

## VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES

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The Kansas Ecological Reserves (KER) support a diverse vascular flora of more than 700 species, including 19 species that are rare in Kansas. The Reserves are located along the eastern deciduous forest-tallgrass prairie ecotone in northeastern Kansas (Settergen 1974; Fitch and Kettle 1988). Plant communities on KER have been minimally disturbed to severely disturbed by human activities. Principal habitats include deciduous forest, tallgrass prairie, cool-season grassland, aquatic and wetland sites, and land in various stages of ecological succession (old fields and woodlands). The Reserves consist of three major units: Baldwin Woods, the Robinson Tract, and the Tri-County area. These areas support distinct floras, a fact substantially related to their recent history of use by humans and to edaphic factors.

Baldwin Woods is a unique remnant stand of relatively undisturbed deciduous forest at the western edge of its range (Settergen 1974; Fitch and Kettle 1988). Reserves tracts contained within the Baldwin Woods ecosystem are Breidenthal Biological Reserve, Rice Woodland, and Wall Woods (Fitch and Kettle 1988). Two other managed areas also largely within Baldwin Woods, but not discussed in this report, are the Ivan L. Boyd Woods (managed by Baker University) and the Douglas County State Lake (managed by the Kansas Dept. of Wildlife and Parks). Baldwin Woods was designated a National Natural Landmark in 1980 by the National Park Service in recognition of its exemplary condition (Fitch and Kettle 1988).

The vegetation of Baldwin Woods is largely oak-hickory forest. Small areas of floodplain forest parallel creeks, and isolated patches of xeric tallgrass prairie occur along dry sandstone ridges, especially on the Breidenthal Biological Reserve. Soils are mostly well drained and formed in material weathered from sandstone or loamy shale (Dickey et al. 1977). Historical data from Government Land Surveys in the 1850s record Baldwin Woods as a 3,000–4,000 acre grove of timber; the size and contiguous nature of this grove has been altered greatly in the intervening 140 years.

By contrast, those KER units north of the Kansas River (Tri-County area and Robinson Tract) have long histories of intensive use, especially for agricultural production. They generally support natural communities that are moderately to severely disturbed, some of which are in secondary succession. Small forest and prairie remnants contribute significantly to the total species richness of the northern units. Soils range from somewhat poorly drained to well drained in material weathered from limestone and shale bedrock, alluvium, glacial till, and loess (Dickey et al. 1977).

The Tri-County area consists primarily of level to hilly uplands above of the Kansas River floodplain. It comprises three adjacent KER tracts: Fitch Natural History Reservation, Rockefeller Experimental Tract, and Nelson Environmental Study Area. Government Land Surveys from the 1850s indicate the area was primarily tallgrass prairie with some timber along draws. Much of the Tri-County area was farmed previously, and cool-season grasslands, old

fields, and successional woodlands predominate. A few small, scattered remnants of the pre-settlement vegetation are extant. Most conservative prairie species recorded from the Tri-County area are restricted to the Rockefeller Native Prairie, a 4-ha mesic, native tallgrass prairie in the southwest corner of the Rockefeller Experimental Tract (Fitch and Kettle 1988; Kindscher in prep.).

The southern and southwestern portions of the Robinson Tract lie on upper terraces of the Kansas River floodplain. The northern portion extends up a southwest-facing section of the valley wall. Many areas of the tract once were cultivated or grazed. Small areas of relict tallgrass prairie and floodplain forest remain (Fitch and Kettle 1988).

## Vegetation

Five major habitat types are distinguished on KER: forest, prairie, cool-season grassland, aquatic and wetland sites, and successional areas and other disturbed sites. These types and significant subtypes are discussed below.

### Forests

Forests are natural communities with a tree cover of 50% or greater and three distinct canopy layers (Lauver 1989). Two subtypes are recognized: oak-hickory forest and floodplain forest.

Oak-hickory forests occupy gentle to moderately steep slopes on uplands and steep valley sides. The best examples are on Baldwin Woods, a ravine in the Nelson Environmental Study Area, and East Woods on the Fitch Natural History Reservation. Dominant species include *Quercus* (*Quercus borealis* var. *maxima*, *Quercus macrocarpa*, *Quercus muehlenbergii*, and *Quercus velutina*) and *Carya* (*Carya cordiformis* and *Carya ovata*). Other common forest trees are *Celtis occidentalis*, *Fraxinus americana*, *Juglans nigra*, *Morus rubra*, *Ulmus americana*, and *Ulmus rubra*. *Quercus alba* also is common in Baldwin Woods. Characteristic understory shrubs and vines are *Aesculus glabra* var. *arguta*, *Asimina triloba*, *Cercis canadensis*, *Cornus drummondii*, *Ostrya virginiana*, *Parthenocissus quinquefolia*, *Smilax hispida*, *Staphylea trifolia*, and *Symphoricarpos orbiculatus*. Common herbs and graminoids are *Anemonella thalictroides*, *Botrychium virginianum*, *Bromus pubescens*, *Carex blanda*, *Carex davisii*, *Carex jamesii*, *Circaea lutetiana* subsp. *canadensis*, *Cryptotaenia canadensis*, *Cystopteris protrusa*, *Desmodium glutinosum*, *Dicentra cucullaria*, *Festuca obtusa*, *Galium aparine*, *Isopyrum biternatum*, *Lactuca florida*, *Phlox divaricata* subsp. *laphamii*, *Podophyllum peltatum*, *Sanicula canadensis*, *Sanicula gregaria*, *Solidago ulmifolia* var. *ulmifolia*, *Viola pratincola*, and *Viola pubescens*.

Floodplain forest occupies level to undulating floodplains along rivers and major creeks. This forest type is restricted to floodplains along tributaries of Coal Creek in Baldwin Woods and the Kansas River along the southwestern edge of the Robinson Tract. Dominant species include *Celtis occidentalis*, *Populus deltoides* subsp. *monilifera*, *Platanus occidentalis*, *Fraxinus americana*, *Ulmus americana*, and *Ulmus rubra*. *Acer saccharinum* also is a dominant on the Robinson Tract. Characteristic understory shrubs are *Aesculus glabra* var. *arguta*, *Asimina triloba*, *Staphylea trifolia*, and *Symphoricarpos orbiculatus*. Common herbs and graminoids are *Campanula americana*, *Cinna arundinacea*, *Circaea lutetiana* subsp. *canadensis*, *Dichanthelium latifolium*, *Erythronium americanum*, *Hydrophyllum virginianum*, *Hystrix patula*, *Isopyrum biternatum*, *Laportea canadensis*, *Pilea pumila*, *Verbesina alternifolia*, and *Viola sororia*. *Chasmanthium latifolium* and *Diarrhena americana* var. *obovata* also are characteristic in floodplain forests on Baldwin Woods.

## Prairies

Prairies are grassland communities dominated by graminoid and herbaceous species, often with scattered low shrubs (Lauver 1989). Several tallgrass prairie subtypes occur on KER, but they are combined here for purposes of clarity. The largest and most diverse prairie on KER is the Rockefeller Native Prairie. Smaller remnants also occur on other tracts north of the Kansas River, but most have been moderately to severely degraded. *Andropogon gerardii* and *Andropogon scoparius* are dominant species on the Rockefeller Native Prairie. Common shrubs are *Amorpha canescens*, *Ceanothus herbaceus*, and *Rhus glabra*. Characteristic herbs and graminoids are *Ambrosia artemisiifolia*, *Apocynum cannabinum*, *Aster praealtus*, *Baptisia bracteata* var. *glabrescens*, *Eryngium yuccifolium*, *Euphorbia corollata*, *Helianthus rigidus*, *Lespedeza violacea*, *Panicum virgatum*, *Silphium laciniatum*, *Solidago canadensis*, *Solidago missouriensis*, *Solidago rigida*, *Sorghastrum nutans*, *Sporobolus heterolepis*, and *Tripsacum dactyloides* (Kindscher unpubl. data).

Several small, xeric prairie remnants are situated along the western edge of the Breidenthal Biological Reserve in Baldwin Woods. These occur on well drained, sandy loam soils on south-facing slopes as openings in oak-hickory forest. *Andropogon scoparius* and *Andropogon gerardii* are dominant. Other characteristic species include *Agalinis tenuifolia*, *Lechea tenuifolia* var. *occidentalis*, *Dalea purpurea* var. *purpurea*, *Desmanthus illinoensis*, *Lespedeza virginica*, *Liatris aspera*, *Liatris hirsuta*, and *Viola pedata*. Historically, a small, mesic prairie was present along the railroad right-of-way near the western edge of the Breidenthal Biological Reserve, but this now is overgrown with woody vegetation (McGregor personal communication). Several mesic prairie species reported for Baldwin Woods by McGregor (1966) apparently came from this area.

## Cool-season Grasslands

These areas are dominated by introduced grasses, but they often contain remnant or colonizing prairie species. Several units in the Tri-County area are maintained in this state for experimental studies by periodic mowing. Common species include *Bromus inermis*, *Festuca arundinacea*, *Festuca pratensis*, *Poa compressa*, *Poa pratensis*, *Sporobolus asper*, and *Tridens flavus*. Common remnant or colonizing prairie species are *Asclepias viridis*, *Asclepias verticillata*, *Desmanthus illinoensis*, *Desmodium illinoense*, *Ruellia humilis*, and *Silphium laciniatum*.

## Aquatic and Wetland

Intermittent streams and ponds account for most of the aquatic and wetland habitats on KER. Stream beds and temporary pools in drainages are home to a variety of aquatic and wetland species. Common species in a wet-mesic ravine in the northern part of the Robinson Tract are *Carex annectens*, *Carex brevior*, *Bidens aristosa* var. *retrorsa*, *Lobelia siphilitica*, *Phalaris arundinacea*, *Polygonum lapathifolium*, *Polygonum hydropiperoides*, *Rudbeckia laciniata*, *Spartina pectinata*, *Tripsacum dactyloides*, and *Veronicastrum virginicum*. In Baldwin Woods along tributaries to Coal Creek, common species are *Commelina communis*, *Impatiens capensis*, *Impatiens pallida*, *Lobelia siphilitica*, *Pilea pumila*, and *Polygonum punctatum*.

