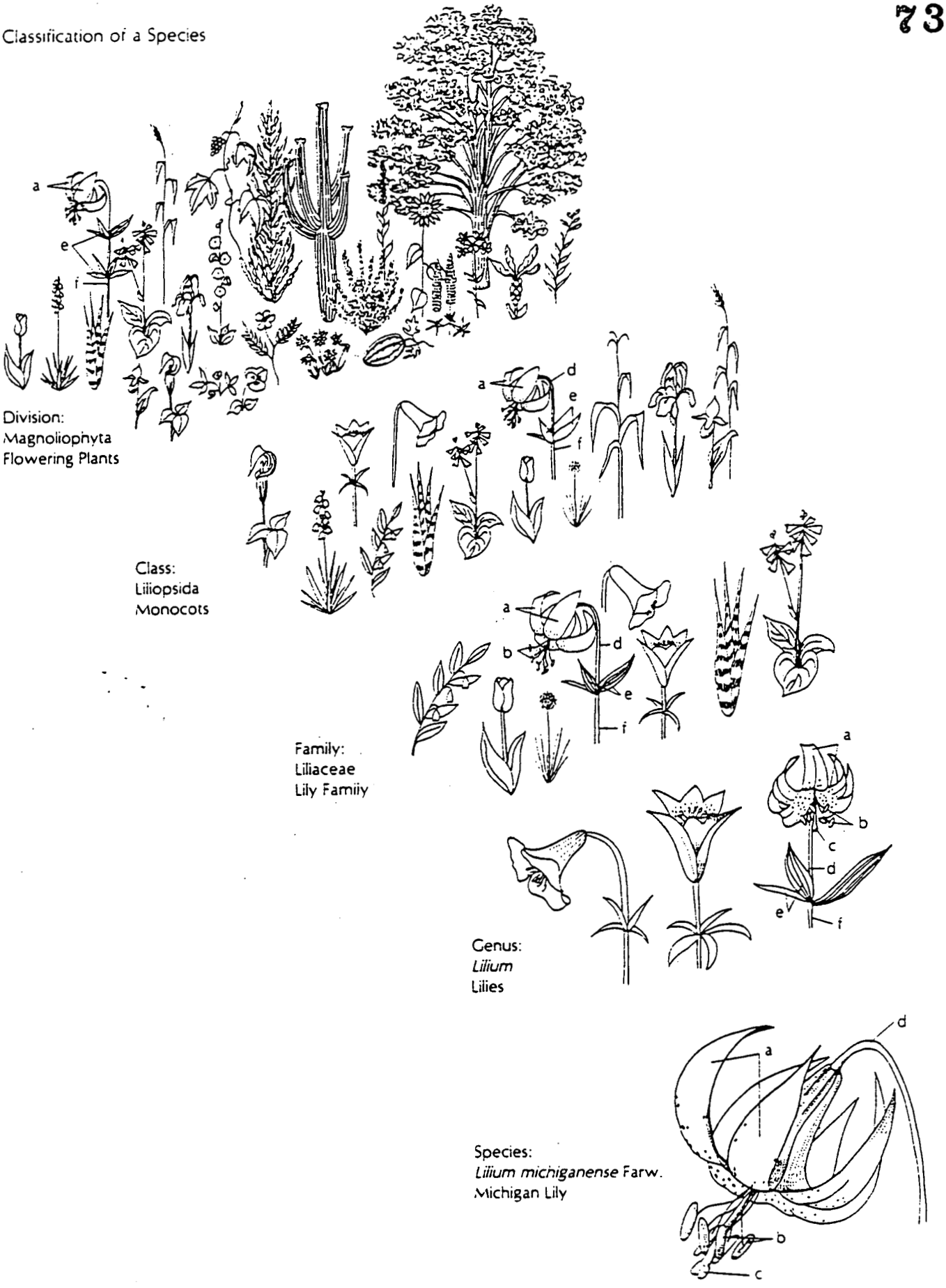
Classification of a Species



Root Types and Modifications

The root is the underground organ of the plant. Its primary functions include uptake of water and minerals and anchorage of the above-ground (aerial) portions of the plant.

Root Types

In conifers and dicots, a primary root (a), called a radicle in the seed embryo, develops lateral branching roots (b). As this system develops further, the individual roots may show secondary growth due to cambial activity. In many monocots, the first-formed roots of the seedling, called seminal roots, eventually die. They are replaced by adventitious roots (d), which emerge from the stem. Dicots may have accessory adventitious roots, such as the aerial roots on vines such as ivy (see 16).

Root Modifications

Storage Roots. Plants may develop specialized, thickened roots such as those found on carrot (*Daucus*, f), beet *(Beta)*, sweet potato (*Ipomoea batatas*, see 112), manroot *(Ipomoea pandurata)*, tuberous begonia *(Begonia)*, and dahlia *(Dahlia)*. These roots are an adaptation for food storage and are seen in many biennials and perennials.

Prop Roots. Some plants develop supporting roots as found in corn (*Zea*, h) and mangrove *(Rhizophora)*. Such roots are especially effective in anchoring the shoot system in the soil, preventing them from capsizing in strong winds, heavy rains, and impact from predators.

Contractile Roots. Contraction or shortening of some roots helps pull down and anchor the plant more firmly in the soil. Contractile roots (i) are common in herbaceous dicots and monocots, and occur in taproots, adventitious roots, and lateral roots, and on roots of underground storage stems such as bulbs and corms.

Symbiotic Relationships in Roots

Nodules. Some plants are stimulated by certain genera of bacteria to develop extra tissues in the roots in the form of nodules (l), where nitrogen from the air is "fixed," that is, converted to other forms, mainly ammonia (NH_3), which can then be converted to organic forms such as amino acids. The bacteria and plant exchange nutrients and metabolites in a mutually beneficial relationship. Examples are found in alfalfa *(Medicago)*, clover *(Trifolium)*, garden pea *(Pisum sativum)*, and garden bean *(Phaseolus vulgaris)*.

Mycorrhizae. These are associations between fungi (n) and plant roots (o). For the plant, the fungi increase the uptake of minerals, particularly phosphorus, and also water. Mycorrhizae are classified according to whether the fungal strands (hyphae) invade (endomycorrhizae) or surround (ectomycorrhizae) the root cortical cells. A third class is where fungi both invade and surround (ectendomycorrhizae) root cortical cells. Most plants have mycorrhizal associations which help them compete with other plants. Mycorrhizae develop best in nutrient-poor soils.

COLOR CODE

tan:	dicot root system (a, b), scale leaves (j), stem axis (k), nodules (l)
green:	leaves (c, e, g), prop roots (h)
white:	monocot root system (d), roots (i, m, o), fungus (n)
orange:	storage root (f)

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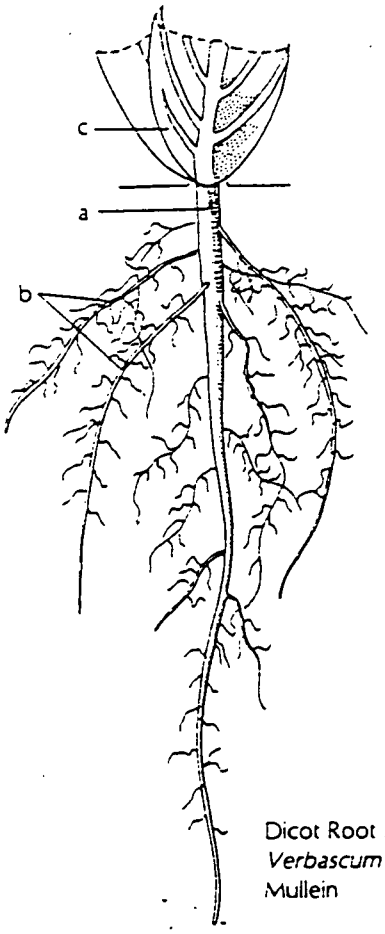
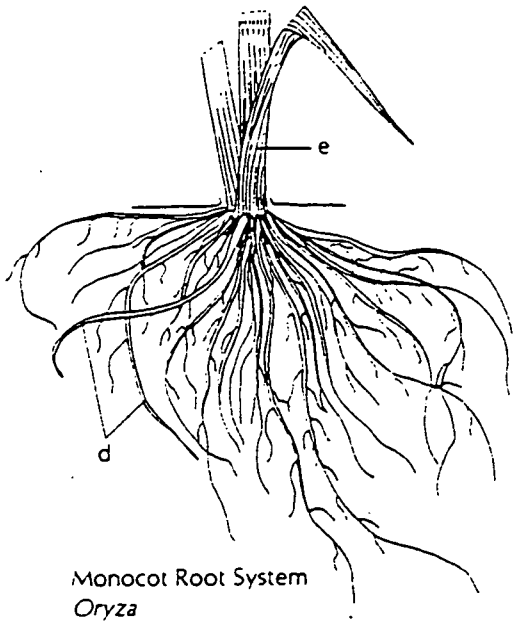
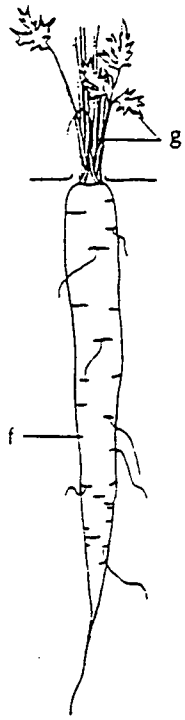
Root Types and Modifications



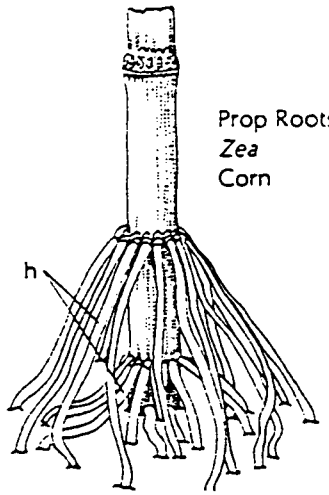
Dicot Root System
Verbascum
Mullein



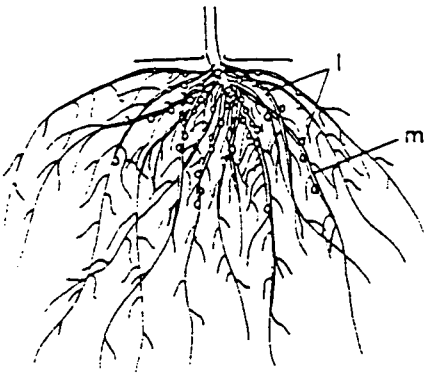
Monocot Root System
Oryza
Rice



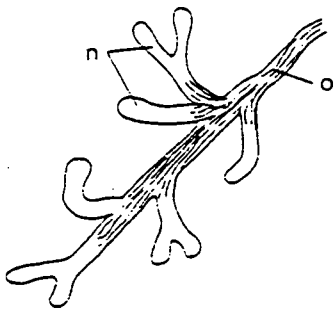
Storage Root
Daucus
Carrot



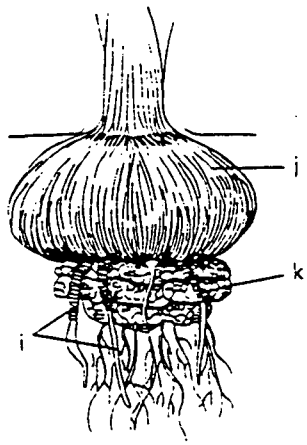
Prop Roots
Zea
Corn



Dicot Roots with Nodules
Phaseolus
Bean



Conifer Roots with Mycorrhizae
Picea
Spruce



Contractile Roots
Gladiolus corm

Stem Structure

Functions of the stem include conduction of materials, support of the shoot system, and food storage.

Parts of a Stem

Shoot Tip. The stem shoot apex produces leaf primordia (a) that develop into leaves (b).

Node. A node (c) is a place where a leaf or leaves arise on the stem.

Internode. The elongated portion of a stem between two nodes is called an internode (d).

Bud. A **terminal bud** (e), which develops at the end of the stem, encloses a meristematic stem axis (f) with its apical meristem (g). **Axillary buds** (h) are lateral buds that form at the leaf-stem axils and may develop into lateral vegetative shoots or flowers.

Bud Scales. Small, modified leaves or stipules that cover and protect the bud are called bud scales (i). Some buds lack scale coverings and are called naked buds.

Bud Scale Scar. Perennial woody stems exhibit scars (j) at the sites where terminal bud scales were shed during previous years (k, l).

Leaf Scar. A scar remains on the stem where a leaf stalk (petiole) was attached. Leaf scars (m) and buds are species-specific and, therefore, are useful for winter plant identification.

Bundle Scar (Leaf Trace). The vascular bundles (n) from a shed leaf appear as dots within a leaf scar.

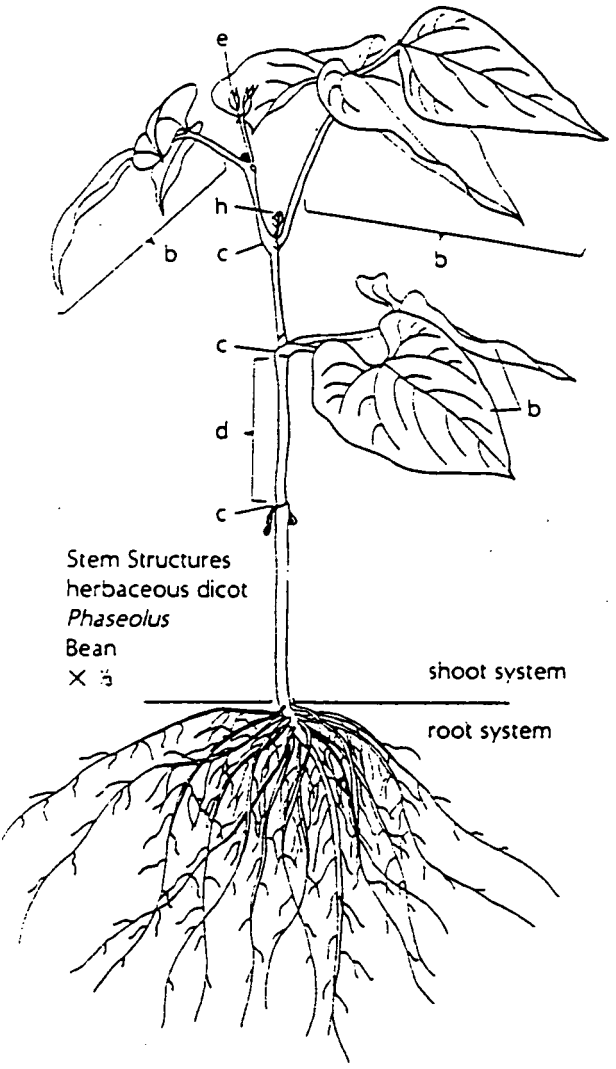
Lenticel. Openings for gas and water exchange in the stem surface, called lenticels (o), are found on some plants with secondary growth.

COLOR CODE

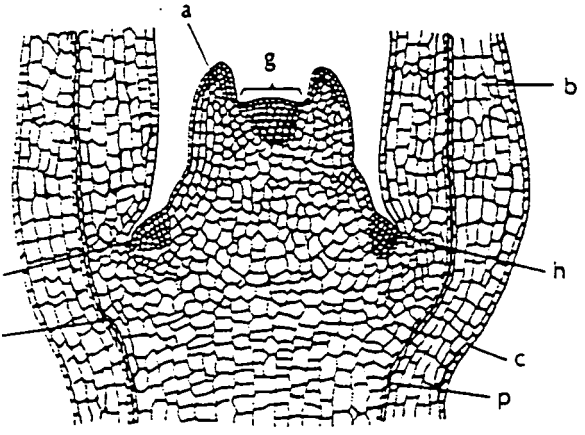
red:	apical meristem (g), maple bud scales (i), procambium (p)
green:	leaf primordia (a), leaf (b), node (c), stem internode (d), bean terminal bud (e), bean axillary bud (h)
white:	stem axis (f)
tan:	lilac bud scales (i), leaf scar (m)
dark brown:	bud scale scars (j), bundle scars (n), lenticels (o)
gray-pink:	stem growth, last year (k)
gray:	stem growth, 2 years ago (l)

000068

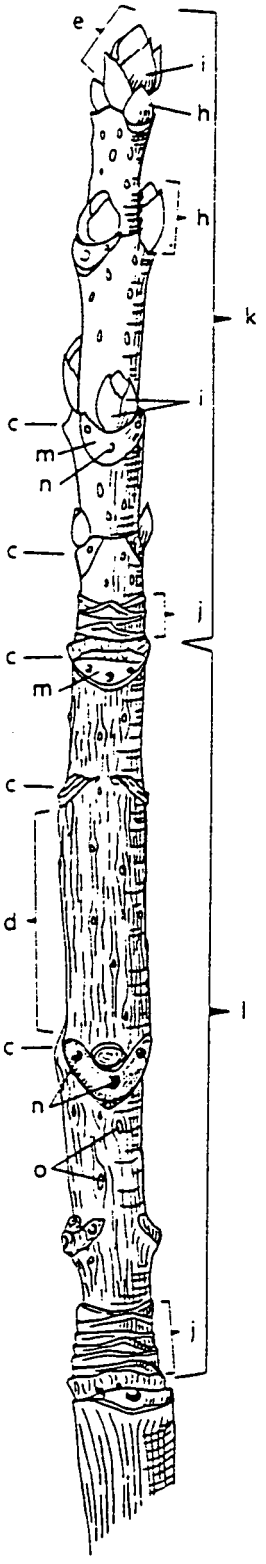
Stem Structures



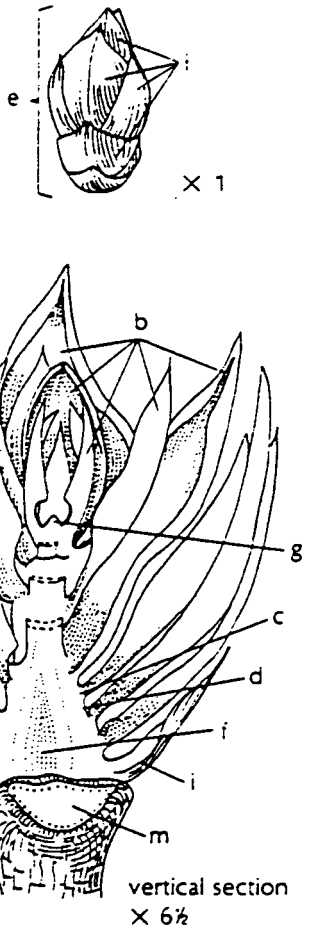
Stem Structures
herbaceous dicot
Phaseolus
Bean
× 3



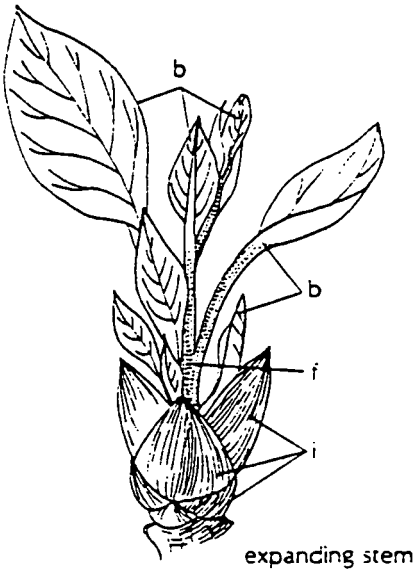
Terminal Shoot Apex
enlarged



Stem Structures
woody dicot
Acer saccharinum
Silver Maple
× 3



vertical section
× 6½



expanding stem
× 2

Terminal Bud Structures
woody dicot
Syringa
Lilac

Stem Modifications

Stems may be of various forms to serve different functions, such as for food or water storage, for subterranean or aerial anchoring devices, as a means of asexual reproduction, or for climbing.

Bulb. A bulb is a short, underground, food-storage stem axis with extremely reduced internodes and fleshy scale leaves (a). An onion is the example here.

Corm. A solid, bulb-like, underground stem without fleshy scales forms a corm. It has shortened internodes. Examples are the food-storage, reproductive corms of *Gladiolus* and *Crocus* (shown).

Pseudobulb. Some orchids that live upon other plants (epiphytes) develop a fleshy stem internode with water storage parenchyma.

Rhizome. Found near or below the soil surface, a rhizome is an underground stem that produces scale-like leaves and adventitious roots at the nodes. Rhizomes are found in *Iris* (see 129), *Equisetum* (see 20, 66), and Irish potato. A potato rhizome with a developing, edible tuber is shown.

Spur Shoot. Some trees have short, woody stems with shortened internodes, such as apple (see 99) and *Ginkgo* (see 72).

Stolon. A lateral stem, "runner" (k), from the base of a plant develops long internodes, and where the apex touches the soil, a new plant with shoots and adventitious roots forms at a node. Strawberry (see 20) and the strawberry begonia shown form stolons.

Succulent Stem. Fleshy water storage stems of parenchyma are found in the spurge (see 103) and cactus (see 85) families. A fleshy cactus stem is shown.

Tuber. Tubers are swollen, underground food storage stems arising at the tips of rhizomes. They bear buds, "eyes," at the nodes on the potato tuber.

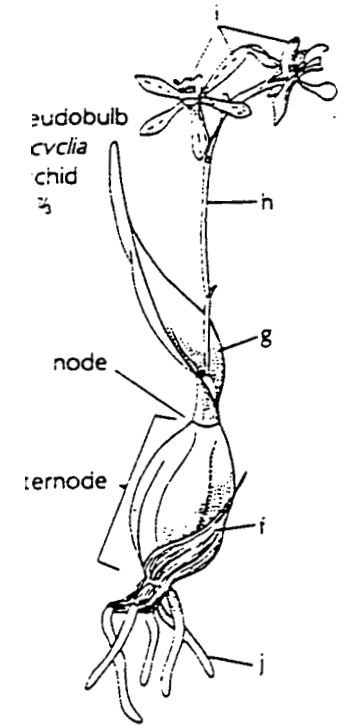
Vine. Vines are stems with long internodes and may have one of various types of climbing devices such as tendrils opposite leaves at a node as in grape (see 104), modified stipule tendrils (w) as in green briar, disc-tipped tendrils (t) as in Virginia creeper, adventitious roots as in philodendron and ivy (q), twining leaf tips as in gloriosa lily, and twining leaf petioles as in clematis, or the entire vine may twine as in wood rose *(Ipomoea tuberosa)*.

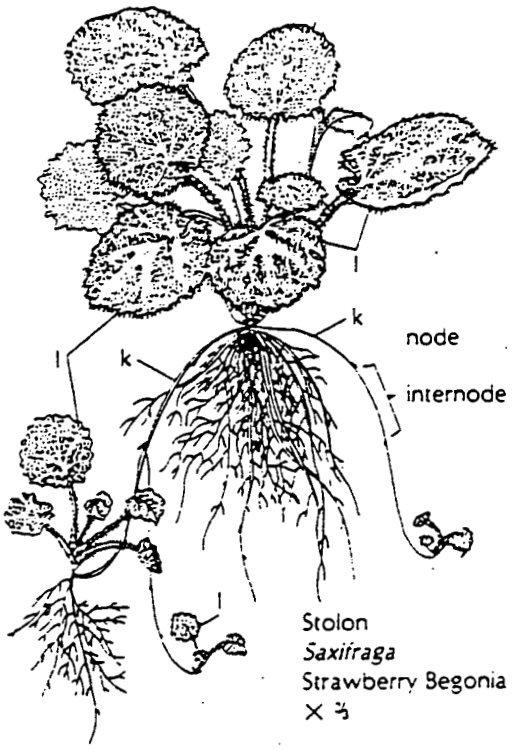
COLOR CODE

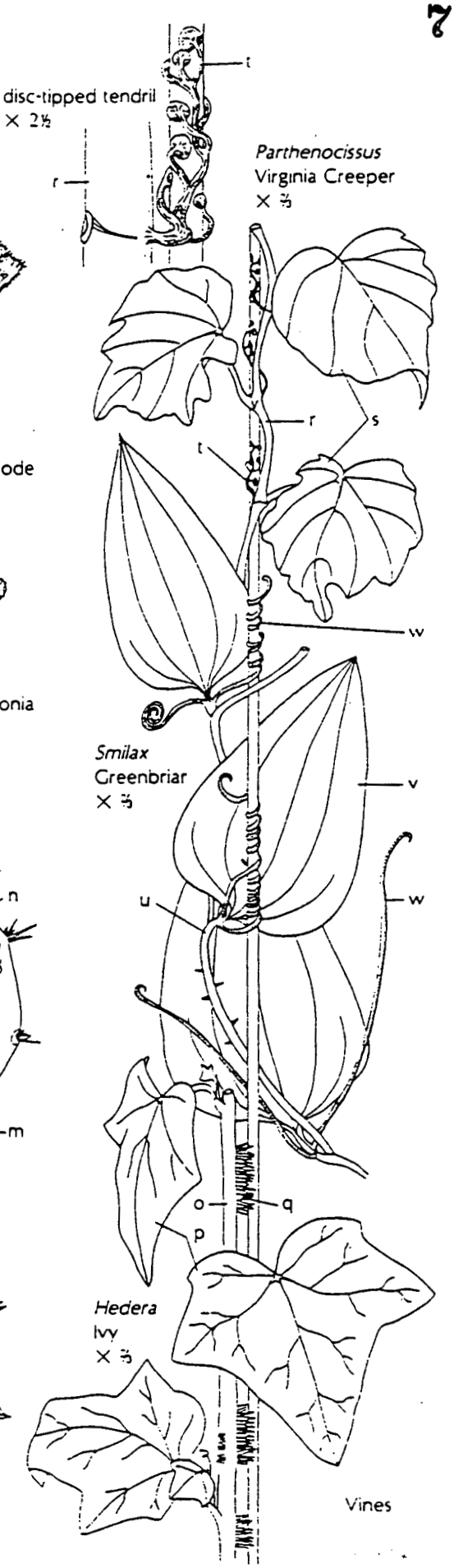
white:	fleshy scale leaves (a), leaf buds (c), roots (j, q), potato rhizome and tuber
yellow-tan:	outer scale leaves (b)
tan:	onion stem axis, bud scale (d), scale covering (e, f), stem (o, r), tendril (t)
light yellow:	corm internodes, flower petals (i)
green:	leaf (g, n, s), stem (m)
purple-green:	orchid pseudobulb (internode), stipe (h), leaf (l)
purple-red:	stolon (k)
dark green:	leaf (p)
light green:	stem (u), leaf (v), tendril (w)

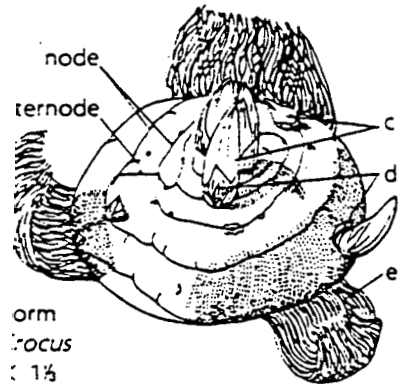
000070

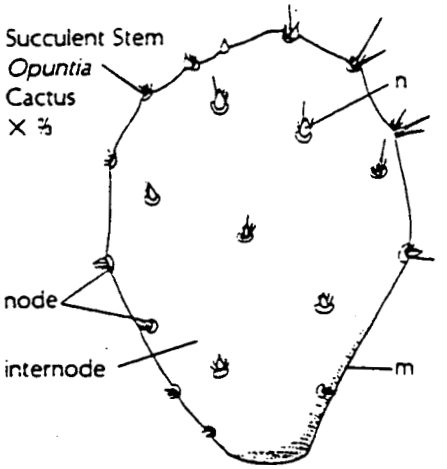
Stem Modifications

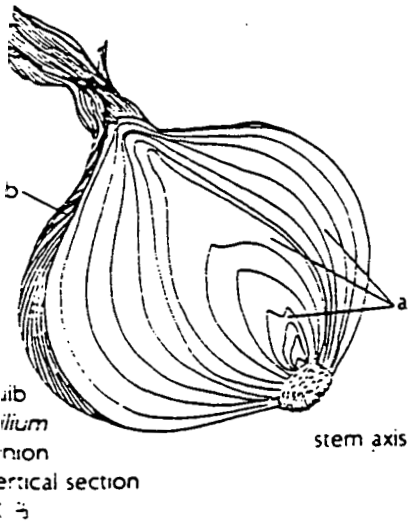


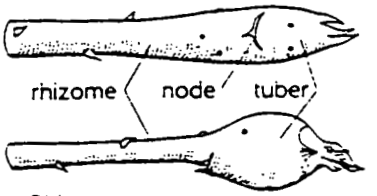












Leaf Types and Arrangement

Persistence

Deciduous. Perennial plants with leaves that are shed annually have deciduous leaves.

Evergreen. Leaves that remain on a plant for more than a year are called evergreen.

Leaf Types

Conifer. The leaves of conifers are needle-like (a) or scale-like, usually evergreen although some are deciduous, and usually have a single vein.

Ginkgo. This unique plant (see 72) has fan-shaped blades (c) with dichotomous venation in which the veins branch into two equal or unequal lengths.

Dicot. Most dicot blades have pinnate venation (e) in which major veins diverge from one large mid-vein, with smaller network connections between. Some dicot blades have palmate venation (i) where several large veins diverge from the petiole to the margins. Some dicots have parallel venation.

Monocot. Most temperate zone monocots have narrow strap-shaped blades (f) with sheathing bases (g) surrounding the stem (h). With parallel venation, major veins arise at the base, remain more or less parallel, and converge at the tip with small vein interconnections. Some monocot leaf veins converge at the leaf margins instead of the tip, and some monocots have pinnate venation.

Leaf Attachment

Petiolate. The leaf blade is attached to the stem by a stalk called a petiole (d).

