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Endangered, Threatened, And Rare Plants And Animals Of Kentucky¹

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ABSTRACT

The Endangered Species Committee of the Kentucky Academy of Science and the Kentucky Nature Preserves Commission have updated and revised the rare animal and plant list originally published in 1981. The new list includes 337 plant and 242 animal taxa identified as Endangered, Threatened, Special Concern, or Category 1 or 2 at the state and/or federal levels.

¹ The order in which the authors of this paper are presented has been determined randomly.

INTRODUCTION

The passage of the Endangered Species Act of 1973 marked a significant change in the conservation ethic of the United States as a nation. The Act is a declaration that those species which have been endangered by extinction "... are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people" (1). The stated purposes of the Act "... are to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species..." These objectives are to be accomplished in part through the publication of a list of endangered and threatened species that become the targets of protective regulations. The subsequent amendments and reauthorizations of the Endangered Species Act have reaffirmed the United States' commitment to this course of action.

In the absence of a Kentucky endangered species act and list with the same objectives, the Endangered Species Committee of the Kentucky Academy of Science (KAS) and the Kentucky Nature Preserves Commission (KNPC) published the "Endangered, Threatened, and Rare Animals and Plants of Kentucky" (2). This non-regulatory list served to identify those native species of Kentucky plants and animals that are in need of protection, research, and/or management because they are rare, the number of populations known for a species is declining or low, or their distribution has been reduced. The overall goal of the publication of the list was to assist in the recovery and preservation of Kentucky's rich natural diversity.

A wealth of new information regarding the flora and fauna of Kentucky has been collected since 1981. The distribution and ecology of many of the species included in Branson et al. (2) are much better known. One species, Epioblasma sampsoni, has been officially delisted by the United States Fish and Wildlife Service (3) because of extinction and may portend similar action at the federal level for a group of related species. Several species previously unknown from Kentucky have been discovered and others not collected in many years were rediscovered. Thus, this new information has provided the impetus to reevaluate the species listed by Branson et al. (2) and to generate the updated list and status designations presented herein.

METHODS

The Kentucky Nature Preserves Commission, a state agency mandated to identify and protect natural areas, worked jointly with the Endangered Species Committee of the Kentucky Academy of Science to identify those species which are rare or threatened in the Commonwealth. The Nature Conservancy's standardized Natural Heritage Program methodology (4) was used to revise the list by Branson et al. (2). The program stores distributional and ecological information on selected species in map, manual, and computer files and is used by KNPC to locate aggregations of rare species and other natural entities that become the target of its preservation efforts. The program was therefore ideally suited for the revision which followed a process that will be briefly outlined.

Each species listed by Branson et al. (2) and many previously unlisted species were evaluated to determine if they should be retained or added to the list. The criteria utilized included, but were not limited to, the number, recency, and accuracy of occurrences; historic and present geographic distribution; habitat requirements; relative threat of habitat destruction; and ecological fragility. The information used to make the evaluation was that available as of June 30, 1985. Each species was subjectively assigned a conservation status or suggested for delisting.

The resultant list and statuses were submitted to knowledgeable individuals for peer review and suggestions for additions and deletions. All comments received were considered and in many cases discussed with the commentor before final statuses were assigned. The finalized list and statuses were forwarded to the Endangered Species Committee for review and were approved by the Kentucky Academy of Science at the 71st Annual Meeting held in Morehead, Kentucky on November 9, 1985. The only exceptions to this process were that all species officially listed or under status review for listing (excepting insects) by the United States Fish and Wildlife Service under the Endangered Species Act were included on the list (3,5,6,7,8,9).

STATUS CATEGORIES

The intent of assigning status designations is to (1) indicate the degree of rarity of the species, (2) indicate the degree of threat to the continued survival of the species, and (3) aid in establishing priorities for conservation

and/or preservation efforts. The status designations assigned have no legal or statutory implication but rather were established as a tool by the Endangered Species Committee and KNPC to monitor the survival potential of the species. The three KAS-KNPC status categories utilized are coded in capital letters and defined as follows:

Endangered (E). A species which is in danger of extirpation and/or extinction throughout all or a significant part of its range in Kentucky.

Threatened (T). A species which is likely to become endangered within the forseeable future throughout all or a significant part of its range in Kentucky.

Special Concern (S). A species that should be monitored because (a) it exists in a limited geographic area, (b) it may become threatened or endangered due to modification or destruction of habitat, (c) certain characteristics or requirements make it especially vulnerable to specific pressures, (d) experienced researchers have identified other factors that may jeopardize it, or (e) it is thought to be rare or declining but insufficient information exists for assignment to the threatened or endangered status categories.

Federal status categories and definitions used include:

Endangered (E). "...any species which is in danger of extinction throughout all or a significant portion of its range..." (1).

Threatened (T). "...any species which is likely to become an endangered species within the forseeable future thoughout all or a significant portion of its range" (1).

Category 1 (C1). Status review taxa for which the United States Fish and Wildlife Service "...has substantial information on hand to support the biological appropriateness of proposing to list as endangered or threatened" (7).

Category 2 (C2). Status review taxa for which information now in possession of the United States Fish and Wildlife Service "...indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulneralbility and threat are not currently available to support proposed rules" (7).

