

*Threatened and Endangered Species
Habitat Suitability Assessment Report*

The Locusts on Hudson Site
135 Old Post Road
Town of Hyde Park, Dutchess County, NY

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1.0 INTRODUCTION

The Proposed Action was to re-contour and beautify 8.2 acres of the site east of the North Staatsburg Creek located at 135 Old Post Road in the Town of Hyde Park, Dutchess County, New York (Figure 1).

A Habitat Suitability Assessment was completed for several listed species including the Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), bald eagle (*Haliaeetus leucocephalus*), Blandings turtle (*Emys blandingii*), short-nose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), and yellow breasted chat (*Icteria virens*) as part of the environmental review for the project and the US Fish and Wildlife Service species list for the site and Environmental Assessment Form (Attachment 1 and 2).

A field assessment was completed during March and December 2020 to determine whether suitable habitat for these species was present in the project area on the site. The project area is 8.2 acres on the east side of the railroad tracks that separate the site and contains generally old field area with wooded patches and two man made ponds associated with North Staatsburg Creek.

2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION

2.1 Indiana bats

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (e.g., old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Conclusion - The proposed project will not impact any trees or wooded area of the site. No measures are required to avoid potential adverse effects to Indiana bats.

2.2 Northern long-eared bat

Winter Habitat: Same as the Indiana bat northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds.

Feeding Habits: Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces.

Conclusion - The northern long eared bat requires/occupies practically the same habitat niche as the Indiana bat. Impacts to habitat and mitigation would be consistent with the recommendations for the Indiana bat.

2.3 Bald eagle

Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. They often nest in mature or old-growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on man-made structures such as power poles and communication towers. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include at least one perch with a clear view of the water where the eagles usually forage. Shoreline trees or snags located in reservoirs provide the visibility and accessibility needed to locate aquatic prey. Eagle nests are constructed with large sticks, and may be lined with moss, grass, plant stalks, lichens, seaweed, or sod. Nests are usually about 4-6 feet in diameter and 3 feet deep, although larger nests exist. The NYSDEC mapper indicated that an active nest is located on the site.

Conclusion – During the breeding season, bald eagles are sensitive to a variety of human activities during various stages of the breeding season including courtship and nest building which is the most sensitive period for eagles and in New York occurs from December through the beginning of March. Egg laying, incubation, and early nesting are very sensitive periods and in New York occur from February through early May. The nestling period (4-8 weeks old) is a moderately sensitive period that in New York typically occurs from March to July. Nestlings from 8 weeks old through fledging is again a very sensitive period that in New York occurs from mid May to September.

Chronology of Bald Eagle Reproductive Activities

Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.
NORTHERN U.S. (ME, NH, MA, RI, CT, NY, northern 2 of NJ, western 2 of PA, OH, WV exc. panhandle, IN, IL, MI, WI, MN, IA, MO, ND, SD, NB, KS, CO, UT)											
			Nest Building								
					Egg Laying/Incubation						
						Hatching/Rearing Young					
									Fledging Young		

The assumed nest location is west of the railroad tracks and was buffered from the site beautification activities by adjacent wooded area. The nest is not visible from the site activities that occurred. No activity on the subject site was within 660 feet of the known nest.

No explosives of any kind was used on the site for any purpose. The single activity did not generate more than ambient noise levels on the site and no impacts to the nest or nesting activities was detected.

2.4 Shortnose sturgeon and Atlantic sturgeon

The shortnose sturgeon is semi-anadromous. Each year, between April and May, adult sturgeon migrate up the Hudson River from their mid-Hudson overwintering area to spawn in freshwater sites north of Coxsackie. Males spawn every other year and females every third year. Eggs are deposited and hatch in approximately 13 days. The newly-hatched fry are poor swimmers and drift with the currents along the bottom. As they grow and mature, the fish move downriver into the most brackish waters of the lower Hudson. The shortnose sturgeon is restricted in range to the Atlantic seaboard in North America. It occurs in estuaries and large coastal rivers. In New York State, it is found in the lower portion of the Hudson River from the southern tip of Manhattan upriver to the Federal Dam at Troy.

Atlantic sturgeon are anadromous, migrating from saltwater to spawn in freshwater. At spawning time, male sturgeon move into the river first followed by the females. Spawning occurs from April-June upstream of the salt front. Individual fish have been known to travel over 900 miles to spawn. Following spawning, female Atlantic sturgeon will move out of the river while males may remain until the fall. After spending up to the seven years of life in freshwater, Atlantic sturgeon migrate out to sea to spend the rest of their lives. Only during spawning season do adult sturgeon return to large coastal rivers and estuaries. In New York, Atlantic sturgeon are generally found in the deeper portions of the Hudson River.

Conclusion - Fish are mobile and generally avoid unsuitable conditions such as increases in suspended sediment and noise. While the localized increase in suspended sediment may cause fish to temporarily avoid the area where bottom disturbing activities are occurring, the affected area would be expected to be small. Similar nearby suitable habitats would be available for use by fish to avoid the area being disturbed.

Best management practices were used to prevent the loss of construction materials and debris into the river via the North Staatsburg Creek. This included:

- Upland SWPPP was implemented as required for construction.

2.5 Blanding's turtle

Blanding's turtles are a mobile species that utilize a variety of wetland and upland habitats for nesting, foraging, overwintering, and drought refuges. Characteristics that indicate core habitat are: shrubby pools/ponds with permanent or intermittent hydroperiod with little flow through; high water depths of 0.5–4.0 feet; tree canopy open or absent; tree fringe present; and a dense cover of shrubs, forbs, lemnids or nymphaeids, with coarse and fine organic debris. In addition to core

wetlands it is known that Blanding's turtles use a complex of habitat types during different periods in their life cycle. According to the NYSDEC it is a semi-aquatic species that uses a variety of wetland and upland habitats. Wetland habitat usage by Blanding's turtles includes different types of freshwater systems such as emergent marshes, woodland pools, red maple swamps, buttonbush kettle-holes, ponds including excavated ponds, lakes, rivers, and streams. Juvenile Blanding's are normally associated with shallower water and more densely vegetated habitats as compared to that of adults. Open meadows especially with Hoosic gravelly soils are preferred nesting habitats. Upland forest area provides shade during turtle travel and migration.

Conclusion - There is no core habitat on/or immediately adjacent to the site. There are no mapped Hoosic soils on the site. Hoosic soils are associated with turtle nesting when covered by low growing sparsely vegetated upland meadow/agriculture area. There are no impacts to this species since there is no potential habitat on the site or in the vicinity of the site.

2.6 Yellow Breasted Chat

This species utilizes brushy tangles, briars, and stream thickets as habitat. It breeds in very dense scrub (such as willow thickets) and briary tangles, often along streams and at the edges of swamps or ponds. Sometimes in dry overgrown pastures, and upland thickets along margins of woods. In winter in the tropics, found in open scrub and woodland edges in the lowlands.

Conclusion - There was no potential habitat for this species in the 8.2 acres work area. The site work included landscaping and beautification so that there is no loss of habitat if this species should be migrating through the site.

3.0 PHOTOGRAPHS

Area of pond and area of proposed connection to creek



Area of pond and surrounding uplands



Figure 1 Location Map



Attachment 1 - USFWS List

Attachment 2 - EAF Mapper