



# Illinois Envirothon | Wildlife

## WILDLIFE LEARNING TOPICS

### 1. Knowledge of Amphibians, Birds, Mammals and Reptiles

- a. Amphibian, Bird, Mammal and Reptile identification
- b. Natural history of Amphibians, Birds, Mammals and Reptiles
- c. Habitat/ecosystem types and associated wildlife

### 2. Understanding Wildlife Ecology

- a. Survival requirements of wildlife and how they are met
- b. Ecosystem dynamics:
  1. Predator-prey relationships
  2. Energy flow-food chain, food web, food pyramid
  3. Succession
- c. Adaptations
- d. Population dynamics

### 3. Conservation and Management of Wildlife

- a. Illinois Conservation & Wildlife Agencies
- b. Hunting and Trapping Regulations
- c. Game and Wildlife Code
- d. Wildlife Management
- e. Improving/managing habitat for wildlife

### 4. Issues Involving Wildlife and Society

- a. Biodiversity
- b. Endangered and Threatened Species
  1. What makes a species more prone to becoming endangered than other species?
  2. Responsibility for upholding endangered species act.
  3. Terminology: for example, reintroduction, endangered, threatened, extirpated and extinct
  4. Endangered and Threatened birds and mammals of Illinois
- c. Habitat Loss and fragmentation
- d. Managing/planning for people and wildlife
- e. Non-native species; invasive species; introduced species
- f. Reintroduction of native species
- g. Current Issue –



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## WILDLIFE OBJECTIVES

Envirothon wildlife ecology contestants should be able to:

### 1. Have knowledge of Wild Amphibians, Birds, Mammals and Reptiles:

- a. Answer questions concerning the natural history of and identify species if given natural history information.
- b. Identify and be able to group animals that would be associated with specific ecosystems.
- c. Evaluate a specific habitat and select or list species most likely to live there.
- d. Describe various roles of amphibians, birds, mammals and reptiles in their ecosystems and be able to cite examples.
- e. Identify wildlife species from mounted specimens, pictures or silhouettes.
- f. Identify wildlife species based on signs including: fur, hair, feathers, pellets, tracks, skulls and scat. (Species will be selected from list C.)
- g. Identify bird calls/songs of bird species found on list. A.

*\* Species for items a – e will be selected from the Identification, Natural History, Wildlife Biology & Habitat Listing.*

### 2. Understand Wildlife Ecology

- a. Identify basic needs required by wildlife.
- b. Identify, describe and explain specific anatomical, physiological and/or behavior adaptations of wildlife to the environment and how they help the animal survive. (i.e. migration, hibernation, defense posturing, strong beak, webbed feet, etc.)
- c. Describe predator-pre relationships, discuss physical adaptations of predator vs. prey species, and be able to cite Illinois examples.
- d. Describe and be able to model food chains, food webs, trophic levels – be able to cite Illinois examples.
- e. Describe factors that limit or enhance population growth.
- f. Define and explain terms associated with wildlife biology and wildlife populations (ie. natality, mortality, precocial, altricial, crepuscular, nocturnal, delayed implantation, carnivore, niche, herbivore, insectivore, omnivore, producer, primary consumer, secondary consumer, etc.)
- g. Define and explain basic ecological concepts and terminology (ie. Limiting factor, biological carrying capacity, cultural carrying capacity, territory, home range, populations, community, succession)

### 3. Conservation and Management of Wildlife

- a. Describe the role of Illinois Department of Natural Resources (IDNR) as the agency responsible for the protection, conservation, and management of wild amphibians, birds, mammals and reptiles of Illinois.
- b. Identify IDNR as the agency responsible for hunting and trapping regulations and upholding the Game and Wildlife Code in the state of Illinois.
- c. Answer questions concerning Illinois hunting, trapping or limit regulations.
- d. Classify birds and mammals as to the Game and Wildlife Code Classifications.



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### Conservation and Management of Wildlife, cont'd

- e. Identify and describe methods that can be used to evaluate a habitat.
- f. Identify and describe methods that can be used to determine the abundance and distribution of wildlife.
- g. Identify and describe methods that can be used to determine the specific needs of a species.
- h. Describe methods used to manage and conserve wildlife and wildlife habitat.
- i. Describe ways each person can help with the protection, conservation management and enhancement of wild bird and mammal populations.
- j. Identify state and federal agencies and their roles in protecting, conserving and restoring wildlife habitat.

