

# Most Wanted: Shorebirds!

**Grade Level:** upper middle school/  
high school

**Duration:** several class periods for  
research and illustration

**Skills:** communication, presentation,  
critical thinking, spelling,  
vocabulary, team building,  
visualization, discussion, and  
evaluation.

**Subjects:** science, language arts,  
fine arts, social studies (geography)  
and technology

## Concepts

- Many shorebirds species are declining

## Vocabulary

- endangered
- species of high concern
- threatened
- population
- species

## Overview

Students work in teams to research and create a “wanted” poster to highlight key information about a shorebird species whose population is of concern to biologists.

## Objectives

After this activity, students will be able to:

- Differentiate between the terms “endangered” and “threatened.”
- Name at least three shorebird species of concern to biologists.
- Explain why these shorebird species are declining.
- Identify any local shorebird populations that are considered threatened or endangered.

## Materials

- Field guides and shorebird reference books
- Copies of the *Shorebird Profiles* located in the *Appendix*
- One large white sheet of drawing paper for each student or each team
- Drawing pencils, markers, pastels, or crayons to make the shorebird drawings

## Introduction

In the United States 2001 Shorebird Conservation Plan, biologists from many agencies and conservation organizations in the United States worked together to rank the overall stability of North American shorebird *populations*. Each species was assigned a Conservation Category ranging from Category 1 (the species is not considered at risk) all the way to Category 5 (the species is considered highly imperiled). To see the entire species list and ranking go to <http://shorebirdplan.fws.gov>.

All the species listed as federally *threatened* or *endangered* were placed in the “Highly Imperiled” category. These include:

## Category 5 Highly Imperiled Shorebirds

*Snowy Plover*  
*Piping Plover*  
*Mountain Plover*  
*Eskimo Curlew (considered extinct)*  
*Long-billed Curlew*

Shorebird species that are known or thought to be *declining* and have another known or potential threat that biologists fear will escalate the population’s downward trend were placed in the “High Concern” category. These include:

## Category 4 Species of High Concern

*American Golden-Plover*  
*Pacific Golden-Plover*  
*Wilson’s Plover*  
*American Oystercatcher*  
*Black Oystercatcher*  
*Solitary Sandpiper*  
*Upland Sandpiper*  
*Wimbrel*  
*Bristle-thighed Curlew*  
*Hudsonian Godwit*  
*Bar-tailed Godwit*  
*Marbled Godwit*  
*Ruddy Turnstone*  
*Black Turnstone*  
*Surfbird*

*Red Knot*  
*Sanderling*  
*Western Sandpiper*  
*Buff-breasted Sandpiper*  
*Short-billed Dowitcher*  
*American Woodcock*  
*Wilson’s Phalarope*

There are a number of species that are of moderate (Category 3) and low concern (Category 2). These lists can be seen at <http://shorebirdplan.fws.gov>

A wide variety of studies monitors population trends, the affects of pollution, human disturbance, habitat loss, and predators on different shorebird populations. Still, the population numbers of 17 species (including *subspecies*) are considered to be little more than an “educated guess” by biologists because additional surveys are needed.

Shorebird research is very challenging. Funding needs, partnerships across national and state lines, and the vast geographic expanse that shorebirds inhabit make it difficult to monitor and study them. However, biologists need to learn as much as possible in order to conserve shorebirds and their habitat before they decline to such low numbers that they require federal listing and protection. It is a benefit to the species, natural resource professionals, partners, and the public to work proactively.

## Preparation

1. Decide which species (listed in the *Introduction* of this activity) to highlight in this activity. Try to select at least one shorebird found in your area or state.
2. Decide if students will work in teams or individually to create the “Most Wanted” posters.
3. Create a shorebird research corner in your classroom by gathering up shorebird field

guides and resource books from the school library or by borrowing a shorebird education trunk. (Go to <http://sssp.fws.gov> and click on the “educators” link to find out how to borrow a trunk.)

4. Make photocopies of the *Shorebird Profiles*, found in the *Appendix*, that describe the shorebirds your class is researching. Add them to your shorebird research corner.