Sessile. When the leaf blade is attached directly to the stem without a petiole, it is sessile (a, f, n).

Leaf Form

Simple. A simple leaf has one blade, which may be broad (i), narrow, or needle-like (a).

Compound. A compound leaf has two or more blade-like leaflets (j, k) attached to a petiole (d).

Leaf Arrangement

Opposite. Two leaves (l) emerge opposite each other on a stem.

Alternate. In an alternate arrangement, single leaves (m) are in a spiral attachment along the stem.

Whorled. In a whorled arrangement, several leaves (n) emerge together around a stem node.

COLOR CODE

blue-green:	blade (a)
green:	shoot peg (b), petiole (d), blade (l, n)
dark green:	blade (c)
yellow:	blade (e)
light green:	blade (f, m), sheath (g), stem (h), leaflets (k)
orange:	blade (i)
red:	leaflets (j)

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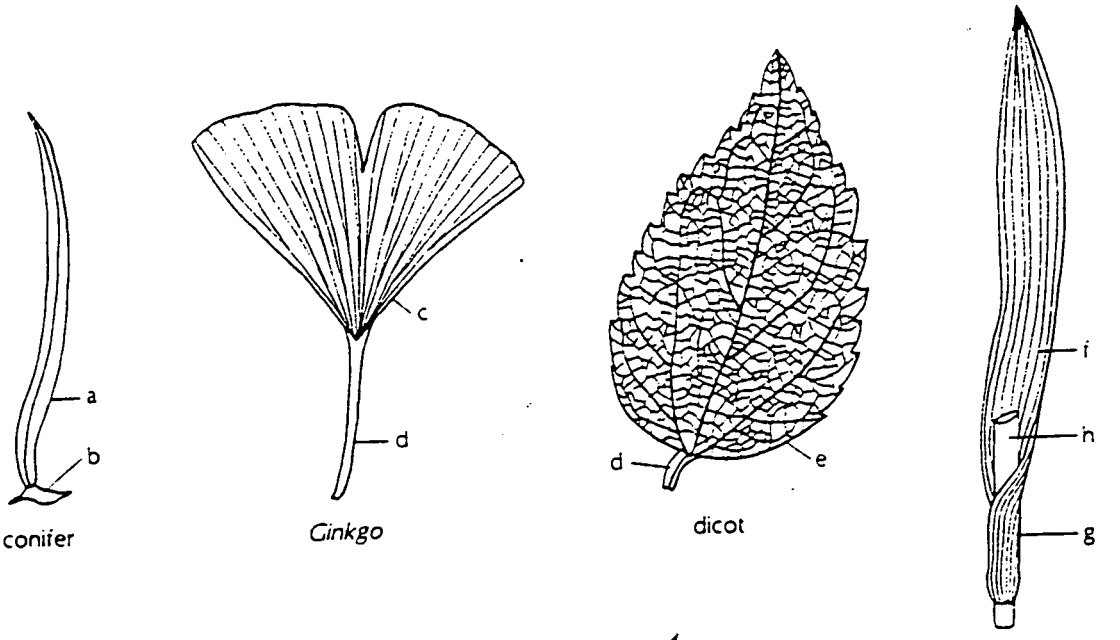
af Types



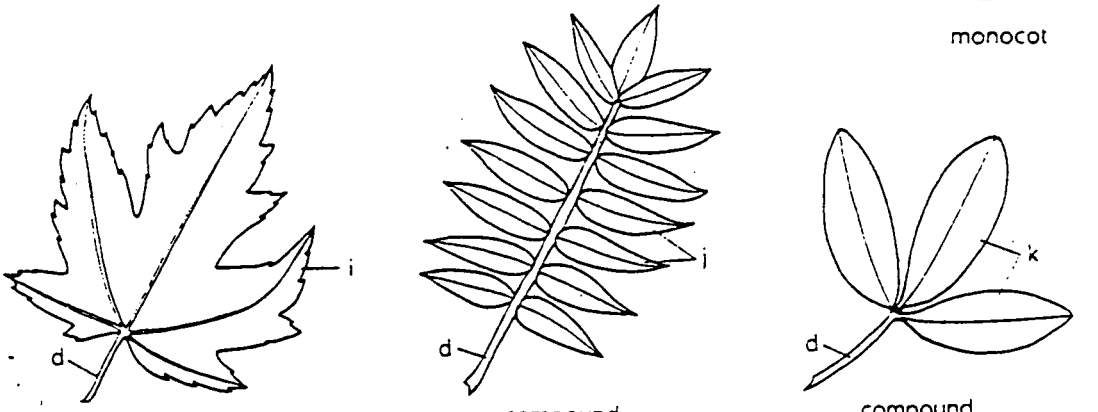
conifer

Ginkgo

dicot

monocot

af Forms

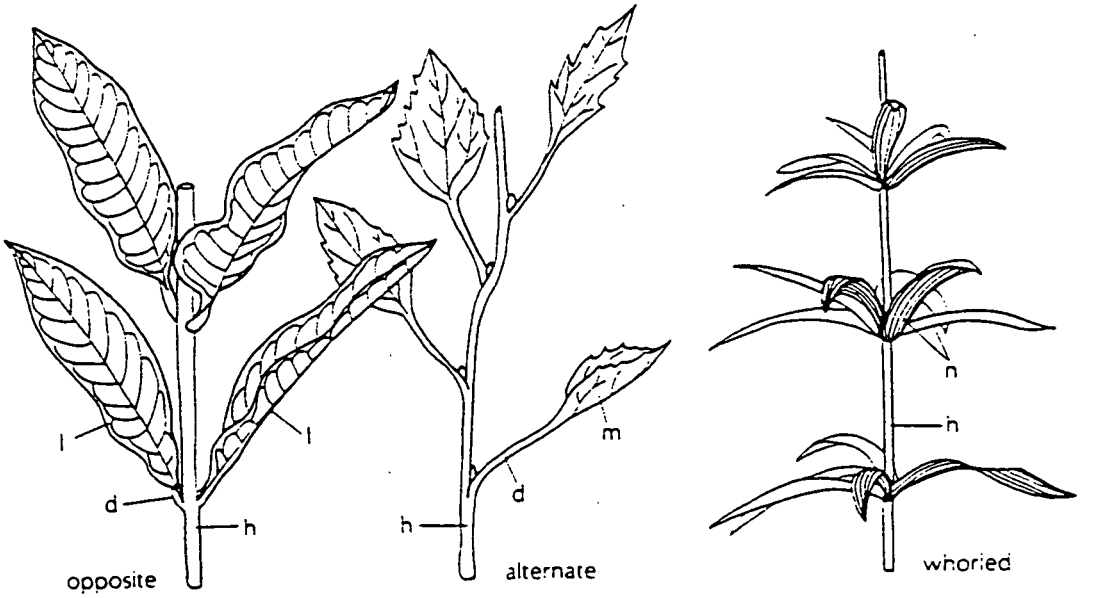


simple

compound

compound

eaf Arrangement



opposite

alternate

whorled

Flower Structure

Parts of a Flower

Peduncle. The stalk that attaches the flower to the plant axis is called a peduncle (a). A **pedicel** is the stalk of a single flower in a cluster (inflorescence) with the pedicels attached to a peduncle (see 98, 100, 109).

Receptacle. The enlarged part of the flower axis where floral parts are borne is the receptacle (b).

Sepals. The outermost whorl of floral parts are leaf-like structures called sepals (c). While usually green, they may be colored in some species (see 129, 130). Sepals protect the developing flower in the bud stage. All of the sepals, collectively, make up the **calyx.**

Petals. The second whorl of floral appendages are petals (d), which may be separate or partially fused together. Usually, they are showy and may be colored. All of the petals, collectively, make up the **corolla.**

Tepals. When the calyx and corolla look alike and are petal-like, they are called tepals (see 126, 128).

Perianth. This term is used to refer to the calyx and corolla together.

Stamen. A stamen consists of a stalk-like **filament** (e) with an **anther** (f), made up of, usually, 2 pollen sacs, at the upper end. The **connective** (g) joins the **pollen sacs** containing **pollen grains** (h) (see 31). All of the stamens collectively, are termed the **androecium** (= male household).

Pistil. A pistil is made up of stigma, style, and ovary. At the apex of the pistil is the **stigma** (i), where pollen grains adhere to the sugary, liquid excretions on the surface. Between the stigma and ovary is an elongated part of the pistil called the **style** (j). The **ovary** (k) consists of one or more **carpels,** which contain the ovules (see 28). Within the **ovule** (l), megaspores are formed, one of which develops into the embryo sac containing an egg (see 32). After fertilization, the ovules develop into seeds (see 37). That part of the carpel where the ovules are attached is the **placenta** (see 28). A **locule** (m) is the chamber or space within a carpel. All of the pistils within a flower are called, collectively, the **gynoecium** (= female household).

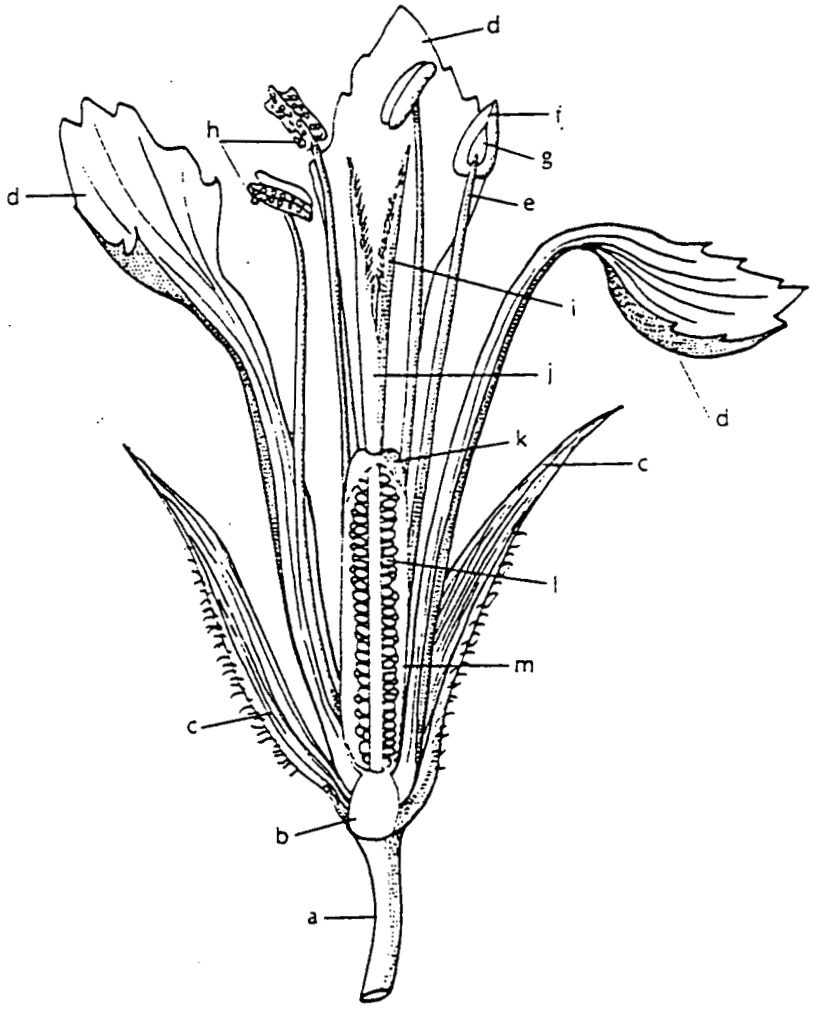
Number of Parts

In a broad generalization, dicot flowers tend to have floral parts in whorls of 4 or 5 and monocots in series of 3. For example, a dicot flower might have 4 sepals, 4 petals, and 8 stamens or 5 sepals, 5 petals, and 15 stamens. A monocot flower might have 3 sepals, 3 petals, and 6 stamens. When observing flowers, it is interesting to determine number patterns.

COLOR CODE

light green:	peduncle (a)
white:	receptacle (b)
green:	sepals (c)
optional:	petals (d)
blue:	filament (e), anther (f), connective (g), pollen (h)
pink:	stigma (i), style (j), ovary (k), ovules (l)

000074



Parts of a Flower
vertical section
diagram

Flower Structure Variations

Types of Flowers

Unisexual (Imperfect). A unisexual flower has either staminate (a) **or** pistillate (b) structures.

Bisexual (Perfect). A bisexual flower has staminate (a) **and** pistillate (b) structures.

Monoecious (= of one house). An individual plant with separate (unisexual) staminate and pistillate flowers is termed monoecious.

Dioecious (= of two houses). The term, dioecious, is used when a species has separate staminate-flowered plants and pistillate-flowered plants.

Polygamomonoecious. An individual plant with bisexual flowers plus staminate **and** pistillate unisexual flowers is polygamomonoecious (poly = many, gamete = sex cell).

Polygamodioecious. An individual plant with bisexual flowers plus staminate **or** pistillate unisexual flowers is polygamodioecious.

Complete. A complete flower has staminate (a) and pistillate (b) structures, plus sepals (c) and petals (d).

Incomplete. An incomplete flower lacks one or more floral parts. The incomplete flower shown lacks petals.

Ovary Positions

Superior. The superior ovary (f) of the pistil is **above** the site of attachment of other floral parts (stamens, sepals, petals).

Inferior. The inferior ovary (f) is **below** the site of attachment of other floral parts.

Half-inferior or **Half-superior.** These are flowers that show varying degrees of ovary (f) position from partially superior to partially inferior.

Placentation

Axile. By fusion of 2 or more carpels (g), the ovules (h) are attached to the placenta (i) at the central axis. The ovary shown has 3 fused carpels.

Free Central. When fused carpels (g) have lost their inner walls and the placenta (i) is located in the center, the placentation is free central.

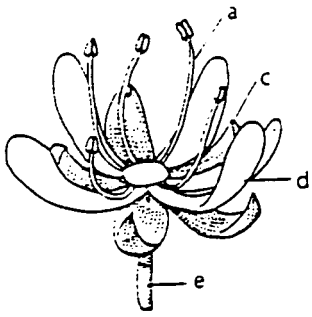
Basal. The basal placenta (i) is located at the base of the ovary.

Parietal. The parietal placenta (i) is located on the inner walls of carpels, which do not extend into the center of the ovary.

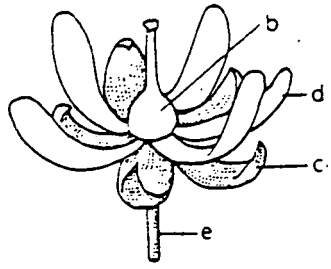
COLOR CODE

blue:	stamen (a)
pink:	pistil (b), ovary (f), carpel wall (g), ovules (h)
green:	sepals (c), peduncle (e)
yellow:	petals (d)
dark pink:	placenta (i)

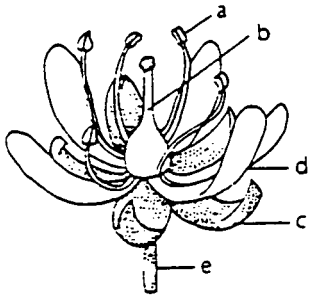
000076



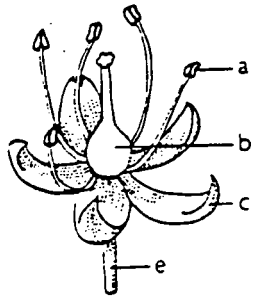
Unisexual
(imperfect)
staminate



Unisexual
(imperfect)
pistillate

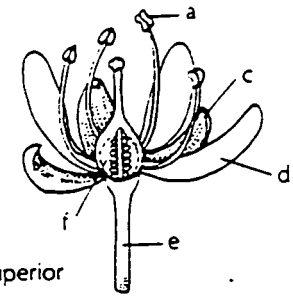


Bisexual
(perfect)
complete

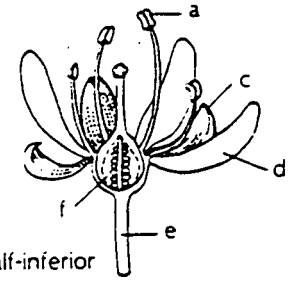


Bisexual
(perfect)
incomplete

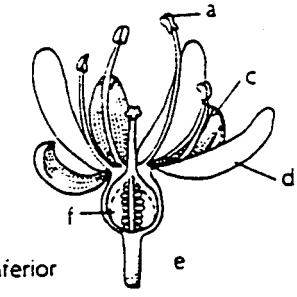
Types of Flowers



Superior

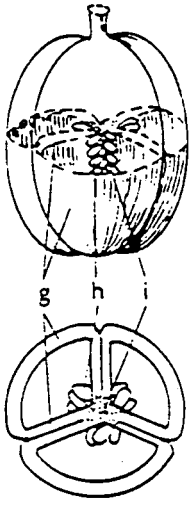


Half-inferior

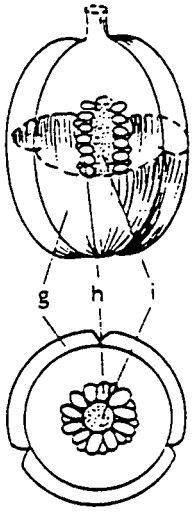


Inferior

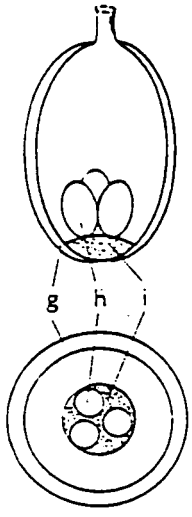
Ovary Positions



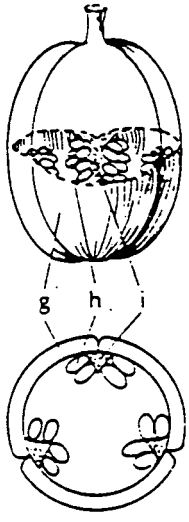
Axile



Free Central



Basal



Parietal

Placentation

Fruit—Dry Types

A **fruit** is the seed-bearing structure in flowering plants (conifer seeds are borne in a cone).

Indehiscent, Dry Fruit Types

An indehiscent, dry fruit does not open at maturity. The tissues are composed of parenchyma and/or sclerenchyma (see 8) at maturity.

Achene. An achene (a) is a type of 1-seeded fruit with a thin wall (pericarp).

Grain (Caryopsis). A grain (c) is a type of achene found in grasses (Poaceae, 123), which originates from a superior ovary (see 28).

Cypsela. An achene that originates from an inferior ovary, and commonly has a hairy pappus (d) present is a cypsela (e).

Nut. An achene-type fruit, the nut (f) is hard and bony, and may result from a compound ovary.

Samara. The samara is a type of winged achene, which may be single, as in elm (h), or double, as in maple (i).

Schizocarp. Carpels of a compound ovary break apart into mericarps (j), which function as achenes in the schizocarp type fruit.

Nutlet. A small nut is called a nutlet (k).

Dehiscent, Dry Fruit Types

A dehiscent, dry fruit opens to release seeds at maturity. The fruit splits under tension along definite lines or breakage points.

Follicle. Composed of 1 pistil, the follicle (l) splits along 1 line.

Legume. A legume (m) originates from 1 carpel, which splits along 2 lines, and is the fruit type of the pea family (see 100). A type of legume, the seeds of a **loment** (n) are partitioned into sections. The carpel of a **spiral** legume (o) coils.

Capsule. Capsules have more than 1 carpel and are classified by the mode of dehiscence. The **septicidal** capsule (p) opens in the plane of carpel union. A **loculicidal** capsule (q) opens in the middle of each carpel. A **circumscissile** capsule (r) opens around a horizontal line. A **poricidal** capsule (t) releases seeds through pores at the top.

Silique. A silique has 2 narrow pieces (valves, u) separated by a partition (replum, v). A rounded form is called a **silicle** (w, x). These are fruits of the mustard family (see 96).

COLOR CODE

tan:	achene (a), cypsela (e), nut (f), schizocarp mericarps (j), nutlets (k), spiral (o), septicidal capsule (p), seeds (s), valve (x)
white:	grain (c), pappus (d), replum (v, w)
red-brown:	bracts (b)
brown:	cup (g), legume (m), loculicidal capsule (q), seeds (y)
yellow-tan:	single samara (h)
green:	double samara (i), circumscissile capsule (r), valve (u)
yellow:	follicle (l), loment (n), poricidal capsule (t)

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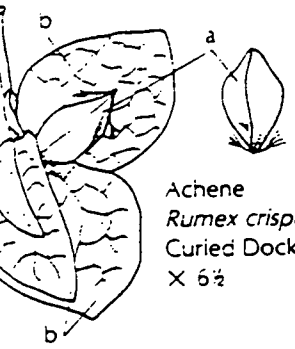
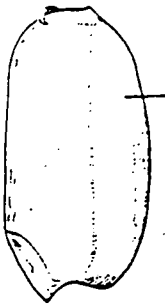
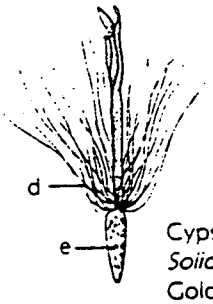
Dry Fruit Types



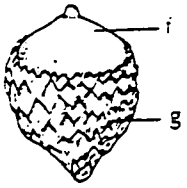
Achene
Rumex crispus
Curled Dock
× 6½



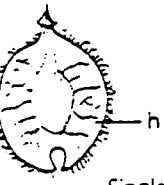
Grain
Oryza
Rice
× 5½



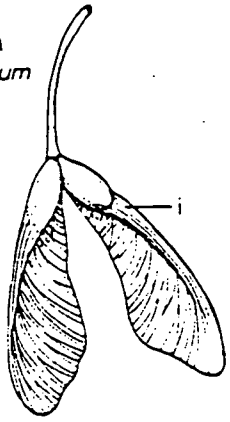
Cypsela
Solidago
Goldenrod
× 10



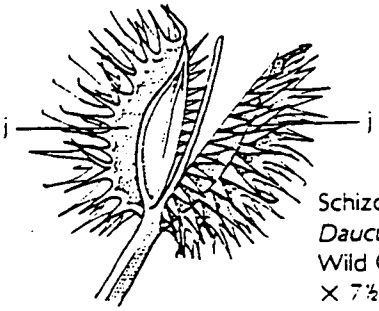
Nut
Quercus velutina
Black Oak
× 1



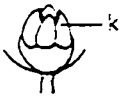
Single Samara
Ulmus americana
American Elm
× 2



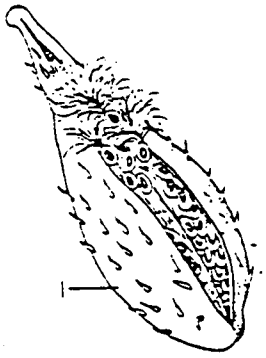
Double Samara
Acer saccharinum
Silver Maple
× ½



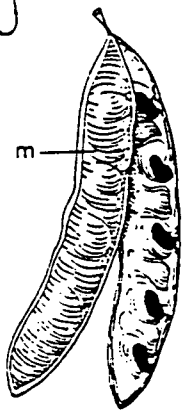
Schizocarp
Daucus carota
Wild Carrot
× 7½



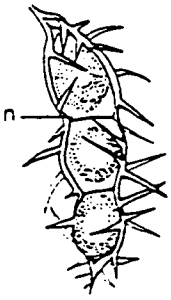
Nutlet
Mentha
Mint
× 16



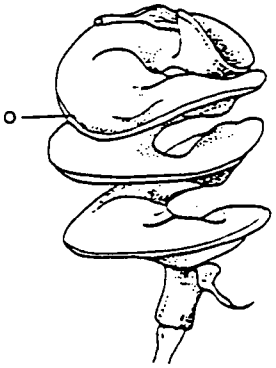
Follicle
Asclepias
Milkweed
× ½



Legume
Robinia
Black Locust
× ½



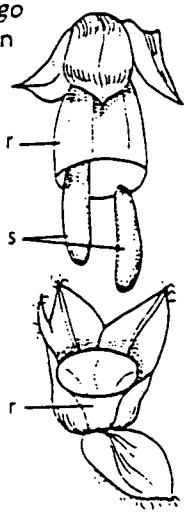
Loment Legume
Mimosa
Mimosa
× 2½



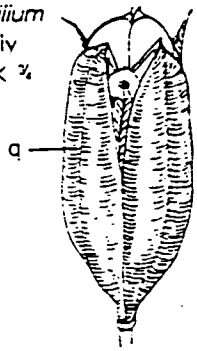
Spiral Legume
Medicago
Black Medick
× 4½

pticidal Capsule
ododendron
ododendron

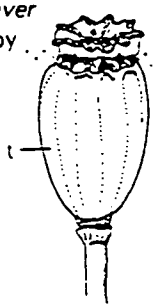
Circumscissle Capsule
Plantago
Plantain
× 6

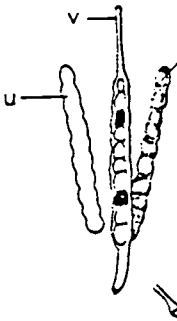


Loculicidal Capsule
Lilium
Lily
× ¾



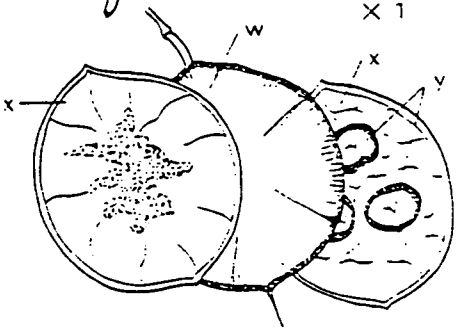
Poricidal Capsule
Papaver
Poppy
× ¾





Silique
Brassica
Mustard
× 1

Silicle
Lunaria
Honesty
× 1



Fruit—Fleshy Types, Compound

Fleshy Fruit Types

The ovary or fruit wall (pericarp) consists of an outer layer (exocarp), middle layers of parenchyma (mesocarp), and an inner layer (endocarp). The parenchyma tissues are filled with sugars, starch, and/or fats at maturity.

Berry. The entire pericarp (b, c) of a berry is fleshy. There may be one or more carpels and seeds (d).

Pepo. A berry with a hard-rind pericarp composed of exocarp (e) and endocarp is a pepo fruit. It is derived from an inferior ovary (see gourd family, 94).

Hesperidium. A leathery-rinded berry, the hesperidium exocarp (h) of compact collenchyma contains oil glands. There is a spongy mesocarp (i) and an endocarp (j), which produces juice sacs. This type, commonly called citrus, is found in the rue family (see 107).

Drupe. The drupe fruit ovary wall develops into a fleshy mesocarp (n) and a stony endocarp (o) over usually 1 seed.

Pome. A pome has a pericarp of cartilaginous endocarp (r) lining the seed (q) cavities (locules), which are surrounded by fleshy parenchyma exocarp (s). Outside the inferior ovary wall is an expanded floral tube (t) of fleshy parenchyma. (For flower to fruit development, see rose family, 99.)

Compound Fruit

Aggregate Fruits. The separate carpels of one flower stay together as a unit in an aggregate fruit. Examples are an aggregate of drupelets (x), as in black raspberry fruit, and an aggregate of achenes, as in strawberry fruit.

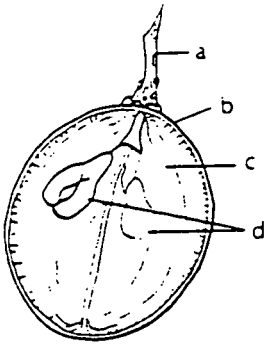
Multiple Fruits. The carpels of separate flowers in a cluster stay together as a unit in multiple fruits as in a multiple of achenes in osage-orange and pineapple.

