

Wildlife Habitat Evaluation

1. Purpose

The primary purpose of this event is to increase youth understanding of wildlife ecology and management practices. Several other skills will also be enhanced. These include team work, oral and written communication, decision making, leadership, and interpersonal social skills.

2. State Invitational

- Participant Age – High School age (9th-12th grade) at the time of the event.
- Approximate Date – contest will be held in the Fall (September or October)
- Event Location – near the Purdue University campus
- Activities: Aerial Photos, Wildlife Identification, Wildlife Foods, and Writing a Wildlife Management Plan.
- Equipment: each participant must bring their own pencils and a clipboard. They may bring colored pencils, rulers, drafting aids, colored pencils, rulers, and other drafting aids to assist with writing the management plan.
- The Wildlife Habitat contest is an invitational so no elimination events are required. Pre-registration, with payment, is required. The WHEP CDE website, www.four-h.purdue.edu/WHEP/, gives contest dates and registration deadlines. This event is held in the fall (September or October) each year.

3. Specific Events

Participants complete four activities in the Indiana WHEP CDE. Three of the activities, *Aerial Photos*, *Foods*, and *Wildlife Identification*, are completed by individuals working on their own. The fourth activity, *Wildlife Management Plan*, is done as a team of three or four individuals, working together. These activities are described below.

- **Aerial Photos** (individual event)—Youth use aerial photographs to rank the habitat for eight wildlife species. Four photographs are ranked from the most favorable habitat for a particular species to the least favorable habitat.
- **Foods** (individual event)—Youth identify ten common wildlife foods and the animals that eat these foods.
- **Wildlife Identification** (individual event)—Youth identify fifty items related to wildlife, including species and equipment.
- **Wildlife Management Plan** (team event)—This activity has two parts:
 1. Participants are given landowner objectives for a specific area. The area may include urban, rural, and/or wetland habitats. Teams work together to write a wildlife management plan and sketch how the area should look when managed for specific wildlife species.
 2. Each team gives an oral presentation describing the property to be managed and their wildlife management plan. Presentations are limited to five minutes.

4. Scoring

- Animal ID – 15%
- Foods ID - 15%
- Aerial Photos - 15%
- Management Plan - 50% (Plan, 40%; Oral reasons 15%)

Total = 100%

5. Species and Equipment for Wildlife Identification

The following common Indiana wildlife species will be used in the identification portion of the CDE. The Wildlife ID and Equipment Flashcards (FNR-205) show picture of the preserved species and equipment that youth must identify in the CDE. This publication is available [online](#) and in as [3x5 cards](#).

Birds		
1. American kestrel	13. Hairy woodpecker	25. Red-winged blackbird
2. American robin	14. House finch	26. Ring-necked pheasant
3. American woodcock	15. House sparrow	27. Rock dove (pigeon)
4. Blue-winged teal	16. House wren	28. Ruby-throated hummingbird
5. Broad-winged hawk	17. Mallard	29. Ruffed grouse
6. Brown thrasher	18. Mourning dove	30. Rufous-sided towhee
7. Canada goose	19. Northern bobwhite	31. Song sparrow
8. Common nighthawk	20. Northern flicker	32. Wild turkey
9. Eastern bluebird	21. Northern harrier	33. Wood duck
10. European starling	22. Ovenbird	34. Yellow-rumped warbler
11. Grasshopper sparrow	23. Red-eyed vireo	
12. Great-horned owl	24. Red-tailed hawk	

Mammals		
1. Beaver	7. Eastern gray squirrel	13. Red squirrel
2. Big brown bat	8. Eastern mole	14. Short-tailed shrew
3. Bobcat	9. Meadow vole	15. Southern flying squirrel
4. Coyote	10. Mink	16. Virginia opossum
5. Eastern cottontail	11. Muskrat	17. White-tailed deer
6. Eastern fox squirrel	12. Raccoon	18. Woodchuck
Other Species		
1. American toad	8. Crappie	15. Northern leopard frog
2. Black rat snake	9. Creek chub	16. Painted turtle
3. Bluegill	10. Eastern newt	17. Red-backed salamander
4. Box turtle	11. Fence lizard	18. Snapping turtle
5. Bullfrog	12. Five-lined skink	19. Spring peeper
6. Channel catfish	13. Garter snake	20. Tiger salamander
7. Copperhead	14. Largemouth bass	

The following equipment may be used in the equipment identification.

