

THE ENDANGERED SPECIES ACT, MUSSELS, AND TRANSPORTATION PROJECT PLANNING

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Natural Resources Section

Environmental Division

Arkansas Department of Transportation

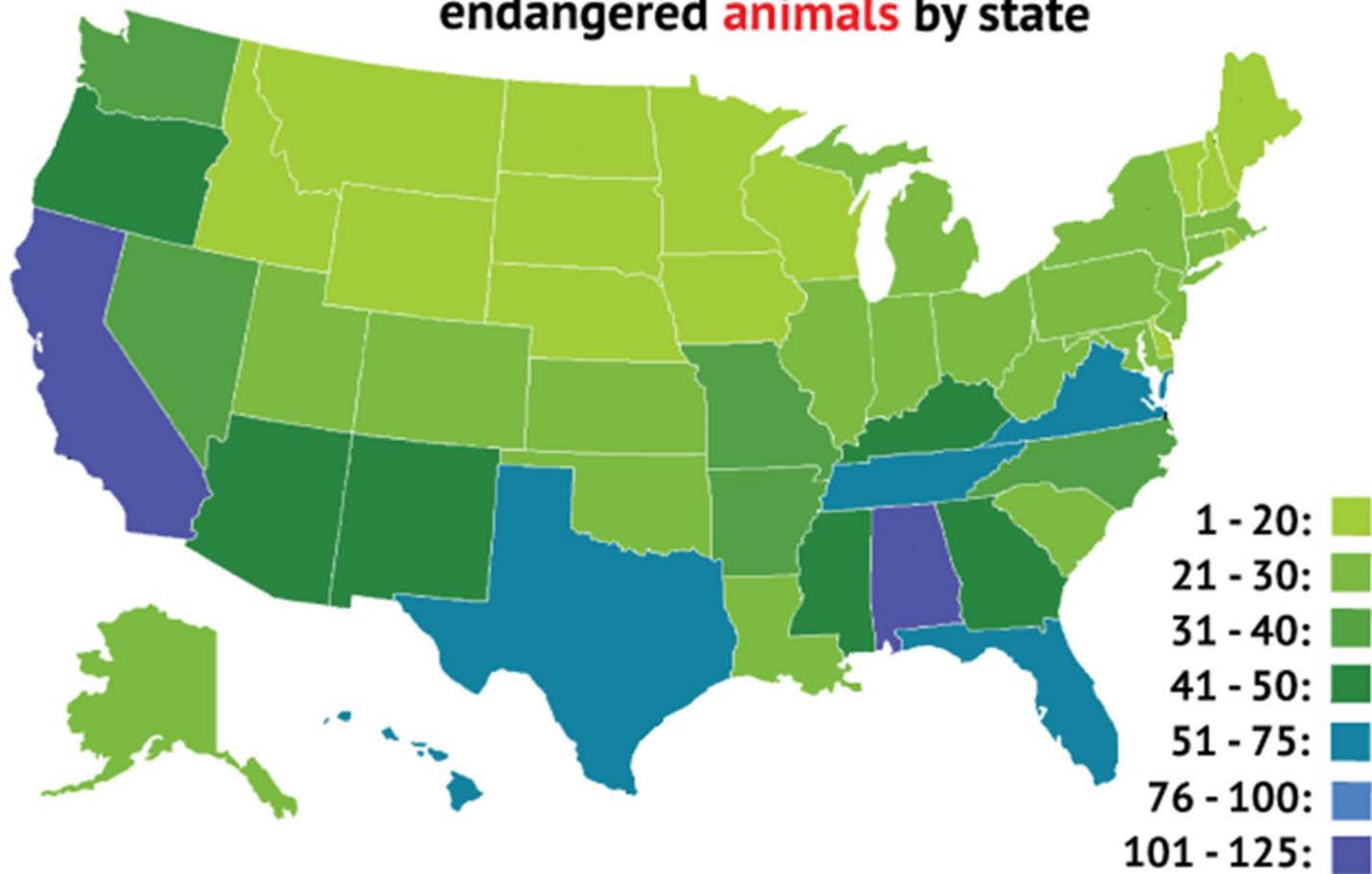




Endangered Species

- Endangered Species Act of 1973
 - “To protect and recover imperiled species and the ecosystems upon which they depend”
- Section 7 Consultation
 - Federal Nexus
 - Jeopardy?
 - Incidental Take
- More Than 2,000 Species Have Protection
- Critical Habitat



endangered **animals** by state



Species in Arkansas

- Arkansas currently has 37 species with federal protections
 - 5 plants, 4 bats, 6 birds, 4 fish, 14 mussels, 2 crayfish, 1 insect, 1 amphibian
 - 26 endangered & 11 threatened
 - Critical Habitat: Neosho Mucket, Rabbitsfoot, Yellowcheek Darter, and Leopard Darter