COLOR CODE

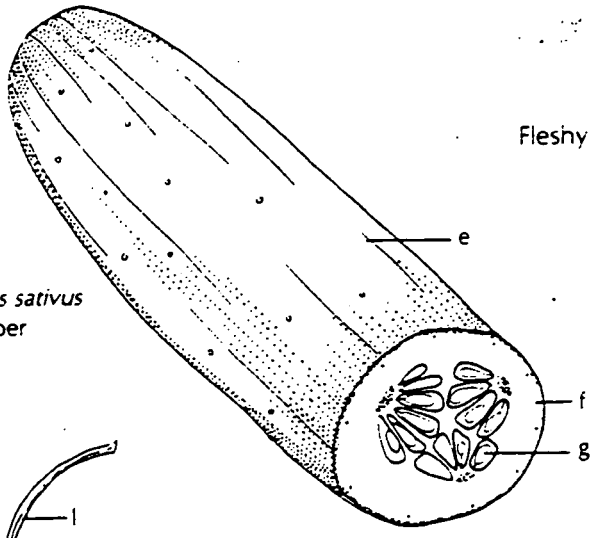
tan:	pedicel (a), peduncle (l, p), seed (d, k, y), endocarp (o)
purple:	exocarp (b)
white:	mesocarp (c, f, i, z), seed (g), exocarp (s), floral tube (t)
green:	exocarp (e), peduncle (v), sepal (w)
yellow:	exocarp (h)
pale yellow:	endocarp (j, r)
red:	exocarp (m), mesocarp (n), epidermis (u)
brown:	seed (q)
dark blue:	drupelet exocarp (x)
yellow-green:	epidermis (y)

000080

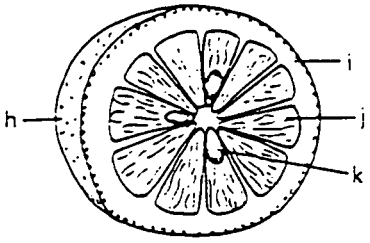
Fleshy Fruit Types



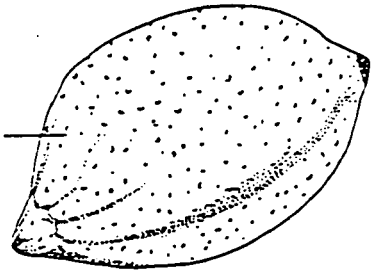
Berry
Vitis
Grape
× 1½

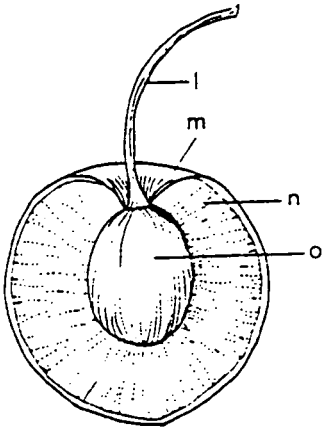


Pepo
Cucumis sativus
Cucumber
× ½

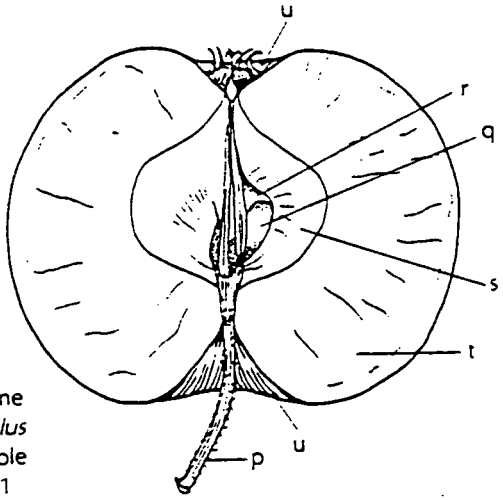


Hesperidium
Citrus limon
Lemon
× ¾



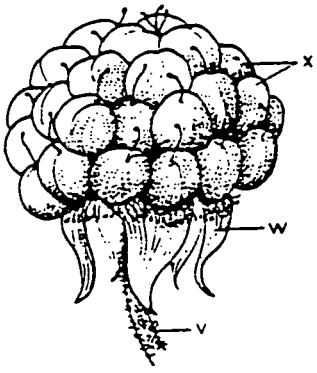


Drupe
Prunus avium
Cherry
× 1½

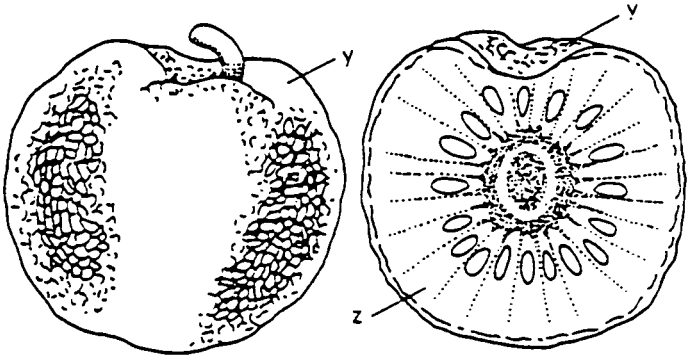


Pome
Malus
Apple
× 1

Compound Fruit



Aggregate Fruit of Drupelets
Rubus occidentalis
Black Raspberry
× 3



Multiple Fruit of Achenes
Maclura pomifera
Osage-orange
× ⅓

Liverworts, Hornworts, Mosses: Bryophyta

This most primitive group of green land plants consists mainly of perennials. The plants are small in size due to an inefficient conductive system, lacking vascular tissue. Humid habitats provide a water medium for the motile (flagellated) sperm to reach the egg. Bryophytes cannot tolerate salt water or excessive heat, dryness, freezing, or pollution.

Bryophytes have two generations. The dominant plant, the gametophyte generation, develops from a 1n (haploid) spore and produces sperms and eggs. A fertilized egg forms a 2n zygote, which develops into the sporophyte. By meiosis, the sporophyte produces 1n spores that are dispersed and develop into gametophyte plants. In some bryophytes, asexual structures called gemmae cups (a) contain gemmae (b) that develop into gametophytes.

Hepaticae (Liverworts). The liverworts are primitive bryophytes. The gametophyte is flat and strap-shaped as in *Marchantia* or leafy as in *Bazzania*. The gametophyte body (thallus, c) branches equally (dichotomously).

Marchantia polymorpha

This species has unisexual thalli (dioecious). The male gametophyte develops antheridia-bearing stalks (antheridophores, d), which produce motile sperm in its disc-shaped top. The female gametophyte develops an archegoniphore (e), which produces archegonia, flask-shaped structures containing eggs, under its umbrella-shaped top. After fertilization, a 2n zygote develops into a sporophyte, which, in turn, produces spores that develop into gametophytes.

Anthocerotae (Hornworts).

Anthoceros punctata

The gametophyte thallus (f) forms a flat rosette. Male and female structures occur in the upper layers of the thallus. The union of sperm and egg produces the sporophyte. A foot (g) secures the sporophyte (h), to the gametophyte thallus. The sporophyte splits at the top into 2 valves to expose the spores.

Musci (Mosses). All moss gametophytes have 3 to 5 ranked leaves. Most mosses develop from a spore into a thread-like structure with rhizoids, then into a leafy gametophyte. The young sporophyte is green and photosynthetic. Its firm tissue eventually turns brown and may persist on the gametophyte for years. Unlike the liverworts and hornworts, mosses show a great deal of variation in gametophytes and sporophytes. Mosses form large colonies by fragmentation and gemmae.

Sphagnum centrale

The peat mosses (*Sphagnum*, i) grow in acid bogs. They secrete hydrogen ions, contributing to the acidity. This acid environment delays the vegetation decay process. Thus, sphagnum mosses contribute to mat formation at the open water margin of the bog. This provides a habitat for other types of plants. Undisturbed, a bog can eventually develop into a forest through the process of succession. Due to its great water-holding capacity, *Sphagnum* peat derived from old bogs is added to garden soil to acidify it and hold moisture.

Andreaea rupestris

This plant is found mainly on rocky outcroppings. The leafy gametophyte (j) is branched. The sporophyte is raised on a stalk (pseudopodium, k). When the capsule (l) dries the inner walls contract into 4 slits, releasing the spores.

Tetraphis pellucida

Moist rotting logs in coniferous forests provide the main habitat for this plant. Leafy gametophytes (m), attached by rhizoids (n), produce gemmae cups (o). The sporophyte is borne on a long stalk (seta, p), which twists near the capsule (q). A pleated covering (calyptra, r) protects the capsule; it falls off at maturity. A lid (operculum) opens to expose 4 teeth (peristome, s). Spores are released by wind or animals shaking the capsule.

COLOR CODE

green:	gemma cup (a, o), gemmae (b), thallus (c, f, j, m)
tan:	antheridiophore (d), archegoniophore (e), foot (g), pseudopodium (k), capsule (l, q), seta (p), calyptra (r), teeth (s)
black:	sporophyte (h)
gray-green:	thallus (i)
white:	rhizoids (n)

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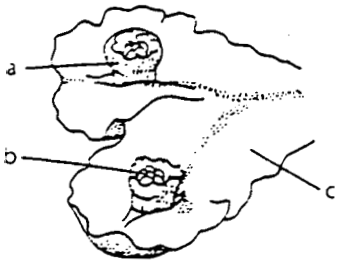
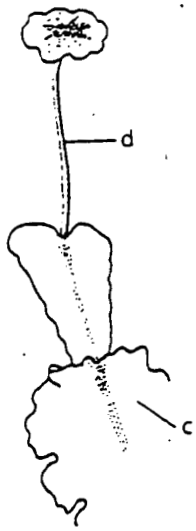
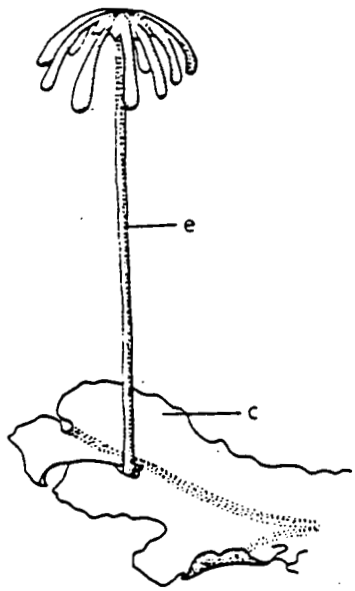


Gametophyte
with gemmae
× 2½

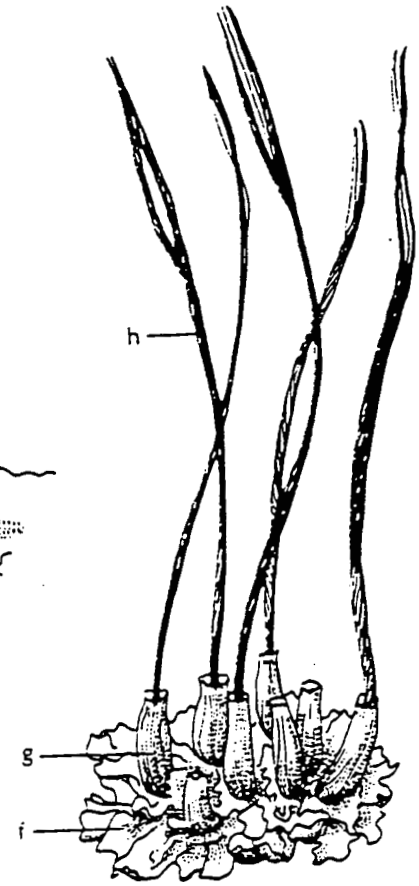
Marchantia polymorpha
Common Liverwort



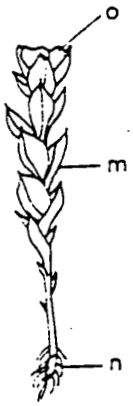
Male Gametophyte
× 2½



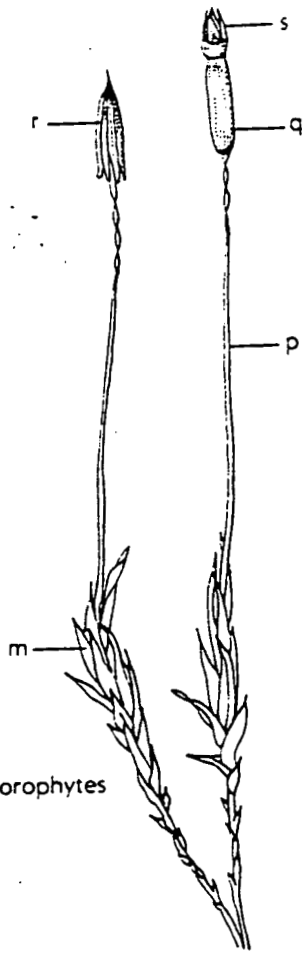
Female Gametophyte
× 2½



Anthoceros punctata
Common Hornwort
gametophyte at base
sporophytes above
× 3



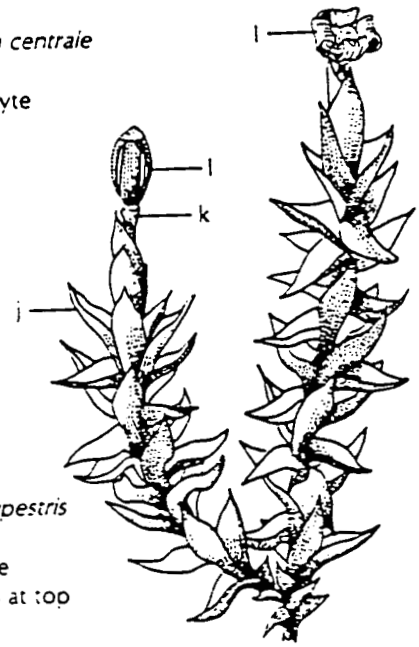
Gametophyte
with gemmae
× 6



Gametophyte
with stalked sporophytes
× 6

Tetraphis pellucida
Four-tooth Moss

Sphagnum centrale
Peat Moss
gametophyte
× 1⅓



Andreaea rupestris
Moss
gametophyte
sporophytes at top
× 13

Clubmosses, Spikemosses, Quillworts: Lycopodiophyta

This distinct group of ancient plants has five living genera. Common features are single-veined leafy appendages (microphylls), two-part branching which may be equal or unequal, axillary sporecases (sporangia), and flagellated sperm.

Lycopodiales (Clubmosses). *Lycopodium,* with 400 species, is found worldwide, with most species in the tropics. Plants are herbaceous, perennial, and usually evergreen. No leaf outgrowths (ligules) are present. Some species bear sporangia in terminal spikes (strobili).

Lycopodium annotinum **Stiff Clubmoss**

A creeping horizontal stem (rhizome) has upright shoots with annual constrictions (a). The spirally arranged leaves (b) are narrow and spread in different directions. In the alternation of generations, the spore germinates into a plant (gametophyte) bearing male and female sex cells (gametes). After fertilization, an embryo develops into a sporophyte, the dominant plant. A "cone" (strobilus, c) of specialized leaves (sporophylls), bearing sporangia in the axils, terminates an upright shoot. The sporangia contain one type of spore (homosporous).

Selaginellales (Spikemosses). *Selaginella,* the single genus, has about 600 species. Differing from *Lycopodium,* there are ligules, root-like organs (rhizophores) occurring at dichotomies, and sporangia always in a "cone," bearing spores of two sizes (heterosporous). Reproduction is the same as shown below in *Isoetes.*

Selaginella rupestris **Rock Spikemoss**

The creeping stem has spirally arranged leaves (d), rhizophores (e), and 4-sided fertile spikes (f).

Isoetales (Quillworts). These plants are considered by some to be the last remnant of the fossil tree lycopods due to their peculiar secondary growth, heterospory and presence of ligules. *Isoetes,* with 60 species, grows mostly submerged in lakes, ponds, and streams.

Isoetes echinospora **Braun's Quillwort**

The sporophyte has an enlarged perennial underground stem, the corm (g). The roots (h) branch dichotomously, and annual strap-shaped leaves (i) grow in a spiral cluster (rosette). The leaf has a ligule (j), 4 vertical air chambers (k), and an expanded fertile base covered by a flap (velum, l). At the bases heterosporous leaves (mega- and microsporophylls) bear megasporangia (m) containing large spores (megaspores, n) or microsporangia (o) with small spores (microspores). The megaspore wall is ornamented variously according to species. The megaspores develop into female gametophytes, while the microspores produce male gametophytes.

Stylites andicola

This plant, forming cushions in marshes, was discovered in the Andes Mountains of Peru in 1957. The stem (p) branches dichotomously with the leaves (q) atop each section. The roots (r) develop on the sides of the stem.

COLOR CODE

dark green:	leaves (b)
green:	spike (c), leaves (d, q), ligule (j)
white:	rhizophores (e), roots (h, r), megasporangium (m), microsporangium (o)
tan:	velum (l), stem (p)
light green:	spike (f), leaves (i)
brown:	corm (g)
yellow:	megaspore (n)

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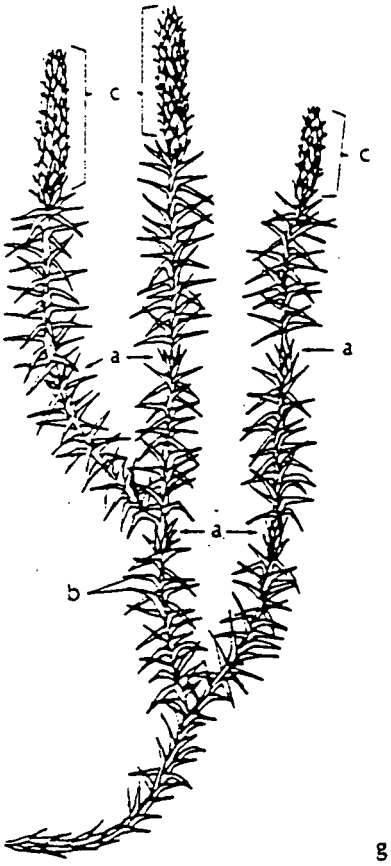
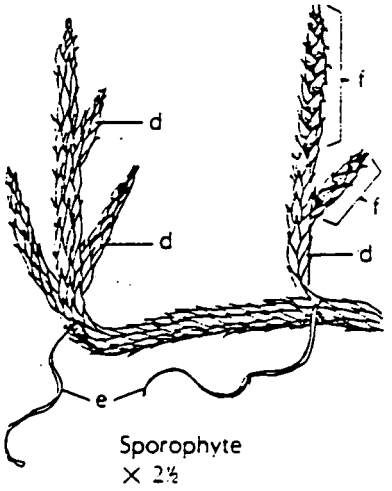
Lycopodium annotinum
Stiff Clubmoss



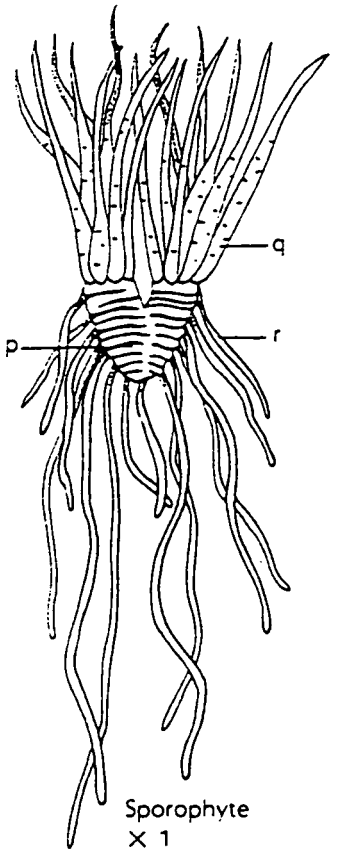
Sporophyte
× 1

Selaginella rupestris
Rock Spikemoss

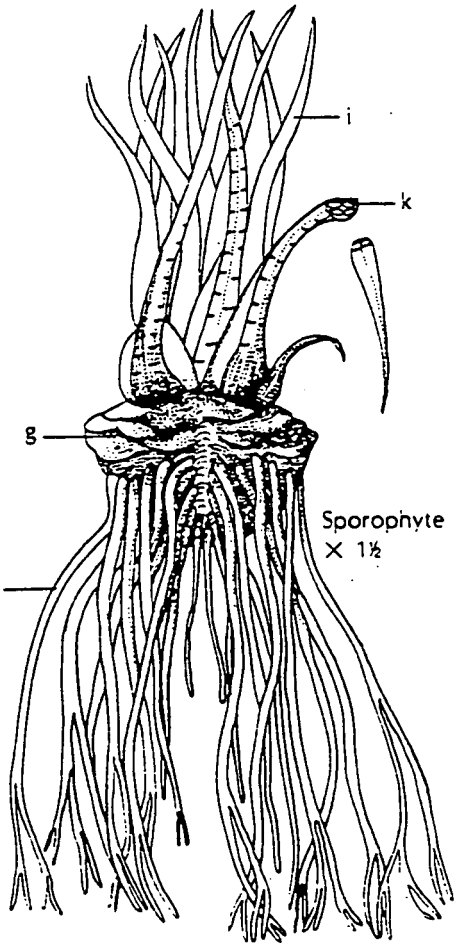


Sporophyte
× 2½

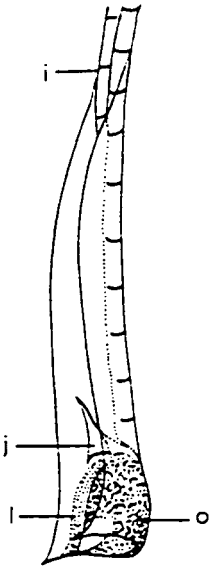
Stylites andicola
Quillwort



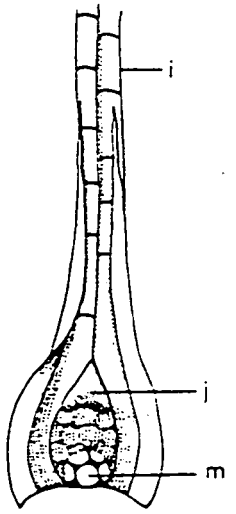
Sporophyte
× 1



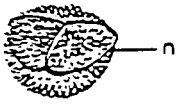
Sporophyte
× 1½



Microsporophyll
side view
× 3



Megasporophyll
× 3



Megaspore
× 26

Isoetes echinospora
Braun's Quillwort

000085

Horsetails and Scouring Rushes: Equisetophyta

The single genus, *Equisetum*, with 15 species, is the only present-day member of plants in this division. It is related to the fossil plant *Calamites*. Species of *Equisetum* are found worldwide except in Australia and New Zealand.

Characteristics. These plants are less than 1 m in height, with the exception of the tropical *E. giganteum*, which grows to 8 m in height. The plant consists of a jointed underground perennial rhizome and annual upright jointed shoots. Species with branched shoots are commonly called "horsetails" and unbranched species are known as "scouring rushes" because of their earlier use as pot scrubbers (effective because of the presence of silica in the stem surface). The photosynthetic stem is round and grooved on the outside and hollow in the center. At the stem node is a sheath of greatly reduced leaves of various teeth-like shapes, depending on the species. In branched species, whorls of branches develop at the base of the leaf sheath. Internodes of the rhizomes and aerial shoots elongate by means of basally localized intercalary meristems (see 15).

Reproduction. The plant has an alternation of a sporophyte generation with an either male or bisexual gametophyte generation as follows. The sporophyte produces a terminal "cone" (strobilus) with whorls of hexagonal scales (sporophylls) on stalks. Attached to each scale are 5 to 10 spore-bearing sacs (sporangia) containing alike spores (homosporous). The spores, which contain chlorophyll, germinate within a few days. They develop into tiny green thalloid gametophytes which produce antheridia with sperm or both antheridia and archegonia. Fertilization of the egg in an archegonium by a sperm results in a zygote which develops into a new sporophyte plant.

Equisetum variegatum **Variegated Scouring Rush**

Equisetum stems (a) are grooved and possess hollow air channels within. The air channels include a central canal (b), carinal canals (c), and vallecular canals (d) at the bottom of each groove. Size and shape of the air canals vary with species.

Equisetum arvense **Field Horsetail**

This species has two forms (dimorphic). In the spring, an unbranched fertile shoot (e) emerges from the rhizome (f). It is short-lived and dies back when the spores are shed from the strobilus (g). The other form of stem (h) is smooth and branched (i). By summer, the branches have elongated. The leaf sheaths (j) in this species have dark, lance-shaped teeth (k).

Equisetum laevigatum **Smooth Scouring Rush**

The scouring rush stem (l) is unbranched. The leaf sheath (m) is flared and has deciduous teeth (n). The strobilus (o) shows the hexagonal surface of the sporophylls (p).

Equisetum hyemale **Common Scouring Rush**

A sporophyll removed from the strobilus exposes the sporangia (q) containing spores.

Equisetum scirpoides **Dwarf Scouring Rush**

A spore (r) surface splits into 4 strips of water-absorbing (hydroscopic) elators (s). When dry, the elators (t) expand and aid in spore dispersal.

COLOR CODE

green:	stem (a, h), branches (i), sheath (j), sporangium (q)
colorless:	canals (b, c, d)
tan:	shoot (e), strobilus (g)
dark brown:	rhizome (f)
yellow-green:	stem (l), sheath (m), surface of sporophylls (p), spores (r), elators (s, t)

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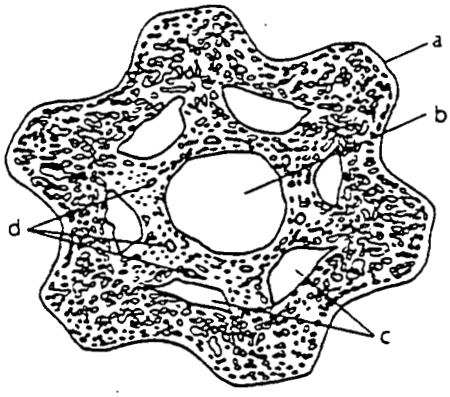
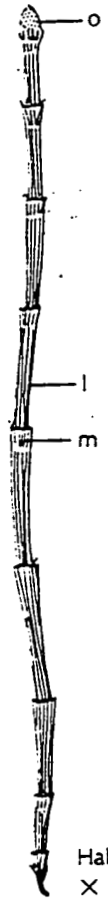
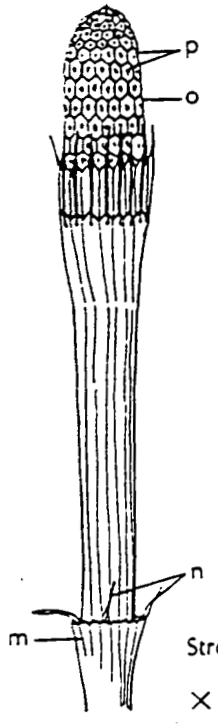
Horsetails & Scouring Rushes



Equisetum variegatum
Variegated Scouring Rush
stem cross section
× 34



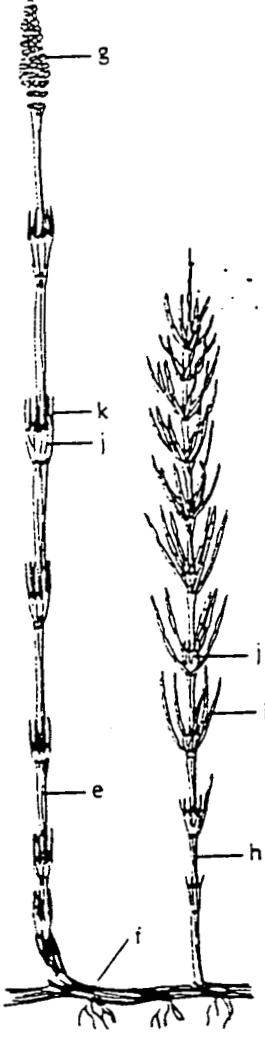
Habit
× ⅓



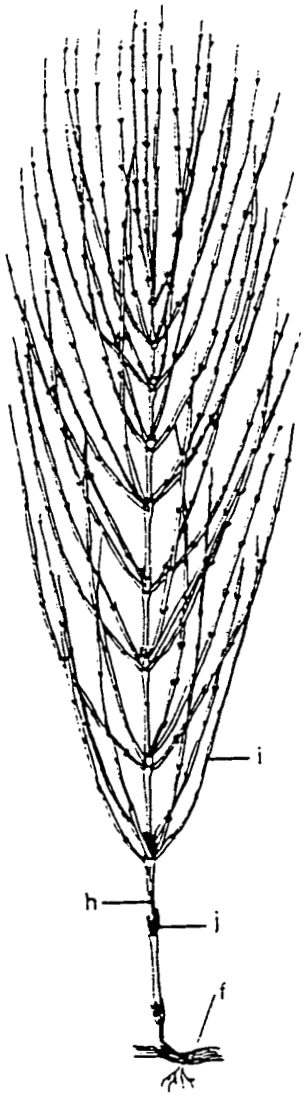
Strobilus
× 2

Equisetum laevigatum
Smooth Scouring Rush

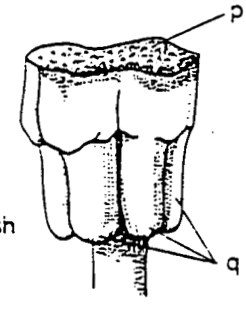
Equisetum arvense
Field Horsetail



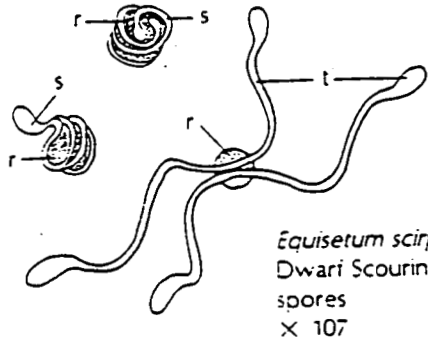
Spring Habit
× ½



Summer Habit
× ½

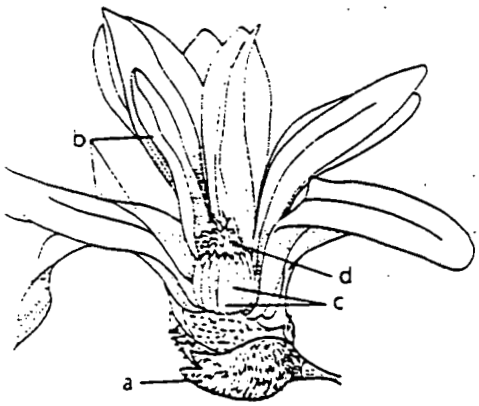


Equisetum hyemale
Common Scouring Rush
sporophyll
× 20

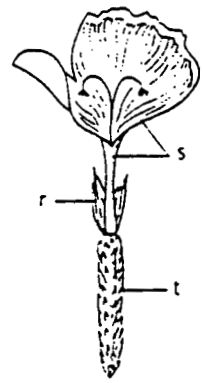


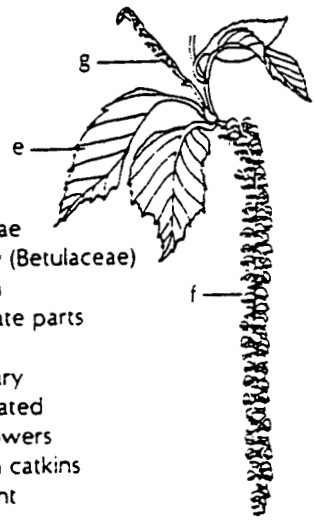
Equisetum scirpoides
Dwarf Scouring Rush
spores
× 107

Classification of Flowering Plants



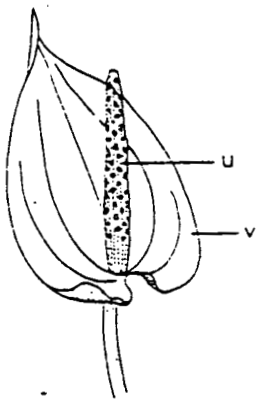
Magnoliidae
Magnolia Family (Magnoliaceae)
Magnolia
many, separate parts
bisexual
superior ovaries
insect pollinated
radial symmetry
woody plant
× 1





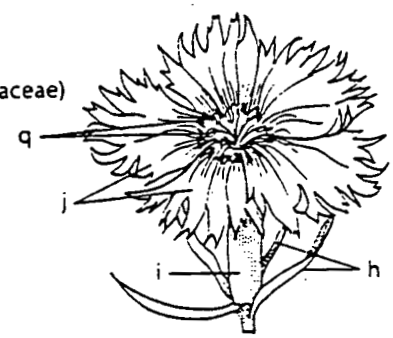
Hamamelidae
Birch Family (Betulaceae)
Betula Birch
few, separate parts
unisexual
inferior ovary
wind pollinated
irregular flowers
clustered in catkins
woody plant
× ½

Asteridae
Aster Family (Asteraceae)
Tagetes Marigold
few, fused parts
unisexual, bisexual
inferior ovary
insect pollinated
irregular flowers
clustered in false flower
herbaceous plant
× 2

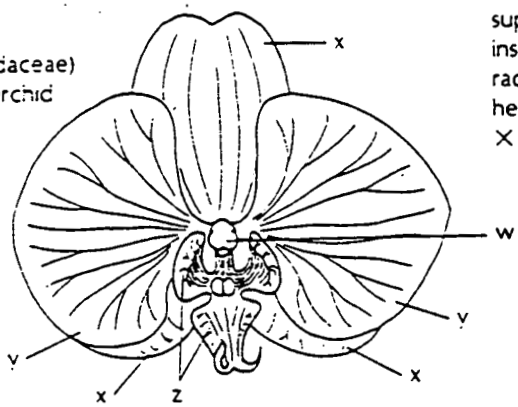


ɔɪdae
m Family (Araceae)
urium Flamingo Flower
fused parts
xual
erior ovary
ct pollinated
al symmetry
dix of flowers
baceous plant
2

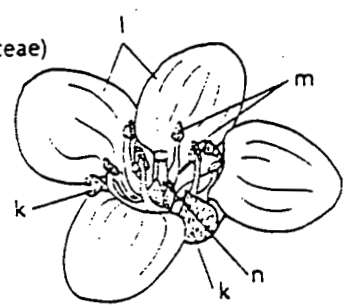
Caryophyllidae
Pink Family (Caryophyllaceae)
Dianthus Pink
some fused parts
bisexual
superior ovary
insect pollinated
radial symmetry
herbaceous plant
× 1



dae
chid Family (Orchidaceae)
alaenopsis Moth Orchid
w, fused parts
exual
erior ovary
ect pollinated
ateral symmetry
rbaceous plant
½



Dilleniidae
Mustard Family (Brassicaceae)
Lobularia Alyssum
few, separate parts
bisexual
superior ovary
insect pollinated
radial symmetry
herbaceous plant
× 6½



OLOR CODE

reen:	bract (a, h, r), leaf (e), female catkin (g), sepals (i, k, o)
hite:	perianth (b), spadix of flowers (u), male-female column (w)
ue:	stamens (c, m, q)
ink:	pistils (d, n), petals (p, y), ovary (t), sepals (x)
an:	male catkin (f)
ed:	petals (j), bract (v)
urple:	petals (l)
range:	petal (s)
ark pink:	lip petal (z)

Rosidae
Rose Family (Rosaceae)
Malus Apple
some fused parts
bisexual
inferior ovary
insect pollinated
radial symmetry
woody plant
× 1

000088

Flowering Plants: Magnoliophyta Classification

The dominant plants of the earth today are the flowering plants. While their fossil record dates from the Cretaceous period, when they diversified rapidly, their ancestral origin is not known (see 41, 42). Sizes range from a 1-mm duckweed *(Wolffia)* to the 100-m Australian gum tree *(Eucalyptus)*.

