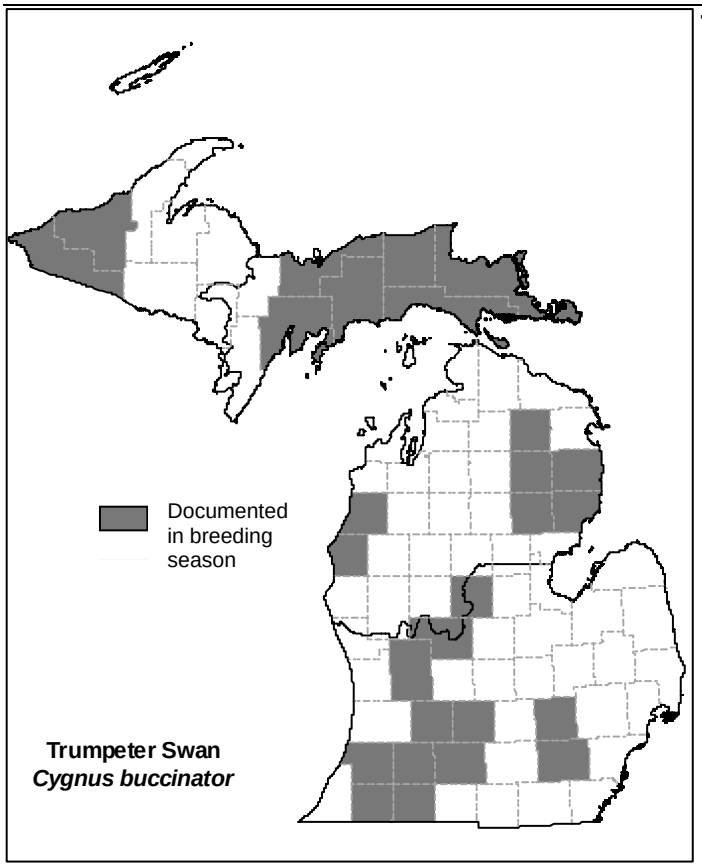
BIRDS



Trumpeter Swan

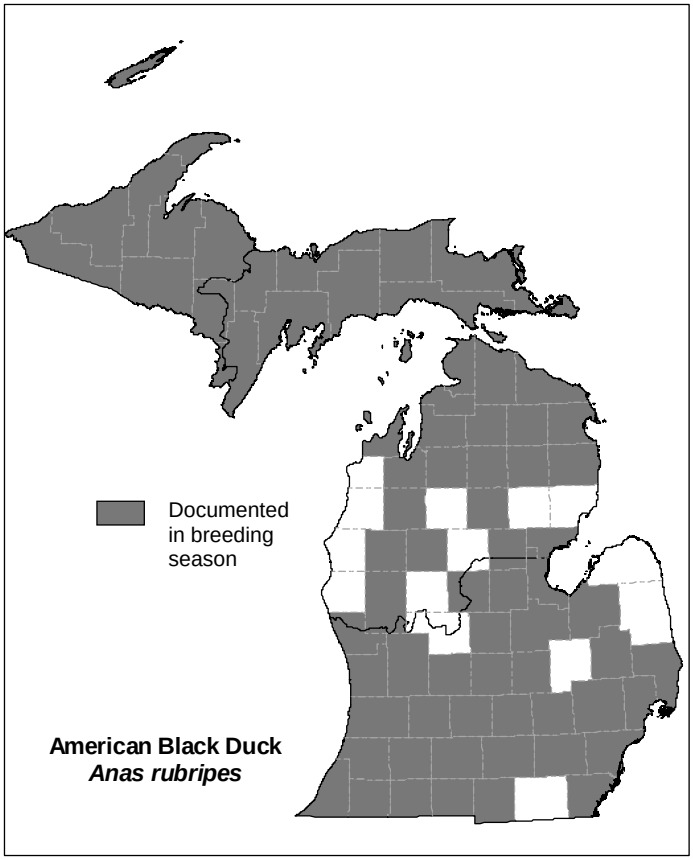
(Cygnus buccinator)

DISTRIBUTION & ABUNDANCE: Efforts to restore a breeding population of Trumpeter Swans in Michigan were begun in the 1980s. While still listed as a threatened species in the State, the 2000 population exceeded 400 individuals.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; submergent wetland; pond; inland lake; inland island; other (frequently nests on muskrat houses or beaver lodges)

ASSOCIATED THREATS: disease, pathogens, & parasites; industrial/residential/recreational development; invasive plants & animals; non-consumptive recreation; removal of wildlife; social attitudes; urban, municipal, and industrial pollution

COMMENTS: Nesting islands are important; muskrat houses or beaver lodges may be used when present. Restored swans which lack migratory behavior tend to congregate, leaving them vulnerable to disease, starvation, and catastrophic events. Interactions with humans, including feeding, recreational boating, hiking, and bird watching can affect the birds' behavior and productivity. Invasive Mute Swans (*Cygnus olor*) may provide competitive pressure.



American Black Duck

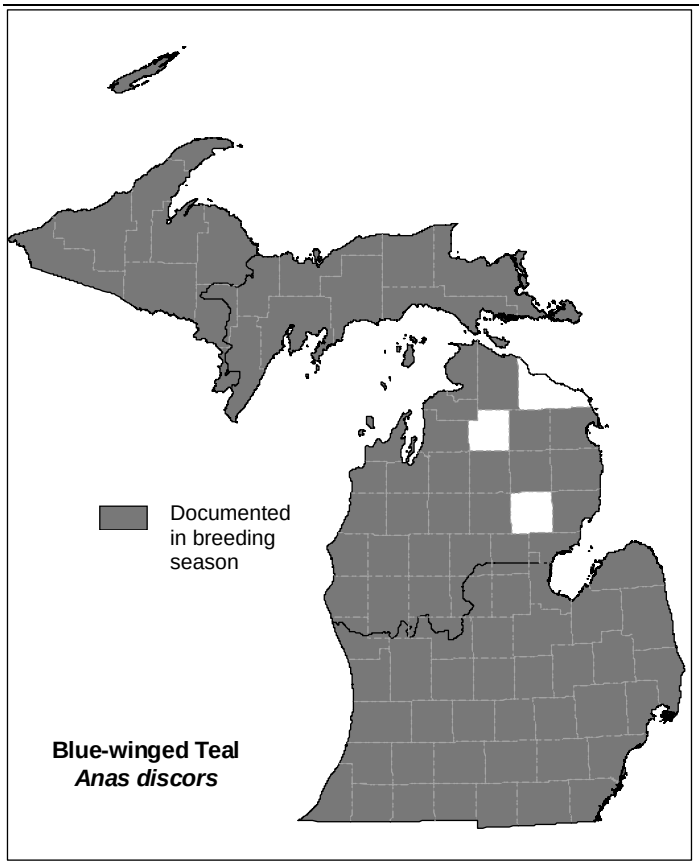
(Anas rubripes)

DISTRIBUTION & ABUNDANCE: The annual statewide breeding waterfowl survey indicates a declining trend in abundance, however current estimates of populations show that American Black Duck are above the long term average.

ASSOCIATED LANDSCAPE FEATURES: prairie; row crop; lowland shrub; lowland hardwood; bog; inland emergent wetland; submergent wetland; fen; ephemeral wetland; swamp; pond; inland lake; inland island; river/stream/ riparian/floodplain corridor; coastal emergent wetland; snag/cavity

ASSOCIATED THREATS: fragmentation; altered hydrologic regimes; incompatible natural resource mgmt; invasive plants & animals; removal of wildlife; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Though habitat loss or modification are likely responsible in large part for declining numbers, American Black Ducks may compete with or hybridize with Mallards (*Anas platyrhynchos*), and they remain a popular game species.



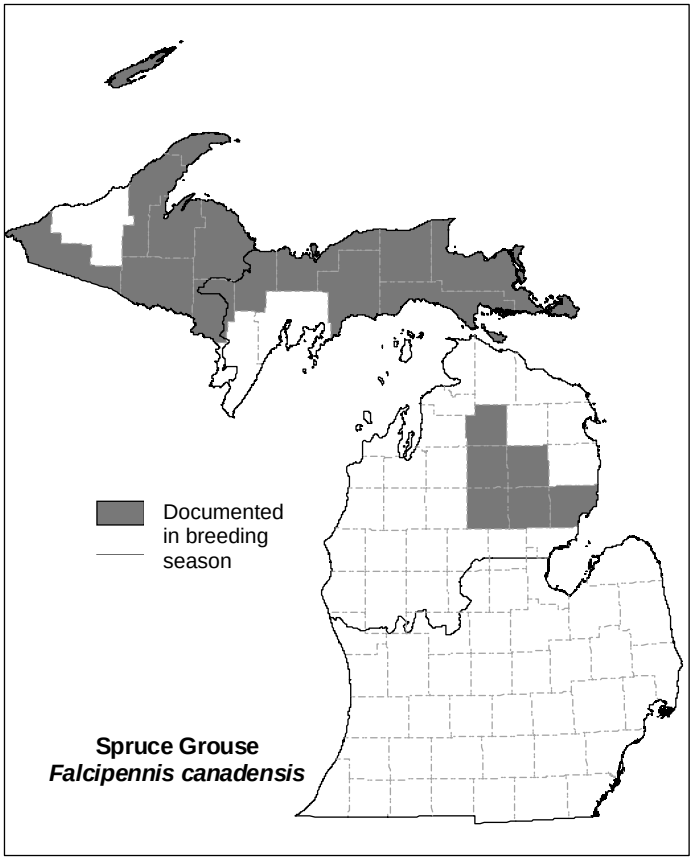
Blue-winged Teal

(Anas discors)

DISTRIBUTION & ABUNDANCE: Blue-winged Teal are locally common throughout the State where large expanses of emergent wetlands are found. BBS data indicate a decline in Michigan, probably due to a loss of wetlands, and annual statewide breeding waterfowl survey data indicate that current estimates are below the long term average.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; fence row; savanna; inland emergent wetland; ephemeral wetland; pond; inland lake; river/stream/riparian/floodplain corridor; coastal emergent wetland

ASSOCIATED THREATS: conversion to agriculture lands; fragmentation; grazing & mowing patterns; altered hydrologic regimes; incompatible natural resource mgmt; invasive plants & animals; other biological interactions (predation by mammals including red foxes and raccoons); pesticides & herbicides; urban, municipal, and industrial pollution; wetland modifications



Spruce Grouse

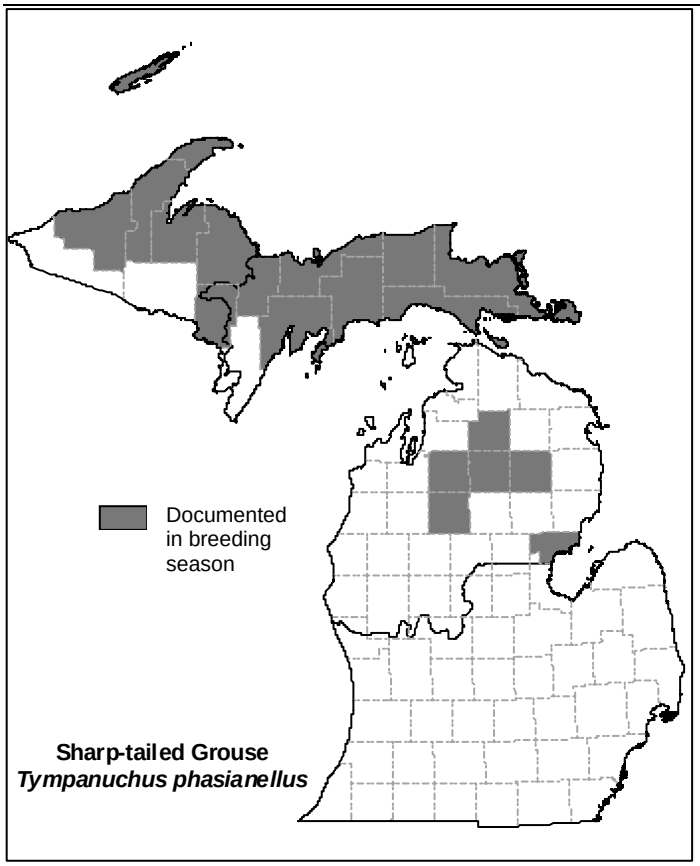
(Falcipennis canadensis)

DISTRIBUTION & ABUNDANCE: Spruce Grouse are rare in Michigan and are designated as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; other (low berries (especially blueberry)); down woody debris

ASSOCIATED THREATS: altered fire regime; fragmentation; incompatible natural resource mgmt; industrial/residential/ recreational development; forestry practices; other biological interactions (predation by birds and mammals); removal of wildlife.

COMMENTS: Low berries, especially blueberry, are a vital food source. Both presence and condition of spruce-jack pine forest are important: fire suppression results in over mature stands; recreational development along lakeshores removes stands, and conversion to pine plantations reduces their value Spruce Grouse.



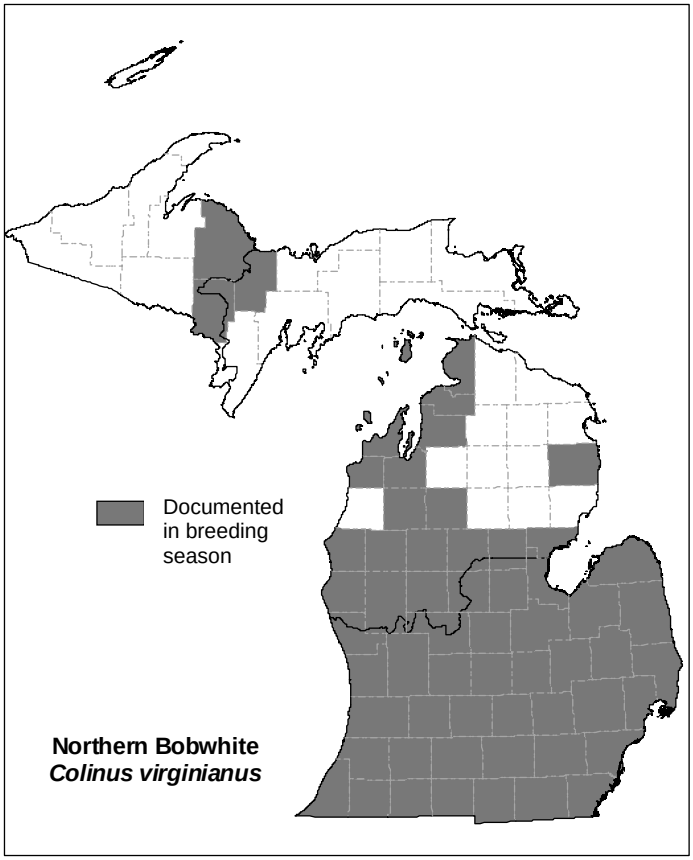
Sharp-tailed Grouse

(Tympanuchus phasianellus)

DISTRIBUTION & ABUNDANCE: Sharp-tailed Grouse were first documented in the 1880s around the old mines on Isle Royale; their origins are unknown, but it is suspected they entered from Minnesota or Ontario. Small numbers of birds from Wisconsin or Minnesota may have occasionally emigrated to the Upper Peninsula earlier, but there is little evidence of a significant population prior to the 1920s when its natural expansion was fostered by wildfires and logging. This was followed by several decades of stocking of wild-trapped birds into the Eastern Upper Peninsula and Northern Lower Peninsula. Through the 1960s and 1970s, populations decreased, and currently birds are rare outside of the Upper Peninsula. The Sharp-tailed Grouse is currently designated as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; row crop; fence row; savanna; lowland shrub; upland shrub; dry conifer; forest opening; bog; inland emergent wetland; fen; ephemeral wetland; river/stream/riparian/floodplain corridor; snag/cavity; large contiguous natural landscape

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; fragmentation; grazing & mowing patterns; incompatible natural resource mgmt; industrial/ residential/recreational development; forestry practices; non-consumptive recreation; other biological interactions (predation by birds and mammals); pesticides & herbicides; removal of wildlife; social attitudes



Northern Bobwhite

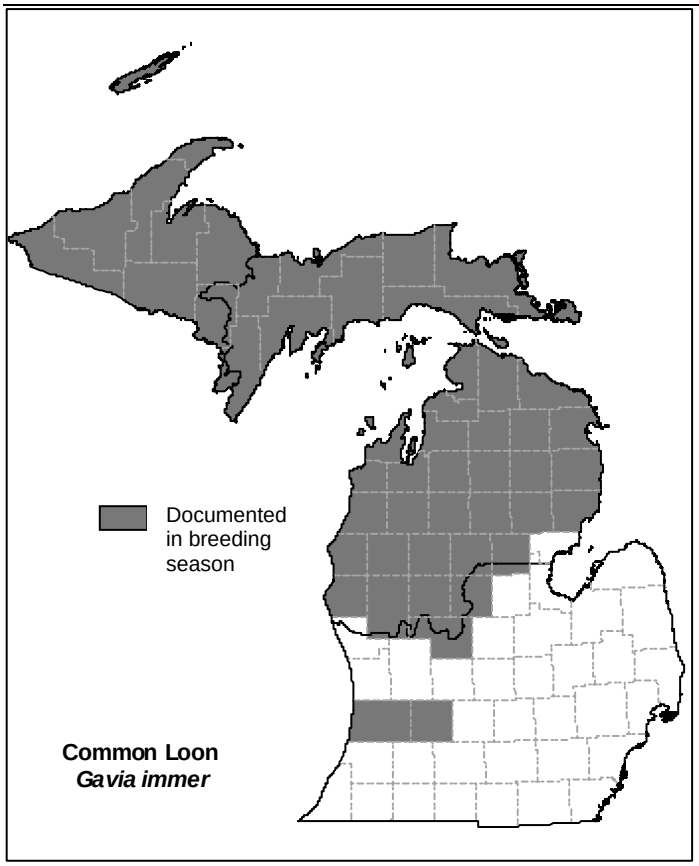
(Colinus virginianus)

DISTRIBUTION & ABUNDANCE: The Northern Bobwhite is found primarily in the Southern Lower Peninsula though it is uncommon outside the eastern half of the ecoregion. BBS data indicate a significant decrease due to the harsh winters of the late 1970s with little recovery. This trend is compounded by a loss of suitable wintering habitat.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; row crop; right-of-way; fence row; savanna; lowland shrub; upland shrub; mesic hardwood; mesic conifer; edge; inland rock/cliff/ledge

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; grazing & mowing patterns; incompatible natural resource mgmt; industrial/ residential/recreational development; invasive plants & animals; other biological interactions (predation; reduction of vegetative cover due to deer browsing)

COMMENTS: Increases in the use of clean farming practices, plantation forestry, fire suppression, and overgrazing may impact the abundance and quality of available Northern Bobwhite habitat.



Common Loon

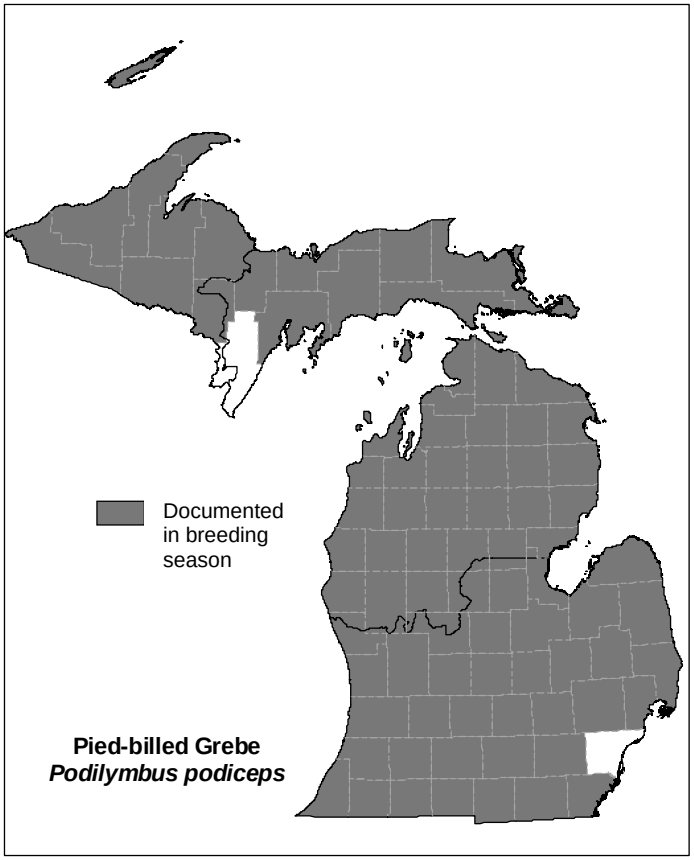
(Gavia immer)

DISTRIBUTION & ABUNDANCE: Historically, Common Loons were regular residents of the entire State. Declines were noted by the early 1900s, and the species is currently listed as threatened. Shoreline development is known to be a major factor in this decline.

ASSOCIATED LANDSCAPE FEATURES: submergent wetland; inland lake; inland island; river/stream/riparian/ floodplain corridor; Great Lakes offshore; Great Lakes nearshore; coastal emergent wetland

ASSOCIATED THREATS: disease, pathogens, & parasites; altered hydrologic regimes; industrial/residential/ recreational development; non-consumptive recreation; other biological interactions (intraspecific competition due to territoriality; predation by fish, birds, mammals, and turtles); pesticides & herbicides; removal of wildlife; social attitudes; urban, municipal, and industrial pollution

COMMENTS: Human disturbance, either from development or recreational activities, directly impacts the productivity of nesting loons. Incidental mortality in fishing nets may be significant, though poorly documented at a statewide level.



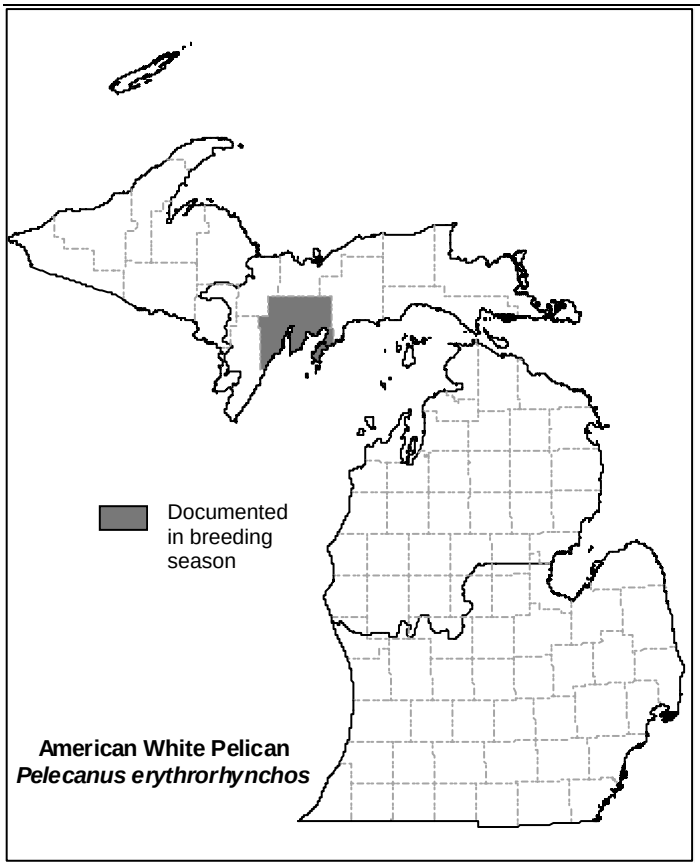
Pied-billed Grebe

(Podilymbus podiceps)

DISTRIBUTION & ABUNDANCE: The Pied-billed Grebe may be found throughout the State in a scattered, locally common distribution where habitat is available. There is evidence that abundance may be declining, due primarily to loss of habitat.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; submergent wetland; pond; inland lake; river/stream/riparian/floodplain corridor; coastal emergent wetland

ASSOCIATED THREATS: climate change; conversion to agriculture lands; dams; disease, pathogens, & parasites; altered hydrologic regimes; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; non-consumptive recreation; other biological interactions (intraspecifically aggressive and territorial); pesticides & herbicides; removal of wildlife; social attitudes; urban, municipal, and industrial pollution; wetland modifications



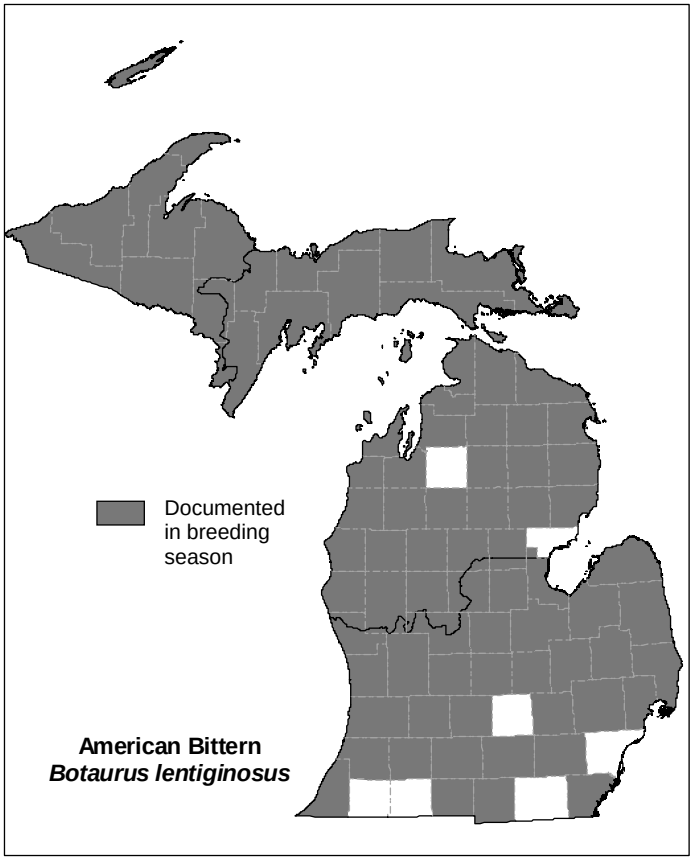
American White Pelican

(Pelecanus erythrorhynchos)

DISTRIBUTION & ABUNDANCE: American White Pelicans may be regularly observed in small numbers in the Great Lakes, often as single birds. Breeding has been confirmed on Great Lakes islands along the Upper Peninsula shoreline in Lake Michigan though it is only a recent phenomenon.

ASSOCIATED LANDSCAPE FEATURES: Great Lakes island

ASSOCIATED THREATS: non-consumptive recreation; other biological interactions (susceptible to predation); removal of wildlife



American Bittern

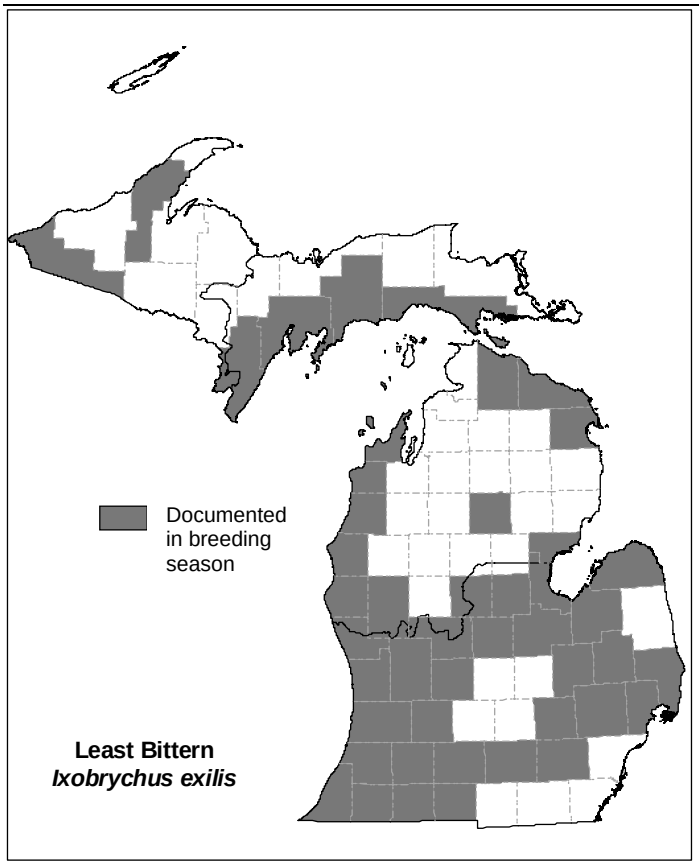
(Botaurus lentiginosus)

DISTRIBUTION & ABUNDANCE: The American Bittern is currently listed as a species of special concern in Michigan but may be locally common, especially in the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: prairie; hayland; lowland shrub; bog; inland emergent wetland; ephemeral wetland; swamp; pond; inland lake; coastal emergent wetland

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; altered hydrologic regimes; industrial/residential/recreational development; non-consumptive recreation; pesticides & herbicides; wetland modifications

COMMENTS: Reducing the encroachment of woody vegetation into herbaceous wetlands is key to maintaining suitable habitat.



