

# APPENDIX A: SPECIES KNOWN OR SUSPECTED ON THE REFUGE, INCLUDING SPECIES OF CONSERVATION CONCERN



*Baltimore oriole:* ©Les Brooks

- Birds of Conservation Concern for Rappahannock River Valley National Wildlife Refuge
- Species List for Rappahannock River Valley Area
- Conservation List and Agency, Tier Categories, and Definition

Table A.1. Birds of Conservation Concern for Rappahannock River Valley National Wildlife Refuge

SPECIES & LOCAL STATUS	SCIENTIFIC NAME	2005 State WAP <sup>1</sup>	BCR 30 2007 <sup>2</sup>	AudubonWatch List <sup>3</sup>	HABITAT TYPE (in project area)
American Bittern (B?, M)	<i>Botaurus lentiginosus</i>	Tier II	Moderate	**	Emergent Wetland
American Black Duck (B?, M, W)	<i>Anas rubripes</i>	Tier II	Highest	X **	Open water
American Woodcock (B, M, W)	<i>Scolopax minor</i>	Tier IV	Highest	X	Deciduous Forest
Bald Eagle (B, M, W)	<i>Haliaeetus leucocephalus</i>	Tier II	Moderate		Riparian
Baltimore Oriole (B?, M)	<i>Icterus galbula</i>		High		Riparian
Barn Owl (B, W)	<i>Tyto alba</i>	Tier III			Vegetated Open
Bicknell's Thrush (M)	<i>Catharus bicknelli</i>	Tier IV	High	X	Mixed Forest
Black-billed Cuckoo (B, M)	<i>Coccyzus erythrophthalmus</i>			**	Deciduous Forest
Blackburnian Warbler (M)	<i>Dendroica fusca</i>		Moderate		Mixed Forest
Black and White Warbler (B, M)	<i>Mniotiltia varia</i>	Tier IV	High	**	Coniferous Forest
Black-crowned Night-Heron (B, M)	<i>Nycticorax nycticorax</i>	Tier III			Wooded
Brown-headed Nuthatch	<i>Sitta pusilla</i>	Tier IV	Moderate		Wetland
Blue-winged Warbler (M)	<i>Vermivora pinus</i>		Highest	X	Coniferous Forest
Brant (W)	<i>Circus cyaneus</i>	Tier III		X	Shrub, Successional
Broad-winged Hawk (M)	<i>Buteo platypterus</i>		High		Open Water
Brown Thrasher (B, M, W)	<i>Toxostoma rufum</i>	Tier IV	High		Mixed Forest, Wooded Wetland
Brown-headed Nuthatch	<i>Sitta pusilla</i>	Tier IV	Moderate	X	Deciduous Forest
Canada Warbler (M)			Moderate	X	Coniferous Forest
Cerulean Warbler (M)	<i>Dendroica cerulean</i>	Tier II	Moderate	X	Mixed Forest, Shrub Successional
Chimney Swift (B, M)	<i>Chaetura pelagica</i>	Tier IV	High		Deciduous Forest
Chuck-Will's Widow (B, M)	<i>Caprimulgus carolinensis</i>	Tier IV			Mixed Forest
Coastal Plain Swamp Sparrow (B, M)	<i>Melospiza georgiana nigrescens</i>		Moderate		Mixed, Coniferous, & Deciduous Forests
					Shrubby Wetland

SPECIES & LOCAL STATUS	SCIENTIFIC NAME	2005 State WAP <sup>1</sup>	BCR 30 2007 <sup>2</sup>	AudubonWatch List <sup>3</sup>	HABITAT TYPE (in project area)
Common Snipe (M, W)	<i>Gallinago gallinago</i>		Moderate		Emergent Wetland
Common Tern (M)	<i>Sterna hirundo</i>	Tier III	Moderate		Emergent Wetland, Barren
Dickcissel (B, M)	<i>Spiza americana</i>			X	Grassland, Vegetated Open
Eastern Kingbird (B, M)	<i>Tyrannus tyrannus</i>	Tier IV	High		Shrub, Vegetated Open
Eastern Meadowlark (B, M, W)	<i>Sturnella magna</i>	Tier IV		**	Vegetated Open
Eastern Towhee (B, M, W)	<i>Pipilo erythrophthalmus</i>	Tier IV	High		Mixed, Coniferous & Deciduous Forest
Eastern Wood-Peevee (B, M)	<i>Contopus virens</i>	Tier IV			Wooded Wetland, Vegetated Open
Field Sparrow (B, M, W)	<i>Spizella pusilla</i>	Tier IV	High	**	Scrub, Vegetated Open
Forster's Tern (M)	<i>Sterna forsteri</i>	Tier IV	High		Emergent Wetland
Grasshopper Sparrow (B, M)	<i>Ammodramus savannanum</i>	Tier IV	Moderate		Vegetated Open
Gray Catbird (B, M, W)	<i>Dumetella carolinensis</i>	Tier IV	Moderate	**	Wooded Wetland, Shrub, Vegetated Open
Great-crested Flycatcher (B, M)	<i>Myiarchus crinitus</i>		High		Mixed Forest
Greater Scaup (W)	<i>Aythya marila</i>	Tier IV	High		Open Water
Greater Yellowlegs (B, M, W)	<i>Tringa melanleuca</i>		High		Emergent Wetland
Green Heron (B, M, W?)	<i>Butorides striatus</i>	Tier IV		**	Wooded Wetland, Emergent Wetland
Kentucky Warbler (B, M)	<i>Oporornis formosus</i>	Tier IV	High	X	Mixed, Coniferous & Deciduous Forests
Killdeer (B, M, W)	<i>Charadrius vociferus</i>		Moderate		Open, Beach
King Rail (B, M)	<i>Rallus elegans</i>	Tier II	Moderate		Emergent Wetland
Least Bittern (B, M)	<i>Ixobrychus exilis</i>	Tier III	Moderate		Emergent Wetland
Lesser Yellowlegs (B?, M)	<i>Tringa flavipes</i>		Moderate		Emergent Wetland
Louisiana Waterthrush (B, M)	<i>Seiurus motacilla</i>	Tier IV	High		Mixed & Deciduous Forests
Marsh Wren (B, M, W)	<i>Cistothorus palustris</i>	Tier IV	High		Emergent Wetland
Northern Bobwhite (B, W)	<i>Colinus virginianus</i>	Tier IV	High	**	Vegetated Open
Northern Harrier (M, W)	<i>Circus cyaneus</i>	Tier III			Emergent Wetland, Vegetated Open
Northern Flicker (B, W)	<i>Colaptes auratus</i>		High	**	Deciduous Forest, Mixed Forest
Northern Parula (B, M)	<i>Parula americana</i>	Tier IV			Mixed Forest, Wooded Wetland

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Northern Rough-winged Swallow (B, M)	<i>Stelgidopteryx serripennis</i>	Tier IV			Vegetated Open
Ovenbird (B, M)	<i>Seiurus aurocapillus</i>	Tier IV			Mixed, Coniferous & Deciduous Forests
Peregrine Falcon (B, M)	<i>Falco peregrinus</i>	Tier I			Mixed, Coniferous & Deciduous Forests
Prairie Warbler (B, M)	<i>Dendroica discolor</i>	Tier IV	Highest	X	Mixed, Coniferous & Deciduous Forests
Prothonotary warbler (B, M)	<i>Protonotaria citrea</i>	Tier IV	High	X	Wooded Wetland
Redhead (W)	<i>Aythya americana</i>	Tier III			Open water
Red-headed Woodpecker (B, M, W)	<i>Melanerpes formicivorus</i>		Moderate	X **	Mixed, Coniferous, & Deciduous Forests, Wooded Wetland
Rose-breasted Grosbeak (M)	<i>Pheucticus ludovicianus</i>	Tier IV			Mixed Forest
Royal Tern (summer)	<i>Sterna maxima</i>	Tier II	Moderate		Open Water
Rusty Blackbird (M, W)	<i>Euphagus carolinus</i>	Tier IV	High	X **	Wooded Wetland, Vegetated Open
Scarlet Tanager (B, M)	<i>Piranga olivacea</i>	Tier IV	High		Wooded Wetland, Mixed & Deciduous Forests
Seaside Sparrow (B, M)	<i>Ammodramus maritimus</i>	Tier IV	Highest	X	Emergent Wetland
Sedge Wren (M)	<i>Cistothorus platensis</i>	Tier III	Moderate		Emergent Wetland, Shrubby Wetland
Short-eared Owl (M, W)	<i>Asio flammeus</i>		Moderate	X	Grassland, Vegetated Open
Solitary Sandpiper (B, M)	<i>Tringa solitaria</i>		High		Emergent wetland, Riparian Beach
Spotted Sandpiper (B, M)	<i>Actitis macularia</i>		Moderate		Riparian/Beach
Swainson's Warbler (M)	<i>Limnithlypis swainsonii</i>	Tier II	Moderate	X	Deciduous Forests
Virginia Rail (B, M)	<i>Rallus limicola</i>	Tier IV			Emergent Wetland
Whip-Poor-Will (B, M)	<i>Caprimulgus vociferous</i>	Tier IV	Moderate		Mixed & Deciduous Forests,
Willow Flycatcher (B, M)	<i>Empidonax traillii</i>	Tier IV	Moderate	X	Vegetated Open
Wood Thrush (B, M)	<i>Troglodytes aedon</i>	Tier IV	Highest	X	Wooded Wetland, Deciduous Forest
Worm-eating Warbler (B, M)	<i>Helmitheros vermivorus</i>	Tier IV	High	X	Wooded Wetland, Shrub, Vegetated Open, Mixed & Deciduous Forests
Yellow-billed Cuckoo (B, M)	<i>Coccyzus americanus</i>	Tier IV			Wooded Wetland, Shrub, Vegetated Open, Mixed & Deciduous Forests