An array of ponds form the experimental pond facility on the Nelson Environmental Study Area. In addition, there are nine farm ponds on tracts in the Tri-County area. A small, shallow limestone quarry in the northeast corner of the Breidenthal Biological Reserve contains water, but aquatic species there are limited. *Potamogeton* spp. and *Najas guadalupensis* are

common submerged aquatics in ponds. Emergent species include *Typha angustifolia*, *Typha latifolia*, *Carex* spp., *Eleocharis* spp., and *Scirpus* spp.

### Successional Areas and Other Disturbed Sites

These habitats, which include old fields (abandoned farmland), roadsides, ditches, and forest clearings, are similar in that they have been altered by major ecosystem disturbances. If permitted to undergo succession, these areas pass through a predictable series of vegetative stages. Disturbed areas initially are dominated by weedy herbaceous annuals for several years. Eventually, herbaceous biennial and perennial plants replace the annuals. Ultimately, in the absence of further human disturbance or manipulation, woody species dominate and the site is transformed into a woodland. This phenomenon, called secondary succession, is studied at the Biotic Succession Facility on the Nelson Environmental Study Area. Common species of disturbed sites include *Ambrosia artemisiifolia*, *Ambrosia trifida*, *Asclepias syriaca*, *Bromus inermis*, *Bromus japonicus*, *Conyza canadensis*, *Digitaria sanguinalis*, *Digitaria ischaemum*, *Eragrostis cilianensis*, *Eragrostis pectinacea*, *Gaura parviflora*, *Lespedeza stipulacea*, *Melilotus alba*, *Melilotus officinalis*, *Poa pratensis*, *Setaria faberi*, *Taraxacum officinale*, *Verbascum thapsus*, and *Xanthium strumarium*.

### Rare Plants

One indication of the high quality of certain natural community remnants is found in the numerous protected and rare species that occur on KER. Nineteen rare plant species currently are known from the Reserves, including two that are federally protected, one that is a federal candidate, and 16 that are rare in Kansas.

Mead's milkweed (*Asclepias meadii*) and Western prairie fringed orchid (*Platanthera praeclara*) are listed as threatened species under provisions of the federal Endangered Species Act. These two tallgrass prairie forbs have declined rangewide because of habitat loss and degradation. Both occur on the Rockefeller Native Prairie. Earleaf foxglove (*Tomanthera auriculata*) is being studied by the U.S. Fish and Wildlife Service for possible listing as an endangered or threatened species. A population was discovered recently on a disturbed prairie in the northwest portion of the Tri-County area.

Sixteen species considered rare in the state of Kansas and tracked by the Kansas Natural Heritage Inventory (KSNHI) of the Kansas Biological Survey occur on KER. Most occur in Baldwin Woods. They are American spikenard (*Aralia racemosa*), Hirsute sedge (*Carex hirsutella*), Reflexed-fruit sedge (*Carex retroflexa*), Bur-reed sedge (*Carex sparganioides*), Buttonbush dodder (*Cuscuta cephalanthi*), White gentian (*Gentiana flavida*), Michigan lily (*Lilium canadense* subsp. *michiganense*), American gromwell (*Lithospermum latifolium*), Indian tobacco (*Lobelia inflata*), Virginia bunchflower (*Melanthium virginicum*), Pinesap (*Monotropa hypopithys*), Green adder's mouth (*Malaxis unifolia*), Oval ladies'-tresses (*Spiranthes ovalis*), Nodding pogonia (*Triphora trianthophora*), Hooked buttercup (*Ranunculus recurvatus*), and Woodland agrimony (*Agrimonia rostellata*). Ongoing field studies by the KSNHI will provide detailed data about the quality, condition, and status of populations of these species.

### Floristic Studies

Floristic studies of the Kansas Ecological Reserves date back to the early 1940s when the first specimens unequivocally referable to Baldwin Woods were collected. Wells and Morley (1964) characterized the woody vegetation of the Rice Woodland, listing 31 trees and 21 shrubs and vines in their study area. Fitch (1965) compiled a list of nearly 340 species

from what is now the Fitch Natural History Reservation and the Rockefeller Experimental Tract. His study was begun in 1948 and provides important baseline data for the Tri-County area. McGregor (1966) provided the first inclusive list of vascular plants for the Breidenthal Biological Reserve, enumerating 404 species. Recently, field work has been conducted to update earlier lists, to verify species reports (particularly those based on unvouchered reports), and to characterize plant communities. Systematic surveys of all management units on the Tri-County area and Robinson Tract were begun in 1987 (Kettle and Kindscher unpubl. data) and on the Baldwin Woods in 1990 (Freeman unpubl. data).

## Annotated List of Vascular Plants

In the list that follows, plants are arranged alphabetically by family, genus, species, and infraspecific taxon, respectively. Scientific names follow the Great Plains Flora Association (1986) or, for groups with recent nomenclatural changes, Brooks and Freeman (in prep.). Colloquial names follow Brooks and Freeman (in prep.). The origin of each taxon is designated either as native (n) or introduced (i). The typical habitat of each taxon on KER is designated by one or more letter: A = aquatic and wetland sites; F = forest; G = cool-season grasslands; O = successional areas and other disturbed sites; and P = native tallgrass prairie. Occurrence data are presented for each taxon on the three major units of KER: Baldwin Woods (BW), Robinson Tract (RT), and Tri-County area (TC). Taxa are included on the basis of a voucher specimen (V) or a reliable report (R). Records based on misidentifications from earlier studies are excluded. Voucher specimens are deposited in the Ronald L. McGregor Herbarium of the University of Kansas (KANU) and duplicate specimens are in the KER reference collection in Foley Hall at the University of Kansas. Data for plant surveys and reference collections are maintained in a relational database on an IBM-compatible computer.

A total of 718 species and infraspecific taxa in 371 genera and 103 families of vascular plants are listed. These numbers represent 33% of the species and infraspecific taxa, 51% of the genera, and 71% of the families in Kansas (Brooks 1986). Eighteen percent (126 taxa) of the vascular plants on KER are considered introduced, slightly lower than the 20% figure for the entire state's flora. The ten largest families and the number of taxa in each are Poaceae (98), Asteraceae (91), Cyperaceae (44), Fabaceae (35), Rosaceae (31), Brassicaceae (24), Lamiaceae (18), Euphorbiaceae (17), Scrophulariaceae (17), and Polygonaceae (15).

A summary of taxon occurrences by habitats reveals 140 in aquatic and wetland habitats (125 native, 15 introduced), 253 in forests (241 native, 12 introduced), 109 in cool-season grasslands (88 native, 21 introduced), 209 in prairie (202 native, 7 introduced), and 266 in successional areas and other disturbed sites (150 native, 116 introduced). The sum of values for the five habitat types exceeds the total number of taxa on KER because many taxa occur in more than one habitat. Of the 718 species and infraspecific taxa reported from KER, 127 are unique to Baldwin Woods, 22 are unique to the Robinson Tract, and 137 are unique to the Tri-County area. One hundred eighty-five taxa occur on all three units.

