

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
			Please refer to footnotes for an explanation of the codes.													
Aceraceae	<i>Acer negundo</i> L.	Box elder	3	3	2		2	2		2	2	2			FAC+	W-TREE
	<i>Acer platanoides</i> L.	Norway maple *	0			3							3		UPL	W-TREE
	<i>Acer pseudoplatanus</i> L.	Sycamore maple *	0										1			W-TREE
	<i>Acer rubrum</i> L.	Red maple	2	2	2	2	2	2	2	2		2	3		FACW	W-TREE
	<i>Acer saccharinum</i> L.	Silver maple ^	3		1										FACW	W-TREE
	<i>Acer saccharum</i> Marshall	Sugar maple	6				2						3		FACU	W-TREE
Amaranthaceae	<i>Amaranthus hybridus</i> L.	Pigweed	0								2					A-HERB
	<i>Amaranthus powellii</i> S.Watson	Amaranth	0								2					A-HERB
Anacardiaceae	<i>Rhus glabra</i> L.	Smooth sumac	2		2					2	2					W-SHRUB
	<i>Rhus typhina</i> L.	Staghorn sumac	2				2	2	2	2	2			1		W-SHRUB
	<i>Toxicodendron radicans</i> (L.) Kuntze	Poison ivy ^	1	2	2	2	2		2	2	2		3		FAC	H-VINE
Apiaceae	<i>Aegopodium podagraria</i> L.	Goutweed *	0										1		FACU	P-HERB
	<i>Daucus carota</i> L.	Queen Anne's lace	0	3		2	2	3	2	2	3	3	2	3		B-HERB
	<i>Osmorhiza claytonii</i> (Michx.) C.B.Clarke	Sweet cicely	5		2	2			2				3		FACU-	P-HERB
	<i>Osmorhiza longistylis</i> (Torr.) DC.	Aniseroot ^	5		1										FACU	P-HERB
	<i>Pastinaca sativa</i> L.	Wild parsnip *	0		2				1	1		2		2		P-HERB
	<i>Sanicula marilandica</i> L.	Black snakeroot	5										1		UPL	P-HERB
	<i>Taenidia integerrima</i> (L.) Drude	Yellow-pimpernel	6		1											P-HERB
	<i>Zizia aptera</i> (A.Gray) Fernald	Golden Alexanders											1		FAC	P-HERB
Apocynaceae	<i>Apocynum cannabinum</i> L.	Indian-hemp	3	3	2		2	2		2	2				FACU	P-HERB
Araliaceae	<i>Aralia nudicaulis</i> L.	Wild sarsaparilla	5			2							2		FACU	P-HERB
	<i>Aralia racemosa</i> L.	Spikenard ^	8		1											P-HERB
	<i>Panax quinquefolius</i> L.	Ginseng	8													P-HERB
Asclepiadaceae	<i>Asclepias quadrifolia</i> Jacq.	Four-leaved milkweed ^	7										1			P-HERB
	<i>Asclepias syriaca</i> L.	Common milkweed	0	3		1	2			2	3	3		2	FACU-	P-HERB
	<i>Asclepias tuberosa</i> L.	Butterfly-weed	6										1			P-HERB
Asteraceae	<i>Achillea millefolium</i> L.	Yarrow	0	2	2		2	2		2	2		2		FACU	P-HERB
	<i>Ambrosia artemisiifolia</i> L.	Common ragweed	0	4	2	2	2	2	2					2	FACU	P-HERB
	<i>Antennaria neglecta</i> Greene	Everlasting	2										2		UPL	P-HERB
	<i>Anthemis arvensis</i> L.	Corn chamomile	0											2		P-HERB
	<i>Arctium minus</i> (Hill) Bernh.	Burdock	0	3	2	3	2	3	2	3	3	3		2	FACU-	B-HERB
	<i>Artemisia vulgaris</i> L.	Common mugwort	0	1											UPL	P-HERB
	<i>Aster cordifolius</i> L.	Blue wood aster	5			1										P-HERB
	<i>Aster divaricatus</i> L.	White wood aster	5		2											P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Aster laevis</i> L.	Smooth blue aster	6										1		UPL	P-HERB
	<i>Aster lateriflorus</i> (L.) Britton.	Calico aster	2						2	2					FACW-	P-HERB
	<i>Aster pilosus</i> Willd.	White aster	1	2		2	2	2	2		2		2	2	UPL	P-HERB
	<i>Aster praealtus</i> Poir.	Veiny-leaved aster	7			1									FACW	P-HERB
	<i>Aster prenanthoides</i> Muhl.	Zig-zag aster	3										1		FAC	P-HERB
	<i>Aster umbellatus</i> Mill.	Flat-topped white aster	2										1		FACW	P-HERB
	<i>Cacalia atriplicifolia</i> L.	Pale Indian-plantain ^	7										1			P-HERB
	<i>Carduus acanthoides</i> L.	Thistle	0	2	2	2	2	2	2	2	2	3		2		P-HERB
	<i>Carduus nutans</i> L.	Musk thistle *	0								1					P-HERB
	<i>Centaurea maculosa</i> Lam.	Spotted knapweed	0	2	2			2	1	1	2	2				B-HERB
	<i>Chrysanthemum leucanthemum</i> L.	Oxeye daisy	0	3	2	2	2	3	2		3	3	2	2		P-HERB
	<i>Cichorium intybus</i> L.	Blue chicory	0	2			2	2	2		2			3		P-HERB
	<i>Cirsium arvense</i> (L.) Scop.	Canada thistle *	0	3			2	3		2	2	2		2	FACU	P-HERB
	<i>Cirsium discolor</i> (Muhl.) Spreng.	Field thistle	6		1										UPL	P-HERB
	<i>Cirsium vulgare</i> (Savi) Ten.	Bull thistle *	0	2		2	2	2	2	2	2	2		2	FACU-	P-HERB
	<i>Conyza canadensis</i> (L.) Cronquist	Horseweed	0			2	2				2			2	UPL	A-HERB
	<i>Erechtites hieracifolia</i> (L.) Raf.	Fireweed	3							2	1				FACU	A-HERB
	<i>Erigeron annuus</i> (L.) Pers.	Daisy fleabane	1	3	2	2	2		2	2	3	3	2	3	FACU	A-HERB
	<i>Erigeron philadelphicus</i> L.	Daisy fleabane	2				1								FACU	P-HERB
	<i>Erigeron pulchellus</i> Michx.	Robin's-plantain	6			1							1		FACU	P-HERB
	<i>Erigeron strigosus</i> Muhl.	Fleabane	1				1					1			FACU+	B-HERB
	<i>Eupatorium fistulosum</i> Barratt	Joe-pye-weed	5		1										FACW	P-HERB
	<i>Eupatorium perfoliatum</i> L.	Boneset ^	3											1	FACW+	P-HERB