Flowering plants are called angiosperms, plants that have seeds enclosed in a fruit that develops from an ovary. The division, Magnoliophyta, is divided into 2 classes: Magnoliopsida, the dicots (embryos with 2 seed leaves—cotyledons), and Liliopsida, the monocots (embryos with 1 seed leaf). In the Cronquist classification system, there are 354 families in the two classes.

Dicot (Magnoliopsida) Subclasses

Magnoliidae (36 families). These flowering plants are among the most primitive. Their flowers usually have an indefinite number of parts with many petals, many stamens, and many separate carpels. Pollen grains have one pore (see 31).

Hamamelidae (23 families). The flowers are small, usually unisexual, and are adapted towards wind pollination.

Caryophyllidae (14 families). This group alone has the water-soluble betalain pigments (see 4) of betacyanins (beet red-purple) and betaxanthins (yellow, orange, orange-red). The flower ovary usually has free-central to basal placentation (see 28) and the ovule integuments are twisted and bent.

Dilleniidae (69 families). The flower has many stamens, which mature in a sequence from inside to the outside. Parietal placentation of the ovules is common.

Rosidae (108 families). Structurally, this group has no one common feature, but developmentally, the plants are between the primitive Magnoliidae and the advanced Asteridae.

Asteridae (43 families). In 70% of these plants, the lower petals are fused, at least at the base, and the stamens arise from the petals.

Monocot (Liliopsida) Subclasses

Alismatidae (14 families). These primitive monocots are mostly aquatic plants. The flower carpels are usually separate and the pollen grains possess three pores (see 31).

Commelinidae (16 families). Plants in this subclass are mostly terrestrial. The flower carpels are usually joined and the seed usually has a starchy endosperm (see 40). The sepals and petals are separate, or reduced to bristles or absent.

Zingiberidae (9 families). This subclass is separated from Commelinidae by the presence of septal nectaries, and vessels (see 8) are found only in the roots.

Arecidae (5 families). The flowers are usually small and numerous in a cluster, subtended by a bract (spathe), and often aggregated into a fleshy spike (spadix).

Liliidae (17 families). Tepals (sepals and petals that look alike) and well-developed nectaries are usually present in the flower. This subclass includes the most specialized monocot flowers.

Evolutionary Floral Trends

Evolutionary changes from primitive to more advanced forms may include the following.

Reduction, where flower structures are less in size, number, and kinds of parts. Petals are most frequently lost; stamens or carpels may be lost (bisexual to unisexual flowers, see 28), with, usually, sepals the last to be lost because they protect the young flower.

There may be **fusion** of parts, such as petals forming a tube instead of being separate.

Instead of a superior position, the **ovary** is in an **inferior position** (see 28). The lower, less-exposed position provides more protection of the ovules. The shift from insect to wind pollination is regarded as an advanced evolutionary change.

A change from radial to **bilateral symmetry** is an adaptation for specific insect pollinators. In radial (actinomorphic) symmetry, similar parts are regularly arranged around a central axis. With bilateral (zygomorphic) symmetry, flowers can be divided into equal halves in one plane only. Some advanced flowers are irregular (asymmetrical), incapable of being divided into equal halves in any plane.

False flowers (pseudanthia) are composed of a head (capitulum) of small flowers that look like one flower. In the center of the head are fertile flowers surrounded on the outside by petaloid structures or large-petalled sterile flowers.

'ater Lily Family: Nymphaeaceae

ater lilies are primitive, aquatic flowering plants. Long ·tioles are attached inside the blade margin (peltate af) or falsely so, and the flower bud rises to the water ırface on a long peduncle. Floating or submerged aves are simple and alternate and often have milky tex ducts. These herbaceous plants are usually erennial.

'he flower is often showy, single, and bisexual. Flower ›art numbers are indefinite, but mostly in 3's. The ·epals are usually green and the ovary is usually supe-·ior. Fruit types are follicles and berries.

Of interest . . . **ornamentals:** *Brasenia* (water shield), *Cabomba* (fanwort), *Nuphar* (yellow water lily, spat-terdock), *Nymphaea* spp. (water lilies), *Victoria amazonica* (royal water lily, giant water lily).

Nymphaea odorata Water Lily

This freshwater perennial plant has a stout underground stem (rhizome) with roots that anchor the plant in soil. Long petioles (a) make it possible for the buoyant leaf blades (b) to float on the water surface (see 8). The petiole is attached at a cleft in the blade where veins radiate from it. Large air passages run the length of both leaf petioles and flower peduncles (c).

The flower has 4 sepals (d), many petals (e), and many stamens (f). The outer whorls of stamens have smaller anther sacs and tend to be more petal-like than stamens of the inner whorls. The stamen's filament (g) extends above the anther sacs (h). The inner, female part of the flower has a compound ovary (i) with many carpels radiating outwardly. A stigmatic surface (j, k) covers the upper portion of each carpel (l), which has numerous ovules (m) inside.

After fertilization, the flower sinks below the water surface, where a many-seeded berry (n) matures. Sepals and petals disintegrate, leaving scars (o) on the outer surface.

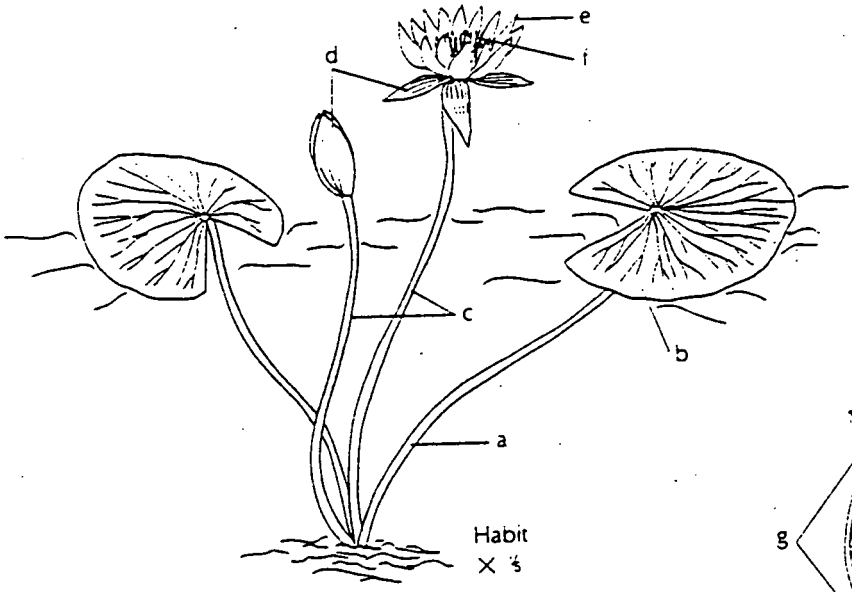
COLOR CODE

tan:	petiole (a), peduncle (c)
green:	blade (b)
yellow-green:	sepals (d), berry (n)
light lavender:	petals (e)
dark lavender:	petal tips (shaded), stamen tips (shaded)
yellow:	stamens (f), ovary (i), stigmas (j)
blue:	filament (g), anther sacs (h)
pink:	stigmatic surface (k), carpel (l), ovules (m)

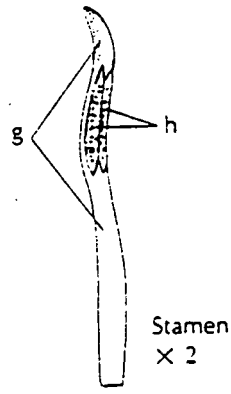
000090

Nymphaea odorata

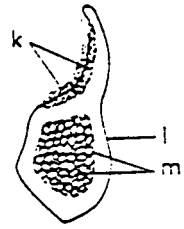
Water Lily



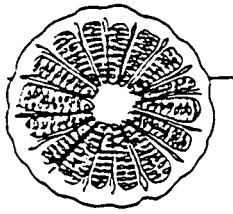
Habit
× ½



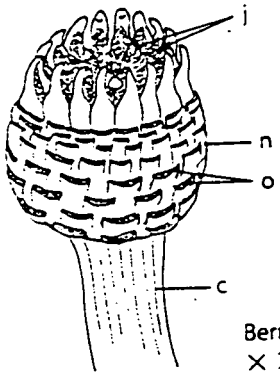
Stamen
× 2



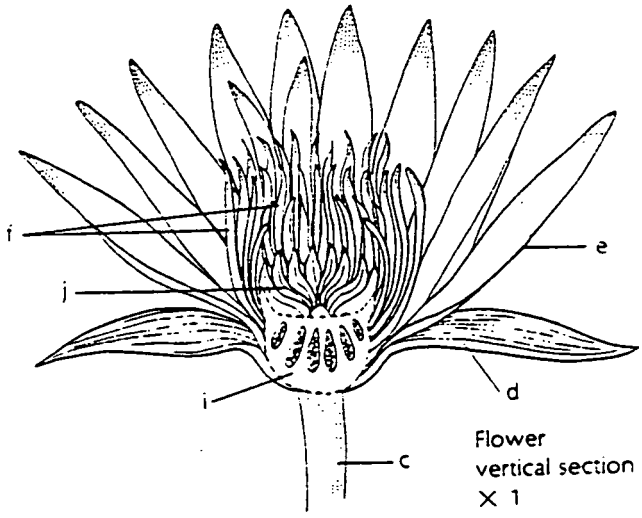
Carpel
cut open
× 2



Berry
cross section
× 2



Berry
× 2



Flower
vertical section
× 1

Beech Family: Fagaceae

A nut fruit partially enclosed in basal bracts (acorn, beech nut, chestnut) is the most familiar characteristic of this family of 6 genera, which are deciduous or evergreen trees and shrubs.

Alternate, simple leaves have lobed, toothed, or entire margins and deciduous stipules. The flowers are usually unisexual and wind-pollinated.

The male flower occurs in catkins or singly and has 4 to 7 sepals, 4 to 40 stamens, and a vestigial pistil. The female flower can be single in a cup of bracts or in a cluster of 2 to 3 flowers, which may have bracts. Fused sepals of the female flower have 4 to 6 lobes. The pistil has an inferior ovary of 3 to 6 carpels, chambers, and styles. Two ovules in axil placentation develop in each chamber, where one develops and the other aborts.

Of interest . . . **lumber:** *Castanea* spp. (chestnuts), *Fagus* spp. (beeches), *Quercus* spp. (oaks; in the U.S., oaks are the second most important source of lumber after conifers); **food:** nuts of the above genera; **ornamentals:** *Castanea* spp. (chestnuts), *Fagus* spp. (beeches), *Lithocarpus* (tanoak), *Quercus* spp. (oaks); **near extinction:** *Castanea dentata* (American chestnut) has been devastated by chestnut blight, caused by an ascomycete fungus, *Endothia parasitica*.

Quercus spp. Oaks

Oak forms vary from small shrubs to large trees. There are 200 to 300 species and many hybrids between species. Oaks are easily identified — even in winter, by the cluster of buds (a) at the end of the stem (c). The leaves (e, f, g) are deciduous or persistent.

Oaks are monoecious with separate male and female flowers on one tree. Forming in pendant clusters, the male flowers (h) open before or with expanding leaves (k). The male flower has 4 to 7 sepals (m) and 6 to 12 stamens (n). The female flowers form in the axils of new spring leaves. This flower has joined sepals of 6 lobes (o) and a pistil of 3 styles (p) and 3 stigmas (q). The ovary is enclosed in a whorl of bracts (involucre, r) which matures into a scaly cup (s). The fruit of cup and nut (t), commonly known as an acorn, may mature in one or two seasons.

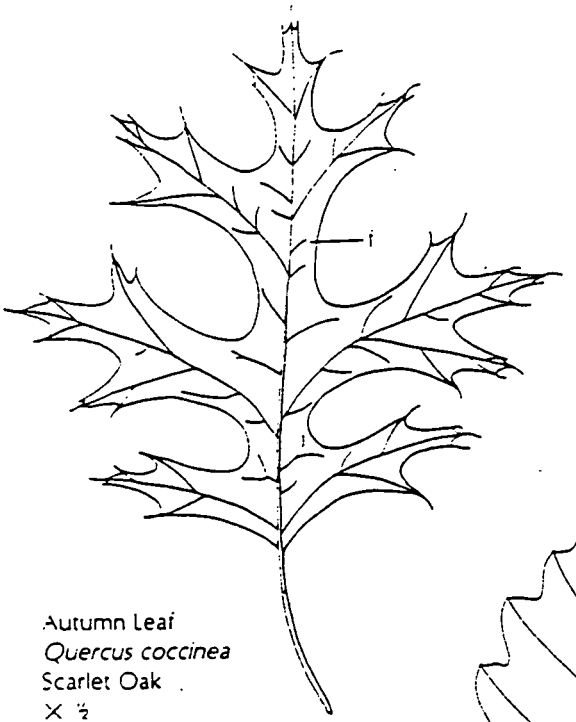
COLOR CODE

tan:	buds (a, b), leaf scar (d), leaf (g), cup (s)
brown:	stem (c), peduncle (l)
green:	leaf (e)
red:	leaf (f)
yellow:	male flowers (h)
light tan:	stem (i), sepals (m), nut (t)
tan-orange:	bud scales (j)
grey-green:	young leaves (k)
blue:	stamens (n)
light green:	sepals (o), involucre (r)
pink:	styles (p), stigmas (q)

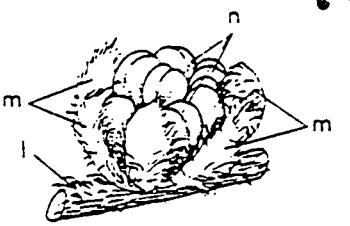
000092

Quercus

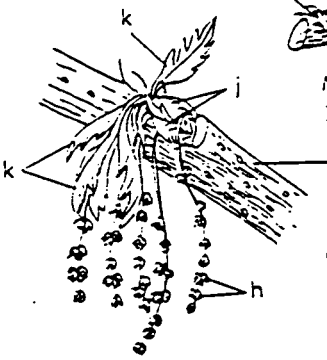
Oaks



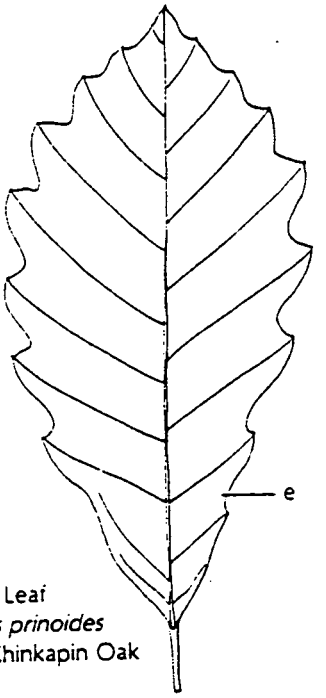
Autumn Leaf
Quercus coccinea
Scarlet Oak
× ½



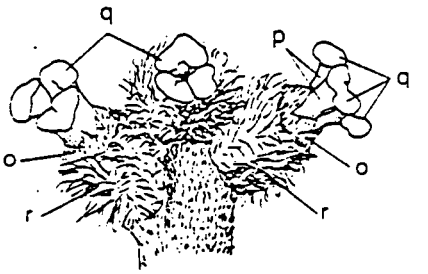
Male Flower
× 8



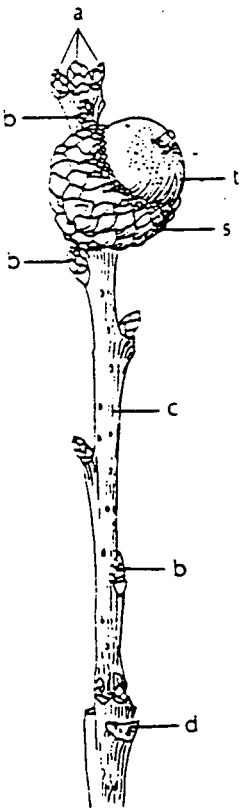
Male Flower Cluster
× 1



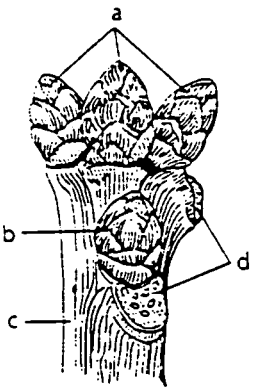
Summer Leaf
Quercus prinoides
Dwarf Chinkapin Oak
× ⅔



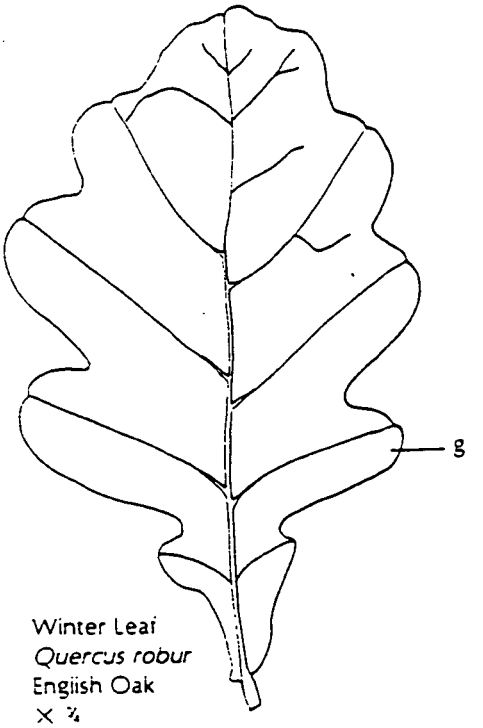
Female Flower Cluster
× 8



Winter Shoot
Quercus prinoides
Dwarf Chinkapin Oak
× 1⅓



Winter Shoot
bud cluster
× 4½



Winter Leaf
Quercus robur
English Oak
× ¾

Birch Family: Betulaceae

The flowers of the deciduous trees and shrubs in this family are borne in catkin-like clusters of cymules. Many cymules make up a cyme (cluster of clusters). Each cymule has 2 to 3 flowers and several bracts. Clusters of male flowers and clusters of female flowers occur on the same tree (monoecious). The male flower may have 4 tepals with 2 to 20 stamens per cyme. The female flower has 1 pistil with an inferior ovary, 2 styles, and 2 stigmas. These spring flowers utilize wind for pollination and produce a nutlet or a winged samara fruit.

Leaves are alternate and simple and have saw-tooth (serrate) margins. Stipules are present at petiole bases. The bark is prominently marked by lenticels (openings for gas exchange).

Of interest . . . **lumber:** *Betula* (birch), *Ostrya* (hop-hornbeam); **charcoal:** *Alnus* (alder), *Betula;* **food:** *Corylus* (hazel nut, filbert); **ornamentals:** *Betula papyrifera* (paper birch, white birch), *B. pendula* (European white birch).

Betula pendula **European White Birch**

This tree, often used as an ornamental, has several trunks typically together in a clump, white paper bark with dark horizontal lenticular markings, and graceful spreading or pendant branches.

The flowering shoot (a) shows the leaves (b) with serrated margins and stipules (c). Male flower clusters (d) are pendant, while the female cluster (e) is smaller and upright. The male cyme shown has 7 stamens enclosed by bracts (f). At the end of the stamen's filament (g), 2 anther sacs (h) separate and open in longitudinal slits. Three pistils and 3 bracts (i) make up the female cymule. The pistil has an inferior ovary (j) and 2 styles (k).

At fruiting time, the female cluster disintegrates, freeing the samaras (l) from the woody bracts (m).

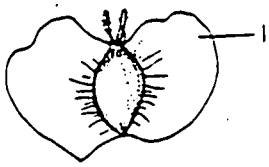
COLOR CODE

tan:	stem (a), male cluster (d), bract (f), seed (n)
green:	leaves (b), stipules (c), female cluster (e)
blue:	filaments (g), anther sacs (h)
dark green:	bract (i)
pink:	ovary (j), styles (k)
yellow:	samara (l)
brown:	bracts (m)

000094

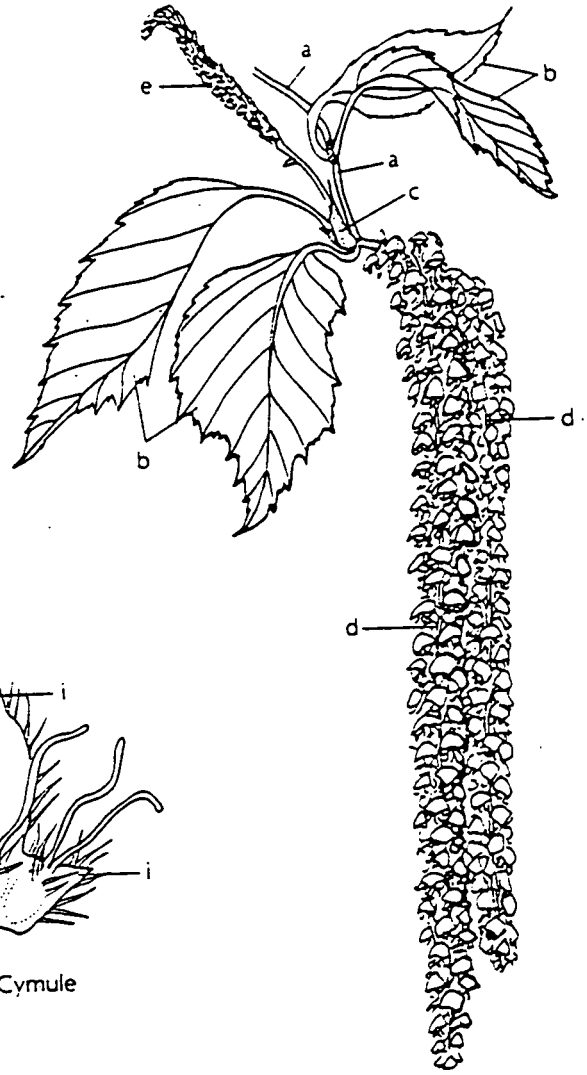
Betula pendula

European White Birch

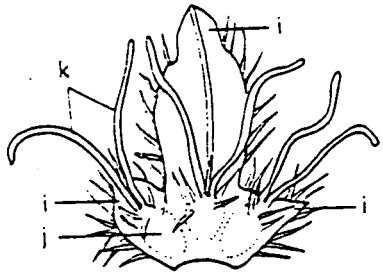


Samara
× 5

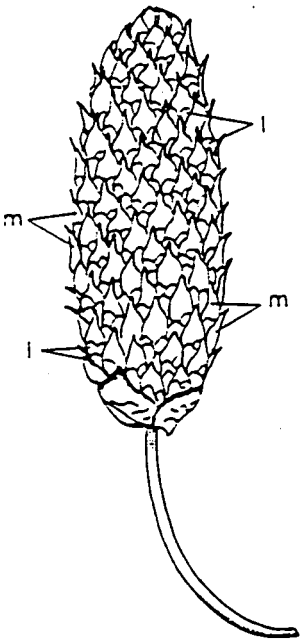
Seed
× 10



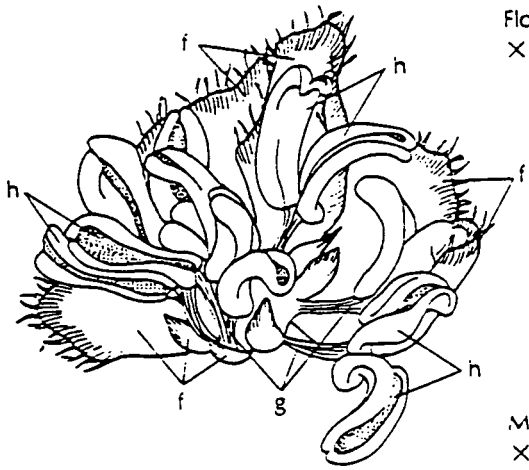
Flowering Shoot
× 1



Female Cymule
× 20



Fruit Cluster
× 2



Male Cyme
× 10

Buckwheat Family: Polygonaceae

On these plants, the stem nodes have a sheathing membrane consisting of 2 fused stipules, called an ocrea. While mainly herbs, there are also a few shrubs, trees, and vines in this family.

Small, wind-pollinated flowers are borne in clusters or in heads. Usually the flower is bisexual and with a variable number of parts of 3 to 6 sepals and petals that look alike (tepals), 6 to 9 stamens, and 1 pistil. The superior ovary of fused carpels has 1 chamber with 1 ovule which develops into an achene fruit.

Of interest . . . **food:** *Fagopyrum* (buckwheat), *Rheum* (rhubarb); **ornamentals:** *Antigonon* (mountain-rose vine), *Coccoloba uvifera* (sea grape), *Polygonum aubertii* (silver-lace vine), *P. sachalinense* (sacaline); **weeds:** *Polygonum* spp. (knotweeds, smartweeds, wild buckwheat).

Polygonum persicaria **Lady's Thumb, Redleg**

Lady's thumb is known as a smartweed for its sap, which irritates, "smarts," on contact with human eye and nose tissues. This annual's stems (a) have a jointed appearance. At each node (b) is an ocrea (c) fringed with bristles. Short-petioled, linear leaves (d) have a spot (e) of dark green pigmentation near the center.

Pink flower clusters (f) have a minute membranous sheath (ocreola, g) at the base of inner clusters. The small flower has 5 tepals (h), 2 enclosing the inner 3; 8 stamens (i); and 1 pistil (j) with 2 stigmas (k). The fruit is an achene that may be lentil-shaped (l) or 3-sided (m).

