

# Pennsylvania Bat Habitat Conservation Plan

## Annual Report Summary 2022

### Bat Species Involved



Photo by A. Stauffer

**Indiana bat** (*Myotis sodalis*): federally endangered; hibernates in caves, mines, and tunnels with consistent winter temperature and humidity; roosts under loose bark and crevices of dead and live trees in summer. Size: 3-4"; weight: up to ¼ ounce.



Photo by A. Stauffer

**Northern long-eared bat** (*Myotis septentrionalis*): federally endangered; hibernates in caves/mines with stable temperature, humidity, and air currents; roosts under loose bark, in hollow trees, and rock crevices. Size: 3 - 3 ½"; wingspan: up to 10".

### What's an HCP?

A Habitat Conservation Plan (HCP) outlines how an applicant will minimize and mitigate impacts to federally endangered species. An HCP is required to obtain a federal incidental take permit. The US Fish and Wildlife Service permits a limited amount of take based on the commitments in the HCP.

### The Bat HCP

Bats play an important role in the food web by eating night flying insects and keeping down pest populations. Pa. Game Commission (PGC) and Dept. of Conservation and Natural Resources (DCNR) are working to maintain biodiversity on state lands they manage.

*The State Lands Forestry Habitat Conservation Plan for Indiana and Northern Long-eared Bats* (or Bat HCP) was developed by PGC and DCNR to outline ways to minimize and mitigate impacts to Indiana bats and northern long-eared bats and their habitats.

White-nose syndrome, a fungal disease, has decimated bat populations, making their conservation very important.

PGC and DCNR have committed to keeping at least 3.5 million acres of state forest, state game land, and state parks in a mosaic of forest age classes and high-quality habitat.

The Bat HCP focuses on forestry activities which may impact bats but also create habitat: timber harvest, prescribed burns, roads/trails, firewood and fencing operations.

The Bat HCP is for 30 years and covers all Pa. state parks, state forests, and state game lands.

Surveys, gating caves, enhancing habitat, and seasonal restrictions are tracked and reported annually to U.S. Fish and Wildlife Service (USFWS). (See [PGC](#) and [DCNR](#) websites)

### Incidental Take Permit

DCNR and PGC received a permit for Indiana and northern long-eared bats in 2020, from the

USFWS. The permit allows a limited amount of take in pursuit of forestry activities.

"Take" refers to causing death, injury, or harm to a species, in an incidental take permit.

Because bat numbers are so low, the permit set limits on acres of bat habitat allowed to be impacted by the covered activities. Take is reported in terms of acres of impacted habitat.

### Statewide Habitats

Indiana and northern long-eared bats use different habitat areas during different times of the year.

In winter, they hibernate in caves or mines. In the fall and spring, they congregate, feed, and mate around cave and mine openings. In summer, they forage and raise young in forested areas.

Geospatial models of the bats' habitats on state lands were 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

### Annual Take Limits

- Indiana bat: 19,770 ac.
- Northern long-eared bat: 130,386 ac.

Take limits cover all habitat types and all state lands.

## 2022 Results

PGC and DCNR remained in compliance with the permit during the second year of HCP implementation. They did not exceed the limits of take. See charts for details.

### Acres of Take:

Winter Habitat: 0 acres of take.

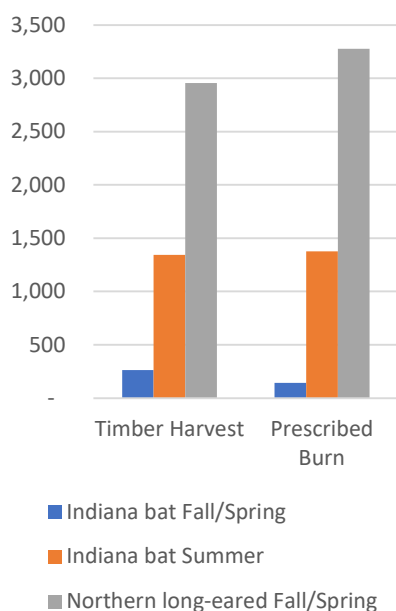
Indiana bat habitat: 3,196 acres (16% of permitted take)

Northern long-eared bat habitat: 6,234 acres (5% of permitted take)

### Covered Activities

PGC and DCNR stayed under their permit take limit. They avoided damage to roost trees during pup season. No covered activities occurred in winter habitat. Timber harvest and prescribed burns affected the most acres. Roads/trail, firewood, and fencing activities impacted negligible number of acres.

Acreeage of Take by Covered Activities in Bat Habitats



### Caves and Mines

- 1 mine opening was gated
- The northern long-eared bat hibernacula survey plan was completed
- 10 new openings were assessed
- 15 sites were surveyed

### Outreach & Training

- 11 public outreach events
- 8 formal internal training events

### Forested Habitat

There are 3,987,000 acres of forest cover across the 4 million acres of state lands at the end of Year 2.

### Surveys

- 18 summer surveys
- 16 fall surveys
- 3 spring surveys
- No new roosts identified.

### Artificial Roosts

Artificial roosts were installed in winter and summer habitats on state lands. Twenty-two in summer habitat areas and 5 in winter areas (some may overlap habitats).

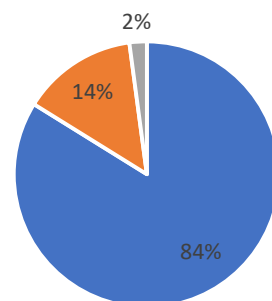
Habitat type	Indiana bat	Northern long-eared	Combined installed
Summer	17	19	22
Winter	4	5	5
TOTALS	8	9	9

### 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.

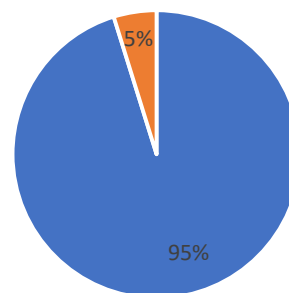
### Amount of Take, Indiana Bat

- Permitted acres unaffected
- Summer
- Fall/Spring



### Amount of Take, Northern Long-Eared Bat

- Permitted acres unaffected
- Fall/Spring



### More Information

#### For more information contact:

- Bureau of Forestry, 717-787-3444, [PaForester@pa.gov](mailto:PaForester@pa.gov), [Bats \(pa.gov\)](https://www.pa.gov/bats)
- PA Game Commission, [Forestry\\_HCP@pa.gov](mailto:Forestry_HCP@pa.gov), [State Lands Habitat Conservation Plan \(pa.gov\)](https://www.pa.gov/state-lands-habitat-conservation-plan)



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