

Bat HCP Annual Report

Bat Species Involved



Photo by A. Stauffer

Indiana bat (*Myotis sodalis*) is a federally endangered species that hibernates in caves, mines, and tunnels with consistent temperature and humidity in winter. They roost under loose, or exfoliating bark, and crevices of dead and live trees in summer. Their body length is 3-4" long and they weigh up to ¼ ounce.



Photo by A. Stauffer

Northern long-eared bat (*Myotis septentrionalis*) is a federally threatened species that hibernates in caves or mines with stable temperature and humidity and no air currents. They spend the summers in forested habitats under loose tree bark and hollow trees, and rock crevices. They grow up to 3 - 3 ½" long with wingspan of up to 10".

What is an HCP?

The PA Game Commission (PGC) and the Department of Conservation and Natural Resources (DCNR) developed the *State Lands Forestry Habitat Conservation Plan for Indiana Bats and Northern Long-eared Bats* (HCP) to outline how they will limit and address impacts to Indiana bats (*Myotis sodalis*) and Northern long-eared bats (*Myotis septentrionalis*) and their habitats.

Bat populations, including these two species, have been hit hard by the fungal disease, white-nose syndrome. This has made them more vulnerable and in need of conservation.

The HCP outlines actions the PGC and DCNR will take to conserve the Indiana and northern long-eared bats and their habitats across the 3.8 million acres during normal forestry activities. The HCP covers all state parks, state forests, and state game lands for 30 years, from 2020-2050.

An HCP is a requirement for a federal incidental take permit.

Incidental Take Permit

On Dec. 23, 2020, following the acceptance of the HCP by the U.S. Fish and Wildlife Service (FWS), PGC and DCNR jointly received a permit for the incidental take of Indiana and northern long-eared bats during their forestry and other habitat management practices.

Activities covered by the permit include timber harvests, prescribed burns, roads, trails, fencing, firewood collection and implementation of the HCP.

DCNR and PGC have committed to keeping high quality bat habitat on state lands. At least 3.5 million acres of state forest, state game land, and state parks will be kept in a mosaic of forest age classes.

The agencies will improve habitat and minimize impacts for the two bat species across state lands by protecting roost trees, providing artificial roosts, and protecting hibernation areas on state lands.

"Take"

PGC and DCNR have been issued a 30-year permit for the incidental take of Indiana and northern long-eared bats during normal forest management operations. "Take" means causing death, injury, or harm to the bats.

Because the bats are so scarce due to white-nose syndrome, the permit defines "take" in terms of acres of bat habitat affected by forestry activities. At least 3.5 million acres of bat habitat must be maintained.

PGC and DCNR will measure and report take as acreage of covered forestry activities occurring within the Indiana and northern long-eared bat habitat areas. The full report that is submitted to the FWS each reporting period can be found on DCNR and PGC's websites.

Statewide Habitats

Depending on the time of year, Indiana and northern long-eared bats use different habitat areas.

They use caves or mines in the winter for hibernation. In the fall and spring, they swarm and congregate in the areas around

caves and mines where they mate and fatten up for winter. In summer, they use forested areas to forage and rear their young.

Geospatial models of the bats' winter, fall/spring, and summer habitats were determined statewide and overlaid with state lands to calculate how much of the different habitats are present on each agencies' land. This was used to determine acres of possible take.

Indiana Bat Habitat (in acres)	Winter	Fall/Spring	Summer
Statewide	2,520	521,641	5,003,042
State Game Lands	525	43,653	252,290
State Forests	3	50,248	169,452
State Parks	78	5,150	57,890
State Lands (total)	606	99,051	479,632

Northern Long-Eared Bat Habitat (in acres)	Winter	Fall/Spring	Summer
Statewide	8,127	3,830,228	15,839,139
State Game Lands	1,037	286,970	1,287,926
State Forests	832	341,782	1,894,151
State Parks	35	36,427	197,411
State Lands (total)	1,904	665,179	3,379,488

Permit Limits

The permit places limits on allowable take of bat habitat per year:

- Indiana bat habitat take cap: 19,770 acres.
- Northern long-eared bat habitat take cap: 130,386 acres.

These limits of take cover all habitat types and state lands.

First Term Results*

PGC and DCNR satisfied the permit requirements and followed the conservation measures in the HCP. The agencies did not exceed the limits of take. See the graphs to the right for more habitat type details.

**Note: This reporting term to the FWS is for 6 months, all other reporting terms will be for 1 year.*

Total Acres of Take:

Winter Habitat: 0 acres of covered activity occurred within either bats' winter habitat. This is the most sensitive habitat type.

Indiana bat habitat: 3,173 acres of covered activities took place within Indiana bat habitat. (16% of allowable take)

Northern long-eared bat habitat: 3,511 acres in northern long-eared bat habitat. (3 % of allowable take)

Challenges

The COVID-19 pandemic impacted both PGC and DCNR. All nonessential work was halted during 2020 and 2021. Field surveys, monitoring, and group activities were limited or not conducted.

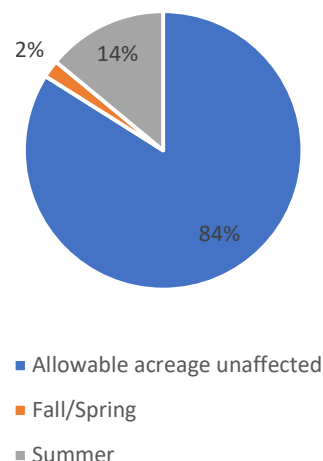
This reporting period is unusual because it was only 6 months instead of a year, from Dec. 23, 2020-June 30, 2021. Surveys planned for summer and autumn occurred outside of this reporting window and are not reported here.

Some trends are likely not yet evident after 6 months. This report serves as a baseline, against which future trends can be compared.

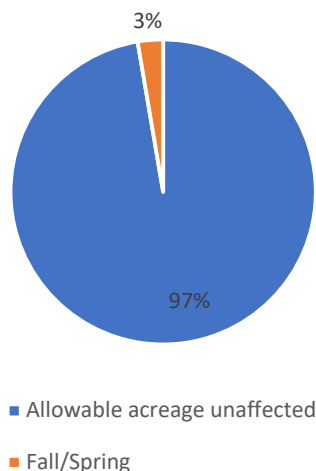
Teamwork

PGC and DCNR worked together closely to write the HCP and obtain the incidental take permit. Program managers, GIS specialists, biologists, contract staff, and foresters all work together to implement, monitor and report on the covered activities. The agencies also acknowledge the proactive working relationship with the US Fish and Wildlife Service, without which, the program would not be successful.

Amount of Take, Indiana Bat



Amount of Take, N. Long-eared Bat



More Information

For more information contact:

- Bureau of Forestry, 717-787-3444, PaForester@pa.gov, [Bats \(pa.gov\)](http://Bats.pa.gov)
- PA Game Commission, Forestry_HCP@pa.gov, [State Lands Habitat Conservation Plan \(pa.gov\)](http://StateLandsHabitatConservationPlan.pa.gov).



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