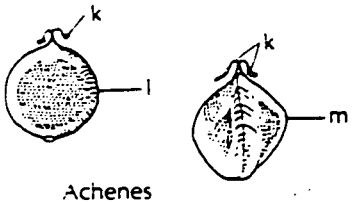
COLOR CODE

green:	stem (a), leaf (d)
light green:	ocrea (c), ocreola (g)
dark green:	spot (e)
pink:	flowers (f), tepals (h), pistil (j)
blue:	stamens (i)
black:	achene (l)
tan:	achene (m)

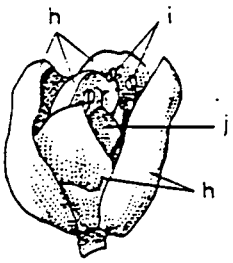
000096

Polygonum persicaria

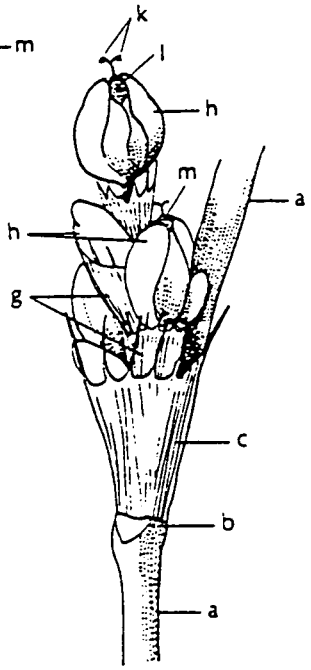
Lady's Thumb



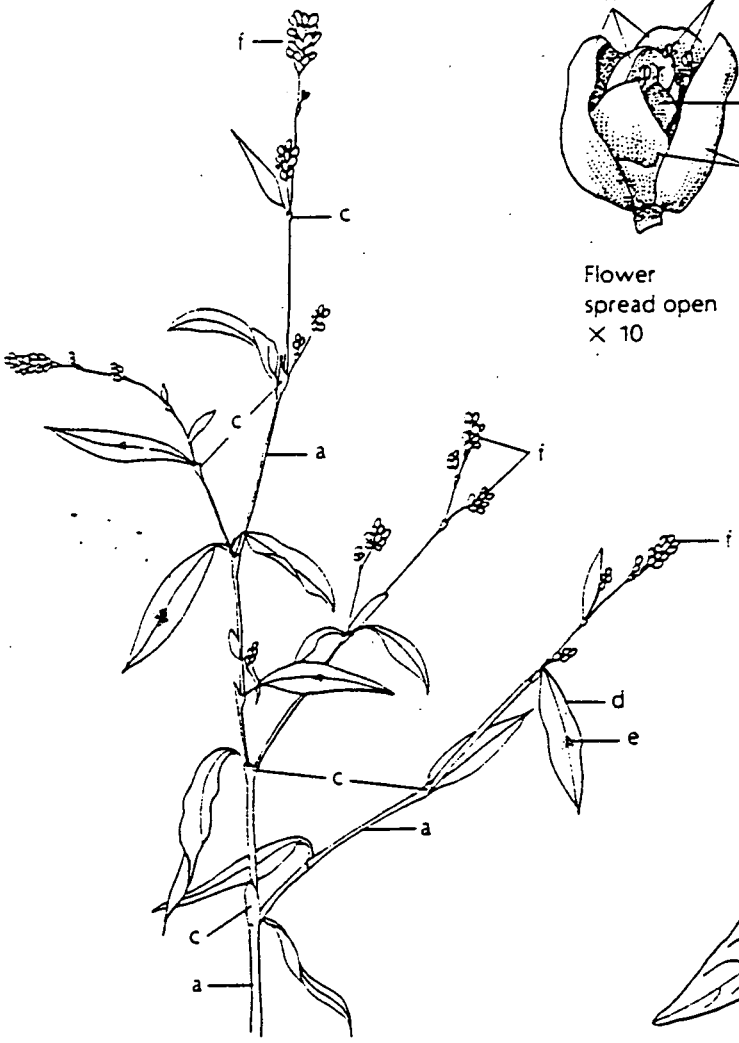
Achenes
× 10



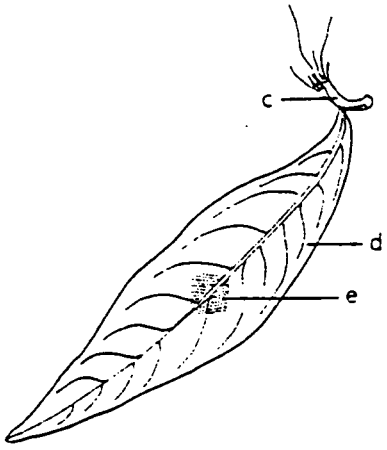
Flower
spread open
× 10



Flower Cluster
× 6



Habit
× ½



Leaf
× 1

Willow Family: Salicaceae (Amentiferae)

Specialized and reduced, unisexual flowers are aggregated into catkins (aments) in this family of 2 genera with 350 species. *Salix* and *Populus* are dioecious, producing male and female flowers on separate plants. The male flower has 2 to many stamens and the female flower is one pistil with numerous ovules.

Populus flowers are wind-pollinated; while *Salix* flowers, with nectar glands, are insect-pollinated. Both genera have deciduous leaves which are simple and alternate and have deciduous stipules that are shed in the spring. Plants are woody shrubs and trees. The fruit is a 2- to 4-valved capsule with numerous, hairy (comose) seeds.

Of interest . . . **ornamentals:** *Salix* spp. (willows), *Populus* spp. (poplar, cottonwood, aspen); **pulpwood:** *Populus tremuloides* (quaking aspen), *P. balsamifera* (balsam poplar); **wickerware:** *Salix* (willow); **aspirin:** (acetyl*sali*cylic acid) was originally derived from the bark of *Salix alba* (white willow).

Salix **Willow**

The leaves (a) are alternate on the stem (b) and have toothed margins. Flowers (c) of this male catkin have 3 stamens (d) with a hairy bract (e) and a nectar gland (f) below. The flowers (g) of the female catkin each have 1 pistil with numerous ovules (h) in the ovary (i), 1 style (j) and 2 stigmas (k). At the base of the flower pedicel (l) is a bract (m) and a nectar gland (n). With the reduction of parts, these specialized flowers consist of only stamens or a pistil and are without sepals and petals.

During spring, the female catkin becomes a fuzzy mass of hairy seeds (o) released from 2-valved (p) capsules.

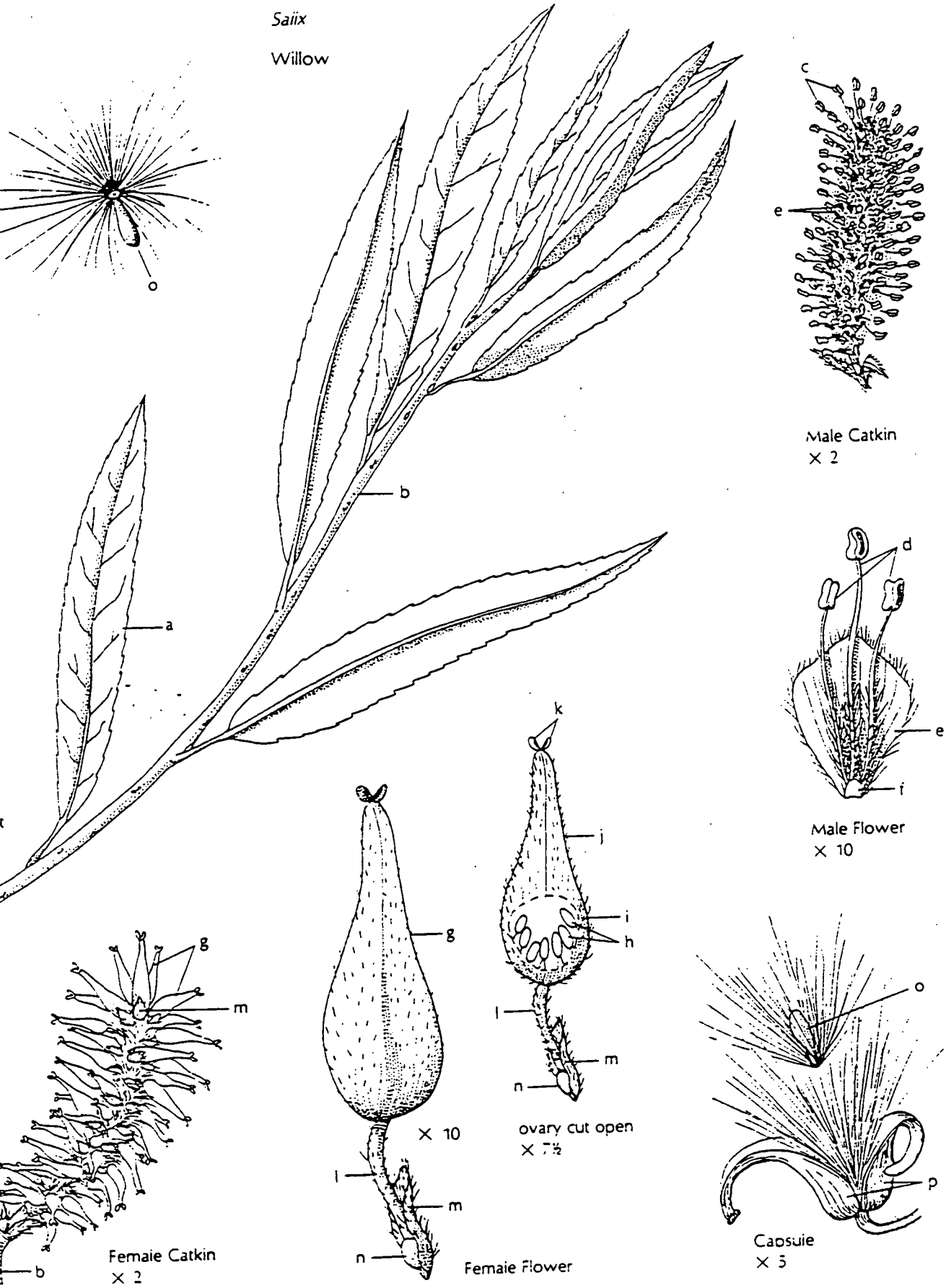
COLOR CODE

green:	leaf (a), female catkin flowers (g), pedicel (l)
brown:	stem (b), capsule valves (p)
yellow:	male flowers (c)
blue:	stamens (d)
dark brown:	bracts (e, m)
light green:	nectaries (f, n)
pink:	ovules (h), ovary (i), style (j), stigmas (k)
tan:	seed (o)

000098

Salix

Willow



Heath Family: Ericaceae

Shrubs are the most common form in this family, but some plants are perennial herbs, trees, or vines. Most prefer acidic substrate and many have fungus-root (mycorrhizal) associations (see 12). Leaves are simple, alternate, sometimes opposite or whorled, and often leathery and evergreen.

Flowers are bisexual, borne singly or in clusters. The 4 to 5 sepals are distinct or joined at the base. There are usually 4 to 5 petals joined in a funnel or urn-shape, but in some genera the petals are separate. Stamens are the same or twice the number of petals. The single pistil has a superior ovary of 4 to 10 carpels with ovules usually in axile placentation, and 1 style and 1 stigma. Fruit types are capsules, berries, or drupes.

Of interest . . . **food:** *Gaultheria* (wintergreen), *Gaylussacia* (huckleberry), *Vaccinium* spp. (cranberry, blueberry); **ornamentals:** *Arbutus, Erica* (heath), *Kalmia* (mountain laurel), *Leucothoë* (leatherleaf), *Pieris* (andromeda), *Rhododendron* spp. (rhododendron, azalea); **wild:** *Arctostaphylos* (bearberry), *Monotropa* (Indian pipe), *Pyrola* (shinleaf); **poisonous:** *Andromeda glaucophylla* (bog rosemary), *Kalmia angustifolia* (lambkill), *K. latifolia* (mountain laurel), *K. polifolia* (swamp laurel), *Leucothoë* spp., *Lyonia mariana* (stagger-bush), *Menziesia ferruginea* (fool's huckleberry), *Rhododendron* spp.

Arctostaphylos uva-ursi **Bearberry, Kinnikinik**

This plant forms mats of prostrate shrubs, cloned by shoots arising from the root system. The alternate, leathery leaves (a) are evergreen. Young stems (b) and leaf blade margins and petioles are covered with fine hairs.

Urn-shaped flowers are borne in small clusters at the end of the shoot. The flower has 5 basally fused, pink sepals (c), a fused petal tube (d) with 5 lobes (e), 10 stamens, and 1 pistil with a superior ovary. The stamen's anther (f) has 2 cells with a pore (g) for pollen dispersal and a bristly awn (h) at the base of each. The stamen's filament (i) is dilated at the base. The pistil's ovary (j) has 5 to 8 chambers (locules) with 1 ovule (k) in each, in axile placentation. The pistil has a single columnar style (l) and 1 stigma (m). The ovary is elevated on a 10-lobed nectar disc (n). Hairs (o) line the inner surface of the petal tube and cover the stamen's dilated filament base.

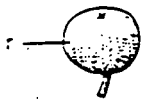
As the drupe (r) type fruit matures, the skin color changes from yellow to red, then to purple as it decays. Inside is a fleshy mesocarp (s) surrounding the fused nutlets (t). Yellow veins (u) run as a band along the back of each and as seams between the nutlets.

COLOR CODE

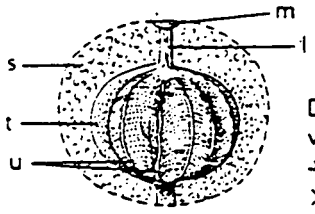
green:	leaves (a), disc (n)
brown:	stem (b)
dark pink:	sepals (c), petal lobes (e)
pale yellow:	petal tube (d), mesocarp (s), vein (u)
blue:	anther (f), awn (h), filament (i)
pink:	ovary (j), ovule (k), style (l), stigma (m)
red-brown:	pedicel (p), bract (q)
red:	drupe (r)
tan:	nutlet (t)

000100

-7337

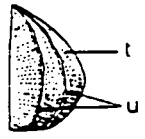


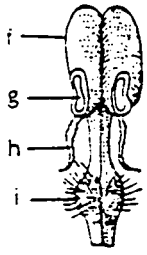
Drupe
× 1

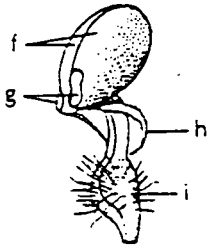


Drupe
vertical section
4, of 6, nutlets exposed
× 3

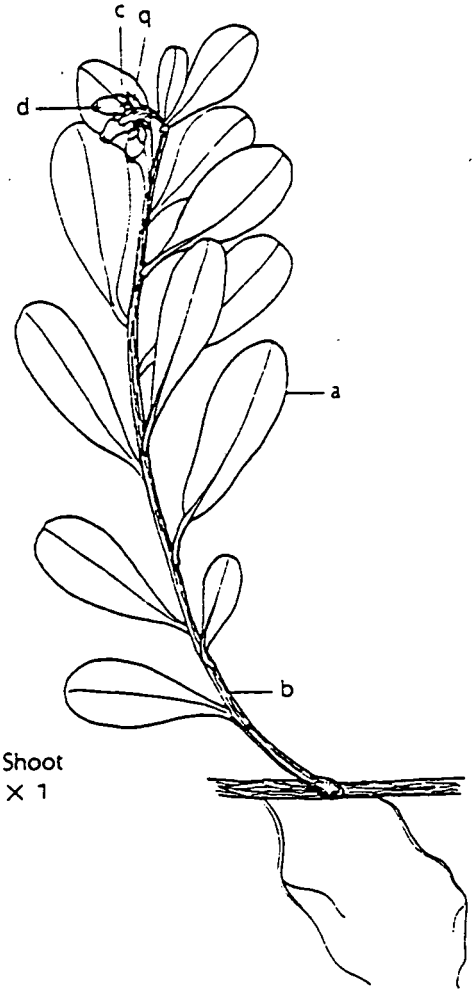
Nutlet
× 5



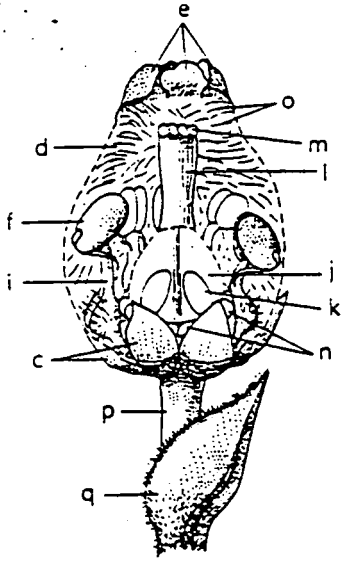




Stamens
× 10



Shoot
× 1



Flower
vertical section
× 7

Arctostaphylos uva-ursi

Bearberry

000101

Dogwood Family: Cornaceae

Plants in this family are usually woody with simple, opposite leaves. The small flowers are arranged in clusters that are sometimes subtended by bracts. The flower is bisexual or with unisexual male and female flowers on one plant (monoecious) or on separate plants (dioecious).

Attached to the ovary are 4 to 5 sepals and 4 to 5 petals or none. The number of stamens is the same as petals. There is 1 pistil with an inferior ovary of 2 to 4 carpels, and with a glandular disc surrounding the 1 or more styles. Fruit are drupes or berries.

Of interest . . . **ornamentals:** *Aucuba* (Japanese laurel), *Cornus canadensis* (bunchberry), *C. florida* (flowering dogwood), *C. sericea* (red-osier dogwood), *C. mas* (Cornelian cherry), *C. kousa* (Japanese dogwood), *C. racemosa* (grey dogwood), *Griselinia* spp. (kapuka), *Helwingia*.

Cornus florida* var. *rubra **Flowering Dogwood**

This small tree has widely spreading branches and is valued as an ornamental specimen tree in landscaping. In nature, this understory tree of the forest appears white-flowered in the spring. Natural aberrant pink and red varieties have been propagated for horticultural use.

The opposite leaves are simple with entire, wavy margins, and in autumn, turn a deep red color.

What appear to be pink flower petals are 4 large bracts (b) around a cluster of 20 to 30 minute bisexual flowers (c) with yellow petals. Each flower has 4 joined sepals (d), 4 small petals (e, f), 4 stamens (g), and 1 pistil (h). The stamens arise from the base of a nectar disc (k). Parts of the pistil include a 2-carpelled ovary (l) with an ovule (m) in each locule, a style (n), and stigma (o).

Given the large number of flowers in a cluster, only a few drupes (p) mature as the fruit.

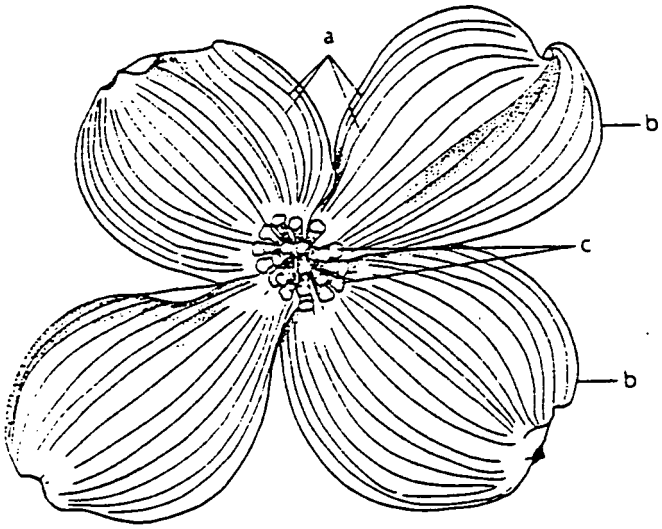
COLOR CODE

dark pink:	bract veins (a)
pink:	bracts (b)
yellow-green:	flowers (c), bud petals (e)
light green-pink:	sepals (d)
yellow:	petals (f), stamens (g), nectar disc (k)
light green:	pistil (h)
blue:	anther (i), filament (j)
pink:	ovary (l), ovules (m), style (n), stigma (o)
red:	drupes (p)
gray:	peduncle (q)
optional:	leaf (green in summer; or dark red with yellow veins in autumn)

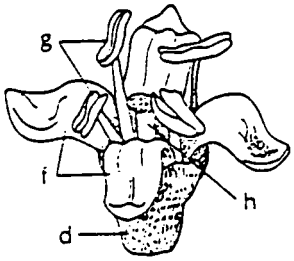
000102

Cornus florida

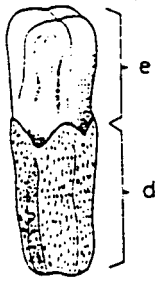
Flowering Dogwood



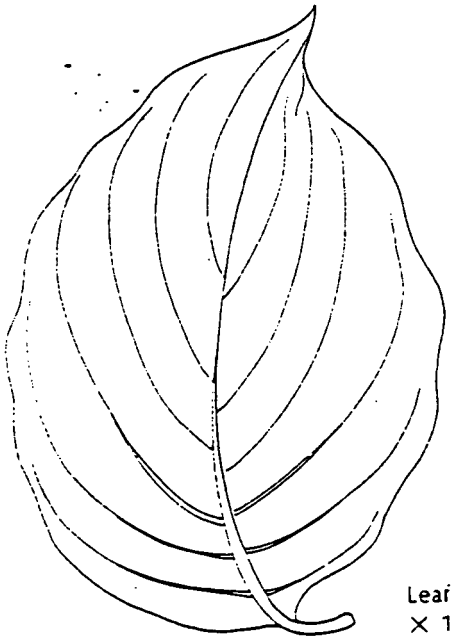
False Flower
× 1



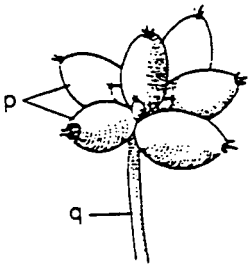
Flower
× 5



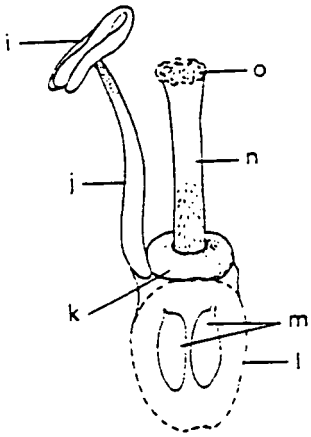
Flower Bud
× 5



Leaf
× 1



Drupes
× 1



Pistil, Stamen
ovary vertical section
× 10

Maple Family: Aceraceae

Maples have opposite leaves that may be simple, with palmate venation, or compound (see 35). Species differ in leaf shape with margins entire or variously toothed or variously lobed. The 2 genera (*Diperonia* from China and *Acer*) in this family are small to large deciduous trees found mainly in the north temperate zone.

The flower in some species is bisexual, but usually is unisexual with both male and female flowers on the same tree (monoecious) or separated on different trees (dioecious). Unisexual flowers may have vestigial organs of the opposite sex. There are usually 5 sepals, 5 petals or none, 4 to 12 stamens, and 1 pistil with a superior ovary. The 2 fused carpels of the ovary develop into a double samara fruit.

Of interest . . . **lumber:** *Acer saccharum* (sugar maple), *A. macrophyllum* (big leaf maple); **food:** *A. saccharum* (sugar maple), all maple species yield sap with a high sugar content; **ornamentals:** *A. saccharum* (sugar maple), *A. platanoides* (Norway maple), *A. pseudoplatanus* (sycamore maple), *A. ginnala* (amur maple), *A. japonicum* (fullmoon maple), *A. palmatum* (Japanese maple, with red leaves throughout growing season).

Acer saccharinum · Silver Maple

This maple tree grows to 37 m high. The main trunk divides near the ground into several upright stems. It is a fast-growing tree with brittle branches and a shallow, spreading root system.

Opposite leaves (a) are 5-lobed with palmate venation (b) and toothed margins. The leaf is green on the upper surface and silvery on the lower surface (c). In one location with two silver maple trees growing next to each other, the tree bearing male flowers in the spring produces yellow autumn leaves, while the other tree bearing female flowers in the spring has red autumn leaves.

This species is dioecious and wind-pollinated, with flowers opening before the leaves (e) expand on the stem (f). Hair-fringed bud scales (g) enclose clusters of male flowers (h). The male flower has joined sepals (i), a variable number of stamens (j), and a vestigial pistil (k).

Clusters of female flowers (l) are produced on another tree. The female flower consists of a sepal cup (m) and vestigial stamens (n), and the single pistil has an ovary of 2 fused carpels (o) and 2 plumose stigmas (p). Two ovules are in each carpel, but only one develops so that the fruit is a double samara (q) with a seed (r) on each side.

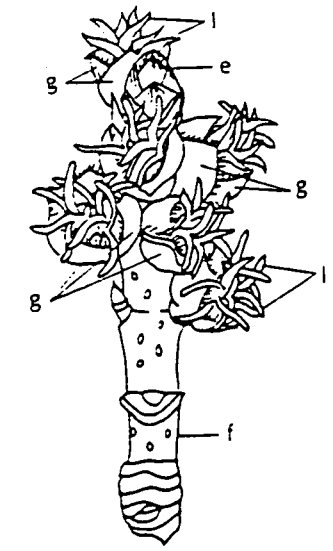
COLOR CODE

red or yellow:	autumn leaves (a)
green:	veins (b), leaf bud (e), stem (f), female flowers (l)
white:	leaf lower surface (c)
brown:	stem (d), samara (q, r)
red:	bud scales (g)
yellow:	male flowers (h)
pale yellow:	sepals (i, m)
blue:	stamens (j, n)
pink:	pistil (k), carpels (o), stigmas (p)

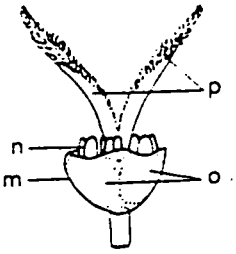
000104

Acer saccharinum

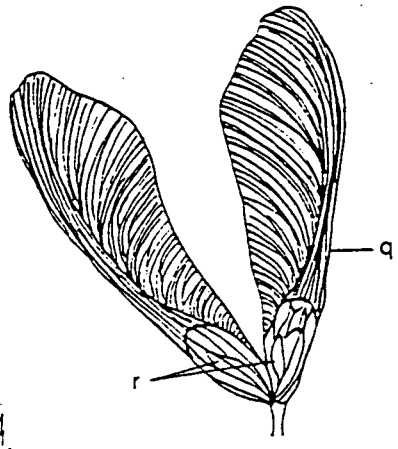
Silver Maple



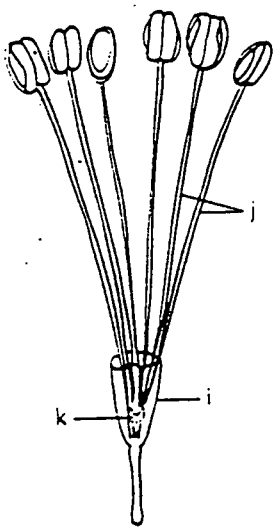
Shoot
with female flowers
× 2



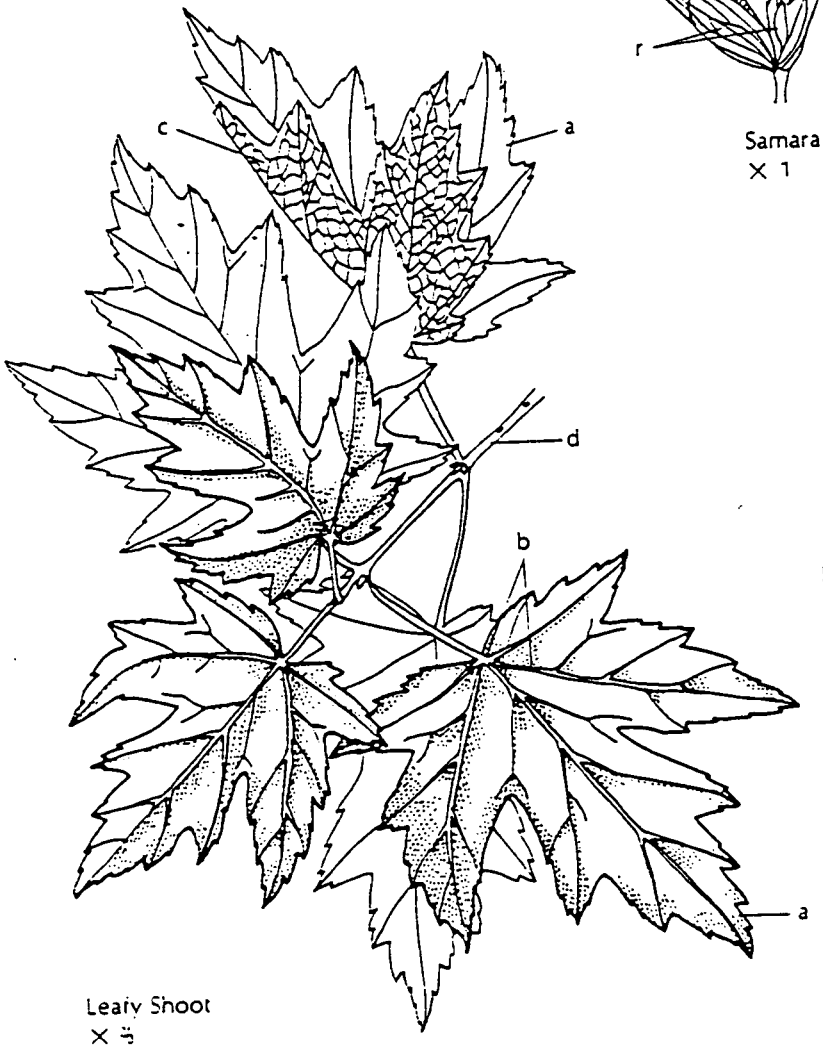
Female Flower
× 5



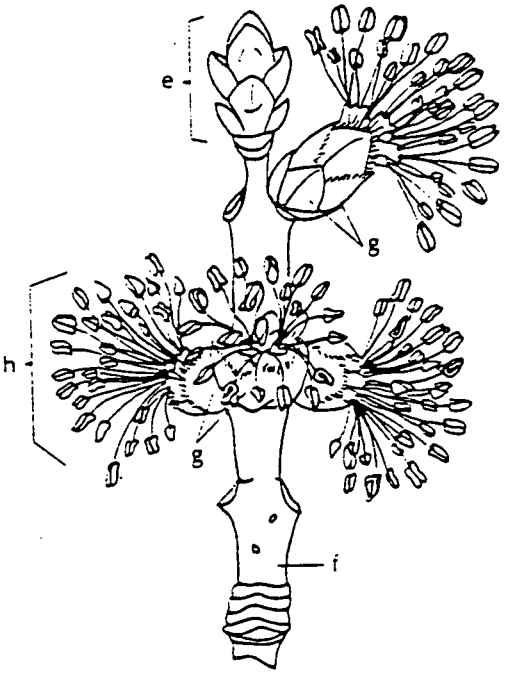
Samara
× 1



Male Flower
× 5



Leafy Shoot
× 5



Shoot
with male flowers
× 2

Mint Family: Lamiaceae (Labiatae)

Mint plants have square stems, mostly opposite leaves, and usually present are aromatic oils that account for the distinct and characteristic odors. Flowers have 5 fused petals that diverge into 2 lips (bilabiate). The single pistil has a superior, 4-lobed ovary, and a style that arises between the ovary lobes from the base of the flower (gynobasic style). The fruits produced are 4 nutlets.

