

# CHASE ALLRED

U.S. Fish and Wildlife Service Elkins,  
West Virginia Field Office  
Industry Workshop – August 8-9, 2017



# Introduction

Grew up in southeastern Utah's coal country



Enjoy hunting, fishing, riding and training horses



Virginia Tech - master's degree

Worked for the U.S. Forest Service and have been working for the U.S Fish and Wildlife Service



# My Roots



# My Roots



# Objectives

- ▣ Endangered Species Act Overview
- ▣ Listed Species in West Virginia
- ▣ Species Biology
- ▣ Section 7 Consultation Process
- ▣ Where Do You Fit Into the Process
- ▣ 1996 Biological Opinion
- ▣ Range-wide Protection and Enhancement Plan Guidelines
- ▣ Information for Planning and Consultation (IPAC)
- ▣

# Endangered Species Act OverView

- ▣ The purpose of the 1973 Endangered Species Act is to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved as well as to provide a program for the conservation of such endangered and threatened species.

# Endangered Species Act Overview

- ▣ Endangered: any species in danger of extinction throughout all or a significant portion of its range
- ▣ Threatened: any species likely to become endangered in the foreseeable future

# Endangered Species Act Overview

- ▣ Candidate species: plant and animal taxa considered for possible addition to the list of endangered and threatened species.
- ▣ Proposed species: any species of fish, wildlife, or plant that is proposed in Federal Register to be listed under section 4 of the Act.



# Endangered Species Act Overview

- ▣ Technical Assistance: an inquiry (written, email, phone, IPaC) about the presence or absence of listed and/or proposed species in the project area. typically initiates informal consultation.

# Listed Species in West Virginia

10 mussels

6 plants

4 bats

2 crayfish

1 each snail, fish, salamander,  
isopod, bee

No proposed species in WV at this  
time.



# Recovered (Delisted) Species

- ▣ West Virginia Northern Flying Squirrel
- ▣ Peregrine Falcon
- ▣ Bald Eagle



# Indiana Bat

- Hibernates in dense clusters in caves/mines
- In summer, roost in trees and forage for insects in forests, stream corridors, or wetlands
- Population of 1,076 hibernates in WV - down from peak of 20,200 in 2011
- About 10 maternity areas known in WV - many unknown



# Indiana Bats

- Migrate long-distances  
– max 418 miles!
- Philopatric - return to  
same summer sites  
year after year
- Maternity sites  
made up of bats  
from many  
hibernacula



# Indiana Bat Roost Trees



# Indiana Bat Threats

- ▣ Disturbance or alteration of hibernation sites
- ▣ Disturbance to maternity sites
- ▣ Pesticides and contaminants
- ▣ Wind turbines
- ▣ White-nose Syndrome (WNS)



# Virginia Big-eared Bat

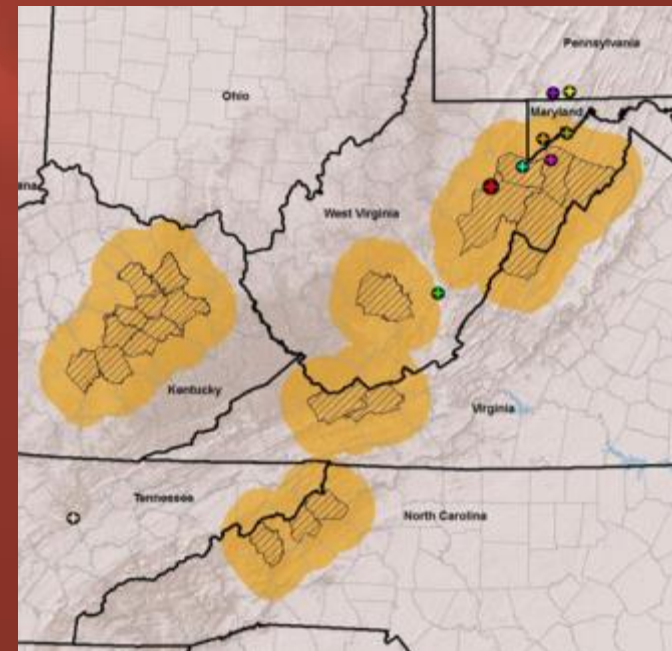
- Only occurs in WV, VA, NC, KY, TN
- Range-wide population about 15,000
- Large majority of population is in WV
- Uses caves/mines in both summer & winter
- Hibernates in dense clusters
- Short distance migrations
- Forms maternity colonies
- Moth specialist, forages in woods, old fields, edges