	<i>Eupatorium purpureum</i> L.	Joe-pye-weed	7		1								2		FAC	P-HERB
	<i>Eupatorium rugosum</i> Houtt.	White-snakeroot	4		2	2										P-HERB
	<i>Euthamia graminifolia</i> (L.) Nutt.	Grass-leaved goldenrod	2	2			2				2			2	FAC	P-HERB
	<i>Galinsoga quadriradiata</i> Ruiz & Pav.	Quickweed	0				1									A-HERB
	<i>Helianthus decapetalus</i> L.	Thin-leaved sunflower	4							2	2				FACU	P-HERB
	<i>Helianthus strumosus</i> L.	Rough-leaved sunflower	5										1			P-HERB
	<i>Hieracium caespitosum</i> Dumort.	Yellow hawkweed	0		2			2				3	2			P-HERB
	<i>Lactuca biennis</i> (Moench) Fernald	Blue lettuce	1						1						FACU	B-HERB
	<i>Lactuca canadensis</i> L.	Wild lettuce	2			2			1	2					FACU	B-HERB
	<i>Lactuca serriola</i> L.	Prickly lettuce	0	2										3	FAC-	A-HERB
	<i>Matricaria matricarioides</i> (Less.) Porter	Pineapple-weed	0									2				A-HERB
	<i>Rudbeckia triloba</i> L.	Three-lobed coneflower	6								2				FACU	P-HERB
	<i>Silphium trifoliatum</i> L.	Whorled rosinweed	8		2											P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Solidago altissima</i> L.	Late goldenrod	1									2				P-HERB
	<i>Solidago bicolor</i> L.	Silver-rod	4						1				2			P-HERB
	<i>Solidago caesia</i> L.	Blue-stemmed goldenrod	5		2	2			1	1			2		FACU	P-HERB
	<i>Solidago canadensis</i> L.	Canada goldenrod	1	2				2		2	2			2	FACU	P-HERB
	<i>Solidago juncea</i> Aiton	Early goldenrod	2	2	2	2	2	2								P-HERB
	<i>Solidago nemoralis</i> Aiton	Gray goldenrod	3										2			P-HERB
	<i>Solidago rugosa</i> Mill.	Wrinkle-leaf goldenrod	3					2					2		FAC	P-HERB
	<i>Sonchus asper</i> (L.) Hill	Spiny-leaved sow-thistle	0			2								2	FAC	A-HERB
	<i>Taraxacum officinale</i> Weber	Dandelion	0	2	1	1	2		2	2	2	2	1	2	FACU-	B-HERB
	<i>Tragopogon dubius</i> Scop.	Yellow goatsbeard	0	2				2			2			3		B-HERB
	<i>Tussilago farfara</i> L.	Coltsfoot	0		2		2						2		FACU	P-HERB
	<i>Xanthium strumarium</i> L.	Common cocklebur	0	1											FAC	A-HERB
Balsaminaceae	<i>Impatiens capensis</i> Meerb.	Jewelweed	2	2	2	2	2	2	2	2			2		FACW	A-HERB
	<i>Impatiens pallida</i> Nutt.	Pale jewelweed	3							2					FACW	A-HERB
Berberidaceae	<i>Berberis thunbergii</i> DC.	European barberry *	0	2	2	2	2	2	2	3	2	2	2			W-SHRUB
	<i>Podophyllum peltatum</i> L.	Mayapple	5							1			2			P-HERB
Betulaceae	<i>Carpinus caroliniana</i> Walter	Hornbeam/ Blue-beech	4			2							2		FAC	W-TREE
	<i>Corylus americana</i> Walter	Hazelnut	5		2		1						2		FACU-	W-SHRUB
	<i>Ostrya virginiana</i> (Mill.) K.Koch	Hop-hornbeam	5		2								2		FACU-	W-TREE
Bignoniaceae	<i>Catalpa speciosa</i> Warder	Cigar tree	0										1		FAC	W-TREE
Boraginaceae	<i>Echium vulgare</i> L.	Viper's bugloss	0									1				B-HERB
	<i>Hackelia virginiana</i> (L.) I.M.Johnst.	Beggar's-lice	2			2	2		2	2					FACU	B-HERB
Brassicaceae	<i>Alliaria petiolata</i> (M.Bieb.) Cavara & Grande	Garlic mustard *	0	2	2	3	2	2	3	3	2	2	3	2	FACU-	A-HERB
	<i>Arabidopsis thaliana</i> (L.) Heynh.	Mouse-ear cress	0	2												A-HERB
	<i>Barbarea vulgaris</i> (L.) R.Br.	Yellow rocket	0										2		FACU	B-HERB
	<i>Capsella bursa-pastoris</i> (L.) Medik.	Shepherd's-purse	0								1				FACU	A-HERB
	<i>Cardamine hirsuta</i> L.	Hairy bittercress	0								2				FACU	A-HERB
	<i>Descurainia sophia</i> (L.) Webb	Herb-Sophia	0									2				A-HERB
	<i>Erysimum cheiranthoides</i> L.	Wormseed-mustard	0	2	2	2	1								FAC	P-HERB
	<i>Hesperis matronalis</i> L.	Dame's rocket *	0	2	2	1				2	2	2	2	1	FACU-	B-HERB
	<i>Lepidium campstre</i> (L.) R.Br.	Fieldcress	0	3	2			2			2			3		A-HERB
	<i>Lepidium virginicum</i> L.	Pepper-grass	1	2		2	2	2				2			FACU-	A-HERB
	<i>Sinapis arvensis</i> L.	Charlock	0								2					A-HERB
	<i>Sisymbrium officinale</i> (L.) Scop.	Hedge mustard	0						1		2	2		2		A-HERB
	<i>Thlaspi arvense</i> L.	Field pennycress	0									1			UPL	A-HERB
Campanulaceae	<i>Campanula americana</i> L.	Tall bellflower	4										1		FACU	A-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Lobelia inflata</i> L.	Indian-tobacco	1			1		2		1			2		FACU	A-HERB
	<i>Lobelia spicata</i> Lam.	Spiked lobelia	6									1	1		FAC-	P-HERB
Caprifoliaceae	<i>Lonicera dioica</i> L.	Mountain honeysuckle	5		2								2		FACU	W-VINE
	<i>Lonicera japonica</i> Thunb.	Japanese honeysuckle *	0		1										FAC-	W-VINE
	<i>Lonicera maackii</i> (Rupr.) Maxim.	Amur honeysuckle *	0		2			2	3	2						W-SHRUB
	<i>Lonicera morrowii</i> A.Gray	Morrow's honeysuckle *	0	2	3	2	2	3	2	2	2	2	3	2	FACU	W-SHRUB
	<i>Sambucus canadensis</i> L.	Elderberry	3			1	2			2			1		FACW-	W-SHRUB
