

2023 Iowa Multiple Species Inventory and Monitoring Project: Indian Slough

Iowa's Multiple Species Inventory and Monitoring Program (MSIM) is a collaborative effort between the Iowa DNR and Iowa State University, with funding from the U.S. Fish and Wildlife Service. The MSIM Program is a standardized, statewide survey that provides basic inventory information to the wildlife species of Iowa. These surveys serve as baseline data for long term monitoring programs throughout the state. Where the entire state of Iowa cannot be surveyed as one site, because it is too large, this program allows for inferences to be made from sites examined to habitats available statewide. The strength of the monitoring program design is based upon the randomized site selection. By using a random selection of areas to include and by not choosing areas specifically because species of interest were known to occur there historically, inferences can be made for more areas than are surveyed.

Sampling protocols include, but are not limited to, mark-recapture, small mammal trapping, bird counts, herpetofauna, and other individual protocols based on taxonomic grouping (aquatic species- fishes, amphibians, and butterflies).

Species Inventory

Fishes

A total of twelve fish species were sampled, including three unidentified shad and shiner species. Some species of note include Bowfin (*Amia calva*), Quillback (*Carpoides Cyprinus*), and Redfin Grass Pickerel (*Esox americanus vermiculatus*).



Reptiles

A total of thirty reptile species were sampled, including four unidentified snake, frog, and turtle species. Some species of note include Tiger Salamander (*Ambystoma tigrinum*), Spiny Softshell Turtle (*Apalone spinifera*), and Western Ribbon Snake (*Thamnophis proximus*).



Mammals

A total of twelve mammal species were sampled, including two unidentified shrew and unknown mammal species. Some species of note include Least Weasel (*Mustela nivalis*), Beaver (*Castor canadensis*), and Muskrat (*Ondatra zibethicus*).



Birds

A total of one hundred and eight bird species were sampled, including multiple unidentified and/or unknown species. Some species of note include Pileated Woodpecker (*Dryocopus pileatus*), Chimney Swift (*Chaetura pelagica*), and Osprey (*Pandion haliaetus*).



Butterflies

A total of thirty-one butterfly species were sampled, including six unidentified skipper, nymph, sulfur, and blue species. Some species of note include Monarch (*Danaus plexippus*), Great Spangled Fritillary (*Speyeria cybele*), and Red-spotted Purple (*Limenitis arthemis astyanax*).



Odonates

A total of thirty-eight odonate species (dragonfly and damselfly) were sampled, including seven unidentified skimmer, damselfly, and clubtail species. Some species of note include American Rubyspot (*Hetaerina americana*), Ebony Jewelwing (*Calopteryx maculata*), and Common Green Darner (*Anax junius*).



Complete Species Catalog

Fishes

Yellow bullhead
Bowfin
Quillback
Common carp
Redfin grass pickerel
Bluegill
Emeral shiner
Fathead minnow

Reptiles

Blanchard's cricket frog
Tiger salamander
American toad
Spiny softshell turtle
Snapping turtle
Painted turtle
Racer
Northern Map turtle
False map turtle
Eastern gray treefrog
Plains leopard frog
Bullfrog
Green frog
Pickerel frog
Southern leopard frog
Northern water snake
Brown snake
Western ribbon snake
Eastern garter snake
Red-eared turtle

Mammals

Mammals

Domestic dog
Beaver
Least weasel
White-tailed deer
Muskrat
White-footed mouse
Raccoon
Eastern cottontail
Eastern chipmunk

Birds

Cooper's hawk
Spotted sandpiper
Red-winged blackbird
Wood duck
Grasshopper sparrow
Blue-winged teal
Mallard
Ruby-throated hummingbird
Great egret
Great blue heron
Cedar waxwing
Canada goose
Great horned owl
Red-tailed hawk
Green heron
Northern cardinal
American goldfinch
House finch
Turkey culture
Brown creeper
Belted kingfisher

Chimney swift
Killdeer
Common nighthawk
Sedge wren
Yellow-billed cuckoo
Black-billed cuckoo
Northern flicker
Northern bobwhite
Olive-sided flycatcher
Eastern wood-pewee
American crow
Blue jay
Black-throated blue warbler
Yellow-rumped warbler
Magnolia warbler
Palm warbler
Blackpoll warbler
Black-throated green warbler
Bobolink
Pileated woodpecker
Gray catbird
Alder flycatcher
Least flycatcher
Willow flycatcher
Common yellowthroat
Bald eagle
Barn swallow
Baltimore oriole
Orchard oriole
Red-bellied woodpecker
Red-headed woodpecker
Wild turkey

Swamp sparrow
Lincoln's sparrow
Song sparrow
Back-and-white warbler
Brown-headed cowbird
Great crested flycatcher
Osprey
Northern parula
Black-capped chickadee
Tufted titmouse
Indigo bunting
American white pelican
Double-crested cormorant
Ring-necked pheasant
Rose-breasted grosbeak
Downy woodpecker
Eastern towhee
Scarlet tanager
Blue-gray gnatcatcher
Sora
Common grackle
Ruby-crowned kinglet
Golden-crowned kinglet
Eastern phoebe
Ovenbird
Northern waterthrush
American redstart
Eastern bluebird
White-breasted nuthatch
Dickcissel
Field sparrow

Eastern meadowlark
European starling
Tree swallow
Brown thrasher
Solitary sandpiper
House wren
American robin
Eastern kingbird
Orange-crowned warbler
Tennessee warbler
Nashville warbler
Bell's vireo
Yellow-throated vireo
Warbling vireo
Red-eyed vireo
Philadelphia vireo
Mourning dove
White-throated sparrow
White-crowned sparrow

Butterflies

Least skipper
Summer azure
Orange sulfur
Clouded sulfur
Monarch
Northern Pearly-eye
Silver spotted skipper
Little yellow
Zebra swallowtail
Eastern Tailed-blue
Fiery skipper
Buckeye

Viceroy
Red-spotted purple
Bronze copper
Eastern Tiger swallowtail
Black swallowtail
Common sootywing
Pearl Crescent
Cabbage white
Zabulon skipper
Great Spangled fritillary
Red admiral
Painted lady
American lady

Odonates

Eastern Red Damsel
Common Green Darner
Blue-fronted dancer
Powdered dancer
Jade clubtail
Ebony jewelwing
Calico pennant
Halloween pennant
Tule bluet
Familiar bluet
Skimming bluet
Orange bluet
Common baskettail
Prince baskettail
Eastern pondhawk
American rubyspot
Fragile forktail
Eastern forktail

Slender spreadwing

Widow skimmer

Twelve-spotted skimmer

Four-spotted skimmer

Blue dasher

Wandering glider

Eastern amberwing

Common whitetail

Russet-tipped clubtail

Blue-faced meadowhawk

Black saddlebags