

Endangered Species Act: Listing and Bats



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U.S. Fish and Wildlife Service

Mission:

- Work with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people



U.S. Fish and Wildlife Service

- One function we serve to meet our mission is to protect federally listed species
- The Endangered Species Act is administered through our Division of Ecological Services
- Columbus Ohio Ecological Services Field Office



Endangered Species Act

- ESA signed in to law in 1973, amended in 1988
- Purposes of the ESA:
 - Provide a program for the conservation of threatened and endangered species
 - Provide a means whereby ecosystems of threatened and endangered species may be conserved

ESA Definitions

- An “**endangered species**” is one that is in danger of extinction throughout all or a significant portion of its range.
- A “**threatened species**” is one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range.
- A “**candidate species**” is a species that warrants listing as E or T but listing is currently precluded by higher priority listing actions.

Listing of Endangered and Threatened Species

- Section 4 of the ESA allows the USFWS to identify species at risk that need human intervention to help prevent further decline and possible extinction
- Listing allows USFWS, working in partnership with others, to initiate conservation (recovery) actions
- Listing as T or E affords prohibitions against “**take**”

ESA Listing and Species Protection

- When a species is officially listed as E or T, it is unlawful to “take” that species without first obtaining a take exemption from the USFWS (unless the action is exempted through a 4(d) rule – explained later)
- The ESA defines “**Take**” of listed *wildlife* as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.
- “**Harm**” is defined as any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife
- Take can be incidental (unintended) or purposeful



American Burying Beetle (E)

ESA Listing and Species Protection

- For federally listed *plants*
 - Take is defined as “to remove and reduce to possession from or maliciously damage or destroy on areas under Federal jurisdiction; or to remove, damage, or destroy in knowing violation of State law”



Eastern Prairie Fringed Orchid (T)



Lakeside Daisy (T)

Entities Eligible for Listing

- Species



Indiana Bat (E)

- Subspecies (including plant varieties)



Northern Riffleshell (E)

- Distinct population segments of vertebrates

- DPS must be discrete and significant



Copperbelly Water Snake
(T – northern population only)

Initiating Listing Actions

- Species may be evaluated for listing as T or E through:
 - USFWS initiates a status review
 - or -
 - A petitioned action triggers a status review



Monarch – Petitioned Status Review

Petitioned Listing Actions

- Petition review process
 - Initial 90-day review



Fanshell (E)

- Outcome is either a “**substantial**” finding or a “**not substantial**” finding.
- Publish FR notice of finding, opens 60-day comment period for “substantial” finding soliciting information

Petitioned Listing Actions

- “Substantial” 90-day finding triggers a 12-month status review
 - In-depth review. Outcome is one of the following:
 - Listing is “**warranted**” – species is proposed for listing
 - Listing is “**warranted but precluded**”- species added to the Candidate list and assigned a listing priority #
 - Listing is “**not warranted**” - no further action, species not proposed for listing.
- 12-month finding published in FR along with proposed rule to list the species if finding is “warranted.”

Proposed and Final Listing Rules

- Proposals to list are published in the Federal Register (FR)
- Publication of a proposed rule to list a species in the FR solicits comments and best available information. (60-day comment period)
- USFWS considers all comments and data and makes a final determination of whether to list the species within 1 year of proposal (6 month extension possible)
- If the USFWS's final determination is to list the species, we publish a Final Rule in the FR officially listing the species (effective 30-days from publication)
- If USFWS's final determination is not to list, the proposed rule is withdrawn

Evaluation Criteria for Listing

Species are evaluated for listing as endangered or threatened based on 5 factors:

- the present or threatened destruction, modification, or curtailment of its habitat or range;
- overutilization for commercial, recreational, scientific, or educational purposes;
- disease or predation;
- the inadequacy of existing regulatory mechanisms;
- other natural or manmade factors affecting its survival

Critical Habitat

- When a species is proposed for listing as endangered or threatened under the ESA, USFWS must consider whether there are areas of habitat believed to be essential to the species' conservation. Those areas may be proposed for designation as critical habitat.
- CH is specific geographic areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. CH may also include areas that are not currently occupied by the species but will be needed for its recovery.