INTRODUCTION TO THE PLANT AND ANIMAL LISTS

The nomenclature utilized for plant species follows Kartesz and Kartesz (10). The sources consulted for the common and scientific names of animals are as follows: crustaceans—Hobbs (11), Holsinger (12), United States Fish and Wildlife Service (5,13); gastropods—Thompson and Porter (14); pelecypods—Stansbery and Bogan (15); fishes—Bailey et al. (16), Carney (17), Robins et al. (18), Stauffer et al. (19); amphibians and reptiles—Collins et al. (20); birds—American Ornithologist's Union (21); mammals—Hall (22).

DISCUSSION

This new KAS-KNPC list includes 337 plant and 242 animal taxa. Based on generally accepted estimates of the number of native species occurring in Kentucky, the following approximate per cent of the groups indicated can be considered Endangered, Threatened, or of Special Concern: plants-11%, pelecypods - 36%, fishes - 31%, amphibians and reptiles - 23%, birds - 15%, and mammals - 33%. Although extensive, the list does not adequately treat or include several groups of organisms found in Kentucky. The thallophytes, bryophytes, insects, amphipods, isopods, terrestrial and freshwater gastropods, and other groups are also important elements of our natural heritage, but are poorly known in Kentucky. Researchers are encouraged to undertake studies that will provide information needed to determine the status of members of these groups in Kentucky.

The bird monitoring strategies presented by Branson et al. (2) are no longer being used. The list and monitoring activities are now limited to species that nest or historically nested in Kentucky, and those listed or under status review by the United States Fish and Wildlife Service.

All of the species listed are being monitored in Kentucky by KNPC. However, information regarding species that have been delisted and many others that were not included in Branson et al. (2) or this list is being maintained in manual files at KNPC. This is being done so that we can respond to unforseen changes in distribution or status.

We invite input from knowledgeable individuals on native species they believe deserve a status change or should be added to or deleted from the list. Each such petition should include the scientific name of the organism, its habitat requirements, collection information (i.e., localities, number of specimens, dates, disposition of specimens), historic and present distribution, whether the species has been specifically sought during field work, threats, and recommended KAS-KNPC status. Petitions should be forwarded to the Director, KNPC, who will contact the **Endangered Species Committee Chairperson** and appropriate committee members for timely petition review and comment. The petitioner will be notified regarding the outcome of the review. In an effort to make the list more responsive to changes in information, all changes resulting from this petition process will be succinctly reported in the Transactions as revisions of the list.

We reiterate the hope expressed by Branson et al. (2) that this updated list of Kentucky's rare plants and animals will assist developers and decisionmakers in reaching informed decisions concerning the most effective use of Kentucky's natural resources. Only by focusing attention on the rarest elements of our natural heritage can we avoid the unnecessary destruction of our diverse flora and fauna.

PLANT LIST

	KAS- KNPC	STATUS FEDERAL
		FEDERAL
Acer spicatum	T	
Mountain Maple		
Aconitum uncinatum	T	
Monkshood		
Adiantum capillus-veneris	E	
Venus Hair Fern		
Adlumia fungosa	E	
Allegheny Vine		
Agalinis decemloba	E	
Purple False Foxglove		
Agalinis obtusifolia	S	
Purple False Foxglove		
Agalinis skinneriana	T	
Purple False Foxglove		
Agrimonia gryposepala	S	
Agrimony		
Allium burdickii	E	
Narrow-leaved Wild Leek		
Amianthium muscaetoxicum	T	
Fly Poison		
Angelica triquinata	E	
Filmy Angelica		
Apios priceana	E	C1
Price's Groundnut		
Arabis glabra	S	
Tower Mustard		

harden bereit ber	KAS- KNPC	STATUS FEDERAL
Arabis missouriensis	E	
Missouri Rock Cress		
Arabis perstellata var.		
perstellata	E	C1
Rock Cress		
Arenaria cumberlandensis	E	C1
Sandwort	Т	C1
Arenaria fontinalis Water Stitchwort		CI
Armoracia aquatica	T	
Lake Cress		
Aster concolor	E	
Aster		
Aster pilosus var. priceae	S	
White Heath Aster		
Aster sericeus	T	
Silky Aster		
Aster texanus	E	
Texas Aster Aureolaria patula	E	C1
False Foxglove	L	CI
Baptisia leucophaea	S	
Creme Wild Indigo		
Baptisia tinctoria	T	
Yellow Wild Indigo		
Bartonia virginica	E	
Screwstem		
Berchemia scandens	E	
Rattan Vine	-	
Botrychium matricariifolium	E	
Matricary Grape Fern Botrychium oneidense	E	
Blunt-lobed Grape Fern	-	
Bouteloua curtipendula	S	
Side-oats Grama		
Boykinia aconitifolia	T	
Brook Saxifrage		
Cabomba caroliniana	S	
Fanwort	_	
Calamagrostis canadensis	E	
Blue Joint Grass		
Calamagrostis cinnoides Cinna-like Reed Grass	S	
Calamagrostis porteri	E	
Porter's Reed Grass	Ser London	
Calopogon tuberosus	E	
Grass Pink		
Caltha palustris	E	
Marsh Marigold		
Calycanthus floridus	T	
Sweet Shrub		
Calylophus serrulatus	S	
Evening Primrose	-	
Carex austrina	E	
Sedge	E	
Carex buxbaumii Sedge	E	
Jeuge		