Least Bittern

(Ixobrychus exilis)

DISTRIBUTION & ABUNDANCE: Currently listed as threatened in Michigan, the Least Bittern was once common statewide. It is currently uncommon and scattered across the Lower Peninsula and rare in the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; ephemeral wetland; pond; inland lake; coastal emergent wetland

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; dredging & channelization; altered hydrologic regimes; industrial/ residential/recreational development; invasive plants & animals; lack of scientific knowledge; other biological interactions (predation by crows, mammals, snakes, snapping turtles, and bullfrogs); pesticides & herbicides; scientific research; social attitudes; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Threats to Least Bittern and their relative severity are poorly documented.

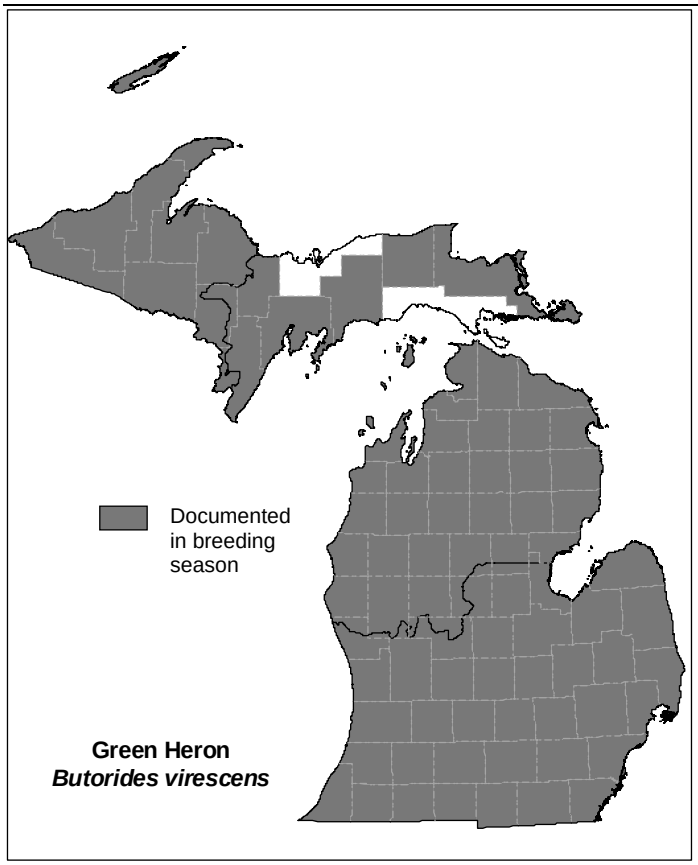
Great Blue Heron

(Ardea herodias)

DISTRIBUTION & ABUNDANCE: A species found in small suburban wetlands as well as larger wetland complexes, Great Blue Herons are fairly common. In recent years, many rookeries have been displaced due to development and logging.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland hardwood; lowland conifer; submergent wetland; ephemeral wetland; swamp; pond; inland lake; inland island; river/stream/riparian/floodplain corridor; inland rock/cliff/ledge; snag/cavity

ASSOCIATED THREATS: industrial/residential/recreational development; forestry practices; non-consumptive recreation; wetland modifications



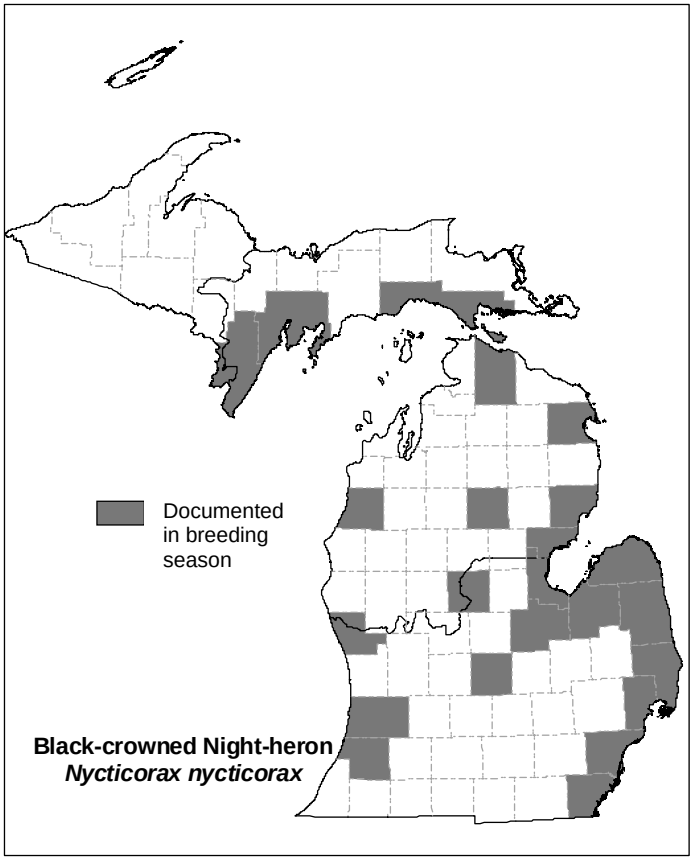
Green Heron

(Butorides virescens)

DISTRIBUTION & ABUNDANCE: The Green Heron is common in the Southern Lower Peninsula, somewhat less common in the Northern Lower Peninsula, and locally observed in the Western Upper Peninsula where habitat is available. Populations appear to be higher than early in the 20th century, but they also appear to be in decline.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland hardwood; dry conifer; submergent wetland; ephemeral wetland; swamp; pond; inland lake; edge; down woody debris

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; fragmentation; altered hydrologic regimes; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; forestry practices; non-consumptive recreation; removal of wildlife; scientific research; wetland modifications



Black-crowned Night-heron

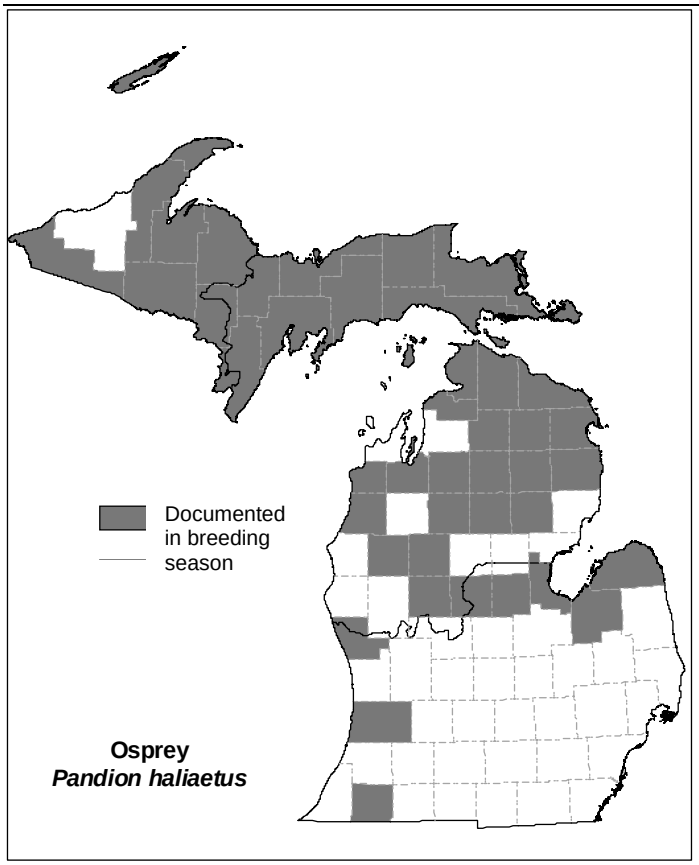
(Nycticorax nycticorax)

DISTRIBUTION & ABUNDANCE: Currently listed as a species of special concern, the Black-crowned Night-heron may be found in scattered colonies, mostly along the Great Lakes shorelines and on Great Lakes islands. There have been significant declines in both colony size and abundance since the early 1900s.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; inland emergent wetland; swamp; pond; inland lake; inland island; coastal emergent wetland; snag/cavity

ASSOCIATED THREATS: dams; disease, pathogens, & parasites; dredging & channelization; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; forestry practices; non-consumptive recreation; pesticides & herbicides; removal of wildlife; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Development and human disturbance may directly impact production.



Osprey

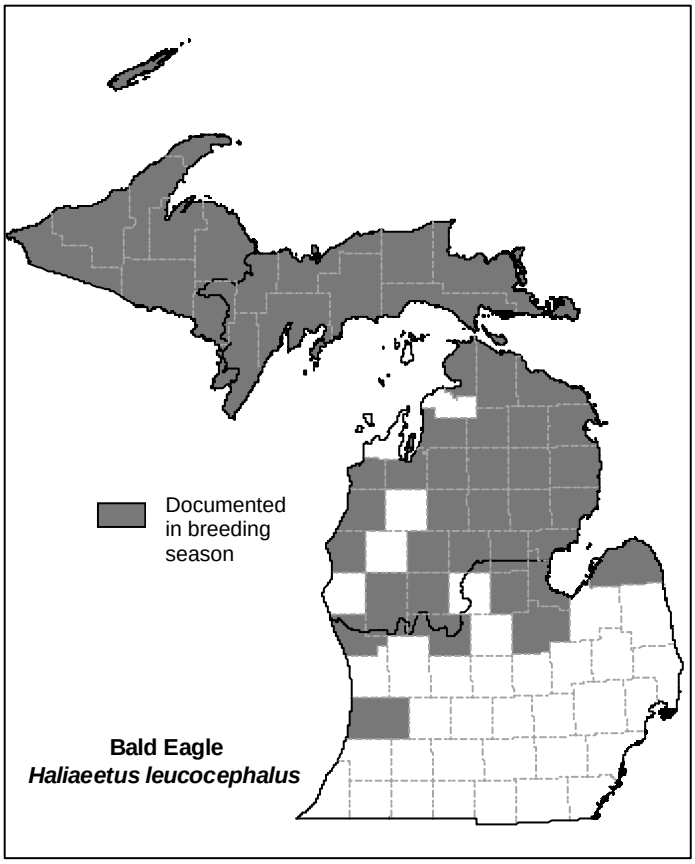
(Pandion haliaetus)

DISTRIBUTION & ABUNDANCE: Osprey were among the bird species to suffer dramatic declines due to pesticide exposure through the middle of the 20th century. Counts of breeding pairs in the State doubled from the 1970s to the 1980s in response to restrictions on pesticide use and construction of nesting platforms. The Osprey remains on the list of threatened species in Michigan.

ASSOCIATED LANDSCAPE FEATURES: lowland conifer; inland emergent wetland; submergent wetland; ephemeral wetland; swamp; pond; inland lake; inland island; river/stream/riparian/floodplain corridor; snag/cavity; other (man-made structure)

ASSOCIATED THREATS: dams; disease, pathogens, & parasites; dredging & channelization; altered hydrologic regimes; incompatible natural resource mgmt; industrial/residential/ recreational development; military maneuvers; non-consumptive recreation; pesticides & herbicides; removal of wildlife; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Osprey will use artificial nesting platforms if provided. Bioaccumulation of toxic compounds as well as collisions with high tension wires, cell towers, and their supporting structures may result in significant mortality.



Bald Eagle

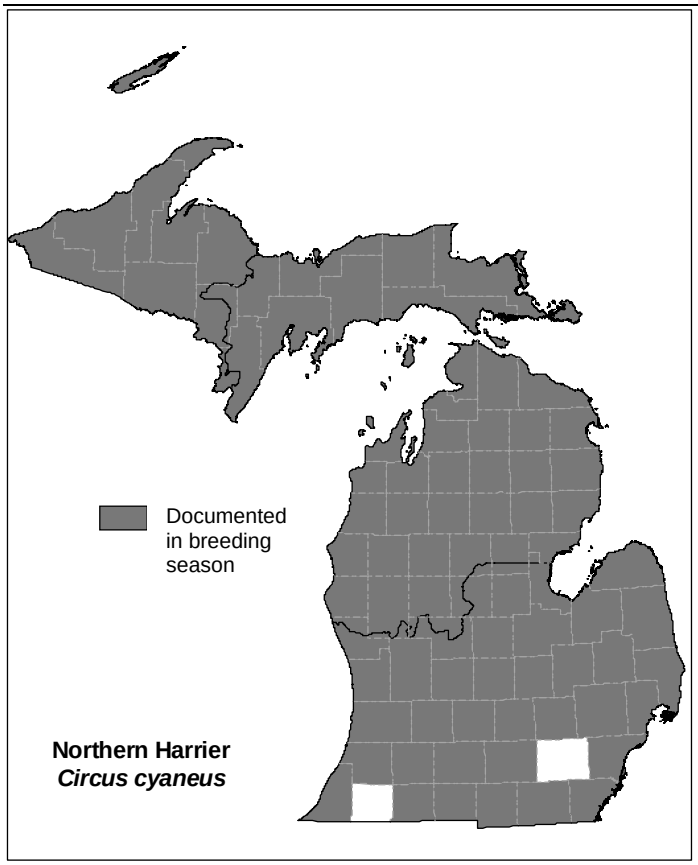
(Haliaeetus leucocephalus)

DISTRIBUTION & ABUNDANCE: In the presettlement history of Michigan, Bald Eagles were probably found statewide, though not in great numbers. By the middle of the 20th century, human disturbance and reduced reproduction due to pesticide use had reduced numbers significantly. From lows of under 100 breeding pairs, concerted management efforts resulted in almost 350 breeding pairs by the end of the 20th century. The Bald Eagle is listed as a threatened species in Michigan and federally.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; pond; inland lake; inland island; river/stream/riparian/floodplain corridor; Great Lakes offshore; Great Lakes nearshore; coastal dune/beach; Great Lakes island; inland rock/cliff/ledge; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; dams; disease, pathogens, & parasites; dredging & channelization; fragmentation; altered hydrologic regimes; industrial/residential/recreational development; forestry practices; military maneuvers; non-consumptive recreation; pesticides & herbicides; scientific research; urban, municipal, and industrial pollution

COMMENTS: Pesticides and heavy metals may continue to pose significant risks. Scavenging along roadsides may make these birds vulnerable to collisions.



Northern Harrier

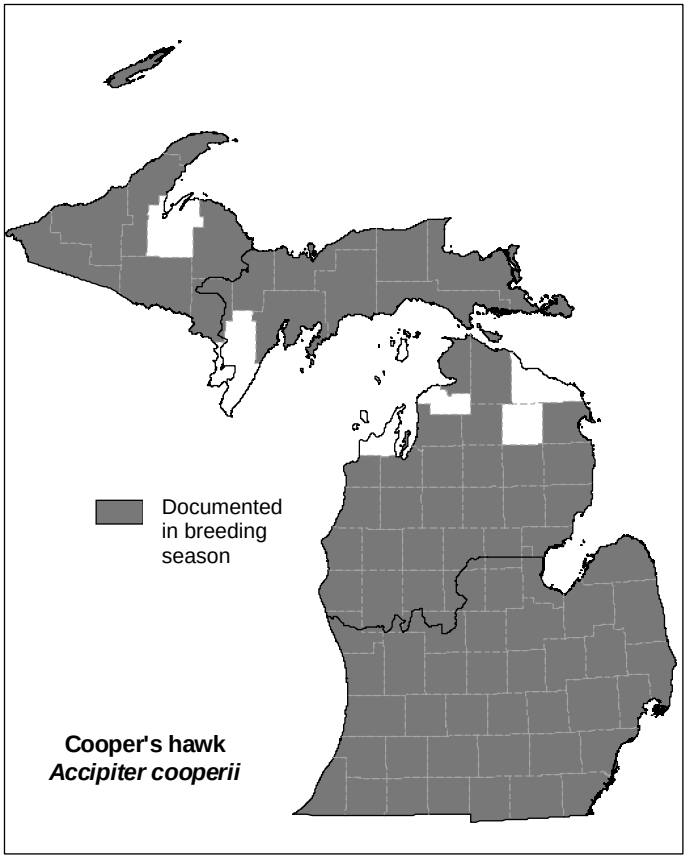
(Circus cyaneus)

DISTRIBUTION & ABUNDANCE: Harrier populations are in decline, due primarily to a loss of wetland habitat throughout the State. The Northern Harrier is currently listed as a species of special concern in Michigan.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; row crop; fence row; lowland shrub; dry conifer; forest opening; inland emergent wetland; ephemeral wetland; river/stream/riparian/floodplain corridor; coastal emergent wetland; snag/cavity; other (perches (stumps, posts, etc.))

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; altered fire regime; fragmentation; grazing & mowing patterns; altered hydrologic regimes; incompatible natural resource mgmt; industrial/ residential/recreational development; invasive plants & animals; mining practices; non-consumptive recreation; other biological interactions (mammal and bird nest predators, trampling of nests by deer); pesticides & herbicides; removal of non-timber flora; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Low perches are necessary for successful foraging.



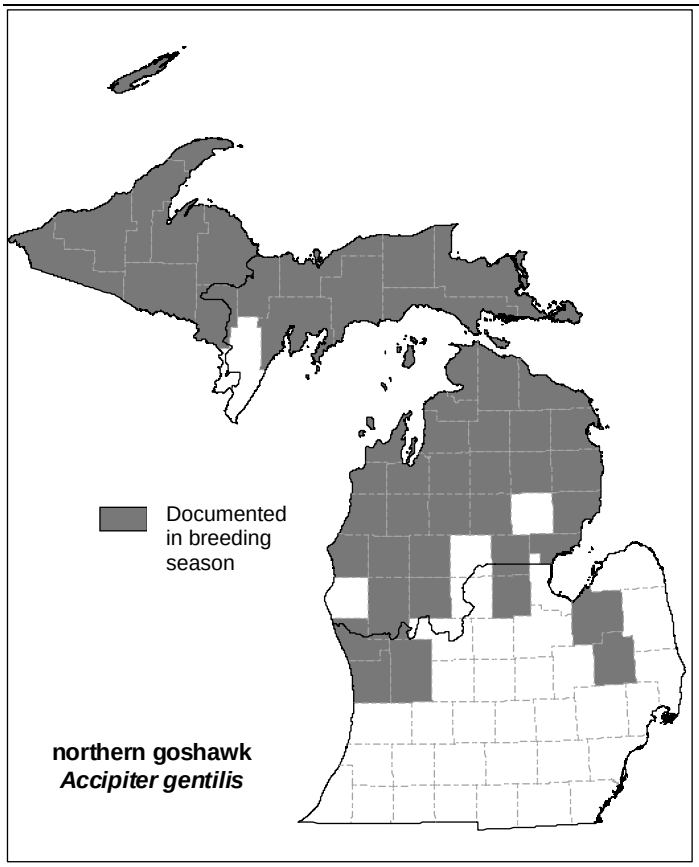
Cooper's Hawk

(Accipiter cooperii)

DISTRIBUTION & ABUNDANCE: Since Michigan lies at the northern edge of the Cooper's Hawk's range, abundance has always been lower in the Upper Peninsula than the Lower Peninsula. Habitat loss, shooting, and pesticides all contributed to declines through the 1800s and much of the 1900s. Since then, its abundance has been increasing, and it is now regularly observed in the Southern Lower Peninsula, locally common in the Northern Lower Peninsula, and scattered across the Upper Peninsula. The Cooper's Hawk is listed as a species of special concern in Michigan.

ASSOCIATED LANDSCAPE FEATURES: fence row; savanna; upland shrub; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; river/stream/riparian/floodplain corridor; edge; urban; suburban/small town; suburban/small town; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; fragmentation; incompatible natural resource mgmt; industrial/residential/ recreational development; forestry practices; other biological interactions (nest predation by raccoons and crows); pesticides & herbicides; removal of wildlife; social attitudes



Northern Goshawk

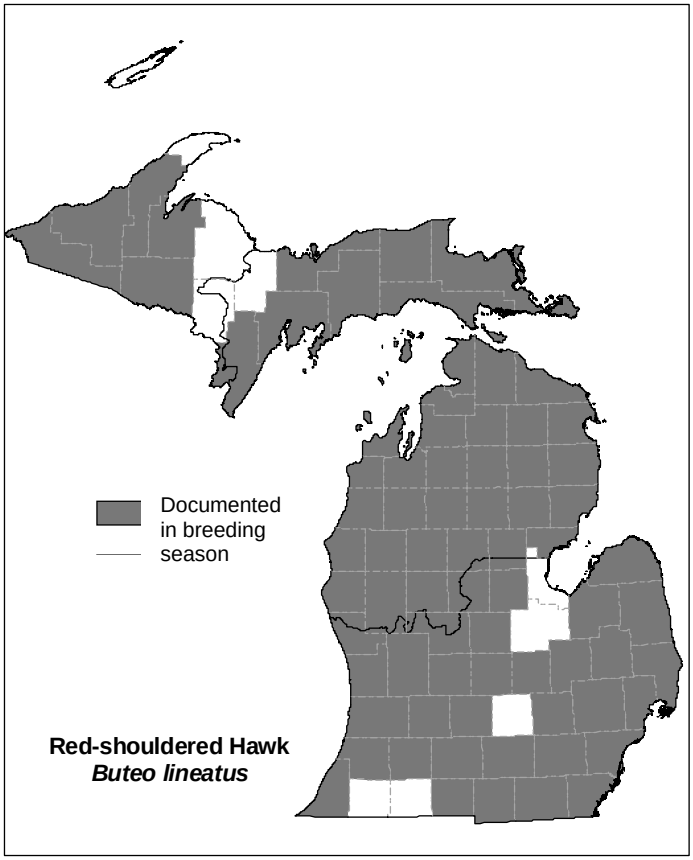
(Accipiter gentilis)

DISTRIBUTION & ABUNDANCE: Listed in Michigan as a species of special concern, the Northern Goshawk is uncommon and widely scattered across the Upper Peninsula and Northern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: savanna; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; suburban/small town; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; fragmentation; forestry practices; non-consumptive recreation; other biological interactions (great horned owl predation; mammal predation); pesticides & herbicides; removal of wildlife

COMMENTS: Creation of forest openings and the fragmentation of large forested blocks due to timber harvest reduce available habitat and favor the Goshawk's competitors, such as Red-tailed Hawks (*Buteo jamaicensis*) and Great Horned Owl (*Bubo virginianus*).



Red-shouldered Hawk

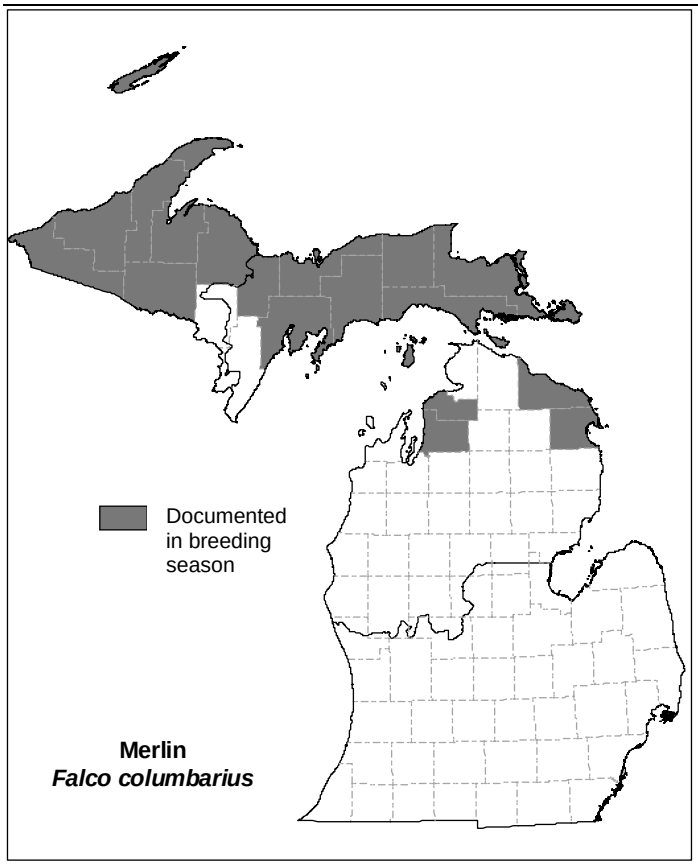
(Buteo lineatus)

DISTRIBUTION & ABUNDANCE: There was a significant decline in Red-shouldered Hawk abundance in the mid-1900s, most likely due to habitat loss, and it is currently designated as a threatened species in Michigan. This species is locally common in the Northern Lower Peninsula, scattered and uncommon in the Southern Lower Peninsula, and rare across the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; inland emergent wetland; submergent wetland; ephemeral wetland; swamp; river/stream/riparian/floodplain corridor; coastal emergent wetland; edge; suburban/small town; snag/cavity; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; dams; disease, pathogens, & parasites; dredging & channelization; fragmentation; altered hydrologic regimes; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; forestry practices; non-consumptive recreation; pesticides & herbicides; removal of wildlife; urban, municipal, and industrial pollution; wetland modifications

COMMENTS: Human disturbance and timber harvest may remove habitat, disrupt nesting, and promote the expansion of predators and competitors.



Merlin

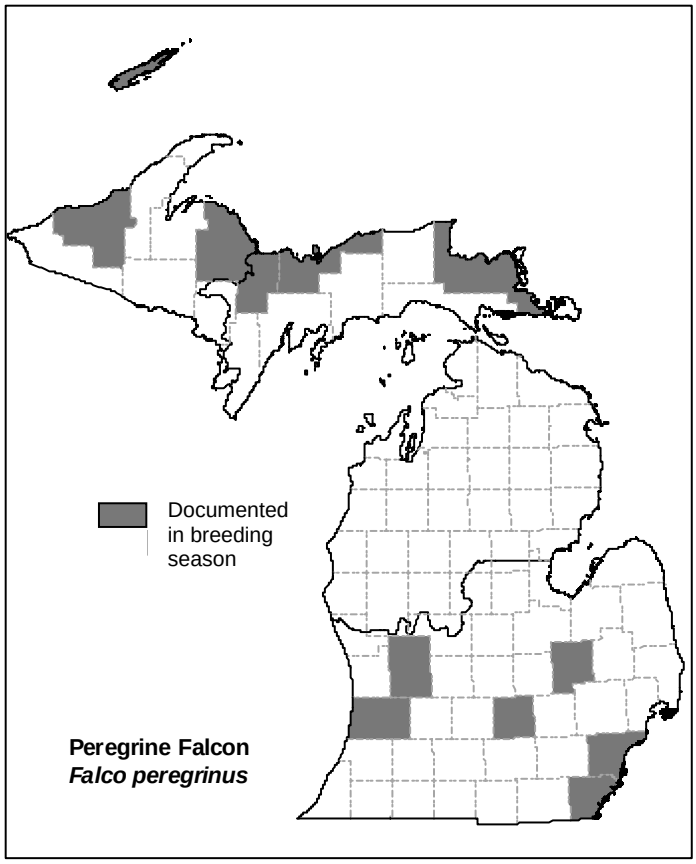
(Falco columbarius)

DISTRIBUTION & ABUNDANCE: Listed as threatened in Michigan, the southern edge of the Merlin's range includes the Upper Peninsula and parts of the Northern Lower Peninsula. Small pockets of breeding birds may be found in the Upper Peninsula along the shore of Lake Superior and on Isle Royale; elsewhere merlins are rare or absent.

ASSOCIATED LANDSCAPE FEATURES: savanna; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; edge; inland rock/cliff/ledge; suburban/small town; snag/cavity

ASSOCIATED THREATS: conversion to agriculture lands; industrial/residential/recreational development; pesticides & herbicides

COMMENTS: Habitat loss and pesticide use on the Merlin's wintering grounds in Central and South America may be significant.



