Public Participation in Endangered Species Issues

Presentation to the Pesticide Program Dialogue Committee

October 22, 2004

Overall Approach to Endangered Species Considerations

- Within existing processes where possible
  - Reregistration
  - Registration
  - Registration Review
- Outside processes if necessary
  - Continued work on endangered species issues as reregistration, registration or registration review concludes
- May pick up process in late steps where risk is identified and can be mitigated
- Implement risk management measures
  - Through label where measure is national in scope
  - Through label and Bulletins where measure is geographically specific

Implementation Proposal

- December 2002
  - Overall approach
  - Labels and Bulletins
  - Enforcement
  - Public Participation
  - Roles of the States and Tribes

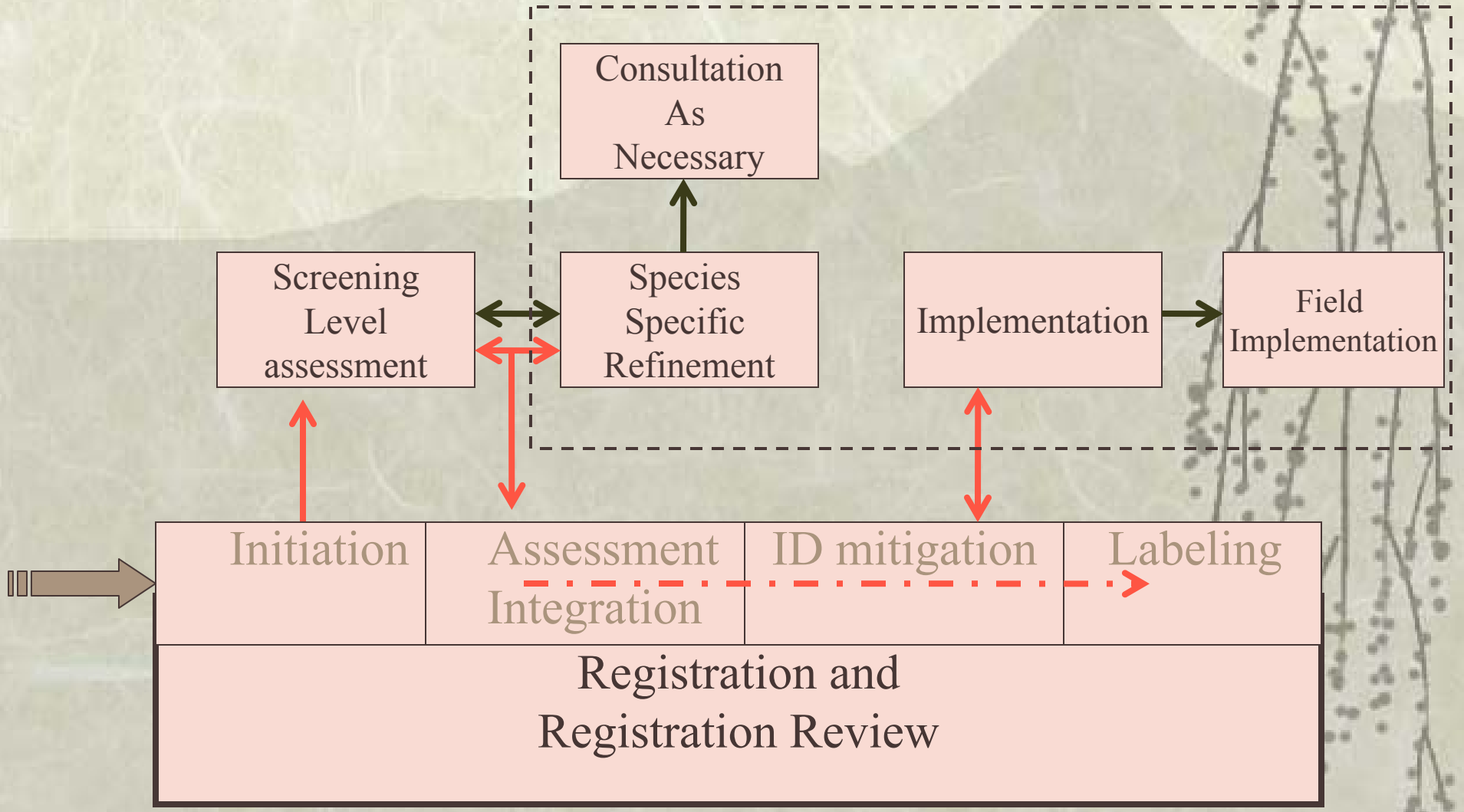
Implementation proposal (cont)