### 4. Issues Involving Wildlife and Society

- a. Define biodiversity and provide examples of how biodiversity is important to people and wildlife.
- b. Identify and explain the major causes of loss of biodiversity in our state and worldwide.
- c. Explain the relationship of deer and deer management with biodiversity in our state.
- d. Identify and explain the terms used in endangered and threatened species, for example: extinct, extirpated, endangered, threatened, and reintroduction
- e. Identify wild amphibians, birds, mammals and reptiles that are listed as endangered, extirpated, or threatened. Know natural history and habitat requirements. Describe the main causes that have led to the depleted populations and describe measures being taken to help their recovery.
- f. Identify and explain factors that have led to species becoming endangered and threatened.
- g. Identify and explain factors which can make a species more likely to become endangered and threatened.
- h. Identify and explain methods that are used to save an endangered or threatened species.
- i. Describe major causes of habitat loss in Illinois and how habitat loss affects wildlife.
- j. Explain the role of the Endangered Species Act in helping to conserve endangered and threatened species.



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## WILDLIFE RESOURCES

### A. material located in packet

Biodiversity of Illinois CD-ROMS from Illinois Department of Resources

- Volume 1: Aquatic Habitat
- Volume 2: Woodland Habitats
- Volume 3: Prairie & Edge Habitats

Newman, Debbie and Warner, Richard and Mankin, Phil. Creating Habitats and Homes for Illinois Wildlife. Illinois. 2003.

Illinois Hunting and Trapping Guide - change annually

Miller, Dorcas. Track Finder - A Guide to mammal Tracks of Eastern North America. Nature Study Guild Publishers, New York. 1981.

McClain, William. Prairie Establishment and Landscaping. Technical Publication#2. Division of Natural Heritage. Illinois Department of Natural Resources. Springfield, IL 1997.

### B. pdf files found on CD

Andrews, Kathy. Nothing But the Tooth. Outdoor Illinois. November 2005: 8-9.

Appleby, Nixon, Helm, Kruse and Sharpe. The Emerald Ash Borer: An Eminent Threat to Illinois. The Illinois Steward. 13.1 (2004): 17-18.

Helm, Charles. Entomological Homeland Security. The Illinois Steward. 13.1 (2004): 13-16.

Micetich, Tom. Illinois Deer Management. Outdoor Illinois. September 2006: 25-27.

Outdoor Illinois January 2007. Special Edition - Illinois Endangered and Threatened Species, Remnant, Rare Habitats

Raghu, Post and Wiedenmann. Invasive Exotic Plants in Illinois. Outdoor Illinois. May 2006: 2-5.

Smaglick Johnson, Laurie. The Warbler Way. Outdoor Illinois. May 2006: 6-8.

### C. websites

<http://www.birds.cornell.edu/AllAboutBirds/>

[www.inhs.uiuc.edu/cbd/collections/AmphReptColln/herp\\_links/Field%20Guide/TOC.html](http://www.inhs.uiuc.edu/cbd/collections/AmphReptColln/herp_links/Field%20Guide/TOC.html)