Critical Habitat

- If designated CH may be affected by a discretionary federal action, consultation under section 7 of the ESA is triggered
- In Ohio, we currently have 5 CH units
 - 2 units designated for the piping plover (unoccupied)
 - 3 units for the rabbitsfoot mussel (occupied)



Piping Plover (E)



Rabbitsfoot (T)

Northern Long-Eared Bat

- Listed at Threatened on April 2, 2015
 - Petitioned listing action due to disease.
 - Listing included an Interim 4(d) Rule to exempt take from certain activities.



Northern Long-eared Bat with white-nose syndrome

NLEB Listing Timeline

January 2010

USFWS received
petition to list NLEB
and Eastern small-
footed bat due to WNS

October 2, 2013

12-month finding
“warranted” for NLEB and
“not-warranted” for eastern
small-footed bat. Proposed
rule to list NLEB as
endangered published in
FR. 60-day comment
period, later extended 30-
days

June 2011

90-day finding
“substantial”
for both
species

June 30, 2014

Comment period on
proposed rule to list
re-opened for 60
days and final
decision on proposal
extended for
6 months

January 16, 2015

Proposed 4(d) rule
published in FR, 60-
day comment period
on the proposed listing
and 4(d) rule

November 17, 2014

Comment period on
proposed rule re-
opened for 30 days
due to info received
from state agencies

April 2, 2015

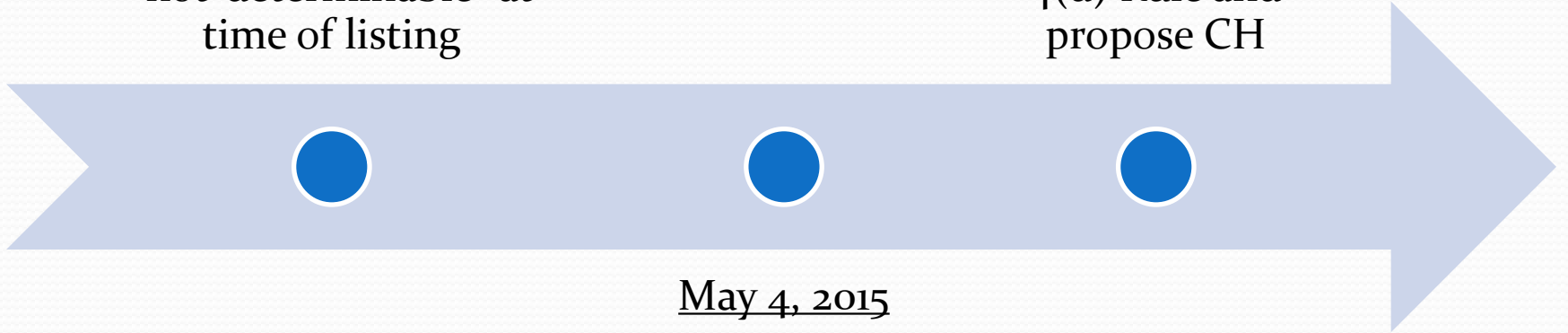
Final Rule listing the NLEB as **threatened** published in FR along with an Interim 4(d) Rule.

Comment period on proposed 4(d) rule re-opened for 90 days. CH “not-determinable” at time of listing