SPECIES & LOCAL STATUS	SCIENTIFIC NAME	2005 State WAP <sup>1</sup>	BCR 30 2007 <sup>2</sup>	AudubonWatch List <sup>3</sup>	HABITAT TYPE (in project area)
Yellow-Breasted Chat (B, M)	<i>Icteria virens</i>	Tier IV			Mixed, Coniferous & Deciduous Forests, Shrub, Vegetated Open Wooded Wetland, Coniferous &
Yellow-throated Vireo (B, M)	<i>Vireo flavifrons</i>	Tier IV	High		Deciduous Forests
Yellow Warbler (B, M)	<i>Dendroica petechia</i>	Tier IV		**	Mixed & Deciduous Forest

\*\*Note: See Table A-3 for further details on ranking criteria for State and Federal plans

<sup>1</sup>State WAP Definitions: Tier I = critical conservation need; Tier II = very high conservation need; Tier III = high conservation need; Tier IV = moderate conservation need

<sup>2</sup>BCR 30 2007 Definitions: Highest = High BCR Concern and High BCR Responsibility and (High or Moderate Continental Concern); High = High Continental Concern and Moderate BCR Responsibility

*OR* Moderate BCR Concern and High BCR Responsibility *OR* High BCR Concern and Moderate BCR Responsibility *OR* Non-breeding High Continental Concern species whose primary area of spring or fall migration overlaps the BCR; Moderate = Moderate BCR Concern and Moderate BCR responsibility

*OR* High Continental Concern and Low BCR Responsibility *OR* High BCR Concern and Low BCR Responsibility and Regionally Threatened Species (PIF Tier IIC) *OR* High BCR Responsibility and Low BCR Concern *OR* Sub-species of Regional Importance

<sup>3</sup>The Audubon Watch list comes from two sources: The 2002 Audubon Watch List; and the Audubon State of the Birds Report for Virginia. In the Audubon Watch list column:

“X” represents a bird species on The 2002 Audubon Watch List

“\*\*\*” represents a bird species that breeds or likely breeds in the project area and are declining at ≥70% per year over the past 40 years.

Sources for the Conservation List Used for This Table:

1. State of VA WAP (Wildlife Action Plan) of Virginia Department of Game and Inland Fisheries. 2005. Virginia’s Comprehensive Wildlife Conservation Strategy (from Chapter 4: Species of Greatest Conservation Need in Virginia’s Coastal Plain) VDGI, Richmond, VA;
2. The 2002 Audubon Watch List. <http://www.audubon2.org/watchlist/viewWatchlist.jsp>. Accessed August 17, 2007.
3. All Common Virginia Birds Declining Greater than 50% over 40 Years on the BBS or CBC. <http://stateofthebirds.audubon.org/cbid/>
4. Steinkamp, M. 2007. BCR 30 Plan. Conservation priority categories for bird species in BCR 30. ACGV. (June 18 draft).

Table A.2. Species List for Rappahannock River Valley Area

COMMON NAME	SCIENTIFIC NAME	FEDERAL AND STATE STATUS <sup>1</sup>	STATE WILDLIFE ACTION PLAN RANK <sup>2</sup>	CONFIRMED BY FWIS <sup>3</sup>	CONFIRMED BY REFUGE
<b>PART 1: BIRDS</b>					
<b>LOONS</b>					
Common Loon	<i>Gavia immer</i>				Yes
Red-throated Loon	<i>Gavia stellata</i>				Yes
<b>GREBES</b>					
Horned Grebe	<i>Podiceps auritus</i>		Tier IV		Yes
Pied-billed Grebe	<i>Podilymbus podiceps</i>			No	Yes
<b>PELICANS</b>					
Brown Pelican	<i>Pelecanus occidentalis</i>	SSC			
<b>CORMORANTS</b>					
Double-crested Cormorant	<i>Phalacrocorax auritus</i>			No	Yes
<b>HERONS, EGRETS, AND BITTERNS</b>					
American Bittern	<i>Botaurus lentiginosus</i>		Tier II	Yes	Yes
Black-crowned Night-heron	<i>Nycticorax nycticorax</i>		Tier III		Yes
Cattle Egret	<i>Bubulcus ibis</i>			No	
Great Blue Heron	<i>Ardea herodias herodias</i>			Yes	Yes
Great Egret	<i>Ardea alba egretta</i>	SSC		No	Yes
Green Heron	<i>Butorides virescens</i>		Tier IV	No	Yes
Least Bittern	<i>Ixobrychus exilis exilis</i>		Tier III	No	Yes
Yellow-crowned Night-heron	<i>Nyctanassa violacea violacea</i>	SSC	Tier II	No	Yes
<b>DUCKS, GEESE, AND SWANS</b>					
American Black Duck	<i>Anas rubripes</i>		Tier II	No	Yes
American Goldfinch	<i>Carduelis tristis</i>			No	Yes
American Wigeon	<i>Anas americana</i>			No	Yes
Blue-winged Teal	<i>Anas discors orphan</i>			No	Yes
Bufflehead	<i>Bucephala albeola</i>			No	Yes
Canada Goose	<i>Branta canadensis</i>			No	Yes
Canvasback	<i>Aythya valisineria</i>			No	Yes
Common Goldeneye	<i>Bucephala clangula americana</i>			No	Yes
Common Merganser	<i>Mergus merganser americanus</i>			No	Yes
Gadwall	<i>Anas strepera</i>			No	Yes
Greater Scaup	<i>Aythya marila</i>		Tier IV	No	Yes
Green-winged Teal	<i>Anas crecca carolinensis</i>			No	Yes
Hooded Merganser	<i>Lophotydes cucullatu</i>				Yes
Lesser Scaup	<i>Aythya affinis</i>			No	Yes



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Long-tailed Duck	<i>Clangula hyemalis</i>			No	Yes
Mallard	<i>Anas platyrhynchos</i>			No	Yes
Mute Swan	<i>Cygnus olor</i>				Yes
Northern Pintail	<i>Anas acuta acuta</i>			No	
Northern Shoveler	<i>Anas clypeata</i>				Yes
Red-Breasted Merganser	<i>Mergus serrator serrator</i>			No	Yes
Redhead	<i>Aythya americana</i>		Tier III	No	
Ring-necked Duck	<i>Aythya collaris</i>				Yes
Ruddy Duck	<i>Oxyura jamaicensis</i>			No	Yes
Snow Goose	<i>Chen caerulescens</i>			No	Yes
Tundra Swan	<i>Cygnus columbianus columbianus</i>			No	Yes
Wood Duck	<i>Aix sponsa</i>			No	Yes
<b>RAPTORS</b>					
American Kestrel	<i>Falco sparverius sparverius</i>			No	Yes
Bald Eagle	<i>Haliaeetus leucocephalus</i>	ST	Tier II	Yes	Yes
Black Vulture	<i>Coragyps atratus</i>			No	Yes
Broad-winged Hawk	<i>Buteo platypterus</i>			No	Yes
Cooper's Hawk	<i>Accipiter cooperii</i>			No	Yes
Merlin	<i>Falco columbarius</i>				Yes
Northern Harrier	<i>Circus cyaneus</i>	SSC	Tier III	No	Yes
Osprey	<i>Pandion haliaetus carolinensis</i>			Yes	Yes
Peregrine Falcon	<i>Falco peregrinus</i>				Yes
Red-shouldered Hawk	<i>Buteo lineatus lineatus</i>			No	Yes
Red-tailed Hawk	<i>Buteo jamaicensis</i>			No	Yes
Rough-legged Hawk	<i>Buteo lagopus johannis</i>			No	Yes
Sharp-shinned Hawk	<i>Accipiter striatus velox</i>			No	Yes
Turkey Vulture	<i>Cathartes aura</i>			No	Yes
<b>TURKEY AND QUAIL</b>					
Northern Bobwhite	<i>Colinus virginianus</i>		Tier IV	No	Yes
Wild Turkey	<i>Meleagris gallopavo silvestris</i>			No	Yes
<b>RAILS AND COOTS</b>					
American Coot	<i>Fulica americana</i>			No	Yes
Black Rail	<i>Laterallus jamaicensis</i>	SOC	Tier I	No	Yes
Clapper Rail	<i>Rallus longirostris</i>		Tier IV		Poss
Common Moorhen	<i>Gallinula chloropus cachinnans</i>	SSC		No	Yes
King Rail	<i>Rallus elegans</i>		Tier II	No	Yes
Sora Rail	<i>Porzana carolina</i>				Yes
Virginia Rail	<i>Rallus limicola</i>		Tier IV	No	Yes

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<b>SHOREBIRDS</b>					
American Woodcock	<i>Scolopax minor</i>		Tier IV	No	Yes
Dunlin	<i>Calidris alpina</i>		Tier IV		Yes
Greater Yellowlegs	<i>Tringa melanoleuca</i>				Yes
Killdeer	<i>Charadrius vociferus</i>			No	Yes
Least Sandpiper	<i>Calidris minutilla</i>				Yes
Lesser Yellowlegs	<i>Tringa flavipes</i>				Yes
Pectoral Sandpiper	<i>Calidris melanotos</i>				
Semipalmated Plover	<i>Charadrius semipalmatus</i>				Yes
Short-billed Dowitcher	<i>Limnodromus griseus</i>		Tier IV	No	
Solitary Sandpiper	<i>Tringa solitaria</i>				Yes
Spotted Sandpiper	<i>Actitis macularia</i>			No	Yes
Stilt Sandpiper	<i>Calidris himantopus</i>				Yes
Upland Sandpiper	<i>Bartramia longicauda</i>	ST		No	
Wilson's (Common) Snipe	<i>Gallinago delictata</i>			No	Yes
<b>GULLS AND TERNS</b>					
Black Tern	<i>Chlidonias niger</i>				Yes
Bonaparte's Gull	<i>Larus philadelphia</i>				Yes
Caspian Tern	<i>Sterna caspia</i>	SSC		No	Yes
Common Tern	<i>Sterna hirundo</i>		Tier III		Yes
Forster's Tern	<i>Sterna forsteri</i>	SSC	Tier IV	No	Yes
Great Black-backed Gull	<i>Larus marinus</i>			No	Yes
Herring Gull	<i>Larus argentatus</i>			No	Yes
Laughing Gull	<i>Larus atricilla</i>			No	Yes
Least Tern	<i>Sterna antillarum</i>	SSC	Tier II	No	Yes
Ring-billed Gull	<i>Larus delawarensis</i>			No	Yes
Royal Tern	<i>Sterna maxima maxima</i>		Tier II	No	Yes
<b>PIGEONS AND DOVES</b>					
Mourning Dove	<i>Zenaida macroura carolinensis</i>			No	Yes
Rock Pigeon	<i>Columba livia</i>			No	Yes
<b>CUCKOOS</b>					
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>			No	Yes
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>		Tier IV	No	Yes



