

# U.S. Fish & Wildlife Service: Integrating the Service's Mission with Agriculture in Kentucky

Lee Andrews

State Field Office Supervisor

Kentucky Ecological Services Field Office

330 West Broadway, Room 265

Frankfort, KY 40601

502/695-0468





# USFWS Mission

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

# How the USFWS Achieves its Mission

## ■ Enforce Federal wildlife laws

- Migratory Bird Treaty Act – 1918 & 1934
- Bald Eagle & Golden Eagle Protection Act – 1940
- Endangered Species Act – 1973



## ■ Manage the 150+ Million acre National Wildlife Refuge System

- Clarks River NWR – Graves, McCracken, and Marshall counties
- Ohio River Islands NWR – Lewis, Mason counties
- Reelfoot NWR – Fulton County



## ■ Operate 70 National Fish Hatcheries

- Wolf Creek NFH – Russell County



## ■ Protect Endangered Species

## ■ Manage migratory birds – waterfowl, shorebirds, songbirds



# Functions - continued:

- Restore Nationally significant fisheries

- Trout, Salmon, other anadromous species
- Inter-jurisdictional fishes (i.e., travel among states/tribes)



- Conserve and restore wildlife habitat

- Private Lands Program
- Refuge System
- Partnerships



- Assist with international conservation efforts

- Oversee the Federal Aid program to State fish and wildlife agencies

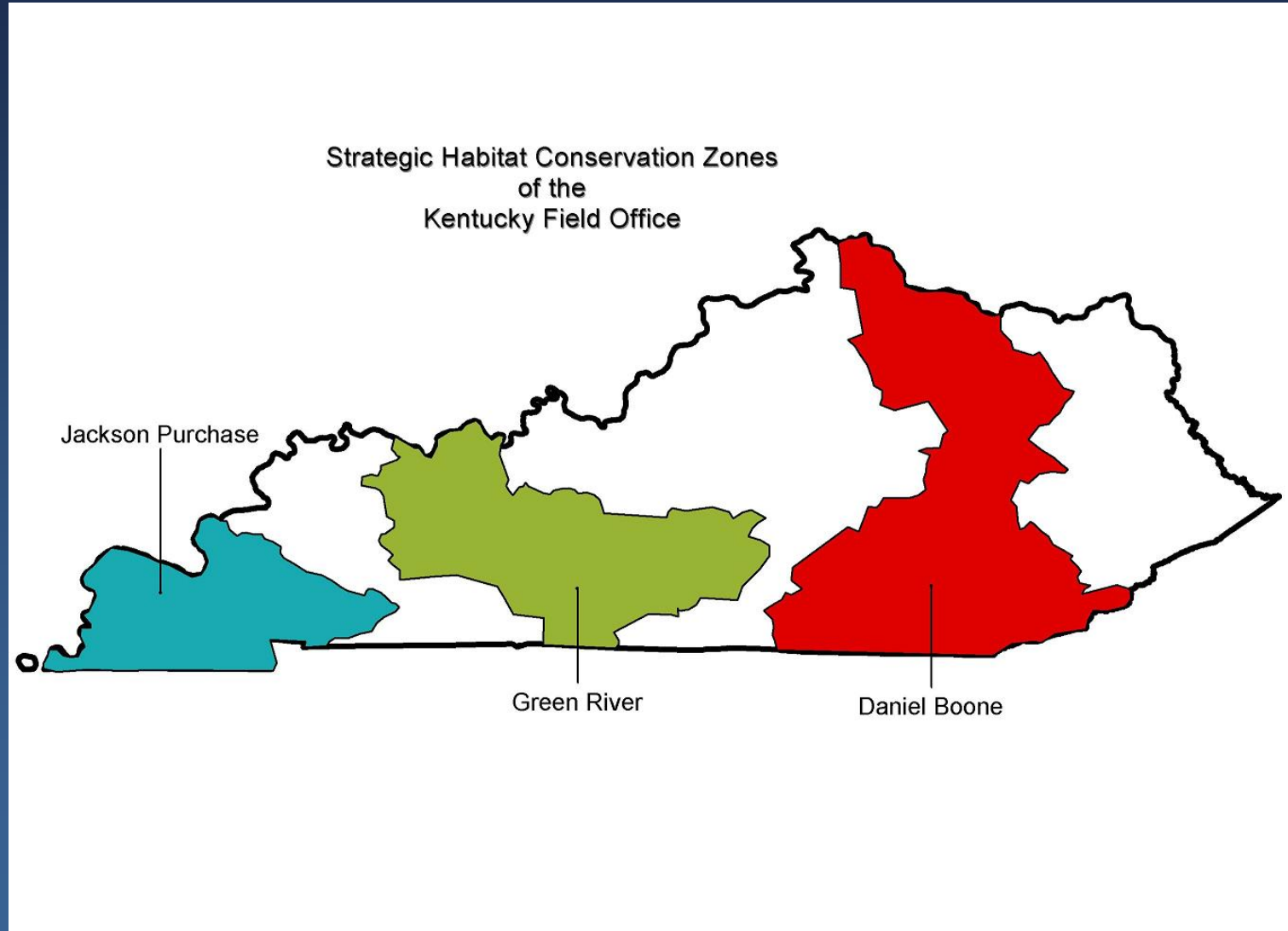
- Wildlife and Sport Fish Restoration Fund – KY ~\$15 million in 2013



