## Working with Threatened and Endangered Species





Jeff Grabarkiewicz, MDOT Ecologist, Environmental Section, Grabarkiewiczj@Michigan.gov

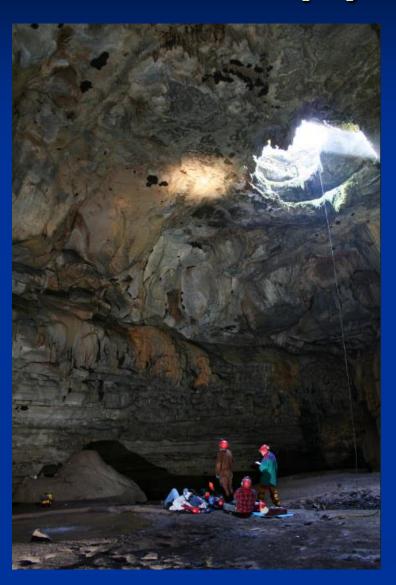
#### Talk Outline

- Bats
  - Update, Final 4(d) rule for NLEB
  - Review, Indiana Bat
  - New, MDOT/FWS Bridge Agreement
- Freshwater Mussels
- Bald Eagles



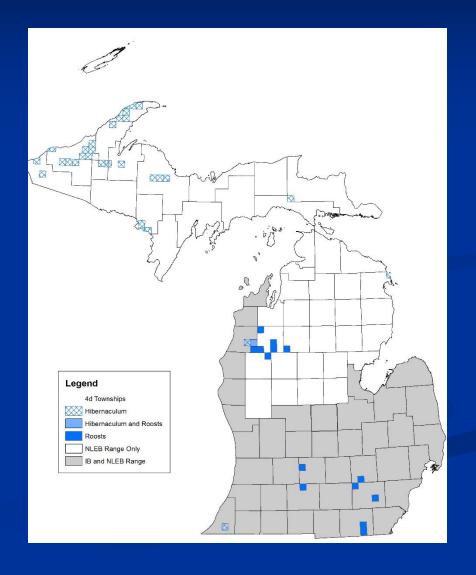
- Affected by WNS
- Migratory
- Tree roosting bat





- Listed as threatened on April 2<sup>nd</sup> 2015 with interim 4d rule
- Final rule released on Jan 14<sup>th</sup> 2016
- Became active on Feb 16<sup>th</sup> 2016
- Changes tree removal regs

- Within NLEB range only, tree removals are allowed yearround except for:
  - 0.25 miles from a hibernaculum
  - 150ft of a known roost tree



- Federally funded jobs require consultation (there is a form)
- Non-federal jobs, no consultation
- Within a township with a known roost tree or hibernaculum, contact FWS
- Multi-year projects require annual consultation

#### Indiana Bat Review



Ibat roost tree

- Endangered species since 1967
- Winters in caves in Kentucky, Missouri, and Indiana
- Tree roosting bat species
- Summer habitat consists wet woods and river corridors

#### Indiana Bat Review



Ibat pup (above), adult (below)





Indiana Bat cluster on a Southern Indiana cave wall

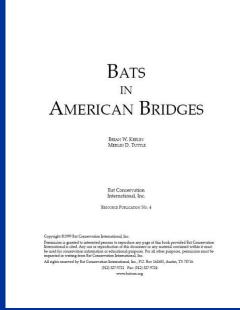
#### Indiana Bat Review



- Range includes southern Michigan and coastal Lake Michigan
- Still requires winter tree removal where habitat is present
- Clearance through assessments/surveys



- Background
  - Growing awareness internationally that bats roost in bridges





#### VDOT Preliminary Bat Inventory Guidelines for Bridges and Buildings VDOT Environmental Division Adapted from the Indiana Department of Transportation 2010 Bridge Inspection Manual and the Bernardin, Lochmueller and Associates 2007 document. VDOT is required to consider bat species that are protected by the Endangered Species Act and avoid activities that would take or harass these species. The guidelines in this document describe favorable characteristics of bridges and buildings (houses, barns, sheds, etc.) that may provide habitat for many bat species and preliminary indicators intended to determine if any bat species are using these. Presence of any bat species, or indications of their presence, must be coordinated with VDOT Environmental staff prior to undertaking any activities below the deck surface on all bridges, that modify or remove roost potential on buildings or that would disturb roosting bats. If additional information is required to complete reviews beyond that required in the preliminary screening, that information will be gathered or procured by This guideline applies to bridges and buildings statewide. Individuals conducting reviews for bats must use the Bat Inventory Form provided in Appendix A and must provide a copy of the completed form to the responsible District Environmental Manager within two days of the date of inventory and no less than two business days prior to beginning work Individuals inspecting bridges or buildings should employ appropriate safety measures in conducting these reviews and avoid touching any bats. In addition to the standard required safety equipment for working on VDOT projects, recommended equipment include a flashlight (preferably a headlamp), hard hat, binoculars or spotting scope, digital camera, inventory form and a fine- to medium-point permanent marker or pen. It is advisable that individuals also consider having a dust mask, cellular phone, and boots if access beneath structures is desired. Easily removed, protective cover-alls may be advisable if access requires crawling.

