

What Can I Eat With This Beak?

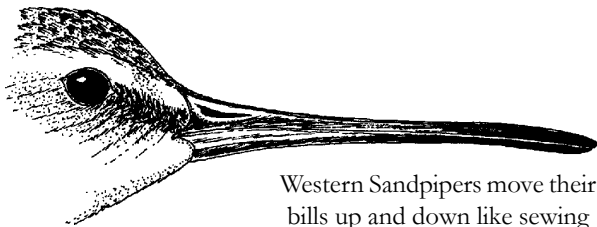
Long Version

Student

Background

Living in the mudflats are hundreds of different species of organisms that shorebirds will eat. These include worms, clams, snails, and crustaceans. Birds have different types of beaks that allow them to eat different kinds of prey items. Their beaks, also called bills, are adapted to match their food types.

Many shorebirds have tweezer-like beaks. A bird with a “short tweezer” beak will take food near the surface of the mud, while a “long tweezer” beak can reach animals that burrow deeper. Some birds, like eagles and owls, have tearing scissor-like beaks which rip their food apart into bite-sized pieces.



Western Sandpipers move their bills up and down like sewing machine needles.

Other birds have beaks which crush like a clothespin, and so are excellent for breaking the hard covering of seeds. Chickadees and Pine Grosbeaks are two clothespin-beaked forest birds. The oystercatcher, a type of shorebird, has a beak that looks like a red clothespin, but uses it in a way very different from seed-eaters. Oystercatchers pry mussels open and chisel limpets off rocks. Some birds have spoon-like beaks that can scoop up lots of small fish or strain plant material from the mud. Have you ever seen a Northern Shoveler or a Mallard duck do this?

Since birds eat different types of food, different species can all live in the same habitat at the same time (coexist). This is why you see many types of birds feeding together in one area. What other beak types can you think of besides the four we have considered in this activity?

Procedure

1. Follow your teacher's instructions to do the food collecting activity with your class and record your findings on the data sheet.

What Can I Eat With This Beak? Data Sheet

Beak Type	Food Items			
	Worms	Snails	Crustaceans	All Food Types
Tweezer				
Scissors				
Spoon				
Clothespin				

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Procedure (continued)

2. Discuss the following questions in class:

- A. Are some beaks better at getting a particular food item than other beaks?
- B. How does the feeding success (measured as number of items captured, or number of items per minute) change for each beak type as the food changes?
- C. Some birds eat food that lives in mud, some find food in water, and others eat plants.
- D. Can you think of any other beak types besides the four we studied in this activity?
- E. Does having a different-shaped beak cause a bird to use it differently?
- F. Which beak types do shorebirds have? Which beak types do shorebirds not have? Why?
- G. What other parts of the bird, besides its beak, are important to its feeding success?
(Hint: webbed or differently-shaped feet, length of neck, length of legs, etc.)
- H. What differences do you detect in the feeding behavior of the birds when all food items are available at once?
(Hint: more fighting or more relaxed and less fighting?)