Within a year,
Publish a final 4(d) Rule and propose CH

May 4, 2015

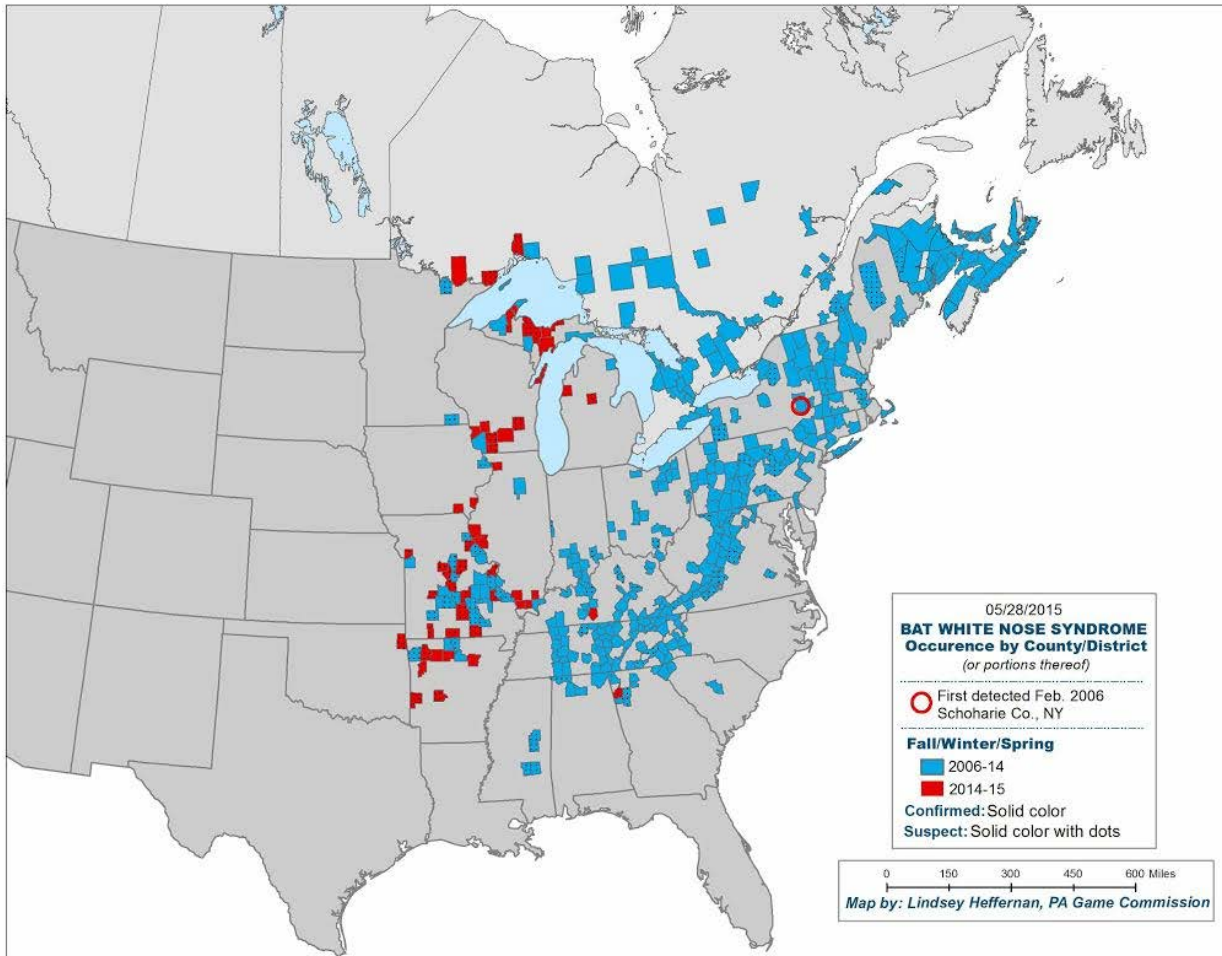
Listing and Interim 4(d) rule effective date