# VBEB Threats

- ▣ Population concentrated at a few sites
- ▣ 4 genetically distinct subpopulations
- ▣ Highly sensitive to disturbance
- ▣ Will abandon sites with activity inside or near entrance
- ▣ Pesticides and contaminants
- ▣ Wind turbines



# VBEB Portal



# Northern Long-eared Bat (NLEB)

- Similar life history to Indiana bats
- Hibernates in caves/mines in winter
- Roosts in trees in summer, forages in wooded areas (but like different types of trees, forages in more intact forested habitats)
- Don't migrate as far
- Maternity areas throughout state
- Was our most common bat prior to WNS



# NLEB Hibernation

- Do not know where most of our NLEB go
- Only small numbers found in caves
- Tend to roost individually in cracks/crevices
- More frequent use of mines than Ibat
- Occasionally found in houses, wells, culverts
- May use other unknown types of sites



# Northern Long-eared Bat



# NLEB Threats

- ▣ Primarily – White-nose Syndrome
- ▣ Other threats:
- ▣ Winter and summer habitat destruction or disturbance
- ▣ Wind energy development
- ▣ Contaminants



# Gray Bat

- ▣ Gray bats are extremely vulnerable to disturbance
- ▣ Live in caves year-round
- ▣ In the summer, they roost in caves which are scattered along rivers
- ▣ Forage on a variety of flying aquatic and terrestrial insects along rivers and lakes



