



Threatened and Endangered Bat Update October 2023

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Overview

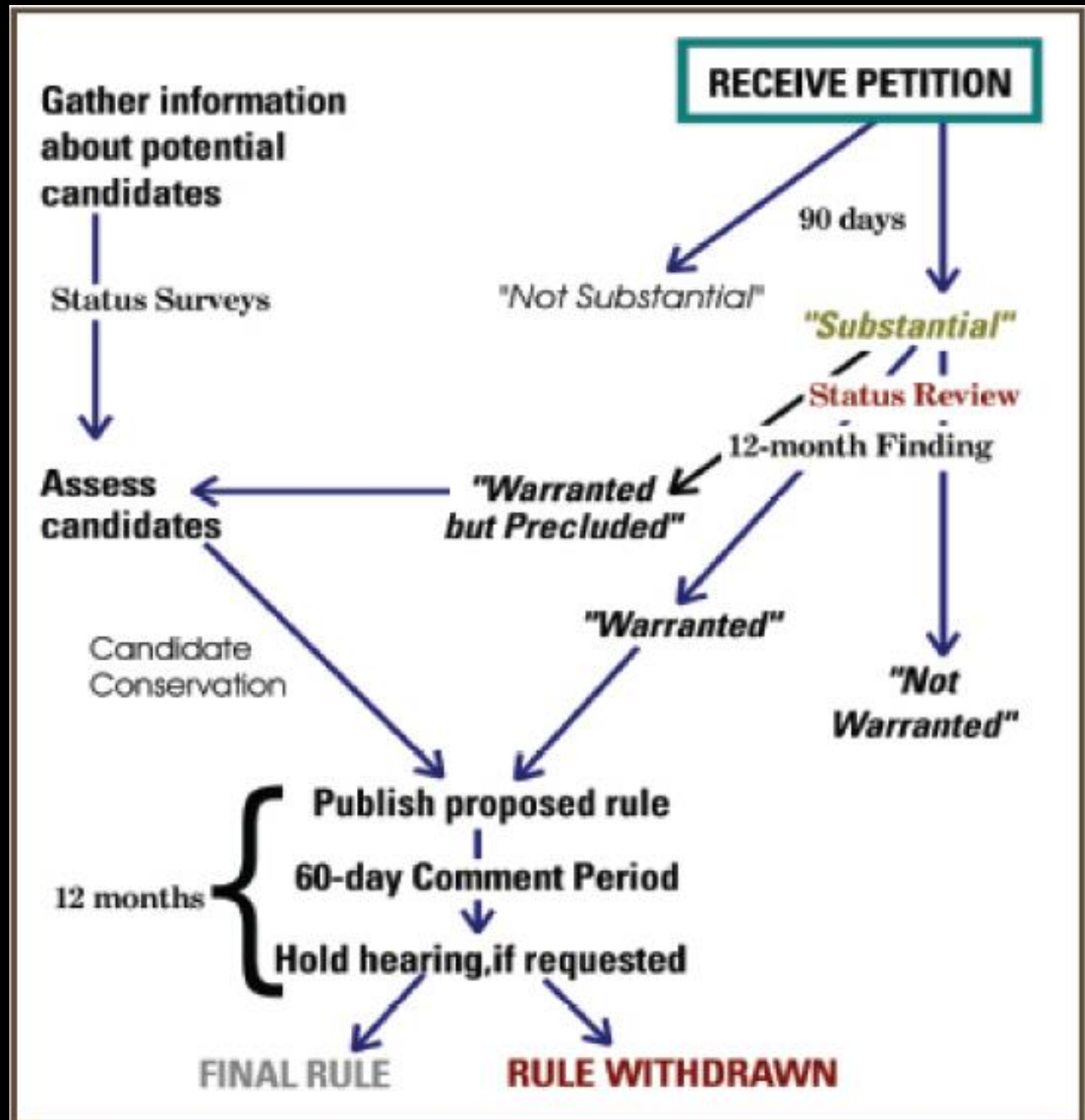


Credit: KY Dept. of Fish & Wildlife Resources



- Four (4) bats undergoing ESA listing reviews
 - Tricolored bat, *Perimyotis subflavus*
 - Northern long-eared bat, *Myotis septentrionalis*
 - Little brown bat, *M. lucifugus*
 - *Hoary bat, *Lasiurus cinereus* (*FY 2027)