Peregrine Falcon

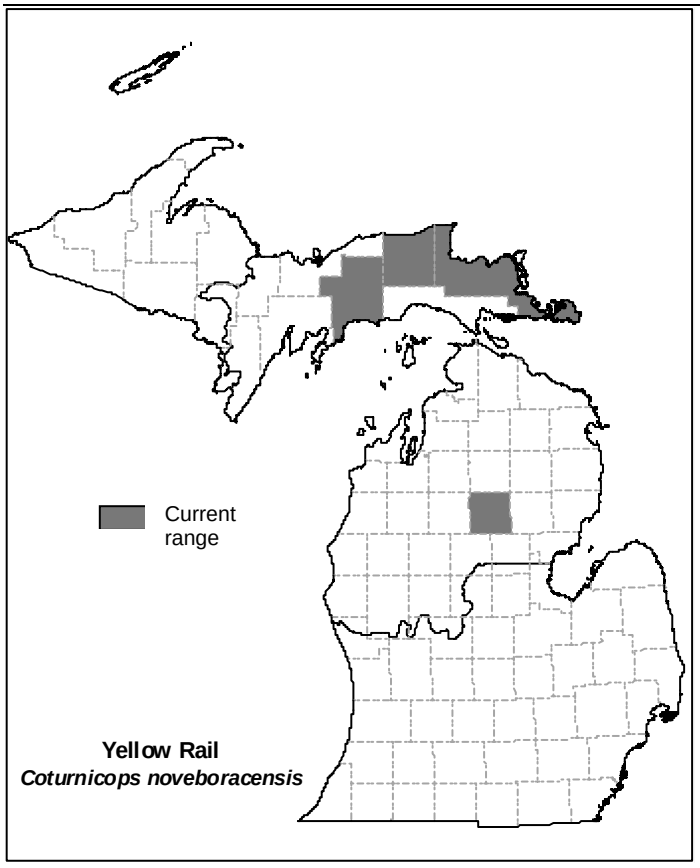
(Falco peregrinus)

DISTRIBUTION & ABUNDANCE: While never abundant, Peregrine Falcon populations declined dramatically in the middle of the 20th century, due primarily to the use of DDT. By 1960, the Peregrine Falcon was believed extirpated from Michigan. Intensive restoration efforts began nationally in the 1970s, and nine breeding pairs were documented in the State in 1999. The species is still listed as endangered in the State.

ASSOCIATED LANDSCAPE FEATURES: river/stream/ riparian/floodplain corridor; Great Lakes nearshore; Great Lakes island; inland rock/cliff/ledge; urban; suburban/small town; other (inner city skyscrapers)

ASSOCIATED THREATS: disease, pathogens, & parasites; industrial/residential/recreational development; mining practices; pesticides & herbicides; urban, municipal, and industrial pollution

COMMENTS: Much of the breeding of Peregrine Falcons in Michigan occurs on man-made structures, primarily tall buildings in population centers.



Yellow Rail

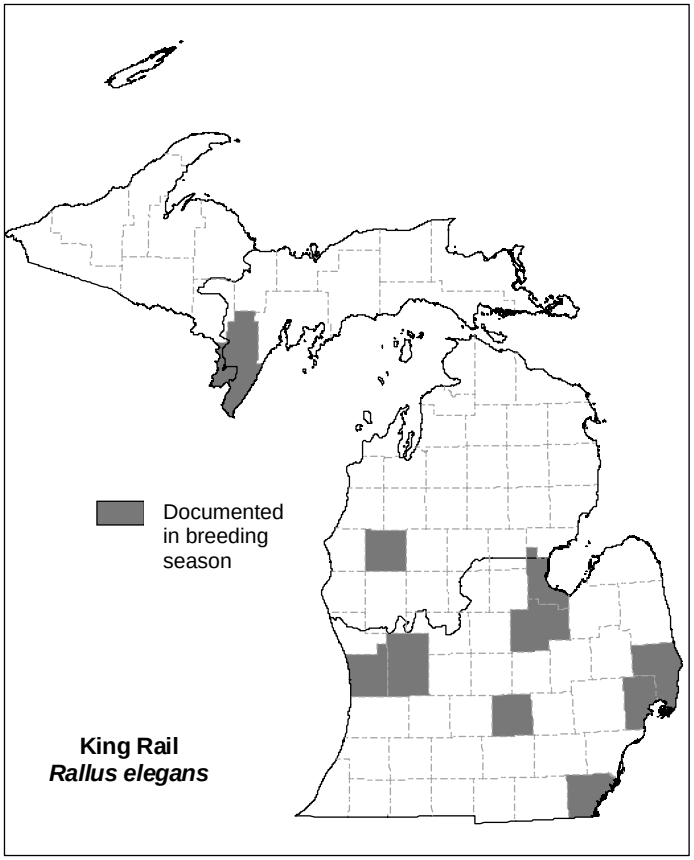
(Coturnicops noveboracensis)

DISTRIBUTION & ABUNDANCE: Designated as a threatened species, the southern edge of the Yellow Rail's breeding range occurs in the Upper Peninsula. They are uncommon and have primarily been observed in the Eastern Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: hayland; bog; inland emergent wetland; fen; ephemeral wetland

ASSOCIATED THREATS: disease, pathogens, & parasites; altered fire regime; altered hydrologic regimes; industrial /residential/recreational development; other biological interactions (invasion of purple loosestrife; mammal, bird, and herp predators); wetland modifications

COMMENTS: Little survey data exists to be able to accurately assess current or historic abundance. This is a secretive bird which nests in habitats which are not frequently censused. Encroachment of woody vegetation on breeding sites is probably the most significant threat to Yellow Rails.



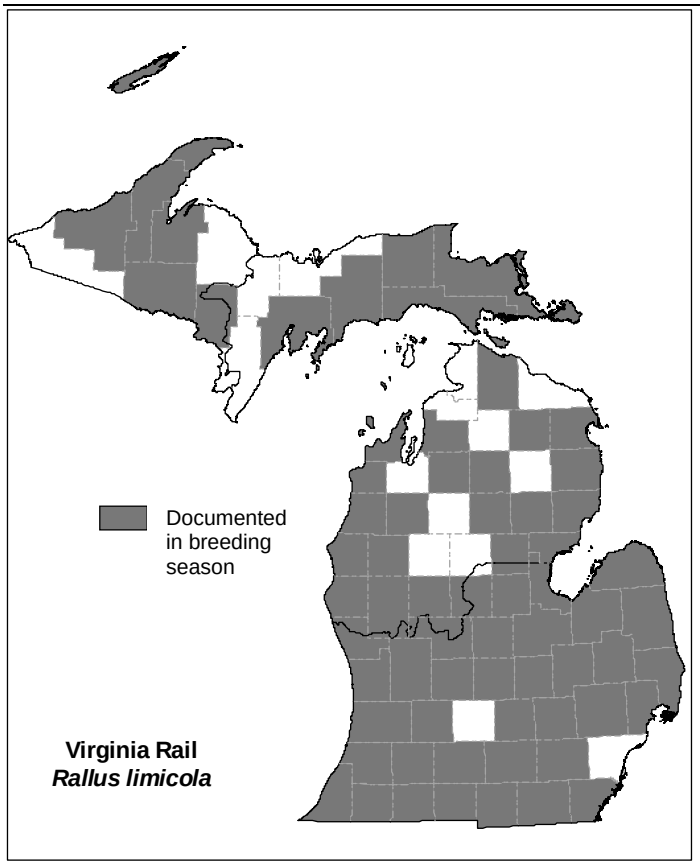
King Rail

(Rallus elegans)

DISTRIBUTION & ABUNDANCE: Listed as endangered in Michigan, the King Rail was once abundant in the marshes along the banks of Lake Erie. Declines are attributed to loss and degradation of cattail and sedge marshes.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; inland emergent wetland; coastal emergent wetland

ASSOCIATED THREATS: disease, pathogens, & parasites; altered hydrologic regimes; industrial/residential/ recreational development; pesticides & herbicides; wetland modifications



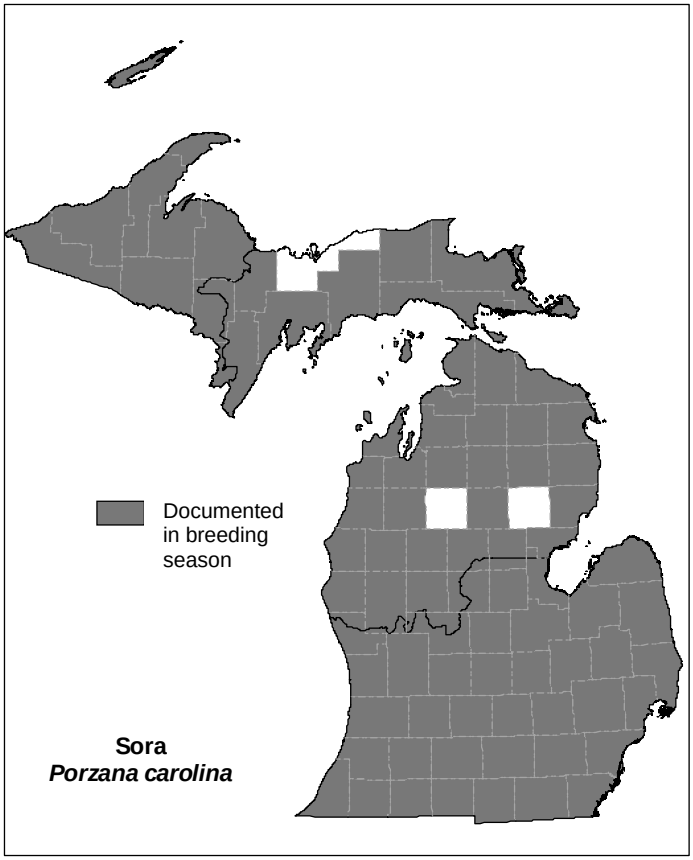
Virginia Rail

(Rallus limicola)

DISTRIBUTION & ABUNDANCE: The Virginia Rail is most common in the Southern Lower Peninsula with scattered local populations. It is uncommon in the Northern Lower Peninsula and rare in the Upper Peninsula. Population declines have been observed since the mid-1900s.

ASSOCIATED LANDSCAPE FEATURES: bog; inland emergent wetland; fen

ASSOCIATED THREATS: lack of scientific knowledge; wetland modifications



Sora

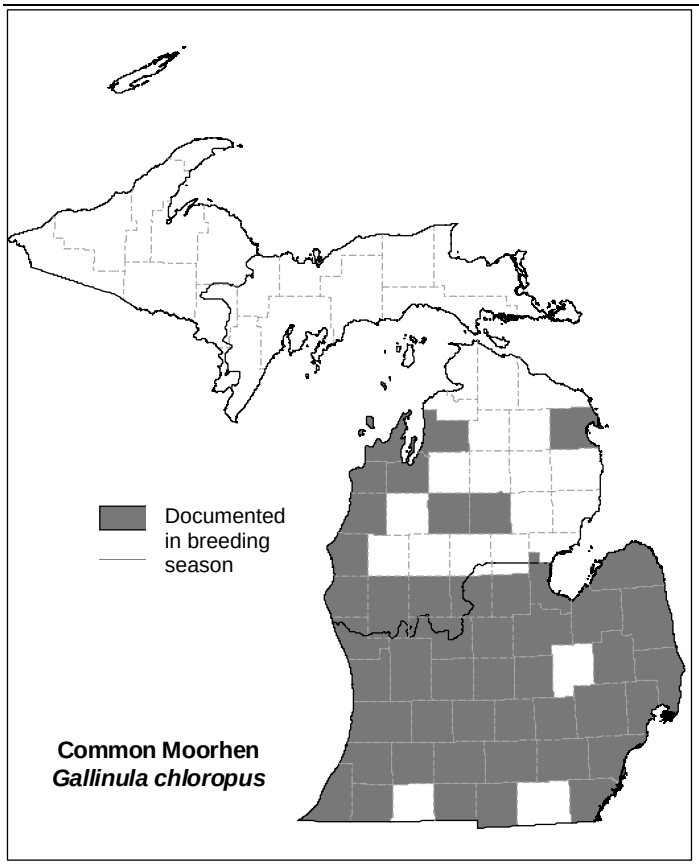
(Porzana carolina)

DISTRIBUTION & ABUNDANCE: The Sora is very common locally, especially in the Southern Lower Peninsula and Western Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: bog; inland emergent wetland; fen; ephemeral wetland; swamp

ASSOCIATED THREATS: conversion to agriculture lands; lack of scientific knowledge; removal of non-timber flora; wetland modifications

COMMENTS: Although the sora is listed as a game species, few hunters are known to pursue this marsh bird.



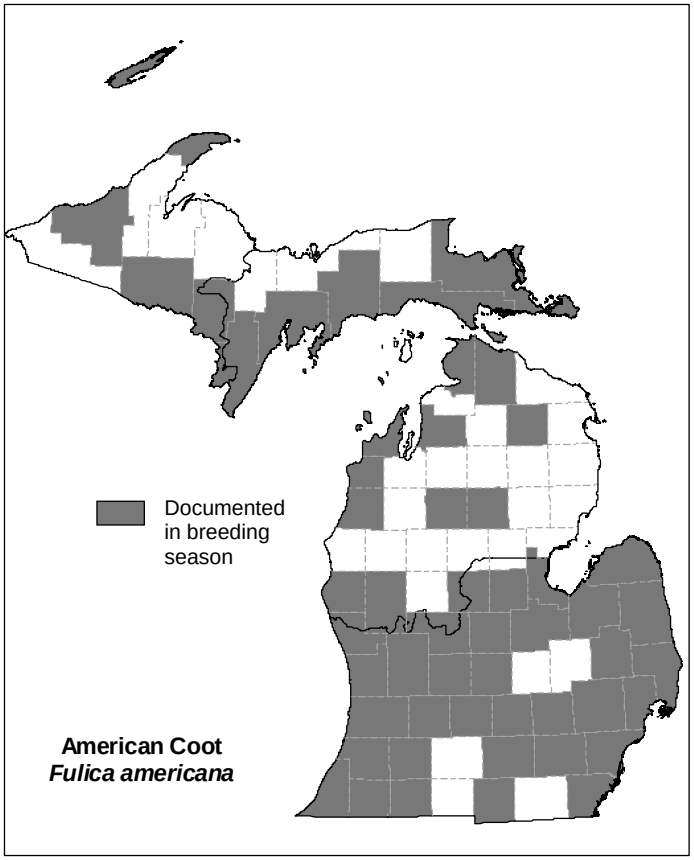
Common Moorhen

(Gallinula chloropus)

DISTRIBUTION & ABUNDANCE: Listed as a species of special concern, Common Moorhens are regularly found in the Southern Lower Peninsula and are often observed in singles or pairs in Great Lakes coastal marshes throughout the Lower Peninsula and the Eastern Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; submergent wetland; pond; inland lake; coastal emergent wetland

ASSOCIATED THREATS: incompatible natural resource mgmt; lack of scientific knowledge; wetland modifications



American Coot

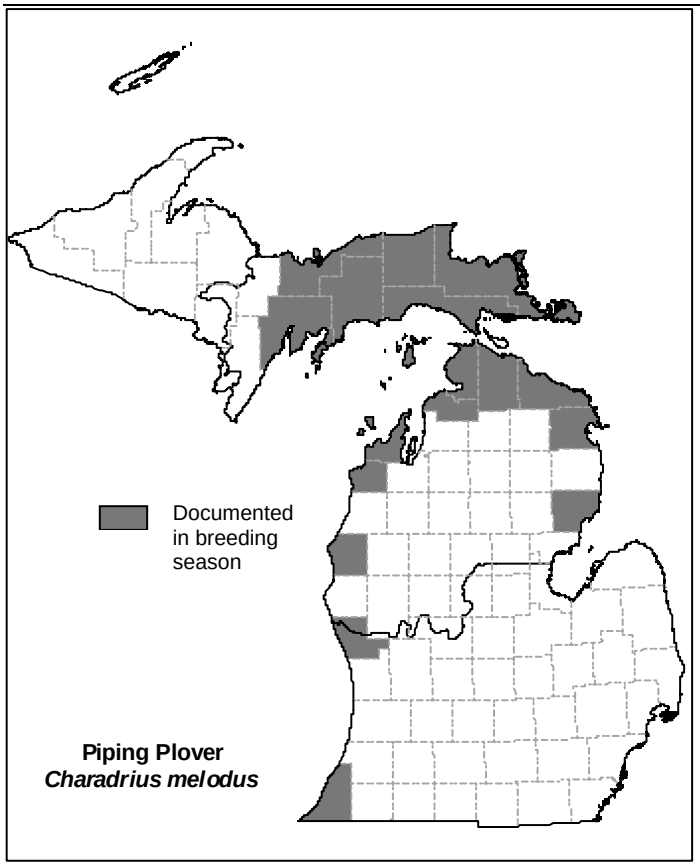
(Fulica americana)

DISTRIBUTION & ABUNDANCE: During migration, rafts of up to several thousand American Coots may be found in Great Lakes coastal wetlands. Breeding population densities may be significantly lower.

ASSOCIATED LANDSCAPE FEATURES: bog; inland emergent wetland; submergent wetland; pond; inland lake; river/stream/riparian/floodplain corridor; coastal emergent wetland

ASSOCIATED THREATS: pesticides & herbicides; removal of wildlife; social attitudes; wetland modifications

COMMENTS: American coots are utilized by hunters in relatively low numbers.



Piping Plover

(Charadrius melodus)

DISTRIBUTION & ABUNDANCE: Listed as endangered federally and in Michigan, the 2004 breeding season saw the production in the wild of 93 fledged young from 55 breeding pairs. This represents an increase in breeding pairs of more than 250% over ten years.

ASSOCIATED LANDSCAPE FEATURES: coastal emergent wetland; coastal dune/beach; Great Lakes island; large contiguous natural landscape

ASSOCIATED THREATS: disease, pathogens, & parasites; fragmentation; altered hydrologic regimes; industrial/ residential/recreational development; non-consumptive recreation; other biological interactions (nest predation); pesticides & herbicides

COMMENTS: Protection of breeding pairs and nest sites from human recreational disturbance and shoreline development is pivotal to successful production and eventual recovery. Public education and awareness is important in avoiding disturbance to nesting plovers. The natural processes that maintain dune ecosystems (e.g., disturbance from wind and water erosion, perioidic blowouts) must be protected in order to insure long-term persistence of this species.

Killdeer

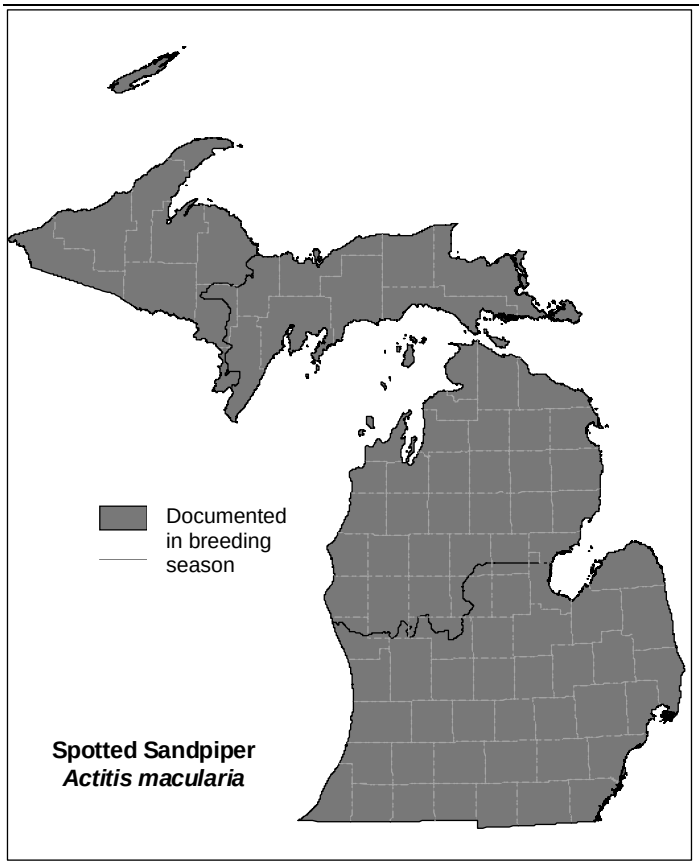
(Charadrius vociferus)

DISTRIBUTION & ABUNDANCE: Killdeer are abundant throughout the State with lower densities being observed toward the north. Recent BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; row crop; ephemeral wetland; pond; inland lake; coastal dune/beach; suburban/small town

ASSOCIATED THREATS: pesticides & herbicides; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



Spotted Sandpiper

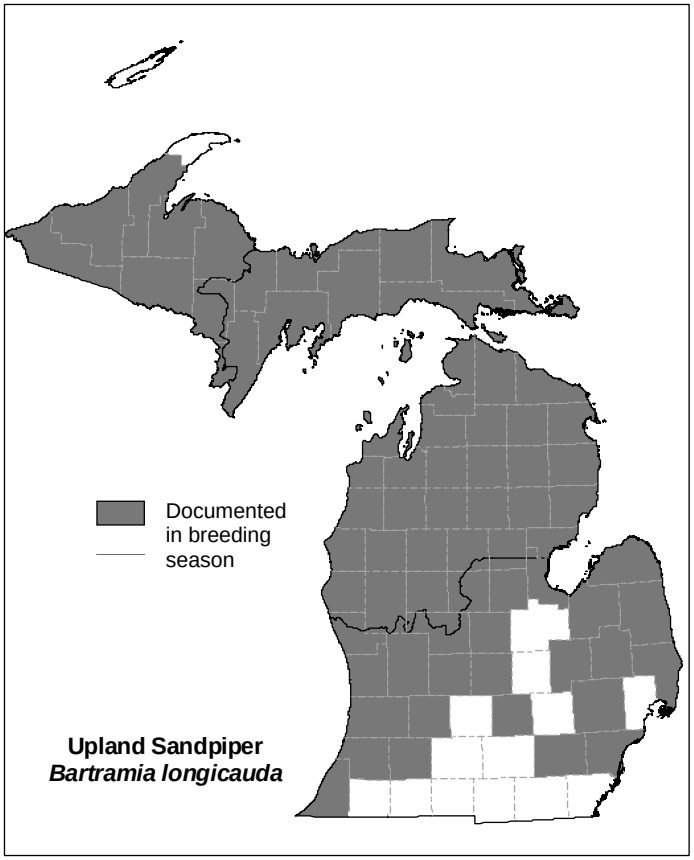
(Actitis macularia)

DISTRIBUTION & ABUNDANCE: Spotted Sandpipers are common in the State, with higher densities in the Upper Peninsula. Local populations may fluctuate as sporadic disturbances create opportunities for colonization. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; ephemeral wetland; pond; inland lake; river/stream/riparian/floodplain corridor

ASSOCIATED THREATS: conversion to agriculture lands; dredging & channelization; altered hydrologic regimes; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



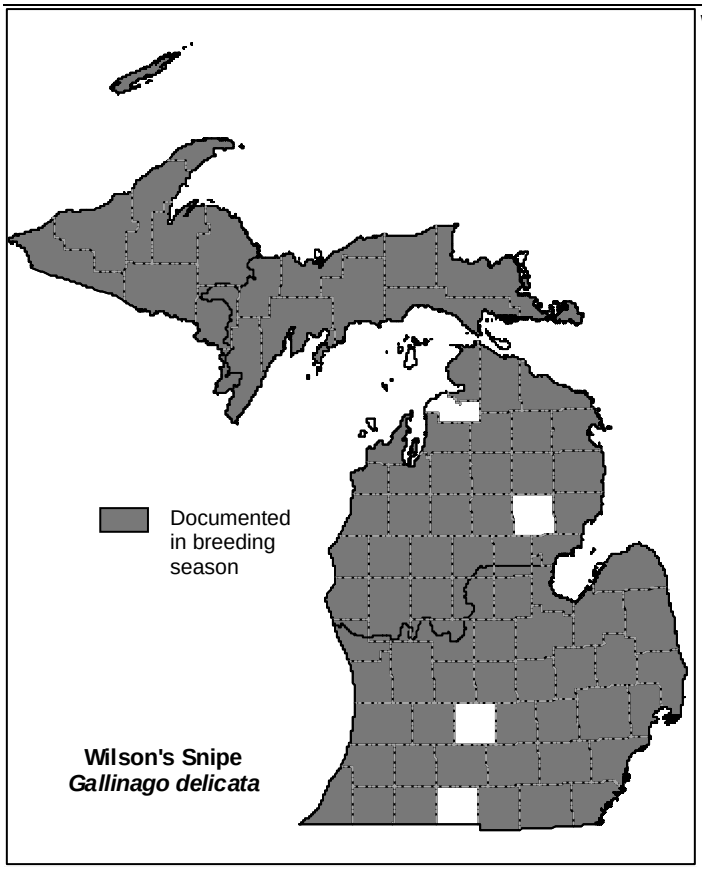
Upland Sandpiper

(Bartramia longicauda)

DISTRIBUTION & ABUNDANCE: The abundance of Upland Sandpipers has tracked trends in the amount of available grassland within the state. Populations increased with settlement in the mid-1800s until market hunting dramatically reduced their numbers. After passage of the Migratory Bird Convention Act of 1916, this hunting was stopped and populations started to increase in the 1930s. Development and succession are currently reducing grassland habitat, and the Upland Sandpiper is likely to face reduced numbers again.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; row crop; savanna; dry conifer; forest opening; bog; ephemeral wetland; suburban/small town; other (perches (fenceposts, etc.)); large contiguous natural landscape

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; fragmentation; grazing & mowing patterns; industrial/residential/recreational development; other biological interactions (predation)



Wilson's Snipe

(Gallinago delicata)

DISTRIBUTION & ABUNDANCE: Michigan lies near the southern edge of the range of Wilson's Snipe, and, while abundant nowhere, it may be found where suitable habitat exists.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland conifer; bog; inland emergent wetland; ephemeral wetland; coastal emergent wetland

ASSOCIATED THREATS: wetland modifications

COMMENTS: This species has also been known as Common Snipe (*Gallinago gallinago)*. In 2002, it was decided that the New World Wilson's Snipe differed sufficiently from the Old World Common Snipe to constitute a distinct species.

American Woodcock

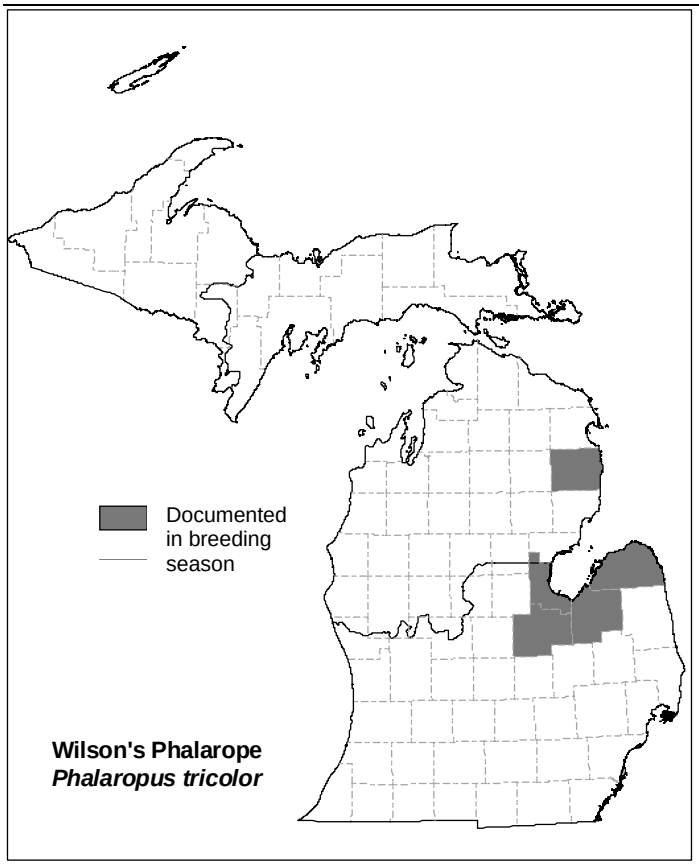
(Scolopax minor)

DISTRIBUTION & ABUNDANCE: The American Woodcock is fairly common throughout the state, though declines have been measured regionally in the central U.S. in the latter half of the 20th century.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; hayland; pasture; row crop; lowland shrub; upland shrub; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; forest opening; river/stream/riparian/ floodplain corridor; edge; late successional forest; down woody debris

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; grazing & mowing patterns; incompatible natural resource mgmt; industrial/ residential/recreational development; urban, municipal, and industrial pollution

COMMENTS: The Woodcock is an important game species in the State and is a vital component of early successional habitat. A shift away from forest management for aspen and increasing development of forested features hinders Woodcock population growth.