## Identification of Bird Calls, Songs & Sounds

ORDER	FAMILY	Subfamily	Genus	Species	Common Name
<b>ANSERIFORMES</b>					
	<b>ANATIDAE</b>				
		Anserinae	<i>Branta</i>	<i>canadensis</i>	Canada goose
		Anatinae	<i>Aix</i> <i>Anas</i>	<i>sponsa</i> <i>platyrhynchos</i>	wood duck mallard
<b>GALLIFORMES</b>					
	<b>PHASIANIDAE</b>				
		Phasianinae	<i>Phasianus</i>	<i>colchicus</i>	ring-necked pheasant
		Tetraoninae	<i>Tympanuchus</i>	<i>cupido</i>	greater prairie-chicken
		Meleagridinae	<i>Meleagris</i>	<i>gallopavo</i>	wild turkey
	<b>ODONTOPHORIDAE</b>				
			<i>Colinus</i>	<i>virginianus</i>	northern bobwhite
<b>CICONIIFORMES</b>					
	<b>ARDEIDAE</b>				
			<i>Ardea</i>	<i>herodias</i>	great blue heron
<b>FALCONIFORMES</b>					
	<b>ACCIPITRIDAE</b>				
		Pandioninae	<i>Pandion</i>	<i>haliaetus</i>	osprey
		Accipitrinae	<i>Haliaeetus</i> <i>Buteo</i>	<i>leucocephalus</i> <i>jamaicensis</i>	bald eagle red-tailed hawk
	<b>FALCONIDAE</b>				
		Falconinae	<i>Falco</i>	<i>sparverius</i>	American kestrel
<b>CHARADRIIFORMES</b>					
	<b>CHARADRIIDAE</b>				
		Charadriinae	<i>Charadrius</i> <i>Charadrius</i>	<i>melodus</i> <i>vociferus</i>	pipit plover killdeer
	<b>SCOLOPACIDAE</b>				
		Scolopacinae	<i>Scolopax</i>	<i>minor</i>	American woodcock
<b>COLUMBIFORMES</b>					
	<b>COLUMBIDAE</b>				
			<i>Senaia</i>	<i>macroura</i>	mourning dove
<b>CUCULIFORMES</b>					
	<b>CUCULIDAE</b>				
		Cuclinae	<i>Coccyzus</i>	<i>americanus</i>	yellow-billed cuckoo

Order	Family	Subfamily	Genus	Species	Common Name
<b>STRIGIFORMES</b>					
	<b>TYTONIDAE</b>		<i>Tyto</i>	<i>alba</i>	barn owl
	<b>STRIGIDAE</b>		<i>Megascops</i>	<i>asio</i>	eastern screech-owl
			<i>Bubo</i>	<i>virginianus</i>	great horned owl
			<i>Strix</i>	<i>varia</i>	barred owl
<b>CAPRIMULGIFORMES</b>					
	<b>CAPRIMULGIDAE</b>				
		Chordeilinae	<i>Chordeiles</i>	<i>minor</i>	common nighthawk
<b>PICIFORMES</b>					
	<b>PICIDAE</b>				
		Picinae	<i>Colaptes</i>	<i>auratus</i>	northern flicker
			<i>Dryocopus</i>	<i>pileatus</i>	pileated woodpecker
<b>PASSERIFORMES</b>					
	<b>TYRANNIDAE</b>				
		Fluvicolinae	<i>Contopus</i>	<i>virens</i>	eastern wood-pewee
			<i>Sayornis</i>	<i>phoebe</i>	eastern phoebe
	<b>VIREONIDAE</b>		<i>Vireo</i>	<i>olivaceus</i>	red-eyed vireo
	<b>CORVIDAE</b>		<i>Cyanocitta</i>	<i>crystata</i>	blue jay
			<i>Corvus</i>	<i>brachyrhynchos</i>	American crow
	<b>PARIDAE</b>		<i>Poecile</i>	<i>atricapillus</i>	black-capped chickadee
	<b>TROGLODYTIDAE</b>		<i>Thryothorus</i>	<i>ludovicianus</i>	Carolina wren
			<i>Troglodytes</i>	<i>aedon</i>	house wren
	<b>TURDIDAE</b>		<i>Hylocichla</i>	<i>mustelina</i>	wood thrush
			<i>Turdus</i>	<i>migratorius</i>	American robin
	<b>MIMIDAE</b>		<i>Dumetella</i>	<i>carolinensis</i>	gray catbird
			<i>Mimus</i>	<i>polyglottos</i>	northern mockingbird
			<i>Toxostoma</i>	<i>rufum</i>	brown thrasher
<b>PASSERIFORMES</b>					
	<b>PARULIDAE</b>		<i>Dendroica</i>	<i>petechia</i>	yellow warbler
			<i>Dendroica</i>	<i>coronata</i>	yellow-rumped warbler
			<i>Protonotaria</i>	<i>citrea</i>	prothonotary warbler
			<i>Geothlypis</i>	<i>trichas</i>	common yellowthroat
	<b>EMBERIZIDAE</b>		<i>Pipilo</i>	<i>erythrophthalmus</i>	eastern towhee
	<b>CARDINALIDAE</b>		<i>Cardinalis</i>	<i>cardinalis</i>	northern cardinal
	<b>ICTERIDAE</b>		<i>Agelaius</i>	<i>phoeniceus</i>	red-winged blackbird
			<i>Sturnella</i>	<i>magna</i>	eastern meadowlark
			<i>Icterus</i>	<i>galbula</i>	Baltimore oriole