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VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
<b>Acanthaceae</b>						
<i>Ruellia humilis</i>	Fringeleaf ruellia	n	G,P		R	V
<i>Ruellia strepens</i>	Woodland ruellia	n	F	V	R	V
<b>Aceraceae</b>						
<i>Acer negundo</i>	Box elder	n	F	V	R	V
<i>Acer saccharinum</i>	Silver maple	n	F		R	V
<i>Acer saccharum</i>	Sugar maple	n	F	R		
<b>Alismataceae</b>						
<i>Sagittaria cuneata</i>	Duckpotato arrowhead	n	A			V
<i>Sagittaria latifolia</i>	Common arrowhead	n	A			V
<b>Amaranthaceae</b>						
<i>Amaranthus hybridus</i>	Slender pigweed	i	O	R		R
<i>Amaranthus palmeri</i>	Palmer's pigweed	n	O			R
<i>Amaranthus rudis</i>	Water hemp	n	A,O,P	V	R	V
<i>Froelichia floridana</i> var. <i>campestris</i>	Field snakecotton	n	O	R		
<b>Anacardiaceae</b>						
<i>Rhus aromatica</i>	Fragrant sumac	n	F		R	V
<i>Rhus copallina</i>	Dwarf sumac	n	F,P	V	R	V
<i>Rhus glabra</i>	Smooth sumac	n	F,P	V	R	V
<i>Toxicodendron radicans</i>	Poison ivy	n	F,G,O	R	R	R
<b>Annonaceae</b>						
<i>Asimina triloba</i>	Pawpaw	n	F	V		V
<b>Apiaceae</b>						
<i>Chaerophyllum procumbens</i>	Spreading chervil	n	F	V	V	
<i>Chaerophyllum tainturieri</i>	Erect chervil	n	P	R		V
<i>Conium maculatum</i>	Poison hemlock	i	O	V		
<i>Cryptotaenia canadensis</i>	Honewort	n	F	V		V
<i>Eryngium yuccifolium</i>	Button snakeroot	n	P		R	V
<i>Lomatium foeniculaceum</i>	Carrotleaf lomatium	n	P			R
<i>Osmorhiza longistylis</i>	Anise root	n	F	V	R	V
<i>Polytaenia nuttallii</i>	Prairie parsley	n	P			V
<i>Sanicula canadensis</i>	Canada sanicle	n	F	V		V
<i>Sanicula gregaria</i>	Cluster sanicle	n	F	V	R	V
<i>Spermolepis inermis</i>	Spreading spermolepis	n	O			V
<i>Torilis arvensis</i>	Hedge parsley	i	O	V	V	V
<i>Zizia aurea</i>	Golden alexanders	n	F,O,P			V
<b>Apocynaceae</b>						
<i>Apocynum cannabinum</i>	Hemp dogbane	n	A,O,P	V	R	V
<i>Vinca minor</i>	Common periwinkle	i	O	V		
<b>Araceae</b>						
<i>Arisaema dracontium</i>	Green dragon	n	F	V		R
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	n	F	V		V
<b>Araliaceae</b>						
<i>Aralia racemosa</i>	American spikenard	n	F	V		
<b>Asclepiadaceae</b>						
<i>Asclepias incarnata</i>	Swamp milkweed	n	A		V	
<i>Asclepias meadii</i>	Mead's milkweed	n	P			V
<i>Asclepias purpurascens</i>	Purple milkweed	n	F	V		R
<i>Asclepias stenophylla</i>	Narrowleaf milkweed	n	P			V
<i>Asclepias sullivantii</i>	Smooth milkweed	n	P		V	V
<i>Asclepias syriaca</i>	Common milkweed	n	O,P	V	R	V
<i>Asclepias tuberosa</i>	Butterfly milkweed	n	G,P	R	R	V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Asclepiadaceae, cont.						
<i>Asclepias verticillata</i>	Whorled milkweed	n	G,O,P	V	R	V
<i>Asclepias viridiflora</i>	Green milkweed	n	P			V
<i>Asclepias viridis</i>	Spider milkweed	n	G,O	V		V
<i>Cynanchum laeve</i>	Climbing milkweed	n	F	V		R
Asteraceae						
<i>Achillea millefolium</i> ssp. <i>lanulosa</i>	Yarrow	n	G,O,P	R	R	V
<i>Ambrosia artemisiifolia</i>	Common ragweed	n	A,O	V	R	V
<i>Ambrosia psilostachya</i>	Western ragweed	n	P		R	V
<i>Ambrosia trifida</i>	Giant ragweed	n	A,O	V	R	V
<i>Amphichyris dracunculoides</i>	Annual broomweed	n	O			R
<i>Antennaria neglecta</i>	Field pussytoes	n	G,O,P	V		V
<i>Antennaria parlinii</i>	Plantainleaf pussytoes	n	F	V		V
<i>Arctium minus</i>	Common burdock	i	O		V	R
<i>Artemisia ludoviciana</i>	Louisiana sage	n	O			V
<i>Aster drummondii</i>	Drummond's aster	n	F	V		V
<i>Aster ericoides</i>	Heath aster	n	P		R	V
<i>Aster lanceolatus</i> ssp. <i>simplex</i>	Panicled aster	n	O			R
<i>Aster novae-angliae</i>	New England aster	n	P		R	V
<i>Aster oolentangiensis</i>	Azure aster	n	P			V
<i>Aster pilosus</i>	White aster	n	G,O,P	V	R	V
<i>Aster praealtus</i>	Willowleaf aster	n	F,P		R	V
<i>Bidens aristosa</i> var. <i>retrorsa</i>	Coreopsis beggartick	n	A,O,P		R	V
<i>Bidens bipinnata</i>	Spanish needles	n	O	V		R
<i>Bidens frondosa</i>	Devil's beggartick	n	A	V		V
<i>Bidens vulgata</i>	Tall beggartick	n	A	R		
<i>Cacalia atriplicifolia</i>	Pale Indian plantain	n	F	V	V	V
<i>Cacalia plantaginea</i>	Tuberous Indian plantain	n	P	R		V
<i>Carduus nutans</i>	Musk thistle	i	G,O	V	V	R
<i>Chrysanthemum leucanthemum</i>	Ox-eye daisy	i	G			V
<i>Cirsium altissimum</i>	Tall thistle	n	A,G,O,P	V	R	V
<i>Cirsium undulatum</i>	Wavyleaf thistle	n	P		V	
<i>Cirsium vulgare</i>	Bull thistle	i	O		R	
<i>Conyza canadensis</i>	Horseweed	n	A,O	V	R	V
<i>Coreopsis palmata</i>	Finger coreopsis	n	P	R		V
<i>Echinacea pallida</i>	Pale purple coneflower	n	P	R		V
<i>Eclipta prostrata</i>	Yerba de tajo	n	O			V
<i>Erechtites hieracifolia</i>	American burnweed	n	A	V	V	
<i>Erigeron annuus</i>	Annual fleabane	n	O	V		V
<i>Erigeron philadelphicus</i>	Philadelphia fleabane	n	F	V		V
<i>Erigeron strigosus</i>	Daisy fleabane	n	G,O,P	V	R	V
<i>Eupatorium altissimum</i>	Tall eupatorium	n	G,O,P	V	R	V
<i>Eupatorium perfoliatum</i>	Common boneset	n	A		V	
<i>Eupatorium purpureum</i>	Sweet joe-pye weed	n	F	V		V
<i>Eupatorium rugosum</i>	White snakeroot	n	F	V	R	V
<i>Eupatorium serotinum</i>	Late eupatorium	n	F			R
<i>Euthamia graminifolia</i>	Grassleaf euthamia	n	G		R	V
<i>Euthamia gymnospermoides</i>	Viscid euthamia	n	G,P			V
<i>Gnaphalium obtusifolium</i>	Fragrant cudweed	n	O,P	V	R	V
<i>Gnaphalium purpureum</i>	Purple cudweed	n	P	R		
<i>Grindelia squarrosa</i>	Curlycup gumweed	n	O	R		
<i>Helenium autumnale</i>	Common sneezeweed	n	A		V	R
<i>Helianthus annuus</i>	Common sunflower	n	G,O,P	R	R	V



VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Asteraceae, cont.						
<i>Helianthus grosseserratus</i>	Sawtooth sunflower	n	G,P			V
<i>Helianthus hirsutus</i>	Hairy sunflower	n	F	V		V
<i>Helianthus mollis</i>	Ashy sunflower	n	G,P			V
<i>Helianthus rigidus</i>	Stiff sunflower	n	G,P			V
<i>Helianthus tuberosus</i>	Jerusalem artichoke	n	F	R	R	
<i>Heliopsis helianthoides</i> var. <i>scabra</i>	False sunflower	n	F,G	R		V
<i>Hieracium longipilum</i>	Longbeard hawkweed	n	O,P	V		R
<i>Iva annua</i>	Annual sumpweed	n	A	V	R	V
<i>Krigia caespitosa</i>	Dwarf dandelion	n	P			V
<i>Kuhnia eupatorioides</i>	False boneset	n	G,P		R	V
<i>Lactuca canadensis</i>	Canada lettuce	n	O,P	V	R	V
<i>Lactuca floridana</i>	Florida lettuce	n	F	V		R
<i>Lactuca ludoviciana</i>	Louisiana lettuce	n	G,P		R	V
<i>Lactuca saligna</i>	Willowleaf lettuce	i	O	V		V
<i>Lactuca serriola</i>	Prickly lettuce	i	O	V	R	V
<i>Liatris aspera</i>	Rough gayfeather	n	P	R		V
<i>Liatris hirsuta</i>	Hairy gayfeather	n	P	V		V
<i>Liatris punctata</i>	Dotted gayfeather	n	P		V	
<i>Liatris pycnostachya</i>	Thickspike gayfeather	n	G,P			V
<i>Prenanthes aspera</i>	Rough whitelettuce	n	P			V
<i>Pyrrhopappus carolinianus</i>	Carolina false dandelion	n	O	V	R	V
<i>Ratibida columnifera</i>	Yellow prairie coneflower	n	P			R
<i>Ratibida pinnata</i>	Grayhead prairie coneflower	n	G,P	V		V
<i>Rudbeckia hirta</i> var. <i>pulcherrima</i>	Black-eyed susan	n	G,O,P	V	R	V
<i>Rudbeckia laciniata</i>	Golden glow	n	A		V	
<i>Silphium integrifolium</i>	Wholeleaf rosinweed	n	P	V		R
<i>Silphium laciniatum</i>	Compass plant	n	G,P	V		V
<i>Silphium perfoliatum</i>	Cupleaf rosinweed	n	A	V	V	
<i>Solidago canadensis</i> var. <i>hargerii</i>	Harger's Canada goldenrod	n	O,P	V		
<i>Solidago canadensis</i> var. <i>scabra</i>	Rough Canada goldenrod	n	O,P	R	R	V
<i>Solidago gigantea</i>	Giant goldenrod	n	P	V	V	V
<i>Solidago missouriensis</i>	Prairie goldenrod	n	G,P		R	V
<i>Solidago nemoralis</i>	Gray goldenrod	n	O,P	V		V
<i>Solidago petiolaris</i> var. <i>angusta</i>	Downy goldenrod	n	G			R
<i>Solidago rigida</i>	Stiff goldenrod	n	G,P			V
<i>Solidago ulmifolia</i> var. <i>ulmifolia</i>	Elmleaf goldenrod	n	F	V		V
<i>Sonchus asper</i>	Prickly sowthistle	i	A,O	V		
<i>Taraxacum erythrospermum</i>	Redseed dandelion	i	O			R
<i>Taraxacum officinale</i>	Common dandelion	i	O	V	R	V
<i>Tragopogon dubius</i>	Goat's beard	i	O	V	R	V
<i>Tragopogon pratensis</i>	Meadow salsify	i	O			R
<i>Verbesina alternifolia</i>	Wingstem crownbeard	n	A,F	V	V	R
<i>Vernonia baldwinii</i> ssp. <i>interior</i>	Inland ironweed	n	F,G,O,P	V	R	V
<i>Xanthium strumarium</i>	Cocklebur	n	A,O	V		R
Balsaminaceae						
<i>Impatiens capensis</i>	Spotted touch-me-not	n	A	V	V	
<i>Impatiens pallida</i>	Pale touch-me-not	n	A	V		
Berberidaceae						
<i>Podophyllum peltatum</i>	Mayapple	n	F	V		V
Betulaceae						
<i>Corylus americana</i>	American hazelnut	n	F	V		V
<i>Ostrya virginiana</i>	Ironwood	n	F	V		R

