

RECOMMENDED AVOIDANCE GUIDELINES FOR SOME WILDLIFE SPECIES ON BAD RIVER RESERVATION

Northern Long Eared Bat (*Myotis septentrionalis*) (NLEB) – federally threatened.

Habitat: During summer months will day roost in buildings, under tree bark or shutters, or caves. Hibernation sites are mines or caves. Foraging habitat includes forested hillsides and ridges, and small ponds or streams.

- a. Snags and dying trees should be protected, particularly from June 1-August 15.
- b. Logging and use of heavy machinery should be avoided within 0.25 miles of hibernacula during fall swarm (August 15- October 15) and spring emergence (April 1 – May 15)
- c. Exclusions from building should only occur during winter months when bats are not present
- d. Summer avoidance is June 1 – Aug 15
- e. No tree removal within 0.25 mi of hibernaculum (none on Reservation)
- f. No tree removal during the pup season from June 1 – July 31.

Trumpeter Swan (*Cygnus buccinators*) SC/M S4B G4 Bird~ Special Concern Species

Habitat: Ideal habitat includes shallow wetlands 1-3' deep in isolated areas away from human disturbance with a diverse mix of emergent vegetation and open water that support a rich variety of submergent plants. If a bonded pair uses the same nesting location two summers in a row, they form an almost unbreakable attachment to the site. The 6-150 acre nesting territory is usually near where the female hatched. Bad River Wildlife Program has historic and current nest information.

- a. From April 1 – Sept 30, no activity within ½ mile of high water mark of identified water bodies.
- b. No roads within 0.3 miles or 500 meters of high water mark
- c. No timber harvest within ¼ mile of high water mark.

Wood Turtle (*Glyptemys insculpta*) THR S3 G3 Turtle~

Habitat: Prefer moderate to fast flowing, clear streams or rivers with associated forested riparian corridors. Wood turtle nesting occurs in well-drained open or sparsely vegetated sandy soils, typically within 200' of suitable aquatic habitat. Nesting habitats include native dry prairies, moderately sloughing sand banks, agricultural fields, or areas of disturbed sandy soils that support no or sparse ground layer vegetation. On the Reservation, wood turtles have been documented in Bad River, Potato River, Vaughn Creek, Marengo River, White River, Tyler Forks, and tributaries flowing into these.

- a. Avoid the use of heavy equipment use or stockpiling of timber in sandy soil openings within 100' of any rivers or streams. These sites should be avoided all together from late May through September. Activities within 100' of a suitable wood turtle stream may take place at any time of year if 100% of the harvest areas is naturally snow covered. Activities occurring greater than 100' from a suitable wood turtle stream may take place at any time of year if 50% or more of the harvest area is naturally snow covered.
- b. From March 15-May 14, work cannot occur within 246' (75m) of suitable wood turtle stream or river. From May 15-September 15, work cannot occur within 984' (300m) of a suitable wood turtle stream or river and from September 16 – October 31 work cannot occur within 246' (75m) of suitable streams and rivers.

- c. Permanent turtle barriers should be installed where road projects cross rivers or streams occupied by wood turtles.

Bald Eagle (*Haliaeetus leucocephalus*) SC/P S4B,S4N G5 Bird~ federally protected by the Bald & Golden Eagle Protection Act.

Habitat: Prefers large trees in isolated areas in proximity to large areas of surface water, large complexes of deciduous forests, coniferous forest, wetland, and shrub communities. Large lakes and rivers with nearby tall pine trees are preferred for nesting. All current and historic nesting sites back until the 90's are on file with the Bad River Wildlife Program.

- a. Within 330' of a nest major habitat changes should be avoided including timber harvest, land clearing, building and road or trail construction.
- b. Within 330'-660' of a nest human activity should be kept to a minimum from March 15th-July 15th. Timber harvest should not occur in this area from March 15 – August 15th.
- c. Within 660' to 0.25 miles of a nest, if logging is to occur in this area surrounding a nest, several supercanopy trees should be left for future nest tree replacement.
- d. Large white pines should be promoted along the Bad River shoreline.

Gray Wolf (*Canis lupus*) SC/H LE Rare Mammal

The Bad River Tribe also had tribally protected species and certain protections listed for species under the Tribes Conservation codes. Some of these codes are summarized below. There are currently four packs of wolves that utilize the Reservation and BR Wildlife Program has those locations mapped. Den and rendezvous sites due change from year to year.