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Carex crawei	S	NOT SWEET BUT	Cleistes divaricata	S	
Sedge			Spreading Pogonia		
Carex decomposita	T	C2	Clematis crispa	T	
Sedge	_		Leather Flower		
Carex gigantea Sedge	T		Clematis glaucophylla Leather Flower	E	
Carex hystricina Sedge	S		Clematis viorna var. flaccida Leather Flower	E	
Carex joorii Sedge	E		Comptonia peregrina Sweet Fern	E	
Carex lanuginosa Sedge	S		Conradina verticillata Cumberland Rosemary	E	C1
Carex leptalea	S		Convallaria montana	E	
Sedge			Lily-of-the-Valley		
Carex leptonervia Sedge	S		Corallorhiza maculata	E	
Carex picta	E		Spotted Coral-root		
Sedge			Coreopsis pubescens	S	
Carex socialis	S		Downy Coreopsis	6	
Sedge			Corydalis sempervirens	S	
Carex stricta	E		Pale Corydalis Cotinus obovatus		
Sedge			Smoke Tree	E	
Carex tenera	S		Crotonopsis linearis	E	
Sedge			Linear Rushfoil	The same	
Carex triangularis	S		Cymophyllus fraseri	Т	
Sedge			Fraser's Sedge	12.0	
Carya aquatica Water Hickory	S		Cyperus diandrus	S	
Carya ovata var. australis	S		Umbrella Sedge	•	
Hickory	3		Cyperus retrorsus	S	
Castanea pumila	E		Umbrella Sedge		
Chinquapin	-		Cypripedium candidum	E	
Castilleja coccinea	E		White Lady's-Slipper		
Indian Paintbrush			Cypripedium kentuckiense	S	C2
Cayaponia grandifolia	S		Kentucky Lady's-Slipper		
Cayaponia			Cypripedium parviflorum	E	
Ceanothus herbaceus	E		Small Yellow Lady-slipper		
Redroot			Cystopteris fragilis var. macket	nyiS	
Cheilanthes alabamensis	E		Mackay's Fragile Fern		
Smooth Lip Fern			Decodon verticillatus	T	
Cheilanthes feei	E		Swamp Loosestrife	1211131	
Slender Lip Fern	_		Delphinium carolinianum	T	
Chelone obliqua var. obliqua	T		Carolina Larkspur		
Pink Turtlehead	6		Deschampsia flexuosa	S	
Chelone obliqua var. speciosa Pink Turtlehead	5		Hair Grass Dichanthelium acuminatum v		
Chrysogonum virginianum	E		villosum	S S	
Green and Gold	L		Panic Grass	3	
Chrysosplenium americanum	E		Dichanthelium boreale	S	
Golden Saxifrage	_		Panic Grass		
Cicuta bulbifera	S		Dichanthelium sabulorum	S	
Bulblet-bearing Water Hemlo			Panic Grass		
Cimicifuga rubifolia	T	C2	Didiplis diandra	S	
Bugbane			Water Purslane		
Circaea alpina	E		Diplachne panicoides	E	
Small Enchanter's Nightshad	9		Feather Grass		

KAS KNP		STATUS FEDERAL	AARTAN AAN	KAS- KNPC	STATUS FEDERAL
Dodecatheon frenchii French's Shooting Star	S	C2	Gratiola viscidula Hedge Hyssop	T	10/10 (1792) 10/10/2
Draba aprica Whitlow Grass	E	C2	Gymnopogon ambiguus Beardgrass	S	
Draba cuneifolia Whitlow Grass	E		Gymnopogon brevifolius Beardgrass	E	
Drosera brevifolia Dwarf Sundew	E		Halesia carolina Silverbell Tree	T	
Drosera intermedia Sundew	E		Hedeoma hispidum Hairy Pennyroyal	E	
Dryopteris Iudoviciana Southern Wood Fern	E		Hedyotis michauxii Thyme-leaved Bluets	T	
Dryopteris spinulosa Spinulose Wood Fern	S		Hedyotis uniflora Oldenlandia	E	
Echinodorus rostratus Burhead	T		Helianthus atrorubens Sunflower	E	
Echinodorus tenellus Burhead	E		Helianthus eggertii Eggert's Sunflower	E	C2
Erigeron pulchellus var. brauniae Lucy Braun's Robin Plantain	S		Helianthus silphioides Silphium-like Sunflower	s	
Eriogonum longifolium var. harperi Umbrella Plant	E	C2	Heracleum lanatum Cow Parsnip	E	
Eryngium integrifolium Button Snakeroot	E		Heteranthera dubia Water Star Grass	T	
Eupatorium luciae-brauniae Lucy Braun's White Snakeroot	E	C1	Heteranthera limosa Mud Plantain	T	
	E		Heterotheca latifolia Golden Aster	s	
Eupatorium rugosum var.	E		Hexastylis contracta Heart-leaf	E	C2
Roan Mountain White Snakeroot			Hexastylis heterophylla Heart-leaf	S	
	E		Hexastylis shuttleworthii Shuttleworth's Wild Ginger	s	
	E		Hieracium longipilum Long-haired Hawkweed	T	
Floerkea proserpinacoides False Mermaid	S		Hierochloe odorata Sweet Grass	S	
Forestiera ligustrina Upland Privet	T		Hydrocotyle americana Water Pennywort	S	
Fuirena squarrosa I Umbrella Grass	E		Hydrolea ovata Hydrolea	E	
Gaylussacia brachycera Box Huckleberry	S		Hydrophyllum virginianum Virginia Waterleaf	S	
Gentiana alba Yellowish Gentian	E		Hypericum adpressum St. Johns-wort	E	
Gentiana decora Showy Gentian	Г		Hypericum stans St. Johns-wort	s	
Gentiana puberulenta E Prairie Gentian	E		Iris fulva Copper Iris	E	
Glyceria acutiflora S Manna Grass	6		Isoetes butleri	E	
Glyceria melicaria S Manna Grass	6		Butler's Quillwort Isoetes melanopoda Midland Quillwort	E	
Gratiola pilosa Hedge Hyssop	Ξ		Juncus articulatus Rush	S	