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<b>OWLS</b>					
Barn Owl	<i>Tyto alba pratincola</i>	SSC	Tier III	No	Yes
Barred Owl	<i>Strix varia</i>			No	Yes
Eastern Screech Owl	<i>Megascops asio</i>			No	Yes
Great-horned Owl	<i>Bubo virginianus</i>			No	Yes
Long-eared Owl	<i>Asio otus</i>	SSC			Yes
Short-eared Owl	<i>Asio flammeus</i>			No	Yes
<b>NIGHTHAWKS AND NIGHTJARS</b>					
Chuck-will's-widow	<i>Caprimulgus carolinensis</i>		Tier IV	No	Yes
Common Nighthawk	<i>Chordeiles minor</i>			No	Yes
Whip-poor-will	<i>Caprimulgus vociferus</i>		Tier IV	No	Yes
<b>SWIFTS</b>					
Chimney Swift	<i>Chaetura pelagica</i>		Tier IV	No	Yes
<b>HUMMINGBIRDS</b>					
Ruby-throated Hummingbird	<i>Archilochus colubris</i>			No	Yes
<b>KINGFISHERS</b>					
Belted Kingfisher	<i>Ceryle alcyon</i>			No	Yes
<b>WOODPECKERS</b>					
Downy Woodpecker	<i>Picoides pubescens medianus</i>			No	Yes
Hairy Woodpecker	<i>Picoides villosus</i>			No	Yes
Northern Flicker	<i>Colaptes auratus</i>			No	Yes
Pileated Woodpecker	<i>Dryocopus pileatus</i>			No	Yes
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>			No	Yes
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>			No	Yes
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>			No	Yes
<b>FLYCATCHERS</b>					
Acadian Flycatcher	<i>Empidonax virescens</i>			No	Yes
Eastern Kingbird	<i>Tyrannus tyrannus</i>		Tier IV	No	Yes
Eastern Phoebe	<i>Sayornis phoebe</i>			No	Yes
Eastern Wood Pewee	<i>Contopus virens</i>		Tier IV	No	Yes
Great-crested Flycatcher	<i>Myiarchus crinitus</i>			No	Yes
Least Flycatcher	<i>Empidonax minimus</i>				Yes
Willow Flycatcher	<i>Empidonax traillii</i>		Tier IV		Yes
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	SSC			Yes

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<b>VIREOS</b>					
Blue-headed Vireo	<i>Vireo solitarius</i>				Yes
Red-eyed Vireo	<i>Vireo olivaceus</i>			No	Yes
Warbling Vireo	<i>Vireo gilvus</i>				Yes
White-eyed Vireo	<i>Vireo griseus</i>			No	Yes
Yellow-throated Vireo	<i>Vireo flavifrons</i>		Tier IV	No	Yes
<b>CROWS AND JAYS</b>					
American Crow	<i>Corvus brachyrhynchos</i>			No	Yes
Blue Jay	<i>Cyanocitta cristata</i>			No	Yes
Common Grackle	<i>Quiscalus quiscula</i>			No	Yes
Fish Crow	<i>Corvus ossifragus</i>			No	Yes
<b>LARKS</b>					
Horned Lark	<i>Eremophila alpestris</i>			No	Yes
<b>SWALLOWS AND MARTINS</b>					
Bank Swallow	<i>Riparia riparia</i>			No	Yes
Barn Swallow	<i>Hirundo rustica</i>			No	Yes
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>				Yes
Northern Rough-Winged Swallow	<i>Stelgidopteryx serripennis</i>		Tier IV	No	Yes
Purple Martin	<i>Progne subis</i>			No	Yes
Tree Swallow	<i>Tachycineta bicolor</i>			No	Yes
<b>CHICKADEES AND TITMICE</b>					
Carolina Chickadee	<i>Poecile carolinensis</i>			No	Yes
Eastern Tufted Titmouse	<i>Baeolophus bicolor</i>			No	Yes
<b>NUTHATCHES</b>					
Brown-headed Nuthatch	<i>Sitta pusilla</i>		Tier IV	No	Yes
Red-breasted Nuthatch	<i>Sitta canadensis</i>	SSC		No	Yes
White-breasted Nuthatch	<i>Sitta carolinensis</i>			No	Yes
<b>CREEPERS</b>					
Brown Creeper	<i>Certhia americana</i>	SSC		No	Yes
<b>WRENS</b>					
Carolina Wren	<i>Thryothorus ludovicianus</i>			No	Yes
House Wren	<i>Troglodytes aedon</i>			No	Yes
Marsh Wren	<i>Cistothorus palustris</i>		Tier IV	No	Yes
Sedge Wren	<i>Cistothorus platensis</i>	SSC	Tier III	No	Yes
Winter Wren	<i>Troglodytes troglodytes</i>	SSC		No	Yes

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<b>KINGLETS</b>					
Golden-crowned Kinglet	<i>Regulus satrapa</i>	SSC		No	Yes
Ruby-crowned Kinglet	<i>Regulus calendula</i>			No	Yes
<b>GNATCATCHERS</b>					
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>			No	Yes
<b>THRUSHES</b>					
American Robin	<i>Turdus migratorius</i>			No	Yes
Bicknell's Thrush	<i>Catharus bicknelli</i>		Tier IV		Yes
Eastern Bluebird	<i>Sialia sialis</i>			No	Yes
Gray-cheeked Thrush	<i>Catharus minimus</i>				Yes
Hermit Thrush	<i>Catharus guttatus</i>	SSC		No	Yes
Swainson's Thrush	<i>Catharus ustulatus</i>				Yes
Veery	<i>Catharus fuscescens</i>				Yes
Wood Thrush	<i>Hylocichla mustelina</i>		Tier IV	No	Yes
<b>MOCKINGBIRDS AND THRASHERS</b>					
Brown Thrasher	<i>Toxostoma rufum</i>		Tier IV	No	Yes
Gray Catbird	<i>Dumetella carolinensis</i>		Tier IV	No	Yes
Northern Mockingbird	<i>Mimus polyglottos</i>			No	Yes
<b>STARLINGS</b>					
European Starling	<i>Sturnus vulgaris</i>			No	Yes
<b>PIPITS</b>					
American Pipit	<i>Anthus rubescens</i>			No	Yes
<b>WAXWINGS</b>					
Cedar Waxwing	<i>Bombycilla cedrorum</i>			No	Yes
<b>WARBLERS</b>					
American Redstart	<i>Setophaga ruticilla</i>			No	Yes
Bay-breasted Warbler	<i>Dendroica castanea</i>				Yes
Black-and-White Warbler	<i>Mniotilta varia</i>			No	Yes
Blackburnian Warbler	<i>Dendroica fusca</i>				Yes
Blackpoll Warbler	<i>Dendroica striata</i>			No	Yes
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>			No	Yes
Black-throated Green Warbler	<i>Dendroica virens</i>			No	Yes
Blue-winged Warbler	<i>Vermivora pinus</i>			No	Yes
Canada Warbler	<i>Wilsonia canadensis</i>			No	Yes

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Cape May Warbler	<i>Dendroica tigrina</i>				Yes
Cerulean Warbler	<i>Dendroica cerulea</i>	SOC	Tier II	No	Yes
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>			No	Yes
Common Yellowthroat	<i>Geothlypis trichas</i>			No	Yes
Hooded Warbler	<i>Wilsonia citrina</i>			No	Yes
Kentucky Warbler	<i>Oporornis formosus</i>		Tier IV	No	Yes
Louisiana Waterthrush	<i>Seiurus motacilla</i>			No	Yes
Magnolia Warbler	<i>Dendroica magnolia</i>	SSC		No	Yes
Mourning Warbler	<i>Oporornis philadelphia</i>	SSC			Yes
Nashville Warbler	<i>Vermivora ruficapilla</i>			No	Yes
Northern Waterthrush	<i>Seiurus noveboracensis</i>			No	Yes
Northern Parula	<i>Parula americana</i>		Tier IV	No	Yes
Olive Warbler	<i>Peucedramus taeniatus</i>				Yes
Orange-crowned Warbler	<i>Vermivora celata</i>				Yes
Ovenbird	<i>Seiurus aurocapilla</i>		Tier IV	No	Yes
Palm Warbler	<i>Dendroica palmarum</i>			No	Yes
Pine Warbler	<i>Dendroica pinus</i>			No	Yes
Prairie Warbler	<i>Dendroica discolor</i>		Tier IV	No	Yes
Prothonotary Warbler	<i>Protonotaria citrea</i>		Tier IV	No	Yes
Swainson's Warbler	<i>Limnithlypis swainsonii</i>	SSC	Tier II		Yes
Worm-eating Warbler	<i>Helmitheros vermivorus</i>		Tier IV	No	Yes
Yellow Warbler	<i>Dendroica petechia</i>		Tier IV	No	Yes
Yellow-breasted Chat	<i>Icteria virens virens</i>		Tier IV	No	Yes
Yellow-rumped Warbler	<i>Dendroica coronata cornata</i>			No	Yes
Yellow-throated Warbler	<i>Dendroica dominica</i>			No	Yes
<b>TANAGERS</b>					
Scarlet Tanager	<i>Piranga olivacea</i>		Tier IV	No	Yes
Summer Tanager	<i>Piranga rubra</i>			No	Yes
<b>NEW WORLD SPARROWS</b>					
American Tree Sparrow	<i>Spizella arborea</i>				Yes
Chipping Sparrow	<i>Spizella passerina</i>			No	Yes
Clay-colored Sparrow	<i>Spizella pallida</i>				Yes
Coastal Plain Swamp Sparrow	<i>Melospiza georgiana nigrescens</i>				Yes
Dark-eyed Junco	<i>Junco hyemalis</i>			No	Yes

