



Klamath's Shorebird Superheroes



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Activity 10

Objectives:

- To familiarize students with the many shorebirds that depend on Klamath Basin wetlands.
- To develop scientific research and communication skills.

Materials:

- Shorebird Superhero card templates (copied and cut out)
- "Amazing Journey of the Migrating Shorebirds" video (optional)
- Colored pencils, or markers, and pens
- Variety of resources on shorebirds (see next page)
- Laminator (optional)
- Metal rings for securing



Dunlin and Sanderling in flight over the Pacific Ocean.

Background on shorebirds

The group of birds called "shorebirds" is broken into 5 sub-groups: sandpipers, plovers, oystercatchers, stilts and avocets. Almost all have something in common: long slender wings perfectly adapted for flights of incredible distance. Some shorebirds are hemispheric globetrotters, flying over a hundred thousand miles in their lifetime!

Their ability to fly great distances allows them to take advantage of two different habitats for two different purposes – bug-filled summer nesting grounds for breeding and raising chicks, and more mild beaches and wetlands on which to feed during the winter.

The 8 shorebirds that are the focus of this activity are all present in the Klamath Basin National Wildlife Refuges and surrounding wetlands at different times of the year. To better understand the birdlife of Klamath Basin, these lands were surveyed by PRBO, Refuge biologists, and volunteers three times in 2003: spring migration, breeding season and fall migration. We encourage you to share some of these results with your students. We have included results pertaining to the 8 shorebirds highlighted in this activity on the next page.



Shorebird Abundance During Three Surveys of Klamath Basin National Wildlife Refuges and Surrounding Wetlands in 2003

Shorebird	Early May (Spring migration)	Mid-June (Breeding season)	Mid-August (Fall migration)
Killdeer	249	571	1,457
Black-necked Stilt	2,451	3,297	5,176
American Avocet	1,345	1,998	1,675
Greater Yellowlegs	53	3	113
Willet	560	521	27
Long-billed Curlew	36	107	110
Western Sandpiper	Over 383	0	Over 2234
Dowitcher	2,938	11	26,779

Procedure

1. Brainstorm with class about shorebirds, writing down all ideas and perceptions.
2. Watch video "Amazing Journey of Migrating Shorebirds".
3. Discuss video. Sample discussion questions: What did you learn about migration? What is migration? What amazing things did you learn about shorebirds?
4. Photocopy and cut out Shorebird Superhero cards. There are **8 different shorebirds** to research.
5. Split class into groups and assign each group a "Shorebird Superhero" to research.
6. Each group works together to produce a "Shorebird Superhero" card using a variety of resources to help them find facts about the bird's life (see resource list below).
7. The group members can decide who will draw the bird on the back of the card, or alternatively, they can use an image from the web. Artwork should fill the back of the card, and be labeled, showing the important field markings that help identify the bird (e.g., long bill, curved bill, rusty colored back, black breast band). For help with field markings, consult Activity #2 Identifying Birds).
8. Students can graph when their bird is found in Klamath using data above. Graphs should be presented to class and compared.
9. Groups present their cards and what they learned about their shorebird to the class.
10. Collect completed cards from groups; photocopy each card, so that every student will have a complete set of Shorebird Superheroes. Cards can be laminated, attached onto metal rings, and kept for future activities (e.g., a field trip to Klamath Nat. Wildlife Refuges!



Activity 10

Shorebird Superheroes

Extension Activities:

1. Shorebird characteristics can be contrasted and compared with the class using a chart on the blackboard.
2. How about a game of 20 questions? One student chooses a shorebird, and the rest of the group has to ask yes or no questions about the bird until one guesses correctly.

Resources on Shorebirds:

"The Amazing Journey of Migrating Shorebirds" A 20 minute video with a color poster/map and brochure and a companion booklet to the video. Sign out a copy with STRAW.

Stokes Beginner's Guide to Shorebirds by Donald & Lillian Stokes. Sign out from STRAW or purchase a copy for your class (\$8.95).

A field guide to birds, preferably limited to the west (e.g., Stokes Field Guide to Birds, Western Region).

The Birders Handbook: A Field Guide to the Natural History of North American Birds. by Ehrlich, P., Dobkin, D., and Wheye, D. Simon and Schuster Inc.

<http://sssp-fws.gov/index>

<http://www.mbr-pwrc.usgs.gov/Infocenter/infocenter.html>