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Bignoniaceae						
<i>Campsis radicans</i>	Trumpet creeper	i	F,O	V		R
Boraginaceae						
<i>Cynoglossum officinale</i>	Common houndstongue	i	A,F	V		R
<i>Hackelia virginiana</i>	Virginia stickseed	n	F	V	V	V
<i>Lappula squarrosa</i>	European stickseed	n	O			R
<i>Lithospermum arvense</i>	Corn gromwell	i	O	V		R
<i>Lithospermum canescens</i>	Hoary gromwell	n	P	V		V
<i>Lithospermum incisum</i>	Narrowleaf gromwell	n	G,P	R	R	V
<i>Lithospermum latifolium</i>	American gromwell	n	F	V		
<i>Myosotis verna</i>	Forget-me-not	n	P			V
<i>Onosmodium molle</i>	Rough marbleseed	n	G,P			V
Brassicaceae						
<i>Alliaria petiolata</i>	Garlic mustard	i	F	V	V	R
<i>Arabis canadensis</i>	Canada rockcress	n	F	V		V
<i>Arabis shortii</i>	Short's rockcress	n	F		V	
<i>Barbarea vulgaris</i>	Winter cress	i	A,O	V	R	V
<i>Brassica hirta</i>	White mustard	i	O			V
<i>Brassica nigra</i>	Black mustard	i	O	R		
<i>Camelina microcarpa</i>	Smallfruit false flax	i	O,P	V		V
<i>Capsella bursa-pastoris</i>	Shepherd's purse	i	O	R		V
<i>Cardamine concatenata</i>	Toothwort	n	F	V		V
<i>Cardamine parviflora</i> var. <i>arenicola</i>	Smallflower bittercress	n	F	V	V	
<i>Descurainia pinnata</i> var. <i>osmiarum</i>	Tansy mustard	n	F	V	V	V
<i>Descurainia sophia</i>	Flixweed	i	O	R		R
<i>Draba brachycarpa</i>	Shortpod draba	n	P			V
<i>Draba cuneifolia</i>	Wedgeleaf draba	n	P	R		
<i>Erysimum repandum</i>	Bushy wallflower	i	O	R		V
<i>Hesperis matronalis</i>	Dame's rocket	i	O			R
<i>Iodanthus pinnatifidus</i>	Purple rocket	n	F		V	
<i>Lepidium densiflorum</i>	Manyflower peppergrass	i	P	R		R
<i>Lepidium virginicum</i>	Virginia peppergrass	n	G,O,P			V
<i>Nasturtium officinale</i>	Watercress	i	A		V	
<i>Rorippa sessiliflora</i>	Stalkless yellowcress	n	A	V		
<i>Sisymbrium altissimum</i>	Tumbling mustard	i	O	R		
<i>Thlaspi arvense</i>	Field pennycress	i	O	V	R	V
<i>Thlaspi perfoliatum</i>	Perfoliate pennycress	i	O		V	
Cactaceae						
<i>Opuntia humifusa</i>	Eastern pricklypear	n	O			R
Caesalpiniaceae						
<i>Cercis canadensis</i>	Redbud	n	F	V	V	V
<i>Chamaecrista fasciculata</i>	Showy partridge pea	n	A,O,P	V	R	V
<i>Gleditsia triacanthos</i>	Honey locust	n	F	V	V	R
<i>Gymnocladus dioica</i>	Kentucky coffeetree	n	F	V	V	R
<i>Senna marilandica</i>	Maryland senna	n	G,O	R	V	V
Campanulaceae						
<i>Campanula americana</i>	American bellflower	n	A,F	V		V
<i>Lobelia inflata</i>	Indian tobacco	n	A,F	V		
<i>Lobelia siphilitica</i>	Blue lobelia	n	A	V	R	R
<i>Lobelia spicata</i>	Palespike lobelia	n	P			R

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Campanulaceae, cont.						
<i>Triodanis leptocarpa</i>	Slimpod Venus' looking-glass	n	P	R		V
<i>Triodanis perfoliata</i>	Clasping-leaf Venus' looking-glass	n	A,P	V		V
Cannabaceae						
<i>Humulus lupulus</i> var. <i>pubescens</i>	Hairy hops	n	A,F	V	V	V
Capparaceae						
<i>Polanisia dodecandra</i> var. <i>trachysperma</i>	Clammyweed	n	P			R
Caprifoliaceae						
<i>Lonicera dioica</i>	Limber honeysuckle	n	F	V		
<i>Lonicera japonica</i>	Japanese honeysuckle	i	O	V		V
<i>Sambucus canadensis</i>	Common elderberry	n	A,F	R	R	V
<i>Symphoricarpos orbiculatus</i>	Buckbrush	n	F,G,P	V	R	V
<i>Triosteum perfoliatum</i> var. <i>aurantiacum</i>	Orange horsegentian	n	F			R
<i>Triosteum perfoliatum</i> var. <i>perfoliatum</i>	Common horsegentian	n	F	V	R	V
<i>Viburnum prunifolium</i>	Blackhaw	n	F			V
Caryophyllaceae						
<i>Arenaria serpyllifolia</i>	Thymeleaf sandwort	i	A,O	V		
<i>Cerastium fontanum</i> ssp. <i>triviale</i>	Common chickweed	n	O	V		V
<i>Dianthus armeria</i>	Deptford pink	i	G,O,P		V	R
<i>Paronychia canadensis</i>	Canada nailwort	n	F	V		
<i>Paronychia fastigiata</i>	Forked nailwort	n	F	V		
<i>Saponaria officinalis</i>	Soapwort	i	O			V
<i>Silene antirrhina</i>	Sleepy catchfly	n	G,O,P	V	R	V
<i>Silene stellata</i>	Starry campion	n	F	V		V
<i>Stellaria media</i>	Common chickweed	i	A,O	V	V	R
Celastraceae						
<i>Celastrus scandens</i>	American bittersweet	n	F	V	R	V
<i>Euonymus atropurpureus</i>	Wahoo	n	F	V	V	R
Chenopodiaceae						
<i>Chenopodium album</i>	Lamb's-quarters	i	O	R		R
<i>Chenopodium ambrosioides</i>	Mexican tea	i	O	V		
<i>Chenopodium berlandieri</i> var. <i>zschackei</i>	Pitseed goosefoot	n	O,P		R	V
<i>Chenopodium simplex</i>	Mapleleaf goosefoot	n	F	V	R	R
<i>Chenopodium standleyanum</i>	Standley's goosefoot	n	F	V		R
<i>Cycloloma atriplicifolium</i>	Winged pigweed	n	O			R
Cistaceae						
<i>Lechea tenuifolia</i> var. <i>occidentalis</i>	Narrowleaf pinweed	n	P	V		
Clusiaceae						
<i>Hypericum mutilum</i>	Dwarf St. John's-wort	n	F	V		
<i>Hypericum perforatum</i>	Common St. John's-wort	i	G,O,P	V		V
<i>Hypericum punctatum</i>	Spotted St. John's-wort	n	G,O,P	V	R	V
Commelinaceae						
<i>Commelina communis</i>	Common dayflower	i	A,O	V	V	V
<i>Commelina virginica</i>	Virginia dayflower	n	F	R		
<i>Tradescantia bracteata</i>	Bracted spiderwort	n	P	R		R
<i>Tradescantia ohioensis</i>	Ohio spiderwort	n	P	V	R	V
Convolvulaceae						
<i>Calystegia sepium</i>	Hedge bindweed	n	O	R		
<i>Convolvulus arvensis</i>	Field bindweed	i	O		R	V
<i>Ipomoea hederacea</i>	Ivyleaf morning-glory	i	O	V	R	