Indiana Bat



Northern Long-eared Bat



Bats

Gray Bat



Ozark Big-eared Bat



Red Knot



Interior Least Tern



Birds

Piping Plover

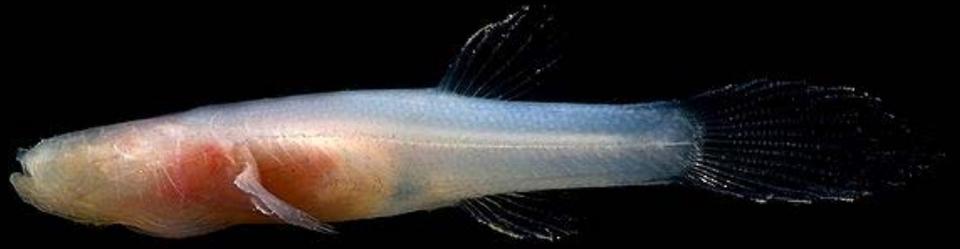


Red-cockaded
Woodpecker





Yellowcheek
Darter



Ozark Cavefish

Fish &
Amphibians



Ozark
Hellbender



Leopard Darter



Pallid Sturgeon

Listed



Benton County Cave Crayfish

Invertebrates



American Burying Beetle



Hell Creek Cave crayfish



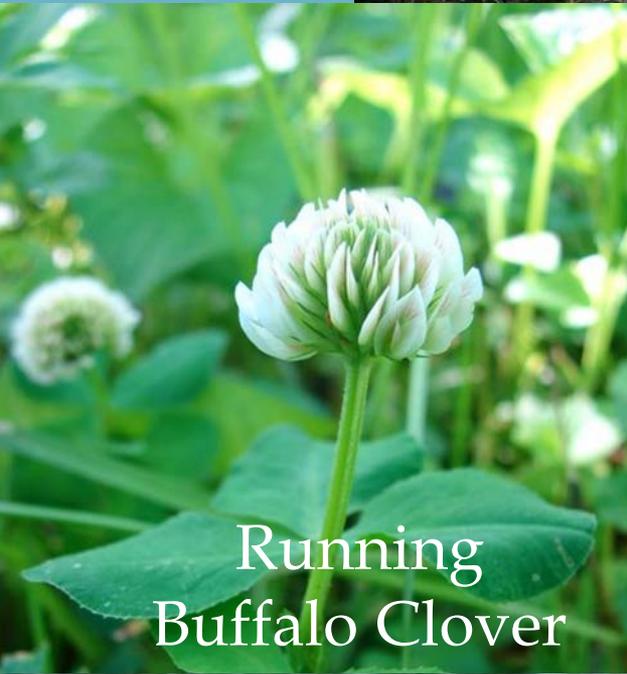
Candidate