Usually, plants in this family are annual or perennial herbs, although shrubs, trees, and vines are also represented.

Of interest . . . **herbs:** *Majorana* (marjoram), *Mentha* spp. (mints), *Nepeta* (catnip), *Ocimum* (basil), *Origanum* (oregano), *Rosmarinus* (rosemary), *Salvia officinalis* (sage), *Satureja* (savory), *Thymus* (thyme); **ornamentals:** *Ajuga* (bugloss), *Coleus*, *Lavandula* (lavender), *Leonotis* (lion's-ear), *Molucella* (bells-of-Ireland), *Monarda* spp. (bergamot, Oswego tea, beebalm), *Physostegia* (false dragonhead), *Salvia splendens* (scarlet sage).

Salvia officinalis Sage

This spring-flowering, perennial herb has square stems (a) with opposite, simple leaves (b). Two small flower clusters arise on opposite sides of the stem. Conspicuous ribs join the flower's 5-lobed sepal tube (c). The 5 fused petals (d) separate into an upper lip of 2 petal lobes and a lower lip of 3 petal lobes.

Cut open, the flower reveals several interesting features. Two stamens arise from the lower petal lip. For clarity, one stamen is shaded. The filament (e) attaches to an enlarged connective (f) that allows rotation of the anther sac (g). As a visiting bee alights on the lower petal lip, pollen from the rotating anther sacs brushes the insect. After depletion of pollen, the stigmas (h) are lowered by the elongated style (i). Thus, pollen from other flowers is brushed on the stigmas by visiting bees, effecting cross-pollination. Nectar, the source of attraction to insects, is pooled below a ring of hairs (j) in the petal tube, secreted by a disc (k) at the base. The pistil's gynobasic style (i) arises between the 4 lobes of the ovary (l).

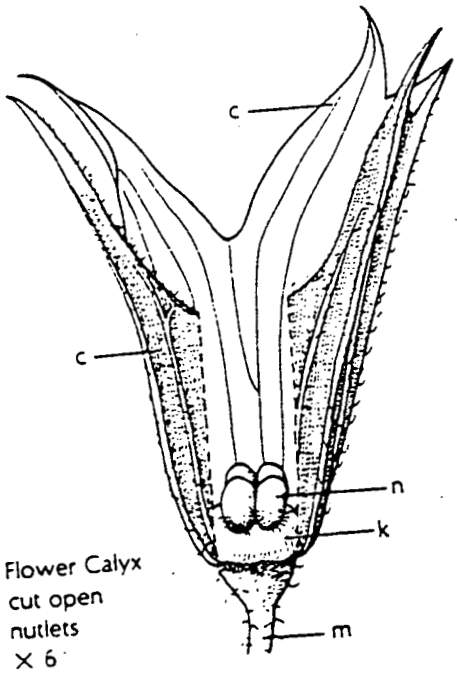
At fruiting time, when the persistent sepal tube is cut open, 4 nutlets (n) are revealed.

COLOR CODE

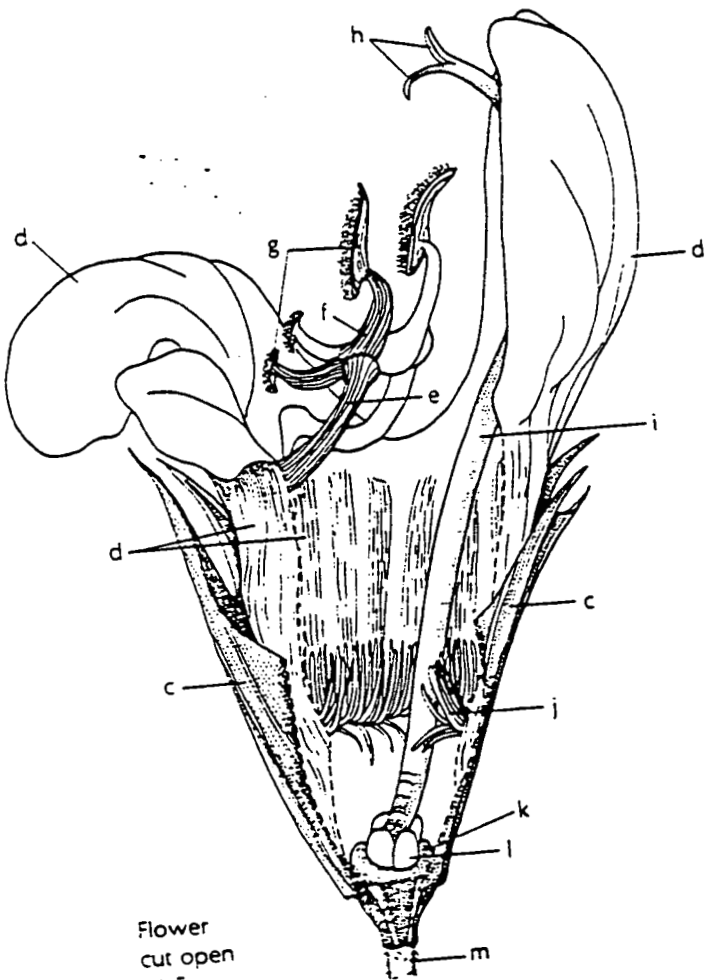
green:	stem (a), pedicel (m)
gray-green:	leaves (b)
purple-green:	sepals (c)
purple:	petals (d) nectar disc (k)
blue:	filaments (e), connectives (f), anther sacs (g)
pink:	stigmas (h), style (i), ovary (l)
white:	hairs (j)
tan:	nutlets (n)

000106

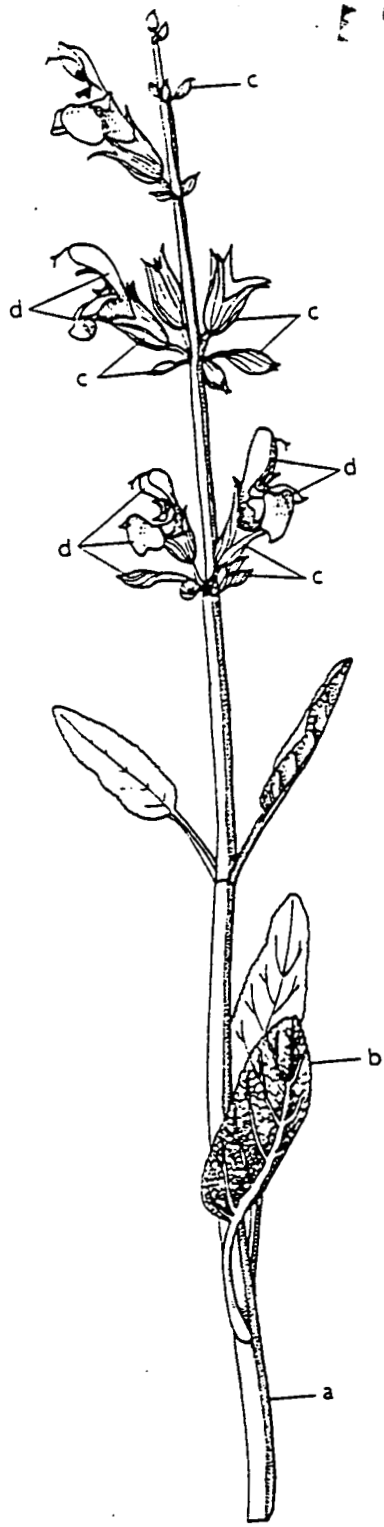
F-7337



Flower Calyx
cut open
nutlets
× 6



Flower
cut open
× 5



Shoot
× 1

Salvia officinalis

Sage

000107

er-plantain Family: Alismataceae

primitive monocot family is composed of aquatic s that are annual or perennial herbs. Parts of the ual or unisexual flower are arranged in whorls of pals, 3 petals, and 3 to numerous stamens and pis- A pistil's ovary contains, usually, 1 ovule in basal entation. The fruit is an achene.

basally sheathing leaves are either floating or have g petioles that rise above water level. Leaf blades variable: linear to round, or the bases arrowhead- aped (sagittate), or arrowhead-shaped with narrow, sal lobes nearly at right angles (hastate).

f interest . . . depending on the point of view, these ants are water-weed **pests** or useful for **ornamental** ool gardens: *Alisma* (water-plantain), *Echinodorus* our-head), *Sagittaria* (arrowhead).

Saggittaria latifolia **Wapato, Arrowhead**

Fibrous roots (a) anchor this perennial herb in the mud substrate of aquatic habitats. Older plants have tubers at the ends of rhizomes. The leaf's sheathing petioles (b) vary in length with the water depth. Arrowhead-shaped leaf blades (c) are narrow to wide. The peduncle (d) of the raceme bears whorls of unisexual, male flowers (e) at the top and female flowers (f) below.

An enlargement of the male flower shows more clearly the bract (g) at the pedicel (h) base. Both male and female flowers each have 3 persistent, green sepals (i) and 3 white petals (j), which are shed early.

The male flower has 24 to 40 stamens (k) in whorls. Pollen is shed through slits on the anther sacs (l).

Seen in a vertical-section, the female flower has numerous, densely aggregated pistils (n) borne on the receptacle (o). Each pistil has a simple stigma (p), a short style (q), and 1 basal ovule (r) in the ovary (s). The fruits produced are numerous, flat achenes.

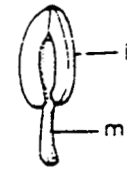
COLOR CODE

white:	roots (a), petals (j), receptacle (o)
red-green:	petioles (b)
green:	blades (c), peduncle (d), bract (g), pedicels (h), sepals (i), pistils (n)
yellow:	stamens (k)
blue:	anther (l), filament (m)
pink:	stigma (p), style (q), ovule (r), ovary (s)

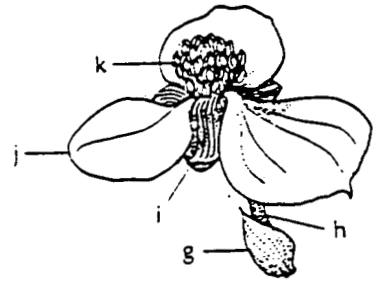
000108

Sagittaria latifolia

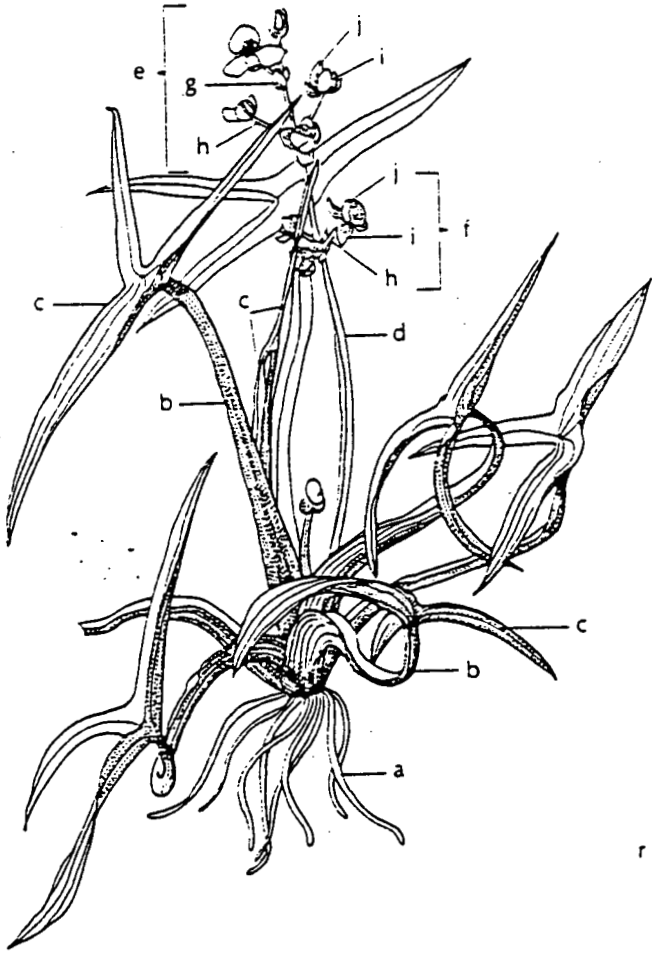
Arrowhead



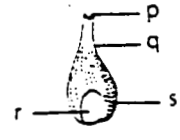
Stamen
× 10



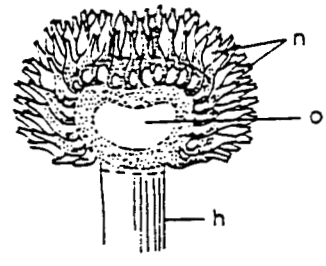
Male Flower
× 2



Habit
× ½



Pistil
× 10



Female Flower
perianth removed
vertical section
× 5

Sedge Family: Cyperaceae

Distinguished from grasses, which have hollow, round stems, sedges have solid-pithed, often 3-sided, stems. Sedge leaves usually emerge from a stem area in three directions (3-ranked), each with a blade and a closed sheath. The flower is subtended by one bract or scale.

Sedges are usually bog or marsh plants and grow in clumps or extend from creeping, underground, rhizome-like stems. Minute flowers are arranged in spikelets. Sepals and petals are reduced to bristles, hairs, or scales or are absent. Usually there are 3 stamens and 1 pistil with a superior ovary consisting of 2 to 3 carpels fused to form 1 chamber with 1 ovule. The pistil's style sometimes forms a beak on the achene-type fruit.

Of interest . . . **ancient useage:** *Cyperus papyrus* (pith used to make paper), *Cyperus* spp. (mat grass, hay grass, roof thatching), *Eleocharis* spp. (basket making), *Scirpus* spp. (bulrushes—basketwork, mats, chair seats); **food:** *Eleocharis tuberosa* (Chinese water chestnut: tubers); **ornamentals:** *Cyperus alternifolius* (umbrella plant); **cattle fodder:** *Carex* spp. (sedges).

Cyperus strigosus Umbrella Sedge

This perennial sedge has a smooth, 3-sided stem (a), leaves (b) at the base, and clusters of flower spikes (c) subtended by leaf-like bracts (d). A ray (e) of spikes has loosely arranged, linear spikelets (f). Older plants have a short, knotty rhizome-like underground stem.

A spikelet is a double row of overlapping, bisexual flowers, each enclosed by a flattened scale (g, h). In the flower enlargement, the 3 stamens have been shed. Remaining are a green-keeled (g), flattened scale with golden, translucent sides (h) and the pistil. The pistil consists of a 3-parted style (i) and an ovary (j). The fruit that develops is a 3-angled, beakless achene (k).

Carex hystericina Porcupine Sedge

Unisexual flowers are formed on separate spikelets of this sedge. Both male (l) and female (m) spikelets have leaf-like bracts (n) below. The female pistil (o) is composed of a 3-branched style (p) and an ovary surrounded by a flask-shaped sac, the perigynium (q), with a 2-toothed beak (r). A small scale (s) subtends the pistil. An achene (t) fruit is formed.

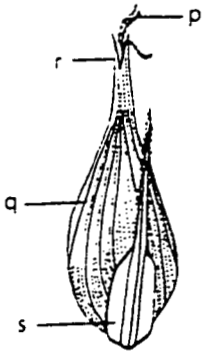
000110

COLOR CODE

green:	stem (a), leaves (b) bracts (d, n), rays (e), scale keel (g)
gold-green:	spikelets (f)
gold:	scale side (h) covering ovary (j)
tan:	style (i), achene (k, t), male spikelet (l)
light green:	female spikelet of pistils (m, o), perigynium (q, r), scale (s)
brown:	styles (p)

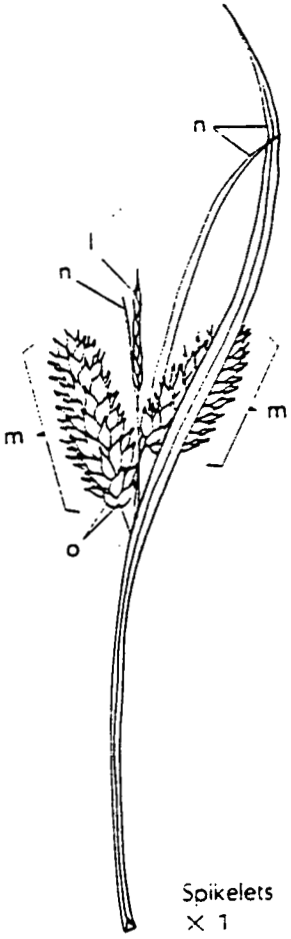
Carex hystericina

Porcupine Sedge



Female Flower
× 7½

Achene
7½

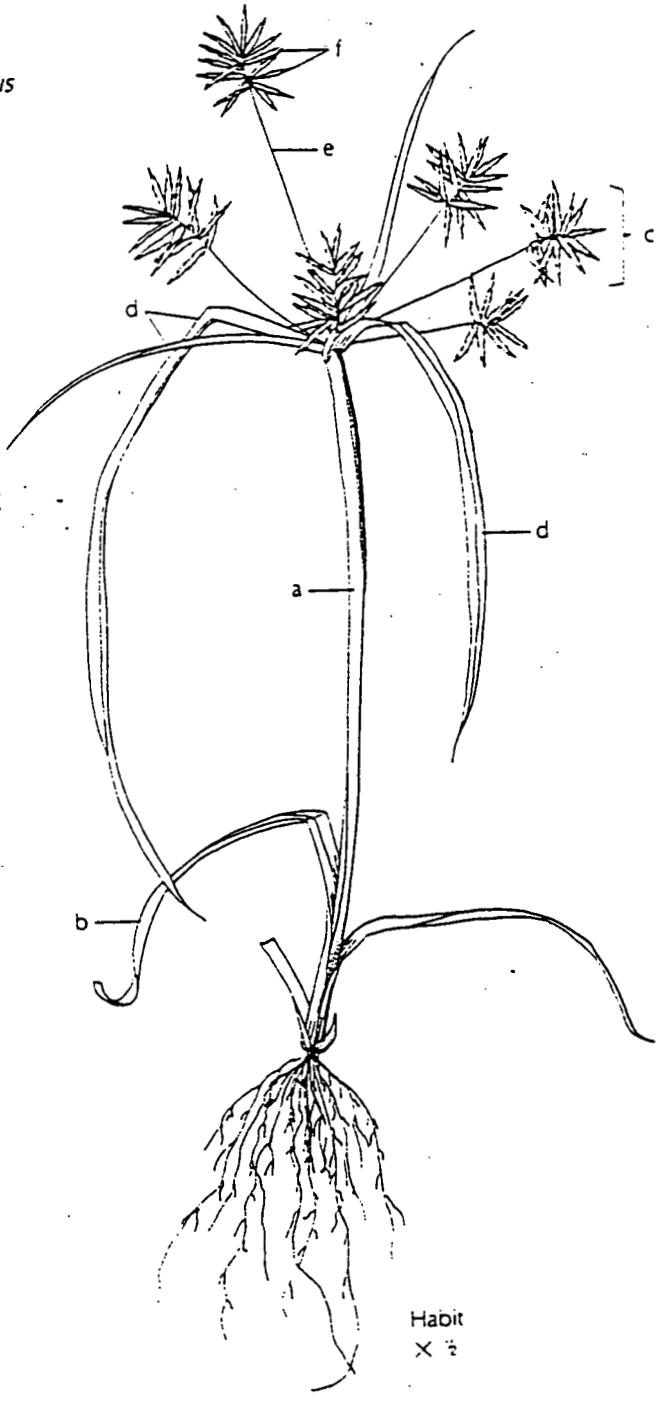


Spikelets
× 1

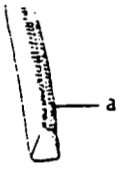
Cyperus strigosus

Umbrella Sedge

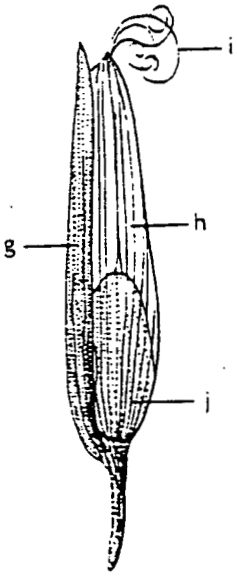
Spikelet
× 4



Habit
× ½



Stem
cross section
× 1



Flower
× 15

Achene
× 15

Grass Family: Poaceae (Graminae)

The grass flower is unlike any other plant family's flowers. Within a spike (a), the flower unit is called a spikelet. An exaggerated separation of the structures is shown in the spikelet diagram. For reference, the diagram and the spikelet drawing of *Secale cereale* (rye) have the same letter for a structure described.

The primary axis of the spikelet is called the rachilla (b). At the base of the spikelet are 2 bracts called 1st glume (c) and 2nd glume (d). The next bracts are called lemmas (e) and may have a bristlelike appendage (awn, f). A soft inner bract is called the palea (g). The remaining parts comprise a floret (h). Each spikelet may have one or more florets, which are unisexual or bisexual. There are no sepals or petals, instead there are 2 or 3 lodicles (i). Lodicles enlarge with turgor pressure and cause the lemmas and palea to expand, exposing the stamens and/or stigmas at pollination time. Grasses are wind-pollinated. There are usually 3 stamens with freely moving (versatile) anthers (j) and 1 pistil with 2, usually feathery, stigmas (k). The pistil's ovary (l) is superior and contains 1 ovule. The fruit is usually a grain (caryopsis, m) or a berry in some bamboos.

Grasses are annual or perennial herbs except for bamboo, which is woody. Roots (n) are fibrous and adventitious roots arise from stem nodes. The stems, called culms (o), are usually hollow and round with 1 leaf (p) to a node (q). Leaves are alternate in 2 rows up the culm. The leaf consists of a blade (r) and a sheath (s), which encircles the culm, and has parallel venation (t). Where the leaf blade diverges from the culm is often a membranous appendage, the ligule (u).

Economically, Poaceae is the most important plant family. Of interest . . . **food crops:** *Avena sativa* (oats), *Hordeum* (barley), *Oryza sativa* (rice), *Saccharum* (sugarcane), *Secale cereale* (rye), *Setaria italica* (millet), *Sorghum bicolor* (sorghum), *Triticum* (wheat), *Zea mays* (corn); **shelter:** *Bambusa* (bamboo); **fodder:** *Agrostis* (bentgrass), *Dactylis* (orchard grass), *Phleum* (timothy), *Setaria* (foxtail grass), *Sorghum, Zea;* **lawn turf:** *Agrostis, Cynodon* (Bermuda grass), *Festuca* (fescue grass), *Poa* (bluegrass), *Stenotaphrum* (St. Augustine grass), *Zoisia* (zoysia grass); **industry:** various grasses (insulation materials, newsprint, ethyl alcohol).

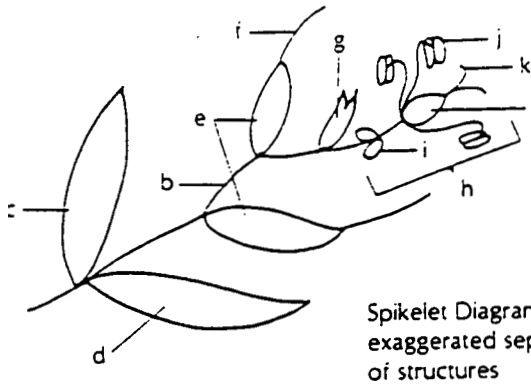
Parts of a Grain

The *Triticum* (wheat) grain diagram shows the source of vitamins, nutrients, and metabolites that we utilize (see also 40, corn grain). Wheat bran, composed of pericarp (v), seed coat (w) and aleurone layer (x), contains vitamin B complex (thiamine, riboflavin, niacin, pyridoxine, pantothenic acid), cellulose, phosphorus, calcium, and iron. Endosperm (y) is processed into flour containing starch and protein. Wheat germ refers to the embryo (z) and is a source of vitamin B complex, vitamin E, vitamin A, protein, iron, fat, sodium, copper, zinc, magnesium, and phosphorus.

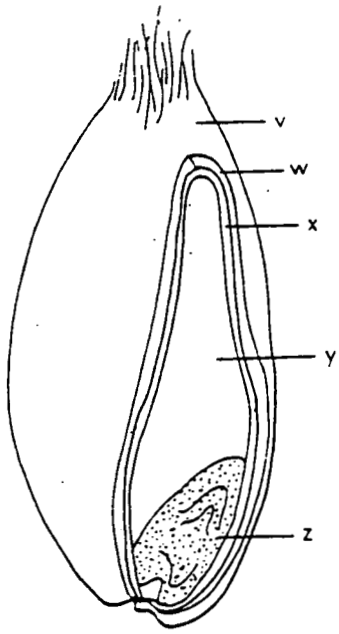
COLOR CODE

yellow:	spikes (a), glumes (c, d), pericarp (v)
green:	lemmas (e), leaves (p), leaf blade (r), leaf sheath (s), ligule (u)
light green:	palea (g), lodicle (i), culm (o)
blue:	anthers (j)
pink:	stigmas (k), ovary (l)
tan:	grain (m), roots (n), seed coat (w)
orange:	aleurone layer (x)
white:	endosperm (y), embryo (z)

000112



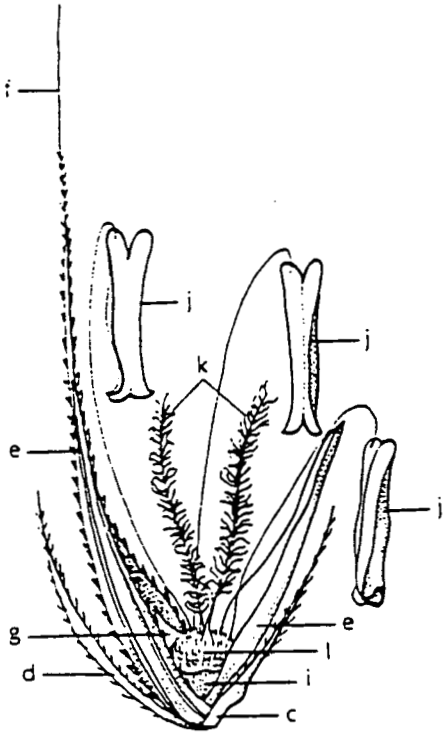
Spikelet Diagram
exaggerated separation
of structures



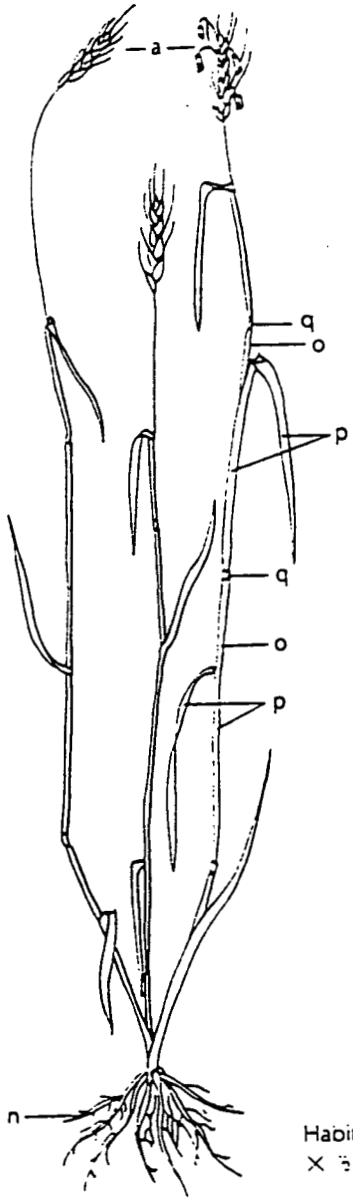
Grain Diagram
vertical section
Triticum
Wheat

Secale cereale

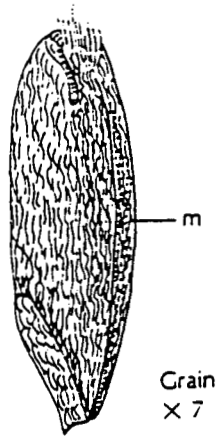
Rye



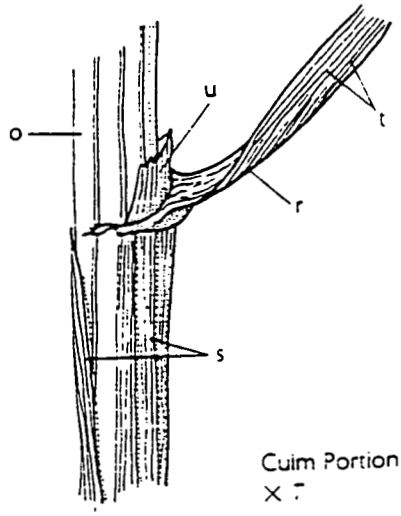
Spikelet
× 4½



Habit
× ½



Grain
× 7



Culm Portion
× 7

Arum Family: Araceae

A unique characteristic of this family is the elaborate reproductive structure consisting of a fleshy spike of flowers, the spadix, subtended by a leaf-like bract, the spathe. These mostly tropical and subtropical plants are usually terrestrial herbs growing on the forest floor. Because of their low-light tolerance, they are popular as houseplants in cool climates. Poisonous calcium oxalate crystals are present in plant tissues and there may be a milky sap.