# Identification, Natural History, Wildlife Biology & Habitat

ORDER	FAMILY	Subfamily	Genus	Species	Common Name
<b>Birds of Prey</b>					
<b>FALCONIFORMES</b>					
<b>ACCIPITRIDAE</b>					
		<b>Pandioninae</b>	<i>Pandion</i>	<i>haliaetus</i>	osprey
		<b>Accipitrinae</b>	<i>Haliaeetus</i>	<i>leucocephalus</i>	bald eagle
			<i>Circus</i>	<i>cyaneus</i>	northern harrier
			<i>Accipiter</i>	<i>cooperii</i>	Cooper's hawk
			<i>Accipiter</i>	<i>gentilis</i>	northern goshawk
			<i>Buteo</i>	<i>lineatus</i>	red-shouldered hawk
			<i>Buteo</i>	<i>platypterus</i>	broad-winged hawk
			<i>Buteo</i>	<i>jamaicensis</i>	red-tailed hawk
			<i>Buteo</i>	<i>lagopus</i>	rough-legged hawk
			<i>Aquila</i>	<i>chrysaetos</i>	golden eagle
<b>FALCONIDAE</b>					
		<b>Falconinae</b>	<i>Falco</i>	<i>sparverius</i>	American kestrel
			<i>Falco</i>	<i>peregrinus</i>	peregrine falcon
<b>STRIGIFORMES</b>					
<b>TYTONIDAE</b>					
			<i>Tyto</i>	<i>alba</i>	barn owl
<b>STRIGIDAE</b>					
			<i>Megascops</i>	<i>asio</i>	eastern screech-owl
			<i>Bubo</i>	<i>virginianus</i>	great horned owl
			<i>Bubo</i>	<i>scandiacus</i>	snowy owl
			<i>Strix</i>	<i> varia</i>	barred owl
			<i>Asio</i>	<i>otus</i>	long-eared owl
			<i>Asio</i>	<i>flammeus</i>	short-eared owl
			<i>Aegolius</i>	<i>acadicus</i>	northern saw-whet owl

Order	Family	Subfamily	Genus	Species	Common Name
<b><u>Water Birds/Shore Line Birds</u></b>					
<b>ANSERIFORMES</b>					
<b>ANATIDAE</b>					
		Anserinae			
			<i>Cygnus</i>	<i>buccinator</i>	trumpeter swan
		Anatinae			
			<i>Aix</i>	<i>sponsa</i>	wood duck
			<i>Anas</i>	<i>platyrhynchos</i>	mallard
			<i>Anas</i>	<i>clypeata</i>	northern shoveler
			<i>Anas</i>	<i>acuta</i>	northern pintail
			<i>Aythya</i>	<i>valisineria</i>	canvasback
			<i>Aythya</i>	<i>marila</i>	greater scaup
			<i>Aythya</i>	<i>affinis</i>	lesser scaup
<b>CICONIIFORMES</b>					
<b>ARDEIDAE</b>					
			<i>Ardea</i>	<i>herodias</i>	great blue heron
			<i>Ardea</i>	<i>alba</i>	great egret
			<i>Egretta</i>	<i>thula</i>	snowy egret
			<i>Bubulcus</i>	<i>ibis</i>	cattle egret
			<i>Butorides</i>	<i>virescens</i>	green heron
<b>CHARADRIIFORMES</b>					
<b>CHARADRIIDAE</b>					
		Charadriinae			
			<i>Charadrius</i>	<i>melodus</i>	piping plover
			<i>Charadrius</i>	<i>vociferus</i>	killdeer
		SCOLOPACIDAE			
		Scolopacinae			
			<i>Scolopax</i>	<i>minor</i>	American woodcock