Rattlesnake-Master
BorerMoth

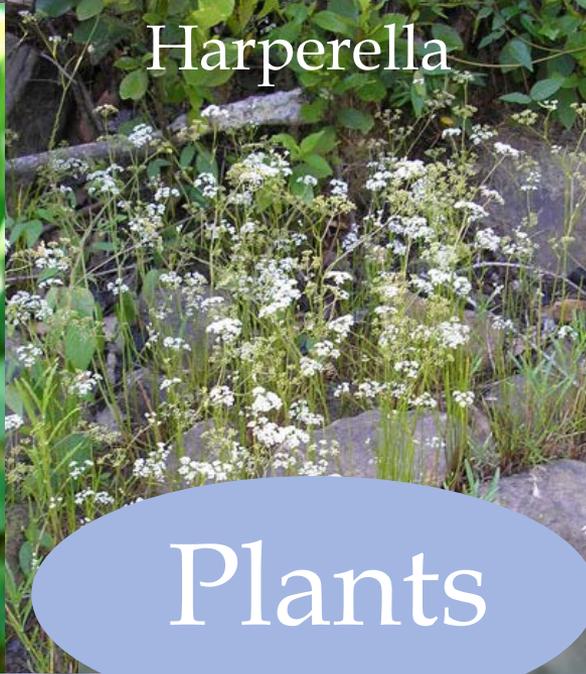


Proposed

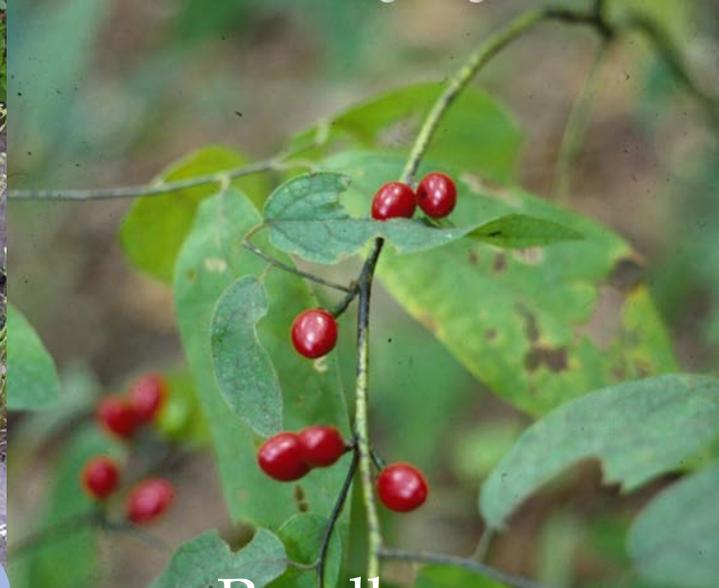
Monarch Butterfly



Running
Buffalo Clover

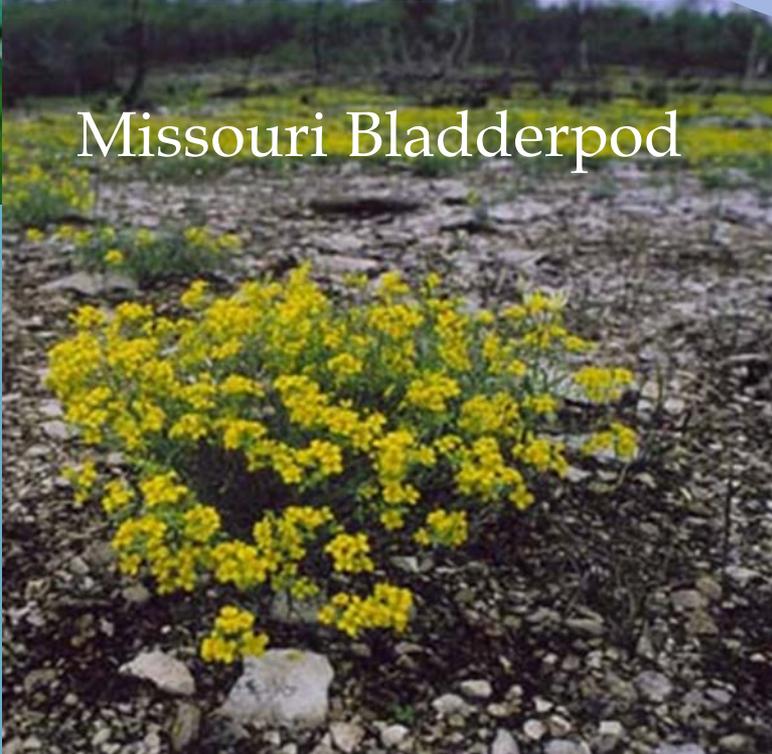


Harperella



Pondberry

Plants



Missouri Bladderpod



Geocarpon

unlimited

Arkansas Fatmucket



Snuffbox

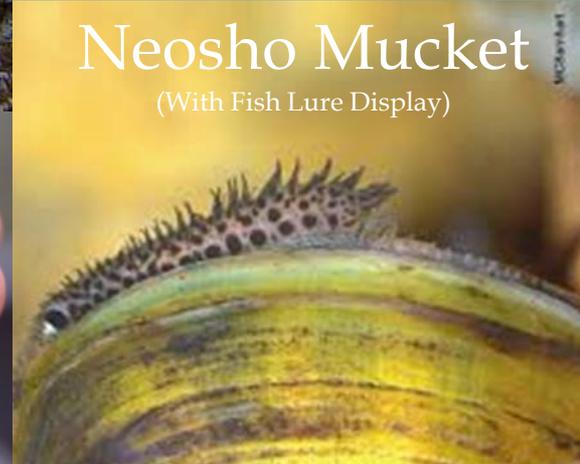


Spectaclecase

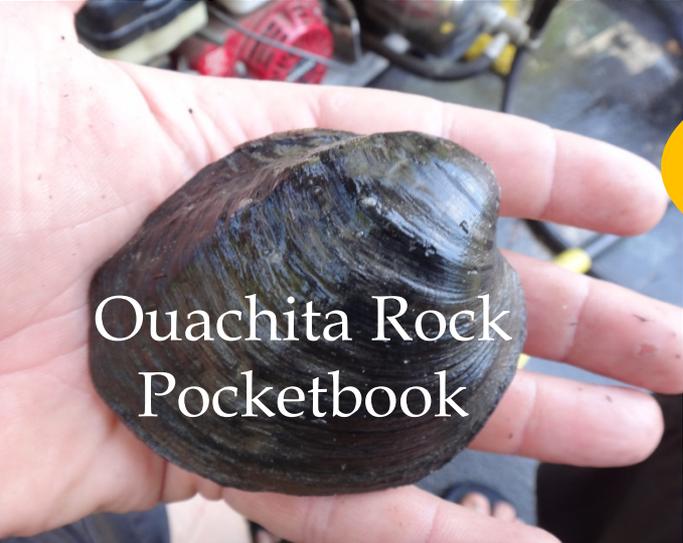


Freshwater Mussels

Neosho Mucket
(With Fish Lure Display)



