

# OHIO CAREER DEVELOPMENT EVENTS NATURE INTERPRETATION RULES

*Effective August 1, 2007*

## **Purpose**

To stimulate interest and to promote instruction in nature interpretation as well as to provide recognition for those who have demonstrated skills and competencies as a result of natural resources instruction.

## **Date**

Check current State CDE Schedule

## **Location**

Ohio Exposition Center with the Dairy Expo and other Spring CDE Events

## **Contest Rules (Top 5 teams to Env Nat Res)**

1. Each school may enter one team in the state CDE.
2. Each school may enter an unlimited number of dues paid FFA members as participants, the top 4 scores will be considered the "team" and the top 3 scores will be the team score of record.
3. Under no circumstances will any contestant be allowed to touch or handle contest specimens during the CDE. Any infraction of this rule will disqualify the contestant from the contest.
4. Observers will not be permitted in the CDE area while the contest is in progress.
5. No team, team member, or team coach shall visit the contest facilities to observe the specimens one week prior to the CDE. Any infraction will disqualify the team from the CDE.
6. Tools and equipment will be furnished for the CDE. Contestants must use the tools and equipment furnished at the contest site.
7. All written materials will be furnished for the CDE. Contestants must provide clipboards and pencils. Electronic calculators will be permitted.

## **Contest Format:**

### **1) General Knowledge (Online prior to the event)**

Fifty multiple-choice questions from nature interpretation materials will be used for the test. This phase of the CDE will test the student's knowledge and understanding of basic principles. A time limit of 50 minutes will be allowed for completion of this section of the CDE.

## **2) Identification**

Seventy-five specimens from the lists located in these instructions will be displayed for the contestants to identify by common name. Contestants should be able to identify each by live specimen, skin, skull, track, actual mount, or other acceptable evidence (scat, sign, etc.). Pictures or slides may be used if an actual specimen cannot be obtained.

### **1. Mammals - 15 Specimens**

### **2. Birds - 15 Specimens**

### **3. Non-woody Plants - 15 Specimens**

### **4. Herptiles - 15 Specimens**

### **5. Equipment - 15 Specimens**

## **3) Practicum**

Contestants will complete two practicums from the following rotated list. Three practicums will be rotated every other year but only two will be selected from these three. Odd numbered practicums will take place in odd years and even numbered practicums in even years.

1. Identifying Animal Calls - After listening to a recording of a call, contestants will identify the wildlife species heard. Species will come from the mammal, bird, and herptile identification lists. In addition, some sounds may be night sounds and could include crickets, katydids, cicadas, and other insects.

2. Attracting Wildlife - Contestants will identify common wildlife wanted around the house and proper methods and means to attracting that wildlife. Wildlife included, but not limited to, hummingbirds, bluebirds, bats, squirrels, and butterflies. Means of attracting wildlife could include bird/animal feeders, bird/animal houses, landscaping techniques, and plantings. Contestants may have to identify wildlife and associated equipment, plants, or feed, answer basic knowledge questions concerning the wildlife managed for, or design a way to attract wildlife based on a given scenario.

3. Reading Nature Signs - Based on provided sign, drawings, and/or pictures, contestants will identify what has occurred. Examples could include reading insect damage, wing prints in the snow, bird nests, animal tracks, geological features, environmental damage, etc.

4. Determining Water Quality - Contestants will determine the quality of water in a stream and interpret the results. Contestants may have to calculate water flow, identify common macroinvertebrates, and/or complete a water quality assessment sheet.

5. Understanding Nature Interpretation - Contestants will evaluate and/or determine techniques of leading nature programs, developing signage, preparing slide/PowerPoint presentations, developing audio programs, preparing interpretive displays, preparing interpretive specimens (study skins, herbarium mounts...), preparing interpretive brochures, and/or administering first aid or CPR. Participation may be based on scenarios provided or address technical aspects of using media.

6. Controlling Problem Plants and Animals - Contestants will identify problem plant and animal species, including invasive and non-native species, and select those practices to best control the species based on the scenario provided. Listed below are common problem plants and animals in Ohio:

Autumn Olive  
 Bindweed  
 Bittersweet - Asian  
 Blue Heron  
 Buckthorn - Common and Glossy  
 Canada Geese  
 Canada Thistle  
 Cattail - Narrow leaved and Hybrid  
 Eastern Mole  
 Emerald Ash Borer  
 Eurasian Water Milfoil  
 Garlic Mustard  
 Gypsy Moth  
 Honeysuckle - Amur, Morrow and Tatarian  
 Japanese Beetle  
 Japanese Knotweed  
 Multicolored Asian Lady Beetle  
 Multiflora Rose  
 Mile-a-Minute Plant  
 Purple Loosestrife  
 Raccoon  
 Reed Canary Grass  
 Reed Grass (Phragmites)  
 Striped Skunk  
 Teasel - Common and Cut-leaved  
 Tree of Heaven  
 Whitetail Deer