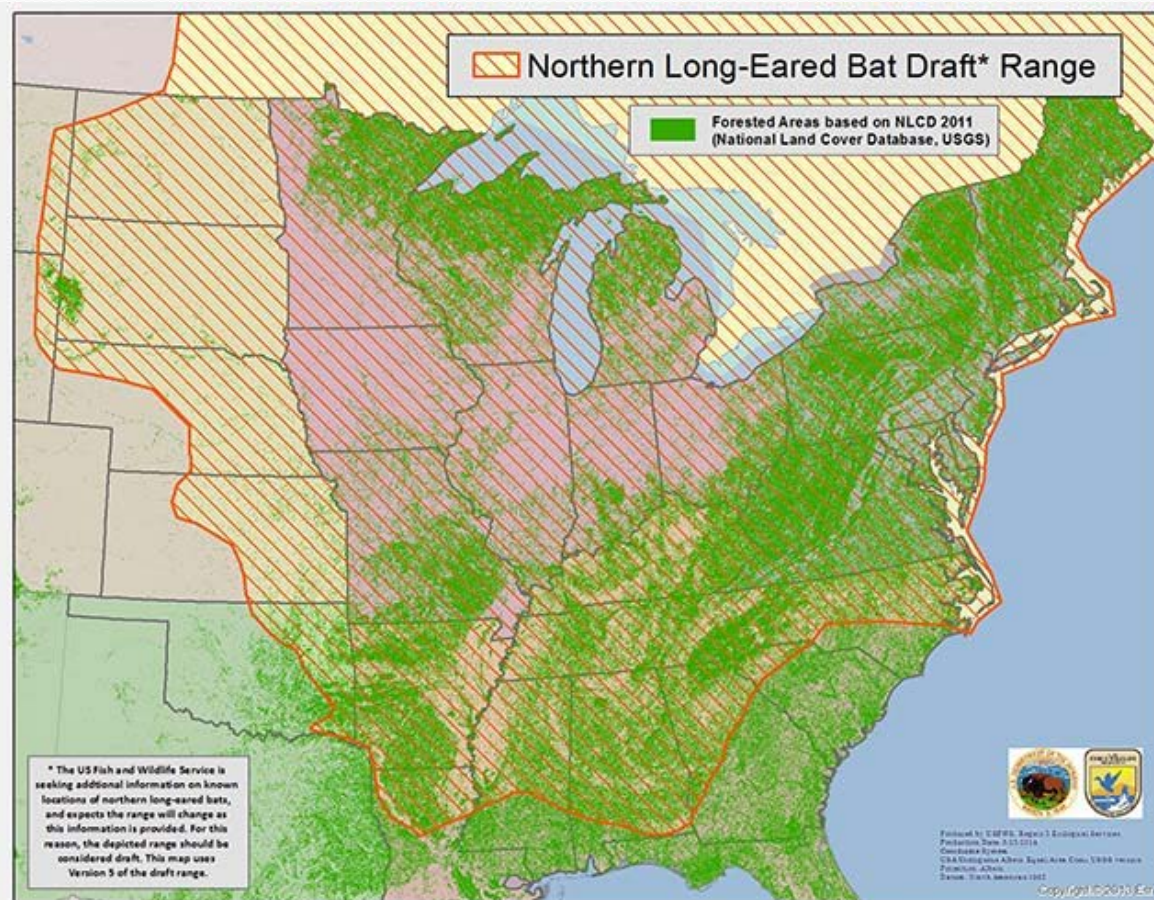
Northern Long-eared Bat

- Listed as threatened due to white-nose syndrome (WNS)
- **WNS** is an disease associated with a cold-loving fungus affecting hibernating bats. Since the winter of 2007-2008, millions of insect-eating bats have died from this devastating disease.
 - Confirmed in 27 states and 5 Canadian provinces, and suspected in 2 more states.

White-Nose Syndrome



Northern Long-eared Bat



White-Nose Syndrome

- Named for white fungus (*P. destructans*) that appears on muzzle and other parts of bats
- *P. d.* thrives in cold and humid conditions characteristic of caves and mines used by bats
- WNS makes bats die by increasing the amount of energy they use during hibernation. Insect-eating bats must carefully ration their energy supply during this time to survive without eating until spring. If they use up their limited energy reserves too quickly, they can die.
- Scientists are investigating the dynamics of the fungal infection and transmission and are searching for ways to control it.



Hibernating NLEB with WNS

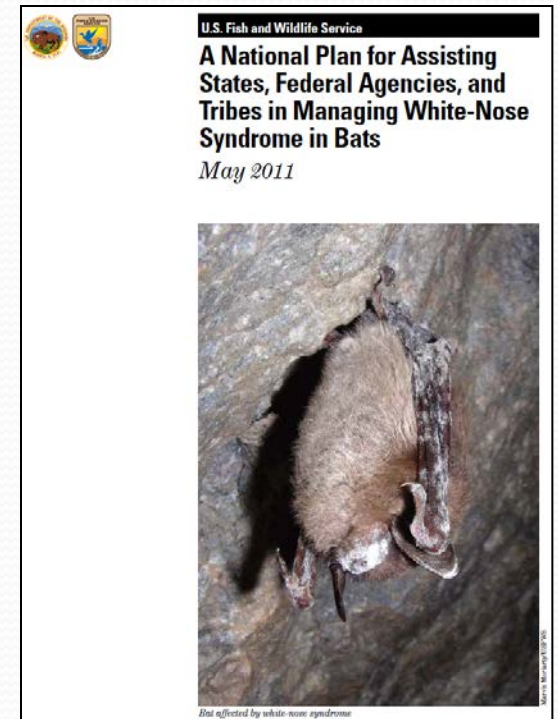
White-Nose Syndrome

- WNS was first documented at 4 sites in eastern New York 2007
- *P. d.* likely introduced in U.S. from Europe
- Species Affected (so far)
 - Gray bat - ***endangered***
 - Indiana bat - ***endangered***
 - Northern long-eared bat - ***threatened***
 - Little brown bat - status assessment underway
 - Tri-colored bat - status assessment underway
 - Eastern small-footed bat - petitioned, listing “not-warranted”
 - Big brown bat