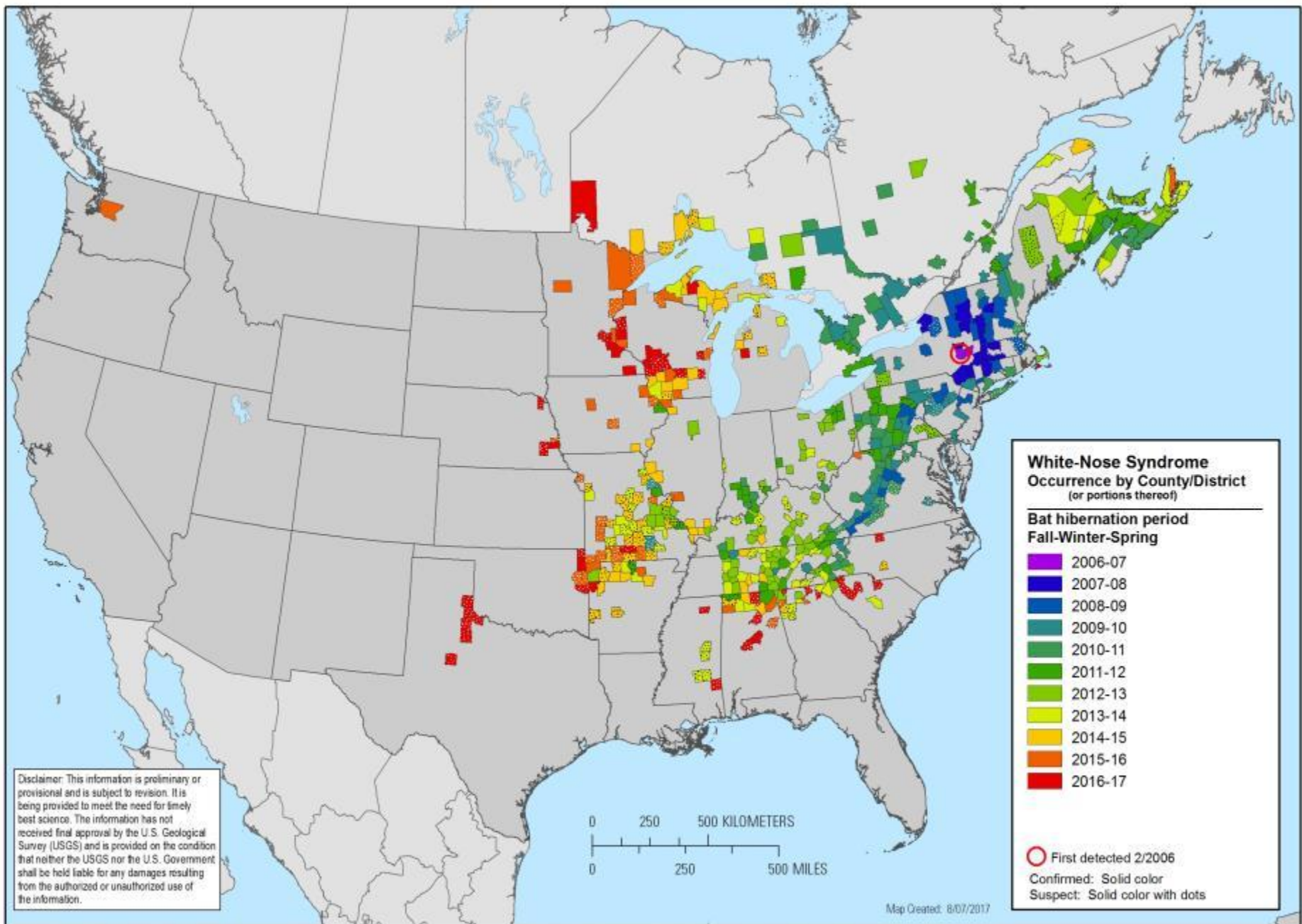
# Logan County Capture

- ▣ 25-40' stream with thin riparian corridor
- ▣ residential development and mountaintop mining and forested habitat surrounding
- ▣ Further mist netting at this site & others along the creek produced no add. gray bats.
- ▣ Were not able to relocate the bat through tracking.



# What is WNS?

- ▣ WNS is a disease of European origin that is killing hibernating bats in eastern North America. It was first documented in eastern New York.



# Effects of WNS

- White fungus on muzzle, wings, ears, or tail
- More frequent arousals during hibernation
- Loss of fat stores needed to survive hibernation
- Damage to wing membranes and other tissues
- Dehydration and electrolyte imbalances
- Leaving the hibernacula during day/in the winter (and then may freeze or starve)
- Bats that survive hibernation are weakened and less able to migrate, reproduce, and withstand other stressors



# WNS: Not an Ordinary Wildlife Disease

“WNS .. has caused the most precipitous decline of North American wildlife in recorded history”

Few wildlife diseases have:

- ▣ Affected as many species
- ▣ Over such a large geographic area
- ▣ In such a short period of time
- ▣ With as much impact on populations



# Guyandotte River Crayfish

- ▣ Listed in 2016 as endangered
- ▣ Only occurs in WV



# Big Sandy Crayfish

- ▣ Listed in 2016 as threatened
- ▣ Occurs in WV, VA, KY



# Crayfish Life History/Habitat

- ▣ Preferred habitat is slab boulders in 3rd-5th order streams; young also use sand & cobble
- ▣ Overall stream/riparian condition important
- ▣ Good populations of other benthics as food source
- ▣ Molt throughout the year
- ▣ Adult females protect & hold young



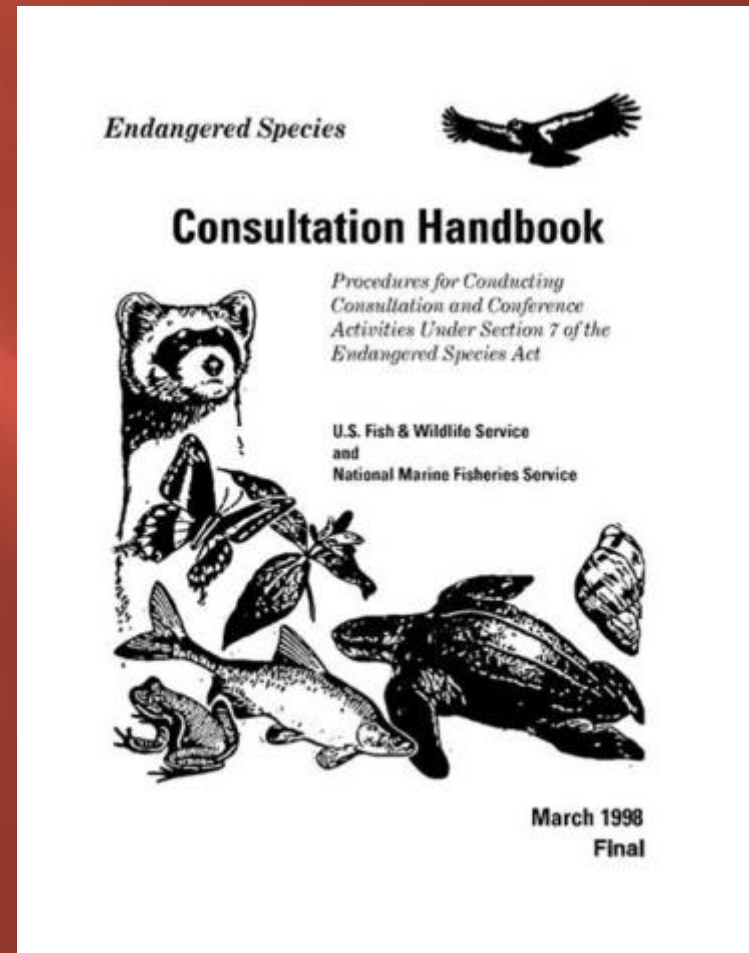
# Section 7 – Interagency Cooperation

- ▣ All Federal agencies shall (in consultation & assisted by the DOI/USFWS):
- ▣ Utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of T& E species.
- ▣ Ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the species or adversely modify critical habitat