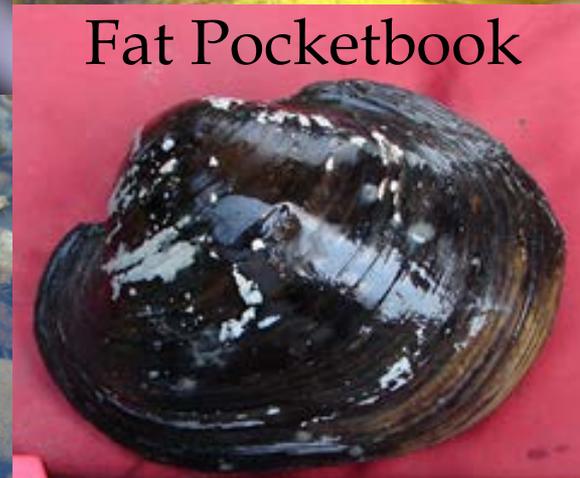
Ouachita Rock Pocketbook



Speckled Pocketbook



Fat Pocketbook



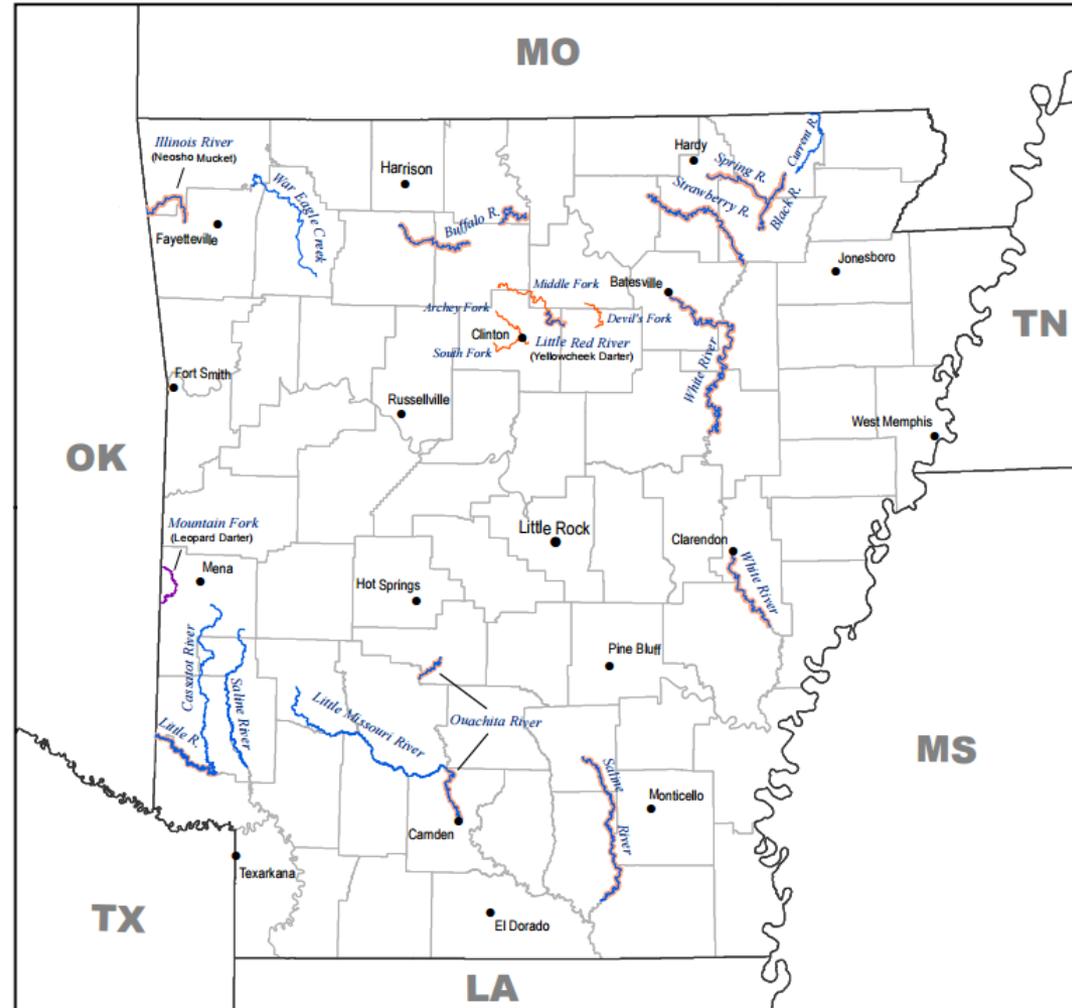
Rabbitsfoot



Winged Mapleleaf



- Essential for conservation
- Requires special management and protection
- Requires Section 7 Consultation