- TCB, NLEB, and LBB have similar ecology & life history (mostly tree roosting in summer, hibernate in caves/mines during winter)
 - Experiencing declines from White-Nose Syndrome (key threat)
- Hoary bat is migratory, wide-ranging species; associated with mature trees and leaf litter year-round
 - Highly susceptible to collisions with wind turbines

ESA Listing Process....clear as mud



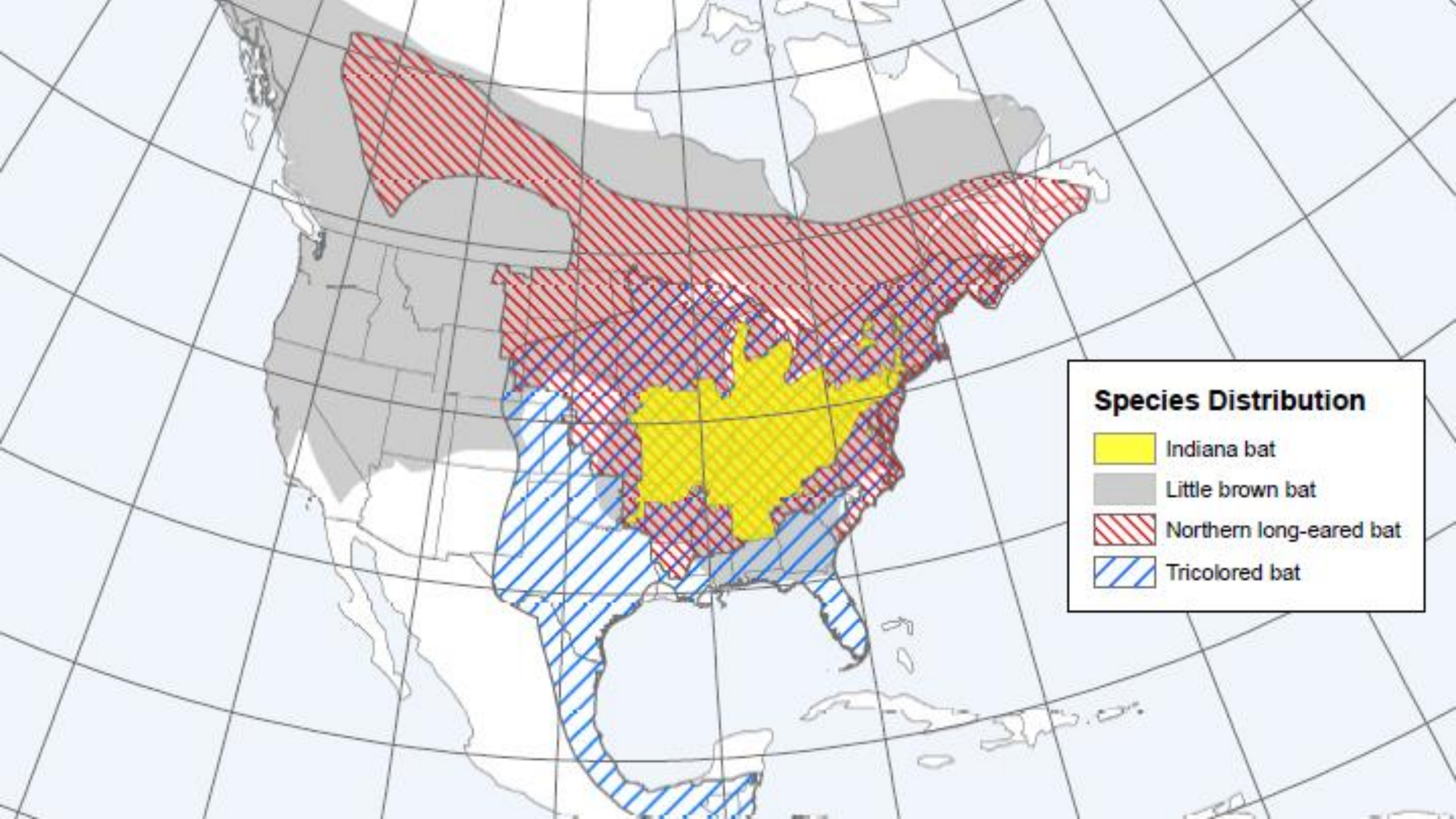
How did we get here?