# Working Together

- ❑ Section 7 of the ESA outlines how all Federal agencies should work together.
- ❑ Further details included in Section 7 Handbook and various policies and regulations
- ❑ Some agencies have additional policies and regulations - including SMCRA



# Section 7 Process

- ▣ Action area: all areas to be affected directly or indirectly by a Federal action and not merely the area involved in the action.
- ▣ Direct Effect: direct or immediate effects of the project on the species or its habitat.
- ▣ Indirect Effect: those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur.
- ▣ Cumulative Effect: those effects of future State or private activities, not involving federal activities, that are reasonably certain to occur in the action area.

# Where Do You Fit Into the Process

- ▣ SMCRA is a “Federal Action” that is typically carried out by the State (WVDEP)
- ▣ Because there is a federal action, WVDEP is required to consult with the Service on SMCRA permits.

# Where Do You Fit Into the Process

- ▣ SMCRA requires that surface coal mining and reclamation operations shall: to the extent possible using best technology currently available, minimize disturbances and adverse impacts of operations on fish, wildlife, and related environmental values, and achieve enhancement of such resources where practicable.

# The 1996 Biological Opinion

- ▣ In 1996, the USFWS issued a Biological Opinion to OSM that stated that impacts from surface mining would not jeopardize federally listed species as long as State agencies and local Service Field Offices worked together to create Protection and Enhancement measures for each species.

# 1996 – Biological Opinion – SMCRA ESA Coordination Process

- ▣ At a minimum, the following information should be provided to the Service for mining projects:
  - a) a detailed description of your project. The detailed description must identify the areas to be disturbed by mining activities, including, but not limited to, vegetation removal, road construction, and surface excavations.
  - b) a description of the specific area that may be affected by your proposed project, which would include both the proposed permit area and the adjacent area;

# 1996 – Biological Opinion – SMCRA ESA Coordination Process

- ▣ a description of any listed or proposed species or designated critical habitat that may be affected by your proposed project, including the official species lists obtained through the Service's ECOS-IPaC system at:  
[ecos.fws.gov/ipac](http://ecos.fws.gov/ipac);
- ▣ a description of the manner in which the action may affect any listed or proposed species or designated critical habitat;

# 1996 – Biological Opinion – SMCRA ESA Coordination Process

- ▣ a description of how the applicant proposes to avoid or minimize adverse impacts on listed or proposed species and designated critical habitat;
- ▣ relevant reports, including any environmental impact statements, environmental assessments, biological assessments or other analyses prepared on the proposal; and any other relevant studies or other information available on the action, the affected listed species, or designated critical habitat.



# 1996 – Biological Opinion – SMCRA ESA Coordination Process

- ▣ a description of how the applicant proposes to enhance fish, wildlife and related environmental values, where practicable (see 30 CFR 780.16(b));

# Range-Wide Indiana Bat Protection and Enhancement Guidelines

- ▣ The guidelines are the product of State and Federal government collaboration and partnerships amount three FWS Regions and their field offices; 13 state coal mining regulatory agencies; and the Interstate Mining Compact Commission; and two OSM Regions and their field offices.

# Information for Planning and Consultation (IPaC)



U.S. Fish & Wildlife Service

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## IPaC Information for Planning and Consultation

Powered by ECOS - the Environmental Conservation Online System

IPaC is a project planning tool which streamlines the USFWS environmental review process

GET STARTED

MY PROJECTS

[Need an updated species list?](#)

# IPAC



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
West Virginia Ecological Services Field Office  
694 Beverly Pike  
Elkins, WV 26241-9475  
Phone: (304) 636-6586 Fax: (304) 636-7824  
<http://www.fws.gov/westvirginiafieldoffice/>



In Reply Refer To:  
Consultation Code: 05E2WV00-2017-SLI-0002  
Event Code: 05E2WV00-2017-E-00008  
Project Name: Mining Workshop

July 31, 2017

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This list can also be used to determine whether listed species may be present for projects without federal agency involvement.

If the official species list you receive identifies any listed, proposed, or candidate species as potentially occurring in the proposed project area, then further section 7 consultation under the ESA is required with the Fish and Wildlife Service. Please submit a project review request to the West Virginia Field Office. To find out what information needs to be submitted with your project review request go to this link:  
<http://www.fws.gov/westvirginiafieldoffice/projectreview.html>

**Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you should submit to our office.**