Order	Family	Subfamily	Genus	Species	Common Name
<b>Perching Birds</b>					
<b>CAPRIMULGIFORMES</b>					
<b>CAPRIMULGIDAE</b>					
		Chordeilinae	<i>Chordeiles</i>	<i>minor</i>	common nighthawk
<b>APODIFORMES</b>					
<b>APODIDAE</b>					
		Chaeturinae	<i>Chaetura</i>	<i>pelagica</i>	chimney swift
<b>PICIFORMES</b>					
<b>PICIDAE</b>					
		Picinae	<i>Melanerpes</i>	<i>erythrocephalus</i>	red-headed woodpecker
			<i>Melanerpes</i>	<i>carolinus</i>	red-bellied woodpecker
			<i>Picoides</i>	<i>pubescens</i>	downy woodpecker
			<i>Picoides</i>	<i>villosus</i>	hairy woodpecker
			<i>Colaptes</i>	<i>auratus</i>	northern flicker
			<i>Dryocopus</i>	<i>pileatus</i>	pileated woodpecker
<b>PASSERIFORMES</b>					
<b>CORVIDAE</b>					
			<i>Cyanocitta</i>	<i>cristata</i>	blue jay
			<i>Corvus</i>	<i>brachyrhynchos</i>	American crow
<b>HIRUNDINIDAE</b>					
		Hirundininae	<i>Progne</i>	<i>subis</i>	purple martin
			<i>Tachycineta</i>	<i>bicolor</i>	tree swallow
			<i>Riparia</i>	<i>riparia</i>	bank swallow
			<i>Petrochelidon</i>	<i>pyrrhonota</i>	cliff swallow
			<i>Hirundo</i>	<i>rustica</i>	barn swallow
<b>PARIDAE</b>					
			<i>Poecile</i>	<i>atricapillus</i>	black-capped chickadee
			<i>Baeolophus</i>	<i>bicolor</i>	tufted titmouse
<b>SITTIDAE</b>					
		Sittinae	<i>Sitta</i>	<i>carolinensis</i>	white-breasted nuthatch
<b>CERTHIIDAE</b>					
		Certhiinae	<i>Certhia</i>	<i>americana</i>	brown creeper
<b>TROGLODYTIDAE</b>					
			<i>Troglodytes</i>	<i>aedon</i>	house wren
<b>TURDIDAE</b>					
			<i>Sialia</i>	<i>sialis</i>	eastern bluebird
			<i>Hylocichla</i>	<i>mustelina</i>	wood thrush
			<i>Turdus</i>	<i>migratorius</i>	American robin
<b>MIMIDAE</b>					
			<i>Dumetella</i>	<i>carolinensis</i>	gray catbird
			<i>Mimus</i>	<i>polyglottos</i>	northern mockingbird
			<i>Toxostoma</i>	<i>rufum</i>	brown thrasher
<b>STURNIDAE</b>					
			<i>Sturnus</i>	<i>vulgaris</i>	European starling

Order	Family	Subfamily	Genus	Species	Common Name
<b>PASSERIFORMES</b>					
	<b>PARULIDAE</b>		<i>Dendroica</i>	<i>petechia</i>	yellow warbler
			<i>Dendroica</i>	<i>coronata</i>	yellow-rumped warbler
			<i>Dendroica</i>	<i>dominica</i>	yellow-throated warbler
			<i>Dendroica</i>	<i>cerulea</i>	cerulean warbler
			<i>Setophaga</i>	<i>ruticilla</i>	American redstart
			<i>Protonotaria</i>	<i>citrea</i>	prothonotary warbler
			<i>Limnothlypis</i>	<i>swainsonii</i>	Swainson's warbler
	<b>THRAUPIDAE</b>		<i>Piranga</i>	<i>rubra</i>	summer tanager
			<i>Piranga</i>	<i>olivacea</i>	scarlet tanager
	<b>EMBERIZIDAE</b>		<i>Pipilo</i>	<i>erythrophthalmus</i>	eastern towhee
			<i>Spizella</i>	<i>passerina</i>	chipping sparrow
			<i>Spizella</i>	<i>pusilla</i>	field sparrow
			<i>Melospiza</i>	<i>melodia</i>	song sparrow
			<i>Zonotrichia</i>	<i>albicollis</i>	white-throated sparrow
	<b>CARDINALIDAE</b>		<i>Cardinalis</i>	<i>cardinalis</i>	northern cardinal
			<i>Pheucticus</i>	<i>ludovicianus</i>	rose-breasted grosbeak
			<i>Passerina</i>	<i>cyanea</i>	indigo bunting
			<i>Spiza</i>	<i>americana</i>	dickcissel
	<b>ICTERIDAE</b>		<i>Agelaius</i>	<i>phoeniceus</i>	red-winged blackbird
			<i>Xanthocephalus</i>	<i>xanthocephalus</i>	yellow-headed blackbird
			<i>Quiscalus</i>	<i>quiscula</i>	common grackle
			<i>Molothrus</i>	<i>ater</i>	brown-headed cowbird
			<i>Icterus</i>	<i>spurius</i>	orchard oriole
			<i>Icterus</i>	<i>galbula</i>	Baltimore oriole
	<b>FRINGILLIDAE</b>				
		<b>Carduelinae</b>	<i>Carpodacus</i>	<i>purpureus</i>	purple finch
			<i>Carpodacus</i>	<i>mexicanus</i>	house finch
			<i>Carduelis</i>	<i>tristis</i>	American goldfinch