- Public participation
  - Existing processes where possible
  - Also may be opportunities
    - Before effects determinations are made
    - During consultation with the Services
    - After Draft Biological Opinion is issued by the Services

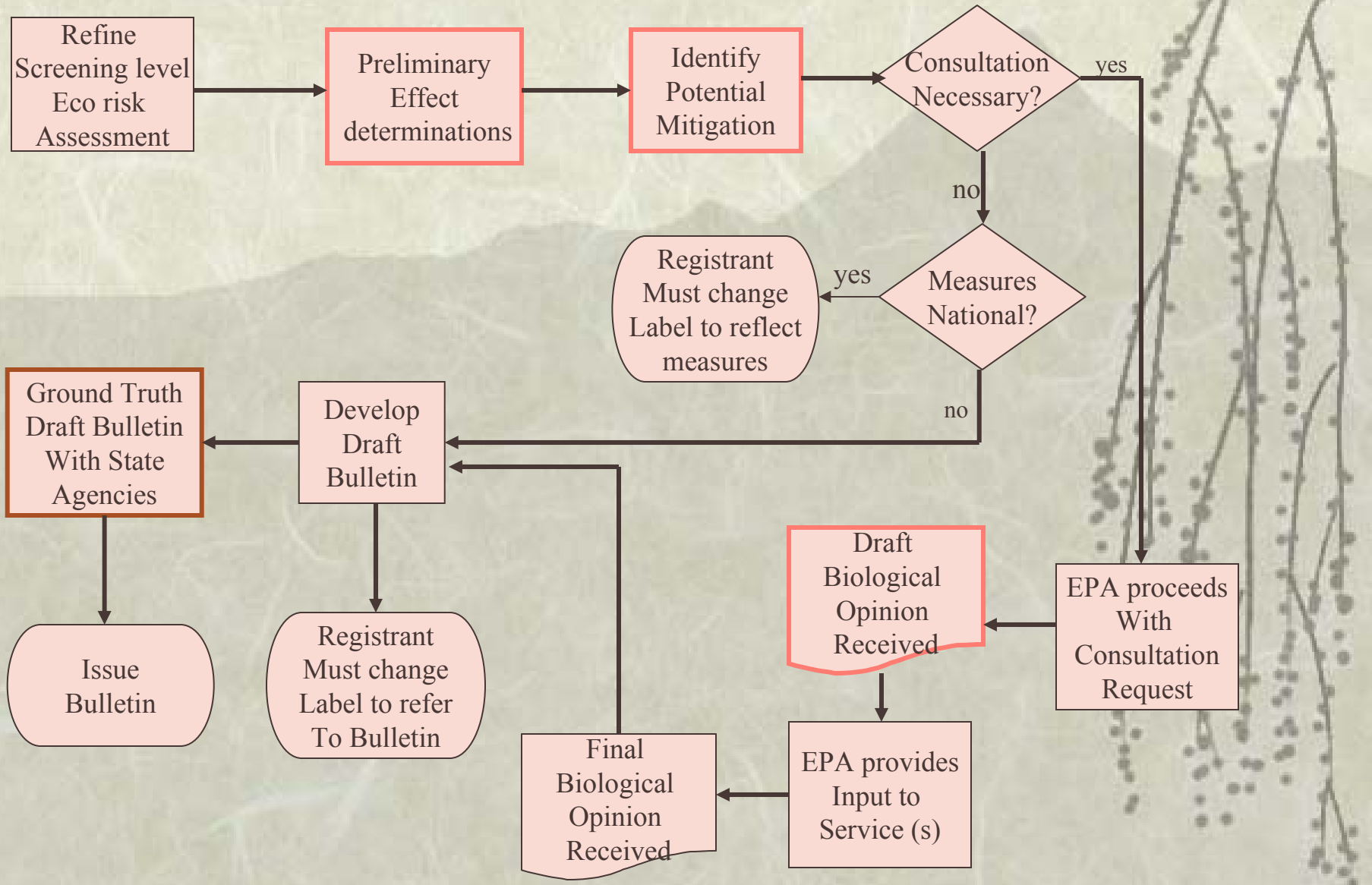
Implementation proposal (cont)