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Juncus elliottii Rush	S		Maianthemum canadense Canada Mayflower	T	
Juncus longistylis Rush	S		Malus angustifolia Crab Apple	S	
Koeleria cristata June Grass	E		Malus ioensis Crab Apple	S	
Lathyrus palustris Marsh Pea	S		Marshallia grandiflora Barbara's Buttons	E	C2
Lathyrus venosus Bushy Vetch	S		Matelea carolinensis Carolina Anglepod	E	
Leavenworthia exigua var. laciniata	E	C1	Mecardonia acuminata Mecardonia	T	
Glade Cress Leavenworthia torulosa	E		Melampyrum lineare Cow Wheat	E	
Glade Cress Leiophyllum buxifolium	E		Melanthium virginicum Bunch Flower	E	
Sand Myrtle Lesquerella globosa	T	C2	Minuartia glabra Sandwort	E	
Bladder-pod Lesquerella lescurii Bladder-pod	E		Mirabilis albida Four-o'clock	S E	
Leucothoe recurva Fetterbush	E		Monarda punctata Dotted Monarda Monarda russeliana	S	
Liatris microcephala Blazing-star	S		Russell's Horsemint Monotropsis odorata	Т	
Liatris pycnostachya Prairie Blazing-star	E		Sweet Pinesap Muhlenbergia bushii	s	
Lilium philadelphicum Wood Lily	S		Bush's Satin Grass Muhlenbergia cuspidata	E	
Lilium superbum Turk's-cap Lily	T		Prairie Satin Grass Muhlenbergia expansa	E	
Limnobium spongia Frog's Bit	T		Hair Grass Muhlenbergia glabriflora	s	
Linum sulcatum Grooved Yellow Flax	E		Hair Grass Myriophyllum heterophyllum	s	
Listera australis Southern Twayblade	E		Water Milfoil Myriophyllum pinnatum	s	
Listera smallii Small's Twayblade Lobelia appendiculata	T		Water Milfoil Najas gracillima Slender Naiad	s	
var. gattingeri Gattinger's Lobelia	E	C2	Nemophila aphylla Nemophila	S	
Lobelia nuttallii Nuttall's Lobelia	T		Oenothera linifolia Thread-leaved Sundrops	T	
Lonicera prolifera Grape Honeysuckle	S		Oenothera perennis Small Sundrops	E	
Ludwigia hirtella False Loosestrife	E		Oenothera triloba Sundrops	T	
Lycopodium appressum Southern Bog Clubmoss	E		Onosmodium hispidissimum Hairy False Gromwell	E	
Lysimachia fraseri Fringed Loosestrife	E		Onosomodium molle ssp.	E	
Lysimachia radicans Creeping Fringed Loosestrife			Soft False Gromwell Onosmodium molle ssp.		
Lysimachia terrestris Swamp Candles	S		occidentale Western False Gromwell	E	