	<i>Viburnum acerifolium</i> L.	Maple-leaved viburnum	6		2								2		UPL	W-SHRUB
	<i>Viburnum dentatum</i> L.	Southern arrow-wood	2							1			2		FAC	W-SHRUB
	<i>Viburnum dilatatum</i> Thunb.	Linden viburnum			2	2	2		2							W-SHRUB
	<i>Viburnum lantana</i> L.	Wayfaring-tree	0										2			W-SHRUB
	<i>Viburnum lentago</i> L.	Nannyberry	6										2		FAC	W-SHRUB
	<i>Viburnum opulus</i> L.	Guelder-rose *	0						2				2			W-SHRUB
	<i>Viburnum prunifolium</i> L.	Black-haw	5						1						FACU	W-SHRUB
	<i>Viburnum sieboldii</i> Miq.	Siebold viburnum	0										1			W-SHRUB
Caryophyllaceae	<i>Agrostemma githago</i> L.	Corn cockle	0				1									A-HERB
	<i>Cerastium fontanum</i> Baumg.	Common mouse-ear chickweed	0						1				2		FACU-	P-HERB
	<i>Dianthus armeria</i> L.	Deptford-pink	0	2	1	1		2		2	1				UPL	A-HERB
	<i>Saponaria officinalis</i> L.	Bouncing-bet	0								1				FACU-	P-HERB
	<i>Silene latifolia</i> Poir.	White campion	0	2		1					2			2		A-HERB
	<i>Silene stellata</i> (L.) W.T.Aiton	Starry campion	6		1											P-HERB
	<i>Silene vulgaris</i> (Moench) Garcke	Bladder campion	0						2			2				P-HERB
	<i>Stellaria longifolia</i> Muhl.	Long-leaved stitchwort	5					2					2		FACW	P-HERB
	<i>Stellaria media</i> (L.) Vill.	Common chickweed	0	3			2				3				UPL	A-HERB
Celastraceae	<i>Celastrus orbiculatus</i> Thunb.	Oriental bittersweet *	0		3		2	2		4					UPL	W-VINE
	<i>Euonymus alatus</i> (Thunb.) Siebold	Burning-bush *	0			2							3			W-SHRUB
	<i>Euonymus fortunei</i> (Turcz.) Hand.-Mazz.	Wintercreeper	0										1			W-VINE
Chenopodiaceae	<i>Atriplex patula</i> L.	Spreading orach	0											1	FACW	A-HERB
	<i>Chenopodium album</i> L.	Lamb's quarters	0								2	2	2		FACU+	A-HERB
Clusiaceae	<i>Hypericum perforatum</i> L.	St. John's wort	0		2	1	2	1			2		2			P-HERB
Convolvulaceae	<i>Convolvulus arvensis</i> L.	Field bindweed	0					2				2				H-VINE
	<i>Ipomea pandurata</i> (L.) G.Mey.	Morning glory	3	1	1										FACU	H-VINE
Cornaceae	<i>Cornus amomum</i> Mill.	Red willow	2	1							1				FACW	W-SHRUB
	<i>Cornus florida</i> L.	Flowering dogwood	5		2								3		FACU-	W-SHRUB
	<i>Cornus racemosa</i> Lam.	Gray-stemmed dogwood	2	2	2					2	2		1	2	FAC-	W-SHRUB
Cucurbitaceae	<i>Cucurbita pepo</i> L.	Squash ^	0									1				H-VINE

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
Cupressaceae	<i>Thuja occidentalis</i> L.	Northern white-cedar	0				1								FACW	W-TREE
	<i>Juniperus virginiana</i> L.	Eastern red-cedar	3		1								1		FACU	W-TREE
Cyperaceae	<i>Carex blanda</i> Dewey	Sedge	3		2	1			1				2		FAC	P-SDG
	<i>Carex cephalophora</i> Willd.	Sedge	5		2	1							1		FACU	P-SDG
	<i>Carex debilis</i> Michx.	Sedge	8		1										FAC	P-SDG
	<i>Carex digitalis</i> Willd.	Sedge	4		1	1							1		UPL	P-SDG
	<i>Carex intumescens</i> Rudge	Sedge	5		1										FACW+	P-SDG
	<i>Carex laxiculmis</i> Schwein	Sedge	3										2			P-SDG
	<i>Carex normalis</i> Mack.	Sedge	4		2								2		FACU	P-SDG
	<i>Carex pennsylvanica</i> Lam.	Penn's sedge	3		3	2	2		2		2		3			P-SDG
	<i>Carex retroflexa</i> Schkuhr	Sedge	8										2			P-SDG
	<i>Carex rosea</i> Willd.	Sedge	3		2				1							P-SDG
	<i>Carex scoparia</i> Schkuhr	Broom sedge	4		1										FACW	P-SDG
	<i>Carex swanii</i> (Fernald) Mack.	Sedge	4		2										FACU	P-SDG
	<i>Carex vulpinoidea</i> Michx.	Sedge	3	2	1					1					OBL	P-SDG
	<i>Carex willdenovii</i> Schkuhr	Sedge	7						1						UPL	P-SDG
	<i>Cyperus esculentus</i> L.	Yellow nutsedge	2				2								FACW	P-SDG
Dipsacaceae	<i>Dipsacus sylvestris</i> Huds.	Common teasel	0	2				2							FACU-	B-HERB
Eleagnaceae	<i>Eleagnus umbellata</i> Thunb.	Autumn olive *	0	2	1		2	2			3	2	1			W-SHRUB
Ericaceae	<i>Gaultheria procumbens</i> L.	Wintergreen	5		3				2				3		FACU	W-SHRUB
	<i>Rhododendron periclymenoides</i> (Michx.) Shinners	Pinxter-flower			1										FAC	W-SHRUB
	<i>Vaccinium pallidum</i> Aiton	Lowbush blueberry	6						1							W-SHRUB
	<i>Vaccinium stamineum</i> L.	Deerberry	7		2										FACU	W-SHRUB
Euphorbiaceae	<i>Acalypha rhomboidea</i> Raf.	Three-seeded mercury	0			2	2			2	2			2		A-HERB
	<i>Chamaesyce maculata</i> (L.) Small	Spotted spurge	0				2							2		A-HERB
	<i>Euphorbia corollata</i> L.	Flowering spurge	4		1											P-HERB
Fabaceae	<i>Amphicarpa bracteata</i> (L.) Fernald	Hog-peanut	5		2	2				1	1		2		FAC	A-HERB
	<i>Coronilla varia</i> L.	Crown vetch	0	3	2	2	2	3	2		3	3	2			P-HERB
	<i>Desmodium glutinosum</i> (Muhl.) A.W.Wood	Tick-trefoil	5		3	2			2				3			P-HERB
	<i>Desmodium nudiflorum</i> (L.) DC.	Tick-trefoil	5		2	1							2			P-HERB