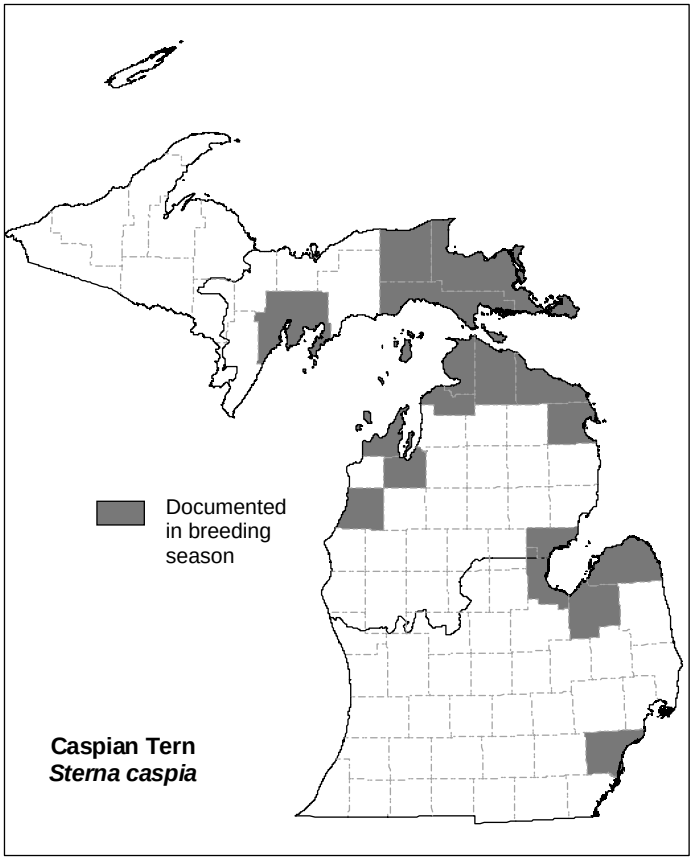
Wilson's Phalarope

(Phalaropus tricolor)

DISTRIBUTION & ABUNDANCE: Wilson's Phalarope has few confirmed breeding records from Michigan. The few birds which have been observed have been near or along the shores of the Great Lakes, primarily in Saginaw Bay and along Lake Huron, and it is currently listed as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; ephemeral wetland; pond; inland lake; suburban/small town

ASSOCIATED THREATS: wetland modifications



Caspian Tern

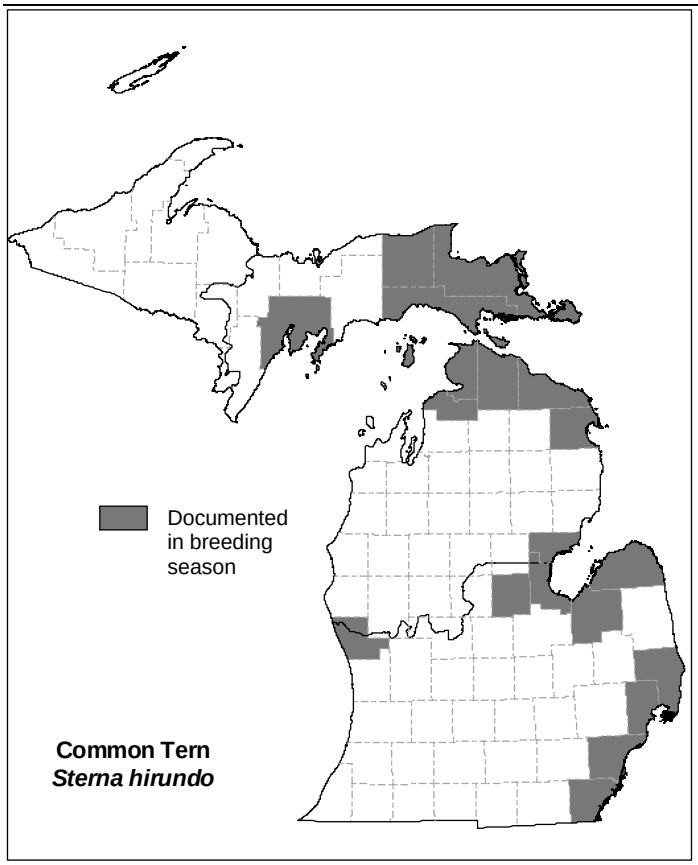
(Sterna caspia)

DISTRIBUTION & ABUNDANCE: Listed as a threatened species in Michigan, the Caspian Tern has never been common in the State. Caspian Terns increased dramatically, to an average of 1,800 pairs, in the latter half of the 20th century in response to increases in alewife (*Alosa pseudoharengus*) and smelt (*Osmerus mordax*) populations in the Great Lakes. Currently, they are locally distributed in the Eastern Upper Peninsula and Northern Lower Peninsula in colonies along the shores of Lake Michigan and Lake Huron.

ASSOCIATED LANDSCAPE FEATURES: inland lake; inland island; coastal dune/beach; Great Lakes island

ASSOCIATED THREATS: invasive plants & animals; other biological interactions (competition with gulls and cormorants for nest sites; predation by owls and gulls); removal of wildlife; urban, municipal, and industrial pollution

COMMENTS: Contamination by PCBs or heavy metals may cause colony abandonment. Mortality caused by entanglement in fishing lines is poorly documented but may be significant.



Common Tern

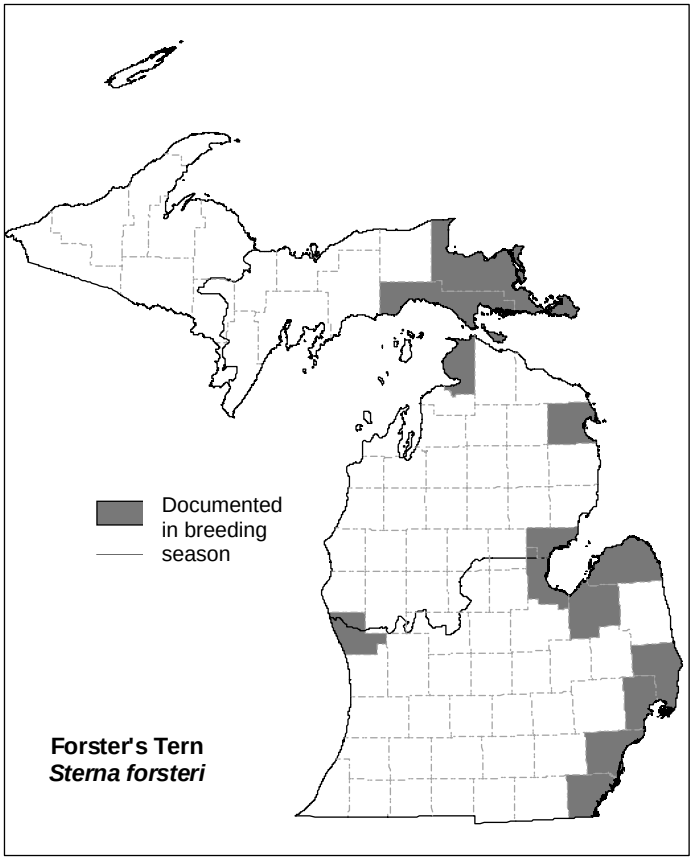
(Sterna hirundo)

DISTRIBUTION & ABUNDANCE: Populations have declined from highs of over 6,000 breeding pairs to estimates of less than 1,500 breeding pairs from the early 1990s. The species is currently listed as threatened within the State. Declines are attributed to habitat loss, competition with gulls, predation, and environmental contaminants.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; inland lake; inland island; river/stream/riparian/ floodplain corridor; coastal emergent wetland; coastal dune/ beach; Great Lakes island

ASSOCIATED THREATS: disease, pathogens, & parasites; altered hydrologic regimes; industrial/residential/ recreational development; invasive plants & animals; non-consumptive recreation; other biological interactions (competition with gulls for nest sites; predation by gulls, mammals, reptiles, and other birds); pesticides & herbicides; urban, municipal, and industrial pollution

COMMENTS: Contamination by organochlorides and heavy metals may affect production. Residential and recreational development along shorelines eliminates current and potential breeding habitat.



Forster's Tern

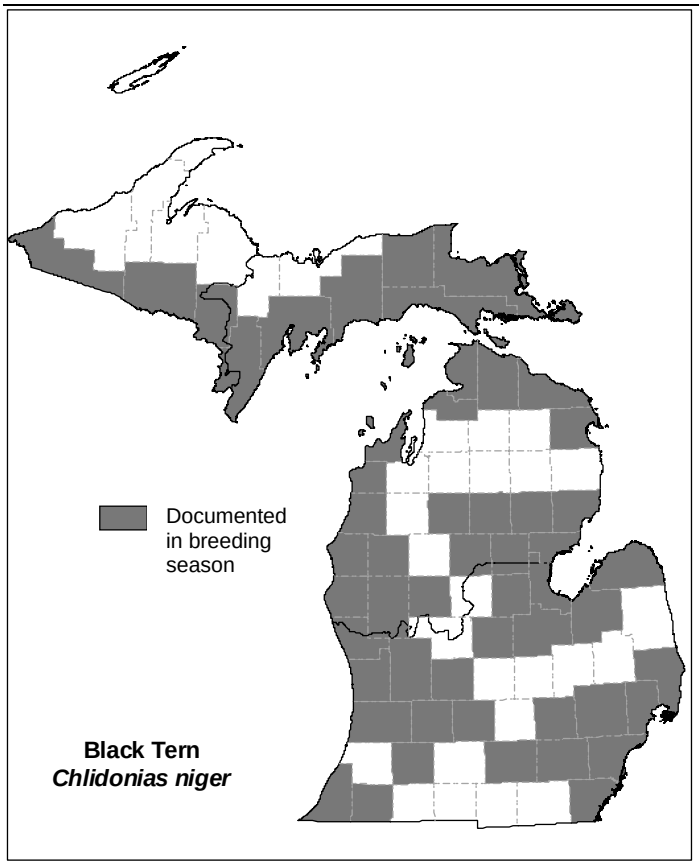
(Sterna forsteri)

DISTRIBUTION & ABUNDANCE: Forster's Tern is uncommon in the State, with its highest densities along the shores of Lake Huron and Lake St. Clair. Surveys in the mid-1980s yielded nest counts ranging from 100 to 850 from these areas. Scattered colonies may also be found along the shore of Lake Erie, along the eastern end of the Upper Peninsula, and on Bois Blanc Island. Forster's Tern is listed as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; inland lake; inland island; river/stream/ riparian/floodplain corridor; coastal emergent wetland; Great Lakes island

ASSOCIATED THREATS: dams; industrial/residential/ recreational development; non-consumptive recreation; urban, municipal, and industrial pollution

COMMENTS: Recreational boating wakes may have a detrimental impact on aquatic vegetation which is used for nesting.



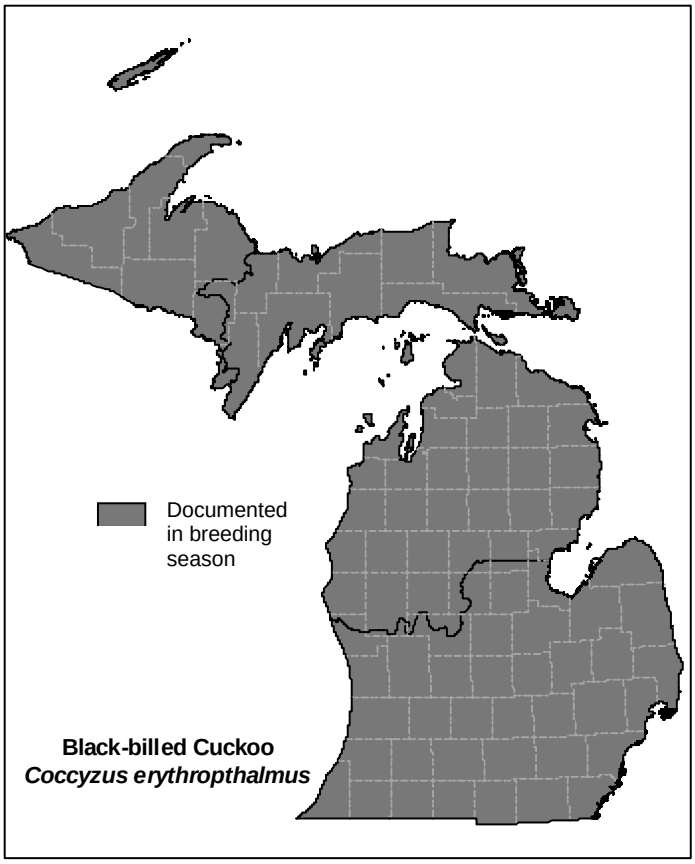
Black Tern

(Chlidonias niger)

DISTRIBUTION & ABUNDANCE: Listed as a species of special concern, colonies of Black Terns may be locally common along the shorelines of Lake Michigan and Lake Huron and a few large inland lakes. They are infrequently seen in inland areas, and their numbers have declined as wetlands have been drained and filled in the Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; submergent wetland; ephemeral wetland; pond; inland lake; inland island; coastal emergent wetland; Great Lakes island; large contiguous natural landscape

ASSOCIATED THREATS: conversion to agriculture lands; dams; disease, pathogens, & parasites; dredging & channelization; industrial/residential/recreational development; invasive plants & animals; non-consumptive recreation; other biological interactions (possible competition from mute swans; predation of nests and young); scientific research; urban, municipal, and industrial pollution; wetland modifications



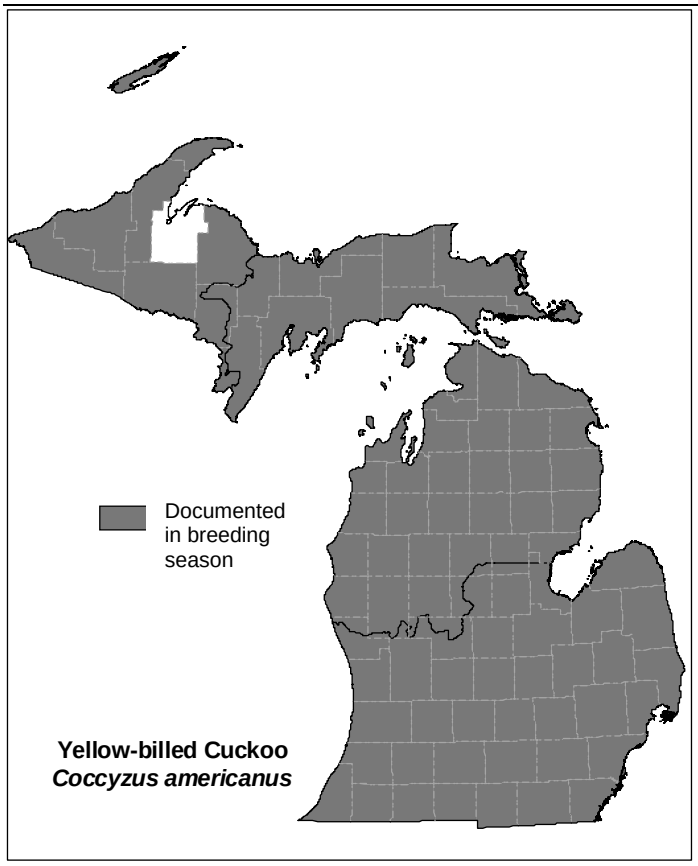
Black-billed Cuckoo

(Coccyzus erythropthalmus)

DISTRIBUTION & ABUNDANCE: Black-billed Cuckoo abundance likely increased as Michigan was settled and additional suitable habitat was created. Currently, a decline in numbers is being observed in the Southern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; upland shrub; mesic conifer; dry conifer

ASSOCIATED THREATS: incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; other biological interactions (fluctuations in population with tent caterpillar outbreaks); pesticides & herbicides



Yellow-billed Cuckoo

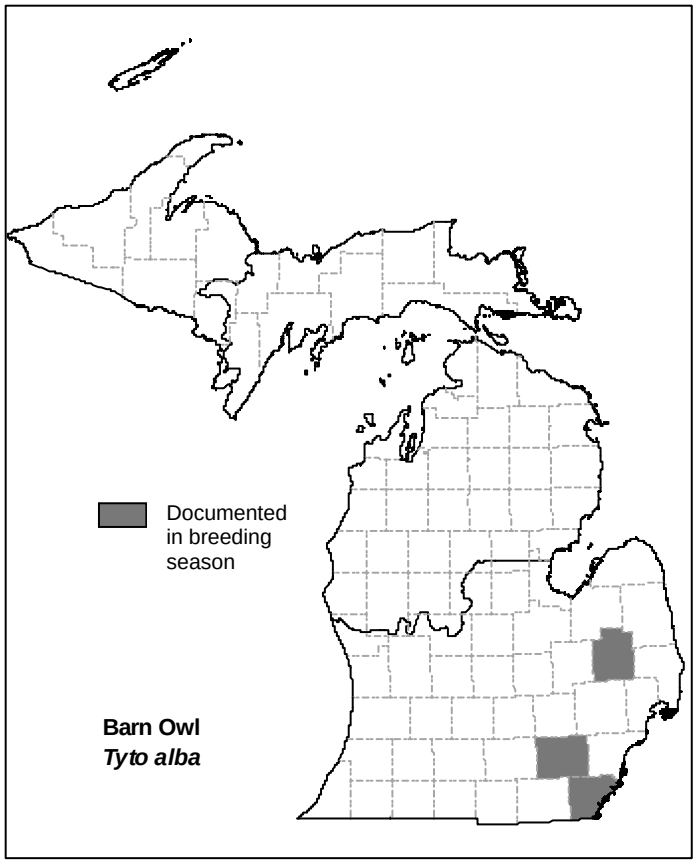
(Coccyzus americanus)

DISTRIBUTION & ABUNDANCE: Yellow-billed Cuckoo were probably less abundant prior to the settlement of Michigan and clearing of the forests. They are common within the Southern Lower Peninsula and rarer in the Northern Lower Peninsula and Upper Peninsula. A downward population trend is evident from BBS data.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; savanna; orchard; lowland shrub; lowland hardwood; mesic hardwood

ASSOCIATED THREATS: fragmentation; altered hydrologic regimes; industrial/residential/recreational development; other biological interactions (predation of adult and nests/young by raptors, other birds, snakes, and mammals); pesticides & herbicides; urban, municipal, and industrial pollution

COMMENTS: Fragmentation of riparian habitat likely influences most of the threats to the Yellow-billed Cuckoo.



Barn Owl

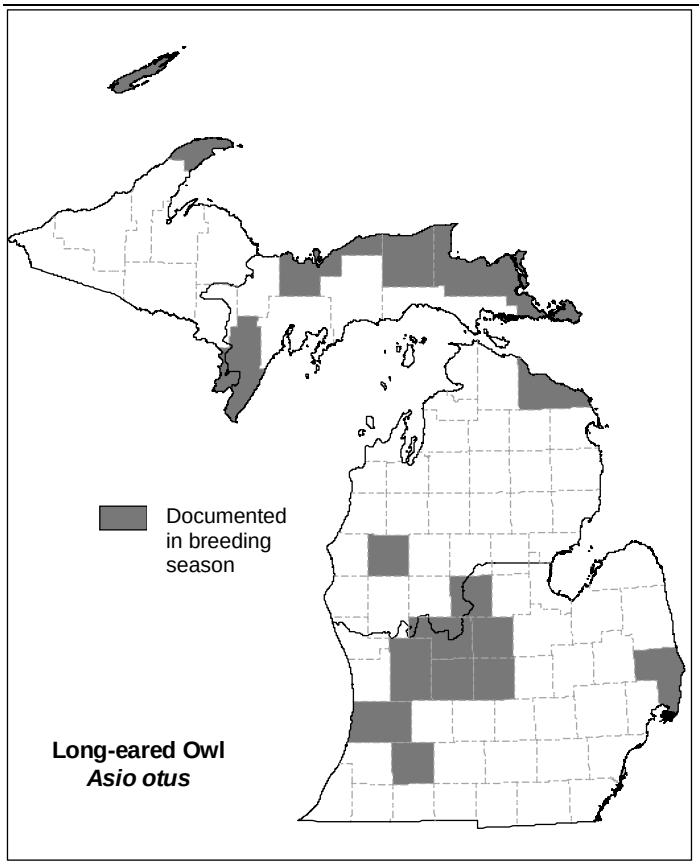
(Tyto alba)

DISTRIBUTION & ABUNDANCE: Listed as an endangered species in Michigan, the Barn Owl is extremely rare in the State and is currently known to breed in few isolated sites in the Southern Lower Peninsula. The last confirmed breeding in the State dates from the 1980s.

ASSOCIATED LANDSCAPE FEATURES: prairie; hayland; pasture; right-of-way; inland emergent wetland; ephemeral wetland; inland rock/cliff/ledge; suburban/small town; snag/cavity; other (barns); large contiguous natural landscape

ASSOCIATED THREATS: climate change; conversion to agriculture lands; altered fire regime; fragmentation; incompatible natural resource mgmt; industrial/residential/recreational development; other biological interactions (predation by great horned owl); pesticides & herbicides; wetland modifications

COMMENTS: Nesting is predominantly associated with artificial structures, specifically barns, rather than natural nesting substrates. Conversion of unfragmented grassland, hayland, and pasture to brushland and row crop has reduced habitat. Roadside grasslands may be attractive and contribute to vehicular mortality. Some secondary poisoning by rodenticides may occur.



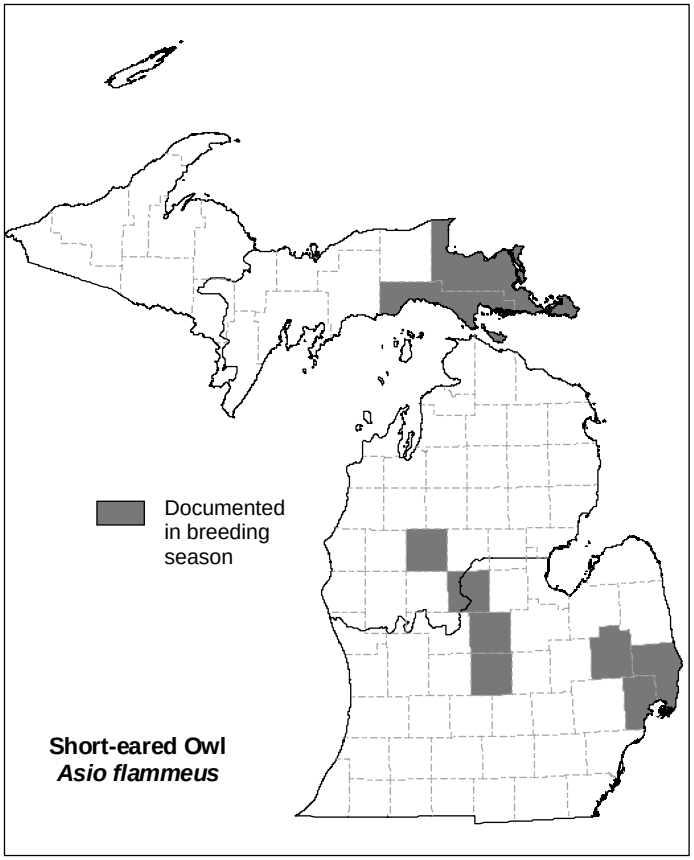
Long-eared Owl

(Asio otus)

DISTRIBUTION & ABUNDANCE: The Long-eared Owl is uncommon statewide with local breeding in the western half of the Southern Lower Peninsula, southern half of the Northern Lower Peninsula, and scattered records throughout the Eastern Upper Peninsula. The Long-eared Owl is listed as a threatened species in Michigan.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; upland shrub; lowland conifer; mesic conifer; forest opening

ASSOCIATED THREATS: conversion to agriculture lands; industrial/residential/recreational development; other biological interactions (competition with Great Horned Owl); pesticides & herbicides; removal of wildlife; urban, municipal, and industrial pollution



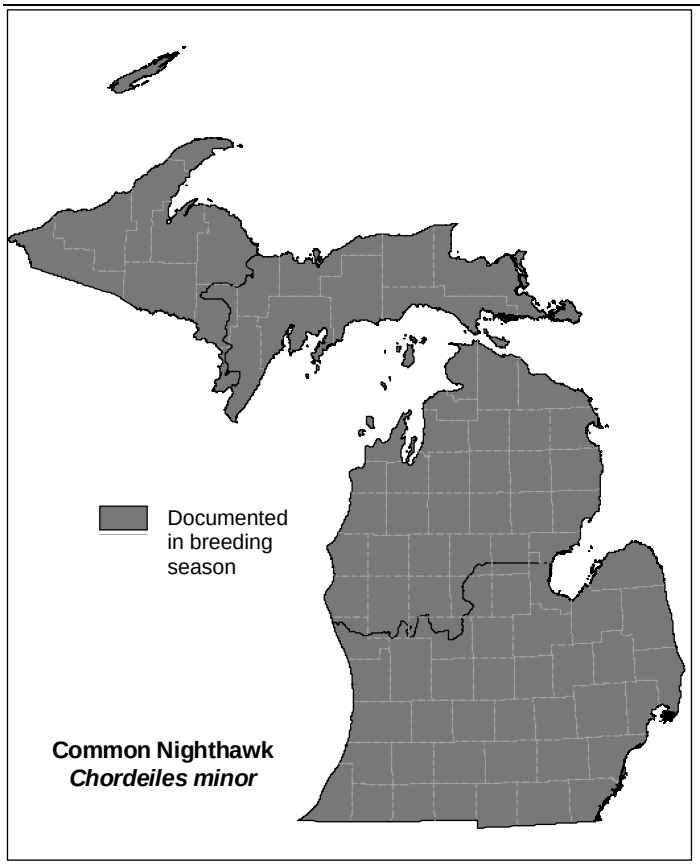
Short-eared Owl

(Asio flammeus)

DISTRIBUTION & ABUNDANCE: The Short-eared Owl was probably never common in the State, and it has been undergoing recent declines in numbers due to grassland habitat loss to development and succession. It is currently listed as endangered.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; savanna; bog; inland emergent wetland; fen; ephemeral wetland; coastal emergent wetland; large contiguous natural landscape

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; altered fire regime; fragmentation; grazing & mowing patterns; altered hydrologic regimes; industrial/residential/recreational development; other biological interactions (nest predation by mammals); removal of wildlife; wetland modifications



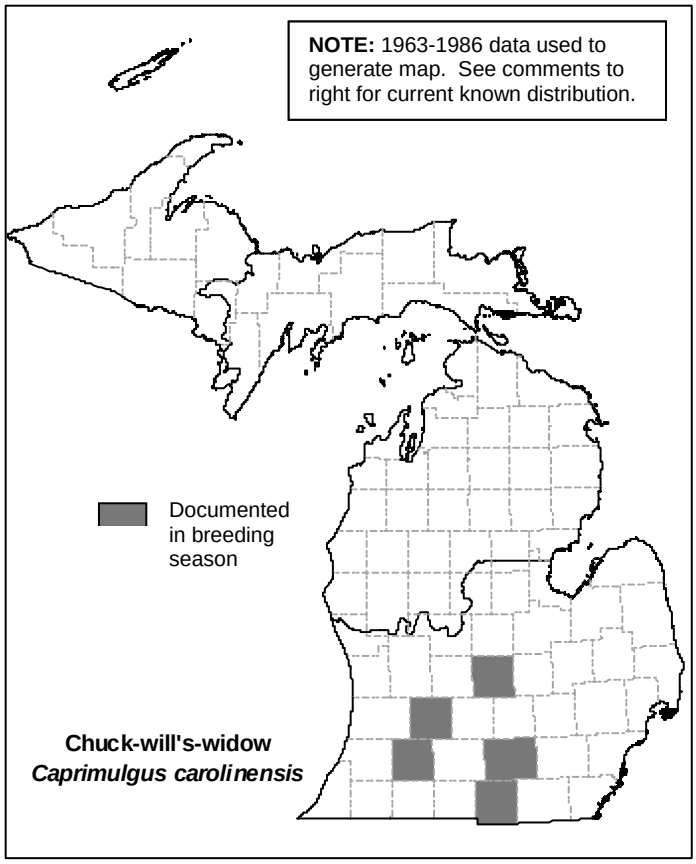
Common Nighthawk

(Chordeiles minor)

DISTRIBUTION & ABUNDANCE: The Common Nighthawk is locally common throughout the State though succession and development have reduced the available breeding habitat and led to declining numbers.