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Orontium aquaticum	T		Polygala cruciata	E	
Golden Club	•		Cross Milkwort	E	
Oryzopsis racemosa	T		Polygala nuttallii Nuttall's Milkwort	E	
Black-seeded Rice Grass	-		Polygala polygama	E	
Oxalis priceae	E		Purple Milkwort	L	
Price's Yellow Wood Sorrel		C2	Polymnia laevigata	E	C2
Pachistima canbyi	E	CZ	Leaf Cup	_	02
Mountain Lover	E		Pontederia cordata	S	
Parnassia asarifolia Ginger-leaved	L		Pickerel Weed		
Grass-of-Parnassus			Potamogeton praelongus	S	
Parnassia grandifolia	E		Pond Weed		
Grass-of-Parnassus	L		Potamogeton pulcher	S	
Paronychia argyrocoma	E		Spotted Pondweed	71 71 1	
Silver Whitlow-wort	L		Prenanthes alba	E	
Paspalum boscianum	S		Lion's Foot	_	
Lens Grass	3		Prenanthes aspera	E	
	S		Rough White Lettuce		
Paspalum distichum Lens Grass	3		Psoralea stipulata	E	C1
			Scurf Pea		
Paspalum setaceum var.	S		Psoralea tenuiflora	E	
psammophilum Lang Grass	3		Scurf Pea		
Lens Grass Pedicularis lanceolata	E		Ptilimnium capillaceum	T	
Swamp Wood Betony	L		Mock Bishop's-weed		
Perideridia americana	T		Ptilimnium nuttallii	E	
Perideridia americana	•		Mock Bishop's-weed		
Phacelia ranunculacea	S		Pycnanthemum albescens	E	
Phacelia Phacelia	3		Mountain Mint		
Philadelphus hirsutus	E		Pyrola americana	E	
	L		Wintergreen		
Mock Orange	E		Ranunculus allegheniensis	T	
Philadelphus inodorus	L		Allegheny Crowfoot		
Mock Orange	T		Ranunculus ambigens	S	
Philadelphus pubescens	•		Water Spearwort		
Mock Orange	T	C2	Rhododendron canescens	E	
Phlox bifida ssp. stellaria	1	CZ	Honeysuckle Bush		
Cleft Phlox			Rhynchosia tomentosa	E	
Physostegia intermedia	E		Erect Rhynchosia		
False Dragonhead	г	CO	Rhynchospora globularis	E	
Plantago cordata	E	C2	Grass Beak Rush		
Heart-leaved Plantain	-		Rhynchospora macrostachya	E	
Platanthera cristata	E		Horned Rush		
Crested Fringed Orchid	-	-	Rubus whartoniae	S	C2
Platanthera integrilabia	E	C2	Wharton's Bramble		
White Fringeless Orchid			Rudbeckia subtomentosa	T	
Platanthera psycodes	E		Sweet Coneflower		
Purple Fringed Orchid			Sabatia campanulata	E	
Poa languida	E		Rose Pink		
Weak Bluegrass	15		Sagittaria brevirostra	S	
Podostemon ceratophyllum	T		Arrowhead		
Riverweed			Sagittaria graminea	T	
Pogonia ophioglossoides	E		Grass-leaved Arrowhead		
Rose Pogonia			Salvia urticifolia	E	
Polemonium reptans var.			Sage		
villosum	S	C2	Sambucus racemosa	T	
Hairy Jacob's Ladder			Red-berried Elder		

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Sanguisorba canadensis American Burnet	E		Solidago spathulata Goldenrod	S	
Saxifraga michauxii Michaux's Saxifrage	E		Solidago squarrosa Squarrose Goldenrod	E	
Saxifraga micranthidifolia Brook Lettuce	E		Sparganium eurycarpum Common Bur Reed	E	
Schizachne purpurascens False Melic	E		Sphenopholis pensylvanica Swamp Oats	E	
Schwalbea americana Chaffseed	E	C2	Spiraea alba Meadow Sweet	E	
Scirpus expansus Bulrush	S		Spiranthes lucida Shining Ladies' Tresses	Т	
Scirpus fluviatilis Bulrush	T		Spiranthes magnicamporum Ladies' Tresses	E	
Scirpus hallii Bulrush	E		Spiranthes odorata Sweet Lady's Tresses	E	
Scirpus heterochaetus Bulrush	E		Sporobolus clandestinus Dropseed	E	
Scirpus microcarpus Bulrush	E		Sporobolus heterolepis Prairie Dropseed	E	
Scleria ciliata Nut Rush	E		Stachys eplingii Hedge-nettle	S	
Scutellaria leonardii Small Skullcap	S		Stellaria longifolia Switchwort	S	
Sedum telephioides Live Forever	T		Streptopus roseus Twisted Stalk	E	
Sida hermaphrodita Virginia Mallow	E		Styrax grandifolia Storax	S	
Silene ovata Catchfly	T		Sullivantia sullivantii Sullivant's Sullivantia	E	
Silene regia Royal Catchfly	E	C2	Symphoricarpos albus Snowberry	E	
Silphium laciniatum Compass Plant	S		Synandra hispidula Synandra	-	C2
Silphium terebinthinaceum va lucy-brauniae	s S		Taxus canadensis Canadian Yew	S	
Lucy Braun's Prairie Dock Smilacina strellata	E		Tephrosia spicata Goat's-rue	E	
Starry-flowered False Solomor Seal			Thalictrum coriaceum Maid-of-the-Mist	E	
Solidago albopilosa White-haired Goldenrod	E	C1	Thalictrum mirabile Meadow Rue	S	
Solidago buckleyi Buckley's Goldenrod	S		Thaspium pinnatifidum Cutleaf Meadow Parsnip	s	
Solidago curtisii Curtis' Goldenrod	s		Thermopsis mollis Bush Pea	E	
Solidago puberula Puberulent Goldenrod	T		Thuja occidentalis Northern White Cedar	S	
Solidago radula Rough Goldenrod	E		Torreyochloa pallida Pale Manna Grass	E	
Solidago roanensis Roan Mountain Goldenrod	T		Trepocarpus aethusae Trepocarpus	E	
Solidago rupestris Goldenrod	E		Trichomanes boschianum Filmy Fern	s	
Solidago shortii Short's Goldenrod	E	E	Trichostema setaceum Blue Curls	S	