	<i>Desmodium paniculatum</i> (L.) DC.	Tick-trefoil	4				1						2		UPL	P-HERB
	<i>Lathyrus latifolius</i> L.	Perennial sweetpea	0		1											P-HERB
	<i>Lotus corniculatus</i> L.	Bird's-foot trefoil	0	3	2		2	2	2	2	3	2	3		FACU-	P-HERB
	<i>Medicago lupulina</i> L.	Black medic	0		2	2	2		2	2	2	2	2	2		A-HERB
	<i>Medicago sativa</i> L.	Alfalfa	0				2				3					P-HERB
	<i>Melilotus alba</i> Medik.	White sweet clover	0	3	2	2	2		2	2	2		3		FACU	B-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Melilotus officinalis</i> L.	Yellow sweet clover	0			1	1	2							FACU	B-HERB
	<i>Robinia pseudoacacia</i> L.	Black locust	0		1										FACU-	W-TREE
	<i>Trifolium pratense</i> L.	Red clover	0	3	2	2	2	3			3	2	2	2	FACU-	P-HERB
	<i>Trifolium repens</i> L.	White clover	0	3	2	2	2	3	2		3	2	2	2	FACU-	P-HERB
	<i>Vicia sativa</i> L.	Common vetch	0								1				FACU-	A-HERB
	<i>Vicia villosa</i> Roth	Winter vetch	0				2				2					A-HERB
Fagaceae	<i>Quercus alba</i> L.	White oak	7		2	2	2	2	3	3	3		3		FACU	W-TREE
	<i>Quercus coccinea</i> Munchh.	Scarlet oak	6					2	1	2						W-TREE
	<i>Quercus ilicifolia</i> Wangenh.	Scrub oak			1	1										W-TREE
	<i>Quercus montana</i> Willd.	Chestnut oak	6		1										UPL	W-TREE
	<i>Quercus rubra</i> L.	Red oak	7		2		2		2	2	2		3		FACU-	W-TREE
	<i>Quercus velutina</i> Lam.	Black oak	7	1	2	1	1	1	1		2		2			W-TREE
Geraniaceae	<i>Erodium cicutarium</i> (L.) L'Her.	Red-stem filaree	0	2												A-HERB
	<i>Geranium maculatum</i> L.	Wild geranium	4		3				1	2			3		FACU	P-HERB
	<i>Geranium sibiricum</i> L.	Siberian cranesbill	0			1	2	2	2	2		2				A-HERB
Grossulariaceae	<i>Ribes americanum</i> Mill.	Wild black currant	6			1				1					FACW	W-SHRUB
Hamamelidaceae	<i>Hamamelis virginiana</i> L.	Witch-hazel	5						1						FAC-	W-SHRUB
Iridaceae	<i>Sisyrinchium montanum</i> Greene	Blue-eyed-grass	4		1								1		FAC	P-HERB
Juglandaceae	<i>Carya glabra</i> (Mill.) Sweet	Pignut hickory	5		2	2	2	2	1	2	2		2		FACU-	W-TREE
	<i>Carya ovata</i> (Mill.) K.Koch	Shagbark hickory ^	6							1					FACU	W-TREE
	<i>Carya tomentosa</i> (Lam.) Nutt.	Mockernut hickory	6		1					2	2	2				W-TREE
	<i>Juglans nigra</i> L.	Black walnut	5	2	2	2	2				2				FACU	W-TREE
Juncaceae	<i>Juncus tenuis</i> Willd.	Path rush	1	2	2	2		2		2	2				FAC-	P-HERB
	<i>Luzula echinata</i> (Small) F.J.Herm.	Common woodrush	4										1		FACU	P-HERB
	<i>Luzula multiflora</i> (Ehrh.) Lej.	Field woodrush	5		1				1						FACU	P-HERB
Lamiaceae	<i>Clinopodium vulgare</i> L.	Wild basil	3	2		2	2	2	1	2						P-HERB
	<i>Glechoma hederacea</i> L.	Ground ivy	0										2		FACU	P-HERB
	<i>Lamium purpureum</i> L.	Purple dead-nettle	0								2					A-HERB
	<i>Leonurus cardiaca</i> L.	Common motherwort	0			1	1				2			2		P-HERB
	<i>Monarda fistulosa</i> L.	Wild bergamot	5		2					1	2				UPL	P-HERB
	<i>Nepeta cataria</i> L.	Catnip	0	2	2	2	2	2	2			2	2	2	FACU	P-HERB
	<i>Prunella vulgaris</i> L.	Heal-all	0			2	2		1	2	2		2		FACU+	P-HERB
	<i>Pycnanthemum muticum</i> (Michx.) Pers.	Mountain-mint ^	8			1									FACW	P-HERB
Lauraceae	<i>Sassafras albidum</i> (Nutt.) Nees	Sassafras	4		2		2	2		2	2				FACU-	W-TREE
Liliaceae	<i>Allium cernuum</i> Roth	Nodding onion	5		2			2	2				2			P-HERB
	<i>Allium vineale</i> L.	Field onion	0		2			2						2	FACU-	P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Chamaelirium luteum</i> (L.) A.Gray	Devil's-bit ^	8		1										FAC	P-HERB
	<i>Convallaria majalis</i> L.	Lily-of-the-valley	0			2							2			P-HERB
	<i>Hemerocallis fulva</i> (L.) L.	Orange day-lily	0	2	2										UPL	P-HERB
	<i>Lilium canadense</i> L.	Canada lily	5										1		FAC+	P-HERB
	<i>Maianthemum canadense</i> Desf.	Canada mayflower	7										2		FAC-	P-HERB
	<i>Melanthium latifolium</i> Desr.	Bunchflower			1								2		FACU	P-HERB
	<i>Polygonatum biflorum</i> (Walter) Elliot	Solomon's-seal	5						2						FACU	P-HERB
	<i>Smilacina racemosa</i> (L.) Desf.	False Solomon's seal	5		3	2							3			P-HERB
	<i>Uvularia perfoliata</i> L.	Merrybells	5		2				1				3		FACU	P-HERB
Lycopodiaceae	<i>Lycopodium obscurum</i> L.	Flat-branched ground-pine	5		2										FACU	P-HERB
Malvaceae	<i>Abutilon theophrastii</i> Medik.	Velvet-leaf	0	2			2						1		UPL	A-HERB
	<i>Malva moschata</i> L.	Musk-mallow	0	2								1			UPL	P-HERB
	<i>Malva neglecta</i> Wallr.	Common mallow	0				2				2			2		B-HERB
Monotropaceae	<i>Monotropa uniflora</i> L.	Indian-pipe	5		2				2				2		FACU-	P-HERB
Moraceae	<i>Morus rubra</i> L.	Mulberry	6							3		1			FACU	W-TREE