- Wolves are listed as a tribally protected species on the Bad River Reservation and the following guidelines from the Tribal Council approved 2013 Wolf Management Plan should be followed:
 - No active den sites are known at this location. Harvesting activities should be avoided within 1 miles of active den from March – July and no tree cutting should occur within 110 yards of active dens.

Moose (*Alces alces*) are protected on the Bad River Reservation under Chapter 306 of the Bad River Conservation Code. There is not a residential moose population on the Reservation but are observed seasonally passing through.

Northern Goshawk (*Accipiter gentilis*) SC/M Rare Bird – Protected by the Federal Migratory Bird Treaty Act of 1918

Habitat: Northern mesic forests. Nest in deciduous forests with 51%-94% canopy cover.

- a. No-cut radius of 660' around all nest trees
- b. Within 1000' radius of nest retain 70% of the nest area's pre-harvest basal area.
- c. Limit activities that could disrupt Northern Goshawks (e.g. marking, harvesting, loading, hauling, and road/trail building activities) within 1000' radius of nest. Prohibit these activities from February 1 to July 31.

- d. Note – Breeding pairs in WI do not migrate, but stay within their territory year round, so it is important to limit disturbances in these areas year round. Multiple years of disturbance in succession can cause Northern Goshawks to abandon Nest area.

Zigzag Darner (*Aeshna sitchensis*) SC/N, S1 Rare Dragonfly Only documented in Ashland County, WI

Habitat: Small, shallow, cold-water pools <10m² in bogs and sedge fens, including pools that may dry up in the summer. Only documented breeding population in Wisconsin is on Stockton Island.

Water Scavenger Beetle (*Agabates acuductus*) SC/N Rare Beetle

Predaceous Diving Beetle (*Agabus leptapsis*) SC/N Rare Beetle

Elktoe (*Alasmidonta marginata*) SC/P Rare Mussel

Habitat: Various sized streams with flowing water, sand, gravel, or rock substrate that are stable. Known host fishes include the redhorse, sucker species, and rock bass

Le Conte's Sparrow (*Ammodramus leconteii*) SC/M Rare Bird – Special Concern species

Habitat: Tall, dense, moist vegetation such as sedge meadow, marshy meadows, and open bogs. Will nest on or above ground. Invasion of cattails, reed canary grass, and goldenrods are a threat to this species.

- a. Breeding dates/avoidance period – May 5 – early September

Speckled Rangeland Grasshopper (*Arphia condperasa*) SC/N Rare grasshopper

Habitat: Mixed and conifer forest, shrubland/chaparral, grassland/herbaceous, alpine.

Long-eared Owl (*Asio otus*) SC/M Rare Bird Special Concern Species

Habitat: Prefers conifer plantations and deciduous forests.

- a. Breeding dates/avoidance period – Late March – Late August

Yellowbanded Bumble Bee (*Bombus terricola*) SC/N Rare Bee

American Bittern (*Botaurus lentiginosus*) SC/M Rare bird Special Concern Species

Habitat: Shallow marshes, meadows, and wetlands of many sizes but prefers large open marshes and meadows. Nests in thick, emergent vegetation like cattails, sedges, reed, and bulrushes from April 25 – July 31.

- a. Breeding dates/avoidance period – April 25 – July 31

Ojibwe Small Square-gilled Mayfly (*Brachycercus ojibwe*) SC/N Rare Mayfly

Common Goldeneye (*Bucephala clangula*) SC/M Rare bird Special Concern Species

Habitat: Nests in cavities but is an uncommon breeder in Wisconsin and mostly spotted during migration. During the breeding season, March 15 – August 31, it can be found near ponds, lakes, and rivers in woodland areas. Threats include pesticides, deforestation, and decreased water quality.

Swainson's Thrush (*Catharus ustulatus*) SC/M Rare Bird Special Concern Species

Habitat: Breeds in dense understories of coniferous forests, particularly spruce and fir, and mixed coniferous-hardwood stands. It is sensitive to human disturbances near its breeding site during the avoidance period of May 1- September 15.