ASSOCIATED LANDSCAPE FEATURES: row crop; savanna; mesic conifer; dry conifer; pond; inland lake; coastal dune/beach; urban; suburban/small town

ASSOCIATED THREATS: altered fire regime; incompatible natural resource mgmt; pesticides & herbicides



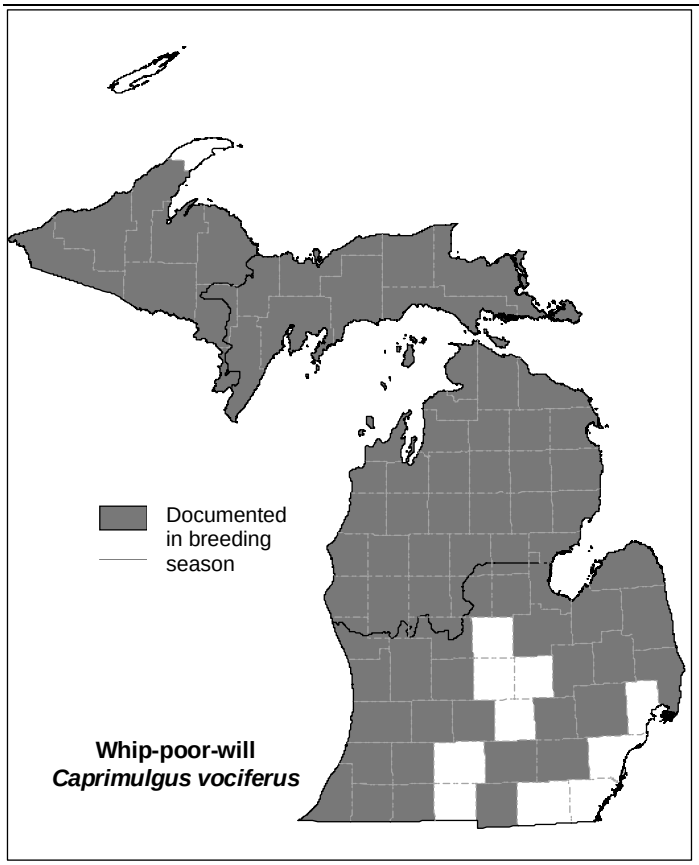
Chuck-will's-widow

(Caprimulgus carolinensis)

DISTRIBUTION & ABUNDANCE: Michigan lies at the northernmost extent of the Chuck-will's-widow's range, and birds are found in the State erratically. The first documented occurrence of the species in the State dates from 1963. It is not uncommon for a year to pass without a recorded observation of a chuck-will's-widow.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; mesic hardwood; dry hardwood; forest opening

ASSOCIATED THREATS: grazing & mowing patterns; industrial/residential/recreational development; pesticides & herbicides



Whip-poor-will

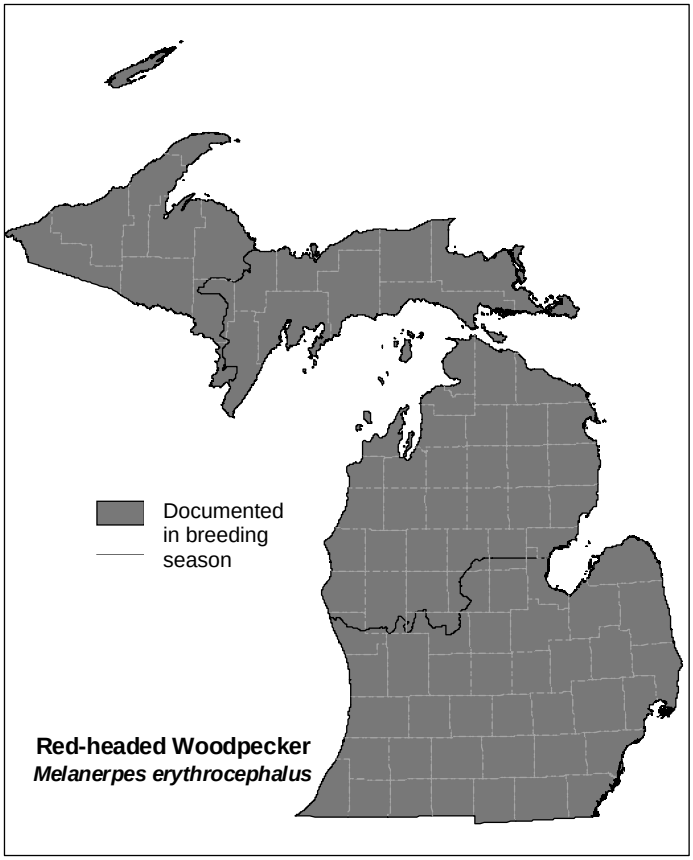
(Caprimulgus vociferus)

DISTRIBUTION & ABUNDANCE: While the Whip-poor-will may be found statewide, it is common nowhere and is currently in decline due to loss of habitat to development and agriculture.

ASSOCIATED LANDSCAPE FEATURES: dry hardwood; dry conifer; forest opening

ASSOCIATED THREATS: conversion to agriculture lands; industrial/residential/recreational development; lack of scientific knowledge; other biological interactions (food competition with bats and small owls); pesticides & herbicides; social attitudes

COMMENTS: The paving of rural roads may lead to higher vehicle speeds and a greater likelihood of collision mortality for foraging individuals.



Red-headed Woodpecker

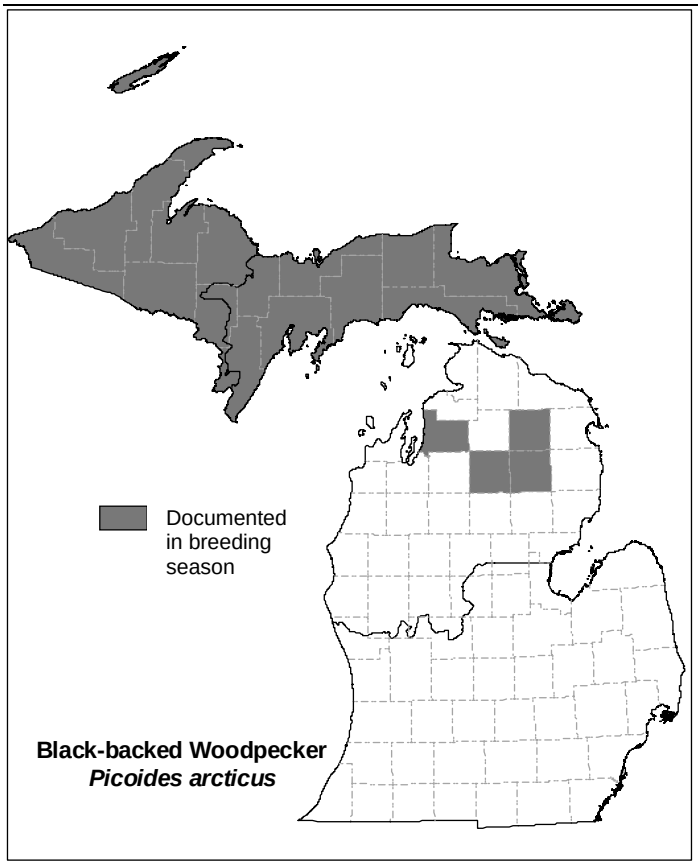
(Melanerpes erythrocephalus)

DISTRIBUTION & ABUNDANCE: Red-headed Woodpeckers are fairly common in the Southern Lower Peninsula with lower densities in the Northern Lower Peninsula and scattered reports from the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; row crop; savanna; lowland hardwood; mesic hardwood; dry hardwood; dry conifer; forest opening; swamp; river/stream/riparian/floodplain corridor; edge; snag/cavity; late successional forest; down woody debris

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; industrial/residential/recreational development; other biological interactions (competition with starlings for nest sites)

COMMENTS: Clean farming practices reduce the value of edge in and near agricultural features.



Black-backed Woodpecker

(Picoides arcticus)

DISTRIBUTION & ABUNDANCE: Michigan lies at the southern edge of the Black-backed Woodpecker's range, and they are most abundant in the Upper Peninsula. Though common nowhere in the State and listed as a species of special concern, local populations may increase dramatically following forest fires.

ASSOCIATED LANDSCAPE FEATURES: savanna; lowland conifer; dry conifer; forest opening; bog; submergent wetland; swamp; pond; snag/cavity

ASSOCIATED THREATS: altered fire regime; incompatible natural resource mgmt; forestry practices

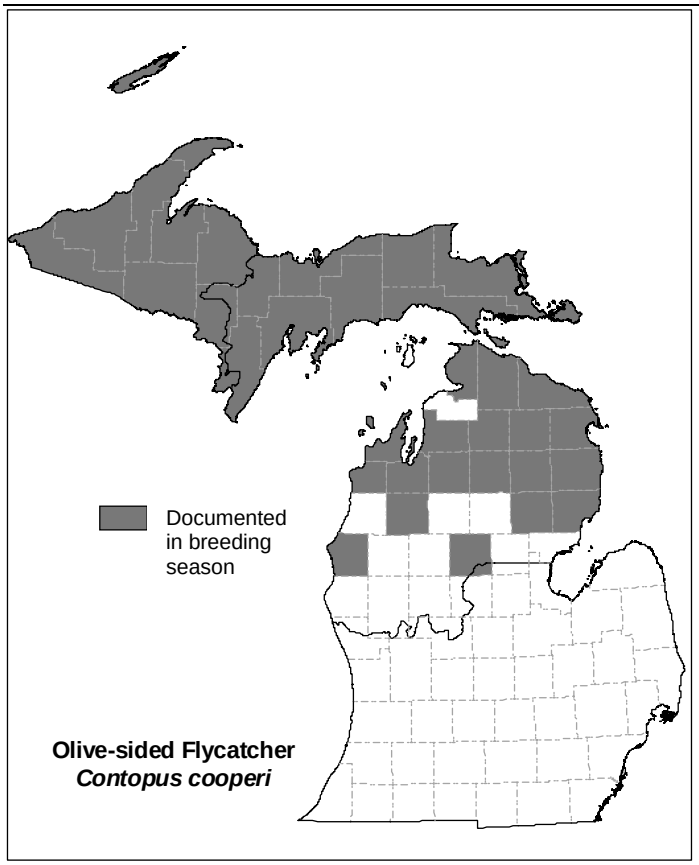
Northern Flicker

(Colaptes auratus)

DISTRIBUTION & ABUNDANCE: Flickers are widespread and common statewide. Recent BBS data indicate declining populations, which may be at least partially due to competition with starlings for nesting holes.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; pasture; fence row; savanna; orchard; lowland shrub; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; forest opening; inland emergent wetland; swamp; river/stream/riparian/floodplain corridor; edge; suburban/small town; snag/cavity

ASSOCIATED THREATS: other biological interactions (competition with starlings for nest sites)



Olive-sided Flycatcher

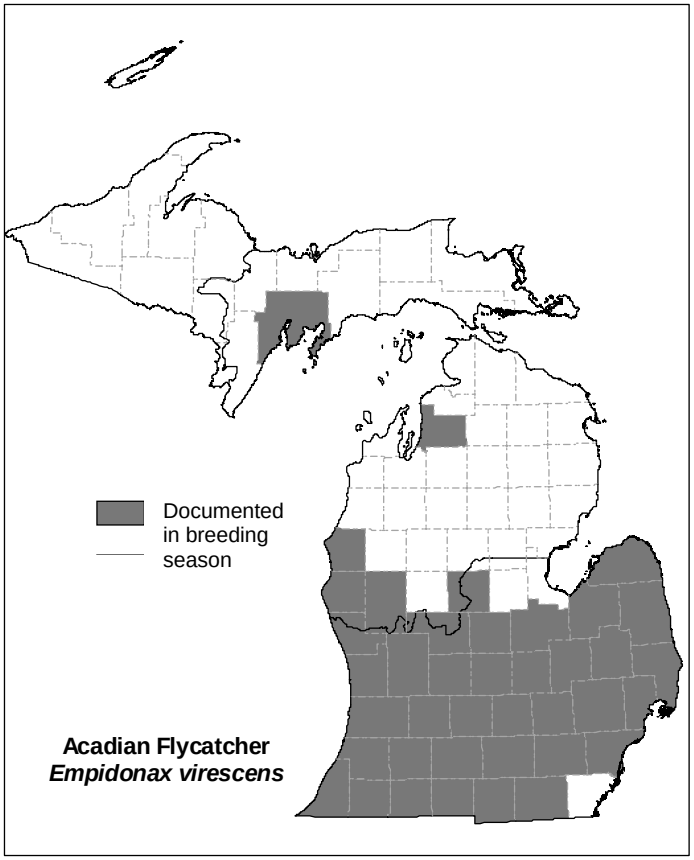
(Contopus cooperi)

DISTRIBUTION & ABUNDANCE: Michigan lies along the southern boundary of the Olive-sided Flycatcher's range, and the bird is more common in the Upper Peninsula than the Northern Lower Peninsula. It may be locally abundant in the Upper Peninsula, though BBS data indicate a declining trend.

ASSOCIATED LANDSCAPE FEATURES: mesic hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; inland emergent wetland; pond; inland lake; edge; snag/cavity

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; other biological interactions (beaver control may reduce available habitat); pesticides & herbicides

COMMENTS: This species was also known by the name *Contopus borealis*. The loss of wintering habitat in South America may be as significant as threats on the breeding grounds.



Acadian Flycatcher

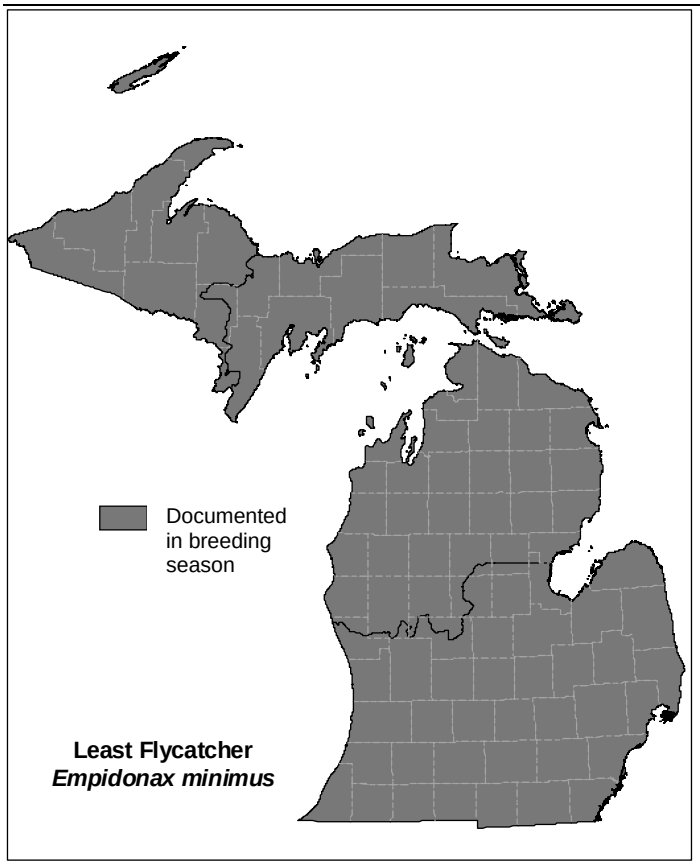
(Empidonax virescens)

DISTRIBUTION & ABUNDANCE: Michigan lies at the northern limit of the Acadian Flycatcher's range with birds relatively common in the western half of the Southern Lower Peninsula. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; mesic hardwood; dry hardwood; river/stream/ riparian/floodplain corridor; large contiguous natural landscape

ASSOCIATED THREATS: fragmentation; incompatible natural resource mgmt; invasive plants & animals

COMMENTS: Acadian Flycatchers are very area sensitive and are much less common in woodlots smaller than 90-250 acres. Cowbird (*Molothrus ater*) parasitism may be significant.



Least Flycatcher

(Empidonax minimus)

DISTRIBUTION & ABUNDANCE: Abundance of Least Flycatcher tracks forest abundance on the landscape. Birds are more common in the Upper Peninsula but may be found statewide. Numbers may be declining in Michigan and the species has become somewhat uncommon in southeastern counties in the State.

ASSOCIATED LANDSCAPE FEATURES: savanna; orchard; upland shrub; mesic hardwood; dry hardwood; mesic conifer; edge

ASSOCIATED THREATS: invasive plants & animals

COMMENTS: Cowbird (*Molothrus ater*) nest parasitism may have an impact.

Eastern Kingbird

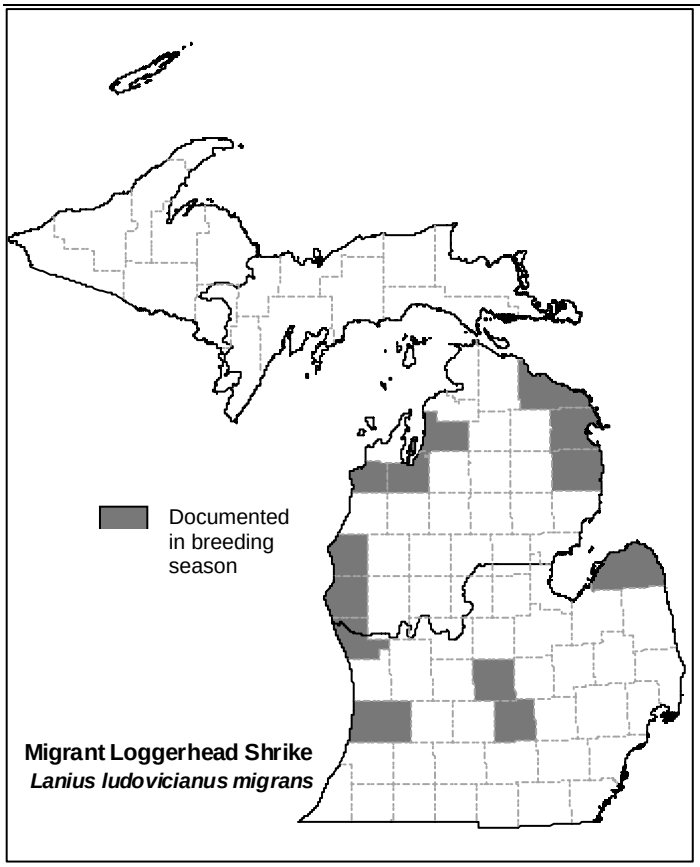
(Tyrannus tyrannus)

DISTRIBUTION & ABUNDANCE: Post-settlement populations of Eastern Kingbird were probably higher than presettlement populations. Individuals are common throughout the State though there is evidence from the BBS of a decline in numbers.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; pasture; right-of-way; fence row; savanna; orchard; dry conifer; forest opening; swamp; edge; snag/cavity

ASSOCIATED THREATS: pesticides & herbicides; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



Migrant Loggerhead Shrike

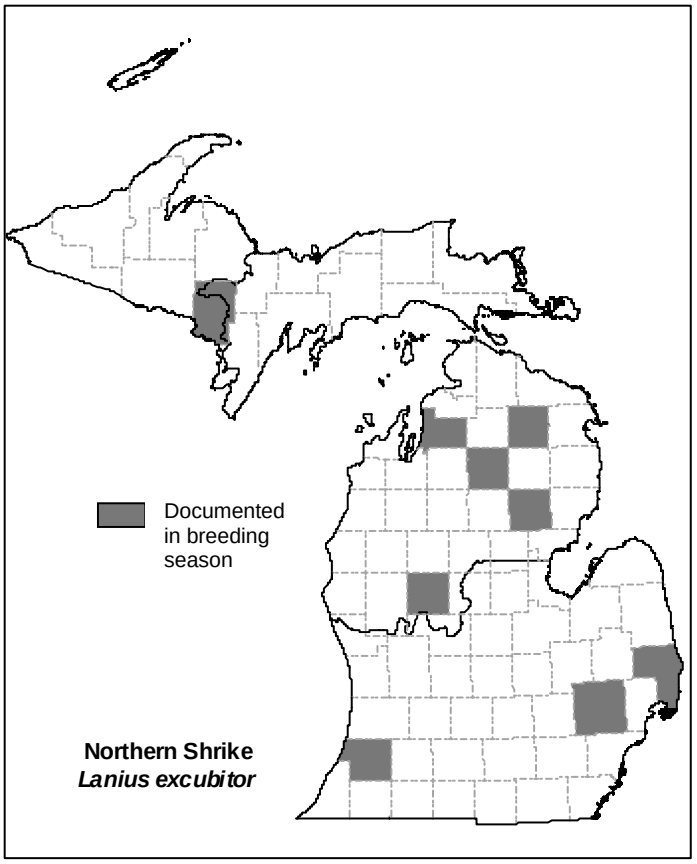
(Lanius ludovicianus migrans)

DISTRIBUTION & ABUNDANCE: Listed as endangered in Michigan, the Migrant Loggerhead Shrike is currently documented primarily from areas near the Great Lakes rather than the interior of the State. Shrike numbers declined through the 1960s and 1970s, possibly in response to the use of pesticides. Recent counts of breeding birds resulted in only one or two pairs being located annually during the 1980s.

ASSOCIATED LANDSCAPE FEATURES: pasture; row crop; right-of-way; fence row; savanna; orchard; upland shrub; mesic hardwood; other (perches (utility poles, etc.))

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; grazing & mowing patterns; incompatible natural resource mgmt; industrial/residential/recreational development; lack of scientific knowledge; other biological interactions (competition on the wintering grounds); pesticides & herbicides

COMMENTS: This species was also known by the name *Lanius ludovicianus*. Education and partnerships with private landowners to maintain fencerows with brush and trees is a key strategy for this species.



Northern Shrike

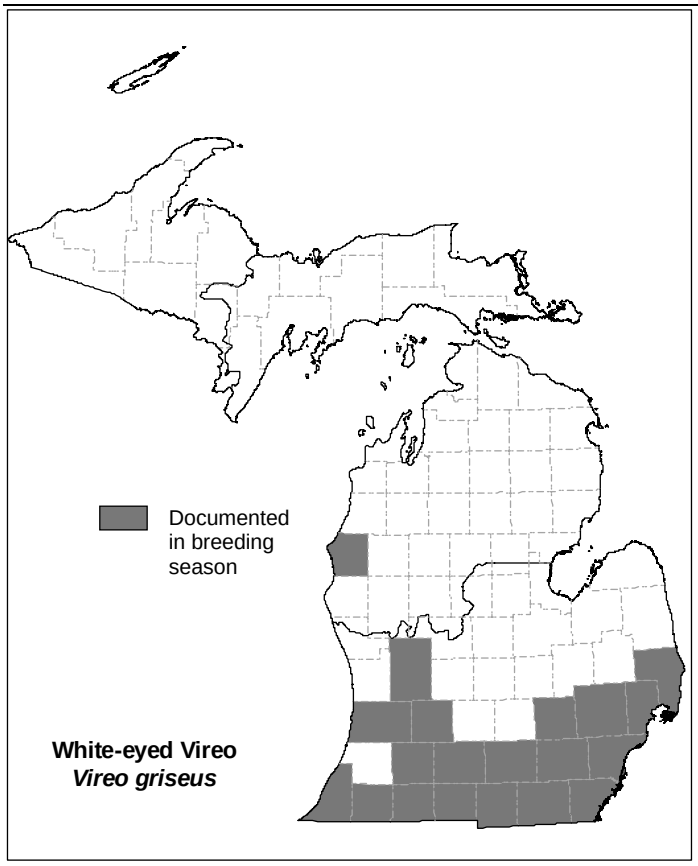
(Lanius excubitor)

DISTRIBUTION & ABUNDANCE: The Northern Shrike is known to overwinter in Michigan. While some birds may be observed in the State during the breeding season, breeding has not been documented. Actual abundance is not known.

ASSOCIATED LANDSCAPE FEATURES: savanna; lowland shrub; lowland hardwood; lowland conifer; bog; inland emergent wetland; river/stream/riparian/floodplain corridor; snag/cavity

ASSOCIATED THREATS: lack of scientific knowledge; unknown

COMMENTS: Few surveys are made of overwintering birds, leaving the Northern Shrike's status within the State undocumented. A threats assessment is needed for this species.



White-eyed Vireo

(Vireo griseus)

DISTRIBUTION & ABUNDANCE: Michigan's southern boundary lies at the northernmost extent of the White-eyed Vireo's range, and individuals are virtually unknown north of the Southern Lower Peninsula. Its distribution in the State is scattered, and it is common nowhere, but abundance is highest along the State line.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; lowland shrub; upland shrub; pond; river/stream/ riparian/floodplain corridor; edge; late successional forest

ASSOCIATED THREATS: invasive plants & animals; other biological interactions (nest predation by birds, snakes, and mammals)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.

Gray Jay

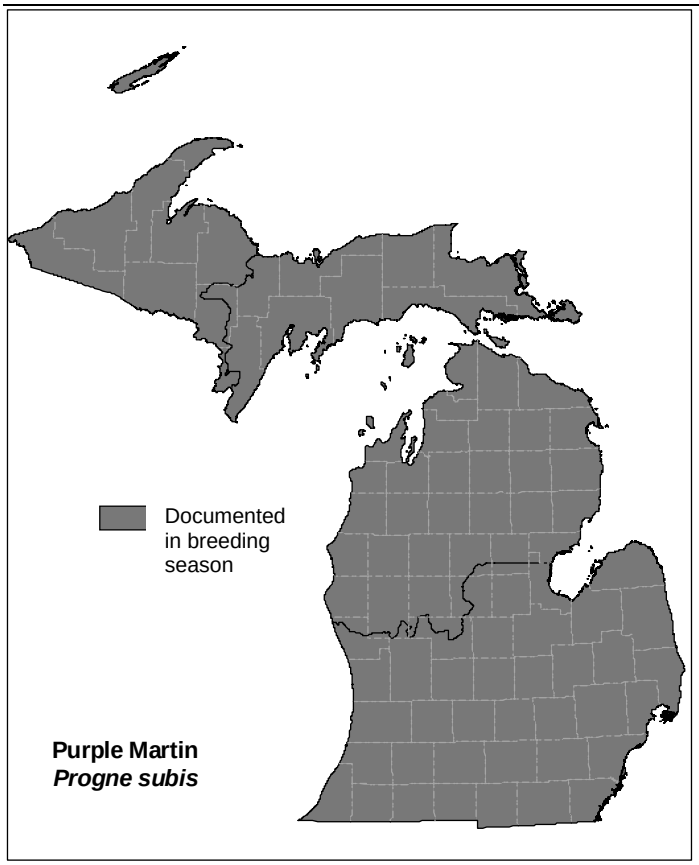
(Perisoreus canadensis)

DISTRIBUTION & ABUNDANCE: Michigan lies at the southern edge of the Gray Jay's range, and it is not uncommon in the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland conifer; mesic conifer; ephemeral wetland; swamp; river/stream/ riparian/floodplain corridor

ASSOCIATED THREATS: lack of scientific knowledge; unknown.

COMMENTS: A threats assessment is needed for this species.



Purple Martin

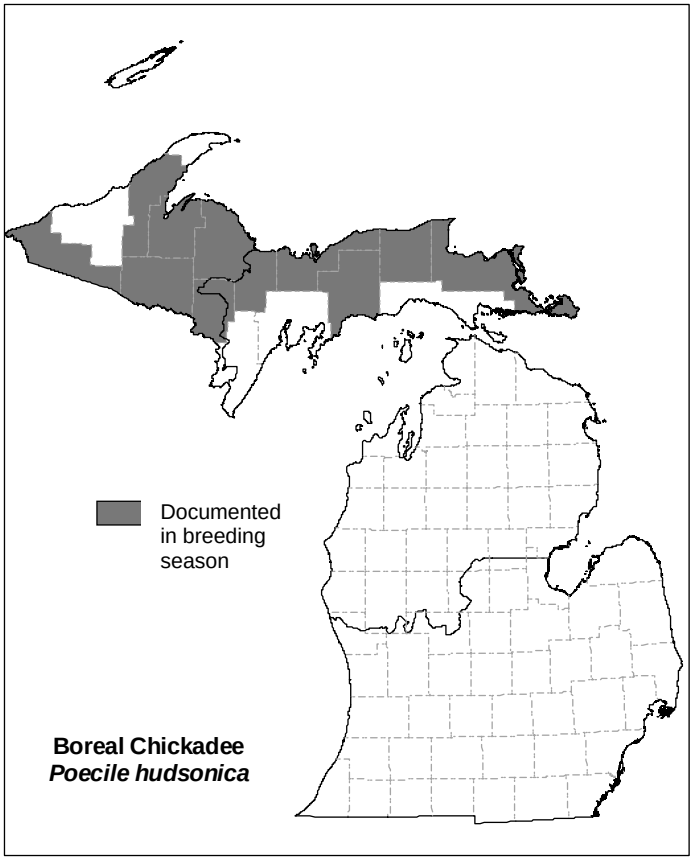
(Progne subis)

DISTRIBUTION & ABUNDANCE: The Purple Martin is more common in the Southern Lower Peninsula than elsewhere in the State but is displaying declines throughout Michigan.

ASSOCIATED LANDSCAPE FEATURES: prairie; row crop; savanna; inland emergent wetland; submergent wetland; pond; suburban/small town; snag/cavity; other (artificial martin houses)

ASSOCIATED THREATS: invasive plants & animals; other biological interactions (highly dependent on humans to provide secure, weather-tight cavities)

COMMENTS: Competition for nesting sites with Starlings (*Sturnus vulgaris*) and House Sparrows (*Passer domesitcus*), which may be very aggressive, reduce available habitat.