Oleaceae	<i>Fraxinus americana</i> L.	White ash	4			1	1						3		FACU	W-TREE
	<i>Ligustrum vulgare</i> L.	Privet *	0	3	3	2	2	3	4	4	3	3	3		FACU	W-SHRUB
Onagraceae	<i>Circaea lutetiana</i> L.	Enchanter's nightshade	3			2	2	2	2						FACU	P-HERB
	<i>Epilobium coloratum</i> Biehler	Purple-leaved willow-herb	2		1		1				1				FACW+	P-HERB
	<i>Oenothera biennis</i> L.	Evening-primrose	2	2		2	2		2	2	2			2	FACU-	B-HERB
	<i>Oenothera nutans</i> G.F.Atk. & Bartlett	Evening-primrose										1				B-HERB
Ophioglossaceae	<i>Botrychium virginianum</i> (L.) Sw.	Rattlesnake fern	5										1		FACU	P-FERN
Orchidaceae	<i>Cypripedium acaule</i> Aiton	Pink lady's-slipper	10		2										FACU-	P-HERB
	<i>Epipactis helleborine</i> (L.) Crantz	Bastard hellebore	0				1						1		UPL	P-HERB
	<i>Goodyera pubescens</i> (Willd.) R.Br.	Downy rattlesnake-plantain ^	6		1										FACU-	P-HERB
	<i>Platanthera orbiculata</i> (Pursh) Lindl.	Large round-leaved orchid	7		2										FAC	P-HERB
Orobanchaceae	<i>Orobanche uniflora</i> L.	Cancer-root ^	7										1		FACU	P-HERB
Osmundaceae	<i>Osmunda claytoniana</i> L.	Interrupted fern	6			1									FACU-	P-FERN
Oxalidaceae	<i>Oxalis stricta</i> L.	Common yellow wood-sorrel	0			2		3	3	2	3			3	UPL	P-HERB
Papaveraceae	<i>Chelidonium majus</i> L.	Greater celandine	0			2			2	2		2	2		UPL	B-HERB
	<i>Sanguinaria canadensis</i> L.	Bloodroot ^	5										1		UPL	P-HERB
Phytolaccaceae	<i>Phytolacca americana</i> L.	Pokeweed	2	2	2	2	2	2			3	2		2	FACU+	P-HERB
Pinaceae	<i>Abies concolor</i> (Gordon & Glendinn.) Hildebr.	White fir	0		1											W-TREE
	<i>Picea abies</i> (L.) H.Karst.	Norway spruce ^	0		2		2									W-TREE
	<i>Pinus banksiana</i> Lamb.	Jack pine ^			1										FACU	W-TREE
	<i>Pinus resinosa</i> Aiton	Red pine ^			2	2	2								FACU	W-TREE

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Pinus rigida</i> Mill.	Pitch pine			?		1								FACU	W-TREE
	<i>Pinus strobus</i> L.	White pine	6		3	2	2	2	2	2			3		FACU	W-TREE
	<i>Pinus sylvestris</i> L.	Scotch pine	0			2	4									W-TREE
	<i>Tsuga canadensis</i> (L.) Carriere	Eastern hemlock	8		2		2								FACU	W-TREE
Plantaginaceae	<i>Plantago lanceolata</i> L.	English plantain	0	3	2	2	2	3	1		3	3	2	3	UPL	P-HERB
	<i>Plantago major</i> L.	Plantain	0	3	2	2	2		2	2	3	3	2	3	FACU	P-HERB
Platanaceae	<i>Platanus occidentalis</i> L.	Sycamore	7	1											FACW-	W-TREE
Poaceae	<i>Agrostis gigantea</i> Roth	Redtop	0					2	2	2	2	2			FACW-	P-GRS
	<i>Agrostis stolonifera</i> L.	Creeping bentgrass	0	2											FACW	P-GRS
	<i>Andropogon virginicus</i> L.	Broom-sedge	3	1											FACU	P-GRS
	<i>Arrhenatherum elatius</i> (L.) P.Beauv.	Tall oatgrass	0	2							2			2	FACU	P-GRS
	<i>Avena sativa</i> L.	Oats	0								2					A-GRS
	<i>Bromus inermis</i> Leyss.	Smooth brome	0	3	2	2	2			2		4	2	2		P-GRS
	<i>Bromus japonicus</i> Thunb.	Japanese chess	0	3			1	2			2			3	FACU-	A-GRS
	<i>Bromus pubescens</i> Muhl.	Canada brome	4		1											P-GRS
	<i>Bromus racemosus</i> L.	Soft chess	0		2											A-GRS
	<i>Bromus tectorum</i> L.	Downy chess/ Cheatgrass*	0	2												A-GRS
	<i>Dactylis glomerata</i> L.	Orchard grass	0	3	2	2	2	3	2	2	3	4	2	3	FACU	P-GRS
	<i>Danthonia spicata</i> (L.) P.Beauv.	Wild oat grass	3					1	1				2			P-GRS
	<i>Echinochloa crusgalli</i> (L.) P.Beauv.	Barnyard-grass	0								2			1	FACU	A-GRS
	<i>Elymus canadensis</i> L.	Canada wild-rye	3										1		FACW+	P-GRS
	<i>Elymus hystrix</i> L.	Bottlebrush-grass	5		2								1			P-GRS
	<i>Elytrigia repens</i> (L.) Desv.	Quack grass	0	2		2	2	2			3	4		2		P-GRS
	<i>Festuca elatior</i> L.	Fescue	0	2				2	2	2	2	3		2	FACU-	P-GRS
	<i>Festuca obtusa</i> Biehler	Nodding fescue	5										1		FACU	P-GRS
	<i>Festuca pratensis</i> Huds.	Meadow fescue	0				2					2			FACU-	P-GRS
	<i>Hordeum vulgare</i> L.	Barley	0								2					A-GRS
	<i>Muhlenbergia schreberi</i> J.F.Gmel.	Dropseed	1								1	1			FAC	P-GRS
	<i>Panicum acuminatum</i> Sw.	Panic grass	2		2	2							2			P-GRS
	<i>Panicum clandestinum</i> L.	Broad-leaved panic grass	3		2								2		FAC+	P-GRS
	<i>Panicum commutatum</i> Schult.	Panic grass	5		1										FACU+	P-GRS
	<i>Panicum dichotomiflorum</i> Michx.	Smooth panic grass	1				1								FACW-	P-GRS
	<i>Panicum linearifolium</i> Scribn.	Panic grass	4		2			2								P-GRS
	<i>Panicum virgatum</i> L.	Switch grass	4	1											FAC	P-GRS
	<i>Phalaris arundinacea</i> L.	Reed-canary grass *	0				2					2			FACW	P-GRS
	<i>Phleum pratense</i> L.	Timothy grass	0	3	2		2	3		2	3	4	2	3	FACU	A-GRS

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Poa compressa</i> L.	Canada bluegrass	0		2	2			2	2			2		FACU	P-GRS