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Trifolium reflexum Buffalo Clover	E		Cambarus batchi Crayfish	E	C2
Trifolium stoloniferum Running Buffalo Clover	E	C1	Cambarus bouchardi Big South Fork crayfish	E	C2
Trillium nivale Snow Trillium	E		Cambarus cornutus Crayfish	S	
Trillium pusillum var. ozarkanum	E	C2	Cambarus ornatus Crayfish	S	
Ozark Wake Robin Trillium undulatum	Т		Cambarus parvoculus Crayfish	E	
Painted Trillium Ulmus serotina	s		Cambarus sciotensis Crayfish	E	
September Elm Utricularia vulgaris	E		Gammarus bousfieldi Bousfield's amphipod	E	C2
Bladderwort Vallisneria americana	s		Orconectes australis Crayfish	T	
Tape Grass Veratrum parviflorum	T		Orconectes bisectus	E	
False Hellebore Veratrum woodii	T		Crayfish Orconectes inermis	T	
Wood's False Hellebore Vernonia fasciculata	s		Crayfish Orconectes jeffersoni	E	C2
Fascicled Ironweed Vernonia noveboracensis	E		Louisville crayfish Orconectes lancifer	E	
New York Ironweed Viburnum lentago	E		Crayfish Orconectes palmeri	E	
Nannyberry Viburnum nudum	E		Crayfish Orconectes pellucidus	S	
Possum Haw Viola egglestonii	T		Crayfish Palaemonias ganteri	E	E
Glade Violet Viola pedatifida	s		Kentucky cave shrimp Procambarus viaeviridis	Т	
Prairie Violet Viola tripartita	E		Crayfish		
Yellow Violet Viola walteri	E		GASTROPODS Leptoxis praerosa		C2
Walter's Violet Woodsia scopulina	E		Onyx rocksnail Lithasia armigera		C2
Mountain Cliff Fern			Armored rocksnail		
Xerophyllum asphodeloides Turkey Beard	S		Lithasia geniculata Ornate rocksnail		C2
Zizania aquatica Wild Rice	E		Lithasia salebrosa Rustic rocksnail	•	C2
Zizaniopsis miliacea Southern Wild Rice	E		Lithasia verrucosa Varicose rocksnail	-	C2
ANIMAL L	IST		PELECYPODS		
	KAS-	STATUS	Alasmidonta atropurpurea Cumberland elktoe	E	C2
CRUSTACEANS	KNPC	FEDERAL	Alasmidonta marginata Elktoe	T	
Caecidotea barri Clifton Cave isopod		C2	Cumberlandia monodonta Spectacle case	E	C2
Cambarellus puer Crayfish	E		Cyprogenia stegaria Fanshell	T	C2
Cambarellus shufeldtii Crayfish	S		Dromus dromas Dromedary mussel	E	E

Bulliotte Commission	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Epioblasma arcaeformis Sugarspoon	E		Pleurobema plenum Rough pigtoe	E	E
Epioblasma biemarginata Angled riffleshell	E		Pleurobema pyramidatum Pyramid pigtoe	E	C2
Epioblasma brevidens Cumberland combshell	E	C2	Potamilus capax Fat pocketbook	E	E
Epioblasma capsaeformis Oyster mussel	E	C2	Ptychobranchus subtentum Fluted kidneyshell	T	
Epioblasma florentina Yellow-blossom pearlymuss	E sel	Е	Quadrula cylindrica Rabbitsfoot	E	C2
Epioblasma florentina walker Tan riffleshell	i E	E	Quadrula fragosa Winged mapleleaf	E	C2
Epioblasma haysiana Acornshell	E		Quadrula sparsa Appalachian monkeyface	E	E
Epioblasma lewisi Forkshell	E		Simpsonaias ambigua Salamander mussel	T	C2
Epioblasma obliquata Catspaw	E	C2	Toxolasma lividus Purple lilliput	E	
Epioblasma stewardsoni Cumberland leafshell	E		Villosa fabalis Bean villosa	E	C2
Pioblasma torulosa rangiana Northern riffleshell			Villosa lienosa Little spectacle case	S	
Epioblasma torulosa torulosa Tubercled blossom		E	Villosa ortmanni Kentucky creekshell	E	C2
Epioblasma triquetra Snuffbox	S		Villosa trabalis Cumberland bean mussel		E
Fusconaia subrotunda subrotunda	T		Villosa vanuxemensis Mountain creekshell	T	
Long-solid Hemistena lata	E	C2	FISHES Acipenser fulvescens	E	C2
Crackling pearlymussel Lampsilis orbiculata	E	E	Lake sturgeon Alosa alabamae	s	CZ
Pink mucket Lampsilis ovata	E		Alabama shad	s	Co
Pocketbook Lasmigona compressa	T		Amblyopsis spelaea Northern cavefish		C2
Creek heelsplitter Lasmigona subviridis	T		Ammocrypta asprella Crystal darter Ammocrypta clara	E	CZ
Green floater Leptodea leptodon	E	C2	Western sand darter Ammocrypta pellucida	s	C2
Scaleshell Obovaria retusa	E	C2	Eastern sand darter Ammocrypta vivax	E	CZ
Ring pink Pegias fabula	E	C2	Scaly sand darter Clinostomus elongatus	s	
Little-winged pearlymussel Plethobasus cicatricosus	E	E	Redside dace Clinostomus funduloides	s	
White wartyback Plethobasus cooperianus	E	E	Rosyside dace Cycleptus elongatus		C2
Orange-footed pimpleback Plethobasus cyphyus	s		Blue sucker Erimyzon sucetta	Т	
Bullhead Pleurobema clava	E	C2	Lake chubsucker Esox niger	s	
Clubshell Pleurobema oviforme	E	C2	Chain pickerel Etheostoma cinereum	T	
Tennessee clubshell			Ashy darter		