Boreal Chickadee

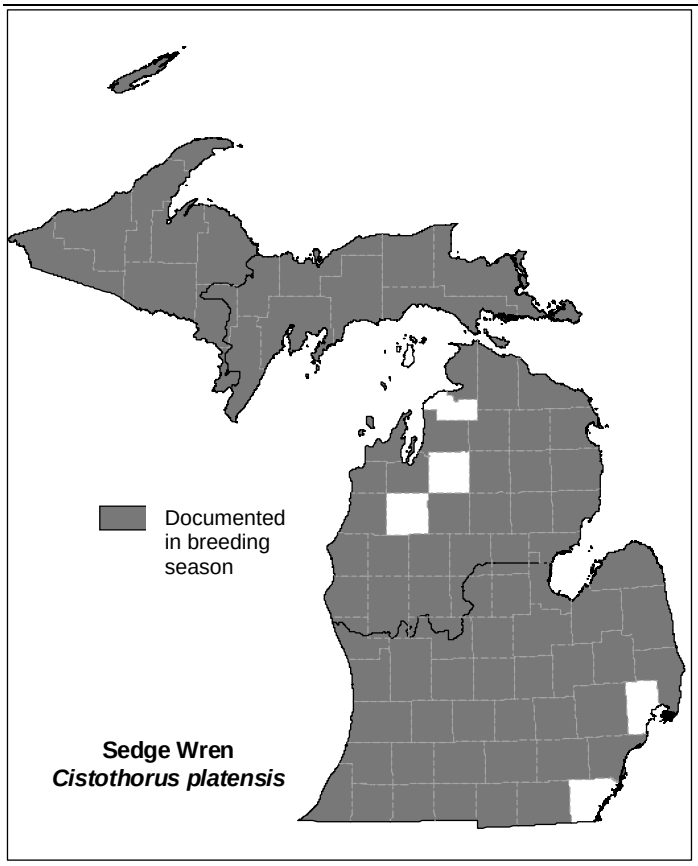
(Poecile hudsonica)

DISTRIBUTION & ABUNDANCE: Present only in the Upper Peninsula, the southern edge of the Boreal Chickadee's range is found in Michigan. Two scattered, disjunct populations exist within the State: one in the Western Upper Peninsula, the other in the Eastern Upper Peninsula. This is a relatively uncommon species, and BBS data indicate a declining trend in populations.

ASSOCIATED LANDSCAPE FEATURES: mesic hardwood; lowland conifer; mesic conifer; fen; swamp; Great Lakes island; snag/cavity

ASSOCIATED THREATS: lack of scientific knowledge; unknown

COMMENTS: this species was also known by the name *Parus hudsonicus*. A threats assessment is needed for this species.



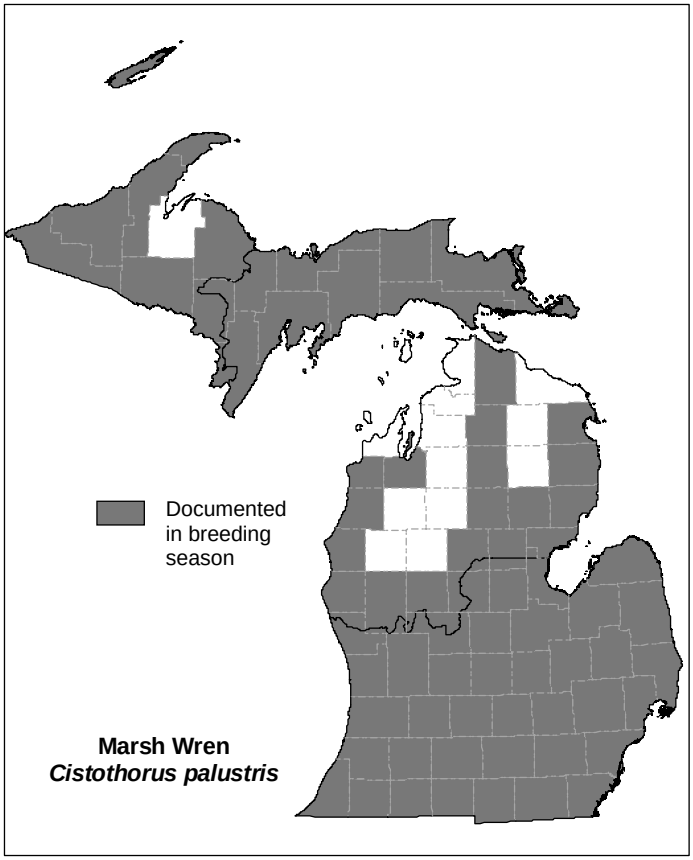
Sedge Wren

(Cistothorus platensis)

DISTRIBUTION & ABUNDANCE: While the Sedge Wren is uncommon in Michigan, it may be locally abundant where suitable habitat is found. The number of breeding sedge wrens is declining, probably due to habitat loss.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; savanna; bog; inland emergent wetland; fen; ephemeral wetland; pond; coastal emergent wetland

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; fragmentation; grazing & mowing patterns; altered hydrologic regimes; industrial/residential/ recreational development; wetland modifications



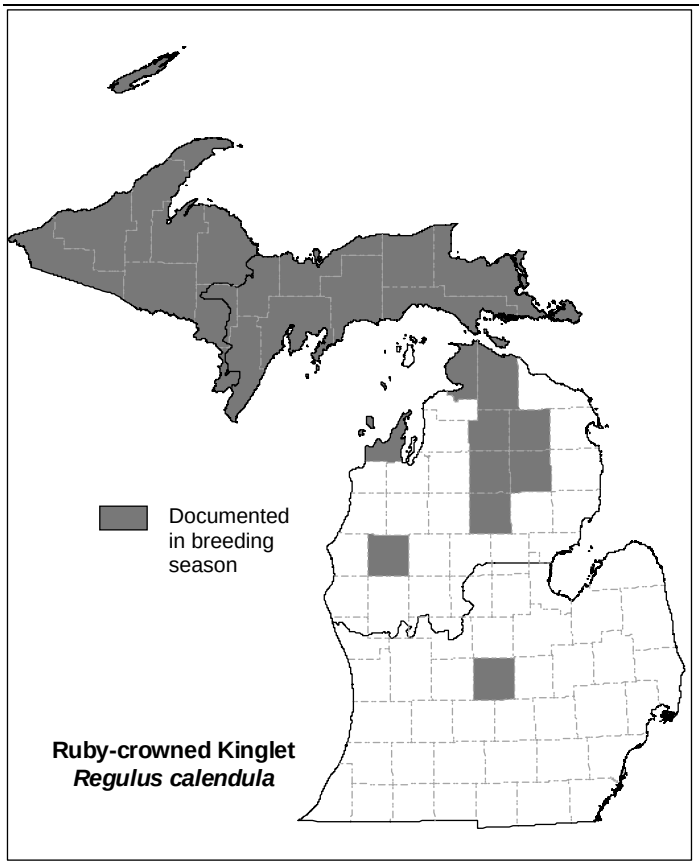
Marsh Wren

(Cistothorus palustris)

DISTRIBUTION & ABUNDANCE: Marsh Wrens are uncommon in the Upper Peninsula and Northern Lower Peninsula and locally common in the Southern Lower Peninsula. The species is in decline in the State due, most probably, to degradation and removal of Great Lakes coastal marshes. It is currently listed as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; pond; inland lake; coastal emergent wetland

ASSOCIATED THREATS: conversion to agriculture lands; grazing & mowing patterns; altered hydrologic regimes; wetland modifications



Ruby-crowned Kinglet

(Regulus calendula)

DISTRIBUTION & ABUNDANCE: The Ruby-crowned Kinglet is locally common in the Upper Peninsula and rare in the Lower Peninsula. BBS data indicate a decline in populations.

ASSOCIATED LANDSCAPE FEATURES: fence row; lowland shrub; lowland conifer; forest opening; bog; edge; late successional forest

ASSOCIATED THREATS: lack of scientific knowledge; unknown.

COMMENTS: A threats assessment is needed for this species.

Wood Thrush

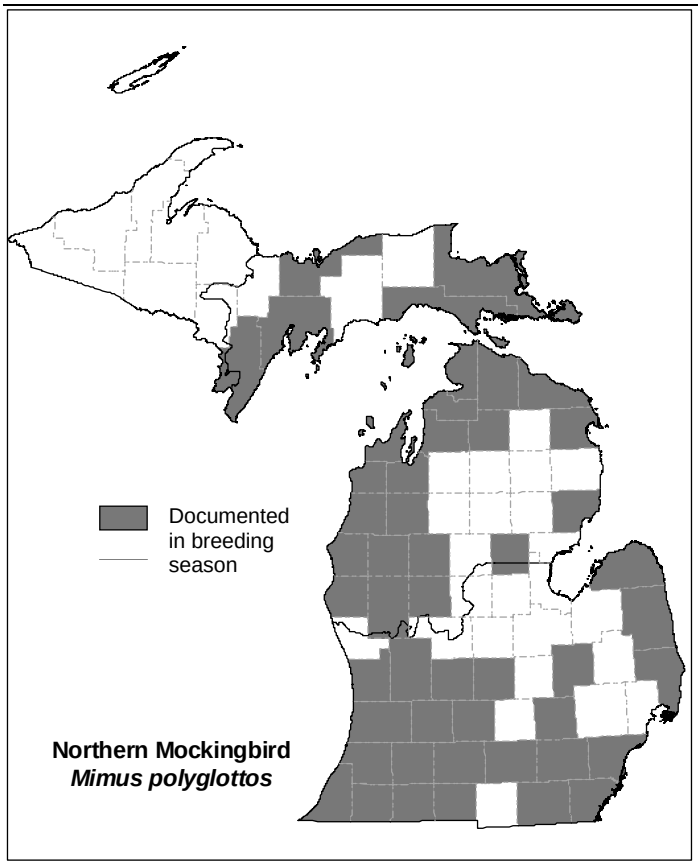
(Hylocichla mustelina)

DISTRIBUTION & ABUNDANCE: The Wood Thrush is abundant in the Lower Peninsula and common in the Upper Peninsula. While BBS data indicate a steady or increasing population within the State, declines have been noted across its range.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; mesic hardwood; dry hardwood; swamp; river/stream/riparian/floodplain corridor; late successional forest

ASSOCIATED THREATS: fragmentation; incompatible natural resource mgmt; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Northern Mockingbird

(Mimus polyglottos)

DISTRIBUTION & ABUNDANCE: The Northern Mockingbird is uncommon throughout the Lower Peninsula and rare in the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: pasture; fence row; savanna; orchard; edge; suburban/small town

ASSOCIATED THREATS: lack of scientific knowledge; unknown

COMMENTS: A threats assessment is needed for this species.

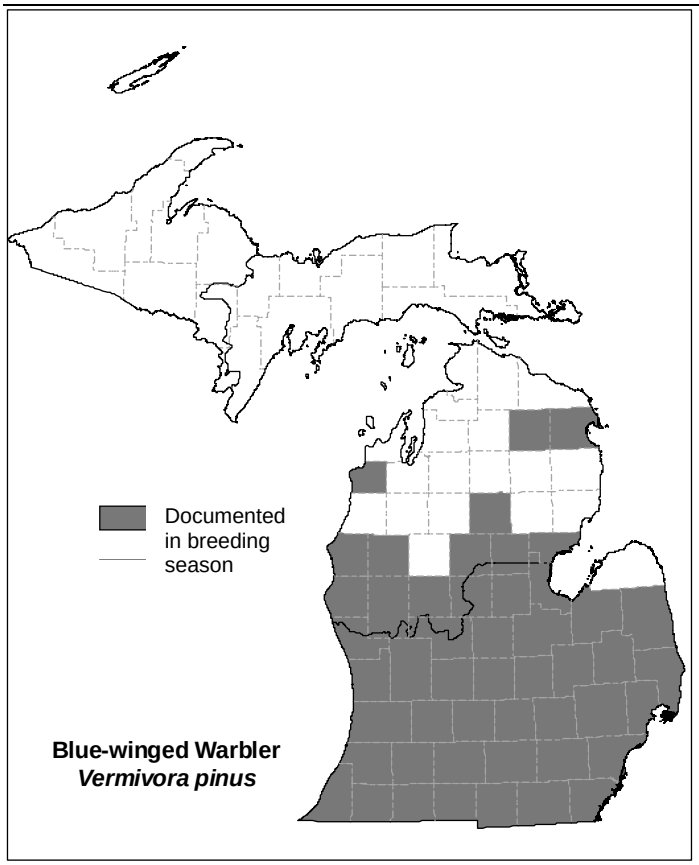
Brown Thrasher

(Toxostoma rufum)

DISTRIBUTION & ABUNDANCE: The Brown Thrasher is fairly common statewide with higher densities in the Lower Peninsula. Its abundance likely increased during settlement due to the clearing of forests. As cleared land reverted to forest, brown thrashers began to decline in Michigan.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; right-of-way; fence row; savanna; lowland shrub; upland shrub; dry hardwood; dry conifer; forest opening; forest opening; swamp; edge

ASSOCIATED THREATS: altered fire regime; industrial/residential/recreational development; other biological interactions (competition with catbirds and cardinals for nesting territories)



Blue-winged Warbler

(Vermivora pinus)

DISTRIBUTION & ABUNDANCE: The Blue-winged Warbler is a relative newcomer to Michigan, being unknown in the State until the mid-1800s. They have experienced a dramatic range expansion and are now common throughout the Southern Lower Peninsula and present in the Northern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; lowland shrub; upland shrub; lowland hardwood; lowland conifer; forest opening; river/stream/riparian/floodplain corridor; edge

ASSOCIATED THREATS: incompatible natural resource mgmt; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.

Golden-winged Warbler

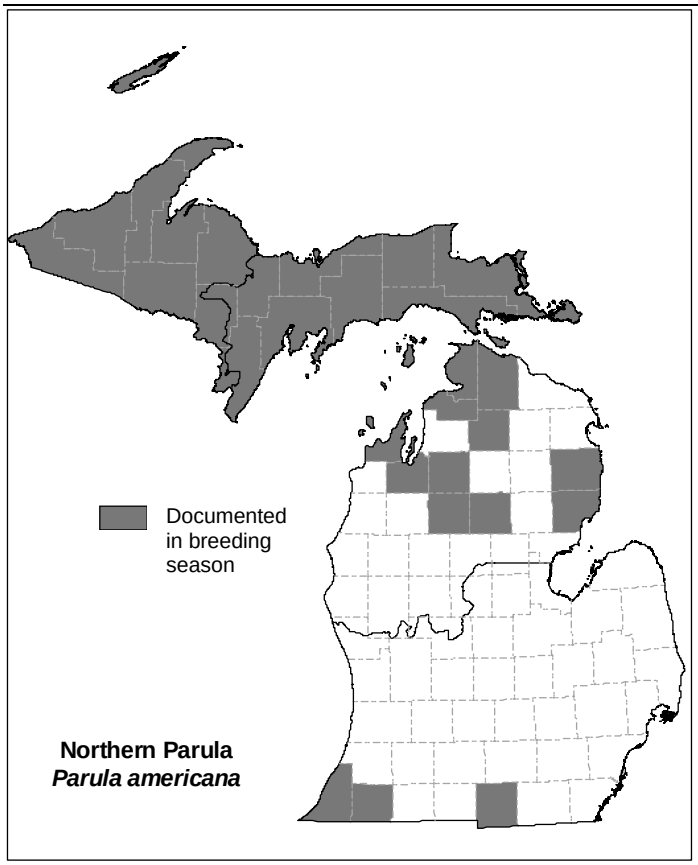
(Vermivora chrysoptera)

DISTRIBUTION & ABUNDANCE: The range of the Golden-winged Warbler has contracted northward as the Blue-winged Warbler has expanded its range into Michigan. They are common in the Upper Peninsula and Northern Lower Peninsula, and are relatively common in the Southern Lower Peninsula, with higher concentrations in the west.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; lowland shrub; upland shrub; lowland hardwood; mesic hardwood; forest opening; bog; swamp; edge

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; forestry practices

COMMENTS: Encroachment of autumn olive (*Elaeagnus umbellata*) may degrade nesting habitat. Nest parasitism by Cowbirds (*Molothrus ater*) and hybridization with Blue-winged Warblers (*Vermivora pinus*) may be significant. Loss of wintering habitat due to deforestation may have an impact.



Northern Parula

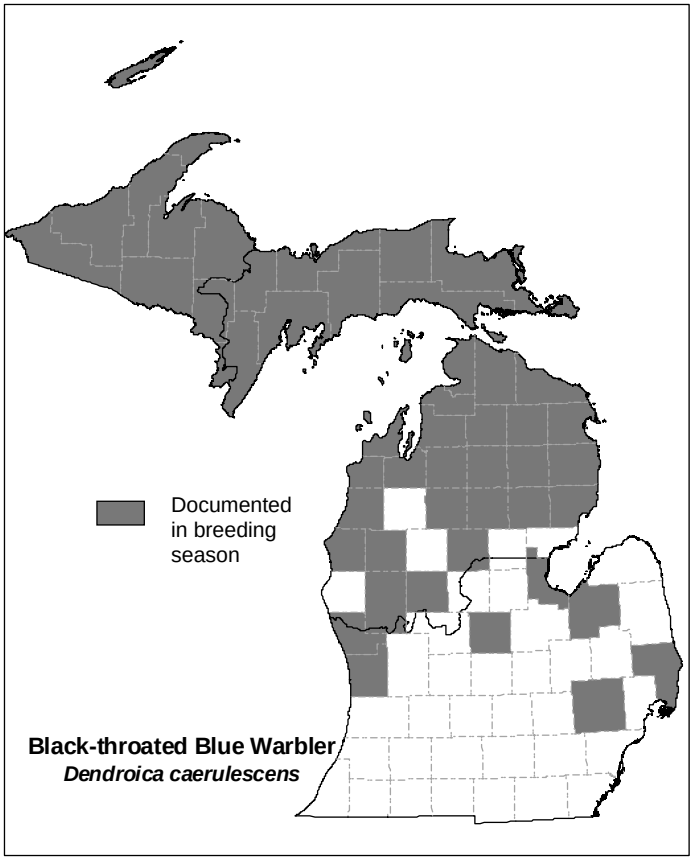
(Parula americana)

DISTRIBUTION & ABUNDANCE: The Northern Parula is relatively common in the Upper Peninsula and uncommon in the Lower Peninsula. BBS data indicate an increase in populations since the early 1980s.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; mesic hardwood; lowland conifer; swamp; river/ stream/riparian/floodplain corridor; coastal dune/beach; Great Lakes island; other (*Usnea* lichen); late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; industrial/residential/recreational development; urban, municipal, and industrial pollution

COMMENTS: *Usnea* lichen is a key component in many Northern Parula nests. Collisions with man-made structures like towers may pose a risk. Wintering habitat in the Yucatan is being cleared for agriculture.



Black-throated Blue Warbler

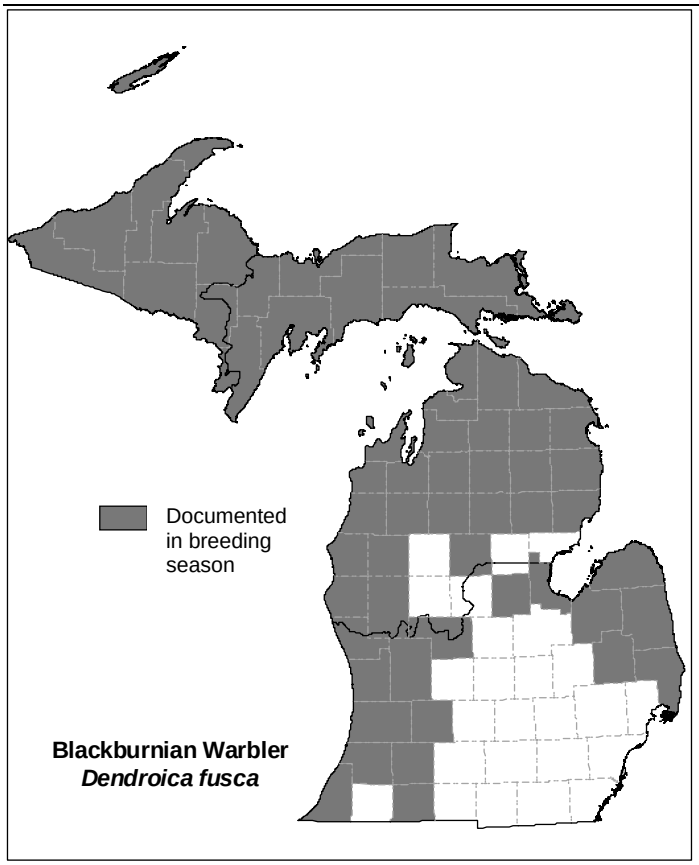
(Dendroica caerulescens)

DISTRIBUTION & ABUNDANCE: This warbler is fairly common in the Upper Peninsula and somewhat rarer in the Northern Lower Peninsula. BBS data indicate an increase in populations since the late 1980s.

ASSOCIATED LANDSCAPE FEATURES: fence row; lowland hardwood; mesic hardwood; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; fragmentation; industrial/residential/recreational development; invasive plants & animals; other biological interactions (overbrowsing by deer reduces understory habitat); pesticides & herbicides

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Blackburnian Warbler

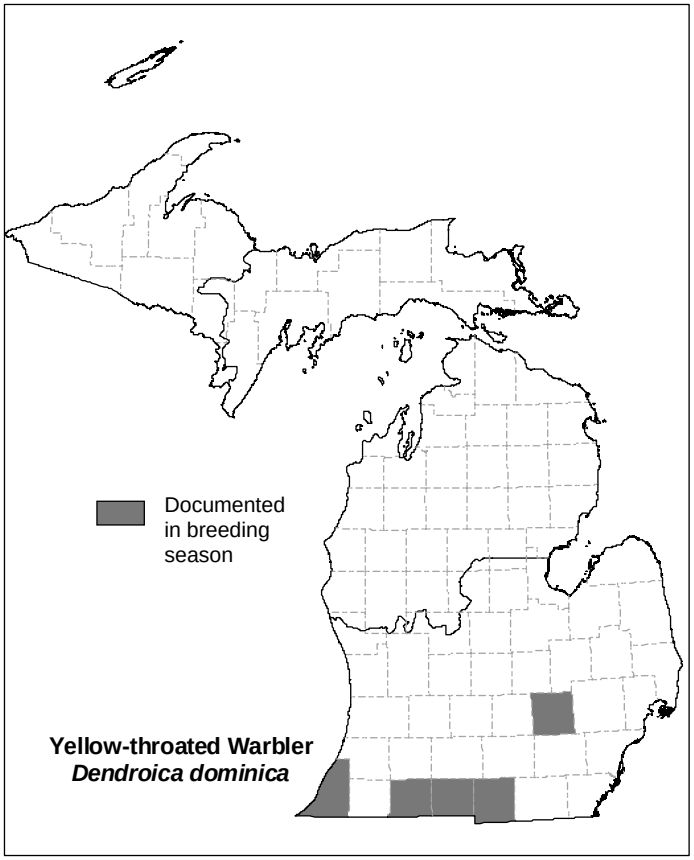
(Dendroica fusca)

DISTRIBUTION & ABUNDANCE: The Blackburnian Warbler is common throughout the Upper Peninsula and may be regularly found in the Northern Lower Peninsula where suitable habitat is available.

ASSOCIATED LANDSCAPE FEATURES: mesic hardwood; lowland conifer; mesic conifer; dry conifer; river/stream/ riparian/floodplain corridor; late successional forest

ASSOCIATED THREATS: forestry practices

COMMENTS: Even-aged timber management reduces suitable nesting habitat.



Yellow-throated Warbler

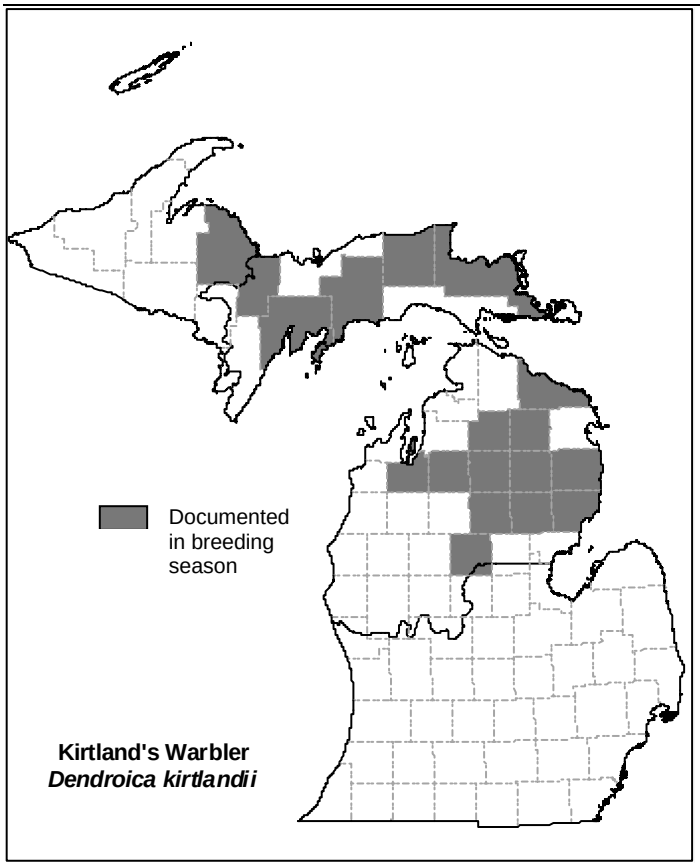
(Dendroica dominica)

DISTRIBUTION & ABUNDANCE: Listed as a threatened species, Michigan lies at the edge of the Yellow-throated Warbler's range. This warbler may have been extirpated from the State for the bulk of the 20th century. Since 1969, at least one to three singing males have been observed in Berrien County annually, representing the only self-sustaining breeding population in Michigan. Intensive surveys in the 1980s documented anywhere from 14 to 21 pairs.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; swamp; river/stream/riparian/floodplain corridor

ASSOCIATED THREATS: invasive plants & animals; forestry practices

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Kirtland's Warbler

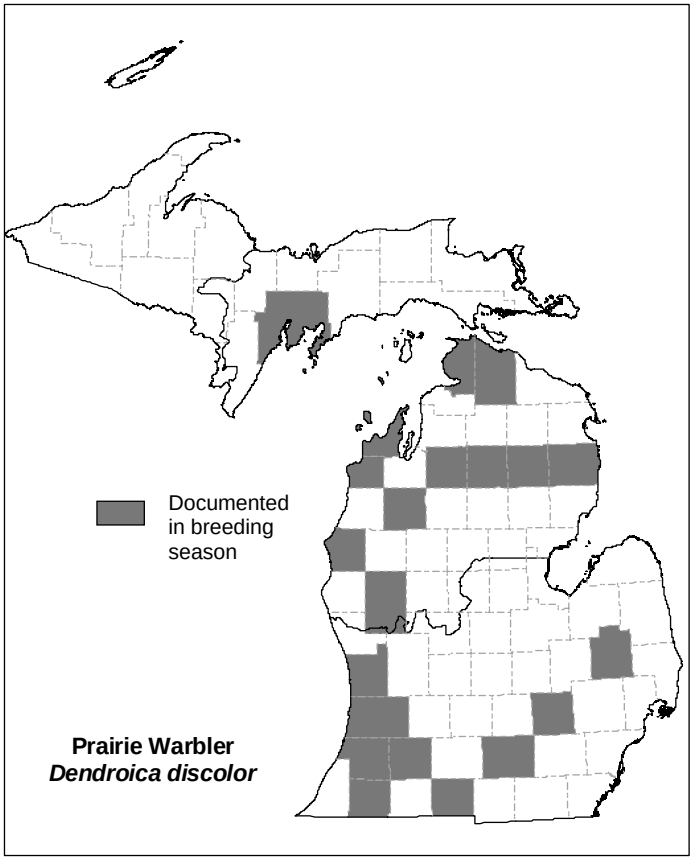
(Dendroica kirtlandii)

DISTRIBUTION & ABUNDANCE: The Kirtland's Warbler is extremely rare and breeds almost exclusively in Michigan's Northern Lower Peninsula. Additional pairs have been found in the Upper Peninsula as well as Wisconsin and Ontario. Censuses early in the 21st century have yielded counts of singing males of more than 1000. The Kirtland's Warbler is currently listed as endangered, both federally and in Michigan.

ASSOCIATED LANDSCAPE FEATURES: savanna; upland shrub; dry conifer; forest opening; large contiguous natural landscape

ASSOCIATED THREATS: disease, pathogens, & parasites; altered fire regime; fragmentation; invasive plants & animals; forestry practices; military maneuvers; pesticides & herbicides

COMMENTS: Conservation of wintering grounds in the Bahamas through international partnerships is needed. The Kirtland's Warbler is very selective in regards to both vegetation species composition and structural composition of nesting sites. Nest parasitism by Cowbirds (*Molothrus ater*) is significant, and Cowbird control is ongoing.