Preliminary Rat Inventory Guidelines for Reidees and Ruildings, ver. 3-1-2

- FWS approached MDOT in 2015 with concerns about bridges and listed bats
  - Activities that modify occupied roosting spaces
  - Day roosting vs. night roosting
  - Southern part of the state
  - Areas with contiguous, suitable habitat
  - Bridges with vertical clearance, sun exposure
  - Very little data in Michigan

- In response to FWS, we collaboratively developed a programmatic agreement that-
  - "addresses regional differences in roosting behavior, streamlines consultation, and strategically focuses conservation activities"

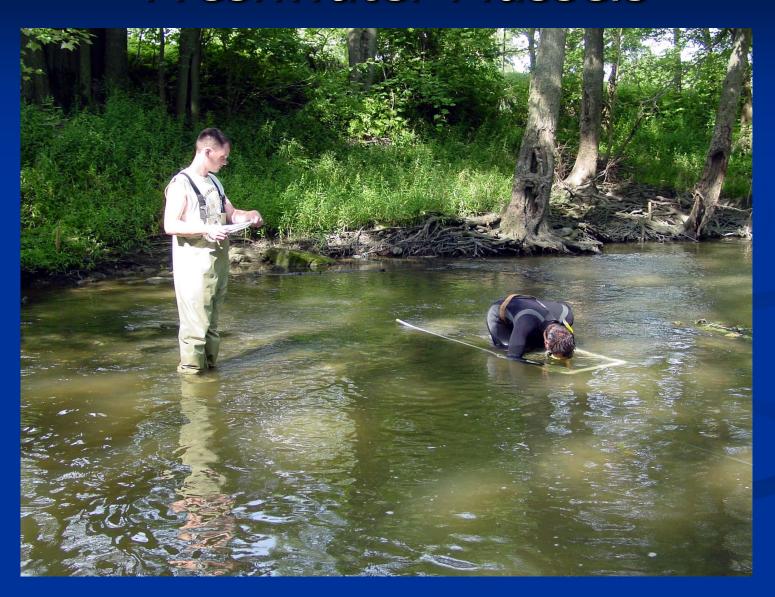
# Michigan Bats and Bridges Not Likely to Adversely Affect

#### MDOT/FWS Bridge Agreement

- 3 determinations:
  - May affect
  - NLAA
  - No effect
- Getting to NLAA
  - Urban land use
  - No habitat
  - Early/Late removal
  - Site inspection

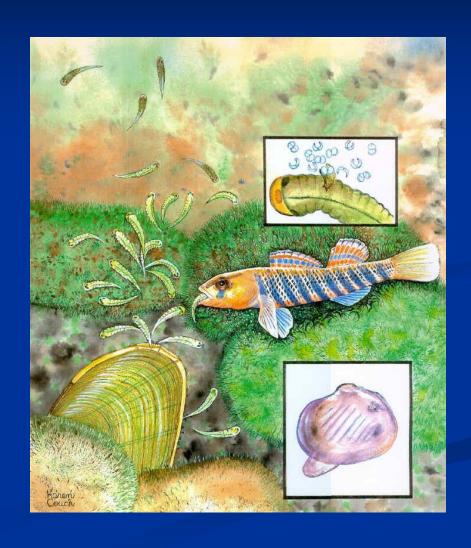
- Administratively-
  - Letter in narrative form that proposes a determination and seeks concurrence
    - Location
    - Scope of work
    - Determination (factors involved)
    - Mapping
  - Concurrence typically in 30 days

#### Freshwater Mussels



#### Freshwater Mussels

- Background
  - ~300 taxa in N.America
  - 78 species are federally listed, 21 extinct
  - 14 state listed species in Michigan
- Parasitic larval phase