	<i>Poa nemoralis</i> L.	Wood bluegrass	0									2			FAC	P-GRS
	<i>Poa pratensis</i> L.	Kentucky bluegrass	0	3	3	2				2		4	2		FACU	P-GRS
	<i>Poa trivialis</i> L.	Rough bluegrass	0		1										FACW	P-GRS
	<i>Secale cereale</i> L.	Rye	0								2					A-GRS
	<i>Setaria faberi</i> Herrm.	Giant foxtail	0								2				UPL	A-GRS
	<i>Setaria viridis</i> (L.) P.Beauv.	Green foxtail	0	2			2							2		A-GRS
	<i>Zea mays</i> L.	Field corn ^	0	2												A-GRS
Polygonaceae	<i>Polygonum aviculare</i> L.	Knotweed	0				1								FACU	A-HERB
	<i>Polygonum convolvulus</i> L.	Black bindweed	0											1	FACU	P-HERB
	<i>Polygonum lapathifolium</i> L.	Willow-weed	1	2	2										FACW+	A-HERB
	<i>Polygonum persicaria</i> L.	Lady's thumb	0	3		2	2	2	1		2				FACW	A-HERB
	<i>Polygonum virginianum</i> L.	Jumpseed	4				2								FAC	P-HERB
	<i>Rumex acetosella</i> L.	Sheep sorrel	0					2							UPL	P-HERB
	<i>Rumex crispus</i> L.	Curly dock	0	3	2	1	2	2	2	2	2			2	FACU	P-HERB
Polypodiaceae	<i>Adiantum pedatum</i> L.	Maidenhair fern	6										2		FAC-	P-FERN
	<i>Asplenium platyneuron</i> (L.) B.S.P.	Ebony spleenwort	5		2	2									FACU	P-FERN
	<i>Asplenium rhizophyllum</i> L.	Walking fern	8										1			P-FERN
	<i>Cystopteris tenuis</i> (Michx.) Desv.	Fragile fern											2			P-FERN
	<i>Dennstaedtia punctilobula</i> (Michx.) T.Moore	Hay-scented fern	5		2								2		UPL	P-FERN
	<i>Dryopteris intermedia</i> (Muhl.) A.Gray	Evergreen wood fern	5		3	2	2		1	1	1		2		FACU	P-FERN
	<i>Dryopteris marginalis</i> (L.) A.Gray	Marginal wood fern	5			2	2		1				2		FACU-	P-FERN
	<i>Onoclea sensibilis</i> L.	Sensitive fern	3		2										FACW	P-FERN
	<i>Pellaea atropurpurea</i> (L.) Link	Purple cliffbrake			1											P-FERN
	<i>Polypodium virginianum</i> L.	Common polypody	7			1										P-FERN
	<i>Polystichum acrostichoides</i> (Michx.) Schott	Christmas fern	4		2	3							2		FACU-	P-FERN
	<i>Pteridium aquilinum</i> (L.) Kuhn	Northern bracken fern	3		2										FACU	P-FERN
Pyrolaceae	<i>Chimaphila maculata</i> (L.) Pursh	Spotted wintergreen	7		2				1				2			P-HERB
	<i>Chimaphila umbellata</i> (L.) W.Bartram	Pipsissewa	9		1								2			P-HERB
	<i>Pyrola americana</i> Sweet	Wild lily-of-the-valley	7						2				2		FAC	P-HERB
	<i>Pyrola elliptica</i> Nutt.	Shinleaf	6		3								3		UPL	P-HERB
Ranunculaceae	<i>Actaea pachypoda</i> Elliot	Doll's eyes	7		2	2									UPL	P-HERB
	<i>Anemone quinquefolia</i> L.	Wood anemone ^	5		2										FACU	P-HERB
	<i>Anemone virginiana</i> L.	Thimbleweed	3		2	2	2		1	3	2		2		FACU	P-HERB
	<i>Aquilegia canadensis</i> L.	Columbine	5			2							1		FAC	P-HERB
	<i>Cimicifuga racemosa</i> (L.) Nutt.	Black cohosh	8										2			P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Hepatica nobilis</i> Mill.	Hepatica	5		2								2			P-HERB
	<i>Ranunculus abortivus</i> L.	Small flowered crowfoot	4			2					1		2		FACW-	A-HERB
	<i>Ranunculus acris</i> L.	Buttercup	0		2			2		2	2	3	2	2	FAC+	P-HERB
	<i>Ranunculus hispidus</i> Michx.	Hairy buttercup	5										2		FAC	P-HERB
	<i>Ranunculus repens</i> L.	Creeping buttercup	0				2	2							FAC	P-HERB
	<i>Thalictrum dioicum</i> L.	Early meadow-rue	6		2	2							2		FAC	P-HERB
	<i>Thalictrum thalictroides</i> (L.) A.J.Eames & B.Boivin	Rue anemone	6		2				1				2		FACU-	P-HERB
Rhamnaceae	<i>Ceanothus americanus</i> L.	New Jersey tea	6		1								1			W-SHRUB
	<i>Rhamnus cathartica</i> L.	Common buckthorn *	0	3	3	2	2	3	2	3	2		3	2		W-TREE
Rosaceae	<i>Agrimonia gryposepala</i> Wallr.	Agrimony	3		2		2	2	2							P-HERB
	<i>Amelanchier arborea</i> (F.Michx.) Fernald	Service berry	5		1										FAC-	W-SHRUB
	<i>Crataegus monogyna</i> Jacq.	English hawthorn	0					1								W-SHRUB
	<i>Crataegus holmesiana</i>	Red-fruited hawthorn	4			1										W-TREE
	<i>Duchesnea indica</i> (Andr.) Focke	Indian strawberry	0					2	2	2	2		2		FACU-	P-HERB
	<i>Fragaria virginiana</i> Mill.	Wild strawberry	2	3	1						2	2	1		FACU	P-HERB
	<i>Geum aleppicum</i> Jacq.	Yellow avens	3	1							2				FAC	P-HERB
	<i>Geum canadense</i> Jacq.	White avens	2	3		3	2	3	2	2	3		3		FACU+	P-HERB
	<i>Malus prunifolia</i> (Willd.) Borkh.	Chinese crabapple	0					2								W-TREE
	<i>Malus pumila</i> Mill.	Apple	0					2								W-TREE
	<i>Porteranthus trifoliatus</i> (L.) Britton	Mountain Indian-physic	8										2			P-HERB
	<i>Potentilla norvegica</i> L.	Three-leaf cinquefoil	1		2		2	2			2				FACU	A-HERB
	<i>Potentilla recta</i> L.	Sulfur cinquefoil	0	2	2			2			2	2	2	1		P-HERB