Order	Family	Subfamily	Genus	Species	Common Name
<b>Other Birds</b>					
<b>GALLIFORMES</b>					
	<b>PHASIANIDAE</b>				
		Phasianinae	<i>Phasianus</i>	<i>colchicus</i>	ring-necked pheasant
		Tetraoninae	<i>Bonasa</i>	<i>umbellus</i>	ruffed grouse
			<i>Tympanuchus</i>	<i>cupido</i>	greater prairie-chicken
		Meleagridinae			
			<i>Meleagris</i>	<i>gallopavo</i>	wild turkey
	<b>ODONTOPHORIDAE</b>				
			<i>Colinus</i>	<i>virginianus</i>	northern bobwhite
<b>CICONIIFORMES</b>					
	<b>CATHARTIDAE</b>				
			<i>Cathartes</i>	<i>aura</i>	turkey vulture
<b>CHARADRIIFORMES</b>					
	<b>SCOLOPACIDAE</b>				
		Scolopacinae			
			<i>Bartramia</i>	<i>longicauda</i>	upland sandpiper
<b>COLUMBIFORMES</b>					
	<b>COLUMBIDAE</b>				
			<i>Zenaida</i>	<i>macroura</i>	mourning dove
<b>CAPRIMULGIFORMES</b>					
	<b>CAPRIMULGIDAE</b>				
		Caprimulginae			
			<i>Caprimulgus</i>	<i>vociferus</i>	whip-poor-will
	<b>TROCHILIDAE</b>				
		Trochilinae			
			<i>Archilochus</i>	<i>colubris</i>	ruby-throated hummingbird

Order	Family	Subfamily	Genus	Species	Common Name
<b>Mammals</b>					
<b>MARSUPIALIA</b>					
	<b>DIDELPHIDAE</b>		<i>Didelphis</i>	<i>virginiana</i>	Virginia opossum
<b>INSECTIVORA</b>					
	<b>SORICIDAE</b>		<i>Blarina</i>	<i>brevicauda</i>	northern short-tailed shrew
	<b>TALPIDAE</b>		<i>Scalopus</i>	<i>aquaticus</i>	eastern mole
<b>CHIROPTERA</b>					
	<b>VESPERTILIONIDAE</b>		<i>Eptesicus</i>	<i>fuscus</i>	big brown bat
			<i>Lasionycteris</i>	<i>noctivagans</i>	silver-haired bat
			<i>Lasiurus</i>	<i>borealis</i>	red bat
			<i>Lasiurus</i>	<i>civereus</i>	hoary bat
			<i>Myotis</i>	<i>lucifugus</i>	little brown myotis
			<i>Myotis</i>	<i>sodalis</i>	Indiana myotis
<b>LAGOMORPHA</b>					
	<b>LEPORIDAE</b>		<i>Sylvilagus</i>	<i>floridanus</i>	eastern cottontail
<b>RODENTIA</b>					
	<b>CASTORIDAE</b>		<i>Castor</i>	<i>canadensis</i>	beaver
	<b>MURIDAE</b>		<i>Microtus</i>	<i>ochrogaster</i>	prairie vole
			<i>Mus</i>	<i>musculus</i>	house mouse
			<i>Neotoma</i>	<i>floridana</i>	eastern woodrat
			<i>Ondatra</i>	<i>zibethicus</i>	muskrat
			<i>Oryzomys</i>	<i>palustris</i>	marsh rice rat
			<i>Peromyscus</i>	<i>maniculatus</i>	deer mouse
	<b>SCIURIDAE</b>		<i>Marmota</i>	<i>monax</i>	woodchuck
			<i>Sciurus</i>	<i>carolinensis</i>	gray squirrel
			<i>Sciurus</i>	<i>niger</i>	fox squirrel
			<i>Spermophilus</i>	<i>franklinii</i>	Franklin's ground squirrel
			<i>Tamias</i>	<i>striatus</i>	eastern chipmunk
			<i>Tamiasciurus</i>	<i>hudsonicus</i>	red squirrel
<b>CARNIVORA</b>					
	<b>CANIDAE</b>		<i>Canis</i>	<i>latrans</i>	coyote
			<i>Urocyon</i>	<i>cinereoargenteus</i>	gray fox
			<i>Vulpes</i>	<i>vulpes</i>	red fox
	<b>FELIDAE</b>		<i>Lynx</i>	<i>rufus</i>	bobcat
	<b>MUSTELIDAE</b>		<i>Lontra</i>	<i>canadensis</i>	river otter
			<i>Mephitis</i>	<i>mephitis</i>	striped skunk
			<i>Mustela</i>	<i>frenata</i>	long-tailed weasel
			<i>Mustela</i>	<i>fnivalis</i>	least weasel
			<i>Mustela</i>	<i>vison</i>	mink
			<i>Taxidea</i>	<i>taxus</i>	badger
			<i>Procyon</i>	<i>lotor</i>	raccoon
<b>ARTIODACTYLA</b>					
	<b>CERVIDAE</b>		<i>Odocoileus</i>	<i>virginianus</i>	white-tailed deer

