ILLINOIS: NEXT GENERATION SCIENCE STANDARDS



2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

BACKGROUND: See the information sections on the *Biodiversity of Illinois* CD-ROM series (*Volume I: Aquatic Habitats; Volume II: Woodland Habitats; Volume III: Prairie and Edge Habitats*) and the back of the posters for the *Illinois' Natural Resources Trading Cards* for information about the diversity of life in Illinois and in these specific habitats.

OBJECTIVE: Students will use Illinois-specific resources and participate in a hike to observe and draw conclusions.

MATERIALS: Biodiversity of Illinois CD-ROM series (Volume I: Aquatic Habitats; Volume II: Woodland Habitats; Volume III: Prairie and Edge Habitats); Illinois' Natural Resources Trading Cards Sets and associated posters; clip boards; writing paper and tools or portable computers

Suggested Activities

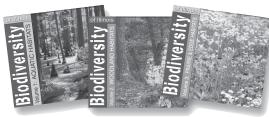
Activity I



• Use the Illinois' Natural Resources Trading Cards and their associated posters to look for species diversity in habitats. Have the students

sort the cards by habitat type. There is a small icon in the lower right section of each card that denotes the type of habitat: a butterfly for prairies; a pine cone for woodlands; and a fish for aquatic habitats. Talk about the animals and plants that they see in each habitat. How are they alike? How are they different? (Note: The number of organisms in each habitat shown in the trading cards is not meant to be an indicator of diversity.)

Activity 2



• Use the *Biodiversity of Illinois* series of CD-ROMs to have students observe

a good variety of species in each of the three featured Illinois habitat types. To see all of the species on the CD-ROM, just click the "Search" button without typing anything in the search box. Look at species from all three types of habitats. Have the students look for species that are unique to each habitat as well as species that are found in all three habitats. The CD-ROMs can be run on an in-school network, so all students should be able to do their own observations independently, assuming that sufficient numbers of computers are available.

Activity 3

 Take the students on an observation hike. Tell them that they will be asked to record on a tally sheet the number of types of plants and animals that they see and hear.



They should not talk during the hike (unless there is an emergency). If you have access to a variety of habitat types, then you can repeat the activity in each type of habitat. Discuss the types of habi-

tat(s) that you observed. Did everyone find the same number of species? If not, why do you think that there were differences? Why did the students not see as many species as they observed in the cards and CD-ROMs?

Activity 4



• Each student should select the habitat (aquatic, woodland, prairie) that he/she feels is the most diverse and give several reasons why he/she selected that habitat.

STEM Connections: Evaluations

Science: The activities shown above are science-based and can be used for evaluations.

Technology: Activity two shown above involves the use of computers.

Engineering: Students could be asked to build a model in a shoebox of the habitat that they feel is the most diverse and show representatives of several species that live in it.

Mathematics: Students are asked to tally and count the number of species that they see on their observation hike.

Training

Additional training about Illinois habitats and the diversity of life in them can be obtained through ENTICE (Environment and Nature Training Institute for Conservation Education) workshops from the IDNR. Illinois Biodiversity 101, Illinois Aquatics 101, Illinois Woodlands 101, Illinois Prairies 101 and Illinois Biodiversity Basics are examples of related workshops. See the "Resources" page for more information. The IDNR Division of Education also provides training sessions at teacher conferences throughout the state.



Equal opportunity to participate in programs of the Illinois Department of Natural Resources (IDNR) and those funded by the U.S. Fish and Wildlife Service and other agencies is available to all individuals regardless of race, sex, national origin, disability, age, religion or other non-merit factors. If you believe you have been discriminated against, contact the funding source's **RESOURCES** civil rights office and/or the Equal Employment Opportunity Officer, IDNR, One Natural Resources Way, Springfield, IL 62702-1271; 217/785-0067; TTY 217/782-9175. This information may be provided in an alternative format if required. Contact the DNR Clearinghouse at 217/782-7498 for assistance.

Next Generation Science Standards © 2013, Illinois Department of Natural Resources DNR 44 - 11/13 • IOCI 14-0162