	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Etheostoma fusiforme Swamp darter	E		Lepisosteus spatula Alligator gar	E	
Etheostoma maculatum Spotted darter	T		Lepomis marginatus Dollar sunfish	E	
Etheostoma microlepidum Smallscale darter	E		Lepomis punctatus Spotted sunfish	T	
Etheostoma microperca Least darter	E		Lota lota Burbot	S	
Etheostoma nigrum susanae Johnny darter	E	C2	Menidia beryllina Inland silverside	T	
Etheostoma parvipinne Goldstripe darter	S		Moxostoma atripinne Blackfin sucker	S	
Etheostoma proeliare Cypress darter	T		Moxostoma poecilurum Blacktail redhorse	S	
Etheostoma sagitta spilotum Arrow darter	s		Nocomis biguttatus Hornyhead chub	s	
Etheostoma swaini Gulf darter	S		Notropis amnis Pallid shiner	E	
Etheostoma tippecanoe Tippecanoe darter	S		Notropis camurus Bluntface shiner	s	
Etheostoma lynceum Banded darter	S		Notropis hudsonius Spottail shiner	S	
Etheostoma (Nanostoma) sp. Firebelly darter (undescribe	S		Notropis maculatus Taillight shiner	T	
Fundulus chrysotus Golden topminnow	E		Notropis venustus Blacktail shiner	E	
Fundulus notti (=dispar) Starhead topminnow	E		Notropis sp.	E	C2
Hemitremia flammea Flame chub	E		Palezone shiner (undescri	E	
Hybognathus hayi	T		Sawfin shiner (undescribe Noturus exilis	d) E	
Cypress minnow Hybognathus placitus	s		Slender madtom Noturus hildebrandi	s	
Plains minnow Hybopsis gelida	s	C2	Least madtom Noturus phaeus	s	
Sturgeon chub Hybopsis gracilis	s		Brown madtom Noturus stigmosus	s	
Flathead chub Hybopsis insignis	E		Northern madtom Percina burtoni	E	
Blotched chub Hybopsis meeki	s	C2	Blotchside logperch Percina evides	s	
Sicklefin chub lybopsis x-punctata	E		Gilt darter Percina macrocephala	T	C2
Gravel chub chthyomyzon castaneus	s		Longhead darter Percina squamata	E	
Chestnut lamprey chthyomyzon fossor	Т		Olive darter Percopsis omiscomaycus	s	
Northern brook lamprey chthyomyzon gagei	E		Trout-perch Phenacobius uranops	s	
Southern brook lamprey chthyomyzon greeleyi	Т		Stargazing minnow Phoxinus cumberlandensis	E	C1
Mountain brook lamprey ctiobus niger	s		Blackside dace		CI
Black buffalo ampetra appendix	T		Rhinichthys cataractae Longnose dace	S	-
American brook lamprey	•		Scaphirhynchus albus Pallid sturgeon	E	C2