The leaves are simple or compound, occur at the base or are alternate on the stem, and have petiole bases that sheath the stem. The small flowers on the spadix are bisexual or unisexual, and have an odor of rotten flesh, which attracts fly pollinators (see 34). There are 1 to 6 stamens and 1 pistil with 1 to many carpels. Sepals and petals that look alike (tepals) may be present. A berry is the fruit type.

Of interest . . . **ornamentals:** *Aglaonema* (Chinese evergreen), *Amorphophallus* (voodoo lily), *Anthurium* (flamingo flower), *Caladium* (elephant's-ear), *Dieffenbachia* (dumb-cane), *Helicodicerus, Monstera deliciosa* (Swiss-cheese plant, cut-leaf philodendron), *Philodendron, Pistia* (water lettuce), *Scindapsis* (pothos, devil's-ivy), *Spathiphyllum* (flame plant), *Zantedeschia* (calla lily); **food:** *Alocasia* (taro), *Colocasia* (taro), *Xanthosoma* (tannia); **wild:** *Arisaema triphyllum* (Jack-in-the-pulpit), *Calla palustris* (wild calla), *Orontium* (golden club), *Peltandra* (arrow arum), *Symplocarpus foetidus* (skunk cabbage).

Spathiphyllum **Flame Plant**

This perennial herb has simple leaf blades (a) with sheathing petioles (b). The spadix (c) of bisexual flowers is subtended by a white petal-like spathe (d). Each flower (e) has 6 tepals (f) enclosing 6 stamens. The anther (g) of the stamen is shed from a fleshy filament (h) after pollen is released. The pistil (i) has a flattened 3-part stigma (j) with ovules (k) in basal placentation.

Arisaema triphyllum **Jack-in-the-pulpit**

This North American wild flower is a perennial herb that arises from a solid, bulb-like structure (corm). The compound leaf blade (l) is divided into three leaflets (hence, triphyllum). The petiole (m) is enclosed by a sheath (n) at the base. Plants with one compound leaf have male flowers on the spadix, while plants with two compound leaves have female flowers.

This unusual plant has unisexual flowers on the same plant at different times. Young plants with one compound leaf have only male flowers at the base of the spadix. In subsequent years, two leaves develop from the corm and in a sex change, the spadix has only female flowers. The spathe (o, p), "pulpit," curls around and over the spadix (q), "Jack" or "Jill," as the case may be.

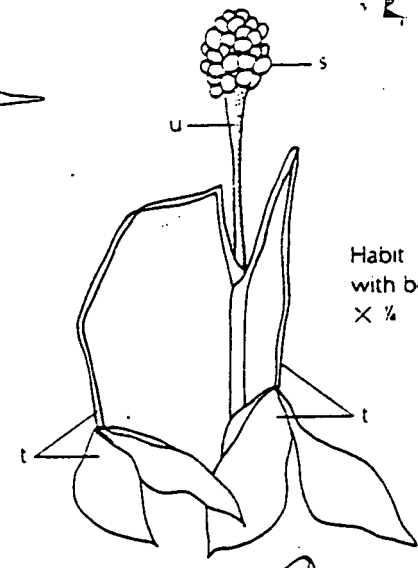
In autumn, on plants with female flowers, a cluster of red berries (s) is revealed as the spathe and leaves (t) wither.

COLOR CODE

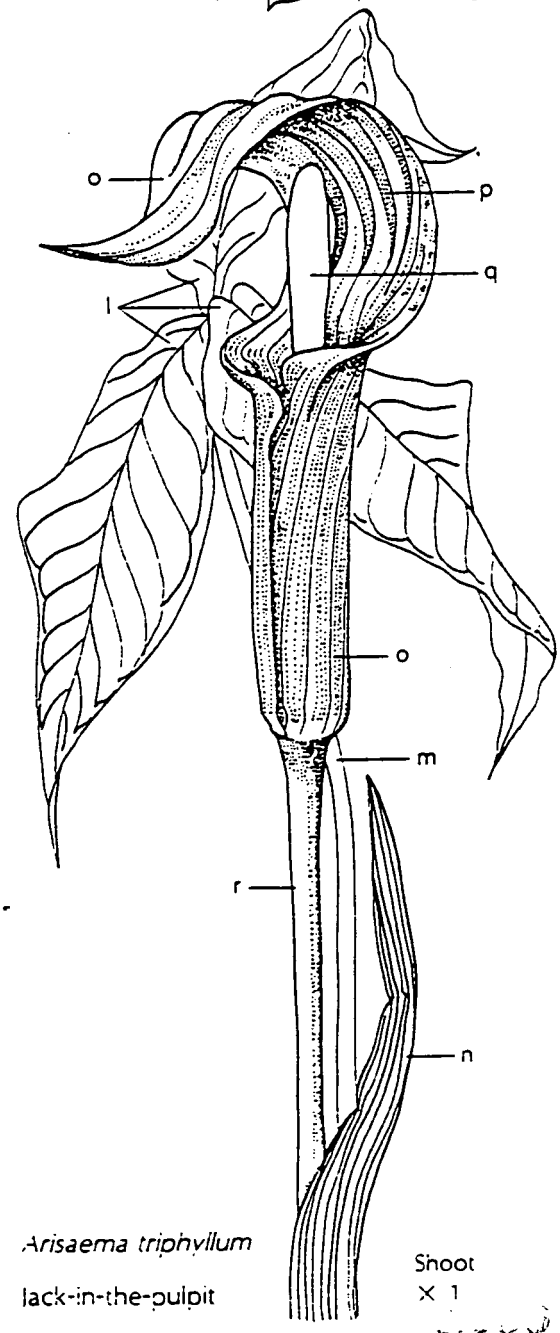
green:	blades (a), petioles (b, m), leaflets (l), sheath (n)
white:	spadix (c), spathe (d), tepals (f)
blue:	anthers (g), filaments (h)
pink:	pistil (i), stigma (j), ovules (k)
light green:	outer spathe (o), spadix (q), peduncle (r)
purple:	inner spathe (p)
red:	berries (s)
tan:	peduncle (u), leaves (t)

L - 7337

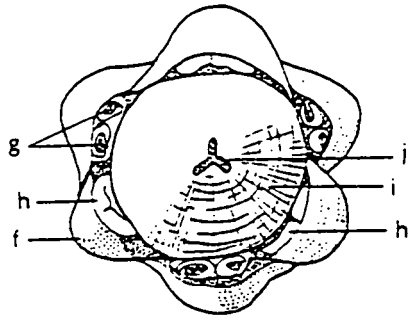
Habit
× ½



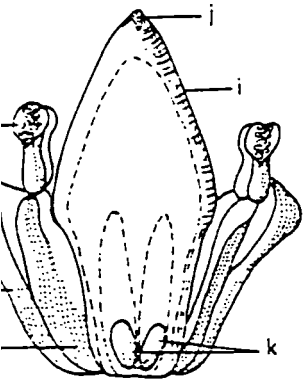
Habit
with berries
× ¼



Shoot
× 1



Flower
from above
× 8



Flower
vertical section
× 8

Spathiphyllum

Flame Plant

Arisaema triphyllum

Jack-in-the-pulpit

000115

Lily Family: Liliaceae

Lily flowers have 3 sepals and 3 petals that look alike (tepals), 6 stamens, and a single pistil with a superior ovary of 3 fused carpels. Fruit types are septicidal or loculicidal capsules or berries.

This large family of about 3,500 species consists mostly of perennial herbs with narrow, parallel-veined leaves and underground storage organs such as rhizomes, bulbs, corms, or tubers. Some plants are evergreen succulents, as in *Aloe* and *Haworthia* or vines as in *Smilax* (see 16).

Of interest . . . **food:** *Allium* spp. (onion, shallot, leek, garlic, chives), *Asparagus officinalis:* **medicine:** *Aloe: Colchicum* (colchicine), *Urginea* (red squill); **ornamentals:** *Convallaria majalis* (lily-of-the-valley), *Fritillaria, Gloriosa, Haworthia, Hemerocallis* (day lily), *Hosta, Hyacinthus* (hyacinth), *Kniphofia* (torch lily, red-hot-poker), *Lilium* spp. (lilies), *Muscari* (grape-hyacinth), *Sansevieria* (snake plant, bowstring-hemp, leopard lily), *Scilla* (squill), *Smilax* (greenbriar), *Tulipa* (tulip); **wild:** *Erythronium* (dogtooth violet), *Maianthemum* (false lily-of-the-valley), *Lilium, Polygonatum* (Solomon's seal), *Smilacina* (false Solomon's seal), *Trillium, Uvularia* (bellwort); **poisonous:** *Amianthemum* (stagger-grass), *Convallaria, Ornithogalum umbellatum* (star-of-Bethlehem), *Veratrum* (false hellebore), *Zygadenus* (death camas).

Lilium michiganense Michigan Lily

This wild lily is a perennial herb that grows to 2 m in height. Whorls of leaves (a) ascend the stem (b). At the top flowers with 6 orange or, rarely, orange-red, recurved tepals (c) arise on peduncles (d).

The flower also has 6 stamens (e) with the filament (f) attached in the center of the anther (g), providing free movement. The single pistil (h) has a superior ovary of 3 carpels (i) with numerous ovules (j) in axile placentation, a long style (k), and a 3-lobed stigma (l).

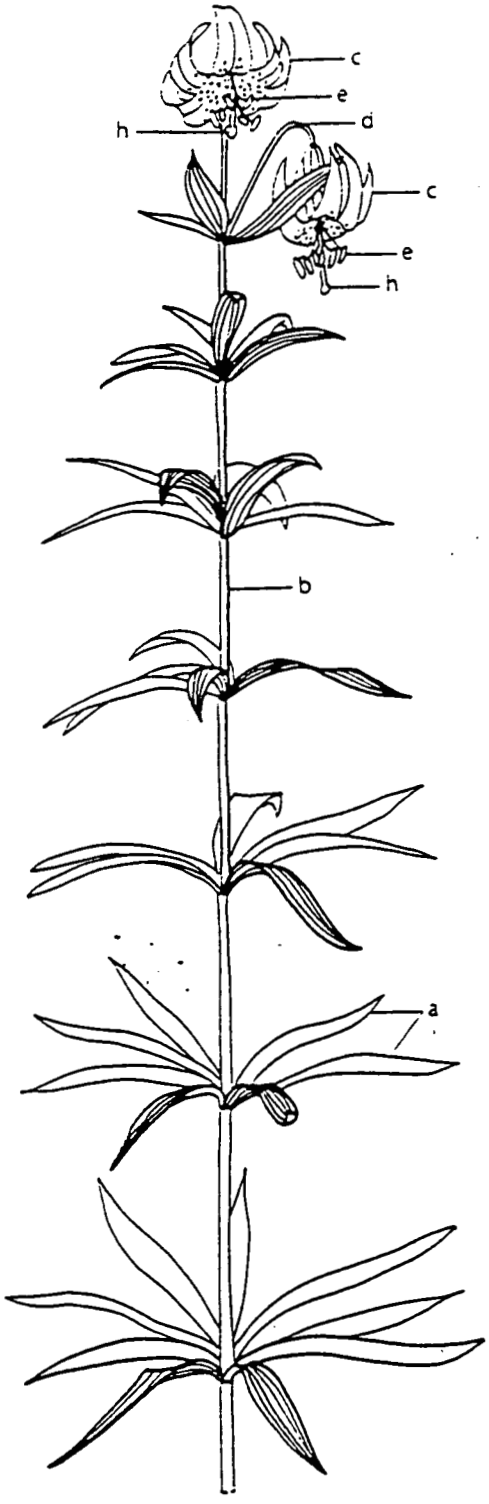
A loculicidal capsule (m) is formed from the ovary. One of the 3 locules shows a stack of flat, winged seeds (n).

COLOR CODE

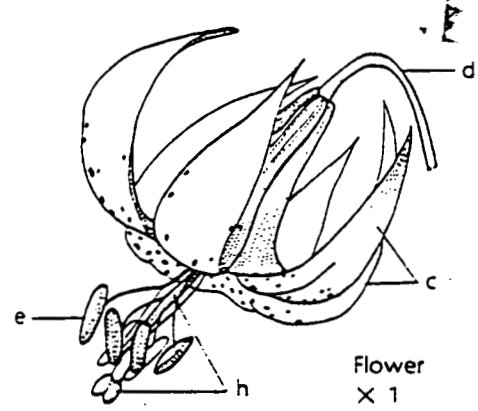
green:	leaves (a), stem (b), peduncle (d), pistil (h)
orange:	tepals (c)
brown:	stamens (e), capsule (m)
blue:	filament (f), anther (g)
pink:	carpels (i), ovules (j), style (k), stigma (l)
tan:	seed (n)

000116

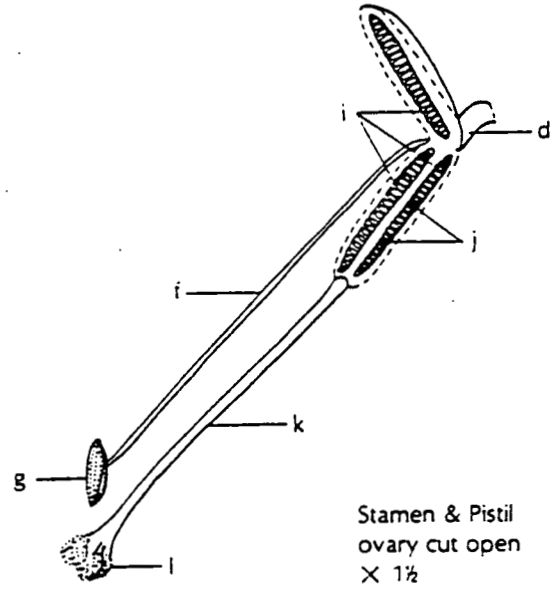
-7337



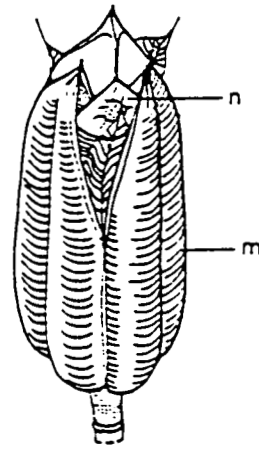
Habit
× ⅓



Flower
× 1



Stamen & Pistil
ovary cut open
× 1½



Capsule
× 1

Lilium michiganense

Michigan Lily

000117

Iris Family: Iridaceae

The 3 sepals of flowers in this family are colored and petal-like and may differ in size, shape, and color from the 3 petals. The bisexual flower has 3 stamens and a single pistil with an inferior ovary of 3 fused carpels. The leaves sheath at the base, overlapping each other transversely, in an equitant manner, unique to this family.

Plants are perennial herbs with underground storage organs of rhizomes, bulbs, or corms. The fruit type is a loculicidal capsule.

Of interest . . . **ornamentals:** *Belamcanda* (blackberry lily), *Crocus, Freesia, Gladiolus, Iris, Ixia, Sisyrinchium;* **flavoring:** *Crocus sativus* (saffron: style-stigma).

Iris germanica **Flag, Iris**

Iris plants are perennial herbs with a rhizome (a) storage organ and adventitious roots (b). Sword-shape leaves (c) overlap at the base.

Flower color is wide-ranging in cultivated hybrids from white, yellow, orange, blue, purple, red, and pink to tan. A pair of green bracts (d) occur below the elaborate flower. Bracts cover a flower bud (e). The 3 petal-like sepals (f), "falls," are bearded with hairs (g). The 3 upright petals (h), "banners," curve inward. Above each sepal is a stamen (j).

In the flower structure drawing, an upright stamen of filament (k) and anther (l) can be discerned more clearly. Where the filament emerges from the sepal tube (f) are nectar glands (m). Where is the pistil? The bulge, below the sepal tube, is an obvious, inferior ovary (n) with indentations of 3 fused carpels. In an ovary cross-section, each carpel (o) has a chamber (locule, p) with ovules (q) in axile placentation. In the flower structure drawing, only one other portion remains unidentified. What looks like a petal with crested wings above is 1 of 3 styles (r) with a flap of tissue, the stigma (s).

Pollination involves insects. When a bee (t, u) alights on the sepal, it is guided by the beard hairs and color markings to the nectar location. As it works its way through a tunnel between style (v, r) and sepal (f) to the nectar glands, pollen on its body from another flower is rubbed off onto the stigma flap (w, s). Then as the bee backs out of the flower, its hairs are dusted with pollen that is shed outwardly from anther sacs (j, l). At maturity, the sepals raise upward against the styles, closing off the tunnels.

The iris fruit is a loculicidal capsule (x) with seeds.

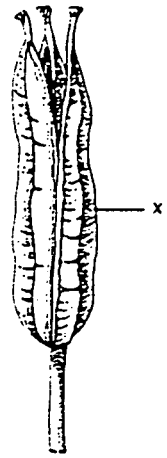
COLOR CODE

tan:	rhizome (a), roots (b), capsule (x)
green:	leaves (c), bracts (d), bud (e), peduncle (i)
yellow:	beard (g), bee's thorax (t) and abdomen (u)
optional:	1 color from text – sepals (f), petals (h), styles (v)
white:	stamen (j), nectar glands (m), stigma (w)
blue:	filament (k), anther (l)
pink:	ovary (n), carpel (o), ovules (q), style (r), stigma (s)

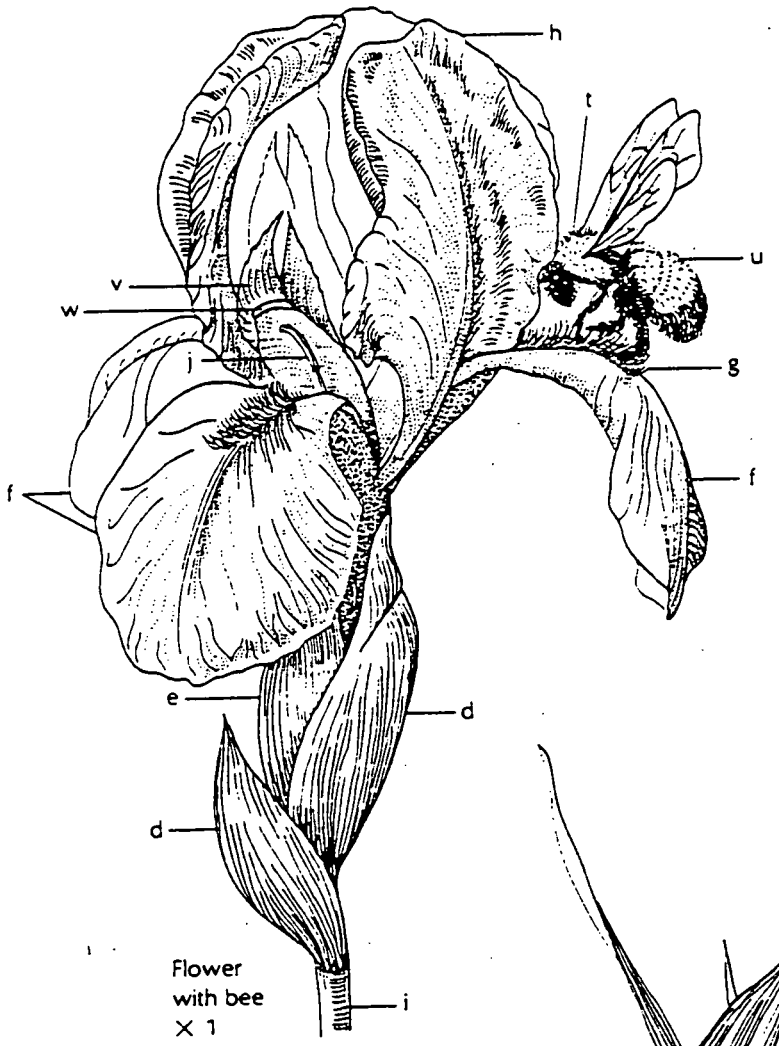
000118

Iris germanica

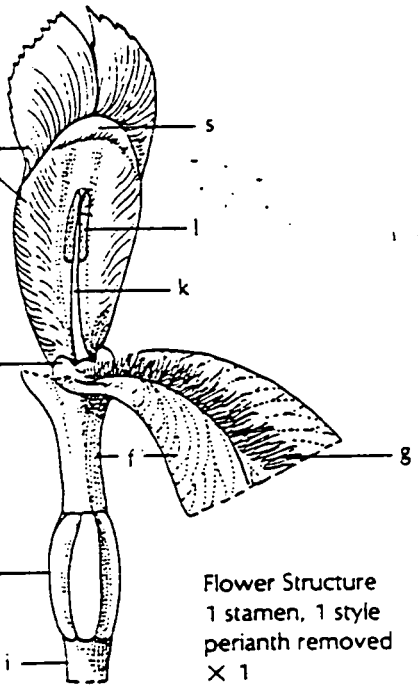
Iris



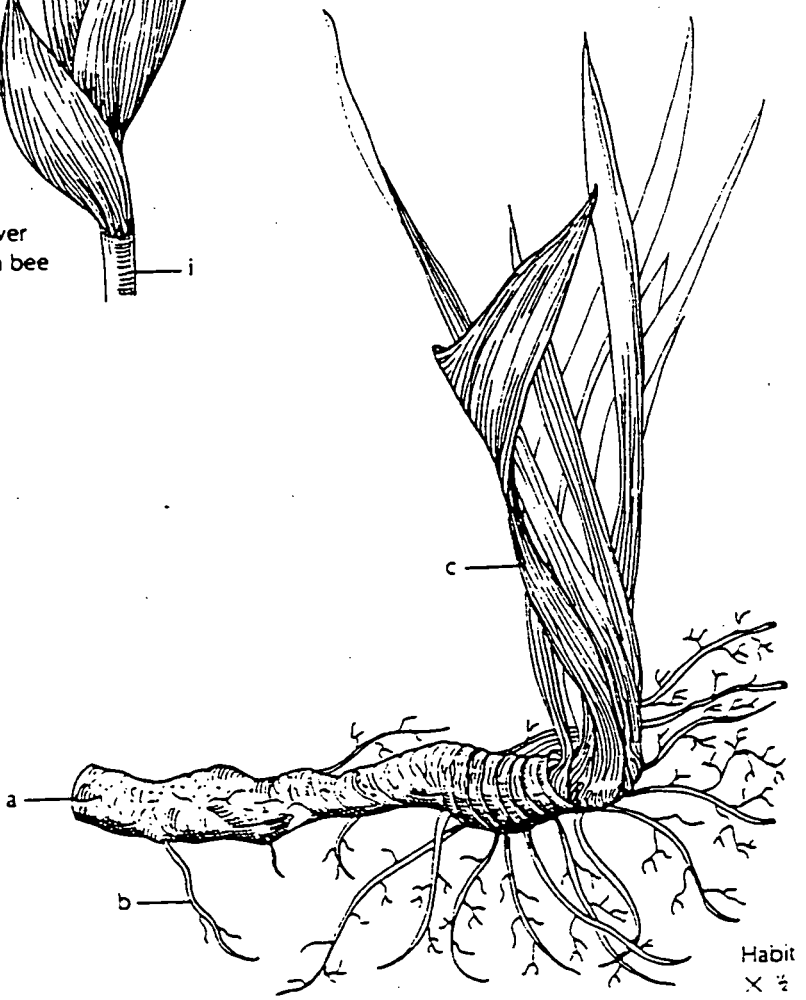
Capsule
× 1



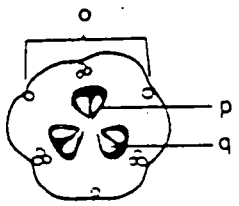
Flower
with bee
× 1



Flower Structure
1 stamen, 1 style
perianth removed
× 1



Habit
× ½



Ovary
cross section
× 4

Glossary of Word Roots

a	not, without	(acephala)
ab	away from	(abscise)
aleuron	flour	(aleurone)
andro	male	(androecium)
angio	box, vessel	(angiosperm sporangium)
anth	flower	(perianth)
antheros	flowery	(antheridium)
anti	against	(antipodal)
apertur	opening, hole	(triaperturate)
api	tip, apex	(apical)
arche	beginning	(archegonium)
asco	sac	(ascocarp)
ate	provided with, formed into	(perfoliate)
auto	self	(autotrophic)
basidio	small base	(basidiocarp)
bi	two, double	(biloba)
cap	head	(capitate)
capill	hair	(capillitium)
carp	fruit	(schizocarp)
caul	stem	(cauline)
cephal	head	(acephala)
chloro	green	(chlorophyll)
chrom	color	(chromosome)
cid	cut, kill	(septicidal)
circ	circle	(circinate)
cleisto	closed	(cleistothecium, cleistogamous)
coll	glue	(collenchyma)
coma	hair	(comose)
cyan	dark blue	(anthocyanin)
cyst	bladder, bag	(pneumatocyst)
cyt	cell	(leucocyte)
dendr	tree	(dendrite)
dent	tooth	(dentate)
derm	skin	(epidermis)
di	two, separate	(dicot)
dictyo	net	(*Dictydium*, dictyosome)
dichotomos	cut into two	(dichotomous)
el	diminutive ending	(pedicel)
endo	inside	(endocarp)
epi	upon	(epiphyte)
equinus	horse	(*Equisetum*, equitant)
erythr	red	(phycoerythrin)
eu	true, good	(eukaryote)
ex	from, beyond	(excise)
exo	outside	(exocarp)
fer	bearer	(conifer)
fil	thread-like	(filiform)
fissio	splitting	(fission)
flagellum	whip	(flagellum)
flav	yellow	(riboflavin)
flor	flower	(inflorescence)
fol	leaf	(perfoliate)
fungus	mushroom	(fungus)
funiculus	a small cord	(funiculus)

gamet	spouse, sex cell	(gamete)
gamo	union, marriage	(oögamy)
gen	origin, birth	(gene)
genus	race	(genus)
geo	earth	(epigeous)
glab	bald	(glabrous)
gland	secretory spot	(glandular)
glut	glue	(glutinous)
gymn	naked	(gymnosperm)
gyn	female	(gynoecium)
habitus	condition, physique	(habit)
hal	salt	(halophyte)
hemi	half	(hemiparasite)
hetero	other, different	(heterospory)
hex	six	(hexagonal)
holo	entire	(holoparasitic)
homo	same, alike	(homospory)
hydro	water	(hydroscopic)
hyph	web	(hyphae)
hypo	below	(hypogeous)
idion	diminutive ending	(antheridium)
il	diminutive ending	(lentil)
infra	below	(infrared)
inter	between	(intercalary)
intra	within	(intracellular)
iso	equal, homogenous	(isogamy)
karyron	nut, nucleus	(eukaryote)
lab	lip	(bilabiate)
lamel	plate, layer	(lamella)
lamin	blade	(*Laminaria*)
lance	lance, blade	(lanceolate)
leuco	white	(leucocyte)
lig	strap, ribbon	(ligulate)
lith	stone	(*Lithops*)
loc	a small place, cell	(locule)
ligne	wood	(lignin)
logos	discourse, study	(ecology)
macro	large, long	(macroscopic)
mega	large	(megaspore)
meiosis	reduction	(meiosis)
meri	part, segment, component	(mericarp, meristem)
meso	middle	(mesophyll)
micro	small, tiny	(microphyll)
mitos	thread	(mitosis)
mono	one, single	(monocot)
morph	form, structure	(dimorphic)
myco	fungus, mushroom	(Basidiomycota)
myx	slime	(Myxomycota)
nat	born, borne	(circinate)
nom	name	(binomial)
ode	like	(phyllode)
oec	household	(dioecious, ecology)
oid	like	(rhizoid)
ol	little	(petiole)
orth	straight	(orthotropism)
ostiol	little door	(ostiole)
oön	egg	(oöspore)
ov	egg	(ovule, ovary)

000120

o	ancient	(paleobotany)
n	hand	(palmate)
istr	swamp	(palustris)
ı	beside	(parasite)
:	comb	(pectinate)
, pod	foot, stalk	(stylopodium, peduncle)
	shield	(peltate)
	through, by means of	(perfoliate)
	around	(perianth)
llos	cork	(phelloderm)
	love	(*Philodendron*)
ɔos	bark	(phloem)
re	bearer	(antheridophore)
le	tribe	(phylogenic)
ll	leaf	(sporophyll)
co	seaweed	(phycoerythrin)
te	plant	(epiphyte, phytoplankton)
n	feather	(pinnate)
;t	thing molded	(protoplast)
d	fold	(polyploid)
me	feather	(plumose, plumule)
um	lung, air, gas	(pneumatocyst)
y	many, much	(*Polyporus*)
	small opening	(pore, poricidal)
n	first	(primordial)
	before	(prophase)
tiston	the very first	(Protista)
to	first, original	(protoplast)
ud	false	(pseudobulb)
os	bare, mere	(*Psilotum*)
rid	fern	(Pteridophyta)
e	gate	(micropyle)
	root	(radicle)
iculum	a small net	(reticulate)
p	needle	(*Rhapidophyllum*)
z	root	(mycorrhizae)
ɔdon	rose color	(Rhodophyta, *Rhododendron*)
	rose	(rosette)
;itt	arrow	(sagittate)
ɔro	rotten	(saprophyte)
iiz	deeply divided	(schizocarp)
s	cut	(abscise)
:t	cut	(dissect)
semi	half	(*Semibegoniella*)
septum	partition, wall, enclosure	(septate)
sessilis	fit for sitting	(sessile)
soma	body	(somatic)
soros	heap	(sorus)
species	kind	(species)
sperm	seed	(angiosperm)
sphen	wedge	(sphenophyll)
sporo	seed, spore	(sporophyte)
stell	star	(stellate)
strobilos	twisted object, top, pinecone	(strobilus)
stoma	mouth	(stomate)
stroma	cushion, mattress	(stroma)
stylo	pillar	(stylopodium)
sub	under, less than	(subtropical)
super, supar	above, over	(superior)
syn, sym	together, with, at the same time	(synergid)
taxis	arrangement, order	(taxonomy)
terra	earth	(terrestrial)
tetra	four	(tetraspore)
thall	shoot	(thallus)
tri	three	(triaperturate)
trichom	hair	(trichome)
trop	bend	(tropism)
troph	nourish, food	(autotrophic)
tuber	knob, swelling	(tuberous)
ul	little	(pinnule)
uni	one	(unisexual)
vor	eat	(insectivorous)
xanthos	yellow	(xanthophyll)
xer	dry	(xerophyte)
xylon	wood	(xylem)
zygo	yoke, pair	(zygote, zygospore)

Singular (Plural) Endings

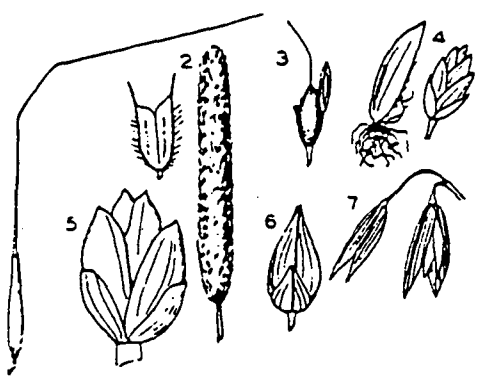
alga (algae)
mitochondrion (mitochondria)
nucleus (nuclei)
phytum (phyta)

What Is a Grass?