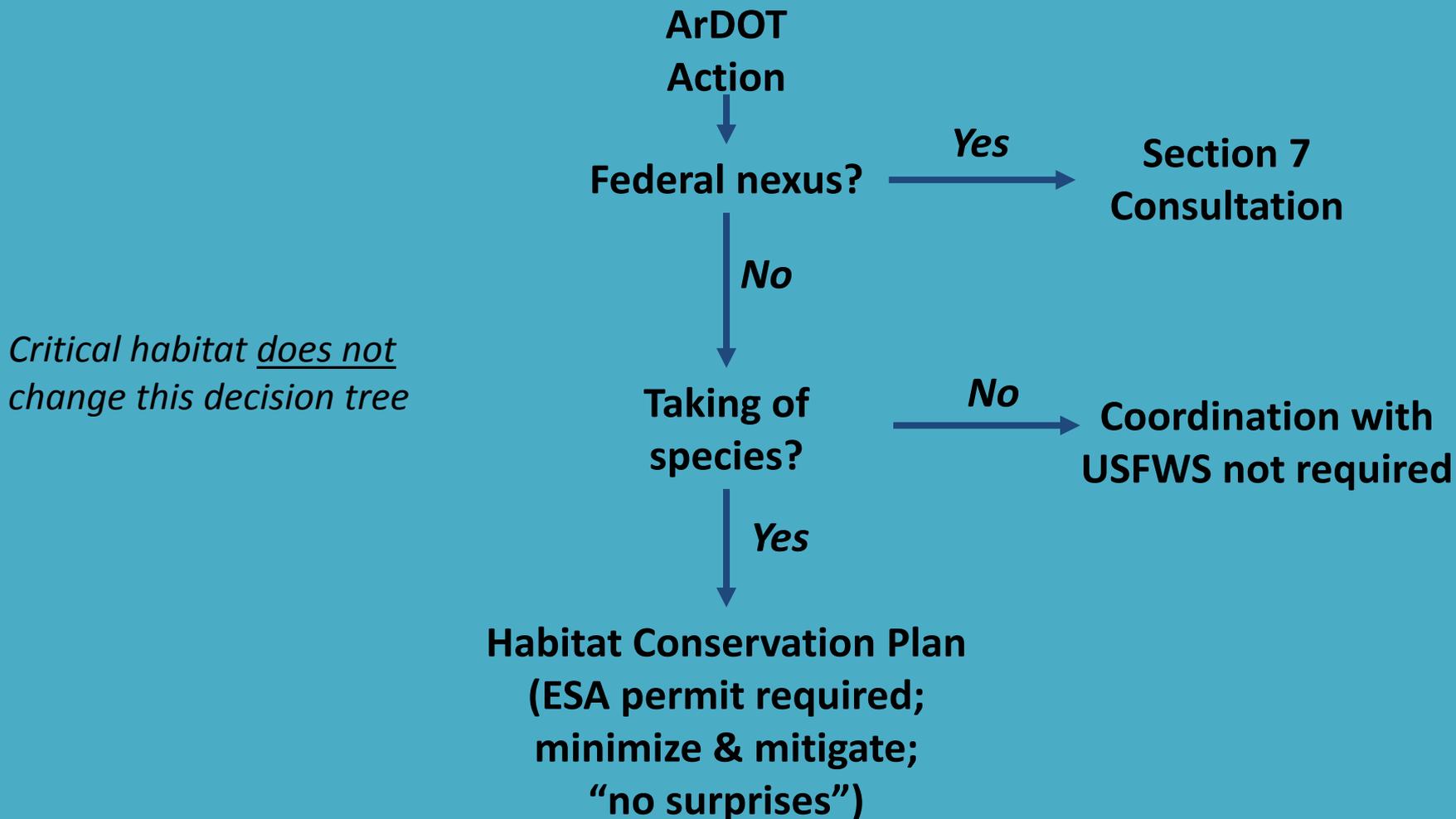


SEP 2014

U.S. Fish and Wildlife Service
 Arkansas Ecological Services Field Office
 110 South Amity Road, Suite 300
 Conway, Arkansas 72032
 (501) 513-4470

- Rabbitsfoot & Neosho Mucket Existing Populations
- Rabbitsfoot & Neosho Mucket Final Critical Habitat
- Leopard Darter Final Critical Habitat (Designated in 1978)
- Yellowcheek Darter Final Critical Habitat (Designated in 2012)

ESA Decision Tree



Interagency Consultation

- Section 7 (a)(1) requires agencies, in *consultation* with the Service, to use their authorities in furthering the purposes of the ESA.
- Section 7(a)(2) requires agencies, in *consultation* with the Service, to ensure their actions will not jeopardize listed species or adversely modify critical habitat.
- Section 7(a)(4) requires agencies to *confer* with the Service on any action likely to jeopardize a proposed species or destroy or adversely modify proposed critical habitat.

Early Coordination Helps Identify:

- Potential effects on species, habitats, ecosystems
- Adjustments to proposed actions to eliminate or minimize adverse effects
- Habitat enhancements to incorporate into proposed actions



**Goal – a well-defined proposed action
and complete assessment**

Getting Started



U.S. Fish & Wildlife Service

LOG IN

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

LOG IN

[Need an updated species list?](#)



Integrate the environmental review process into your project design

Quickly and easily identify USFWS managed resources and suggested conservation measures for your project.

Explore species and habitat

See if any listed species , critical habitat, migratory birds or other natural resources may be impacted by your project.

Using the map tool, explore other resources in your location, such as wetlands, wildlife refuges, GAP land cover, and other important biological resources.

Conduct a regulatory review

Log in and define a project to get an official species list and evaluate potential impacts on resources managed by the U.S. Fish and Wildlife Service.

Follow IPaC's Endangered Species Review process—a streamlined, step-by-step consultation process available in select areas for certain project types, agencies, and species.

Perform an impact analysis

For projects or species not covered by the step-by-step consultation process, get a list of potential impacts from your specified project activities to use when making effect determinations.

Receive conservation measures recommended by U.S. Fish and Wildlife Service biologists to avoid, minimize, or mitigate effects to listed species.