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Eastern Towhee	<i>Pipilo erythrophthalmus</i>		Tier IV	No	Yes
Field Sparrow	<i>Spizella pusilla</i>		Tier IV	No	Yes
Fox Sparrow	<i>Passerella iliaca</i>			No	Yes
Grasshopper Sparrow	<i>Ammodramus savannarum pratensis</i>		Tier IV	No	Yes
LeConte's Sparrow	<i>Ammodramus leconteii</i>				Yes
Lincoln's Sparrow	<i>Melospiza lincolni</i>				Yes
Savannah Sparrow	<i>Passerculus sandwichensis</i>			No	Yes
Seaside Sparrow	<i>Ammodramus maritimus</i>		Tier IV	No	Yes
Song Sparrow	<i>Melospiza melodia</i>			No	Yes
Swamp Sparrow	<i>Melospiza georgiana</i>			No	Yes
Vesper Sparrow	<i>Pooecetes gramineus</i>			No	Yes
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>			No	Yes
White-throated Sparrow	<i>Zonotrichia albicollis</i>			No	Yes
<b>CARDINALS AND ALLIES</b>					
Blue Grosbeak	<i>Guiraca caerulea caerulea</i>			No	Yes
Dickcissel	<i>Spiza americana</i>	SSC		No	Yes
Indigo Bunting	<i>Passerina cyanea</i>			No	Yes
Northern Cardinal	<i>Cardinalis cardinalis</i>			No	Yes
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>		Tier IV		Yes
<b>BLACKBIRDS, ORIOLES, AND ALLIES</b>					
Baltimore Oriole	<i>Icterus galbula</i>			No	Yes
Bobolink	<i>Dolichonyx oryzivorus</i>				Yes
Brown-headed Cowbird	<i>Molothrus ater</i>			No	Yes
Eastern Meadowlark	<i>Sturnella magna</i>		Tier IV	No	Yes
Orchard Oriole	<i>Icterus spurius</i>			No	Yes
Red-winged Blackbird	<i>Agelaius phoeniceus</i>			No	Yes
Rusty Blackbird	<i>Euphagus carolinus</i>		Tier IV		Yes
<b>FINCHES AND ALLIES</b>					
Common Redpoll	<i>Carduelis flammea</i>				Yes
House Finch	<i>Carpodacus mexicanus</i>			No	Yes
Purple Finch	<i>Carpodacus purpureus</i>	SSC		No	Yes
White-winged Crossbill	<i>Loxia leucoptera</i>			No	
<b>OLD WORLD SPARROWS</b>					
House Sparrow	<i>Passer domesticus</i>			No	Yes

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<b>PART 2: MAMMALS</b>					
Bat, big brown	<i>Eptesicus fuscus fuscus</i>			No	
Bat, eastern red	<i>Lasiurus borealis borealis</i>			No	
Bat, evening	<i>Nycticeius humeralis humeralis</i>			No	
Bat, hoary	<i>Lasiurus cinereus cinereus</i>			No	
Bat, little brown	<i>Myotis lucifugus lucifugus</i>			No	
Bat, silver-haired	<i>Lasionycteris noctivagans</i>			No	
Beaver, American	<i>Castor canadensis</i>			No	Yes
Bobcat	<i>Lynx rufus rufus</i>			No	Yes
Chipmunk, Fisher's eastern	<i>Tamias striatus fisheri</i>			No	
Cottontail, eastern	<i>Sylvilagus floridanus mallurus</i>			No	Yes
Coyote	<i>Canis latrans</i>			No	
Deer, white-tailed	<i>Odocoileus virginianus</i>			No	Yes
Fox, common gray	<i>Urocyon cinereoargenteus cinereoargenteus</i>			No	Yes
Fox, red	<i>Vulpes vulpes fulva</i>			No	Yes
Mink, common	<i>Mustela vison mink</i>			No	Yes
Mole, eastern	<i>Scalopus aquaticus aquaticus</i>			No	Yes
Mole, star-nosed	<i>Condylura cristata cristata</i>			No	Yes
Mouse, eastern harvest	<i>Reithrodontomys humulis virginianus</i>			No	
Mouse, house	<i>Mus musculus musculus</i>			No	Yes
Mouse, meadow jumping	<i>Zapus hudsonius americanus</i>			No	
Mouse, northern white-footed	<i>Peromyscus leucopus noveboracensis</i>			No	Yes
Muskrat, large-toothed	<i>Ondatra zibethicus macrodon</i>			No	Yes
Myotis, northern	<i>Myotis septentrionalis septentrionalis</i>			No	
Opossum, Virginia	<i>Didelphis virginiana virginiana</i>			No	Yes
Otter, northern river	<i>Lontra canadensis lataxina</i>	SSC		No	Yes
Pipistrelle, eastern	<i>Pipistrellus subflavus subflavus</i>			No	
Raccoon	<i>Procyon lotor lotor</i>			No	Yes



Appendix A

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Rat, marsh rice	<i>Oryzomys palustris palustris</i>			No	
Rat, Norway	<i>Rattus norvegicus norvegicus</i>			No	
Shrew, Kirtland's short-tailed	<i>Blarina brevicauda kirtlandi</i>			No	
Shrew, least	<i>Cryptotis parva parva</i>			No	Yes
Shrew, pygmy	<i>Sorex hoyi winnemana</i>			No	
Shrew, southeastern	<i>Sorex longirostris longirostris</i>			No	
Shrew, southern short-tailed	<i>Blarina carolinensis carolinensis</i>			No	Yes
Skunk, striped	<i>Mephitis mephitis nigra</i>			No	Yes
Skunk, striped	<i>Mephitis mephitis mephitis</i>			No	
Squirrel, northern gray	<i>Sciurus carolinensis pennsylvanicus</i>			No	Yes
Squirrel, southern flying	<i>Glaucomys volans volans</i>			No	Yes
Squirrel, talkative red	<i>Tamiasciurus hudsonicus loquax</i>			No	
Vole, dark meadow	<i>Microtus pennsylvanicus nigrans</i>			No	
Vole, meadow	<i>Microtus pennsylvanicus pennsylvanicus</i>			No	Yes
Vole, pine	<i>Microtus pinetorum scalopsoides</i>			No	
Weasel, long-tailed	<i>Mustela frenata noveboracensis</i>			No	
Woodchuck	<i>Marmota monax monax</i>			No	Yes
<b>PART 3: AMPHIBIANS</b>					
Bullfrog	<i>Rana catesbeiana</i>			No	Yes
Frog, Brimley's chorus	<i>Pseudacris brimleyi</i>			No	
Frog, southern cricket	<i>Acris crepitans crepitans</i>			No	Yes
Frog, northern green	<i>Rana clamitans melanota</i>			No	Yes
Frog, pickerel	<i>Rana palustris</i>			No	Yes
Frog, southern leopard	<i>Rana sphenocephala</i>			No	Yes
Frog, upland chorus	<i>Pseudacris feriarum feriarum</i>			No	Yes
Frog, wood	<i>Rana sylvatica</i>			No	Yes
Newt, red-spotted	<i>Notophthalmus viridescens viridescens</i>			No	Yes
Peeper, northern spring	<i>Pseudacris crucifer crucifer</i>			No	Yes

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Salamander, eastern mud	<i>Pseudotriton montanus montanus</i>		Tier IV	No	
Salamander, four-toed	<i>Hemidactylium scutatum</i>			No	
Salamander, marbled	<i>Ambystoma opacum</i>			No	Yes
Salamander, northern dusky	<i>Desmognathus fuscus</i>			No	
Salamander, northern red	<i>Pseudotriton ruber ruber</i>			No	
Salamander, northern red-backed	<i>Plethodon cinereus</i>			No	Yes
Salamander, southern two-lined	<i>Eurycea cirrigera</i>			No	Yes
Salamander, spotted	<i>Ambystoma maculatum</i>			No	Yes
Salamander, three-lined	<i>Eurycea guttolineata</i>			No	
Salamander, white-spotted slimy	<i>Plethodon cylindraceus</i>			No	Yes
Siren, greater	<i>Siren lacertina</i>		Tier IV	No	
Spadefoot, eastern	<i>Scaphiopus holbrookii</i>		Tier IV	No	
Toad, American	<i>Bufo americanus</i>			No	Yes
Toad, eastern narrow-mouthed	<i>Gastrophryne carolinensis</i>			No	
Toad, Fowler's	<i>Bufo fowleri</i>			No	Yes
Treefrog, Cope's gray	<i>Hyla chrysoscelis</i>			No	Yes
Treefrog, green	<i>Hyla cinerea</i>			No	Yes
<b>PART 4: REPTILES</b>					
Brownsnake, northern	<i>Storeria dekayi dekayi</i>			No	
Copperhead, northern	<i>Agkistrodon contortrix mokasen</i>			No	Yes
Cornsnake, red	<i>Elaphe guttata</i>			No	
Earthsnake, eastern smooth	<i>Virginia valeriae valeriae</i>			No	
Gartersnake, eastern	<i>Thamnophis sirtalis sirtalis</i>			No	Yes
Greensnake, northern rough	<i>Opheodrys aestivus aestivus</i>			No	Yes
Kingsnake, eastern	<i>Lampropeltis getula getula</i>			No	Yes
Kingsnake, mole	<i>Lampropeltis calligaster rhombomaculata</i>			No	
Lizard, eastern fence	<i>Sceloporus undulatus</i>			No	Yes
Milksnake, eastern	<i>Lampropeltis triangulum triangulum</i>			No	