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Convolvulaceae, cont.						
<i>Ipomoea lacunosa</i>	White morning-glory	n	O	V		V
<i>Ipomoea pandurata</i>	Bigroot morning-glory	n	P			V
<i>Ipomoea purpurea</i>	Common morning-glory	i	O	R		
Cornaceae						
<i>Cornus amomum</i> ssp. <i>obliqua</i>	Pale dogwood	n	F	V		R
Cornaceae						
<i>Cornus drummondii</i>	Roughleaf dogwood	n	F,G,O,P	V	R	V
Crassulaceae						
<i>Penthorum sedoides</i>	Ditch stonecrop	n	A	V		V
Cucurbitaceae						
<i>Sicyos angulatus</i>	Bur cucumber	n	A,F		R	V
Cupressaceae						
<i>Juniperus virginiana</i>	Red cedar	n	F,G,O	V	R	V
Cuscutaceae						
<i>Cuscuta cephalanthi</i>	Buttonbush dodder	n	F	V		
<i>Cuscuta glomerata</i>	Cluster dodder	n	G,P			V
<i>Cuscuta polygonorum</i>	Smartweed dodder	n	O			V
Cyperaceae						
<i>Bulbosylis capillaris</i>	Hairsedge bulbstyle	n	A	R		
<i>Carex albicans</i> var. <i>albicans</i>	White-tinged sedge	n	F	V		
<i>Carex amphibola</i> var. <i>turgida</i>	Narrowleaf sedge	n	F	V	R	V
<i>Carex annectens</i>	Yellowfruit sedge	n	A,P		V	R
<i>Carex bicknellii</i>	Bicknell's sedge	n	F			R
<i>Carex blanda</i>	Woodland sedge	n	F	V		R
<i>Carex brevior</i>	Straw sedge	n	A,G,P	R	V	V
<i>Carex bushii</i>	Bush's sedge	n	P	V		V
<i>Carex cephalophora</i>	Woodbank sedge	n	F	V		
<i>Carex conjuncta</i>	Soft fox sedge	n	A,F			V
<i>Carex davisii</i>	Davis' sedge	n	F	V	R	V
<i>Carex emoryi</i>	Emory's sedge	n	A			R
<i>Carex frankii</i>	Frank's sedge	n	A	V		V
<i>Carex granularis</i> var. <i>granularis</i>	Meadow sedge	n	A	V		
<i>Carex gravida</i> var. <i>lunelliana</i>	Lunell's heavy sedge	n	A,F,G,P	V	V	V
<i>Carex hirsutella</i>	Hirsute sedge	n	F	V		
<i>Carex hyalinolepis</i>	Thinscale sedge	n	A			R
<i>Carex jamesii</i>	James' sedge	n	F	V		
<i>Carex lanuginosa</i>	Woolly sedge	n	A		V	
<i>Carex leavenworthii</i>	Leavenworth's sedge	n	F	R		
<i>Carex meadii</i>	Mead's sedge	n	P		R	V
<i>Carex molesta</i>	Disturbed sedge	n	A	R		
<i>Carex muhlenbergii</i> var. <i>australis</i>	Southern Muhlenberg's sedge	n	A	V		
<i>Carex muhlenbergii</i> var. <i>enervis</i>	Nerveless Muhlenberg's sedge	n	A	V		
<i>Carex oligocarpa</i>	Few-fruit sedge	n	F	V		
<i>Carex retroflexa</i>	Reflexed-fruit sedge	n	F	V		
<i>Carex rosea</i>	Rosy sedge	n	F	V		
<i>Carex sparganioides</i>	Bur-reed sedge	n	F	V		
<i>Carex umbellata</i>	Umbellate sedge	n	P	V		
<i>Carex vulpinoidea</i>	Fox sedge	n	A			R
<i>Cyperus acuminatus</i>	Tapeleaf flatsedge	n	A,O	R		V
<i>Cyperus erythrorhizos</i>	Redroot flatsedge	n	A			V
<i>Cyperus esculentus</i>	Yellow nutsedge	n	O	R		
<i>Cyperus lupulinus</i>	Slenderstem flatsedge	n	G,O,P		R	V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Cyperaceae, cont.						
<i>Cyperus odoratus</i>	Slender flatsedge	n	A			V
<i>Cyperus strigosus</i>	False nutsedge	n	A		V	V
<i>Eleocharis macrostachya</i>	Longstem spikesedge	n	A		R	V
<i>Eleocharis obtusa</i>	Blunt spikesedge	n	A	R		V
<i>Eleocharis xyridiformis</i>	Irisleaf spikesedge	n	A			V
<i>Fimbristylis puberula</i>	Marsh fimbry	n	P			V
Cyperaceae						
<i>Scirpus atrovirens</i>	Green bulrush	n	A	V	V	V
<i>Scirpus pendulus</i>	Drooping bulrush	n	A,P	V		V
<i>Scirpus validus</i>	Softstem bulrush	n	A			V
<i>Scleria triglomerata</i>	Whip razorsedge	n	G,P			V
Ebenaceae						
<i>Diospyros virginiana</i>	Persimmon	n	F	R		R
Equisetaceae						
<i>Equisetum hyemale</i>	Common scouring rush	n	A,F	V		
<i>Equisetum x ferrissii</i>	Intermediate scouring rush	n	A		V	
Euphorbiaceae						
<i>Acalypha gracilens</i> ssp. <i>monococca</i>	Slender copperleaf	n	A	V		
<i>Acalypha ostryaefolia</i>	Hophornbeam copperleaf	n	O		V	
<i>Acalypha rhomboidea</i>	Rhombic copperleaf	n	O	V	V	V
<i>Acalypha virginica</i>	Virginia copperleaf	n	G,O,P	V	R	V
<i>Croton capitatus</i>	Woolly croton	n	G,O,P	V	R	V
<i>Croton glandulosus</i>	Tropic croton	n	O		R	
<i>Croton monanthogynus</i>	Oneseed croton	n	O,P	V	R	V
<i>Euphorbia corollata</i>	Flowering spurge	n	G,P	R	R	V
<i>Euphorbia cyathophora</i>	Painted spurge	n	O	V	R	V
<i>Euphorbia dentata</i>	Toothed spurge	n	G,O	V	R	V
<i>Euphorbia maculata</i>	Spotted spurge	n	O,P	V	R	V
<i>Euphorbia marginata</i>	Snow-on-the-mountain	n	O,P	R	R	V
<i>Euphorbia missurica</i>	Missouri spurge	n	O		R	
<i>Euphorbia nutans</i>	Nodding spurge	n	G,O	V	R	V
<i>Euphorbia prostrata</i>	Prostrate spurge	i	O	V		
<i>Euphorbia serpens</i>	Roundleaf spurge	n	O	V		
<i>Tragia betonicifolia</i>	Nettleleaf noseburn	n	P		R	V
Fabaceae						
<i>Amorpha canescens</i>	Leadplant	n	P	R	R	V
<i>Amorpha fruticosa</i>	False indigo	n	A		R	
<i>Amphicarpaea bracteata</i>	Southern hogpeanut	n	F	V		V
<i>Apios americana</i>	American potatobean	n	A,F	R		V
<i>Astragalus canadensis</i>	Canada milkvetch	n	F	R		
<i>Astragalus crassicaarpus</i>	Groundplum milkvetch	n	P		V	
<i>Baptisia bracteata</i> var. <i>glabrescens</i>	Plains wildindigo	n	P	R	R	V
<i>Baptisia lactea</i>	White wildindigo	n	G,P		R	V
<i>Crotalaria sagittalis</i>	Rattlebox	n	P	R		V
<i>Dalea candida</i>	White prairieclover	n	P			V
<i>Dalea purpurea</i> var. <i>purpurea</i>	Purple prairieclover	n	P	V		V
<i>Desmodium cuspidatum</i>	Longleaf tickclover	n	F	V		
<i>Desmodium glutinosum</i>	Largeflower tickclover	n	F	V		V
<i>Desmodium illinoense</i>	Illinois tickclover	n	G,P		R	V
<i>Desmodium paniculatum</i> var. <i>paniculatum</i>	Panicled tickclover	n	F,O	V	R	V
<i>Desmodium sessilifolium</i>	Sessileleaf tickclover	n	P	R	R	V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Fabaceae, cont.						
<i>Lathyrus pusillus</i>	Singleton vetchling	i	O			V
<i>Lespedeza capitata</i>	Roundhead lespedeza	n	P			V
<i>Lespedeza stipulacea</i>	Korean lespedeza	i	G,O	V	R	V
<i>Lespedeza striata</i>	Japanese lespedeza	i	O			R
<i>Lespedeza violacea</i>	Prairie lespedeza	n	F,P	V	R	V
<i>Lespedeza virginica</i>	Slenderbush lespedeza	n	P	V		
<i>Medicago lupulina</i>	Black medic	i	O	V		R
<i>Medicago sativa</i> ssp. <i>sativa</i>	Alfalfa	i	G,O	V		
<i>Melilotus alba</i>	White sweetclover	i	G,O	V	R	V
<i>Melilotus officinalis</i>	Yellow sweetclover	i	G,O	V		V
<i>Pedimelum esculentum</i>	Tall breadroot scurfpea	n	P		R	V
<i>Psoralidium tenuiflorum</i>	Manyflower scurfpea	n	P	V		V
<i>Robinia pseudo-acacia</i>	Black locust	i	F,O	V		R
<i>Strophostyles leiosperma</i>	Slickseed bean	n	P		R	R
<i>Trifolium campestre</i>	Low hopclover	i	O			V
<i>Trifolium hybridum</i>	Alsike clover	i	O			V
<i>Trifolium pratense</i>	Red clover	i	G,O	V		V
<i>Trifolium repens</i>	White clover	i	O	V	V	V
<i>Vicia villosa</i>	Hairy vetch	i	O		R	V
Fagaceae						
<i>Quercus alba</i>	White oak	n	F	V		
<i>Quercus borealis</i> var. <i>maxima</i>	Red oak	n	F	V	R	V
<i>Quercus macrocarpa</i>	Bur oak	n	F	V		V
<i>Quercus marilandica</i>	Blackjack oak	n	F	V	V	
<i>Quercus muehlenbergii</i>	Chinquapin oak	n	F	V	R	V
<i>Quercus prinoides</i>	Dwarf chinquapin oak	n	F	V		R
<i>Quercus shumardii</i>	Shumard's oak	n	F	R		
<i>Quercus stellata</i>	Post oak	n	F	V	V	
<i>Quercus velutina</i>	Black oak	n	F	V	R	V
Fumariaceae						
<i>Corydalis flavula</i>	Yellow corydalis	n	F	V		V
<i>Dicentra cucullaria</i>	Dutchman's breeches	n	F	V		V
Gentianaceae						
<i>Gentiana flavida</i>	White gentian	n	P	V		
<i>Gentiana puberulenta</i>	Downy gentian	n	P		R	V
Geraniaceae						
<i>Geranium carolinianum</i>	Carolina cranesbill	n	G,O,P	R	R	V
Grossulariaceae						
<i>Ribes missouriense</i>	Missouri gooseberry	n	F,O	V	R	V
Hippocastanaceae						
<i>Aesculus glabra</i> var. <i>arguta</i>	Western buckeye	n	F	V		R
Hydrophyllaceae						
<i>Ellisia nycitelea</i>	Waterpod	n	A,F	V	V	
<i>Hydrophyllum virginianum</i>	Virginia waterleaf	n	F	V		
Iridaceae						
<i>Iris x germanica</i>	Blue flag iris	i	O			V
<i>Sisyrinchium campestre</i>	White-eyed grass	n	P	V		V
Juglandaceae						
<i>Carya cordiformis</i>	Bitternut hickory	n	F	V	V	
<i>Carya laciniosa</i>	Kingnut hickory	n	F	V		V
<i>Carya ovata</i>	Shagbark hickory	n	F	V	R	V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Juglandaceae, cont.						
<i>Carya tomentosa</i>	Mockernut hickory	n	F	R		
<i>Juglans nigra</i>	Black walnut	n	F	V	V	V
Juncaceae						
<i>Juncus interior</i>	Inland rush	n	A,G	V		V
<i>Juncus marginatus</i>	Shore rush	n	A	V		
<i>Juncus tenuis</i>	Path rush	n	A,O	V		
<i>Juncus torreyi</i>	Torrey's rush	n	A	V		V
Lamiaceae						
<i>Agastache nepetoides</i>	Catnip gianthyssop	n	F	V	R	V
<i>Hedeoma hispidum</i>	Rough false pennyroyal	n	G,O,P			V
<i>Hedeoma pulegioides</i>	American false pennyroyal	n	P	V		
<i>Lamium amplexicaule</i>	Henbit	i	O	R	R	V
<i>Lamium purpureum</i>	Deadnettle	i	O	V		
<i>Leonurus marrubiastrum</i>	Hoarhound motherwort	i	O	V		
<i>Lycopus americanus</i>	American bugleweed	n	A	R		V
<i>Lycopus virginicus</i>	Virginia bugleweed	n	A		R	
<i>Monarda fistulosa</i> var. <i>fistulosa</i>	Wild beebalm	n	F	V	R	V
<i>Nepeta cataria</i>	Catnip	i	O	R		V
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	Self-heal	n	F	V	V	V
<i>Pycnanthemum tenuifolium</i>	Slender mountainmint	n	P	V	R	V
<i>Salvia azurea</i>	Pitcher's sage	n	P		R	V
<i>Salvia reflexa</i>	Lanceleaf sage	n	P			R
<i>Scutellaria parvula</i> var. <i>australis</i>	Southern small skullcap	n	P	V		
<i>Scutellaria parvula</i> var. <i>leonardii</i>	Leonard's small skullcap	n	P			V
<i>Stachys tenuifolia</i>	Slenderleaf betony	n	A,F	V		
<i>Teucrium canadense</i> var. <i>canadense</i>	Canada germander	n	G,O	V	R	V
Lemnaceae						
<i>Lemna minor</i>	Common duckweed	n	A			V
<i>Spirodela polyrrhiza</i>	Giant duckweed	n	A			V
Liliaceae						
<i>Allium canadense</i> var. <i>canadense</i>	Common Canada onion	n	O,P	V		V
<i>Allium canadense</i> var. <i>lavendulare</i>	Lavender Canada onion	n	P	V	R	R
<i>Allium vineale</i>	Wild garlic	i	G,O	V		V
<i>Asparagus officinalis</i>	Asparagus	i	O	V	R	V
<i>Camassia scilloides</i>	Eastern camass	n	P	R		
<i>Erythronium albidum</i>	White fawnlily	n	F	V		V
<i>Erythronium mesochoreum</i>	Prairie fawnlily	n	F,P	V	V	V
<i>Hemerocallis fulva</i>	Daylily	i	F	V		V
<i>Hypoxis hirsuta</i>	Yellow stargrass	n	P		R	V
<i>Lilium canadense</i> ssp. <i>michiganense</i>	Michigan lily	n	F	R		V
<i>Melanthium virginicum</i>	Virginia bunchflower	n	P	R		
<i>Polygonatum biflorum</i>	Solomon's seal	n	F	V		V
Linaceae						
<i>Linum sulcatum</i>	Grooved flax	n	G,P			V
Loasaceae						
<i>Mentzelia oligosperma</i>	Stickleaf mentzelia	n	O			R
Lythraceae						
<i>Ammannia coccinea</i>	Purple toothcup	n	A			V
<i>Cuphea viscosissima</i>	Blue waxweed	n	A,F	R		V
<i>Lythrum alatum</i>	Winged loosestrife	n	A	R	V	V
<i>Lythrum salicaria</i>	Purple loosestrife	i	A			V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
<b>Malvaceae</b>						
<i>Abutilon theophrasti</i>	Velvetleaf	i	O	R	V	V
<i>Hibiscus trionum</i>	Flower-of-an-hour	i	O	V	R	V
<i>Malva neglecta</i>	Common mallow	i	O	R		
<i>Malva rotundifolia</i>	Roundleaf mallow	i	O	R		
<i>Sida spinosa</i>	Prickly sida	i	O	V		V
<b>Menispermaceae</b>						
<i>Menispermum canadense</i>	Moonseed	n	F	V	R	V
<b>Mimosaceae</b>						
<i>Desmanthus illinoensis</i>	Illinois bundleflower	n	O,P	V	R	V
<i>Schrankia nuttallii</i>	Catclaw sensitive briar	n	P	R	R	
<b>Molluginaceae</b>						
<i>Mollugo verticillata</i>	Carpetweed	i	O	R	V	V
<b>Monotropaceae</b>						
<i>Monotropa hypopithys</i>	Pinesap	n	F	V		
<i>Monotropa uniflora</i>	Indian pipe	n	F	V		
<b>Moraceae</b>						
<i>Maclura pomifera</i>	Osage orange	i	F,O	V	V	R
<i>Morus alba</i>	White mulberry	i	F,O	V	R	V
<i>Morus rubra</i>	Red mulberry	n	F	V	R	R
<b>Najadaceae</b>						
<i>Najas guadalupensis</i>	Southern naiad	n	A			V
<b>Nyctaginaceae</b>						
<i>Mirabilis albida</i>	White four-o'clock	n	P		R	V
<i>Mirabilis nyctaginea</i>	Wild four-o'clock	n	G,O	R		V
<b>Oleaceae</b>						
<i>Forsythia suspensa</i>	Forsythia	i	O			R
<i>Fraxinus americana</i>	White ash	n	F	V	R	V
<i>Fraxinus pennsylvanica</i>	Green ash	n	F	R	V	V
<i>Ligustrum sinense</i>	Chinese privet	i	O	V		
<i>Syringa vulgaris</i>	Lilac	i	O			R
<b>Onagraceae</b>						
<i>Circaea lutetiana</i> ssp. <i>canadensis</i>	Enchanter's nightshade	n	F	V		V
<i>Epilobium coloratum</i>	Narrowleaf willowherb	n	A		V	
<i>Gaura longiflora</i>	Largeflower gaura	n	G,O,P	R		V
<i>Gaura parviflora</i>	Velvety gaura	n	O	V		R
<i>Ludwigia palustris</i>	Marsh seedbox	n	A			R
<i>Oenothera biennis</i>	Common eveningprimrose	n	O	V		R
<i>Oenothera speciosa</i>	Showy white eveningprimrose	n	O	R		V
<i>Oenothera villosa</i>	Hairy eveningprimrose	n	P			V
<i>Stenosiphon linifolius</i>	Stenosiphon	n	P			R
<b>Ophioglossaceae</b>						
<i>Botrychium dissectum</i>	Cutleaf grapefern	n	F	V		V
<i>Botrychium virginianum</i>	Rattlesnake fern	n	F	V	R	V
<i>Ophioglossum engelmannii</i>	Limestone adder's-tongue	n	P			V
<b>Orchidaceae</b>						
<i>Corallorhiza odontorhiza</i>	Late coralroot	n	F	V		
<i>Corallorhiza wisteriana</i>	Wister's coralroot	n	F	V		
<i>Cypripedium calceolus</i> var. <i>pubescens</i>	Yellow lady slipper	n	F	V		V
<i>Galearis spectabilis</i>	Showy orchis	n	F	V		
<i>Malaxis unifolia</i>	Green adder's mouth	n	F	V		
<i>Platanthera praeclara</i>	Western prairie fringed orchid	n	P			V
<i>Spiranthes cernua</i>	Nodding ladies'-tresses	n	G,O,P			R



VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Orchidaceae, cont.						
<i>Spiranthes ovalis</i>	Oval ladies'-tresses	n	F	V		
<i>Spiranthes tuberosa</i>	Little ladies'-tresses	n	F	V		
<i>Triphora trianthophora</i>	Nodding pogonia	n	F	V		
Oxalidaceae						
<i>Oxalis dillenii</i>	Green wood sorrel	n	G,O,P	V	R	V
<i>Oxalis stricta</i>	Common wood sorrel	n	O	V	R	V
<i>Oxalis violacea</i>	Violet wood sorrel	n	F,P	V	R	V
Phytolaccaceae						
<i>Phytolacca americana</i>	Pokeweed	n	O	V	V	V
Pinaceae						
<i>Pinus sylvestris</i>	Scotch pine	i	O			R
Plantaginaceae						
<i>Plantago aristata</i>	Bottlebrush plantain	n	O,P	V		V
<i>Plantago lanceolata</i>	Buckhorn plantain	i	O	V		R
<i>Plantago major</i>	Common plantain	i	O			R
<i>Plantago patagonica</i>	Patagonian plantain	n	O,P	R		V
<i>Plantago rhodosperma</i>	Redseed plantain	n	P	R		
<i>Plantago rugelii</i>	Rugel's plantain	n	F,O	V		V
<i>Plantago virginica</i>	Paleseed plantain	n	O,P	V		V
Platanaceae						
<i>Platanus occidentalis</i>	Sycamore	n	F	V	V	R
Poaceae						
<i>Aegilops cylindrica</i>	Jointed goatgrass	i	O	R		
<i>Agrostis hyemalis</i>	Ticklegrass	n	P	V		V
<i>Agrostis perennans</i>	Autumn bentgrass	n	F,O	R		
<i>Agrostis stolonifera</i>	Redtop	i	A,O	V	V	V
<i>Alopecurus carolinianus</i>	Carolina foxtail	n	O			V
<i>Andropogon gerardii</i>	Big bluestem	n	G,P	R	R	V
<i>Andropogon scoparius</i>	Little bluestem	n	G,P	R	R	V
<i>Andropogon ternarius</i>	Splitbeard bluestem	n	O			R
<i>Andropogon virginicus</i>	Broomsedge bluestem	n	G,O			R
<i>Aristida basiramea</i>	Forktip threeawn	n	P			V
<i>Aristida oligantha</i>	Prairie threeawn	n	O,P	R		V
<i>Bouteloua curtipendula</i>	Sideoats grama	n	P	R		V
<i>Bouteloua hirsuta</i>	Hairy grama	n	P		R	
<i>Bromus inermis</i> ssp. <i>inermis</i>	Smooth brome	i	G,O	V	R	V
<i>Bromus japonicus</i>	Japanese brome	i	G,O	V	R	V
<i>Bromus latiglumis</i>	Earleaf brome	n	O			
<i>Bromus pubescens</i>	Canada brome	n	F	V		R
<i>Bromus tectorum</i>	Downy brome	i	O	R		
<i>Cenchrus longispinus</i>	Longspine sandbur	n	O	V		
<i>Chasmanthium latifolium</i>	Wild oats	n	F	V		
<i>Chloris verticillata</i>	Windmillgrass	n	O	R		
<i>Cinna arundinacea</i>	Stout woodreed	n	F	V		V
<i>Dactylis glomerata</i>	Orchardgrass	i	F,G,O	V	R	V
<i>Danthonia spicata</i>	Poverty oatgrass	n	F	V		
<i>Diarrhena americana</i> var. <i>obovata</i>	American beakgrass	n	F	V		V
<i>Dichanthelium acuminatum</i>						
var. <i>implicatum</i>	Pointed dichanthelium	n	F,G,P	V	R	V
<i>Dichanthelium clandestinum</i>	Deertongue dichanthelium	n	G,P		V	R
<i>Dichanthelium latifolium</i>	Wideleaf dichanthelium	n	F	V		R
<i>Dichanthelium linearifolium</i>	Slimleaf dichanthelium	n	P	V		