- Roles of the States and Tribes
  - Review use limitations and provide local input
  - Review maps for inclusion in bulletins for accuracy
  - Review Bulletins with local practices in mind
  - Assist in determining effectiveness of program via enforcement and inspection activity
  - Perform ongoing enforcement role

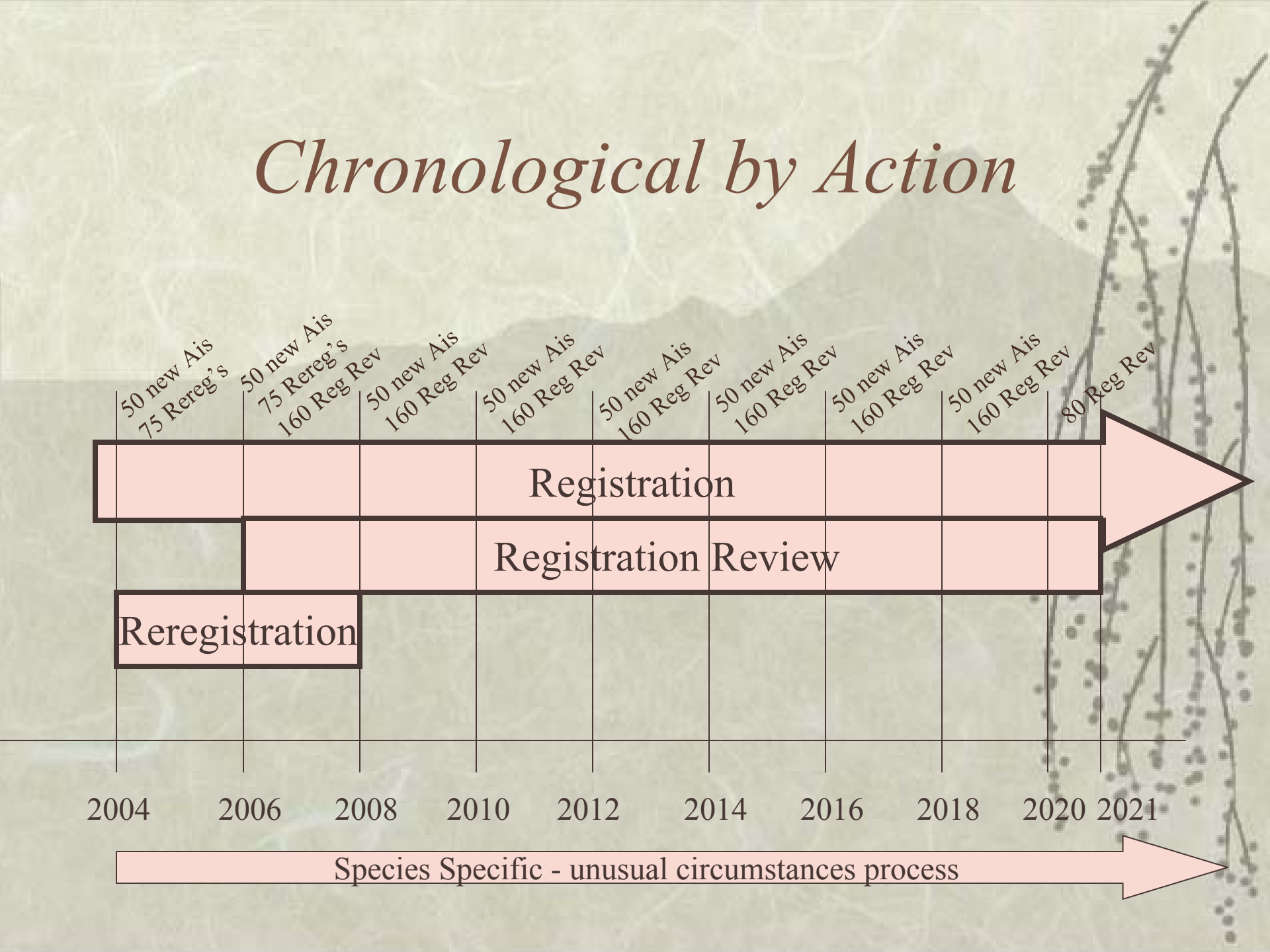
General Process



General Steps for Endangered Species



Chronological by Action



Endangered Species Bulletins

- County based with geographically specific use limitations
- Referenced on label where geographically specific risk mitigation measures are needed
  - Generic label statement
    - Need results from potential risk to listed species
    - Follow the use limitations in the bulletin
    - Misuse statement
    - How to obtain bulletin
- Enforced under misuse provision of FIFRA

EPA

Protecting Endangered Species

Jackson County, Alabama

The information in this pamphlet is similar to what the U.S. Environmental Protection Agency (EPA) expects to distribute once our Endangered Species Protection Program is in effect. The limitations on pesticide use are not law at this time, but are being provided at this time for your use in voluntarily protecting endangered and threatened species from harm due to pesticide use. We encourage you to use this information. We also welcome your comments.

