

APPENDIX C. AGENCIES AND PERSONS CONSULTED

DNR Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739
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Michael R. Pence, Governor
Cameron F. Clark, Director



January 29, 2014

Philip T. Marshall
Indiana Department of Natural Resources
Division of Entomology and Plant Pathology
402 W. Washington Street, Room W290W
Indianapolis, IN 46204

State Agency: Indiana Department of Natural Resources

Re: Project information concerning the gypsy moth treatment sites for 2014 (DHPA #15681)

Dear Mr. Marshall:

Pursuant to Indiana Code 14-21-1 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted a review of the materials dated December 26, 2013 and received by the DHPA on January, for the above indicated project in Porter, Tippecanoe, Allen and Whitley Counties, Indiana.

Based on our analysis, we do not believe that any historic properties will be altered, demolished, or removed by the proposed project.

If you have any further questions regarding this determination, please contact the DHPA. Questions regarding our comments should be directed to Ashley Thomas at (317) 234-7034 or asthomas@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #15681.

Very truly yours,


Mitchell K. Zoll
Director, Division of Historic Preservation & Archaeology

MKZ:ADT:adt

The DNR mission: Protect, enhance, preserve and wisely use natural, cultural and recreational resources for the benefit of Indiana's citizens through professional leadership, management and education.

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State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-17363

Request Received: January 2, 2014

Requestor: Indiana Department of Natural Resources
Phillip T Marshall
Division of Entomology & Plant Pathology
402 West Washington Street, Room W290
Indianapolis, IN 46204

Project: 2014 Proposed Gypsy Moth Treatment Sites

County/Site info: Allen - Porter - Tippecanoe - Whitley

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur within 1/2 mile of the West Lafayette 2 or Valpo 2 treatment sites. The species, state significant communities, and managed lands below have been documented within 1/2 mile of the other treatment sites, as indicated. The Division of Nature Preserves (DNP) does not anticipate any impacts to the plants, communities, or to University of Chicago Woods as a result of this project.

Moraine Nature Preserve is located just south of the Westville 1 Site and northeast of the Valpo 1 Site. This nature preserve contains a large forest block interspersed with wetlands, which supports a diverse native lepidopteron fauna. The DNP recommends the mating disruption treatment be used at both of these sites to avoid impacts to the nature preserve and its native lepidopteron, rather than using Btk as currently proposed for the Valpo 1 Site.

I) West Lafayette 1 Site (Treatment: Mating Disruption)

COMMUNITY: Mesic Upland Forest

II) Valpo 1 Site (Treatment: Btk)

PLANTS:

1. Redheadgrass (*Potamogeton richardsonii*); state rare
2. Slender Pondweed (*Potamogeton pusillus*); state significant
3. Least Duckweed (*Lemna minima*); state endangered

III) Westville 1 Site (Treatment: Mating Disruption)

A) MANAGED LANDS (on the south project boundary along Hwy 6):

1. Moraine Nature Preserve
2. University of Chicago Woods

B) COMMUNITIES:

1. Dry-mesic Upland Forest
2. Mesic Upland Forest
3. Shrub Swamp
4. Mesic Upland Forest

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C) PLANT: Butternut (*Juglans cinerea*); watch list

D) ANIMALS:

1. Blanding's Turtle (*Emydoidea blandingii*); state endangered
2. Cerulean Warbler (*Dendroica cerulean*); state endangered
3. Hooded Warbler (*Wilsonia citrina*); state special concern
4. Blue-spotted Salamander (*Ambystoma laterale*); state special concern

IV) Arcola 1 Site (Treatment: Mating disruption)

BIRD: Broad-winged Hawk (*Buteo platypterus*); state special concern

V) Lorane 1 Site (Treatment: Btk)

BIRD: Henslow's Sparrow (*Ammodramus henslowii*); state endangered

Fish & Wildlife Comments: We do not foresee any impacts to the Blanding's turtle or Blue-spotted salamander as a result of this project.

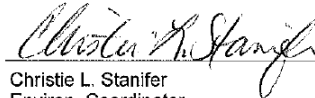
Mating disruption would appear to have far less impact to bird species than Btk treatment since it is presumably more selective for gypsy moths and has less impact on other species of caterpillars. Caterpillars are an important food source for breeding birds. We recommend the use of the mating disruption treatment over Btk as much as possible to minimize impacts to the forage base of insectivorous birds.