	<i>Potentilla simplex</i> Michx.	Old-field cinquefoil	1									1			FACU-	P-HERB
	<i>Prunus avium</i> (L.) L.	Sweet cherry	0										2			W-TREE
	<i>Prunus cerasus</i> L.	Sour cherry	0									1				W-TREE
	<i>Prunus serotina</i> Ehrh.	Wild black cherry	3	3		2	2	3	2	3	3		3	3	FACU	W-TREE
	<i>Rhodotypos scandens</i> (Thunb.) Makino	Jetbead	0	1												W-SHRUB
	<i>Rosa carolina</i> L.	Pasture rose	5			2		2					2		UPL	W-SHRUB
	<i>Rosa multiflora</i> Thunb.	Multiflora rose *	0	3	2	2	2	3	2	2	3	3	2		FACU	W-SHRUB
	<i>Rubus allegheniensis</i> Porter	Common blackberry	1		2	2									FACU-	W-SHRUB
	<i>Rubus flagellaris</i> Willd.	Prickly dewberry	2				1	2	1						FACU	W-SHRUB
	<i>Rubus occidentalis</i> L.	Black raspberry	1	3	2	2	2		2	2	3					W-SHRUB
	<i>Rubus pensilvanicus</i> Poir.	Blackberry	2			1	2				2					W-SHRUB
	<i>Rubus pubescens</i> Raf.	Dwarf raspberry	6					2		2			2		FACW	W-SHRUB
Rubiaceae	<i>Galium aparine</i> L.	Cleavers	2	2	3								3		FACU	A-HERB
	<i>Galium boreale</i> L.	Northern bedstraw	8						1				2		FACU	P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Galium circaeazans</i> Michx.	Bedstraw	5		2				1				2		UPL	P-HERB
	<i>Galium mollugo</i> L.	White bedstraw	0	2					2							P-HERB
	<i>Galium triflorum</i> Michx.	Bedstraw	5			2				2			3		FACU	P-HERB
	<i>Mitchella repens</i> L.	Partridge berry	5		2								3		FACU	P-HERB
Salicaceae	<i>Populus grandidentata</i> Michx.	Bigtooth aspen	2		2		2	2	2	2	2				FACU-	W-TREE
	<i>Populus x jackii</i> Sarg.	Balm-of-Gilead	0		2											W-TREE
	<i>Populus tremuloides</i> Michx.	Quaking aspen	2		2		2			2						W-TREE
Saxifragaceae	<i>Mitella diphylla</i> L.	Bishop's cap	7										2		FACU	P-HERB
	<i>Saxifraga virginensis</i> Michx.	Early saxifrage	8										2		FAC-	P-HERB
Scrophulariaceae	<i>Aureolaria virginica</i> (L.) Pennell	Downy false foxglove	9										1			P-HERB
	<i>Linaria vulgaris</i> Hill	Butter-and-eggs	0				2	2		2	3			3		P-HERB
	<i>Melampyrum lineare</i> Desr.	Cow-wheat	9		2										FACU	A-HERB
	<i>Penstemon hirsutus</i> (L.) Willd.	Northeastern beardtongue ^	6		1											P-HERB
	<i>Verbascum blattaria</i> L.	Moth mullein	0	2							2				UPL	B-HERB
	<i>Verbascum thapsus</i> L.	Common mullein	0	2	2	1		2		2	2	2		2		B-HERB
	<i>Veronica arvensis</i> L.	Corn speedwell	0								3					A-HERB
	<i>Veronica officinalis</i> L.	Common speedwell	0		3	2			2		3	2	3		FACU-	P-HERB
	<i>Veronica peregrina</i> L.	Neckweed	0								3				FACU-	A-HERB
	<i>Veronica persica</i> Poir.	Bird's-eye speedwell	0	3												A-HERB
	<i>Veronicastrum virginicum</i> (L.) Farw.	Culver's root	9										2		FACU	P-HERB
Smilacaceae	<i>Smilax herbacea</i> L.	Carrion flower	4		2	2			2						FAC	W-VINE
Solanaceae	<i>Physalis heterophylla</i> Nees	Clammy ground-cherry	2											2		P-HERB
	<i>Solanum americanum</i> Mill.	Black nightshade	1							2	1			2	FACU-	P-HERB
	<i>Solanum carolinense</i> L.	Horse-nettle	0								1				UPL	P-HERB
	<i>Solanum dulcamara</i> L.	Nightshade	0	3		2	2	2	2	2	2	2	2		FACU	P-HERB
	<i>Solanum tuberosum</i> L.	Potato	0									1				P-HERB
Taxaceae	<i>Taxus cuspidata</i> Siebold & Zucc.	Japanese yew	0										1			W-SHRUB
Tiliaceae	<i>Tilia americana</i> L.	Basswood	6										1		FACU	W-TREE
Ulmaceae	<i>Celtis occidentalis</i> L.	Hackberry	6			1			1	2			3		FACU	W-TREE
	<i>Ulmus americana</i> L.	American elm	1		3		2		2	2					FACW-	W-TREE
	<i>Ulmus rubra</i> Muhl.	Red elm, Slippery elm	2		1	1			1						FAC-	W-TREE
	<i>Ulmus procera</i> Salisb.	English elm	0									2				W-TREE
Urticaceae	<i>Parietaria pensylvanica</i> Muhl.	Pellitory	6										2			A-HERB
	<i>Pilea pumila</i> (L.) A.Gray	Clearweed	4			2	2		2						FACW	A-HERB
	<i>Urtica dioica</i> L.	Stinging nettle ^	1	3	2	2		2		2	2				FACU	P-HERB
Verbenaceae	<i>Phryma leptostachya</i> L.	Lopseed	5		1	2									FACU-	P-HERB

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>Verbena urticifolia</i> L.	White vervain	4		2	2	2	2	2	2		1			FACU	P-HERB
Violaceae	<i>Viola palmata</i> L.	Early blue violet	6										1			P-HERB
	<i>Viola pubescens</i> Aiton	Downy yellow violet	5										2			P-HERB
	<i>Viola sagittata</i> var. <i>ovata</i> (Nutt.) Torr. & A.Gray	Ovate-leaved violet	6		1										FACU	P-HERB
	<i>Viola sororia</i> Willd.	Wooly blue violet	2		2					2			3		FAC	P-HERB
Vitaceae	<i>Parthenocissus quinquefolia</i> (L.) Planch.	Virginia creeper	3	3	3	2	2	2	2	3	2	2	4	1	FACU	W-VINE
	<i>Vitis aestivalis</i> Michx.	Summer grape	6	3	3	3	2	2	2	3	3	3	2	2	FACU	W-VINE
	<i>Vitis labrusca</i> L.	Fox grape	8		2										FACU	W-VINE