# Kentucky Ecological Services Field Office

- Environmental Contaminants – oil spills, toxic waste dumps – recover financial damages that are used for restoration
- Consultation – highways, water/sewer lines, permits, Federal operations and projects – provide technical assistance and compliance
- Federal Activities – Clean Water Act permits, hydropower, water resources projects – provide technical assistance and compliance
- Private Lands / Partners for Fish & Wildlife – restore habitat in priority areas , Farm Bill technical assistance – provide technical assistance
- Endangered Species
  - Recovery / Listing – focus is on recovery in order to take species off of list of endangered and threatened species
  - Candidate Conservation – focus is keeping species off of list through implementation of voluntary conservation efforts

# USFWS Strategic Habitat Conservation Zones



# STRATEGIC HABITAT CONSERVATION ZONES

These zones were chosen based on a variety of factors, including but no limited to those listed below:

- **Daniel Boone** – overlap with KDFWR SWG Priorities; large, existing public ownership – Daniel Boone NF and Pine Mountain areas; federally listed fish, mussels, plants, bats; migratory birds (upland NMB habitat)
- **Green River** – overlap with KDFWR SWG Priorities; large, existing public ownership – Mammoth Cave NP; federally listed mussels and bats; proposed Green River NWR; migratory birds (waterfowl and wetland-dependent)
- **Jackson Purchase** – overlap with KDFWR SWG Priorities; large, existing public ownership – Fort Campbell, Land Between the Lakes, Clarks River NWR; federally listed mussels and bats; migratory birds (waterfowl and wetland-dependent)





# Threatened & Endangered Species in Kentucky (An Overview)



- 47 species federally listed as threatened or endangered
  - 3 mammals, 3 birds, 7 fishes, 1 crustacean, 23 mussels, 1 insect, and 9 plants
- 4 species that have been proposed and waiting on final listing rule
- 9 species that are candidates for listing (awaiting manpower and funding to prepare listing rules)
- 42 species that have been petitioned for listing



# Threats to Species

## ■ Sources:

- Surface Coal Mining
- Logging
- Oil/Gas Exploration
- Land Development
- Agriculture



## ■ Stressors

- Dissolved solids
- Sulfates
- Sediment
- Loss of Riparian Vegetation
- Channelization



## Agricultural Issues Related to the Service's Mission

- Environmental Contaminants – Studies, Coordination, Technical Assistance, Pollution Abatement, Mitigation, and Restoration Authorities under:
  - CERCLA – Superfund Act
  - OPA – Oil Pollution Act
  - CWA – Clean Water Act
  - NRDAR – Damage Assessment
  - ESA – Endangered Species Act
  - MBTA – Migratory Bird Treaty Act