Equipment		
1. Live trap	7. GPS unit	13. Chemical immobilization darts
2. Hoop net	8. Pesola scale	14. Jabstick
3. Minnow trap	9. Calipers	15. Leg bands
4. Telemetry receiver	10. Snake tongs	16. Rocket net
5. Telemetry antenna	11. Ear tags	
6. Transmitter/collar	12. Pneumatic dart gun	

6. Species for the Wildlife Management Plan and Aerial Photos

The species listed below will be used for the Aerial Photos and Wildlife Management Plan activities.

Species		
1. American Robin	14. Eastern gray squirrel	27. Northern Leopard Frog
2. Beaver	15. European starling	28. Ovenbird
3. Big brown bat	16. Great Horned Owl	29. Raccoon
4. Bluegill	17. House Finch	30. Red-winged blackbird
5. Blue-winged Teal	18. House Sparrow	31. Rock Dove (pigeon)
6. Bobcat	19. House Wren	32. Ruby-throated Hummingbird
7. Box turtle	20. Largemouth Bass	33. Ruffed Grouse
8. Brown thrasher	21. Mallard	34. Song Sparrow
9. Bullfrog	22. Mink	35. White-tailed deer
10. Canada Goose	23. Mourning dove	36. Wild Turkey
11. Common Nighthawk	24. Muskrat	37. Wood Duck
12. Eastern bluebird	25. Northern Bobwhite	
13. Eastern cottontail	26. Northern Flicker	

7. Foods

The wildlife species and foods they eat are given in Appendix C of the publication, Teaching Wildlife Habitat Evaluation ([4-H-992W](#), 2009). This publication is available on the Indiana WHEP website.

8. Resources

- Indiana Wildlife Habitat Evaluation CDE website: www.four-h.purdue.edu/WHEP/. Resources include introduction, general guidelines, scoring, pictures, and training materials (explanations and scorecards, and examples of management plans), including the following:
 - *Teaching Wildlife Habitat Evaluation* (4-H 992-W)
 - *Wildlife Habitat Evaluation, Food Flashcards* (4-H 993-W)
 - *Wildlife ID Flashcards* (FNR-205)
 - *Developing a Wildlife Habitat Management Plan* (4-H 991-W)
- Teaching Oral Reasons: at the back of the *4-H/FFA Judging Handbook*.
- *Wildlife Habitat Evaluation with Aerial Photographs*, 4-H 910, available [from Purdue's Media Distribution](#) or your county [Extension Office](#). This publication has aerial photographs and descriptions of what to look for in the photos.
- The *National 4-H WHEP Handbook*, available on-line only at www.whep.org. This publication has a lot of useful information, but may not include all the species used in Indiana.

9. National Event

4-H Teams: The top 4-H team qualifies to attend the National 4-H Wildlife Habitat Evaluation contest. The national 4-H event is held in late July/early August at various locations across the country. The highest scoring 4-H team from the WHEP CDE may represent Indiana at the national event. If the first place team is unable to attend, the second place team will be offered the trip. Participants must be enrolled in 4-H and aged 14-19. Youth may attend the national contest only once. See the National Website for contest information, www.whep.org.

FFA Teams: The top FFA team qualifies for the National FFA Organization's Environmental & Natural Resources Management Career Development Event. This event is held during the National FFA Conference.

Check the Indiana WHEP CDE website, www.four-h.purdue.edu/WHEP/, for dates (contest and registration) and a registration form. Note that payment is required with the registration form. Registration forms are also available on the 4-H website (www.four-h.purdue.edu, then search for forms) and the Indiana FFA website, www.indianaffa.org. Note that this is an invitational contest and county Extension Educator signatures are not required on the registration form.