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Poaceae, cont.						
<i>Dichanthelium oligosanthes</i> var. <i>scribnerianum</i>	Scribner's dichanthelium	n	G,P	R	R	V
<i>Dichanthelium sphaerocarpon</i>	Roundseed dichanthelium	n	A,P	R		
<i>Digitaria filiformis</i>	Slender crabgrass	n	O	R		
<i>Digitaria ischaemum</i>	Smooth crabgrass	i	O	V		R
<i>Digitaria sanguinalis</i>	Hairy crabgrass	i	O	V		V
<i>Echinochloa colonum</i>	Jungle-rice	i	O			V
<i>Echinochloa crusgalli</i>	Common barnyardgrass	i	A,O	V		R
<i>Echinochloa muricata</i>	Prickly barnyardgrass	n	A,O		V	V
<i>Eleusine indica</i>	Goosegrass	i	O	V		
<i>Elymus canadensis</i>	Canada wildrye	n	F,G,P	R		V
<i>Elymus villosus</i>	Hairy wildrye	n	F	V		
<i>Elymus virginicus</i> var. <i>virginicus</i>	Virginia wildrye	n	F,P	V		V
<i>Eragrostis capillaris</i>	Lacegrass	n	O	R		R
<i>Eragrostis cilianensis</i>	Stinkgrass	i	O	R		V
<i>Eragrostis pectinacea</i>	Carolina lovegrass	n	O	V		
<i>Eragrostis spectabilis</i>	Purple lovegrass	n	O,P	R	V	V
<i>Eriochloa contracta</i>	Prairie cupgrass	n	O	V		V
<i>Festuca arundinacea</i>	Tall fescue	i	G			V
<i>Festuca obtusa</i>	Nodding fescue	n	F	V	R	V
<i>Festuca octoflora</i>	Sixweeks fescue	n	O,P	V		
<i>Festuca ovina</i>	Sheep's fescue	i	O	R		
<i>Festuca paradoxa</i>	Cluster fescue	n	F	V		
<i>Festuca pratensis</i>	Meadow fescue	i	O	V		
<i>Glyceria striata</i>	Fowl mannagrass	n	A	V	V	
<i>Hordeum jubatum</i>	Foxtail barley	n	A,O	R		V
<i>Hordeum pusillum</i>	Little barley	n	O	R		V
<i>Hystrix patula</i>	Bottlebrushgrass	n	F	V		R
<i>Koeleria pyramidata</i>	Junegrass	n	P			V
<i>Leersia oryzoides</i>	Rice cutgrass	n	A			R
<i>Leersia virginica</i>	Whitegrass	n	A	V		V
<i>Leptochloa fascicularis</i>	Bearded sprangletop	n	A			V
<i>Leptochloa filiformis</i>	Red sprangletop	n	O	V		
<i>Leptoloma cognatum</i>	Fall witchgrass	n	G			R
<i>Lolium perenne</i>	Ryegrass	i	O	R		
<i>Melica nitens</i>	Threeflower melic	n	F	V		
<i>Muhlenbergia frondosa</i>	Wirestem muhly	n	F,P	V	R	V
<i>Muhlenbergia racemosa</i>	Marsh muhly	n	A,G,P	R		V
<i>Muhlenbergia schreberi</i>	Schreber's muhly	n	F	R	V	R
<i>Muhlenbergia sobolifera</i>	Rock muhly	n	F	V	R	V
<i>Muhlenbergia sylvatica</i>	Forest muhly	n	F	V		R
<i>Panicum capillare</i>	Common witchgrass	n	G,O	R	R	V
<i>Panicum dichotomiflorum</i>	Fall panicum	n	G,O	V		V
<i>Panicum virgatum</i>	Switchgrass	n	G,P		R	V
<i>Paspalum laeve</i>	Smooth paspalum	n	G			V
<i>Paspalum pubiflorum</i>	Hairyflower paspalum	n	A,O			R
<i>Paspalum setaceum</i>	Sand paspalum	n	G,O	R		R
<i>Phalaris arundinacea</i>	Reed canarygrass	n	A		V	V
<i>Phleum pratense</i>	Timothy	i	G,O	V		V
<i>Poa compressa</i>	Canada bluegrass	i	G,O,P	V		V
<i>Poa pratensis</i>	Kentucky bluegrass	i	G,O,P	V	R	V
<i>Poa sylvestris</i>	Woodland bluegrass	n	F			V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Poaceae, cont.						
<i>Schedonnardus paniculatus</i>	Tumblegrass	n	O			V
<i>Secale cereale</i>	Rye	i	O			R
<i>Setaria faberi</i>	Chinese foxtail	i	A,O	V	R	V
<i>Setaria glauca</i>	Yellow foxtail	i	A,O	V		V
<i>Setaria parviflora</i>	Knotroot bristlegrass	n	G,P			V
<i>Setaria viridis</i>	Green foxtail	i	O	V	R	V
<i>Sorghastrum nutans</i>	Indiangrass	n	P			V
<i>Sorghum halepense</i>	Johnsongrass	i	O	V	R	V
<i>Spartina pectinata</i>	Prairie cordgrass	n	A		V	R
<i>Sphenopholis obtusata</i> var. <i>major</i>	Slender wedgegrass	n	A,P	V	R	V
<i>Sporobolus asper</i>	Rough dropseed	n	G,O,P	R	R	V
<i>Sporobolus cryptandrus</i>	Sand dropseed	n	G		R	
<i>Sporobolus heterolepis</i>	Prairie dropseed	n	P			V
<i>Sporobolus neglectus</i>	Puffsheath dropseed	n	O	R		
<i>Sporobolus vaginiflorus</i>	Poverty dropseed	n	O			V
<i>Stipa spartea</i>	Porcupinegrass	n	P			V
<i>Tridens flavus</i>	Purpletop	n	G,O,P	V	R	V
<i>Tripsacum dactyloides</i>	Eastern gammagrass	n	O,P	R	R	V
Polemoniaceae						
<i>Phlox divaricata</i> ssp. <i>laphamii</i>	Sweetwilliam phlox	n	F	V	V	R
<i>Phlox pilosa</i>	Prairie phlox	n	P			V
Polygalaceae						
<i>Polygala verticillata</i>	Whorled milkwort	n	G,P	V		V
Polygonaceae						
<i>Polygonum amphibium</i>	Water smartweed	n	A	R	R	
<i>Polygonum arenastrum</i>	Prostrate knotweed	i	O	V		R
<i>Polygonum convolvulus</i>	Wild buckwheat	i	O			V
<i>Polygonum hydropiper</i>	Waterpepper smartweed	n	A			V
<i>Polygonum hydropiperoides</i>	Mild waterpepper smartweed	n	A		R	V
<i>Polygonum lapathifolium</i>	Pale smartweed	n	A		R	V
<i>Polygonum pensylvanicum</i>	Pennsylvania smartweed	n	A	V		V
<i>Polygonum persicaria</i>	Lady's-thumb smartweed	i	A,O	V		
<i>Polygonum punctatum</i>	Dotted smartweed	n	A	V		R
<i>Polygonum ramosissimum</i>	Bush knotweed	n	A		R	V
<i>Polygonum scandens</i>	Climbing false buckwheat	n	F,O	R	R	R
<i>Polygonum scandens</i> var. <i>dumetorum</i>	Climbing false buckwheat	i	F,O	V		
<i>Polygonum virginianum</i>	Virginia knotweed	n	F	V	V	V
<i>Rumex altissimus</i>	Pale dock	n	A,G	V	R	V
<i>Rumex crispus</i>	Curly dock	i	G,O	R	R	V
Polypodiaceae						
<i>Adiantum pedatum</i>	Maidenhair fern	n	F	V		
<i>Asplenium platyneuron</i>	Ebony spleenwort	n	F	V		V
<i>Cystopteris protrusa</i>	Lowland fragile fern	n	F	V		V
<i>Cystopteris tennesseensis</i>	Tennessee bladder fern	n	F	R		
<i>Woodsia obtusa</i>	Bluntlobe woodsia	n	F	V		
Pontederiaceae						
<i>Heteranthera limosa</i>	Blue mudplantain	n	A			V
<i>Heteranthera rotundifolia</i>	Roundleaf mudplantain	n	A			V
Portulacaceae						
<i>Claytonia virginica</i>	Virginia springbeauty	n	F	V		
<i>Portulaca oleracea</i>	Common purslane	i	O			V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Potamogetonaceae						
<i>Potamogeton diversifolius</i>	Waterthread pondweed	n	A			V
<i>Potamogeton foliosus</i>	Leafy pondweed	n	A			V
<i>Potamogeton nodosus</i>	Longleaf pondweed	n	A			V
<i>Potamogeton pusillus</i>	Baby pondweed	n	A			V
Primulaceae						
<i>Anagallis arvensis</i>	Scarlet pimpernel	i	O			V
<i>Androsace occidentalis</i>	Western rockjasmine	n	O			R
<i>Lysimachia nummularia</i>	Moneywort	n	A	V		
Ranunculaceae						
<i>Anemone canadensis</i>	Meadow anemone	n	A			R
<i>Anemone virginiana</i>	Tall anemone	n	F	V		V
<i>Anemonella thalictroides</i>	Rue anemone	n	F	V		
<i>Delphinium carolinianum</i> ssp. <i>virescens</i>	Prairie larkspur	n	P	R	R	V
<i>Delphinium tricorne</i>	Dwarf larkspur	n	F	V		V
<i>Isopyrum biternatum</i>	False rue anemone	n	F	V	R	R
<i>Myosurus minimus</i>	Mousetail	n	O	R		
<i>Ranunculus abortivus</i>	Littleleaf buttercup	n	F	V	V	V
<i>Ranunculus hispidus</i> var. <i>hispidus</i>	Bristly buttercup	n	F	R		
<i>Ranunculus recurvatus</i>	Hooked buttercup	n	F	V		
<i>Ranunculus sceleratus</i>	Cursed crowfoot	n	A			V
<i>Thalictrum dasycarpum</i>	Purple meadowrue	n	F	V		V
Rhamnaceae						
<i>Ceanothus americanus</i> var. <i>pitcheri</i>	New Jersey tea	n	P	R		
<i>Ceanothus herbaceus</i> var. <i>pubescens</i>	Inland ceanothus	n	P	R		V
<i>Rhamnus lanceolata</i> var. <i>glabrata</i>	Lanceleaf buckthorn	n	F	R		V
Rosaceae						
<i>Agrimonia parviflora</i>	Smallflower agrimony	n	F	V	V	V
<i>Agrimonia pubescens</i>	Downy agrimony	n	F	V		R
<i>Agrimonia rostellata</i>	Woodland agrimony	n	F	V		
<i>Crataegus crus-galli</i>	Cockspur hawthorn	n	F,O	R		R
<i>Crataegus mollis</i>	Downy hawthorn	n	F,O	R	V	V
<i>Fragaria virginiana</i>	Wild strawberry	n	G,O,P	V		V
<i>Geum canadense</i>	White avens	n	F,O	V	R	V
<i>Geum vernum</i>	Heartleaf avens	n	F	V		R
<i>Potentilla norvegica</i>	Norwegian cinquefoil	n	P			R
<i>Potentilla recta</i>	Sulphur cinquefoil	i	G,O,P	V		V
<i>Potentilla rivalis</i>	Brook cinquefoil	n	A			V
<i>Potentilla simplex</i>	Old-field cinquefoil	n	F	V		V
<i>Prunus americana</i>	American plum	n	F,G		V	R
<i>Prunus angustifolia</i>	Chickasaw plum	n	F			R
<i>Prunus hortulana</i>	Hortulan plum	n	F			R
<i>Prunus mexicana</i>	Mexican plum	n	F,G		R	V
<i>Prunus persica</i>	Peach	i	F,O	V		R
<i>Prunus serotina</i>	Black cherry	n	F	V	R	V
<i>Prunus virginiana</i>	Choke cherry	n	F	R		
<i>Pyrus communis</i>	Pear	i	O			V
<i>Pyrus ioensis</i>	Iowa crab	n	F	R	V	V
<i>Pyrus malus</i>	Apple	i	O			
<i>Rosa arkansana</i>	Arkansas rose	n	G,P		R	V
<i>Rosa multiflora</i>	Multiflora rose	i	G,O		R	V
<i>Rosa setigera</i>	Climbing rose	n	F,G,O	V	V	V