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Racer, northern black	<i>Coluber constrictor constrictor</i>			No	Yes
Racerunner, six-lined	<i>Cnemidophorus sexlineatus sexlineatus</i>			No	
Ratsnake, black	<i>Elaphe obsoleta obsoleta</i>			No	Yes
Ribbonsnake, common	<i>Thamnophis sauritus sauritus</i>		Tier IV	No	Yes
Scarletsnake, northern	<i>Cemophora coccinea copei</i>		Tier IV	No	
Skink, broadhead	<i>Eumeces laticeps</i>			No	
Skink, five-lined	<i>Eumeces fasciatus</i>			No	Yes
Skink, little brown	<i>Scincella lateralis</i>			No	
Skink, southeastern five-lined	<i>Eumeces inexpectatus</i>			No	
Snake, common rainbow	<i>Farancia erythrogramma erythrogramma</i>			No	Yes
Snake, eastern hog-nosed	<i>Heterodon platirhinos</i>		Tier IV	No	Yes
Snake, northern red-bellied	<i>Storeria occipitomaculata occipitomaculata</i>			No	
Snake, northern ring-necked	<i>Diadophis punctatus edwardsii</i>			No	Yes
Turtle, Stinkpot (Musk)	<i>Sternotherus odoratus</i>			No	Yes
Cooter, northern red-bellied	<i>Pseudemys rubriventris rubriventris</i>			No	Yes
Turtle, eastern box	<i>Terrapene carolina carolina</i>		Tier III	No	Yes
Turtle, eastern mud	<i>Kinosternon subrubrum subrubrum</i>			No	Yes
Turtle, eastern painted	<i>Chrysemys picta picta</i>			No	Yes
Turtle, eastern snapping	<i>Chelydra serpentina serpentina</i>			No	Yes
Turtle, spotted	<i>Clemmys guttata</i>		Tier III	No	Yes
Turtle, striped mud	<i>Kinosternon baurii</i>			No	
Watersnake, northern	<i>Nerodia sipedon sipedon</i>			No	Yes
Wormsnake, eastern	<i>Carphophis amoenus amoenus</i>			No	Yes
<b>PART 5: FISH</b>					
Alewife	<i>Alosa pseudoharengus</i>		Tier IV	Yes	Yes
Bass, largemouth	<i>Micropterus salmoides</i>			Yes	Yes
Bass, smallmouth	<i>Micropterus dolomieu</i>			No	
Bass, striped	<i>Morone saxatilis</i>			No	Yes
Bluegill	<i>Lepomis macrochirus</i>			No	Yes

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Bowfin	<i>Amia calva</i>			Yes	Yes
Bullhead, brown	<i>Ameiurus nebulosus</i>			Yes	Yes
Bullhead, yellow	<i>Ameiurus natalis</i>			No	Yes
Carp, common	<i>Cyprinus carpio</i>			Yes	Yes
Catfish, blue	<i>Ictalurus furcatus</i>			Yes	Yes
Catfish, channel	<i>Ictalurus punctatus</i>			Yes	Yes
Catfish, white	<i>Ameiurus catus</i>			Yes	
Chubsucker, creek	<i>Erimyzon oblongus</i>			Yes	Yes
Crappie, black	<i>Pomoxis nigromaculatus</i>			No	
Dace, blacknose	<i>Rhinichthys atratulus</i>			No	
Darter, tessellated	<i>Etheostoma olmstedii</i>			Yes	Yes
Eel, American	<i>Anguilla rostrata</i>		Tier IV	Yes	Yes
Fallfish	<i>Semotilus corporalis</i>			No	
Gar, longnose	<i>Lepisosteus osseus</i>			Yes	Yes
Herring, blueback	<i>Alosa aestivalis</i>			Yes	Yes
Killifish, banded	<i>Fundulus diaphanus</i>			Yes	
Lamprey, Least Brook	<i>Lampetra aepyptera</i>		Tier IV		Yes
Madtom, spotted-margin	<i>Noturus insignis ssp. 1</i>	SOC		No	Yes
Madtom, tadpole	<i>Noturus gyrinus</i>			No	Yes
Minnow, eastern silvery	<i>Hybognathus regius</i>			Yes	Yes
Mosquitofish, eastern	<i>Gambusia holbrooki</i>			No	Yes
Mudminnow, eastern	<i>Umbra pygmaea</i>			No	Yes
Perch, pirate	<i>Aphredoderus sayanus sayanus</i>			No	Yes
Perch, white	<i>Morone americana</i>			Yes	Yes
Perch, yellow	<i>Perca flavescens</i>			Yes	Yes
Pickrel, chain	<i>Esox niger</i>			Yes	Yes
Pickrel, redfin	<i>Esox americanus americanus</i>			No	Yes
Pumpkinseed	<i>Lepomis gibbosus</i>			Yes	Yes
Shad, American	<i>Alosa sapidissima</i>		Tier IV	Yes	Yes
Shad, gizzard	<i>Dorosoma cepedianum</i>			Yes	Yes
Shad, hickory	<i>Alosa mediocris</i>			No	
Shiner, common	<i>Luxilus cornutus</i>			No	
Shiner, golden	<i>Notemigonus crysoleucas</i>			Yes	Yes
Shiner, ironcolor	<i>Notropis chalybaeus</i>		Tier IV	No	
Shiner, satinfin	<i>Cyprinella analostana</i>			No	Yes
Shiner, spottail	<i>Notropis hudsonius</i>			No	
Shiner, swallowtail	<i>Notropis procne</i>			No	Yes
Silverside, inland	<i>Menidia beryllina</i>			Yes	
Sturgeon, Atlantic	<i>Acipenser oxyrinchus</i>	SOC, SSC	Tier II	No	Yes
Sturgeon, Shortnose	<i>Acipenser brevirostrum</i>	FE, SE	Tier I		Yes

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Sunfish, bluespotted	<i>Enneacanthus gloriosus</i>			Yes	Yes
Sunfish, mud	<i>Acantharchus pomotis</i>		Tier IV	No	
Sunfish, Bluegill	<i>Lepomis macrochirus</i>				Yes
Sunfish, redbreast	<i>Lepomis auritus</i>			No	Yes
Warmouth	<i>Lepomis gulosus</i>			No	Yes
<b>PART 6: OTHER AQUATIC SPECIES</b>					
Crayfish	<i>Fallicambarus uhleri</i>			No	
Crayfish	<i>Fallicambarus fodiens</i>			No	
Crayfish, devil	<i>Cambarus diogenes diogenes</i>			No	
Crayfish, no common name	<i>Cambarus acuminatus</i>			No	
Crayfish, spiny cheek	<i>Orconectes limosus</i>			No	
Crayfish, white river	<i>Procambarus acutus</i>			No	
Mussel, eastern elliptio	<i>Elliptio complanata</i>			No	
<b>PART 7: MOTHS AND BUTTERFLIES</b>					
Armyworm	<i>Pseudaletia unipuncta</i>			No	
Borer, European corn	<i>Ostrinia nubilatis</i>			No	
Butterfly, American lady	<i>Vanessa virginiensis</i>				Yes
Butterfly, Aaron's skipper	<i>Poanes aaroni</i>			No	
Butterfly, Appalachian brown	<i>Satyrodes appalachia</i>			No	
Butterfly, Black Swallowtail	<i>Papilio polyxenes</i>				Yes
Butterfly, Brazilian skipper	<i>Calpodetes ethlius</i>			No	
Butterfly, broad-winged skipper	<i>Poanes viator</i>			No	
Butterfly, cabbage white	<i>Pieris rapae</i>			No	Yes
Butterfly, Carlina satyr	<i>Hermeuptychia sosybius</i>				Yes
Butterfly, carus skipper	<i>Polites carus</i>			No	
Butterfly, clouded skipper	<i>Lerema accius</i>			No	
Butterfly, clouded sulphur	<i>Colias philodice</i>			No	Yes
Butterfly, cloudless sulphur	<i>Phoebis sennae eubule</i>			No	Yes
Butterfly, common buckeye	<i>Junonia coenia</i>			No	Yes

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Butterfly, common wood-nymph	<i>Cercyonis pegala</i>			No	Yes
Butterfly, crossline skipper	<i>Polites origenes</i>			No	
Butterfly, Delaware skipper	<i>Anatrytone logan</i>			No	
Butterfly, eastern tailed-blue	<i>Everes comyntas</i>			No	Yes
Butterfly, eastern tiger swallowtail	<i>Papilio glaucus</i>			No	Yes
Butterfly, Edwards hairstreak	<i>Satyrrium edwardsii</i>			No	
Butterfly, falcate orangetip	<i>Anthocharis midea</i>			No	Yes
Butterfly, gray hairstreak	<i>Strymon melinus</i>			No	Yes
Butterfly, great spangled fritillary	<i>Speyeria cybele</i>			No	Yes
Butterfly, hackberry emperor	<i>Asterocampa celtis</i>			No	
Butterfly, Hayhurst's scallopping	<i>Staphylus hayhurstii</i>			No	
Butterfly, Horace's duskywing	<i>Erynnis noratius</i>				Yes
Butterfly, least skipper	<i>Ancyloxypha numitor</i>			No	Yes
Butterfly, long-tailed skipper	<i>Urbanus proteus</i>			No	
Butterfly, meadow fritillary	<i>Bolonia bellona</i>				Yes
Butterfly, monarch	<i>Danaus plexippus</i>			No	Yes
Butterfly, Northern broken dash	<i>Wallengrenia egeremet</i>				Yes
Butterfly, orange sulphur	<i>Colias eurytheme</i>			No	Yes
Butterfly, Pearl Crescent	<i>Phyciodes tharos</i>				Yes
Butterfly, Peck's skipper	<i>Polites peckius</i>			No	
Butterfly, Pipevine swallowtail	<i>Battus philenor</i>				Yes
Butterfly, Question mark	<i>Polygonia interrogationis</i>				Yes
Butterfly, Rare Skipper	<i>Problema bulenta</i>	SOC			
Butterfly, Red Admiral	<i>Vanessa atalanta</i>				Yes
Butterfly, red-spotted purple	<i>Limenitis arthemis astyanax</i>			No	Yes