Total:	Total:															
76	402	Total species:		98	180	122	119	92	104	97	121	73	169	70		
		Native:		36	129	78	63	39	64	59	49	18	122	20		
		Exotic:		62	51	44	56	53	40	38	72	55	47	50		
Unknowns:																
Asteraceae	<i>Prenanthes</i> sp.												1			P-HERB
Betulaceae	<i>Betula</i> sp. (<i>B. lenta</i> ?)	Black birch			1											W-TREE
Celastraceae	<i>Euonymus</i> sp. (<i>E. europaeus</i> ?)	European spindle tree			1											W-SHRUB
Linaceae	<i>Linum</i> sp.				1											HERB
Rosaceae	<i>Amelanchier sanguinea</i> ?	Roundleaf Juneberry											1			P-SHRUB
	<i>Crataegus</i> sp. (<i>C. crus-galli</i> ?)	Cockspur hawthorn						1							FACU	W-SHRUB
	<i>Crataegus</i> sp. (<i>C. pruinosa</i> ?)	Frosted hawthorn							1							W-SHRUB
Scrophulariaceae	<i>Linaria</i> sp.				1											P-HERB
Grand total:	Grand total:															
77	410															
FOOTNOTES:																

* indicates species is designated as invasive by Pennsylvania DCNR (Gresham 2000)

^ indicates species has not been vouchered in this study, either because it was too rare or too difficult to collect

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
CC	A coefficient of conservatism is a numerical quality rating from 0 to 10. Weedy species that are adapted to human disturbances like roadsides and old fields are assigned low values, and conservative species that only grow in mature forests (or other high quality natural areas) are assigned high values.															
H	<i>Horse Paddocks</i> -- A mixture of old fields, horse paddocks, and a cornfield. Dominated by nonnative plants.															
C	<i>Conifer Forest</i> -- Diverse, upland, acidic woods that contains seven conifer species and a rich herbaceous flora.															
P1	<i>Red Pine Plantation</i> -- Large stand of red and white pines with surprisingly diverse mixture of native herbs in the understory.															
P2	<i>Scotch Pine Plantation</i> -- Young stand of Scotch pine and associated landscape.															
B	<i>Barrens</i> -- Future site of the restored pine barrens. Currently used as pasture. Heavily grazed and dominated by exotic species.															
M	<i>Mesophytic Forest</i> -- Small patch of forest along Big Hollow Road.															
R	<i>Railroad Bed</i> -- Historic Bellefonte Central Railroad bed. Currently maintained by frequent bikers and runners.															
A	<i>Agricultural Fields</i> -- Severely disturbed areas dominated by exotic, weedy plant species. Constitutes a considerable portion of the total area of the arboretum.															
G	<i>Grassland</i> -- Future site of restored native grassland. Currently used as hay fields and dominated by exotic plants.															
O	<i>Oak Forest</i> -- Mature and diverse upland forest with a white oak canopy, a red oak understory, and a rich herbaceous flora.															
F	<i>Flower Gardens</i> -- Future site of the flower gardens. Currently used as a hay field and dominated by exotic plants.															
USFW Code	The U.S. Fish and Wildlife Service developed these wetland codes:															

Appendix 1. Plant Species List for The Arboretum at Penn State

Family	Species	Common name	CC	H	C	P1	P2	B	M	R	A	G	O	F	USFW Code	Habit
	<i>OBL = obligate wetland species</i> <i>FACW = facultative wetland species</i> <i>FAC = facultative species</i> <i>FACU = facultative upland species</i> <i>UPL = upland species</i>															
Habit	Description of Plant Habits:															
	<i>W-TREE</i> Woody plant that is large and arboreal when mature.															
	<i>W-SHRUB</i> Woody plant the size of a shrub when mature.															
	<i>W-VINE</i> Woody plant that trails through and climbs up other vegetation.															
	<i>H-VINE</i> Herbaceous plant that trails and winds through other plants.															
	<i>A-HERB</i> Annual herbaceous plant that germinates, produces seed, and dies in one year.															
	<i>B-HERB</i> Biennial herbaceous plant that forms a rosette the first year and produces fruit the second year.															
	<i>P-HERB</i> Perennial herbaceous plant with underground perennating structures that allow it to live for many years.															
	<i>A-GRS</i> Annual grass (<i>Poaceae</i>)															
	<i>P-GRS</i> Perennial grass (<i>Poaceae</i>)															
	<i>P-SDG</i> Perennial sedge (<i>Cyperaceae</i>)															
	<i>P-FERN</i> Non-flowering, spore-producing perennial ferns															