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
				BW	RT	TC
Rosaceae, cont.						
<i>Rubus allegheniensis</i>	Common blackberry	n	F,O	V		
<i>Rubus flagellaris</i>	Northern dewberry	n	F,P	V	R	V
<i>Rubus occidentalis</i>	Black raspberry	n	F	V	V	R
<i>Rubus ostryifolius</i>	Highbush blackberry	n	F,G,O	V		V
<i>Rubus pensilvanicus</i>	Pennsylvania blackberry	n	F,O	V		
<i>Spirea prunifolia</i>	Bridal-wreath	i	O			R
Rubiaceae						
<i>Galium aparine</i>	Catchweed bedstraw	n	F,G,O	V	R	V
<i>Galium circaezans</i>	Woods bedstraw	n	F	V		V
<i>Galium concinnum</i>	Shining bedstraw	n	F	V		
<i>Galium obtusum</i>	Bluntleaf bedstraw	n	F	R	V	V
<i>Hedyotis crassifolia</i>	Small bluets	n	G,P			V
Rutaceae						
<i>Zanthoxylum americanum</i>	Prickly ash	n	F,O	V	R	V
Salicaceae						
<i>Populus deltoides</i> ssp. <i>monilifera</i>	Plains cottonwood	n	A,F	R	R	V
<i>Salix amygdaloides</i>	Peachleaf willow	n	A,F	R		V
<i>Salix eriocephala</i>	Diamond willow	n	A			R
<i>Salix exigua</i>	Sandbar willow	n	A			R
<i>Salix humilis</i>	Dwarf prairie willow	n	P			V
<i>Salix nigra</i>	Black willow	n	A,F	R	V	
Santalaceae						
<i>Comandra umbellata</i> ssp. <i>pallida</i>	Pale bastard toadflax	n	P	R		
<i>Comandra umbellata</i> ssp. <i>umbellata</i>	Bastard toadflax	n	P	V		V
Saxifragaceae						
<i>Heuchera richardsonii</i>	Alumroot	n	F	R		
Scrophulariaceae						
<i>Agalinis tenuifolia</i>	Slender agalinis	n	P	R		
<i>Dasistoma macrophylla</i>	Mullein foxglove	n	F,P	V	R	V
<i>Leucospora multifida</i>	Paleseed	n	A	V		V
<i>Lindernia dubia</i>	Yellow falsepimpernel	n	A			V
<i>Mimulus alatus</i>	Sharpwing monkeyflower	n	A	V	R	R
<i>Penstemon cobaea</i> var. <i>cobaea</i>	Cobaea beardtongue	n	P			R
<i>Penstemon digitalis</i>	Smooth beardtongue	n	O	V		
<i>Penstemon tubaeiflorus</i>	Tube beardtongue	n	O,P	R		V
<i>Scrophularia marilandica</i>	Maryland figwort	n	F	V	R	V
<i>Tomanthera auriculata</i>	Earleaf foxglove	n	P			V
<i>Verbascum blattaria</i>	Moth mullein	i	G,O	V	R	V
<i>Verbascum thapsus</i>	Woolly mullein	i	O	V	V	V
<i>Veronica agrestis</i>	Wayside speedwell	i	A	V		V
<i>Veronica arvensis</i>	Corn speedwell	i	A,O	V		V
<i>Veronica peregrina</i> var. <i>peregrina</i>	Smooth purslane speedwell	n	A,O	V		V
<i>Veronica peregrina</i> var. <i>xalapensis</i>	Glandular purslane speedwell	n	A,O	V		
<i>Veronicastrum virginicum</i>	Culver's root	n	P		R	V
Simaroubaceae						
<i>Ailanthus altissima</i>	Tree-of-heaven	i	F		V	R
Smilacaceae						
<i>Smilax herbacea</i>	Carriionflower greenbriar	n	F	V		V
<i>Smilax hispida</i>	Bristly greenbriar	n	F	V	V	R

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

Family/Genus/Species	Common Name	Origin	Habitat	Occurrence		
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Solanaceae						
<i>Datura stramonium</i>	Jimson weed	n	O			R
<i>Lycium barbatum</i>	Matrimony vine	i	O			V
<i>Physalis heterophylla</i>	Clammy groundcherry	n	O,P	V		R
<i>Physalis longifolia</i>	Spearleaf groundcherry	n	O	V		V
<i>Physalis pubescens</i>	Downy groundcherry	n	O			R
<i>Physalis pumila</i>	Hairy groundcherry	n	P		R	V
<i>Physalis virginiana</i>	Virginia groundcherry	n	O		R	R
<i>Solanum carolinense</i>	Carolina horsenettle	n	G,O,P	V	R	V
<i>Solanum elaeagnifolium</i>	Silverleaf nightshade	n	O	R		
<i>Solanum interius</i>	Plains black nightshade	n	O	V	R	
<i>Solanum prycanthum</i>	Black nighshade	n	O			R
<i>Solanum rostratum</i>	Buffalo bur nightshade	n	O	R	V	R
Staphyleaceae						
<i>Staphylea trifolia</i>	American bladdernut	n	F	V		V
Tiliaceae						
<i>Tilia americana</i>	American basswood	n	F	V		V
Typhaceae						
<i>Typha angustifolia</i>	Narrowleaf cat-tail	n	A			V
<i>Typha latifolia</i>	Common cat-tail	n	A			V
Ulmaceae						
<i>Celtis laevigata</i>	Sugarberry	n	F	R		
<i>Celtis occidentalis</i>	Common hackberry	n	F	V	V	V
<i>Ulmus americana</i>	American elm	n	F	V	R	V
<i>Ulmus pumila</i>	Siberian elm	i	F,O	V		R
<i>Ulmus rubra</i>	Slippery elm	n	F	V	R	V
Urticaceae						
<i>Boehmeria cylindrica</i>	Bog hemp	n	A	R		V
<i>Laportea canadensis</i>	Wood nettle	n	A,F	V	V	R
<i>Parietaria pensylvanica</i>	Pennsylvania pellitory	n	F	V		R
<i>Pilea pumila</i>	Clearweed	n	A,F	V		
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Stinging nettle	n	A,F	V	V	R
Verbenaceae						
<i>Lippia lanceolata</i>	Lanceleaf frogfruit	n	A		R	V
<i>Phryma leptostachya</i>	Lopseed	n	F	V		V
<i>Verbena bracteata</i>	Prostrate verbena	n	O	V		
<i>Verbena canadensis</i>	Rose verbena	n	O,P	V		V
<i>Verbena hastata</i>	Blue verbena	n	A	V	V	V
<i>Verbena stricta</i>	Woolly verbena	n	O	R	R	R
<i>Verbena urticifolia</i>	Nettleleaf verbena	n	F,G	V	R	V
Violaceae						
<i>Viola pedata</i>	Bird's-foot violet	n	F,P	V		
<i>Viola pedatifida</i>	Prairie violet	n	P		R	V
<i>Viola pratensis</i>	Meadow violet	n	F	V	V	R
<i>Viola pubescens</i>	Downy yellow violet	n	F	V		V
<i>Viola rafinesquii</i>	Johnny-jump-up	n	F,O	V	V	R
<i>Viola sororia</i>	Downy blue violet	n	F	V	R	V
Vitaceae						
<i>Ampelopsis cordata</i>	Raccoon grape	n	F	V	R	V
<i>Parthenocissus inserta</i>	Woodbine	n	F	R		
<i>Parthenocissus quinquefolia</i>	Virginia creeper	n	F	V	R	V
<i>Vitis aestivalis</i>	Pigeon grape	n	F		V	

VASCULAR PLANTS OF THE KANSAS ECOLOGICAL RESERVES (cont.)

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Vitaceae, cont.						
<i>Vitis cinerea</i>	Graybark grape	n	F	V	R	
<i>Vitis riparia</i>	Riverbank grape	n	F	V	R	V
<i>Vitis vulpina</i>	Winter grape	n	F	V		R