Order	Family	Subfamily	Genus	Species	Common Name
<b>Reptiles</b>					
<b>TESTUDINES</b>					
	CHELYDRIDAE		<i>Macrochelys</i>	<i>temminckii</i>	alligator snapping turtle
	EMYDIDAE		<i>Clemmys</i> <i>Pseudemys</i>	<i>guttata</i> <i>concinna</i>	spotted turtle river cooter
	KINOSTERNIDAE		<i>Sternotherus</i>	<i>odoratus</i>	common musk turtle
	TRIONYCHIDAE		<i>Apalone</i>	<i>mutica</i>	smooth softshell
<b>SQUAMATA Suborder SAURIA</b>					
	ANGUIDAE		<i>Ophisaurus</i>	<i>attenuatus</i>	slender glass lizard
	SCINCIDAE		<i>Eumeces</i>	<i>fasciatus</i>	five-lined skink
<b>SQUAMATA Suborder SERPENTES</b>					
	COLUBRIDAE		<i>Elaphe</i> <i>Heterodon</i> <i>Lampropeltis</i> <i>Lampropeltis</i> <i>Pituophis</i> <i>Thamnophis</i>	<i>obsoleta</i> <i>nasicus</i> <i>getula</i> <i>triangulum</i> <i>melanoleucus</i> <i>sirtalis</i>	rat snake western hog-nosed snake common kingsnake milk snake bullsnake common gartersnake
	VIPERIDAE		<i>Agkistrodon</i> <i>Crotalus</i> <i>Sistrurus</i>	<i>contortrix</i> <i>horridus</i> <i>catenatus</i>	copperhead timber rattlesnake massasauga
<b>Amphibians</b>					
<b>CAUDATA</b>					
	AMBYSTOMATIDAE		<i>Ambystoma</i> <i>Ambystoma</i> <i>Ambystoma</i>	<i>maculatum</i> <i>opacum</i> <i>texanum</i>	spotted salamander marbled salamander smallmouth salamander
	PLETHODONTIDAE		<i>Desmognathus</i>	<i>fuscus</i>	dusky salamander
	PROTEIDAE		<i>Necturus</i>	<i>maculosus</i>	common mudpuppy
<b>ANURA</b>					
	BUFONIDAE		<i>Bufo</i>	<i>americanus</i>	American toad
	HYLIDAE		<i>Acris</i> <i>Hyla</i> <i>Pseudacris</i> <i>Pseudacris</i>	<i>crepitans</i> <i>versicolor</i> <i>crucifer</i> <i>triseriata</i>	cricket frog gray treefrog spring peeper western chorus frog
	MICROHYLIDAE		<i>Gastrophryne</i>	<i>carolinensis</i>	eastern narrowmouth toad
	RANIDAE		<i>Rana</i> <i>Rana</i> <i>Rana</i> <i>Rana</i>	<i>catesbeiana</i> <i>palustris</i> <i>sphenocephala</i> <i>sylvatica</i>	bullfrog pickereel frog southern leopard frog wood frog