The Endangered Species Act is intended to protect and promote recovery of animals and plants that are in danger of becoming extinct due to the activities of people. Under the Act, the EPA must ensure that use of the pesticides it registers will not result in harm to the species listed as endangered or threatened by the U.S. Fish and Wildlife Service, or to habitat critical to those species' survival.
To implement the Endangered Species Protection Program, labels of certain pesticides will direct users to bulletins similar to this pamphlet. This program will protect endangered and threatened species from harm due to pesticide use.

EPA requests your comments regarding the information presented in this publication. Please let us know whether the information is clear and correct. Also tell us to what extent following the recommended measures would affect your typical pesticide use or productivity. This information will be considered by EPA during the final stages of program development.

About This Publication

This publication contains a county map showing the area within the county where pesticide use should be limited to protect listed species. These areas are identified on the map by a shaded pattern. Each shaded pattern corresponds to a species in need of protection.

The map explanation shows the name of the species that each shaded pattern represents, and often describes the shaded area. This area may be described in terms of township, range and section, or by giving details about the habitat of the species.

The first column of the table of "Pesticide Active Ingredients" lists the active ingredients for which there should be limitations on use to protect certain species. The next columns are headed by the shaded pattern of the species, with codes listed underneath them.

The code indicates the specific limitation that is necessary to protect the species. The section titled "Codes/Limitations" explains the code.

Does This Information Apply to You?

To determine whether this information applies to your use of a pesticide, review the questions below:

- Do you intend to use pesticides within or near the shaded area on the county map?
- Are any of the active ingredients listed on the front panel of your pesticide product label names in the table of "Pesticide Active Ingredients"?

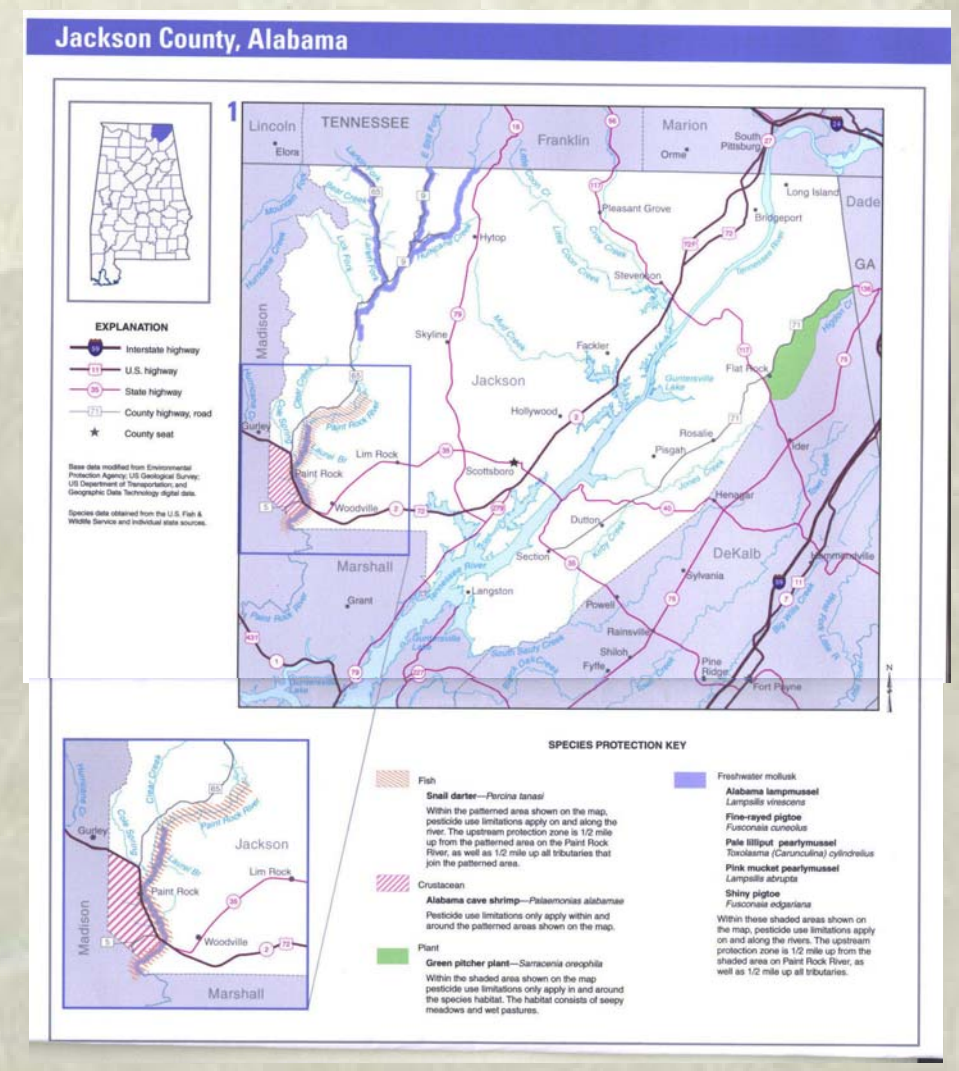
If you answer "yes" to both questions, you should follow the instructions in "How to Use County Bulletins" to determine if you should limit use of the pesticide to help protect listed species.