Piping Plover (*Charadrius melodus*) END LE Rare Bird

Habitat: Long Island Shoreline extending to the mouth of the Bad River. Avoidance of nesting area during the breeding and nesting season from May 15 – July 15. BR Wildlife Program has detailed information on nesting locations since the early 2000's

Black Tern (*Chlidonias niger*) END Rare Bird

Habitat: Breeds in marshes, along sloughs, rivers, lakeshores, and impoundments, or in wet meadows, typically in sites with a mixture of emergent vegetation and open water. Was documented in the Kakagon Sloughs summer of 2014 by BRNRD. Nests close to open water or openings in stands of emergent vegetation.

- a. Control of carp and purple loosestrife is an ongoing concern.
- b. Use of artificial nesting platforms may benefit Black Terns and should be evaluated on a site-by-site basis. Great Horned Owls and mink can be threats to birds.
- c. During the nesting season, water levels must remain stable. Water levels that encourage the stability of emergent patches must be a part of comprehensive management plans.

Beach-Dune Tiger Beetle (*Cicindela hirtocollis rhodensis*) END Rare beetle

Habitat: Sandy beaches along Lake Superior. Found in same habitats as piping plover and the piping plover is known to eat them.

Olive-sided Flycatcher (*Contopus cooperi*) SC/M Rare bird

Habitat: Coniferous forests, sparsely forested spruce-tamarack bogs and swamps with openings or meadows created by rivers or streams, or burns. They nest in trees where tall dead snags are present or at forest edges and openings. Nesting/avoidance period is May 15 – August 15.

Yellow Rail (*Coturnicops noveboracensis*) THR Rare bird

Habitat: extensive meadows of wiregrass sedge and bluejoint, with little or no shrub encroachment. Preservation of large unfragmented bottomland forests will benefit this species. Nest from Late May to mid June.

Purple Wartyback (*Cyclonaias tuberculata*) END Rare mussel

Habitat: Inhabits medium sized rivers with water ranging up to five feet in slow to moderate current. Found in rocky areas with gravel and cobble substrate. Yellow bullhead are a host species.

Swamp Darner (*Epiaeschna heros*) SC/N Rare Dragonfly

Habitat: Shady ponds, ditches, or sloughs bordering woods. Flight period extends from early June – late July.

Spruce Grouse (*Falciennis canadensis*) THR Rare bird

Habitat: Lowland coniferous forest with swampy regions. Black and white spruce, tamarack, and jack pine are important tree species. Avoidance period March 1- July 31. This species is a loser in climate change models because tamarack lowlands are at risk.

Northern Flying Squirrel (*Glaucomys sabrinus*) SC/P Rare mammals

Habitat: Variety of habitats. Wooded areas with standing live and dead trees, an abundance of decaying coarse woody debris, diverse understory, and high truffle abundance. Conifers and moist forests also important. Most often is present in pure stands of spruce, northern white cedar, or tamarack.

- a. Avoid work in suitable habitats during squirrel breeding and rearing season, May 15-Sept 30
- b. Avoid harvest of snags, trees with cavities, witches brooms, and visible dreys which may contain natal nests
- c. Do not conduct one-way exclusions for nuisance squirrels between May 15-Sept 30
- d. Active forest management should avoid clearcut, seed tree, and overstory removal

Minute Moss Beetle (*Hydraena angulicollis*) SC/N Rare Beetle

Caspian Tern (*Hydroprogne caspia*) END Rare Bird

Habitat: undeveloped sand beaches and islands in the Great Lakes, typically sandy or gravelly coastal islands. Avoidance period from May 15- August 15.

Loggerhead Shrike (*Lanius ludovicianus*) END Rare bird

Habitat: Open country with scattered trees and shrubs and edge habitat such as open areas in forests. Avoidance period April 16- August 15.

Lepidostomatid Caddisfly (*Lepidostoma libum*) SC/N Rare Caddisfly

Flat-headed Mayfly (*Maccaffertium pulchellum*) SC/N Rare Mayfly

American Marten (*Martes americana*) END rare mammal

Habitat: Mature, dense conifer, deciduous, and mixed conifer-hardwood forests. Prefer forests with a mixture of conifers and deciduous trees including cedar, balsam, hemlock, white pine, yellow birch, maple, fir, and spruce. Presence of large snags, fallen trees, stumps and root mounds are important as well as mature trees with cavities.