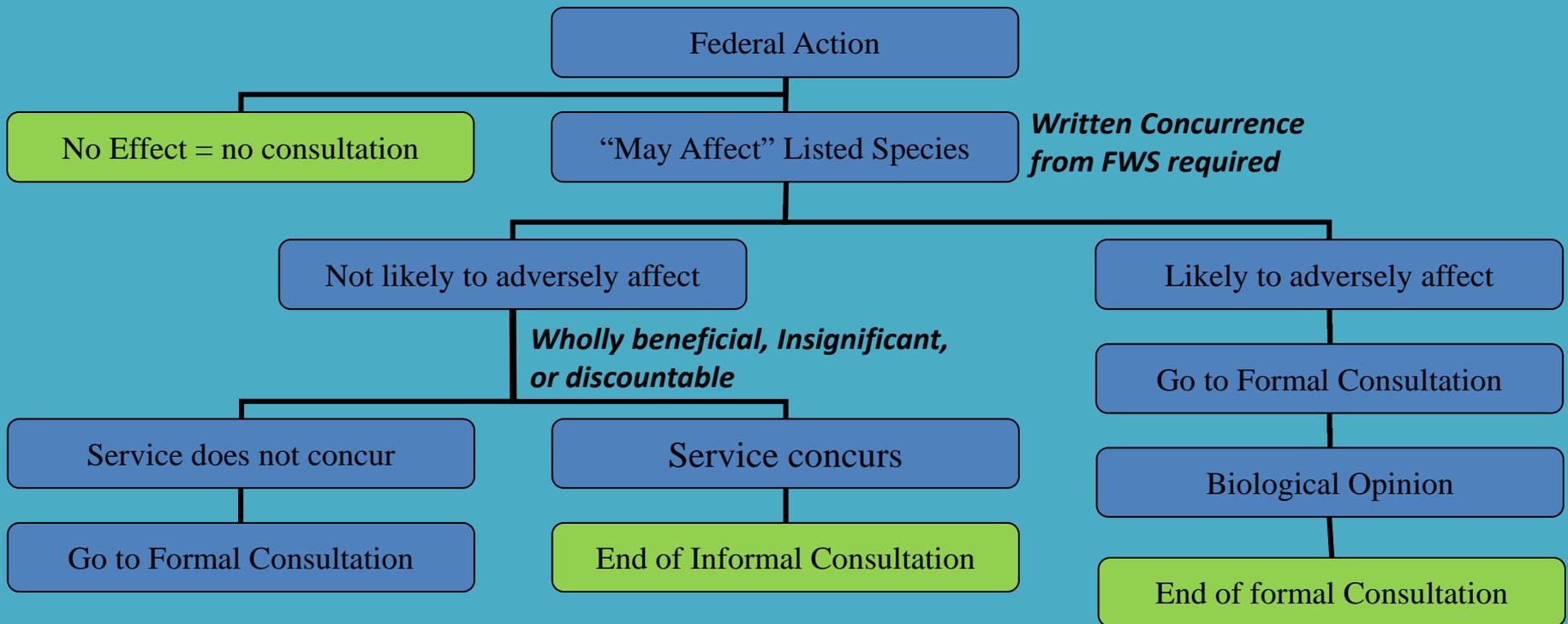
Information Planning and Conservation System

<http://ecos.fws.gov/ipac/>

The IPaC system is designed for:

- Easy access to information about USFWS trust natural resources
 - *Examples include threatened and endangered species, migratory birds, refuge lands, coastal units, etc.*
- Primary goal: provide information in a manner that assists people in planning their activities within the context of natural resource conservation
- The IPaC system also assists people through the various regulatory consultation, permitting and approval processes administered by the USFWS, helping achieve more effective and efficient results for both the project proponents and natural resources.