If you answer "no" to either question, you should follow the usage directions on the pesticide product label.

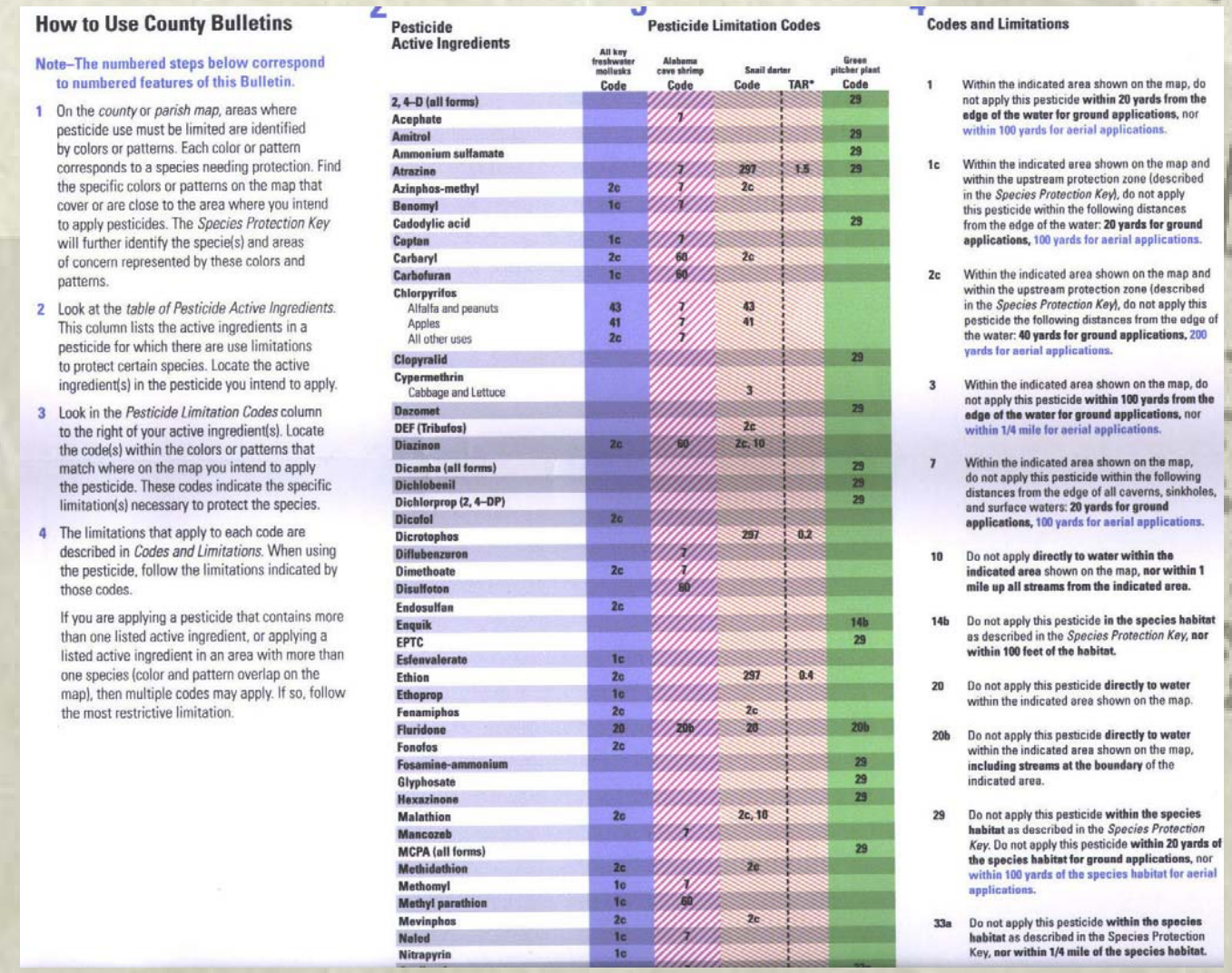
Please send comments to:

Endangered Species Protection Program (7506C)
U.S. EPA
1200 Pennsylvania Ave., NW
Washington, DC 20460

County map showing areas



Instructions and limitations



How to Use County Bulletins

Note–The numbered steps below correspond to numbered features of this Bulletin.

1 On the *county* or *parish map*, areas where pesticide use must be limited are identified by colors or patterns. Each color or pattern corresponds to a species needing protection. Find the specific colors or patterns on the map that cover or are close to the area where you intend to apply pesticides. The *Species Protection Key* will further identify the specie(s) and areas of concern represented by these colors and patterns.

2 Look at the *table of Pesticide Active Ingredients*. This column lists the active ingredients in a pesticide for which there are use limitations to protect certain species. Locate the active ingredient(s) in the pesticide you intend to apply.

3 Look in the *Pesticide Limitation Codes* column to the right of your active ingredient(s). Locate the code(s) within the colors or patterns that match where on the map you intend to apply the pesticide. These codes indicate the specific limitation(s) necessary to protect the species.

4 The limitations that apply to each code are described in *Codes and Limitations*. When using the pesticide, follow the limitations indicated by those codes.

If you are applying a pesticide that contains more than one listed active ingredient, or applying a listed active ingredient in an area with more than one species (color and pattern overlap on the map), then multiple codes may apply. If so, follow the most restrictive limitation.

Pesticide Active Ingredients / **Pesticide Limitation Codes**

Pesticide Active Ingredients	All key freshwater mollusks Code	Alabama cave shrimp Code	Snail darter Code	Snail darter TAR*	Green pitcher plant Code
2, 4–D (all forms)					29
Acephate		7			
Amitrol					29
Ammonium sulfamate					29
Atrazine		7	297	1.5	29
Azinphos-methyl	2c	7	2c		
Benomyl	1c	7			
Cadodylic acid					29
Captan	1c	7			
Carbaryl	2c	60	2c		
Carbofuran	1c	60			
Chlorpyrifos					
Alfalfa and peanuts	43	7	43		
Apples	41	7	41		
All other uses	2c	7			
Clopyralid					29
Cypermethrin					
Cabbage and Lettuce			3		
Dazomet					29
DEF (Tribufos)			2c		
Diazinon	2c	60	2c, 10		
Dicamba (all forms)					29
Dichlobenil					29
Dichlorprop (2, 4–DP)					29
Dicofol	2c				
Dicrotophos			297	0.2	
Diflubenzuron		7			
Dimethoate	2c	7			
Disulfoton		60			
Endosulfan	2c				
Enquik					14b
EPTC					29
Esfenvalerate	1c				
Ethion	2c		297	0.4	
Ethoprop	1c				
Fenamiphos	2c		2c		
Fluridone	20	20b	20		20b
Fonofos	2c				
Fosamine-ammonium					29
Glyphosate					29
Hexazinone					29
Malathion	2c		2c, 10		
Mancozeb		7			
MCPA (all forms)					29
Methidathion	2c		2c		
Methomyl	1c	7			
Methyl parathion	1c	60			
Mevinphos	2c		2c		
Naled	1c	7			
Nitrapyrin	1c				

Codes and Limitations

1 Within the indicated area shown on the map, do not apply this pesticide **within 20 yards from the edge of the water for ground applications,** nor within 100 yards for aerial applications.

1c Within the indicated area shown on the map and within the upstream protection zone (described in the *Species Protection Key*), do not apply this pesticide within the following distances from the edge of the water: **20 yards for ground applications,** 100 yards for aerial applications.