Of all the world's flowering plants, the grasses are undoubtedly the most important to man. They contribute tremendously to the earth's green mantle of vegetation; they are the source of the principal foods of man and his domestic animals. Without the grasses, agriculture would be virtually impossible: grain, sugar, syrup, spice, paper, perfume, pasture, oil and timber, and a thousand other items of daily use are products of various grasses. They hold the hills, plains and mountains against the destructive erosive forces of wind and water. In the end, they form the sod that covers the sleeping dead.

Despite the fact that the grasses are so important to us, we usually know little about them. Why? Because we think that "All grasses are alike," or "They are too hard to tell apart." But neither statement is true. There are over 5,000 "kinds" or species of grasses in the world and 1,400 of these are found in the United States. This book contains descriptions and pictures of over 400 of the more common grasses of our country. While many are superficially similar, they all have good individual marks of recognition. Nobody would at a second glance, for example, confuse foxtail and corn, or quackgrass and oats, or Sudan grass and barley, yet these are all grasses, members of one natural family, the GRAMINEAE, or grass family.

000122



Grasses are easy to recognize. Here are some common ones. 1. Floret of porcupine grass *(Stipa)*. 2. Spikelet and panicle of timothy *(Phleum)*. 3. Branchlet with spikelets of Johnson grass *(Sorghum)*. 4. Floret and spikelet of Kentucky bluegrass *(Poa)*. 5. Spikelet of wheat *(Triticum)*. 6. Spikelet of proso millet *(Panicum)*. 7. Spikelets of oats *(Avena)*.

HOW TO RECOGNIZE THE GRASS FAMILY

The grasses and their allies are all members of the great group of flowering plants which we call the MONOCOTYLEDONS. The members of this group are alike in having one seed leaf, parallel-veined leaves (with few exceptions), and stems in which the vascular bundles are scattered in the pith. Among the monocotyledons, members of three families of plants

7337

have a "grasslike" appearance and may be confused. These are the grasses (Gramineae), the sedges (Cyperaceae), and the rushes (Juncaceae). A little study of the following key and pictures will show how to separate them quickly and surely.

KEY TO GRASSES, SEDGES, AND RUSHES

1a **Flowers with stiff, greenish or brownish, 6 parted perianth (calyx and corolla); stamens 6 or 3; fruit a many-seeded capsule; leaves usually wiry and round in cross section . . . . . RUSH FAMILY *(Juncaceae)***

1b **Flowers without evident calyx or corolla, gathered into short scaly clusters (spikelets); stamens 3; fruit with a single seed 2**

2a **Leaves in 2 vertical rows or ranks; leaf sheaths usually split, with overlapping edges; stems usually round in cross section and hollow between the joints; each flower of the spikelet contained between 2 bracts, the lemma and the palea . . . . . GRASS FAMILY *(Gramineae)***

2b **Leaves in 3 vertical rows or ranks; leaf sheaths tubular, not split; stems often triangular in cross section and solid between joints; each flower of the spikelet in the axil of a single bract, the glume . . . . . SEDGE FAMILY *(Cyperaceae)***

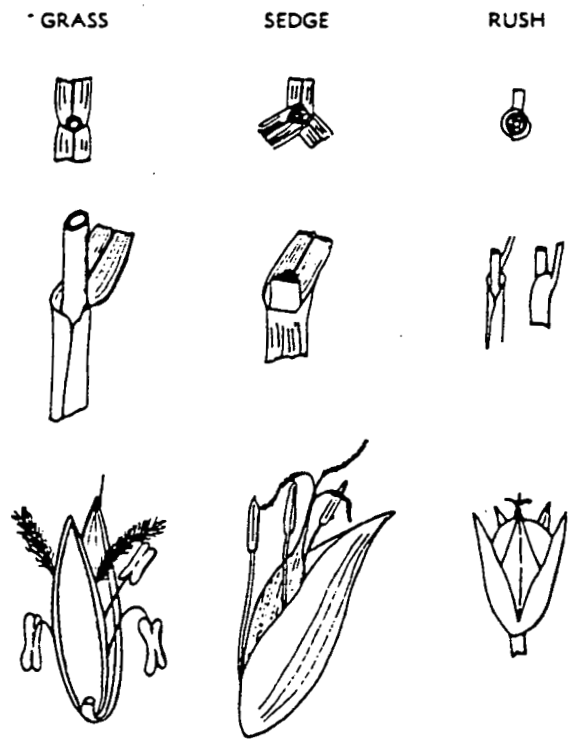


Figure 1

000123

What Do Grasses Look Like?

ROOTS

The root systems of grasses (Fig. 2) are always fibrous. While the germinating seed produces a primary root, this soon dies and in most cases is replaced by numerous roots that arise from the basal nodes of the stems. Because of the fibrous nature of the roots, they are excellent soil binders. When we pull up a grass plant, we remove only a small portion of the total root system. In some species, the roots may reach a depth of two meters or more.

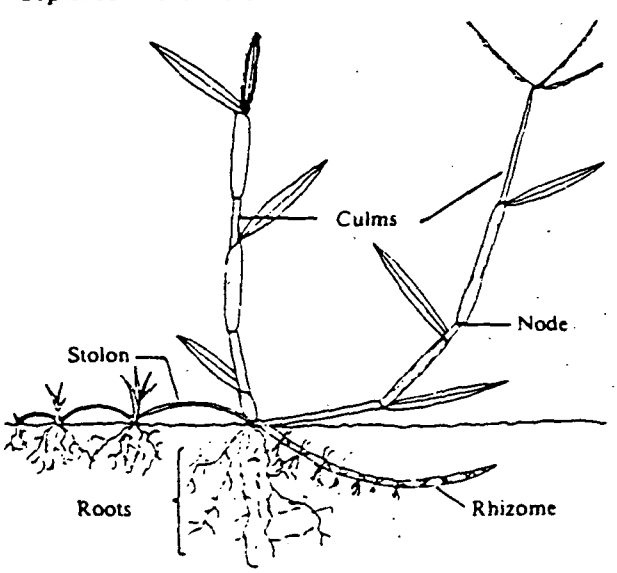


Figure 2

000124

STEMS

The flowering stems of grasses are called culms (Fig. 2). They are jointed and the internodes are usually round and hollow, but the joints (nodes) are solid. They may branch, in which instance a thin membrane, H-shaped in cross section, lies between the main culm and the branch. This is the prophyllum (Fig. 3), the strangely modified first leaf of the branch. It clasps the main culm with two flanges and the branch with the other two. Thus it serves to brace the weak V-joint between the main stem and the branch. Stems may be erect, or with bent, knee-like bases (decumbent), or they may trail on the surface of the ground. Such creeping stems, called stolons, bear foliage leaves. Underground stems, called rhizomes, bear only scale-like leaves and are non-green. Both stolons and rhizomes are important means of reproduction and aid the grasses in coping with grazing. Short, leafy, non-blooming basal stems are called innovations. They add to the density and desirability of such turf grasses as Kentucky bluegrass. The stems of some alpine and desert grasses are only a few centimeters tall, while those of the giant timber bamboos may reach as much as 35 meters in length. Most grass stems are between one and five millimeters thick. Those of the larger bamboos may reach 10-15 centimeters in thickness.

7337

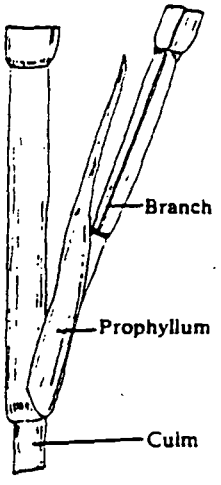


Figure 3

LEAVES

The leaves of grasses almost always have parallel-veined blades that are usually narrow and have parallel sides. The foliage leaf (Fig. 4) has three main parts: the sheath, the ligule, and the blade. There is no true petiole, although in the bamboos a short constriction, the pseudo-petiole, occurs between the sheath and the blade. The sheath is the split tubular portion surrounding the culm. The ligule is a little membranous or hairy collar that stands up at the junction of the sheath and the blade. The elongated blade usually has a conspicuous midrib as well as numerous smaller "nerves" or "veins" parallel to it. The tip, or apex, of the blade is sharp pointed. Little projections of the leaf base or sheath apex are called auricles. In a few genera, notably *Bromus, Dactylis,* and the genera of the tribe Meliceae *(Melica, Schizachne, Glyceria, Pleuropogon),* the leaf sheath has united edges, forming a tube, much as in the sedge family.

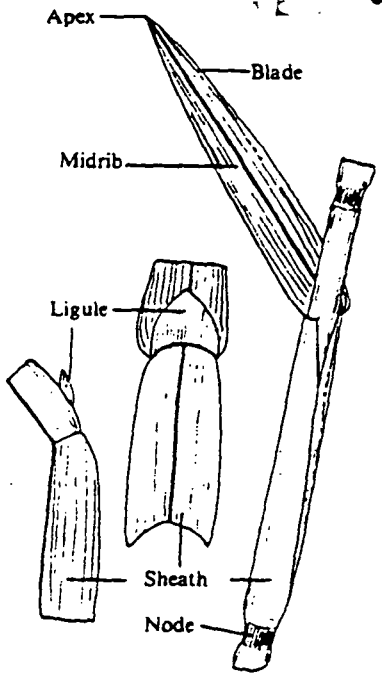


Figure 4

FLOWER CLUSTERS

The flower clusters or inflorescences (Fig. 5) of grasses always bear small scaly units called spikelets. These are arranged in panicles, balanced or symmetrical spikes, one-sided spikes (with all the spikelets borne on the lower side of the rachis), racemes, or in specialized aggregations to which I have given the name RAME. A rame is an unbranched inflorescence that is similar to a spike in having some sessile (stalkless) spikelets, and similar to a raceme in also having some stalked or pedicellate spikelets. The rame is the characteristic inflorescence of many members of the Andropogoneae, the bluestem tribe. In this group, each rachis internode may bear one sessile and one stalked spikelet. Rames are also found in the genus *Hordeum,* where each unit of the rachis bears one sessile and two stalked spikelets.

000125

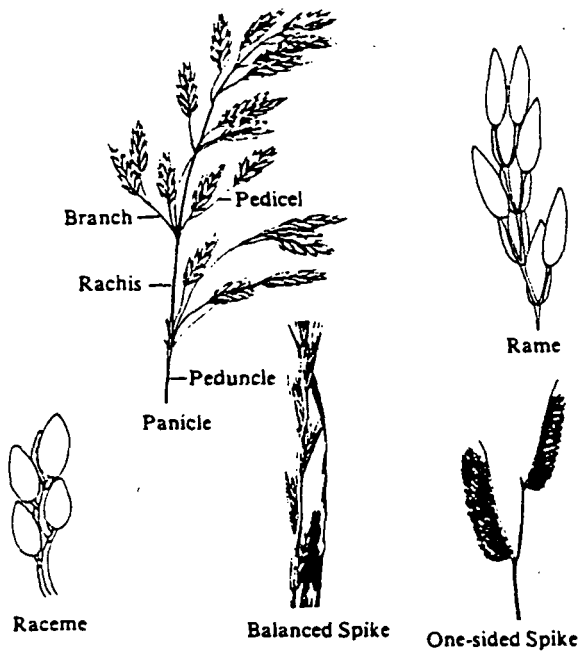


Figure 5

The parts of the inflorescence include the stalk or peduncle, which is continued up into the main axis or rachis of the inflorescence. There may be branches of several ranks. The stalk of the individual spikelet is called a pedicel. At the base of each branch there may be found a little swelling or pulvinus, which helps to spread the branches of the inflorescence apart when they emerge from the uppermost sheath.

SPIKELETS

Since the flowers of grasses are minute, simple, and very similar, they are rarely used in identification. Instead, we look for differences in the bracts (modified leaves) which surround the flowers. The unit subdivisions of the inflorescence are called spikelets (Fig. 6). The simplest sort of spikelet is merely a tiny scaly branchlet of flowers, each flower being surrounded by two bracts. At the base of this branchlet there are two bracts which have no flowers in their axils. These are the first and second glumes. The remainder of the spikelet is made up of flowering units called florets, which are arranged alternately in two rows on a central stalk, called a rachilla, which is usually concealed by the overlapping florets. Each floret consists of an outer bract or lemma and an inner bract or palea, with the naked flower between them. The lemma corresponds to an ordinary foliage leaf, the palea to the prophyllum, and the flower to a branch. During the brief time of flowering, two little blisters, the lodicules, which lie between the ovary of the flower and the lemma, swell up and force the lemma outwards. This allows the stigmas and stamens to protrude. The lodicules are the evolutionary vestiges of a calyx or corolla. If you can find smooth brome grass, orchard grass, or any one of many other grasses in bloom in the morning dew, you can usually observe the lodicules with a hand lens. The actual flower consists of two lodicules, three stamens with long slender filaments, and an ovary with two feathery stigmas. All grasses are wind pollinated except the few that are self pollinated within closed florets (cleistogamous). The lemma has a midrib and a number of smaller "veins" or "nerves" running roughly parallel to it, but converging toward the tip. The midrib of the lemma may be prolonged into a beard or bristle, called an awn. Rarely the lateral nerves also protrude. If the lemma is prominently folded along the midrib, it is said to have a keel. The hardened lower end of the lemma is called a callus. The palea always has two veins near the sides, but lacks a midrib. In some grasses the palea is small or lacking. Usually the spikelet has a stalk or pedicel, or this may be absent, as in wheat and rye, and then the spikelet is said to be sessile. Usually spikelets break up at maturity into individual florets, each of which will then bear a segment of the rachilla. Some spikelets, like those of switch grass and foxtail grass, do not break up, but are shed from the plant whole.

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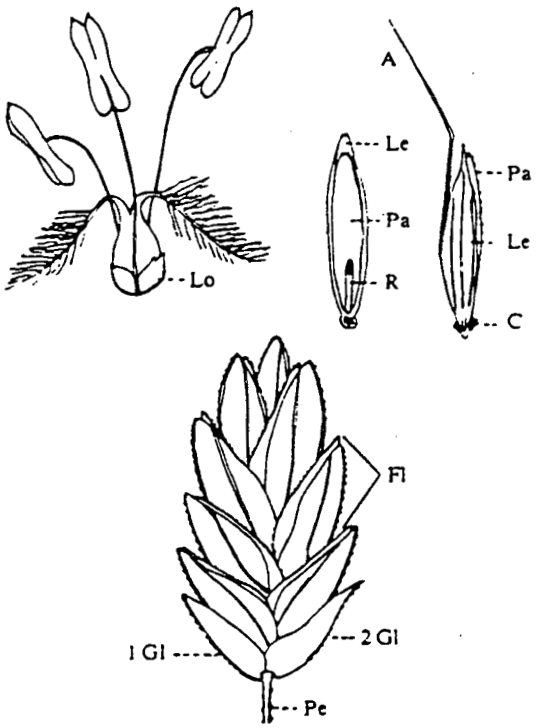

Figure 6

Often it is necessary to determine at what points the spikelets break or disarticulate. When the spikelets are mature and dry, they will disarticulate naturally, but if one has a rather immature plant, it may be necessary to tease the spikelets apart with needles and tweezers or with the finger nail in order to tell where the disarticulation will occur. There are two general types of disarticulation: below the glumes (Fig. 7, a), and above the glumes (Fig. 7, b). Spikelets which disarticulate below the glumes leave nothing on the plant except the stubs of the pedicels. Those which disarticulate above the glumes leave them on the plant. Spikelets of this type usually disarticulate between the florets as well.

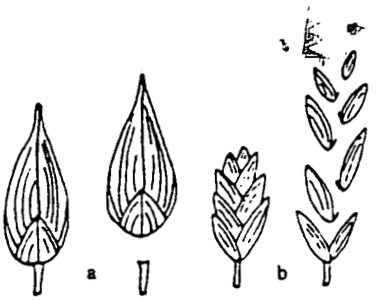

Figure 7

Another feature of the spikelet which we may need to know is its shape in cross section. Spikelets may be round in cross section as in Fig. 8, a; flattened from the sides of the glumes and lemmas (laterally compressed), as in Fig. 8, b; or flattened from the backs of the glumes and lemmas (dorsally compressed), as in Fig. 8, c.

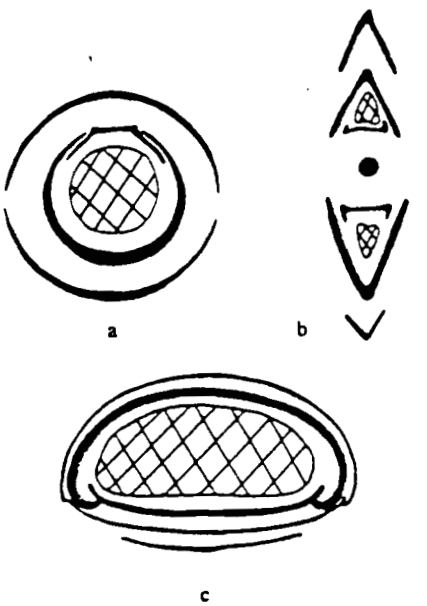

Figure 8

The kind of spikelet pictured in Fig. 6 is probably the basic type, from which reduced or more complicated sorts have been derived by various changes. In studying other types of grass spikelets, we should mentally compare them with the basic type in order to decide which parts have been modified or eliminated.

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The following types of changes are common, and they characterize large groups of grasses:

1. The glumes may be large, covering the whole spikelets (oats and its relatives).
2. The upper florets may be eliminated, so that the spikelet is 1 flowered (redtop, timothy, and their relatives).
3. The lower florets may be sterile and much reduced in size, the upper one remaining fertile (canary grass, foxtail).
4. The glumes may be reduced to little ridges on the tip of the pedicel (rice, cut grass).
5. Either stamens or pistil may be eliminated, giving rise to spikelets or plants of one sex (salt grass, creeping lovegrass, Texas bluegrass, corn, sorghum, wild rice).

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Recognizing Grass Tribes

The basic separation of the grass subfamilies and tribes is made upon microscopic characters, but many of these groups can be recognized by their more obvious features that require little or no magnification. It is helpful to know some of these, and they are summarized below.

Subfamily Bambusoideae

All of these grasses have woody perennial stems. The main stems do not have foliage leaves. The leaf blades, which are relatively small, are all found upon small lateral branches. The bamboos seldom bloom. The native and introduced species are all restricted to the southern half of the United States. Fig. 12.

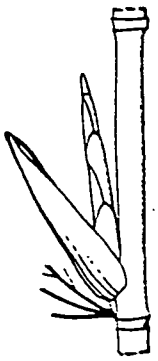

Figure 12

Subfamily Oryzoideae

Mostly aquatic grasses with single florets and much reduced glumes.

Tribe Oryzeae. Rice tribe. Spikelets strongly laterally flattened; flower perfect. Fig. 13.

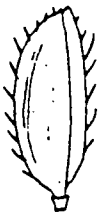

Figure 13

Tribe Zizanieae. Wild rice tribe. Aquatic grasses; spikelets tend to be round and are always unisexual. Fig. 14.

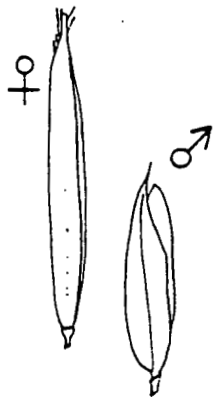

Figure 14

Subfamily Pooideae

This group includes many of the common temperate zone grasses. As now defined, it includes far fewer genera than given by Hitchcock. The more readily recognizable tribes are given below.

Tribe Poeae. Spikelets several-flowered, in panicles; glumes short; lemmas with 5 or more nerves. Bluegrasses, brome grasses, fescues, orchard grass, etc. Fig. 15.

Figure 15

Tribe Triticeae. Spikelets borne on a balanced or symmetrical spike, 1 or more at each node; florets 1-several; leaf sheaths often bearing auricles. Wheat, rye, barley, quackgrass are examples. Fig. 16.

Figure 16

Tribe Aveneae. Spikelets several-flowered, in panicles; glumes nearly or quite as long as the whole spikelet; awn, when present, from the back of the lemma or from a split tip. Oats, Junegrass. Fig. 17.

Figure 17

Tribe Agrostideae. Spikelets single-flowered, usually quite small, in a panicle; compression lateral. See also the tribe Sporoboleae, distinguished only on micro-characters. Fig. 18.

Figure 18

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Tribe Stipeae. Spikelets single-flowered, round in cross section; glumes about as long as the body of the lemma; floret hard, cylindrical, with a hard, sharp callus and a stout, usually twisted awn; inflorescence a panicle. Fig. 19.

Figure 19

Tribe Phalarideae. Spikelets with long glumes, concealing the florets; florets 2-3, the lower 2 sterile or staminate, often very minute, all falling as a unit from the glumes; inflorescence a panicle. Fig. 20.

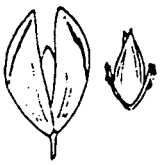

Figure 20

Subfamily Arundinoideae

Tribe Arundineae. Giant grasses, with stems 1-6 m tall and large, plumelike panicles, the spikelets covered with silky hairs; florets several; spikelets laterally compressed. Fig. 21.

Figure 21

Tribe Aristideae. This tribe contains only the needle grasses of the genus *Aristida*. Spikelets single-flowered, the floret hard and cylindrical, with a sharp callus and 3 awns. Fig. 22.

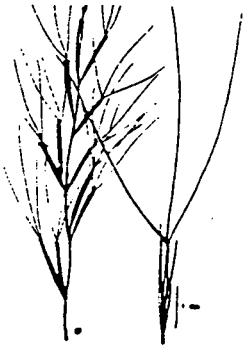

Figure 22

Subfamily Chloridoideae

These grasses were separated from the large subfamily Festucoideae of Hitchcock on microscopic characters. They are mostly steppe, desert, and warm climate grasses. Those which resemble members of the tribe Poeae (Festuceae) can usually be recognized by having 3 or fewer nerves on the lemma.

Tribe Eragrosteae. Inflorescence a panicle or a group of 1-sided spikes; spikelets with several to many fertile florets; lemmas 3 nerved. Fig. 23.

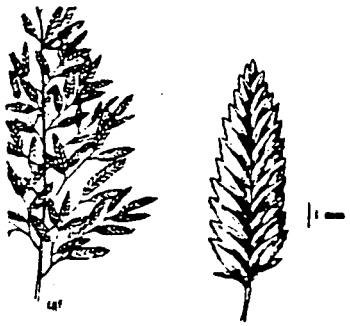

Figure 23

Tribe Sporoboleae. Inflorescence a panicle; spikelets with a single floret; lemma with 1-3

nerves. Similar to the Agrostideae, but differing in micro-characters. Fig. 24.

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Figure 24

Tribe Chlorideae. Inflorescence of 1—many 1-sided spikes; spikelets with 1 fertile floret and 1 or more rudimentary ones above or below it. Fig. 25.

Figure 25

Tribe Pappophoreae. Desert grasses; inflorescence a panicle; lemmas many nerved, the apex cut into many lobes or many-awned. Fig. 26.

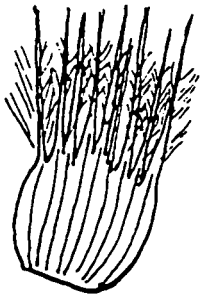

Figure 26

Subfamily Panicoideae

Spikelets dorsally compressed, with 1 fertile floret, a sterile or staminate one and a pair of glumes below it.

Tribe Paniceae. First glume short or lacking; second glume as long as the spikelet; glumes and sterile lemma thin; fertile floret leathery or rigid; inflorescence a panicle or of 1-sided racemes or spikes. Fig. 27.

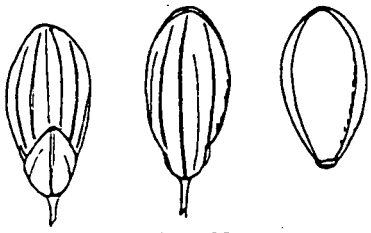

Figure 27

Tribe Andropogoneae. Both glumes as long as the spikelet and concealing the inner parts; sterile and fertile lemmas thin and delicate; spikelets usually disposed in pairs at each rachis joint; both may be stalked or one may be sessile. The stalked spikelet tends to be reduced or absent. Many variations on the pattern of arrangement occur. Fig. 28.

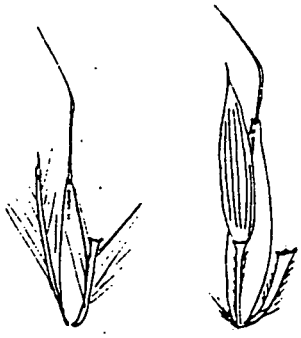

Figure 28

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IDENTIFICATION OF MONOCOTYLEDONS AND DICOTYLEDONS

The flowering plants include two subclasses, the monocotyledoneae and dicotyledoneae. These are clearly distinct from each other, despite the fact that no single character occurs only in one and not the other. A complex of pairs of opposed characters, each usually but not always reliable, marks one group from the other. There are six characteristics that are readily seen and these are listed and discussed below.

Dicotyledons	*Monocotyledons*
1. Principal leaf veins branch out from the midrib or from the base of it, not parallel, forming distinct network.	1. Principal leaf veins are parallel to each other (e.g., grasses, sedges, rushes, lilies, *Iris*).
2. Petals, sepals, and other flower parts arranged in twos, fours, fives, or multiples of these numbers.	2. Petals, sepals, and other flower parts arranged in threes or multiples of three (e.g., rushes, lilies).
3. Root system characterized by a tap root with lateral branches growing from it (e.g., *Hibiscus, Chenopodium, Aster, Boltonia*).	3. Root system fibrous or characterized by perennial rhizomes from which roots grow (e.g., *Juncus, Spartina, Scirpus*).
4. Stem with the vascular bundles in a single cylinder or ring in cross section.	4. Stem with the vascular bundles distributed through parenchyma (pithy tissue).
5. The cambium adding a new layer or "ring" of wood each year or each growing season (shrubs, trees).	5. Stem and root without a cambium, not increasing in girth by annual layers or "rings" of wood.
6. Two cotyledons (seed leaves). A bean (seed) can be readily divided into two large cotyledons, which may form the bulk of the embryonic plant.	6. One cotyledon (seed leaf). A corn (seed) grain is a one-seeded fruit called a *caryopsis*, that does not readily divide into two conspicuous parts or cotyledons (e.g., Lily, Iris).

CHARACTERISTICS OF GRASSES (POACEAE), SEDGES (CYPERACEAE), AND RUSHES (JUNCACEAE)

	GRASSES (Poaceae)	SEDGES (Cyperaceae)	RUSHES (Juncaceae)
Scales	Glumes, lemmas, paleae	Pistillate and staminate scales, perigynium	None
Perianth	0 to 3 lodicules	None or tiny scales or bristles	6-parted Usually scale-like
Stamens	1 to 6, usually 3	0 to 3	6, rarely fewer
Pistil	3 united carpels 1 cell, 1 ovule	3 united carpels 1 cell, 1 ovule	3 united carpels 3 cells Several ovules
Fruit	Caryopsis	Achene	Capsule
Leaves	2-ranked, usually with open sheath	3-ranked, usually with closed sheath	2-ranked, with open sheath
Culms	Usually cylindrical and hollow, with nodes	Usually angular and solid, without nodes	Usually solid, cylindrical or angular, without nodes

GRASS FAMILY (POACEAE)
COMPARISON OF SUBFAMILIES

I. GRASS SUBFAMILY: Festucoideae	II. GRASS SUBFAMILY: Panicoideae
Spikelets 1-several-flowered, the sterile florets, if any, usually above the fertile florets in the spikelet.	Spikelets with 1 perfect terminal floret and 1 sterile floret below it, the sterile floret usually represented by an empty lemma. Some genera are monoecious, and some produce staminate or empty florets.
Articulation usually above the glumes and between the florets, the glumes remaining on the plant when the seed is shed.	Articulation below the glumes, the whole spikelet (including the glumes) falling when the seed is shed.
Spikelets laterally compressed, the glumes and lemmas usually folded lengthwise, or sometimes the spikelets terete.	Spikelets dorsally compressed, the glumes and lemmas flat, or sometimes the spikelets terete.

Note: Any two of the above three characteristics will place the grass in the proper subfamily.