- 12 North American bat species, including LBB, TCB, and NLEB, confirmed with White-Nose Syndrome (WNS); several on the decline from the disease
- Service petitioned to list tricolored bat (TCB) in 2016
- Northern long-eared bat (NLEB) listed as threatened in 2015 and subsequently reclassified to endangered in 2022
- Discretionary status review for little brown bat initiated due to similar declines from WNS
- **NLEB, LBB, and TCB evaluated together as a “batch” in a Species Status Assessment**
- **Hoary bat suffering from widespread mortality due to current and future wind energy build-out**







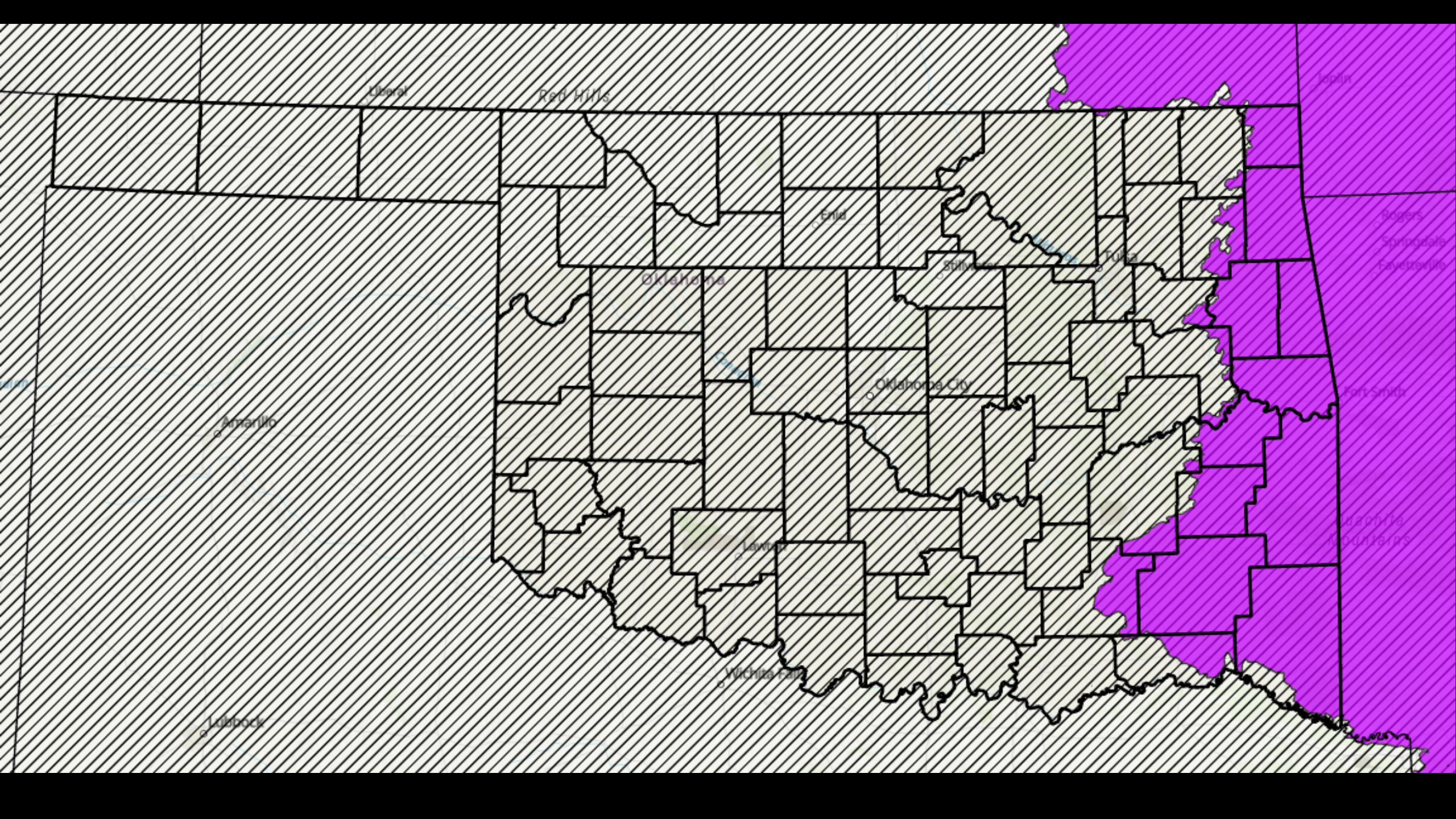
SSA Findings

- Data from North American Bat Monitoring Program (NABat)
- Modeled all 3 species' viability, persistence, abundance under current & future condition scenarios
- Depending on species, rangewide abundance declines between 83-99% by 2030



Species Distribution

-  Indiana bat
-  Little brown bat
-  Northern long-eared bat
-  Tricolored bat



Tricolored Bat

- Widely distributed in eastern U.S.; small, insectivorous bat
- Roosts in tree foliage in summer; hibernates in caves, cave-like formation, mines, and manmade structures (i.e., roadway culverts) in winter
- Before onset of WNS, was one of the most abundant bats in North America



Tricolored Bat Timeline

- **June 2016** - USFWS petitioned to list tricolored bat by CBD and Defenders of Wildlife
- **Dec. 2017** – 90-day finding published
- **Spring 2020** – “3 Bat” Species Status Assessment began
- **September 14, 2022** – **Proposed Rule for Endangered published on FR**
 - Comment period open for 60 days