2c Within the indicated area shown on the map and within the upstream protection zone (described in the *Species Protection Key*), do not apply this pesticide the following distances from the edge of the water: **40 yards for ground applications,** 200 yards for aerial applications.

3 Within the indicated area shown on the map, do not apply this pesticide **within 100 yards from the edge of the water for ground applications,** nor within 1/4 mile for aerial applications.

7 Within the indicated area shown on the map, do not apply this pesticide within the following distances from the edge of all caverns, sinkholes, and surface waters: **20 yards for ground applications,** 100 yards for aerial applications.

10 Do not apply **directly to water within the indicated area** shown on the map, **nor within 1 mile up all streams from the indicated area.**

14b Do not apply this pesticide **in the species habitat** as described in the *Species Protection Key*, **nor within 100 feet of the habitat.**

20 Do not apply this pesticide **directly to water** within the indicated area shown on the map.

20b Do not apply this pesticide **directly to water** within the indicated area shown on the map, **including streams at the boundary** of the indicated area.

29 Do not apply this pesticide **within the species habitat** as described in the *Species Protection Key*. Do not apply this pesticide **within 20 yards of the species habitat for ground applications,** nor within 100 yards of the species habitat for aerial applications.

33a Do not apply this pesticide **within the species habitat** as described in the Species Protection Key, **nor within 1/4 mile of the species habitat.**

Species information

Freshwater mollusks
Unionidae

James C. Godwin/AL Malacological Research Center

Freshwater mollusks found in this area are one or more of the following: the Alabama lamp pearly mussel, the pale lilliput pearlymussel, the pink mucket pearly mussel, the fine-rayed pigtoe, and the shiny pigtoe mussel. These mussels are in the family Unionidae, a family restricted to North America. A far larger percentage of this family is imperiled than any other taxonomic (species) group.

Freshwater mussels can live up to 50 years. In the parasitic larval stage of the mollusk lifecycle it is dependant on fish within its habitat for nutrients and mobility. However, only a few host fish are known. Mature mussels bury themselves in the riffles and shoals and feed by siphoning phytoplankton and other plant matter from the water. Reverse siphoning is used to expel indigestible particles from the shell. Silt in the water can kill mussels by clogging their feeding siphons.

Major factors affecting mussel populations are alterations in temperature, waterflow, and siltation caused by stream damming and channeling. Agricultural runoffs and industrial practices have also affected the mussel habitat by degrading water quality and causing siltation. Because mussels are filter feeders, the effects of pollution are intensified due to the large quantities of water drawn through their siphons in the feeding process. Another significant threat to this species is the widespread and rapid population growth of the introduced zebra mussel. The zebra mussel not only competes with native species, but also attaches to them, adding so much weight that the native species cannot open to feed. In the past, commercial harvests contributed to the decline of freshwater mussels but this industry has since been reduced.

Matthews, J.R. (ed.), *The Official World Wildlife Fund Guide to Endangered Species*, Beacham Publishing Inc, Washington, DC. Vol II, pp. 955-956.

Alabama cave shrimp
Palaemonias alabamae

Randall Blackwood

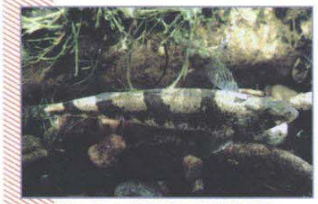
The Alabama cave shrimp is a small, nearly transparent crustacean with reduced eyes. Lack of pigmentation indicates that it has survived underground in the absence of light for perhaps thousands of years. The cave shrimp is a nonselective grazer, feeding on protozoans, tiny insects, fungi and algae that have entered the cave in groundwater. It is believed to have a low reproductive potential as females produce only 6 to 12 eggs after breeding.

A search of over 200 caves in northern Alabama located the shrimp in only two locations in Madison County, Alabama, in the Shelta and Bobcat caves of the Huntsville Spring Branch and Indian Creek drainages. The size of cave shrimp populations have declined significantly in recent years, and many researchers fear that it may already have been eliminated from Shelta Cave. The size of the shrimp population in Bobcat Cave has not been estimated, but is considered to be very low because of small cave habitats.