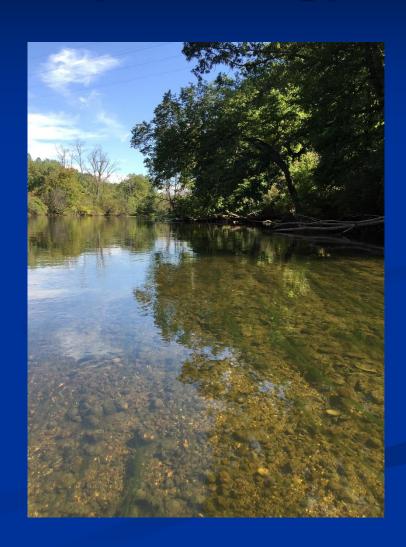


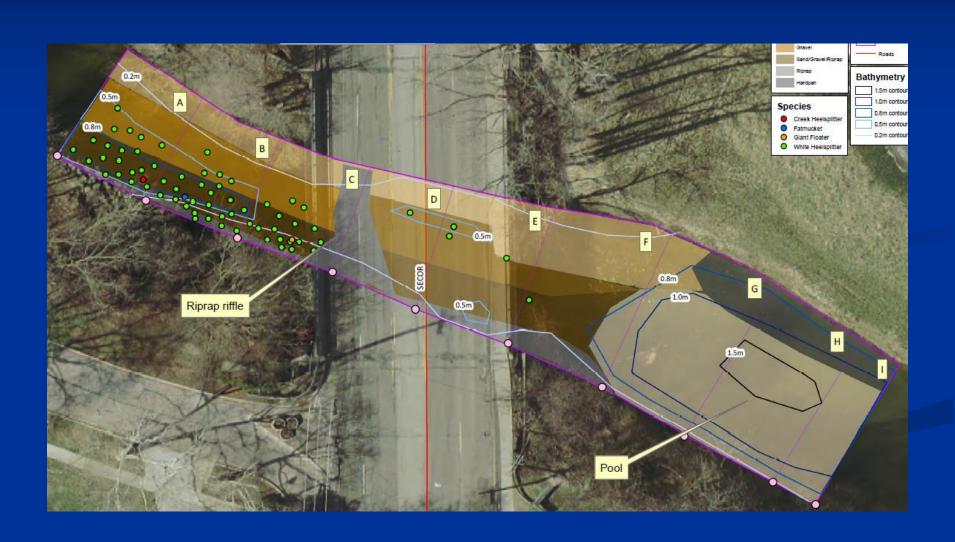
#### Freshwater Mussels

- Federally listed species found in MI:
  - Snuffbox, Clubshell, Rayed Bean, Northern Riffleshell
  - Gratiot, Ionia, Kent, Livingston, Oakland, St. Clair, Washtenaw, Oakland, St. Clair, Monroe, Sanilac, Wayne, Hillsdale
- State listed species
  - Widespread

- State of Michigan will soon (maybe) be releasing a new protocol
- Section 7 and federally listed mussels
- State listed mussels
- Coordinate, consult, and/or permit prior to letting

- Guidance for PMs
  - Jun 1 Oct 15
  - Weather
  - Consultants require sampling permits
  - Results good for 5 years
  - Communication

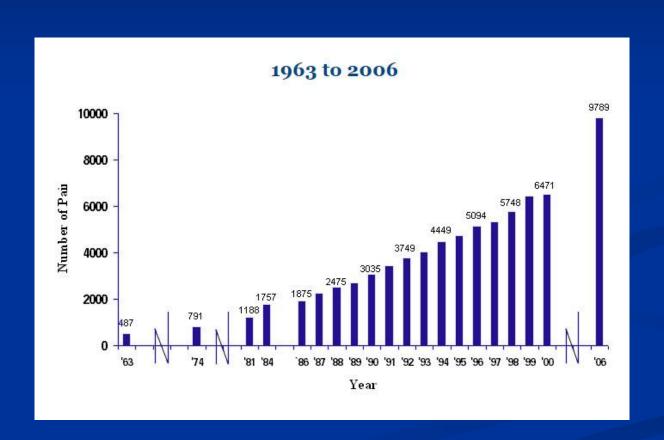


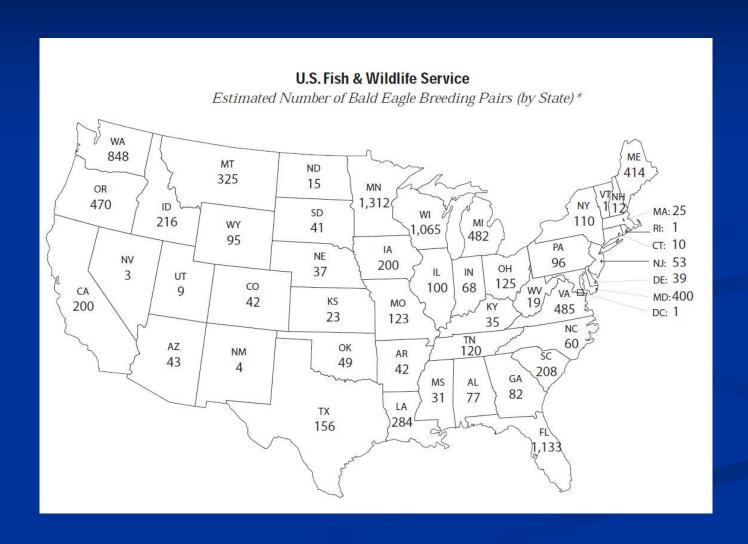


- When do I need a survey/relocation?
  - Where impacts to state/federally listed species might be expected
  - Where hydrology lends itself to support mussel populations (10 mi2)
  - Where there is suitable habitat
  - Where records of listed species are nearby
  - Feedback from FWS or MDNR

- Background
  - Originally listed under ES preservation act 1966
  - Down-listed to threatened in 1995
  - Removed from ESA in 2007
  - Still protected under the Bald and Golden Eagle Protection Act







- Regulations
  - The Act restricts disturbing nests during reproductive periods (includes noise)
    - Varies on location (Feb Sep)
    - 330′, 660′ rule
    - Permitting process
    - Consultation w/ FWS

#### Questions

Jeff Grabarkiewicz

MDOT Wildlife Ecologist

**Environmental Section** 

Grabarkiewiczj@Michigan.gov

(517)-335-2633