- **October 2023** - **Final rule publication date TBD**

Northern long-eared bat (NLEB)



- Inhabits “cluttered” interiors of forests in eastern U.S. & Canada
- Roosts under bark & crevices of trees during summer
- Hibernates in caves, mines, rock crevices, and occasionally artificial structures

NLEB Timeline

- Listed as threatened in 2014
- March 2022 - Proposed rule to reclassify as endangered published
- November 2022 – Final rule published for endangered status
- March 2023 – Endangered rule effective; interim conservation planning tools & guidance available
 - Revised guidance to be released by March 31, 2024



Little brown bat



- Wide-ranging across U.S. and Canada, w/ narrow OK distribution
- Pre-WNS, likely most abundant bat in eastern U.S.
- Frequently uses human structures as roosts
- Discretionary status review ongoing; 12 mo. finding estimated to publish in 2024-25

Hoary bat

- Long-distance migrant; ranges from Canada to Mexico
- Discretionary review, with 12-month finding scheduled for FY2027.
- Along with eastern red bat and silver-haired bat, one of top 3 NA bats most susceptible to mortality from spinning wind turbine blades
- Ongoing research and development focused on ways to offset and minimize impacts



Other challenges faced by bats

- Ongoing and increasing expansion of wind energy build-out
 - Determined **2nd highest threat to future viability for TCB, LBB, & NLEB**
- Habitat loss (e.g., forest fragmentation and other tree removal activities) and disturbance to hibernacula
- Changing weather patterns and seasonal fluctuations caused by climate change