Prairie Warbler

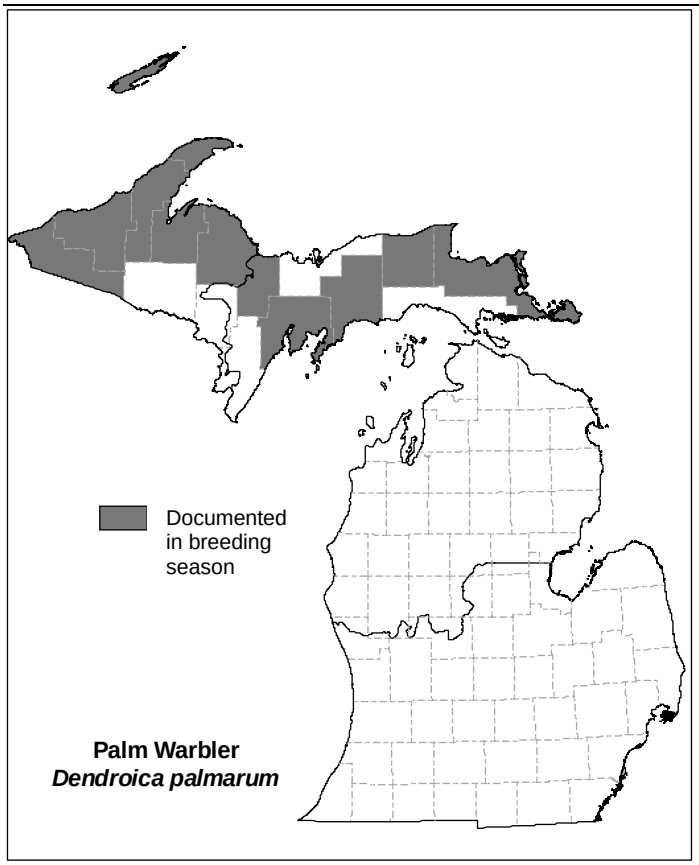
(Dendroica discolor)

DISTRIBUTION & ABUNDANCE: Listed as endangered, the abundance of Prairie Warblers in Michigan has declined from historic highs in the 1950s and 1960s. Its current status is rare and widely scattered across the Lower Peninsula. Records of breeding in the Upper Peninsula are extremely rare.

ASSOCIATED LANDSCAPE FEATURES: prairie; savanna; upland shrub; dry conifer; coastal dune/beach

ASSOCIATED THREATS: disease, pathogens, & parasites; altered fire regime; incompatible natural resource mgmt; industrial/residential/recreational development; invasive plants & animals; other biological interactions (nest predation by snakes)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Palm Warbler

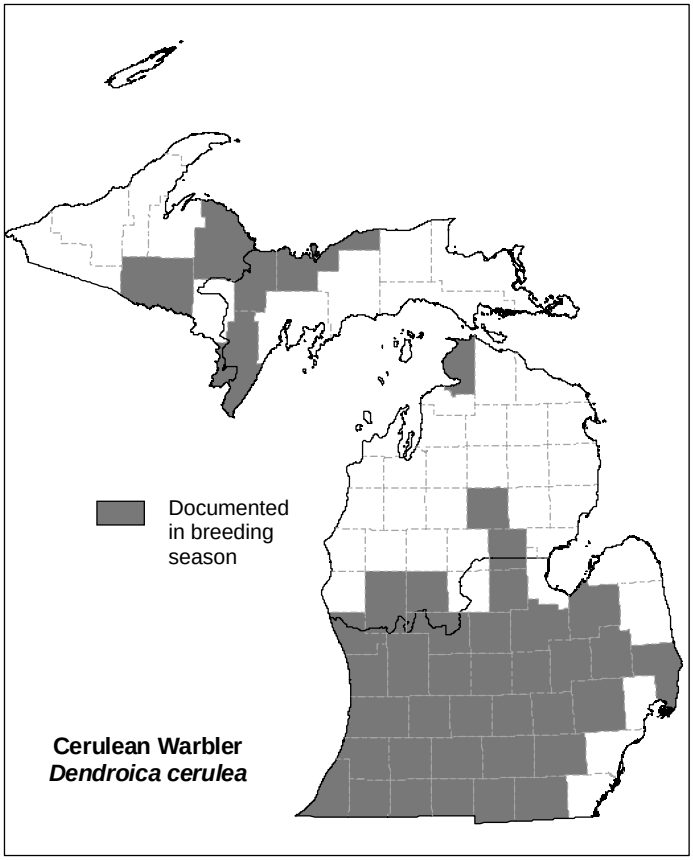
(Dendroica palmarum)

DISTRIBUTION & ABUNDANCE: The Palm Warbler is fairly rare and locally distributed, primarily in the Eastern Upper Peninsula. Michigan lies at the edge of its range, and it was probably never common.

ASSOCIATED LANDSCAPE FEATURES: upland shrub; lowland conifer; dry conifer; forest opening; bog; edge

ASSOCIATED THREATS: altered fire regime; forestry practices; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



Cerulean Warbler

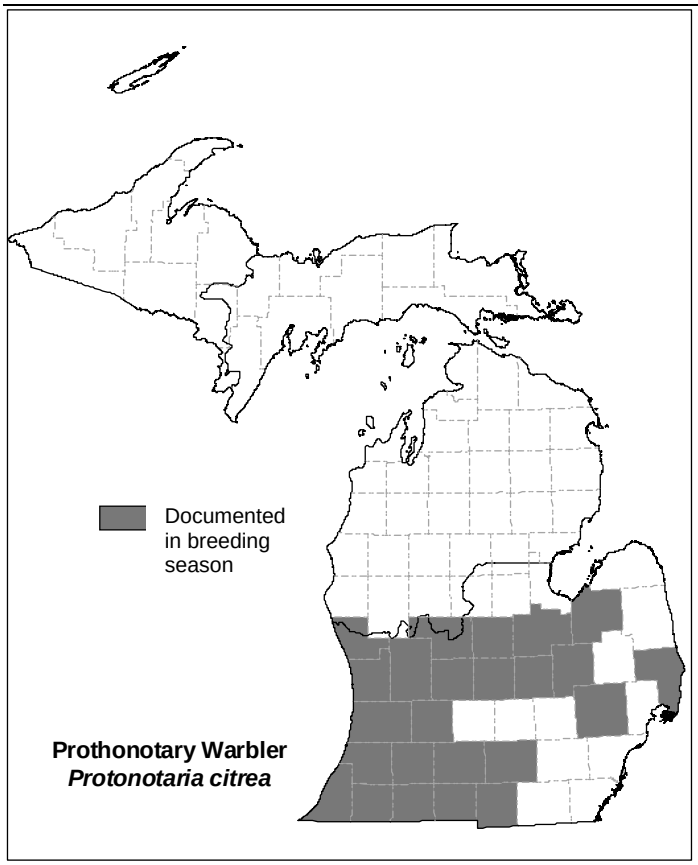
(Dendroica cerulea)

DISTRIBUTION & ABUNDANCE: Listed as a species of special concern in Michigan, the Cerulean Warbler is found almost exclusively in the Southern Lower Peninsula, with only scattered reports from the Northern Lower Peninsula and Upper Peninsula. There have been declines in the State's population, and this warbler is uncommon even in the Southern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; mesic hardwood; dry hardwood; forest opening; river/stream/riparian/floodplain corridor; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; disease, pathogens, & parasites; fragmentation; industrial/ residential/recreational development; invasive plants & animals; forestry practices

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant. The loss of tree species to disease and pests as well as even-aged forest management may reduce suitable breeding habitat.



Prothonotary Warbler

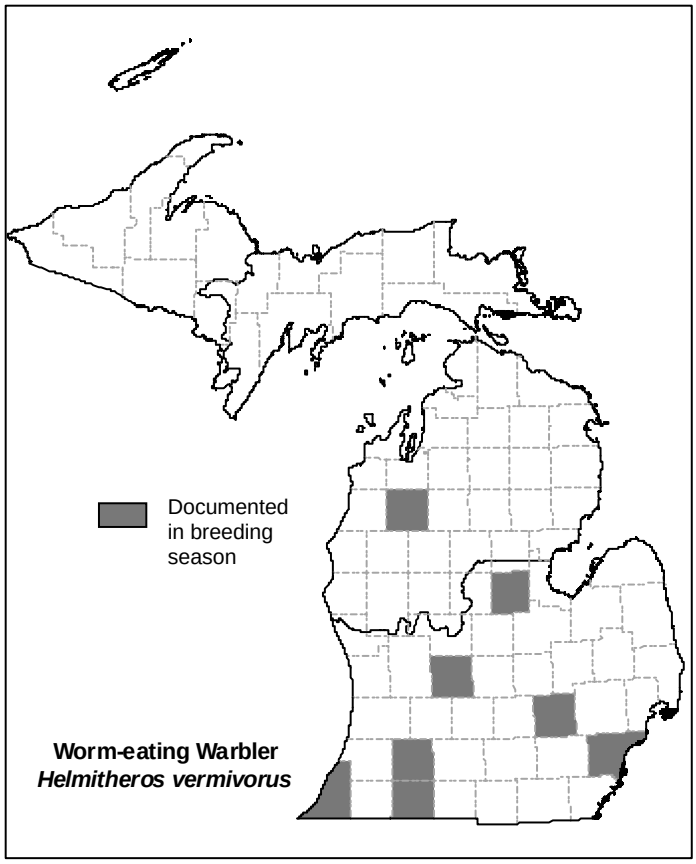
(Protonotaria citrea)

DISTRIBUTION & ABUNDANCE: The Prothonotary Warbler is a species of special concern in Michigan, and Michigan lies on the northern boundary of its breeding range. This warbler is rare and found breeding only in the Southern Lower Peninsula with higher abundances in the western half of the ecoregion.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; swamp; river/stream/riparian/floodplain corridor; snag/cavity; late successional forest

ASSOCIATED THREATS: invasive plants & animals; other biological interactions (predation; competition with house wrens); wetland modifications

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



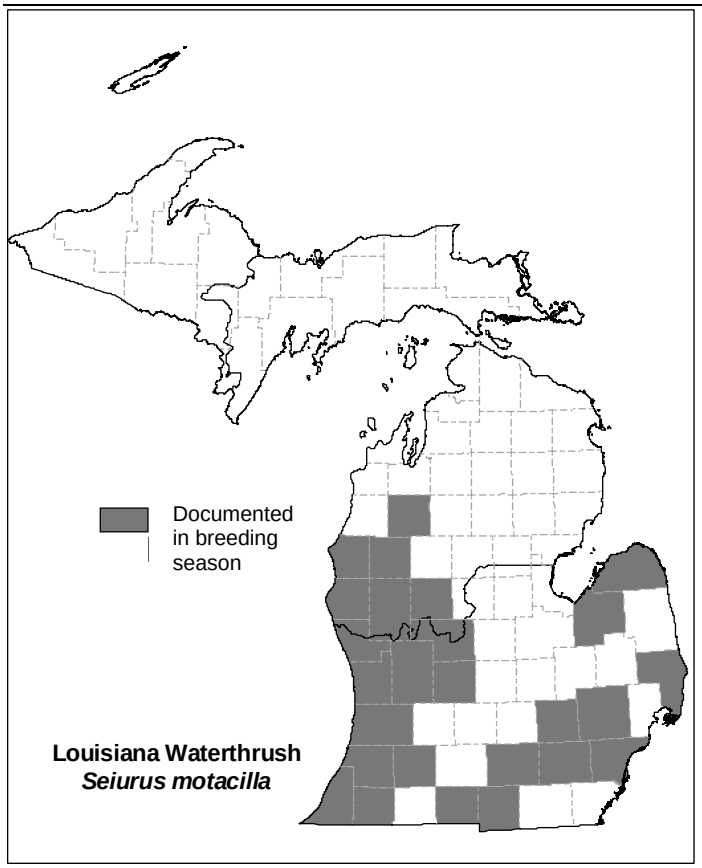
Worm-eating Warbler

(Helmitheros vermivorus)

DISTRIBUTION & ABUNDANCE: Michigan is at the northern extent of the Worm-eating Warbler's range, and few occurrences are known from the State. Birds have only been identified from a handful of sites, almost exclusively within the Southern Lower Peninsula, and it is unlikely that a self-sustaining breeding population exists in Michigan.

ASSOCIATED LANDSCAPE FEATURES: upland shrub; dry hardwood; river/stream/riparian/floodplain corridor; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: fragmentation



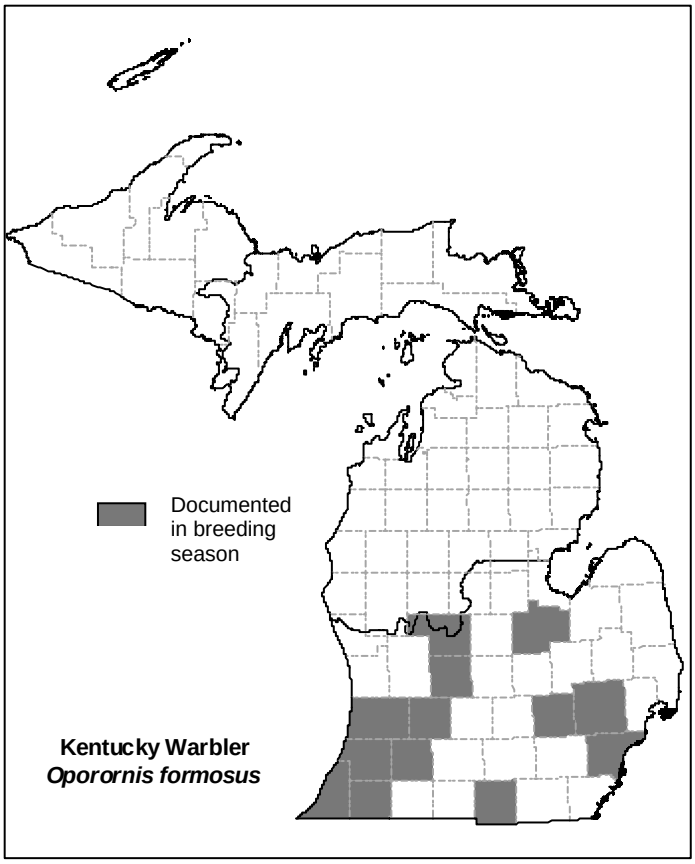
Louisiana Waterthrush

(Seiurus motacilla)

DISTRIBUTION & ABUNDANCE: Currently designated as a species of special concern in Michigan, the Louisiana Waterthrush was probably more common presettlement, though likely not far beyond the Southern Lower Peninsula. The deforestation following settlement was responsible for significant population declines, and the species is now uncommon with local concentrations.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; inland emergent wetland; swamp; river/stream/ riparian/floodplain corridor; late successional forest

ASSOCIATED THREATS: fragmentation; industrial/ residential/recreational development; forestry practices; urban, municipal, and industrial pollution; wetland modifications



Kentucky Warbler

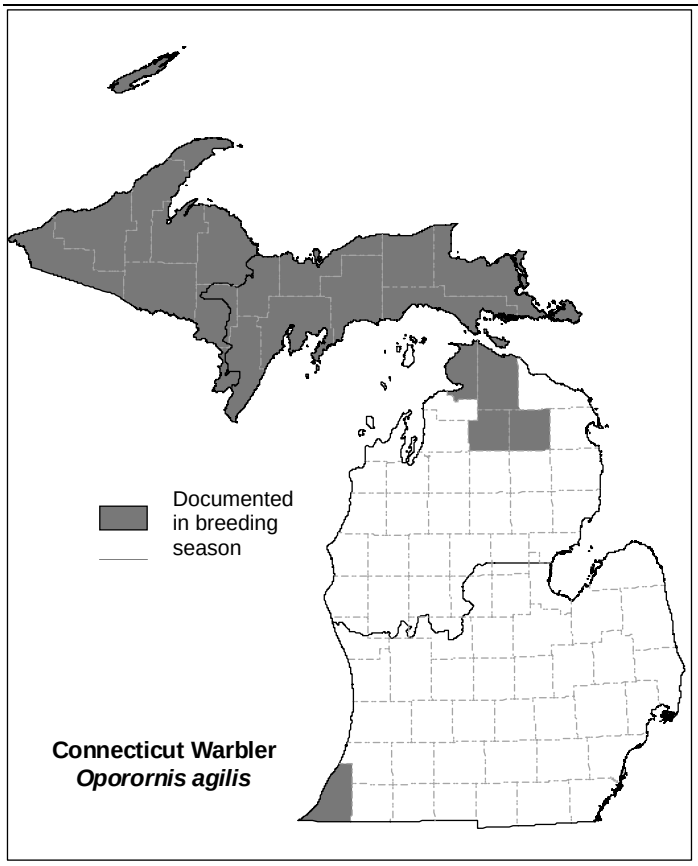
(Oporornis formosus)

DISTRIBUTION & ABUNDANCE: Michigan lies at the northernmost extent of the Kentucky Warbler's breeding range. Known occurrences are widely scattered, rare, and recorded only from the Southern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland hardwood; forest opening; swamp

ASSOCIATED THREATS: fragmentation; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Connecticut Warbler

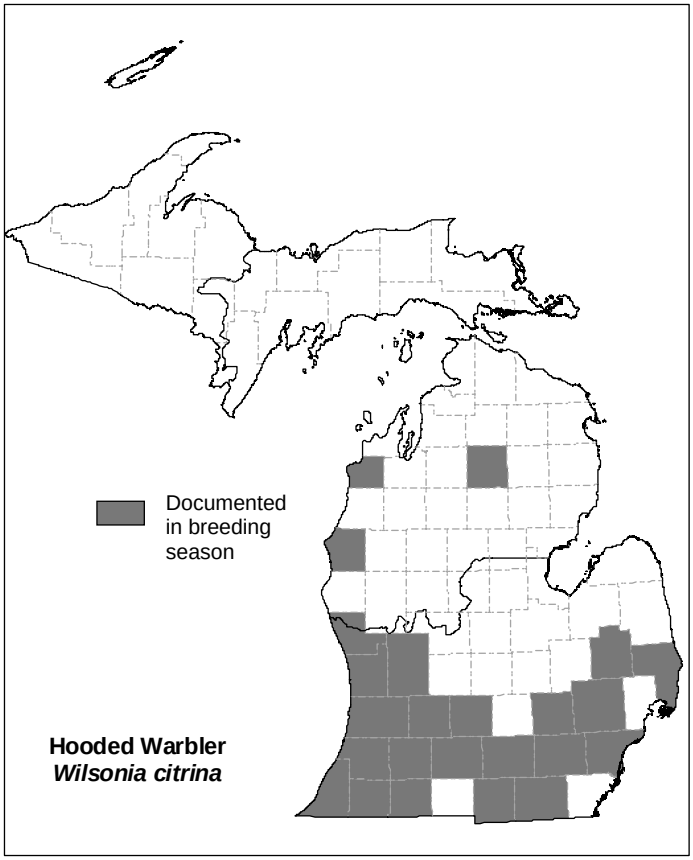
(Oporornis agilis)

DISTRIBUTION & ABUNDANCE: The Connecticut Warbler is widespread in the Upper Peninsula but local and uncommon. Prior to data collected in the 1980s, the status of this warbler in Michigan was poorly documented, and its historical status cannot be assessed.

ASSOCIATED LANDSCAPE FEATURES: mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; forest opening; bog

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; industrial/residential/recreational development; lack of scientific knowledge; forestry practices

COMMENTS: The relative severity of threats to the Connecticut Warbler are largely unknown, and its distribution and abundance are poorly documented.



Hooded Warbler

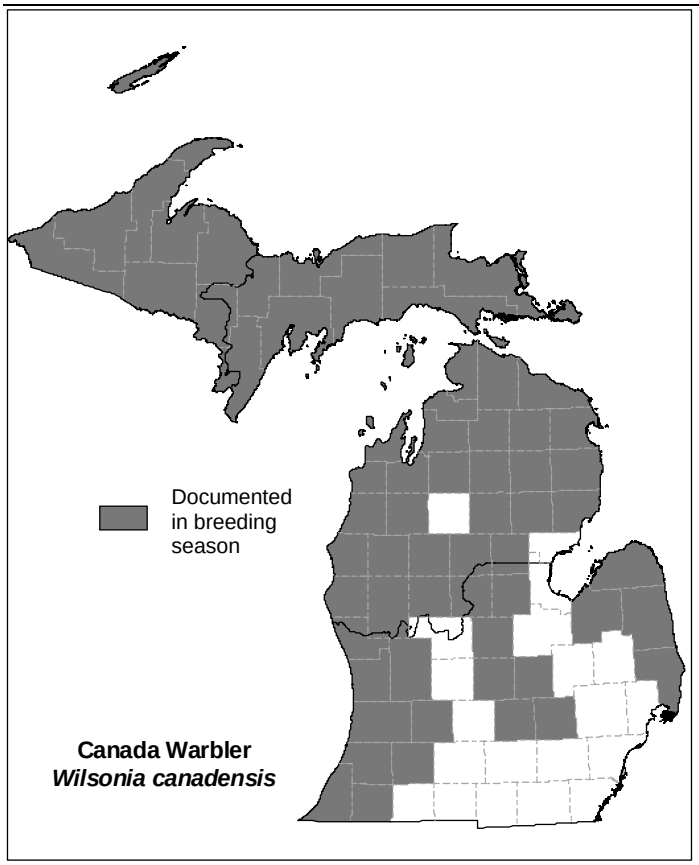
(Wilsonia citrina)

DISTRIBUTION & ABUNDANCE: Designated as a species of special concern, the Hooded Warbler is uncommon and scattered across the Southern Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; upland shrub; lowland hardwood; mesic hardwood; dry hardwood; river/stream/riparian/floodplain corridor; large contiguous natural landscape; late successional forest

ASSOCIATED THREATS: dredging & channelization; fragmentation; invasive plants & animals; forestry practices

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Canada Warbler

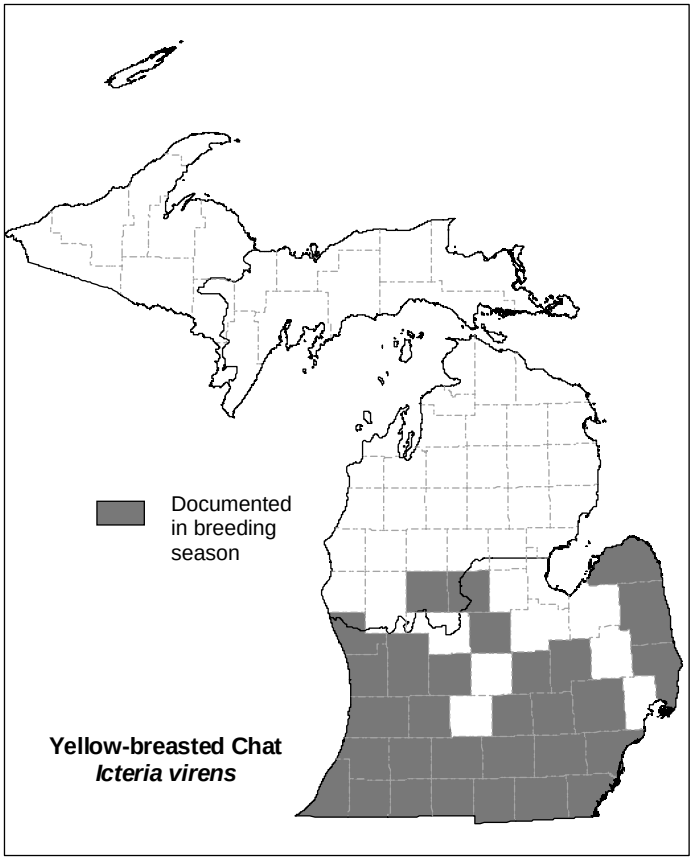
(Wilsonia canadensis)

DISTRIBUTION & ABUNDANCE: The Canada Warbler is fairly common throughout the Upper Peninsula and Northern Lower Peninsula. It is locally common in the Southern Lower Peninsula, primarily along the shores of the Great Lakes.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland hardwood; mesic hardwood; lowland conifer; mesic conifer; bog; river/stream/riparian/floodplain corridor

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; fragmentation; industrial/residential/ recreational development; invasive plants & animals; other biological interactions (overbrowsing by deer reduces understory habitat)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Yellow-breasted Chat

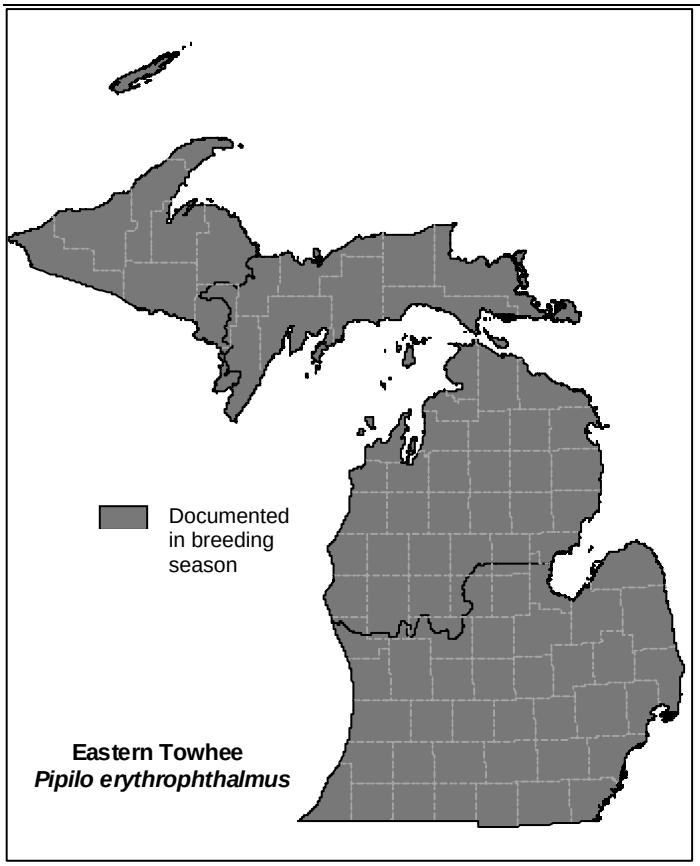
(Icteria virens)

DISTRIBUTION & ABUNDANCE: The Yellow-breasted Chat is extremely uncommon in Michigan and can be found breeding only in the southernmost portion of the Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: fence row; lowland shrub; upland shrub

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; industrial/residential/recreational development; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Eastern Towhee

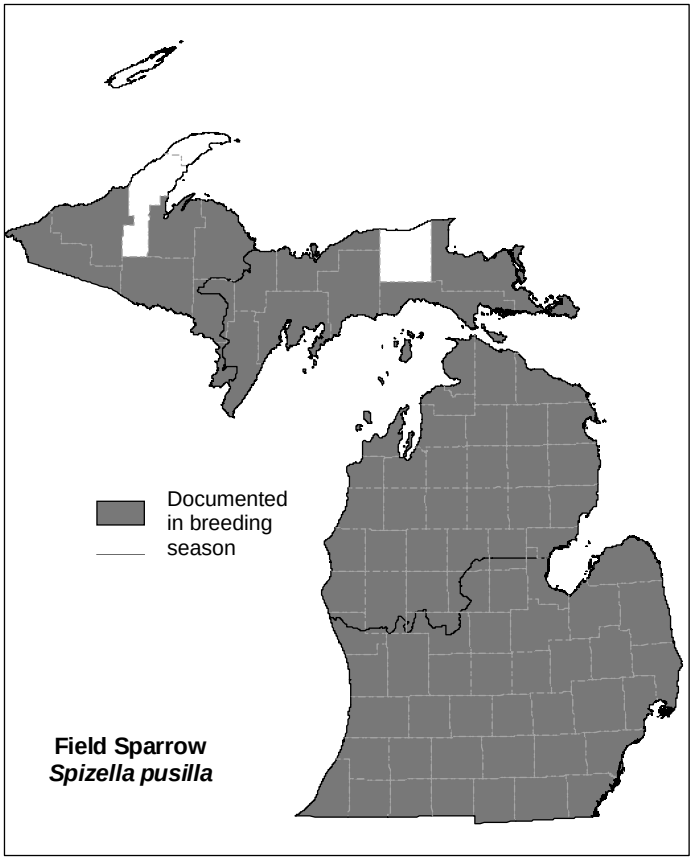
(Pipilo erythrophthalmus)

DISTRIBUTION & ABUNDANCE: The Eastern Towhee is common throughout much of the Lower Peninsula and is uncommon and local in the Upper Peninsula, primarily in the west.