Blue-legged grasshopper (*Melanoplus flavidus*) SC/N Rare Grasshopper

Habitat: Open sand areas of dunes, river terraces, etc.

Woodland jumping mouse (*Napaeozapus insignis*) SC/N Rare mammal

Habitat: Mesic habitats dominated by coniferous forests and boreal swamps. Occasionally in hardwood forests. Balsam fir is an important habitat element as well as black spruce, tamarack, paper birch, balsam poplar, and quaking aspen. Avoid disturbance of herbaceous cover or shrubs during the summer months.

Connecticut Warbler (*Oporornis agilis*) SC/M Rare bird Special Concern Species

Habitat: Prefers mature, multi-layered pine stands, particularly jack pine, and occasionally tamarack-pine stands with dense hardwood understory. Avoidance period is from June 1- August 25.

West Virginia White (*Pieris virginiensis*) SC/N rare butterfly

Habitat: Prefers deciduous forests consisting mostly of beech and sugar maple. Its host plant is toothwort. Avoidance period is May 15 – June 7.

Boreal Chickadee (*Poecile hudsonicus*) SC/M rare bird

Habitat: Prefers lowland coniferous forests, often near bogs and muskegs. Prefers white spruce, white cedar, balsam fir, yellow birch, black ash, green ash, tamarack, American elm, and red maple. Avoidance period is late April through mid-July.

Ruby-crowned Kinglet (*Regulus calendula*) SC/M Rare bird

Habitat: Generally found in a variety of forested habitats in Northern Wisconsin, such as coniferous wetlands of spruce-fir or tamarack, in pine forests at the edge of bogs, and mixed upland forests of conifers and hardwoods. Avoidance period is from early May to mid-September.

Cerulean Warbler (*Setophaga cerulean*) THR rare bird

Habitat: prefers lowland deciduous forests dominated by mature stands of American elm, cottonwood, and green ash and large upland blocks of mature dry-mesic to mesic forests. Recommended avoidance period is from May 1- August 24.

Warpaint Emerald (*Somatochlora incurvata*) END Rare Dragonfly

Habitat: Sphagnum pools 10-40 cm deep in sedge dominated fens. *Carex oligosperma* must be present.

Water Shrew (*Sorex palustris*) SC/N rare mammal

Habitat: Marshes, bogs, and cold, small streams with cover along the banks.

Common Tern (*Sterna hirundo*) END Rare Bird

Habitat: They nest on isolated, sparsely vegetated islands or peninsulas in large lakes with sandy substrate.

Big Brown Bat (*Eptesicus fuscus*) THR Rare mammal

Habitat: Variety of habitats, mostly in farmland, urban areas, and edge habitat near water. Summer roosts occur in crevices and holes of trees or snags or dead-top live trees, caves, and the attics, eaves and walls of buildings. Maternal colonies of 20-1000 bats can be found in buildings, bat houses, and tree cavities of beech, oak, and aspen. Average distance between roost sites and foraging sites is 1.1 miles. They hibernate in caves and in man-made structures such as mines, basements, buildings or culverts. Only WI species of bat that will hibernate in buildings over winter. Edge habitat is important for foraging.

- g. Snags and dying trees should be protected, particularly from June 1-August 15.
- h. Logging and use of heavy machinery should be avoided within 0.25 miles of hibernacula during fall swarm (August 15- October 15) and spring emergence (April 1 – May 15)
- i. Exclusions from building should only occur late March – April
- j. Summer avoidance is June 1 – Aug 15

Little Brown Bat (*Myotis lucifugus*) THR Rare mammal

Habitat: Commonly summer roost in man-made structures, but will also roost under tree bark, in rock crevices, and in tree hollows. They prefer more old growth and mature trees. They hibernate in humid caves and mines with constant temperatures. Edge habitat is important.

- a. Snags and dying trees should be protected, particularly from June 1-August 15.
- b. Logging and use of heavy machinery should be avoided within 0.25 miles of hibernacula during fall swarm (August 15- October 15) and spring emergence (April 1 – May 15)
- c. Exclusions from building should only occur in winter months when little browns are not present
- d. Summer avoidance is June 1 – Aug 15