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Butterfly, sachem	<i>Atalopedes campestris</i>			No	
Butterfly, salt marsh skipper	<i>Panoquina panoquin</i>			No	
Butterfly, silver-spotted skipper	<i>Epargyreus clarus</i>			No	Yes
Butterfly, southern cloudywing	<i>Thorybes bathyllus</i>			No	
Butterfly, southern hairstreak	<i>Satyrium favonius</i>			No	
Butterfly, spicebush swallowtail	<i>Papilio troilus</i>			No	Yes
Butterfly, spring azure	<i>Celastrina ladon</i>			No	
Butterfly, swarthy skipper	<i>Nastra lherminier</i>			No	
Butterfly, tawny emperor	<i>Asterocampa clyton</i>			No	
Butterfly, variegated fritillary	<i>Euptoieta claudia</i>				
Butterfly, viceroy	<i>Limenitis archippus</i>			No	Yes
Butterfly, zebra swallowtail	<i>Eurytides marcellus</i>			No	Yes
Earworm, corn	<i>Heliathis zea</i>			No	
Moth, cecropia	<i>Hyalophora cecropia</i>				Yes
Moth, codling	<i>Cydia pomonella</i>			No	
Moth, green-striped mapleworm	<i>Cryocampa rubicunda</i>				Yes
Moth, gypsy	<i>Lymantria dispar</i>			No	
Moth, Imperial	<i>Eacles imperialis</i>				Yes
Moth, Luna	<i>Actias luna</i>				Yes
Moth, Plebeian sphinx	<i>Paratrea plebeja</i>			No	Yes
Moth, Polyphemus	<i>Antheraea polyphemus</i>				Yes
Moth, royal walnut moth	<i>Citheronia regalis</i>				Yes
Moth, Virginia-creeper sphinx	<i>Darapsa myron</i>			No	Yes
Moth, sycamore tussock	<i>Halysidoat harrisii</i>				Yes
Moth, tulip-tree	<i>Callosamia angulifera</i>				Yes
<b>PART 8: TICKS</b>					
Tick, American dog	<i>Dermacentor variabilis</i>			No	
Tick, brown dog	<i>Rhipicephalus sanguineus</i>			No	
Tick, lone star	<i>Amblyomma americanum</i>			No	Yes
Tick, rabbit	<i>Haemaphysalis leporispalustris</i>			No	
Tick, winter	<i>Dermacentor albipictus</i>			No	

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<b>PART 9: DRAGONFLIES</b>					
Banded pennant	<i>Celithemis fasciata</i>				Yes
Black-mantled glider	<i>Tamea lacerata</i>				Yes
Blue dasher	<i>Pachydiplax longipennis</i>				Yes
Blue-fronted dancer	<i>Argia apicalis</i>				Yes
Calico pennant	<i>Celithemis elisa</i>				Yes
Common green darner	<i>Anax junius</i>				Yes
Common whitetail	<i>Libellula lydia</i>				Yes
Dragonhunter	<i>Hagenius brevistylus</i>				Yes
Eastern amberwing	<i>Perithemis tenera</i>				Yes
Eastern forktail	<i>Ischnura verticalis</i>				Yes
Eastern pondhawk	<i>Erythemis simplicicollis</i>				Yes
Ebony jewelwing	<i>Calopteryx maculata</i>				Yes
Familiar bluet	<i>Enallagma civile</i>				Yes
Four-spotted pennant	<i>Brachymesia gravida</i>				Yes
Fragile forktail	<i>Ischnura posita</i>				Yes
Great blue skimmer	<i>Libellula vibrans</i>				Yes
Halloween pennant	<i>Celithemis eponina</i>				Yes
Needham's skimmer	<i>Libellula needhami</i>				Yes
Painted skimmer	<i>Libellula semifasciata</i>				Yes
Pied skimmer	<i>Libellula luctuosa</i>				Yes
Prince baskettail	<i>Epitheca princeps</i>				Yes
Royal river cruiser	<i>Macromia taeniolata</i>				Yes
Saddlebag spp	<i>Tamea spp.</i>				Yes
Seaside dragonlet	<i>Erythrodiplax berenice</i>				Yes
Slaty skimmer	<i>Libellula incesta</i>				Yes
Twin-spotted spiketail	<i>Cordulegaster maculata</i>				Yes
Violet-masked glider	<i>Tamea carolina</i>				Yes
White-spangled skimmer	<i>Libellula cyanea</i>				Yes
Widow skimmer	<i>Libellula luctuosa</i>				Yes
<b>PART 10: BEETLES</b>					
American carrion beetle	<i>Sylpha americana</i>				Yes
Black pine sawyer	<i>Monochamus scutallatus</i>				Yes
Common black ground beetle	<i>Pterostichus spp.</i>				Yes
Dogbane leaf beetle	<i>Chryochus auratus</i>				Yes
Eastern eyed click beetle	<i>Alaus oculatus</i>				Yes
Hercules beetle	<i>Dynastes tityus</i>				Yes
Ivory marked beetle	<i>Eburia quadrigeminata</i>				Yes
Ladybug beetle	<i>Hippodamia spp</i>				Yes
Longhorn beetle spp	Family Cerambycidae				Yes

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Patent leather beetle	<i>Odontotaenius disjunctus</i>				Yes
Pennsylvania firefly	<i>Photuris pennsylvanicus</i>				Yes
Red milkweed beetle	<i>Tetraopes tetraophthalmus</i>				Yes
Stag beetle spp.	Family Lucanidea				Yes
Tarnished plant bug	<i>Lygus lineolaris</i>				Yes
Tiger beetle spp	<i>Cincidelidae spp</i>				Yes
Wood borer spp.	Family Buprestidae				Yes
<b>PART 11: BEES</b>					
	<i>Agapostemon virescens</i>				Yes
	<i>Augochlora pura</i>				Yes
	<i>Augochlorella aurata</i>				Yes
	<i>Bombus griseocollis</i>				Yes
	<i>Halictus ligatus/poeyi</i>				Yes
	<i>Hylaeus affinis/modestus</i>				Yes
	<i>Lasioglossum bruneri</i>				Yes
	<i>Lasioglossum coreopsis</i>				Yes
	<i>Lasioglossum creberrimum</i>				Yes
	<i>Lasioglossum versatumsensumitchell</i>				Yes
	<i>Melissodes bimaculata</i>				Yes
	<i>Melissodes comptoides</i>				Yes
	<i>Melissodes denticulata</i>				Yes
	<i>Ptilothrix bombiformis</i>				Yes
	<i>Svastra atripes</i>				Yes
	<i>Triepeolus lunatus</i>				Yes
<b>PART 12: PLANTS</b>					
Red Maple	<i>Acer rubrum</i>				Yes
Common Yarrow	<i>Achillea millefolium</i>				Yes
Sensitive Joint Vetch	<i>Aeschynomene virginica</i>	FT, ST		Yes	Yes
Buckeye species	<i>Aesculus sp.</i>				Yes
Tree of Heaven	<i>Ailanthus altissima</i>				Yes
Silktree	<i>Albizia julibrissin</i>				Yes
Onion species	<i>Allium sp.</i>				Yes
Alder species	<i>Alnus sp.</i>				Yes
Ragweed	<i>Ambrosia sp.</i>				Yes
Canadian Serviceberry	<i>Amelanchier canadensis</i>				Yes
Serviceberry	<i>Amelanchier sp.</i>				Yes
Big Bluestem	<i>Andropogon gerardii</i>				Yes
Little Bluestem	<i>Andropogon scoparius</i>				Yes
Broomsedge Bluestem	<i>Andropogon virginicus</i>				Yes

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Anemone species	<i>Anemone sp.</i>				Yes
Pussytoes	<i>Antennaria plantaginifolia</i>				Yes
Stinking Chamomile (Dog Fennel)	<i>Anthemis cotula</i>				Yes
Indianhemp species	<i>Apocynum sp.</i>				Yes
Devil's Walkingstick	<i>Aralia spinosa</i>				Yes
Jack in the Pulpit	<i>Arisaema triphyllum</i>				Yes
Milkweed species	<i>Asclepias sp.</i>				Yes
Swamp Milkweed	<i>Asclepius incarnata</i>				Yes
Common Milkweed	<i>Asclepius syriaca</i>				Yes
St. Andrews Cross	<i>Ascyrum hypercoides</i>				Yes
Pawpaw	<i>Asimina triloba</i>				Yes
Ebony Spleenwort	<i>Asplenium platyneuron</i>				Yes
Aster species	<i>Aster sp.</i>				Yes
Common Lady Fern	<i>Athyrium filix-femina</i>				Yes
Eastern Baccharis	<i>Baccharis halimifolia</i>				Yes
River Birch	<i>Betula nigra</i>				Yes
Beggar Ticks	<i>Bidens leavis</i>				Yes
False nettle	<i>Bohemeria cylindrica</i>				Yes
Cutleaf Grapefern	<i>Botrychium dissectum</i>				Yes
Sideoats Grama	<i>Bouteloua curtipendula</i>				Yes
Trumpet Creeper	<i>Campsis radicans</i>				Yes
Trumpetvine	<i>Campsis tagliabuana</i>				
Lurid Sedge	<i>Carex lurida</i>				Yes
Sedge species	<i>Carex sp.</i>				Yes
American Hornbeam	<i>Carpinus caroliniana</i>				Yes
Hickory species	<i>Carya sp.</i>				Yes
Hackberry species	<i>Celtis sp.</i>				Yes
Common Buttonbush	<i>Cephalanthus occidentalis</i>				Yes
Eastern Redbud	<i>Cercis canadensis</i>				Yes
Lambsquarters	<i>Chenopodium album</i>				Yes
Spotted Wintergreen	<i>Chimaphiia maculata</i>				Yes
Sweet Woodreed	<i>Cinna arundinacea</i>				Yes
Canada Thistle	<i>Cirsium arvense</i>				Yes
Spring Beauty	<i>Claytonia virginica</i>				Yes
Sweet Pepperbush	<i>Clethra alnifolia</i>				Yes
Field Bindweed	<i>Convolvulus arvensis</i>				Yes
Lanceleaf Tickseed	<i>Coreopsis lanceolata</i>				Yes
Flowering Dogwood	<i>Cornus florida</i>				Yes
Bermuda Grass	<i>Cynodon dactylon</i>				Yes
Pink Ladyslipper	<i>Cypripedium acaule</i>				Yes
Orchardgrass	<i>Dactylis glomerata</i>				Yes
Queen Anne's Lace	<i>Daucus carota</i>				Yes
Eastern Hayscented Fern	<i>Dennstaedtia punctilobula</i>				Yes
Nakedflower Ticktrefoil	<i>Desmodium nudiflorum</i>				Yes