# Agricultural Issues Related to the Service's Mission

- Environmental Contaminants Primary Issues: Nutrients





# Agricultural Issues Related to the Service's Mission

- Environmental Contaminants Primary Issues: Non-point Sources



Sediment / Nutrients

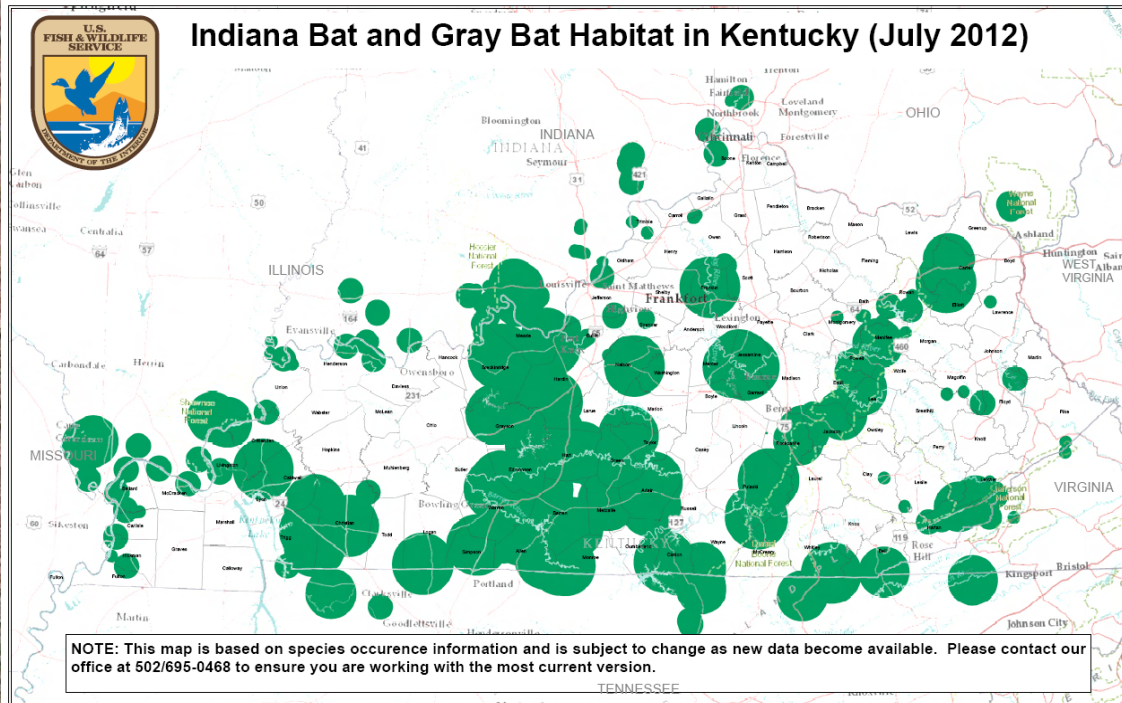


Ammonia



# Agricultural Issues Related to the Service's Mission

- Environmental Contaminants Primary Issues: Pesticides



## Agricultural Issues Related to the Service's Mission

- Consultation – Review Farm Bill projects such as CRP contracts, loans for poultry houses, water supply and conveyance, etc.



Kentucky glade-cress (*Leavenworthia exigua* var. *laciniata*)

Recently proposed for federal listing under the Endangered Species Act, KY glade-cress only occurs in rapidly-developing portions of Jefferson and Bullitt Counties.

Acquisition and management of the best populations is needed to keep this KY endemic from becoming extinct.

Much of this work will need to be done on lands currently used for agricultural and forestry purposes, especially pastures containing the species.



## Agricultural Issues Related to the Service's Mission

- Private Lands / Partners for Fish & Wildlife – restore habitat in priority areas on private lands, Farm Bill technical assistance, projects primarily related to listed and at-risk species and migratory birds



# Agricultural Issues Challenging Conservation in Kentucky





# Examples of Problems Affecting Aquatic Species and Water Quality in Kentucky



# Where do we go from here?

- Agricultural-derived habitat degradation is pervasive across Kentucky – even in watersheds that are now forested (legacy effects)
- We know what happens when typical agricultural “improvements” – channelization, drainage, deforestation, planted monocultures, etc. – are implemented
  - Loss/degradation of habitat
  - Loss of species/diversity
  - Changes in ecosystem structure, function and health
  - Many others

# Where do we go from here?

- Process must be inclusive and will require trade-offs from stakeholders
- Must accept that full recovery may not be possible so goals must be well-reasoned
- Approaches vary in scale and in their likelihood of success – success is a key motivator

**The End....*Thank you !***

**Any questions?**