ASSOCIATED LANDSCAPE FEATURES: idle/old field; savanna; lowland shrub; upland shrub; dry hardwood; dry conifer; forest opening; edge; late successional forest

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; industrial/residential/recreational development; invasive plants & animals; other biological interactions (overgrazing by deer)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Field Sparrow

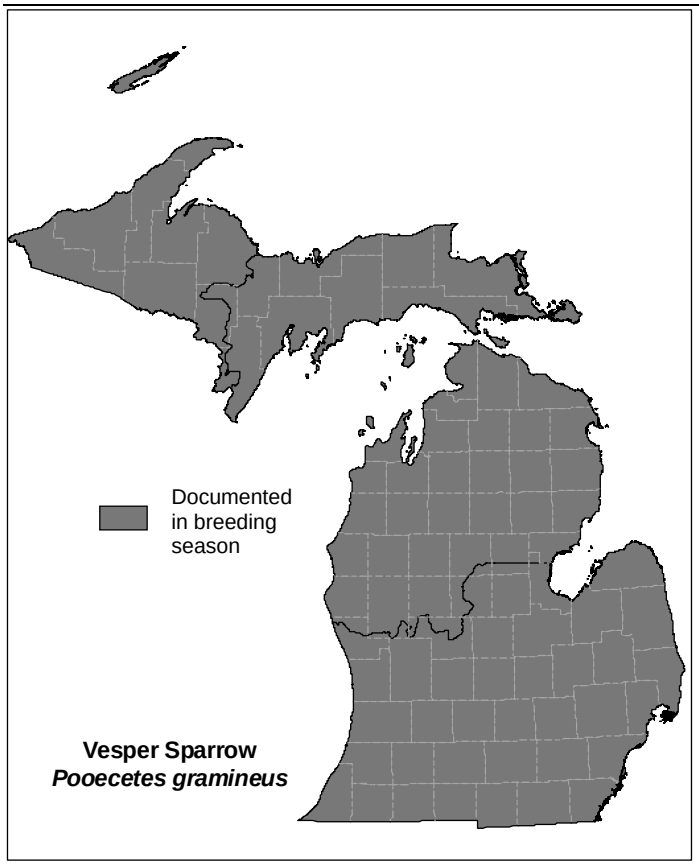
(Spizella pusilla)

DISTRIBUTION & ABUNDANCE: The abundance of the Field Sparrow probably increased during settlement and the clearing of forest in the Lower Peninsula. Though there are indications of population declines, it is abundant throughout the Lower Peninsula.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; right-of-way; fence row; savanna; upland shrub; forest opening; edge

ASSOCIATED THREATS: altered fire regime; grazing & mowing patterns; industrial/residential/recreational development; invasive plants & animals; other biological interactions (nest predation by snakes, mammals, and birds)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Vesper Sparrow

(Pooecetes gramineus)

DISTRIBUTION & ABUNDANCE: The Vesper Sparrow is common statewide with higher densities in the Lower Peninsula than the Upper Peninsula. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; row crop; right-of-way; fence row; savanna; orchard; upland shrub; dry conifer; forest opening

ASSOCIATED THREATS: conversion to agriculture lands; grazing & mowing patterns; pesticides & herbicides

COMMENTS: Conversion of less intensively managed grassland to intensively managed agricultural crops reduces suitable nesting habitat.

Savannah Sparrow

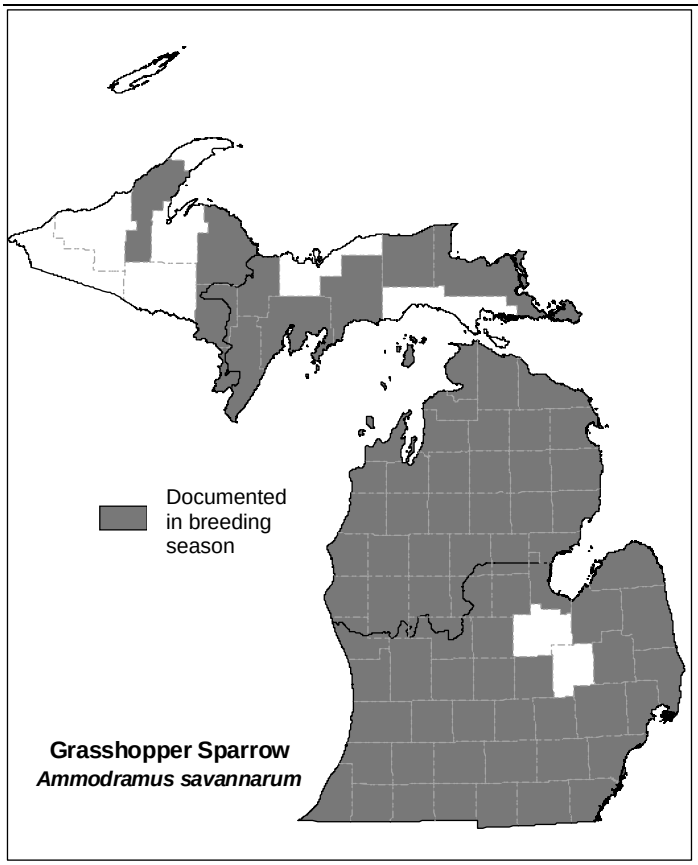
(Passerculus sandwichensis)

DISTRIBUTION & ABUNDANCE: The abundance of the Savannah Sparrow probably increased postsettlement due to the clearing of the native forests. While this bird was uncommon at the turn of the century, it is now abundant throughout the Lower Peninsula and common in the Upper Peninsula where favorable habitat is available. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: prairie; hayland; pasture; row crop; savanna; lowland shrub; inland emergent wetland; ephemeral wetland; coastal dune/beach

ASSOCIATED THREATS: grazing & mowing patterns; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Grasshopper Sparrow

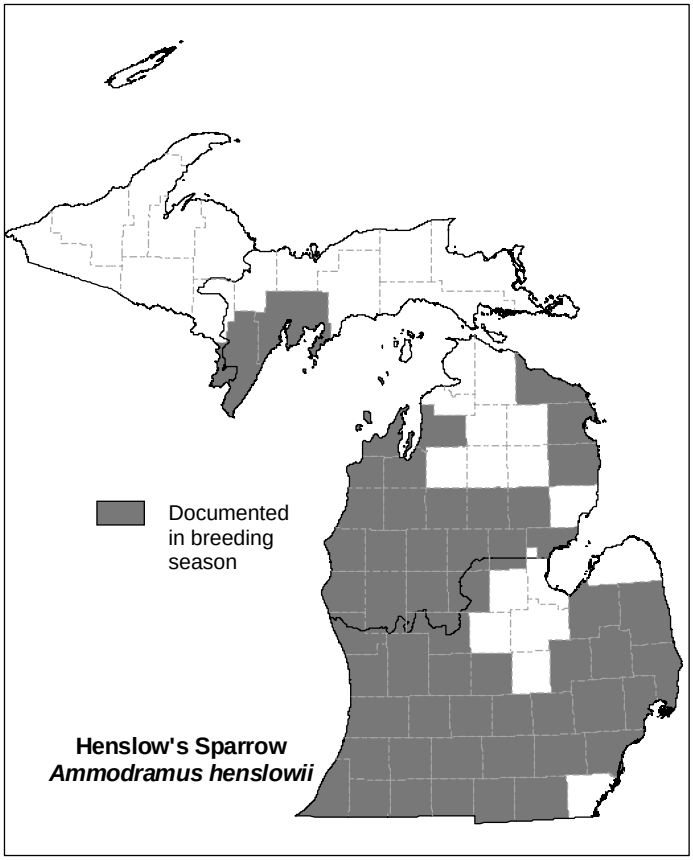
(Ammodramus savannarum)

DISTRIBUTION & ABUNDANCE: A rare species in the 1800s, the Grasshopper Sparrow is now locally common throughout the Lower Peninsula though it has been declining in recent decades. It is listed as a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; right-of-way; savanna

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; grazing & mowing patterns; industrial/ residential/recreational development; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant. Conversion of grasslands either to intensive agriculture or to forest through succession reduce suitable nesting habitat.



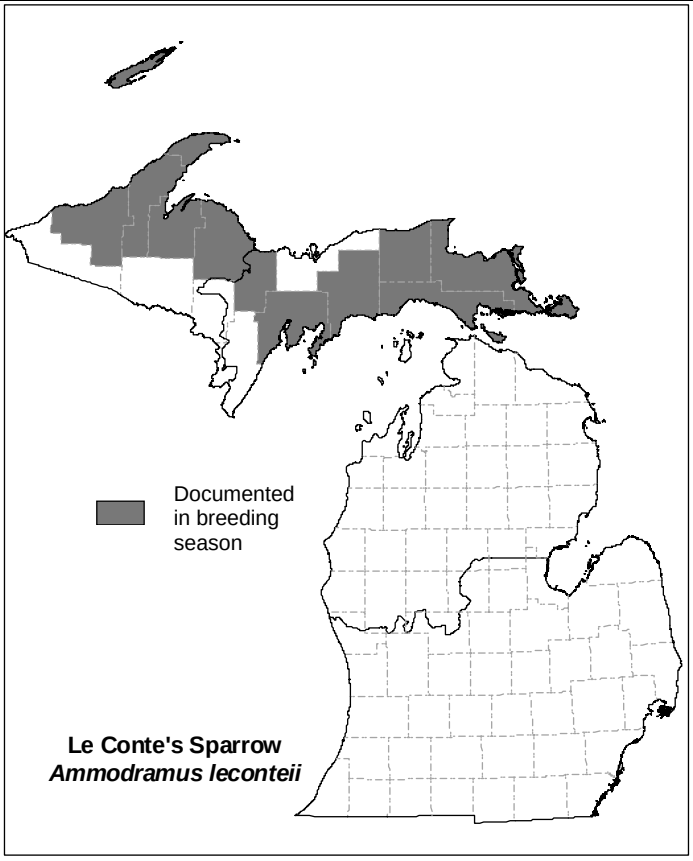
Henslow's Sparrow

(Ammodramus henslowii)

DISTRIBUTION & ABUNDANCE: Clearing of forests in Michigan allowed the expansion of the Henslow's Sparrow's range in the late 1800s. This bird has irregular local populations in areas of suitable habitat. BBS data indicate a decline in populations, and the species is listed as State threatened.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture

ASSOCIATED THREATS: conversion to agriculture lands; altered fire regime; fragmentation; grazing & mowing patterns; industrial/residential/recreational development; other biological interactions (nest predation); wetland modifications



Le Conte's Sparrow

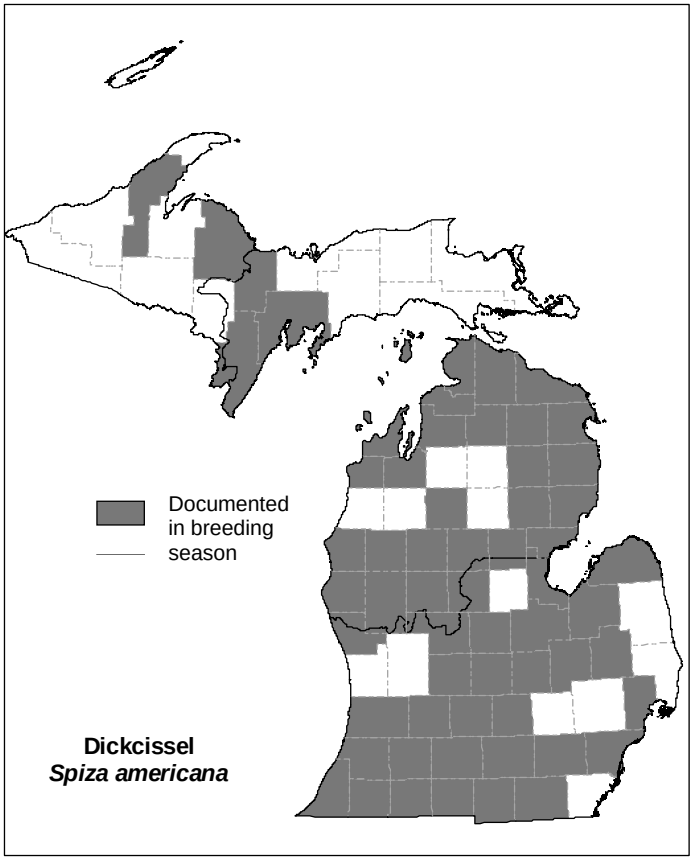
(Ammodramus leconteii)

DISTRIBUTION & ABUNDANCE: Michigan lies at the edge of the Le Conte's Sparrow's breeding range, and it is found in small, scattered pockets in the Upper Peninsula. There may be locally common concentrations in areas of optimal habitat.

ASSOCIATED LANDSCAPE FEATURES: hayland; pasture; inland emergent wetland; fen; ephemeral wetland; alvar/rock

ASSOCIATED THREATS: dams; altered fire regime; grazing & mowing patterns; altered hydrologic regimes; invasive plants & animals; lack of scientific knowledge; wetland modifications

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Dickcissel

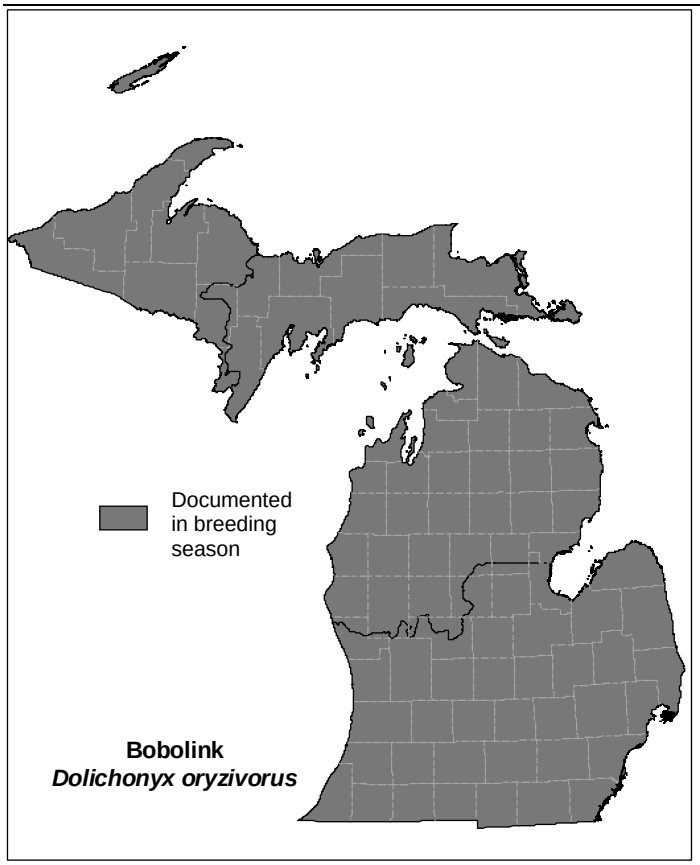
(Spiza americana)

DISTRIBUTION & ABUNDANCE: A species of special concern, the Dickcissel is at the edge of its range in Michigan and may exhibit dramatic fluctuations in population size. In average years, it may be regularly found throughout the Lower Peninsula with higher densities in the southwestern corner of the State.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; right-of-way; fence row; savanna

ASSOCIATED THREATS: grazing & mowing patterns; invasive plants & animals; pesticides & herbicides

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant. Accidental poisoning of roosting birds on the wintering grounds in Venezuela due to pesticide application may have an impact.



Bobolink

(Dolichonyx oryzivorus)

DISTRIBUTION & ABUNDANCE: Bobolinks are common throughout the Lower Peninsula and may be found regularly in the Upper Peninsula where suitable habitat exists. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; savanna; inland emergent wetland; fen; ephemeral wetland

ASSOCIATED THREATS: altered fire regime; fragmentation; grazing & mowing patterns; invasive plants & animals

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.

Eastern Meadowlark

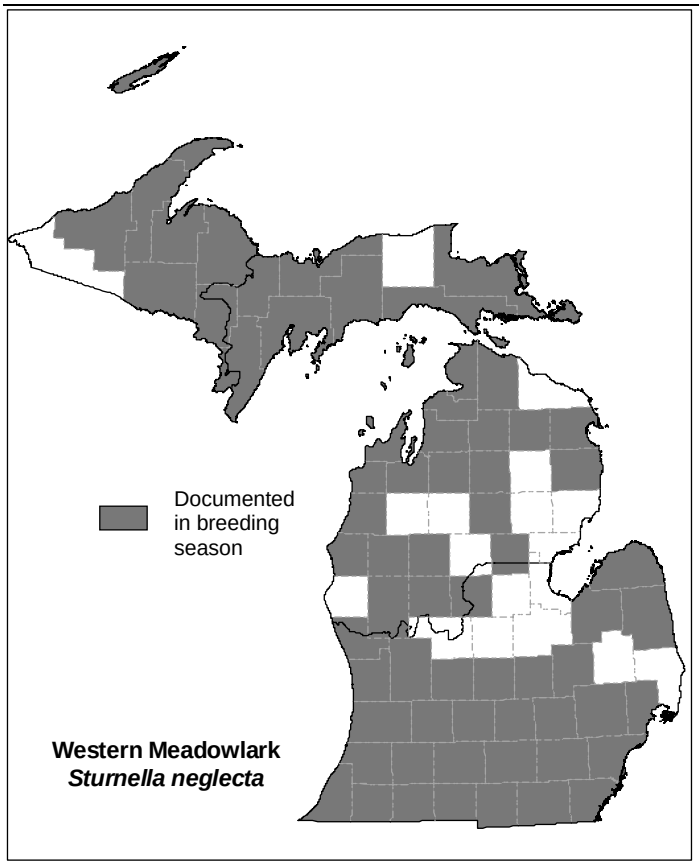
(Sturnella magna)

DISTRIBUTION & ABUNDANCE: The Eastern Meadowlark is abundant throughout the Lower Peninsula and may regularly be found across the Upper Peninsula where suitable habitat exists. BBS data indicate a declining population trend.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; right-of-way; fence row; inland emergent wetland; river/stream/riparian/floodplain corridor; coastal emergent wetland; coastal dune/beach

ASSOCIATED THREATS: altered fire regime; fragmentation; grazing & mowing patterns; invasive plants & animals; other biological interactions (predation by mammals and snakes); pesticides & herbicides

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) and predation by domesticated dogs and cats may be significant.



Western Meadowlark

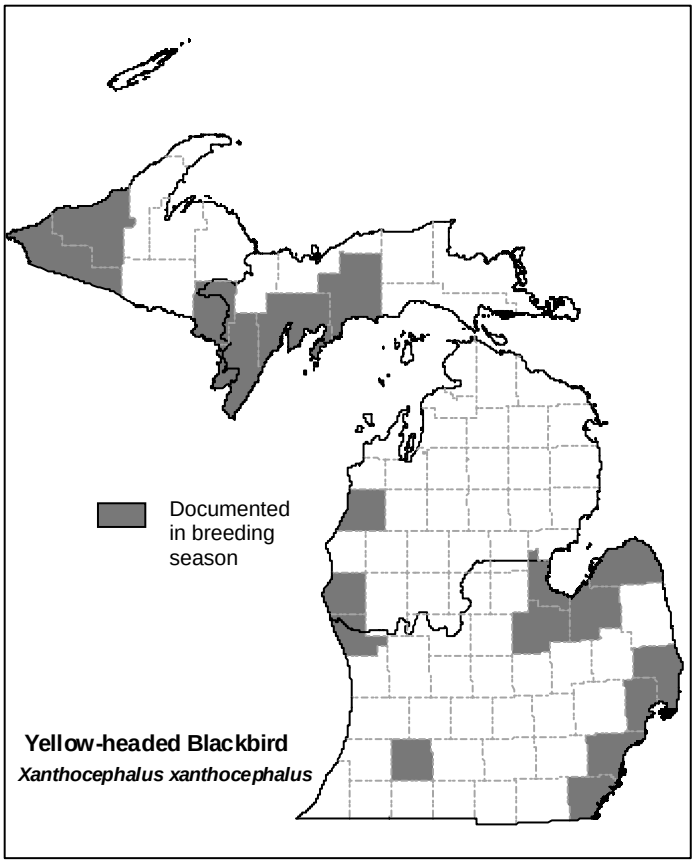
(Sturnella neglecta)

DISTRIBUTION & ABUNDANCE: The Western Meadowlark is a fairly recent addition to the fauna of Michigan with the first confirmed record occurring in 1894. While populations increased from the 1930s through the 1950s, it has been in decline and is currently scattered and uncommon statewide. The Western Meadowlark is a species of special concern.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; hayland; pasture; right-of-way; savanna; dry conifer; forest opening; ephemeral wetland; large contiguous natural landscape

ASSOCIATED THREATS: fragmentation; invasive plants & animals; other biological interactions (predation by raptors, crows, and mammals)

COMMENTS: Nest parasitism by Cowbirds (*Molothrus ater*) may be significant.



Yellow-headed Blackbird

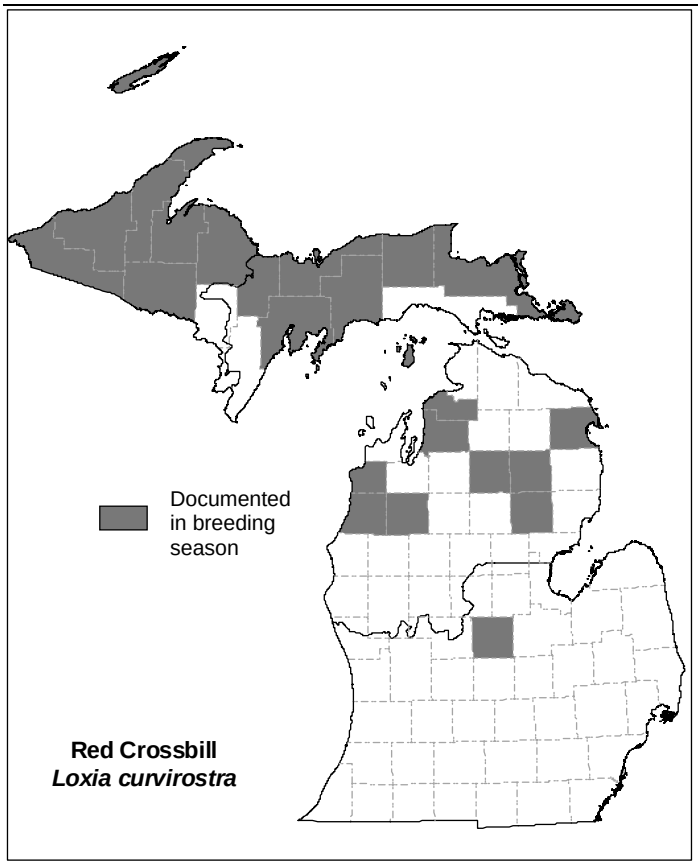
(Xanthocephalus xanthocephalus)

DISTRIBUTION & ABUNDANCE: Designated as a species of special concern, the Yellow-headed Blackbird likely expanded its range into Michigan at the end of the 19th century. It is now found in a few scattered locations within the State, mostly along the Great Lakes shoreline or large inland wetland complexes, though it is nowhere common.

ASSOCIATED LANDSCAPE FEATURES: inland emergent wetland; submergent wetland; pond; coastal emergent wetland

ASSOCIATED THREATS: altered hydrologic regimes; industrial/ residential/recreational development; wetland modifications

COMMENTS: Succession toward closed marsh communities reduces available breeding habitat.



Red Crossbill

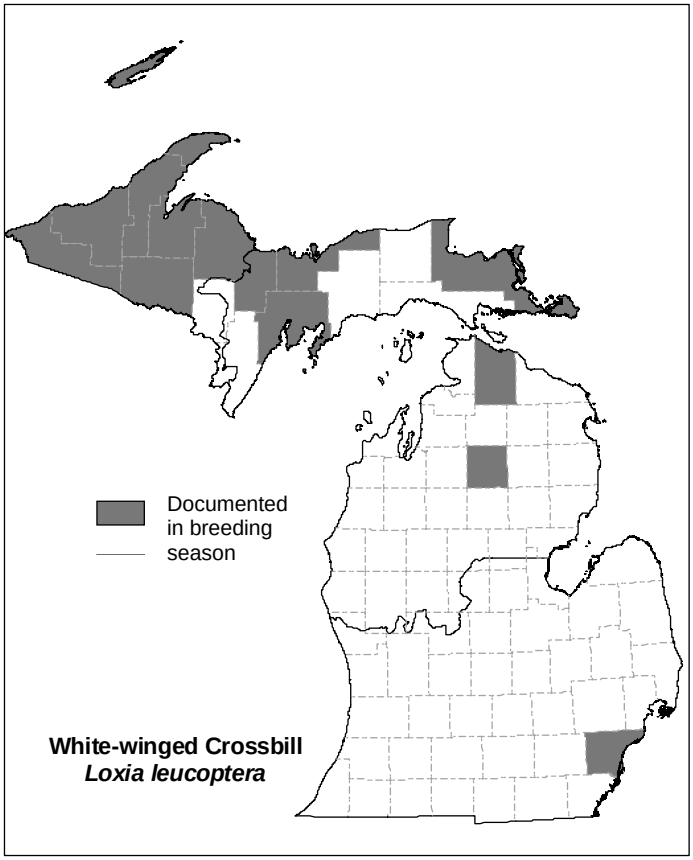
(Loxia curvirostra)

DISTRIBUTION & ABUNDANCE: The Red Crossbill exists in widely scattered, limited populations. It is found predominantly in the Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland conifer; mesic conifer; dry conifer; forest opening; suburban/small town; late successional forest

ASSOCIATED THREATS: altered fire regime; incompatible natural resource mgmt; forestry practices; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



White-winged Crossbill

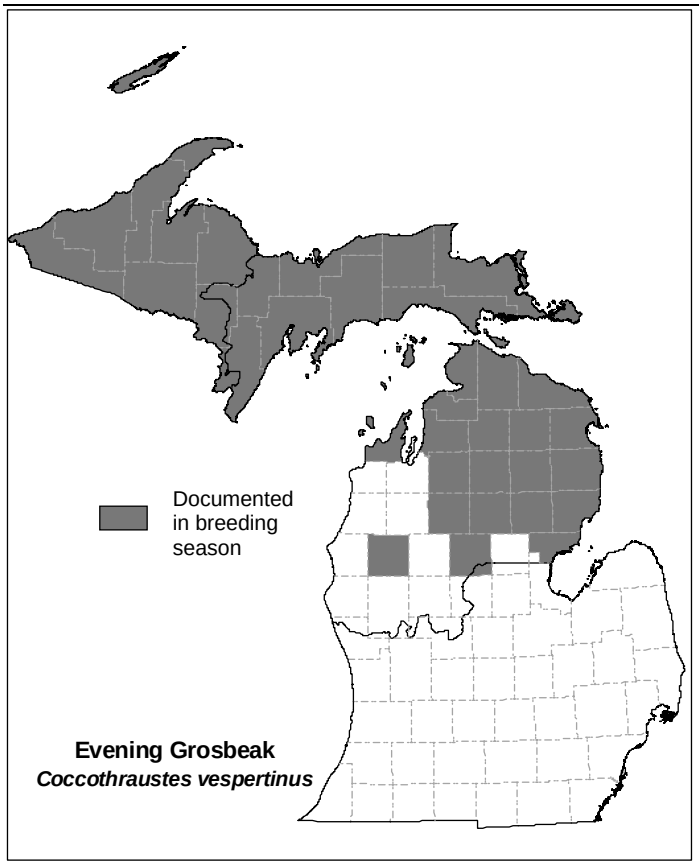
(Loxia leucoptera)

DISTRIBUTION & ABUNDANCE: The White-winged Crossbill is very uncommon in Michigan, occurring almost exclusively in the Western Upper Peninsula.

ASSOCIATED LANDSCAPE FEATURES: lowland conifer; mesic conifer; dry conifer; suburban/small town

ASSOCIATED THREATS: grazing & mowing patterns; incompatible natural resource mgmt; forestry practices; unknown

COMMENTS: Relative severity of listed threats is not well known and other currently unknown threats may exist for this species; a threats assessment is needed for this species.



Evening Grosbeak

(Coccothraustes vespertinus)

DISTRIBUTION & ABUNDANCE: Evening Grosbeak numbers have been increasing steadily in Michigan along the southern edge of its range since the beginning of the 20th century, and it is now common across the Upper Peninsula. It may also regularly be found in the Northern Lower Peninsula where suitable habitat exists.

ASSOCIATED LANDSCAPE FEATURES: fence row; lowland hardwood; mesic hardwood; dry hardwood; lowland conifer; mesic conifer; dry conifer; suburban/small town; late successional forest

ASSOCIATED THREATS: lack of scientific knowledge; unknown

COMMENTS: A threats assessment is needed for this species.