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Panicledleaf Ticktrefoil	<i>Desmodium paniculatum</i>				Yes
Deertongue	<i>Dichantherium clandestinum</i>				Yes
Wild Yam	<i>Dioscorea villosa</i>				Yes
Common Persimmon	<i>Diospyros virginiana</i>				Yes
Woodfern species	<i>Dryopteris sp.</i>				Yes
Eastern Purple Coneflower	<i>Echinacea purpurea</i>				Yes
Autumn Olive	<i>Elaeagnus umbellata</i>				Yes
Field Horsetail	<i>Equisetum arvense</i>				
Sand Lovegrass species	<i>Eragrostis sp.</i>				Yes
Fireweed	<i>Erechtites hieracifolia</i>				Yes
Eastern Daisy Fleabane	<i>Erigeron annuus</i>				Yes
Canadian Horseweed	<i>Erigeron canadensis</i>				Yes
Bursting-heart	<i>Euonymus americanus</i>				Yes
White Snakeroot	<i>Ageratina altissima</i>				Yes
Blue Mistflower	<i>Conoclinium coelestinum</i>				Yes
Coastal Plain Joe Pye Weed	<i>Eupatoriadelphus dubius</i>				Yes
Common Boneset	<i>Eupatorium perfoliatum</i>				Yes
American Beech	<i>Fagus grandifolia</i>				Yes
Fescue species	<i>Festuca sp.</i>				Yes
Green Ash	<i>Fraxinus pennsylvanica</i>				Yes
Ash species	<i>Fraxinus sp.</i>				Yes
Bedstraw species	<i>Galium sp.</i>				Yes
Eastern Teaberry	<i>Gaultheria procumbens</i>				Yes
Huckleberry species	<i>Gaylussacia sp.</i>				Yes
Closed Gentian	<i>Gentian clausa</i>				Yes
Soybean	<i>Glycine max</i>				Yes
Rattlesnake Plantain	<i>Goodyera pubescens</i>				Yes
American Witchhazel	<i>Hamamelis virginiana</i>				Yes
American False Pennyroyal	<i>Hedeoma pulegioides</i>				Yes
Maximilian Sunflower	<i>Helianthus maximiliani</i>				Yes
Swamp Pink	<i>Helonias bullata</i>	FT, SE			Potential (perDNH)
Wild Ginger	<i>Hexostylus virginica</i>				Yes
Marshmallow	<i>Hibiscus moscheutos</i>				Yes
St. Johnswort species	<i>Hypericum sp.</i>				Yes
American Holly	<i>Ilex opaca</i>				Yes

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Common Winterberry	<i>Ilex verticillata</i>				Yes
Jewelweed/ Touch-me-not species	<i>Impatiens sp.</i>				Yes
Redstar	<i>Ipomoea coccinea</i>				Yes
Paleyellow Iris	<i>Iris pseudacorus</i>				Yes
Small Whorled Pogonia	<i>Isotria medioloides</i>	FT, SE			Potential (perDNH)
Black Walnut	<i>Juglans nigra</i>				Yes
Needlegrass Rush	<i>Juncus roemerianus</i>				Yes
Rush species	<i>Juncus sp.</i>				Yes
Eastern Redcedar	<i>Juniperus virginiana</i>				Yes
Mountain Laurel	<i>Kalmia latifolia</i>				Yes
Rice Cutgrass	<i>Leersia oryzoides</i>				Yes
Sericea Lespedeza	<i>Lespedeza cuneata</i>				Yes
Fetterbush	<i>Leucothoe racemosa</i>				Yes
Privet species	<i>Ligustrum sp.</i>				Yes
Turk's-cap Lily	<i>Lilium superbum</i>				Yes
Northern Spicebush	<i>Lindera benzoin</i>				Yes
Twayblade, large	<i>Liparis lilifolia</i>				Yes
Sweetgum	<i>Liquidambar styraciflua</i>				Yes
Tuliptree	<i>Liriodendron tulipifera</i>				Yes
Cardinal Flower	<i>Lobelia cardinalis</i>				Yes
Japanese Honeysuckle	<i>Lonicera japonica</i>				Yes
Running Clubmoss	<i>Lycopodium clavatum</i>				Yes
Fan Clubmoss	<i>Lycopodium flabelliforme</i>				Yes
Clubmoss species	<i>Lycopodium sp.</i>				Yes
Maleberry	<i>Lyonia ligustrina</i>				Yes
Sweetbay	<i>Magnolia virginiana</i>				Yes
Indian Cucumber-root	<i>Medeola virginiana</i>				Yes
Wild Cucumber	<i>Melothria pendula</i>				Yes
Nepalese Browntop	<i>Microstegium vimineum</i>				Yes
Climbing Hempvine	<i>Mikania scandens</i>				Yes
Partridgeberry	<i>Mitchella repens</i>				Yes
Bee Balm	<i>Monarda didyma</i>				Yes
Mulberry species	<i>Morus sp.</i>				Yes
Wax Myrtle	<i>Myrica cerifera</i>				Yes
Black Gum	<i>Nyssa sylvatica</i>				Yes
Sensitive Fern	<i>Onoclea sensibilis</i>				Yes
Pricklypear species	<i>Opuntia sp.</i>				Yes
Cinnamon Fern	<i>Osmunda cinnamomea</i>				Yes
Royal Fern	<i>Osmunda regalis</i>				Yes
Violet Wood Sorrel	<i>Oxalis violacea</i>				
Sourwood	<i>Oxydendrum arboreum</i>				Yes
American Ginseng	<i>Panax quinquefolius</i>	ST			Yes
Switchgrass	<i>Panicum virgatum</i>				Yes



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Virginia Creeper	<i>Parthenocissus quinquefolia</i>				
Yellow Passionflower	<i>Passiflora lutea</i>				Yes
Princesstree	<i>Paulownia tomentosa</i>				Yes
Arrow Arum	<i>Peltandra virginica</i>				Yes
Eastern Smooth Beard Tongue	<i>Penstemon laevigatus</i>				Yes
Common Reed	<i>Phragmites australis</i>				Yes
Clammy Groundcherry	<i>Physalis heterophylla</i>				Yes
American Pokeweed	<i>Phytolacca americana</i>				Yes
Loblolly Pine	<i>Pinus taeda</i>				Yes
Virginia Pine	<i>Pinus virginiana</i>				Yes
Eastern Prairie Fringed Orchid	<i>Platanthera leucophaea</i>	FT			Yes
American Sycamore	<i>Platanus occidentalis</i>				Yes
Grass species	<i>Poa sp.</i>				Yes
Mayapple	<i>Podophyllum peltatum</i>				Yes
Solomon's Seal	<i>Polygonatum commutatum</i>				Yes
Halberdleaf Tearthumb	<i>Polygonum arifolium</i>				Yes
Japanese Knotweed	<i>Polygonum cuspidatum</i>				Yes
Dotted Smartweed	<i>Polygonum punctatum</i>				Yes
Arrowleaf Tearthumb	<i>Polygonum sagittatum</i>				Yes
Smartweed species	<i>Polygonum sp.</i>				Yes
Christmas Fern	<i>Polystichum acrostichoides</i>				Yes
Eastern Cottonwood	<i>Populus deltoides</i>				Yes
Cinquefoil species	<i>Potentilla sp.</i>				Yes
Black Cherry	<i>Prunus serotina</i>				Yes
White Oak	<i>Quercus alba</i>				Yes
Scarlet Oak	<i>Quercus coccinea</i>				Yes
Southern Red Oak	<i>Quercus falcata</i>				Yes
Overcup Oak	<i>Quercus lyrata</i>				Yes
Swamp Chestnut Oak	<i>Quercus michauxii</i>				Yes
Water Oak	<i>Quercus nigra</i>				Yes
Pin Oak	<i>Quercus palustris</i>				Yes
Willow Oak	<i>Quercus phellos</i>				Yes
Chestnut Oak	<i>Quercus prinus</i>				Yes
Northern Red Oak	<i>Quercus rubra</i>				Yes
Black Oak	<i>Quercus velutina</i>				Yes
Great Laurel	<i>Rhododendron maximum</i>				Yes
Swamp Azalea	<i>Rhododendron viscosum</i>				
Winged Sumac	<i>Rhus copallina</i>				Yes

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Smooth Sumac	<i>Rhus glabra</i>				Yes
Staghorn Sumac	<i>Rhus hirta</i>				Yes
Sumac species	<i>Rhus sp.</i>				Yes
Black Locust	<i>Robinia pseudoacacia</i>				Yes
Multiflora Rose	<i>Rosa multiflora</i>				Yes
Swamp Rose	<i>Rosa palustris</i>				Yes
Blackberry species	<i>Rubus spp.</i>				Yes
Blackeyed Susan	<i>Rudbeckia hirta</i>				Yes
Common Sheep Sorrel	<i>Rumex acetosella</i>				Yes
Dock species	<i>Rumex sp.</i>				Yes
Arrowhead species	<i>Sagittaria sp.</i>				Yes
Black Willow	<i>Salix nigra</i>				Yes
Lyreleaf Sage	<i>Salvia lyrata</i>				Yes
Elderberry	<i>Sambucus canadensis</i>				Yes
Sassafras	<i>Sassafras albidum</i>				Yes
Lizard's Tail	<i>Saururus cernuus</i>				Yes
Leafy Bulrush	<i>Scirpus polyphyllus</i>				Yes
Bulrush species	<i>Scirpus sp.</i>				Yes
Skullcap species	<i>Scullilaria eleptica</i>				Yes
Foxtail species	<i>Setaria sp.</i>				
Greenbrier species	<i>Smilax sp.</i>				Yes
Tall Goldenrod	<i>Solidago hederacea</i>				Yes
Hyssop-leaved Goldenrod	<i>Solidago hyssopifolia</i>				Yes
Sweet Goldenrod	<i>Solidago odora</i>				Yes
Goldenrod species	<i>Solidago sp.</i>				Yes
Indiangrass	<i>Sorghastrum nutans</i>				Yes
Johnsongrass	<i>Sorghum halepense</i>				Yes
Saltmeadow Cordgrass	<i>Spartina patens</i>				
Prairie Cordgrass	<i>Spartinia pectinata</i>				Yes
Sphagnum moss species	<i>Sphagnum sp.</i>				Yes
Dropseed species	<i>Sporobolus sp.</i>				Yes
Chickweed species	<i>Stellaria sp.</i>				Yes
Bald Cypress	<i>Taxodium distichum</i>				Yes
New York Fern	<i>Thelypteris noveboracensis</i>				Yes
Fern species	<i>Thelypteris sp.</i>				Yes
Jumpseed	<i>Tovara virginiana</i>				Yes
Poison Ivy	<i>Toxicodendron radicans</i>				Yes
Red Clover	<i>Trifolium pratense</i>				Yes
Venus Looking Glass species	<i>Triodanis sp.</i>				Yes
Yellowfruit Horse-gentian	<i>Triosteum angustifolium</i>				
Eastern Gamagrass	<i>Tripsacum dactyloides</i>				Yes
Narrowleaf Cattail	<i>Typha angustifolia</i>				Yes