In all, the devastating effects of uncontrolled gypsy moth infestations are well documented. Effects on non-target species are possible and care should be taken near areas that could possibly possess endangered or threatened species, or special concern species. The effects on target species will depend on a variety of factors and are impossible to predict with certainty. However, controlling the spread of gypsy moths is important to reduce the negative effects the caterpillars have on trees, particularly oaks. At this time, no harm to state or federal listed species resulting from the proposed control measures is known or anticipated.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Date: February 11, 2014

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife



United States Department of the Interior
Fish and Wildlife Service



Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

March 17, 2014

Mr. Philip T. Marshall
Indiana DNR, Division of
Entomology and Plant Pathology
402 W. Washington St., Room 290
Indianapolis, Indiana 46204

Dear Mr. Marshall:

This responds to your request for comments dated December 26, 2013, regarding the aerial use of Btk on 1,404 acres and mating disruption (pheromone flakes or SPLAT) on 26,218 acres to control gypsy moth at 7 sites located in Porter, Tippecanoe, Allen and Whitley counties. These comments have been prepared under the authority of the Endangered Species Act of 1973, and are consistent with the intent of the National Environmental Policy Act of 1969.

Endangered Butterflies

Spraying with *Bacillus thuringiensis* (Btk) is of concern for 2 federally endangered species of Lepidoptera in Indiana, the Karner blue butterfly (*Lycaeides melissa samuelis*) and Mitchell's satyr butterfly (*Neonympha mitchelii*). The occurrences and ranges of these species have not changed since our previous reviews of the gypsy moth program. Neither species is known to occur near the 2014 treatment sites. Treatment with Disrupt II pheromone flakes is considered to be highly specific for gypsy moths and is not known to have adverse impacts on the federally listed butterflies.

Other Endangered Species

The proposed treatment sites are within the range of the federally endangered Indiana bat (*Myotis sodalis*) (entire state) and clubshell mussel (*Pleurobema clava*) (Tippecanoe County), fanshell (*Cyprogenia stegaria*) (Tippecanoe County), rayed bean (*Villosa fabalis*) (Allen and Tippecanoe Counties), sheepnose mussel (*Plethobasus cyphus*) (Tippecanoe County), snuffbox mussel (*Epioblasma triquetra*) (Tippecanoe County), and the federally threatened-Rabbitsfoot (*Quadrula cylindarica*) (Tippecanoe County). All of these mussels are found in the Tippecanoe River, which is located within 1 mile of the proposed treatment sites. In addition, the rayed bean is also found in the St. Joseph River in Allen County but it is not near the Allen County treatment site.

Indiana bats hibernate in caves during the winter and then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Prior to hibernation Indiana bats feed intensively around forest near hibernacula to build up adequate fat reserves to survive hibernation.

The diet of Indiana bats consists entirely of insects, and based on previous studies they appear to be somewhat opportunistic feeders. Some studies have found lepidopterans as a major dietary component. It is possible that under some circumstances extensive elimination of lepidopterans over a large habitat area has the potential to adversely affect the food base of an Indiana bat nursery colony. The 2014 Btk aerial treatment sites affect a relatively small area of Indiana bat summer habitat.

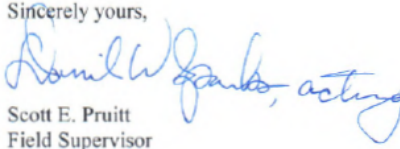
The FWS concludes that the federally assisted 2014 gypsy moth program is not likely to adversely affect any of these federally listed species. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If project plans are changed significantly, please contact our office for further consultation.

Some 2014 sites are within the range of federal candidate species: the eastern massassauga rattlesnake (*Sistrurus catenatus*) (Allen, Tippecanoe and Porter Counties), and the northern long-eared bat (*Myotis septentrionalis*) (entire state). As a candidate species, the massassauga is not afforded protection under the Endangered Species Act, but it may be proposed for listing in the future. However, the northern long-eared bat (NLEB) is currently proposed for listing under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). The final listing decision for the NLEB is expected in October 2014. At this time, no critical habitat has been proposed for the NLEB. Species proposed for listing are not afforded protection under the ESA; however as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and take applies regardless of an action's stage of completion. Additional information regarding NLEB and conference procedures can be found at (<http://www.fws.gov/midwest/endangered/mammals/nlba/index.html>).

During the summer, NLEBs typically roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically ≥ 3 inches dbh). 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 presence of cavities or crevices or presence of peeling bark. It has also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). They forage for insects in upland and lowland woodlots and tree lined corridors. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. Additional habitat types may be identified as new information is obtained.

If you have any questions regarding this information, please contact Dan Sparks of my staff at (812) 334-4261, extension 1 219.

Sincerely yours,


for Scott E. Pruitt
Field Supervisor