**Scoring Guide:**

1. Individual

General Knowledge	100 points
Identification	225 points
Practicum x 2	200 points
Total Possible	525 points

2. Team 525 points x 3 individuals = 1575 Total Possible Points

**References:**

1. Burger, George V. *Practical Wildlife Management*. New York: Winchester Press, 1973.
2. *Wildlife Habitat Improvement*. New York: National Audubon Society, 1966.
3. Grater, Russell K. *The Interpreter's Handbook*. Tucson: Southwest Parks and Monuments Association, 1976.
4. Peterson, R.T. and McKenny, M. *A Field Guide to Wildflowers*. New York: Houghton Mifflin Co., 1968.
5. Newcomb, L. *Newcomb's Wildflower Guide*. Boston: Little, Brown and Co., 1977.
6. *Life Histories: Notes on Ohio's Fish and Wildlife Species*. Columbus: Ohio Department of Natural Resources, Division of Wildlife, 1978.
7. Robbins, Chandler S., Brunn, Bertel, and Zim, Herbert S. *Birds of North America: A Guide to Field Identification*. Racine: Western Publishing Co., 1966.
8. Burt, William H. *Mammals of the Great Lakes Region*. Ann Arbor: University of Michigan Press, 1975.
9. Gottschang, Jack L. *A Guide to the Mammals of Ohio*. Columbus: Ohio State University Press, 1981.
10. Pennsylvania State University, College of Agriculture, Extension Service. Animal Tracks- #129 (leaflet). University Park, PA.
11. Ohio Division of Wildlife, Publications Center, Ohio Department of Natural Resources.  
 -Wildlife Identification Quiz (leaflet) (Publication #128)  
 -Rabbit Management Series  
 -A Key to the Identification of Wildlife
12. Smith, Barlowe. *Amphibians of North America, A Guide to Field Identification*.
13. Smith, Barlowe, *Reptiles of North America, A Guide to Field Identification*.
14. Conant, Roger. *A Field Guide to Reptiles and Amphibians*. Boston: Houghton Mifflin Co., 1958.
15. Warbach, Oscar. *Mother Nature's Michigan*. Hillsdale, MI: Hillsdale Educational Publishers Inc., 1976.
16. Stokes, Donald W. *A Guide to Nature in Winter*. Boston: Little, Brown and Co., 1976.
17. Watts, May Theilgaard. *Reading the Landscape*. New York: Macmillan Publishing Co., 1957.

18. *A Guide to Volunteer Stream Quality Monitoring*. Columbus: Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Scenic Rivers Section, 1993.

19. Ohio Department of Natural Resources Invasive Plants of Ohio: [www.ohiodnr.com/dnap/invasive/default.htm](http://www.ohiodnr.com/dnap/invasive/default.htm)

20. National Park Service Interpretive Development Program: [www.nps.gov/idp/interp](http://www.nps.gov/idp/interp)

21. National Association for Interpretation: [www.interpnet.com](http://www.interpnet.com)

22. Beck, Larry, and Ted Cable. *Interpretation for the 21st Century: Fifteen Guiding Principles for Interpreting Nature and Culture*. Champaign, IL: Sagamore Publishing, 1998.

23. Brochu, Lisa, and Tim Merriman. *Personal Interpretation: Connecting Your Audience to Heritage Resources*. Fort Collins, CO: InterpPress, 2002.

24. Cornel, Joseph. *Sharing Nature with Children: The Classic Parents' and Teachers' Nature Awareness Guidebook*. Nevada City, CA: Dawn Publications, 1979.

25. Lewis, William J. *Interpreting for Park Visitors*. Ft. Washington, PA: Eastern National Park and Monument Association, 1995.

Consult the Ohio Agricultural Education Curriculum Materials Catalog for numerous additional reference materials that will assist in preparing for the contest.

## **Mammals**

001. Badger
002. Bat, big brown
003. Bat, hoary
004. Bear, black
005. Beaver
006. Bobcat
007. Chipmunk, eastern
008. Coyote
009. Deer, whitetail
010. Fox, gray
011. Fox, red
012. Mink
013. Mole, eastern
014. Mole, star-nose
015. Mouse, house
016. Mouse, meadow jumping
017. Mouse, white-footed
018. Muskrat
019. Myotis, little brown
020. Opossum, Virginia
021. Otter, river
022. Rabbit, eastern cottontail
023. Raccoon
024. Rat, Norway
025. Shrew, least
026. Shrew, short-tailed
027. Skunk, striped
028. Squirrel, eastern fox
029. Squirrel, eastern gray
030. Squirrel, red
031. Squirrel, southern flying
032. Squirrel, thirteen-lined ground
033. Vole, meadow
034. Weasel, least
035. Weasel, longtail
036. Woodchuck
037. Woodrat, eastern