White-Nose Syndrome

- 2011 National WNS Management Plan
 - Outlines the actions necessary for state, federal, and tribal coordination
 - Provides an overall strategy for investigating the cause of WNS and finding ways to manage it



Northern Long-eared Bat

- Experienced a sharp decline (~99%) in the NE part of its range due to WNS
- Where WNS not present yet, populations have remained stable
- It is predicted that WNS will continue to spread; therefore we would expect similar rates of decline throughout the range
- Listing as threatened because USFWS determined that NLEB is likely to become endangered in the foreseeable future in all or a significant portion of its range due to WNS

Northern Long-eared Bat

- Similar to the Indiana bat in size and appearance.
- Tree bat in summer and cave bat in winter
- May occur anywhere in Ohio where habitat occurs
- Was very common in Ohio but declining due to WNS
 - Winter census data indicates a dramatic decline of wintering NLEB in Ohio since 2011 when WNS was first discovered here.
 - Determining the exact amount of decline not possible. Summer trend data also indicates a decline. Could be 50% or higher.

NLEB Summer Habitat

- Habitat includes forested/wooded habitats where they roost, forage, and travel. May also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures.
- Roosting habitat
 - live trees and/or snags ≥ 3 inches dbh that have any exfoliating bark, cracks, crevices, hollows and/or cavities
 - human-made structures, such as buildings, barns, bridges, and bat houses
- Foraging habitat
 - wooded areas that may be dense or loose aggregates of trees with variable amounts of canopy closure. May also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures
- Travel corridors
 - linear features connecting wooded areas, such as fencerows and other wooded corridors

Northern Long-eared Bat

- Summer mist-netting surveys may be performed just like for Indiana bats. Assuming presence and implementing appropriate conservation measures may be best option to avoid adverse effects
- Recommended seasonal clearing dates same as Indiana bat
 - October 1 – March 31 (summer habitat)
 - November 15 – March 15 (near hibernacula)

Interim 4(d) Rule

- Section 4(d) of the ESA allows the USFWS to establish special regulations for threatened (not endangered) species
- These "4(d) rules" take the place of the normal protections of the ESA and may either increase or decrease the ESA's normal protections. The ESA specifies that 4(d) rules must be "necessary and advisable to provide for the conservation of such species."
- One use of 4(d) rules is to relax the normal ESA restrictions to reduce conflicts between people and the protections provided to the threatened species by the ESA. A 4(d) rule can be used in such a situation if those conflicts would adversely affect recovery and if the reduced protection would not slow the species' recovery.

NLEB Interim 4(d) Rule

- Incidental take be exempted for certain activities conducted in accordance with the following habitat conservation measures:
 - Activities occur more than $\frac{1}{4}$ mile from a known, occupied hibernacula
 - Avoid cutting or destroying known, occupied roosts during the pup season (June 1 – July 31)
 - Avoid clearcuts within $\frac{1}{4}$ mile of known, occupied roost trees during the pup season (June 1 – July 31)

Activities that the 4(d) rule applies to:

- Maintenance and limited expansion (up to 100 ft width) of existing ROW and transmission corridors
- Forest management
- Projects resulting in minimal tree removal (1 acre or less)
- Hazardous tree removal
- Removal of bats from and disturbance within human dwellings
- Capture, handling, attachment of radio transmitters, and tracking NLEB for 1 year (must already have a valid Federal bat permit)

Little Brown Bat

- USFWS is conducting a thorough review of the status of the species (due to WNS) to determine if listing is warranted.
 - Working in partnership with the USGS on a demographic model to help inform our species status review.
 - Currently we do not have a specific completion date.



Photo Credit: Tim Krynak, Cleveland Metroparks

Tri-Colored Bat

- USFWS is working on a status review due to WNS
- No estimate on when it may be complete.



Photo Credit: Tim Krynak, Cleveland Metroparks

Questions?

Visit our website for more species information:

www.fws.gov/midwest/endangered

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