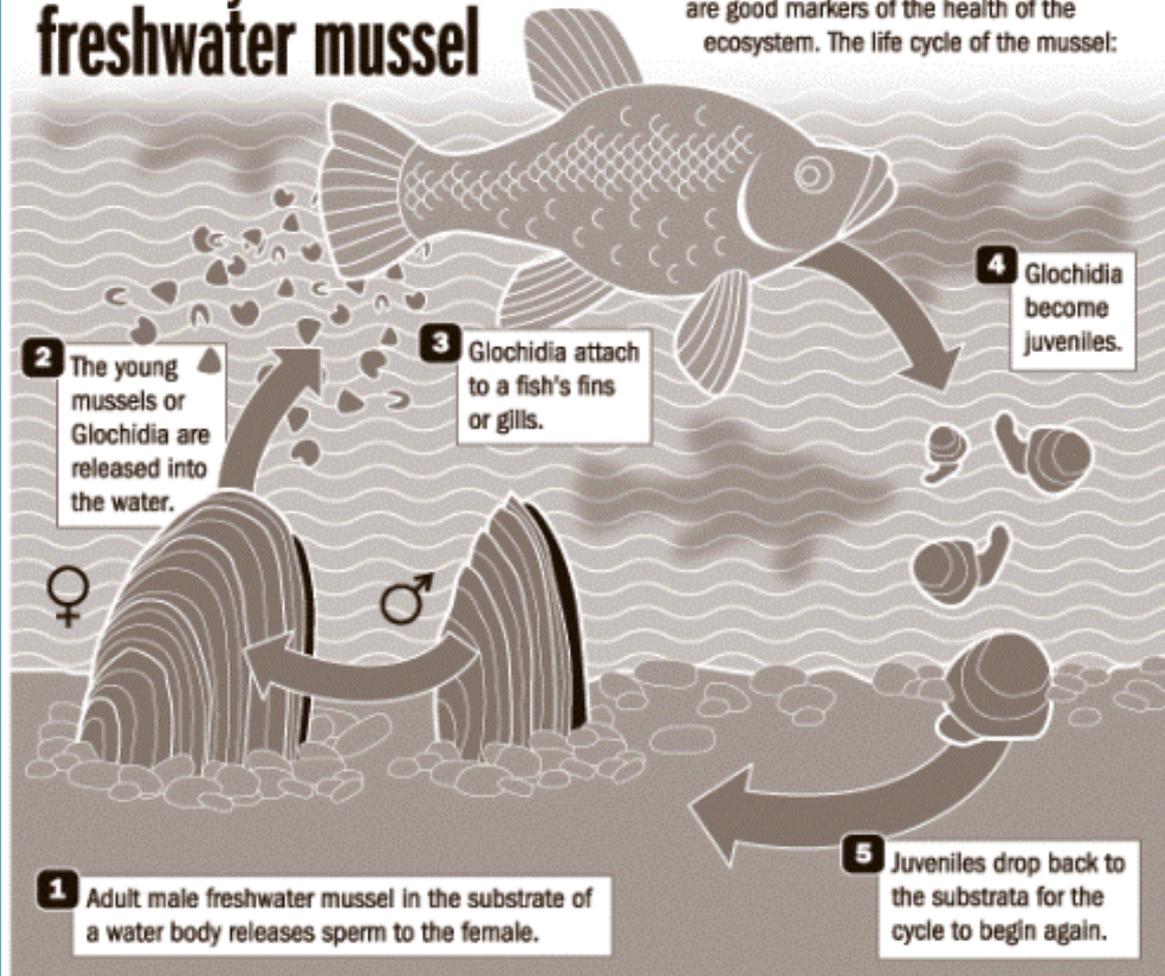
Section 7 Interagency Consultation



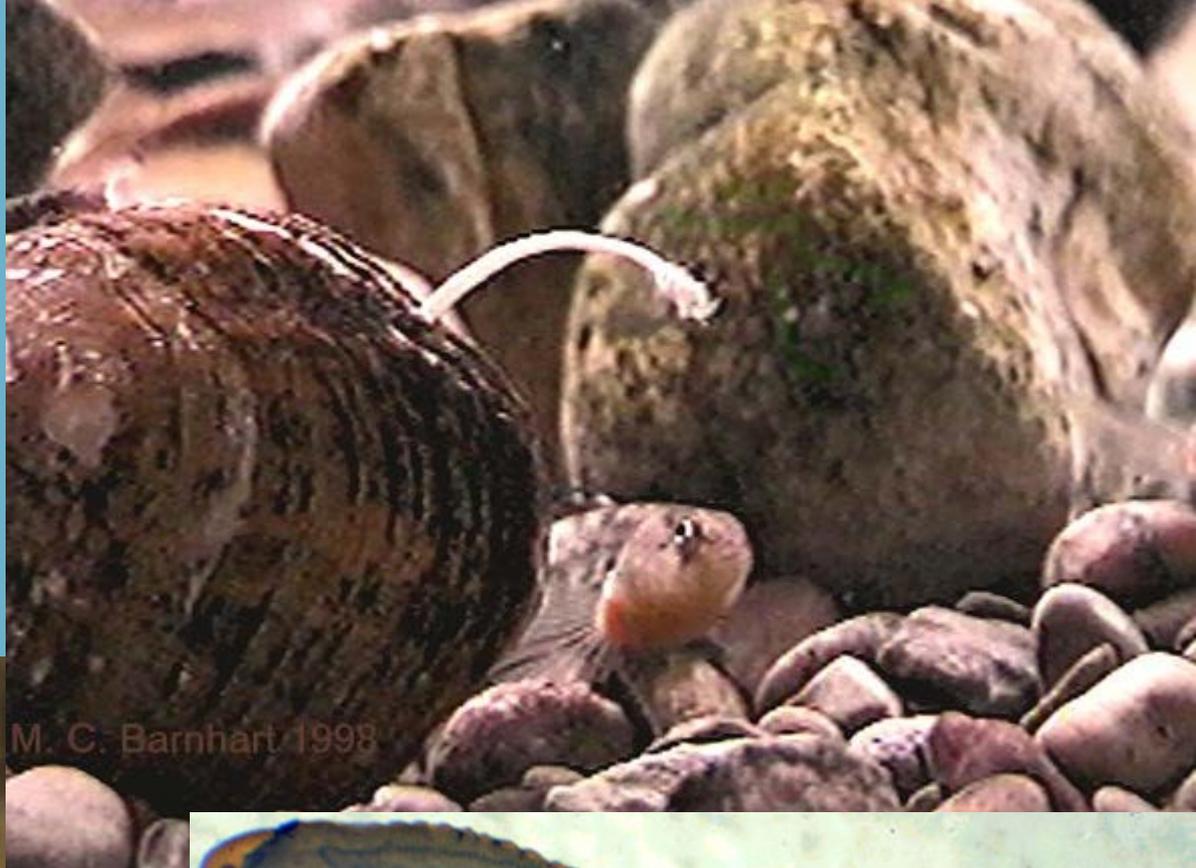
Life Cycle

Life cycle of the freshwater mussel

Water quality and flow are essential requirements for freshwater mussels, which are good markers of the health of the ecosystem. The life cycle of the mussel:



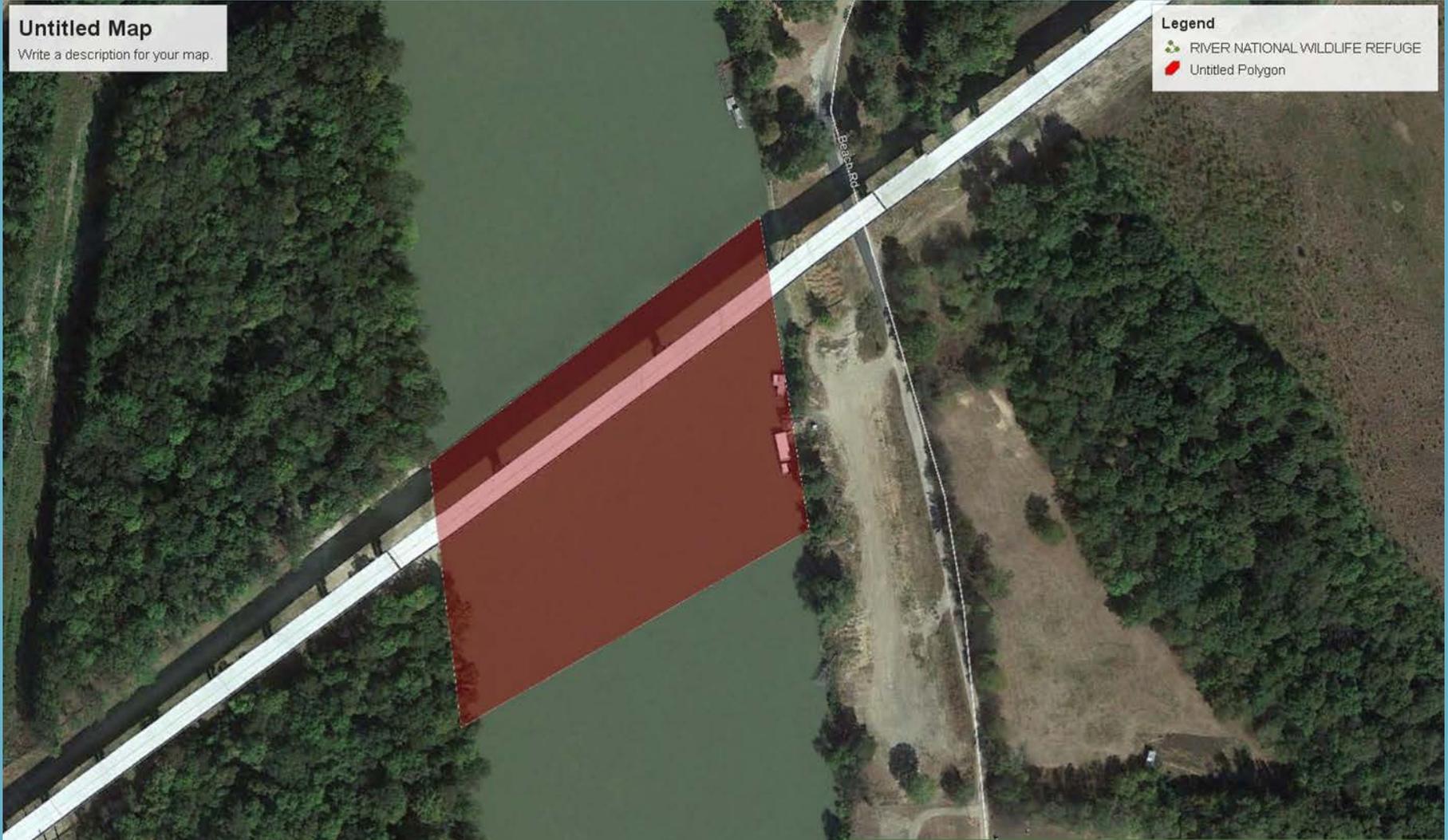
Host Infestation



M. C. Barnhart 1998



Project Area





Informal Consultation

Includes discussion, correspondence, etc. to assist the Federal agency in determining whether the proposed action requires formal consultation. (50 CFR § 402.13)

Activities:

- Provide species list
- Determine need for formal consultation
- Explore opportunities to meet their conservation mandate under section 7(a)(1)
- Evaluate modifications to avoid/minimize adverse effects

Qualitative Sampling

- Time Constrained
- CPUE
- Species Richness



AR DOT



What Now?





Formal Consultation

Formal consultation is required for actions that are likely to adversely affect listed species or critical habitat. 50 CFR § 402.14

Involves submitting a Biological Assessment

Involves receiving (from FWS) a Biological Opinion and Incidental Take Statement.

Quantitative Sampling ?



Formal Consultation

- Biological Assessment
- Biological Opinion
- Incidental Take Statement
- Reasonable and Prudent Measures

Biological Assessment March 2016

AHTD Job CA0601
Hwy. 70 – Sevier St. (Widening) (S)
Saline County Arkansas

Species Analysis of:

Lampsilis powellii (Lea, 1852)
Arkansas Fatmucket
Federally Threatened

Quadrula cylindrica (Say, 1817)
Rabbitsfoot
Federally Threatened

Myotis septentrionalis (Trouessart, 1897)
Northern Long-eared Bat
Federally Threatened



Primary Contacts:

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US Department of Transportation
Federal Highway Administration

John Fleming
Environmental Division
Arkansas Highway and Transportation
Department



U.S. Department of Transportation
Federal Highway
Administration



Arkansas State Highway and
Transportation Department



Reasonable and Prudent Measures

- Translocation of affected individuals
- Laboratory propagation of vulnerable species



Summary

- Federal nexus?
- What species are possibly affected?
- Are they known within or nearby the project area?
- What are the possible affects?

Questions?