Residential and commercial development has disrupted the ecological balance of the underground water supply by introducing contaminants and by diverting water from the aquifer. Increased groundwater pumping could further reduce the water table, causing the caves to dry. The Fish and Wildlife Service (FWS) and the Army division that administers Bobcat Cave of the Redstone Arsenal, are working to develop a habitat management plan to protect Bobcat Cave against potentially damaging groundwater contamination. The FWS is also working with the National Speleological Society to develop a protection plan for recreational spelunkers who use Shelta Cave.

Mosely, C.J. (ed.), ***The Official World Wildlife Fund Guide to Endangered Species***, Beacham Publishing Inc, Washington, DC. Vol. II, pp. 1031-2.

Snail darter
Percina tanasi



Richard Biggins/USFWS Asheville NC Field Office

The snail darter fish is a small, robust fish about 3.4 inches in length. The body is brown with green and white marks above and below four, dark brown patches on its back. The upper portion of the head is dark brown and its cheeks are mottled brown and yellow. The snail dartar lives up to five or six years, feeding primarily on aquatic snails in moderately flowing, vegetated streams with sandy bottoms and wide shoals for spawning.

The snail darter was first collected in 1973 in the lower reaches of the Little Tennessee River, an area that was eventually altered by completion of the Tellico Dam. According to the Fish and Wildlife Service (FWS), it is difficult to determine the range of the snail darter before the construction of the dam but was probably confined to the upper portions of the Tennessee River, and the lower portions of the Hiwassee, Clinch, Little Tennessee, French Broad and Holston Rivers. Current populations of this fish are found in the main channel of the Tennessee River and in six of its tributaries in Hamilton, Loudon, Marion, Meigs and Polk Counties in Tennessee, and in Jackson and Madison counties in Alabama.

Unknown to anyone before 1973, the snail darter became the focus of a major political controversy when its existence halted the completion of the Tennessee Valley Authority's Tellico Dam on the Little Tennessee River because it was designated as critical habitat for this fish. Since then, other populations have been discovered and efforts to transplant the darter have led the snail darter to be downlisted to Threatened. If substantial new populations are discovered or current populations increase over a ten-year period, the FWS will consider removing the darter from the Federal Endangered Species list.

Matthews, J.R. (ed.), ***The Official World Wildlife Fund Guide to Endangered Species***, Beacham Publishing Inc, Washington, DC. Vol II, pp. 921-923.

Green pitcher plant
Sarracenia oreophila

J. Malcolm Pierson

The green pitcher plant is a perennial herb growing from moderately branched rhizome 8-30 inches tall. The plant is wider at the top than at the base. It has green to yellow-green, funnel shaped leaves that appear with the flower buds in early April, and mature with yellow flowers during late April and May. The leaves wither by late summer and are replaced with flat leaves that persist until the following season. This insectivorous plant gains its nutrients by consuming insects that are trapped by bristles inside the leaves.

Green pitcher plant is found in diverse habitats with highly acidic and organic soils such as seepage bogs, areas that are wetlands for at least part of the growing season, and in sandstone or shale soils along flat to moderately sloping stream banks or woodland sites with much winter moisture.

Formerly the green pitcher plant grew in five geological provinces, but is now known from only three: Cumberland Plateau, Blue Ridge, and Ridge and Valley. These provinces are contained in Alabama (Cherokee, DeKalb, Etowah, Jackson, and Marshall Counties); and Georgia (Towns County). Most of the 26 pitcher plant colonies occur in the Cumberland Plateau region of northeastern Alabama. Recovery of this species depends on maintaining adequate water tables by preventing the drainage or filling of surrounding wetlands, preventing herbicide and fertilizer run-off from adjacent agricultural areas, and halting the succession of woodlands that overtake pitcher plant habitat.

Matthews, J.R. (ed.), ***The Official World Wildlife Fund Guide to Endangered Species***, Beacham Publishing Inc, Washington, DC. Vol I, pp. 351-352.

Public Processes

- Registration
  - Under development
- Registration review
  - Under development
- Reregistration
  - Generally a four or six phase process
  - Generally one or two formal opportunities for public input
  - Transition

Transition Example: Carboxin

- Late in reregistration process geographically discrete issue was identified
- EPA worked with FWS field experts to identify risk management approaches
- EPA discussed with major user community and registrant, the need for mitigation
- Incorporated mitigation into phase 6 reregistration decision
- Risk management decisions will be included in Bulletin
- Bulletin will be provided to State Agencies for review prior to issuance

Questions for the PPDC

- Are there ways to make public input more efficient?
- Are there ways to make public input more effective?