## **Birds**

001. Blackbird, Red-winged
002. Bluebird, Eastern
003. Cardinal, Northern
004. Catbird, Gray
005. Chickadee, Black-capped
006. Cowbird, Brown-Headed
007. Crow, American
008. Eagle, Bald
009. Flicker, Common
010. Goldfinch, American
011. Grackle, Common
012. Hawk, Red-tailed
013. Hawk, Cooper's
014. Heron, Great Blue
015. Hummingbird
016. Jay, Blue
017. Junco, Dark-eyed
018. Kestrel, American
019. Killdeer
020. Kingbird, Eastern
021. Meadowlark, Eastern
022. Nuthatch, White-breasted
023. Osprey
024. Owl, Barn
025. Owl, Barred
026. Owl, Great-horned
027. Owl, Screech
028. Owl, Short-eared
029. Robin, American
030. Sparrow, Field
031. Sparrow, House
032. Sparrow, Song
033. Starling, European
034. Swallow, Barn
035. Swallow, Tree
036. Titmouse, Tufted
037. Vulture, Turkey
038. Warbler, Black and White
039. Warbler, Hooded
040. Waxwing, Cedar
041. Whip-poor-will,
042. Woodpecker, Downy
043. Woodpecker, Pileated
044. Woodpecker, Red-bellied
045. Wren, House
046. Yellowthroat, Common

### **Non-woody Plants**

001. Arrowhead, broad-leaved
002. Aster, New England
003. Bellwort, Large-flowered
004. Bergamot, wild
005. Blazing-star
006. Bloodroot
007. Burdock, common
008. Butterfly-weed
009. Cardinal-flower
010. Chicory
011. Clover, red
012. Columbine, wild
013. Cress, purple
014. Day-lily
015. Dutchmen's-breeches
016. Evening-primrose, common
017. False Solomon's Seal, starry
018. Fern, bracken
019. Fern, Christmas
020. Fern, maidenhair
021. Garlic Mustard
022. Geranium, wild
023. Ginger, wild
024. Goat's-beard, yellow
025. Goldenrod, Canada
026. Heal-all
027. Hepatica, round-lobed
028. Ironweed
029. Jack-in-the-Pulpit
030. Joe Pyeweed
031. Lobelia, great
032. Loosestrife, purple
033. Lupine, wild
034. Marsh-marigold
035. May apple
036. Meadow-rue, tall
037. Milkweed, common
038. Mullein, common
039. Phlox, blue
040. Queen Anne's Lace
041. Ragwort, golden
042. Skunk cabbage
043. Solomon's-seal
044. Spring-beauty
045. Teasel
046. Touch-me-not, spotted
047. Trillium, large-flowered
048. Trout-lily
049. Violet, common blue
050. Wingstem

### **Herptiles**

001. Bullfrog
002. Copperhead, northern
003. Frog, eastern wood
004. Frog, green
005. Frog, northern leopard
006. Frog, pickerel
007. Frog, western chorus
008. Hellbender
009. Lizard, northern fence
010. Massasauga, eastern
011. Mud puppy
012. Newt, eastern
013. Racer, blue
014. Rattlesnake, timber
015. Salamander, Jefferson's
016. Salamander, red
017. Salamander, red-backed
018. Salamander, small-mouthed
019. Salamander, spotted
020. Skink, five-lined
021. Snake, black rat
022. Snake, brown
023. Snake, common garter
024. Snake, eastern milk
025. Snake, eastern hognose
026. Snake, fox
027. Snake, Lake Erie water
028. Snake, northern water
029. Softshell, eastern spiny
030. Spring peeper
031. Toad, American
032. Toad, fowler's
033. Tree frog, gray
034. Turtle, Blanding's
035. Turtle, common snapping
036. Turtle, eastern box
037. Turtle, midland painted
038. Turtle, spotted

## **Equipment**

001. Aerial net
002. Anemometer (wind meter)
003. Axe, single or double bit
004. Backpack fire pump
005. Binoculars
006. Bottom-sampling dredge
007. Carbon monoxide tester
008. Conibear trap
009. Dessicator
010. Dissolved oxygen meter
011. Dot Grid
012. Drafting instruments
013. Drip torch
014. Egg incubator
015. Fire rake
016. Fire swatter
017. Flow/current meter
018. Hand compass
019. Hand lens
020. Hand level
021. Live animal traps
022. Minnow trap
023. pH meter/kit
024. Plankton Net
025. Plant press
026. Post-hole digger
027. Range pole/rod
028. Secchi disk
029. Seine
030. Sharpening stone
031. Shell reloading equipment
032. Shovel/spade
033. Sling psychrometer
034. Snake hook
035. Soil analysis sieve
036. Soil sampler
037. Soil test kit
038. Sound level meter
039. Spotting scope
040. Steel spring trap
041. Survey chains &/or tapes
042. Survey pins
043. Tally meter
044. Transit
045. Water sampler
046. Water test kit