MANAGE SALES	KAS- KNPC	STATUS FEDERAL		KAS- KNPC	STATUS FEDERAL
Typhlichthys subterraneus Southern cavefish	S		Pituophis melanoleucus Pine Snake	S	
Umbra limi Central mudminnow	T		Sistrurus miliarius Pigmy Rattlesnake	T	
AMPHIBIANS			Thamnophis proximus	T	
Ambystoma platineum Silvery Salamander	E		Western Ribbon Snake Thamnophis sauritus	S	
Amphiuma tridactylum Three-toed Amphiuma	E		Eastern Ribbon Snake Trionyx muticus	s	
Aneides aeneus Green Salamander		C2	Smooth Softshell	3	
Cryptobranchus alleganiensis Hellbender		C2	BIRDS Accipiter cooperii	s	
Eurycea longicauda			Cooper's Hawk		
guttolineata Three-lined Salamander	T		Accipiter striatus	S	
Hyla avivoca	T		Sharp-shinned Hawk Actitis macularia	E	
Bird-voiced Treefrog			Spotted Sandpiper	_	
Hyla cinerea Green Treefrog	S		Aimophila aestivalis Bachman's Sparrow	T	C2
Hyla versicolor Gray Treefrog	S		Ammodramus henslowii	S	
Plethodon cinereus	S		Henslow's Sparrow Anas discors	E	
Redback Salamander	-		Blue-winged Teal	-	
Plethodon wehrlei Wehrle's Salamander	E		Anhinga anhinga	E	
Rana pipiens	S		Anhinga	6	
Northern Leopard Frog			Ardea herodias Great Blue Heron	S	
REPTILES			Bartramia longicauda	E	
Chrysemys picta dorsalis	S		Upland Sandpiper		
Southern Painted Turtle Clonophis kirtlandii	Е	C2	Botaurus lentiginosus	E	
Kirtland's Snake	E	CZ	American Bittern Bubulcus ibis	s	
Elaphe guttata	S		Cattle Egret	3	
Corn Snake			Campephilus principalis		E
Eumeces anthracinus anthracinus	S		Ivory-billed Woodpecker		
Northern Coal Skink	3		Casmerodius albus	E	
Eumeces anthracinus pluvialis	s E		Great Egret Charadrius melodus		T
Southern Coal Skink			Piping Plover		
Farancia abacura Mud Snake	S		Chondestes grammacus	T	
Lampropeltis triangulum elapsoides	s		Lark Sparrow Cistothorus platensis	s	
Scarlet Kingsnake	_		Sedge Wren Corvus corax	E	
Macroclemys temminckii Alligator Snapping Turtle	T	C2	Common Raven	_	
Masticophis flagellum	E		Corvus ossifragus	S	
Coachwhip	E		Fish Crow Dendroica fusca	Т	
Nerodia cyclopion Green Water Snake	E		Blackburnian Warbler		
Nerodia erythrogaster neglecte	S	C2	Dendroica kirtlandii		E
Copperbelly Water Snake	-		Kirtland's Warbler		
Nerodia fasciata Southern Water Snake	E		Dolichonyx oryzivorus Bobolink	S	
Ophisaurus attenuatus	S		Egretta caerulea	E	
Slender Glass Lizard			Little Blue Heron		

	KAS- KNPC	STATUS FEDERAL		KAS- S-KNPC	STATUS FEDERAL
Elanoides forficatus forficatus		C2	Wilsonia canadensis	S	-
American Swallow-tailed Kir	te		Canada Warbler		
Empidonax minimus	T				
Least Flycatcher			MAMMALS		
Falco peregrinus	E	E	Clethrionomys gapperi mauru	s S	C2
Peregrine Falcon			Gapper's Red-backed Mouse		
Fulica americana	E		Felis concolor couguar	E	E
American Coot			Mountain Lion		
Gallinula chloropus	E		Lutra canadensis	S	
Common Moorhen			River Otter		
Haliaeetus leucocephalus	E	E	Microsorex hoyi winnemana		C2
Bald Eagle			Pygmy Shrew		
Ictinia mississippiensis	S		Mustela nivalis	S	
Mississippi Kite			Least Weasel		
Ixobrychus exilis	E		Myotis austroriparius	E	C2
Least Bittern			Southeastern Myotis		
Junco hyemalis	S		Myotis grisescens	E	E
Dark-eyed Junco			Gray Myotis		
Lanius Iudovicianus migrans		C2	Myotis keenii	S	
Migrant Loggerhead Shrike			Keen's Myotis		
Lophodytes cucullatus	E		Myotis sodalis	E	E
Hooded Merganser			Indiana Myotis		
Nycticorax nycticorax	E		Myotis subulatus leibii	E	C2
Black-crowned Night-Heron			Small-footed Myotis		
Nycticorax violaceus	T		Neotoma floridana magister		C2
Yellow-crowned Night-Heron	1		Eastern Wood Rat		
Pandion haliaetus	E		Nycticeius humeralis	T	
Osprey			Evening Bat		
Passerculus sandwichensis	S		Peromyscus gossypinus	S	
Savannah Sparrow			Cotton Mouse		
Phalacrocorax auritus	E		Plecotus rafinesquii	T	C2
Double-crested Cormorant			Rafinesque's Big-eared Bat		
Pheucticus Iudovicianus	S		Plecotus townsendii		
Rose-breasted Grosbeak			virginianus	E	E
Picoides borealis	E	E	Virginia Big-eared Bat		
Red-cockaded Woodpecker			Sorex cinereus	S	
Podilymbus podiceps	E		Masked Shrew		
Pied-billed Grebe			Sorex dispar	E	C2
Pooecetes gramineus	S		Long-tailed Shrew		
Vesper Sparrow			Spilogale putorius	S	
Rallus elegans	E		Spotted Skunk		
King Rail			Sylvilagus aquaticus	S	
Riparia riparia	S		Swamp Rabbit		
Bank Swallow			Sylvilagus transitionalis	E	C2
Sterna antillarum athalassos	E	E	New England Cottontail		
Interior Least Tern			Ursus americanus	E	
Thryomanes bewickii	S	C2	Black Bear		
Bewick's Wren					
Tyto alba	S		ACKNOWLEDG	MENTS	
Common Barn-Owl					
Vermivora bachmanii	E	E	Individuals who significan	tly cont	ributed to
Bachman's Warbler			this effort include the fol		
Vermivora chrysoptera	S		Baskin, Julian Campbell,		
Golden-winged Warbler			McComb, University of Ken		
Vireo bellii	S		Kentucky Transportation C		
Bell's Vireo			Evans and Albert Weste	rman.	Kentucky

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