### Procedure

1. Explain to your students that they are going to learn about shorebirds that are considered to have populations that are endangered, threatened, or declining. Discuss with your class what it means to be an endangered or threatened species. Ask them what might cause a species to become endangered or threatened.
2. Assign each student or student team a shorebird species from the list provided. Explain the assignment: to learn as much about your shorebird as possible and then create a “wanted” poster to display in the school or within the community. The purposes of this poster are to give people as much information as possible about the bird so they can identify it and to bring about general awareness of shorebirds and endangered species.
3. Refer your students to the following Web sites: <http://sssp.fws.gov>, <http://endangered.fws.gov>, <http://www.manomet.org/WHSRN/Prairies/index.htm>, <http://shorebirdplan.fws.gov>, and <http://migratorybirds.fws.gov>. Also refer them to the materials in your shorebird research corner. Write the guidelines found below on the chalkboard for

the students to refer to as they collect shorebird information. If the students will be working in teams, distribute the work as if they are part of a real production team—one illustrator, one researcher, one writer, one layout/graphic designer. Remind them that even though they each have specific responsibilities, they should work as a team to design, develop, review, and edit their poster.

### Most Wanted Poster Guidelines

- Include why this shorebird is “wanted” (reasons for its population decline).
  - If it is endangered or threatened federally, explain why.
  - Provide a drawing or photograph of the species.
  - Give both the common and scientific names of the species.
  - Give the location of where it might be seen (habitat).
  - Provide a list of distinguishing physical features and natural history.
  - Note any unique behavioral characteristics.
  - Describe the call of this species.
4. Although an example poster is included for your reference, emphasize creativity with your students. Encourage them to come up with their own layout designs and additional headings.
  5. When all the posters are complete, hand them around the room and give the class an opportunity to carefully study their classmates’ posters. Move your “most wanted” posters to the hallway, library, or school cafeteria for the whole school to view. Eventually move them to a community library, bank, or government center.

6. Consider asking the class, or even the whole school, to vote on the finished products using a variety of categories like “best illustration,” “best layout,” “most interesting information,” etc.
7. Take a class vote for the “Overall Best Poster” and send it in to the Shorebird Sister Schools Coordinator for posting on the Web site. Please submit only one poster per class following the directions on the SSSP Web site, <http://sssp.fws.gov>

### Additional Activities

*Research Studies on Endangered and Threatened Shorebirds*  
As a follow-up to the Most Wanted Shorebirds Posters, have your students research what scientists are doing today to keep track of the populations of these shorebirds. Use the Web site <http://sssp.fws.gov> to learn more about shorebird studies and to “Ask a Biologist a Question.”

*Imaginary Mist Nets and You Be the Scientist*  
These additional classroom activities are found in the *Shorebird Research and Technology Section* of this chapter. They provide students the opportunity to simulate the gathering of shorebird data scientists use to estimate shorebird population numbers and determine resource management actions that can save shorebirds.

# Wanted

## *Snowy Plover* (*Charadrius alexandrinus*) *Federally Threatened Species*

### Recently Spotted

July 4, 2002, on the sand beaches along the Pacific Coast

### Call

A low “krut” and a soft, whistled “ku-wheet”

### Physical Features

The Snowy Plover is a small bird with a slender bill and black legs. Males in breeding season (mid- March to mid-September) have a black forehead, ear patch, and partial neckring. In winter plumage, both males and females are a dull buffy color.

### Notable Behaviors

- This shorebird species is extremely wary of people and continues to move away as they approach. They will abandon their chicks if disturbed!
- Snowy plovers nest on flat, open, sandy beaches and feed on the beaches or in the sand dunes.

### Reasons for Population Decline

Beach raking, summer beach recreation, off-road vehicles, residential and industrial development, predators like the crow, raven and red fox, and the spread of European Beach Grass



*If you see this bird do not attempt capture! This species is Federally protected. Contact your nearest U.S. Fish and Wildlife Service Office or state wildlife agency.*