## Identification of Wildlife Sign

Signs can include: fur, hair feathers, pellets, nests, scat, skulls and tracks

ORDER	FAMILY	Subfamily	Genus	Species	Common Name
<b>Birds</b>					
<b>STRIGIFORMES</b>					
	<b>TYTONIDAE</b>				
			<i>Tyto</i>	<i>alba</i>	barn owl
	<b>STRIGIDAE</b>				
			<i>Megascops</i>	<i>asio</i>	eastern screech-owl
			<i>Bubo</i>	<i>virginianus</i>	great horned owl
<b>ANSERIFORMES</b>					
	<b>ANATIDAE</b>				
		Anserinae			
			<i>Branta</i>	<i>canadensis</i>	Canada goose
		Anatinae			
			<i>Aix</i>	<i>sponsa</i>	wood duck
			<i>Anas</i>	<i>platyrhynchos</i>	mallard
<b>CHARADRIIFORMES</b>					
	<b>SCOLOPACIDAE</b>				
		Scolopacinae			
			<i>Scolopax</i>	<i>minor</i>	American woodcock
<b>PASSERIFORMES</b>					
	<b>CORVIDAE</b>				
			<i>Corvus</i>	<i>brachyrhynchos</i>	American crow
	<b>PARIDAE</b>				
			<i>Poecile</i>	<i>atricapillus</i>	black-capped chickadee
	<b>TURDIDAE</b>				
			<i>Sialia</i>	<i>sialis</i>	eastern bluebird
			<i>Turdus</i>	<i>migratorius</i>	American robin
	<b>STURNIDAE</b>				
			<i>Sturnus</i>	<i>vulgaris</i>	European starling
	<b>ICTERIDAE</b>				
			<i>Icterus</i>	<i>galbula</i>	Baltimore oriole
<b>GALLIFORMES</b>					
	<b>PHASIANIDAE</b>				
		Phasianinae			
			<i>Phasianus</i>	<i>colchicus</i>	ring-necked pheasant
		Meleagridinae			
			<i>Meleagris</i>	<i>gallopavo</i>	wild turkey

ORDER	FAMILY	Subfamily	Genus	Species	Common Name
<b>Mammals</b>					
<b>MARSUPIALIA</b>					
		<b>DIDELPHIDAE</b>			
			<i>Didelphis</i>	<i>virginiana</i>	Virginia opossum
<b>LAGOMORPHA</b>					
		<b>LEPORIDAE</b>			
			<i>Sylvilagus</i>	<i>floridanus</i>	eastern cottontail
<b>RODENTIA</b>					
		<b>CASTORIDAE</b>			
			<i>Castor</i>	<i>canadensis</i>	beaver
		<b>MURIDAE</b>			
			<i>Ondatra</i>	<i>zibethicus</i>	muskrat
		<b>SCIURIDAE</b>			
			<i>Marmota</i>	<i>monax</i>	woodchuck
			<i>Sciurus</i>	<i>carolinensis</i>	gray squirrel
<b>CARNIVORA</b>					
		<b>CANIDAE</b>			
			<i>Canis</i>	<i>latrans</i>	coyote
			<i>Urocyon</i>	<i>cinereoargenteus</i>	gray fox
			<i>Vulpes</i>	<i>vulpes</i>	red fox
		<b>FELIDAE</b>			
			<i>Lynx</i>	<i>rufus</i>	bobcat
		<b>MUSTELIDAE</b>			
			<i>Lontra</i>	<i>canadensis</i>	river otter
			<i>Mephitis</i>	<i>mephitis</i>	striped skunk
			<i>Mustela</i>	<i>vison</i>	mink
			<i>Procyon</i>	<i>lotor</i>	raccoon
<b>ARTIODACTYLA</b>					
		<b>CERVIDAE</b>			
			<i>Odocoileus</i>	<i>virginianus</i>	white-tailed deer