Avoidance & minimization measures to consider

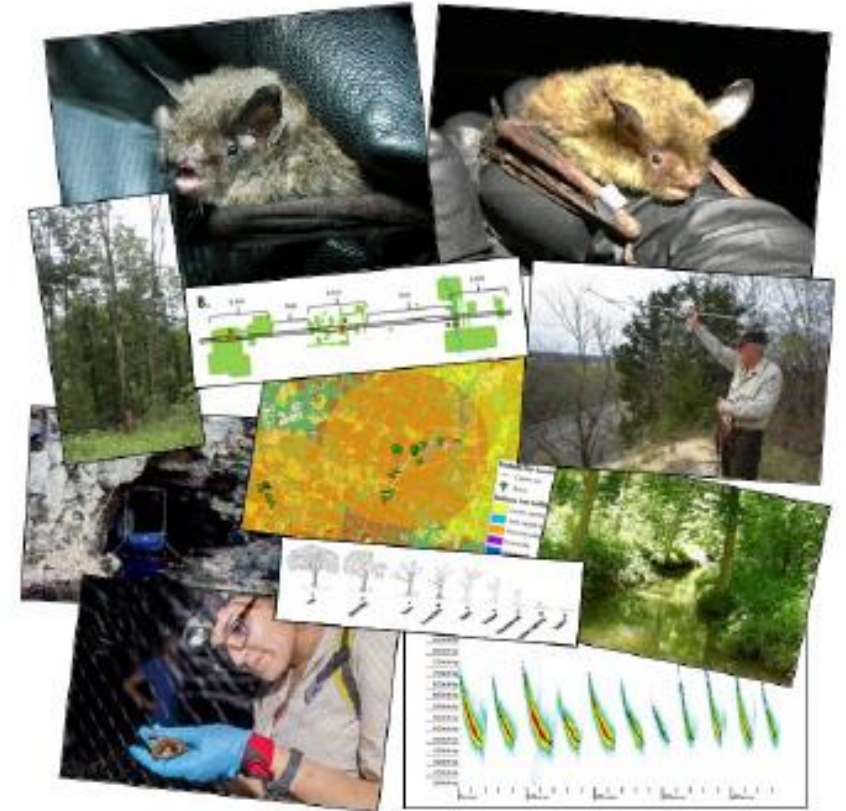
- In suitable habitat, avoid tree removal during active season (April 1 – November 15)
 - Bats roost in trees during active season, thus are vulnerable
- Presence can either be assumed OR presence/absence surveys can be conducted, per Service's guidelines.
- For winter roosting sites (hibernacula), offset project footprint and associated habitat impacts at least 0.5 mile or more from location.
- Wind energy facilities can be operated at cut-in speeds to reduce mortality; additionally, acoustic deterrents can have some success in keeping bats away from turbines.

Service's Range-wide Survey Guidelines for Bats

- Reviewed & updated annually (released by March every year)
- TCB added as an option for 2023 survey season
- Different survey methodologies allowed
- **Check with your local FWS office before performing a survey**
 - We may already have data indicating presence, and
 - Guidelines are helpful, but some projects require modifications from survey protocol (per FWS discretion).

U.S. Fish and Wildlife Service

RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES



March 2023



ESA regulatory options & mechanisms

- Habitat Conservation Plan (No Federal nexus)
 - Associated with an ESA Section 10(a)(1)(B) permit
 - Mitigation plan
- Section 7 consultation (Federal nexus)
 - Applies to actions carried out / permitted by federal agencies
 - Informal consultation (not likely to adversely affect species)
 - Formal consultation / Biological Opinion (likely to adversely affect species)
- Individuals planning to handle or capture T & E bats need Section 10(a)(A) recovery permit.

What's the good news for bats?

- Tricolored bats are adaptable; have capitalized on using manmade structures as roosts (bridges, culverts)
- NLEB & LBB are persisting in “pockets”; may be slowly rebounding in New England & parts of the Appalachians
- Bats in southeastern coastal areas are active year-round, may be resistant to effects of WNS
- Still unknown how TCBs will be affected by WNS as it moves into western areas (e.g., Texas, western OK, etc.).

Questions?? Please reach out!

!! Contact Info !!

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