COMMON NAME	SCIENTIFIC NAME	FEDERAL AND STATE STATUS <sup>1</sup>	STATE WILDLIFE ACTION PLAN RANK <sup>2</sup>	CONFIRMED BY FWIS <sup>3</sup>	CONFIRMED BY REFUGE
Cattail species	<i>Typha sp.</i>				Yes
Elm species	<i>Ulmus sp.</i>				Yes
Perfoliated Bellwort	<i>Uvularia perfoliata</i>				Yes
Lowbush Blueberry	<i>Vaccinium angustifolium</i>				Yes
Highbush Blueberry	<i>Vaccinium corymbosum</i>				Yes
Creeping Blueberry	<i>Vaccinium crassifolium</i>				Yes
Blueberry species	<i>Vaccinium sp.</i>				Yes
Deerberry	<i>Vaccinium stamineum</i>				Yes
White Vervain	<i>Verbena urticifolia</i>				
Southern Arrowwood	<i>Viburnum dentatum</i>				Yes
Blackhaw Viburnum	<i>Viburnum prunifolium</i>				Yes
Vetch species	<i>Vicia sp.</i>				
Grape species	<i>Vitis sp.</i>				Yes
Netted Chainfern	<i>Woodwardia areolata</i>				Yes
Chainfern species	<i>Woodwardia sp.</i>				Yes
Corn	<i>Zea mays</i>				Yes
Giant Cutgrass	<i>Zizaniopsis miliacea</i>				Yes

<sup>1</sup>FE=Federal Endangered; FT=Federal Threatened; FC=Federal Candidate; SOC=Federal Species of Concern (not a legal status; list maintained by USFWS Virginia Field Office); SE=State Endangered; ST=State Threatened; GCN=Greatest Conservation Need and Tiers I-IV from State Wildlife Action Plan; SSC=State Special Concern (not a legal status); Virginia Division of Natural Heritage Program ranking from: (1) critically imperiled to demonstrably secure (5) at the global (G), national (N) or state (S) level.

<sup>2</sup>Tier I=Critical need, extremely high risk of extinction or extirpation. Tier II=Very high conservation need. Tier III=High conservation need. Tier IV=Moderate conservation need. For more detailed information regarding these categories, please refer to table A.3.

<sup>3</sup> FWIS - Fish and Wildlife Information Service; The following list was compiled from the Virginia Fish and Wildlife Information Services (FWIS) database (2003 version) for the Rappahannock River-Cat Point Creek area and includes additional species from Refuge surveys and other trusted sources. Species with blanks in the "Confirmed by FWIS" column are additions to the FWIS list by Sandy Spencer, Refuge Biologist. A "no" in this column means the State has no voucher for this species as of the date of the FWIS list.

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**Table A.3. Conservation List and Agency, Tier Categories, and Definition**

CONSERVATION LIST	CATEGORIES	CRITERIA OR RULE
Virginia Wildlife Action Plan (2005)	Tier I	<u>Critical need.</u> Extremely high risk of extinction or extirpation. Populations are at critically low levels, face immediate threat(s), or occur within an extremely limited range. Intense and immediate management action is needed.
	Tier II	<u>Very high conservation need.</u> High risk of extinction or extirpation. Populations of these species are at very low levels, face real threat(s), or occur within a very limited distribution. Immediate management is needed for stabilization and recovery.
	Tier III	<u>High conservation need.</u> Extinction or extirpation possible. Populations are in decline, have declined to low levels, or are restricted in their range. Management action is needed to stabilize or increase these populations.
	Tier IV	<u>Moderate conservation need.</u> Species may be rare in parts of its range, particularly in the periphery. Populations of these species have demonstrated a declining trend, or a declining trend is suspected, which, if continued, is likely to qualify the species for a higher trend in the foreseeable future. Long term planning is necessary to stabilize or increase populations.
Partners in Flight (PIF) Mid-Atlantic Coastal Plain (Area 44) Bird Conservation Assessment (2004)	Tier IA	<u>High Continental Concern and High Regional Responsibility.</u> Species for which this region shares in major conservation responsibility (i.e. conservation in this region is critical to the overall health of this species).
	Tier IB	<u>High Continental Concern and Low Regional Responsibility.</u> Species for which this region can contribute to range-wide conservation objectives where the species occurs.
	Tier IIA	<u>High Regional Concern.</u> Species that are experiencing declines in the core of their range and that require short-term conservation action to reverse or stabilize trends.
	Tier IIB	<u>High Regional Responsibility.</u> Species for which this region shares in the responsibility for long-term conservation, even if they are not currently declining or threatened. These are species of moderate overall priority with a disproportionately high percentage of their total population in the region.
	Tier IIC	<u>High Regional Threats.</u> Species of moderate overall priority that are uncommon in a region and whose remaining populations are threatened, usually because of extreme threats to sensitive habitats. These are species with high breeding threat scores within the region, or in combination with high non-breeding threats outside the region.
	Tier III	<u>Additional Watch List.</u> These species are on the U.S. National Watch List not included in the above tiers. These species score highly enough based on global criteria to warrant conservation attention wherever they occur in bird conservation regions with high area importance factors. This factor is based on two components: relative density in the region, and the proportion of the global population of a species that is contained within the region during the breeding season.
	Tier IV	<u>Additional Federally Listed.</u> Species listed under the U.S. Endangered Species Act receive conservation attention wherever they occur.
	Tier V	<u>Additional State Listed.</u> Species on state endangered, threatened, or special concern lists that did not meet any of above criteria. These are often rare or peripheral populations.

CONSERVATION LIST	CATEGORIES	CRITERIA OR RULE
North Atlantic Regional Shorebird Plan (2001)	5	Regional Priority Level: High
	4	Regional Priority Level: Moderate-High
	3	Regional Priority Level: Moderate
	2	Regional Priority Level: Moderate-Low
North American Waterbird Conservation Plan (NAWCP; 2002)	Highly Imperiled	This includes all species with significant population declines and either low populations or some other high risk factor.
	High Concern	Species that are not highly imperiled. Populations of these species are known or thought to be declining, and have some other known or potential threats as well.
	Moderate Concern	Species that are not highly imperiled or high concern. Populations of these species are either a) declining with moderate threats or distributions; b) stable with known or potential threats and moderate to restricted distributions; or c) relatively small with relatively restricted distributions.
	Low Concern	Species that are not highly imperiled, of high concern or moderate concern. Populations of these species are either a) stable with moderate threats and distributions; b) increasing but with known or potential threats and moderate to restricted distributions; or c) of moderate size with known or potential threats and moderate to restricted distributions.
	Not Currently at Risk	All other species for which information was available, that were not highly imperiled or of high, moderate or low concern.
	Information Lacking	If both population trend and population size could not be estimated, species were not ranked.
North American Waterfowl Management Plan (NAWMP) Implementation Framework (2004)	Highest	Continental Priority – High <i>and</i> Geographic Importance – High
	High	Continental Priority – Moderately High, Moderate, Moderately Low or Above Objective <i>and</i> Geographic Importance – High  <b>OR</b> Continental Priority- High <i>and</i> Geographic Importance-Moderately High
	Moderately High	Continental Priority – Moderately High or Moderate <i>and</i> Geographic Importance – Moderately High
	Moderate	Continental Priority – Moderately Low or Above Objective <i>and</i> Geographic Importance – Moderately High  <b>OR</b> Continental Priority – High <i>and</i> Geographic Importance – Moderately Low
	Moderately Low	Continental Priority – Moderately High or Moderate <i>and</i> Geographic Importance – Moderately Low
	Low	Continental Priority – Moderately low or Above Objective <i>and</i> Geographic Importance – Moderately Low

<sup>1</sup>State WAP Definitions: Tier I = critical conservation need; Tier II = very high conservation need; Tier III = high conservation need; Tier IV = moderate conservation need

<sup>2</sup>BCR 30 2007 Definitions: Highest = High BCR Concern and High BCR Responsibility and (High or Moderate Continental Concern); High = High Continental Concern and Moderate BCR Responsibility

<sup>3</sup>The Audubon Watch list comes from two sources: The 2002 Audubon Watch List; and the Audubon State of the Birds Report for Virginia. In the Audubon Watch list column:

“X” represents a bird species on The 2002 Audubon Watch List

*Species Known or Suspected on the Refuge, Including Species of Conservation Concern*

“\*\*” represents a bird species that breeds or likely breeds in the project area and are declining at  $\geq 70$  percent per year over the past 40 years.

Sources for the Conservation List Used for This Table:

1. WAP (Wildlife Action Plan) of Virginia Department of Game and Inland Fisheries. 2005. Virginia's Comprehensive Wildlife Conservation Strategy (from Chapter 4: Species of Greatest Conservation Need in Virginia's Coastal Plain) VDGIF, Richmond, VA;
2. The 2002 Audubon Watch List. <http://www.audubon2.org/watchlist/viewWatchlist.jsp>. Accessed August 17, 2007.
3. All Common Virginia Birds Declining Greater than 50 percent over 40 Years on the BBS or CBC. <http://stateofthebirds.audubon.org/cbid/>
4. Steinkamp, M. 2007. BCR 30 Plan. Conservation priority categories for bird species in BCR 30. ACGV. (June 18 draft).