

UC Santa Barbara

Educational Materials

Title

Coal Oil Point Reserve Animal Tracks Lesson

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Coal Oil Point Reserve: Animal Tracks

Next Generation Science Standards

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats. [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.] [Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.]

Lesson Plan:-Animal Tracks

Cognitive Learning Objective:

Students will learn about the different types of animals that live at COPR and how to identify their tracks. They will learn to ask questions about what we can learn about an animal's behavior.

Affective Learning Objective:

Students will feel connected to the local environment and motivated to learn more. Students will feel a sense of responsibility for their environment, and be motivated to protect important habitats.

Materials: KIN Journals, or just paper and something to write with and write on, and the animal print key

Location: Coal Oil Point Reserve

Preparation: Before arriving, check the area for the animal prints and identify them so that if students become stuck, you can help them find some. Identify a set area to ask the students to stay within as they search for animal tracks on their own.

Time: 40 minutes

Introduction:

Engage: Ask the students what animals they think might visit Coal Oil Point Reserve and why. What evidence can we look for to see what animals have been here? *Feathers, fur, skin, bones, droppings etc. and footprints.* What do you think those animals were doing here? *Hunting, foraging, nesting etc.* Why might they have chosen to come to COPR? What are they doing/looking for? Ask students to keep these questions in mind as they go to look for animal tracks.

Explore: Ask the students to work in pairs and find and identify as many different animal tracks as they are able to. Let students walk around the beach with their partners and with their KIN journals. As they find animal tracks, ask them to do their best to copy them onto their paper. Regroup after 15-20 minutes. Are there any patterns in where the tracks are? Do different parts of the beach, such as the dunes vs the intertidal zone, have different kinds of tracks? Have you found animal tracks before anywhere? What kinds? Show the students the key with the different types of animal tracks (later in this document) and ask the students to use it as they look around. These are some of the different types of mammals and birds that may be found near COPR.

Explain: Regroup and talk about what kinds of tracks you were able to find. Skunk and raccoon tracks are common. Emphasize that the skunks and raccoons are predators that can hunt the already threatened Western Snowy Plovers and their eggs. Though the skunks and raccoons are natural predators, a readily available food supply from nearby, encroaching human communities has increased their population. Are there really Cougars that visit Coal Oil Point? Probably not in a while, though Cougars and their tracks have been spotted recently in the Guadalupe Dunes just north of here and there was a bear that came all the way down the Goleta Slough not too long ago. Animals like these are less common on the beach than in the past due to human encroachment causing a lack of corridors for them to access the habitat. What other animals might threaten the Plover's nesting grounds? Coyotes, foxes, and domesticated dogs and cats may also leave their tracks on the sand.

Share what animal tracks you were able to find and where? What do you think that these animals were doing?

Evaluate: In partners again, ask your students to pick any three animal tracks from the key and try to draw them in the sand and have their partner guess which one they are. Give them about 10 minutes to do this.

Animal track key:

Skunk:



Raccoon:



Coyote:

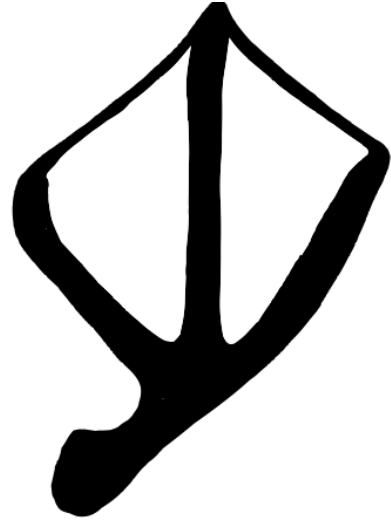


Fox:

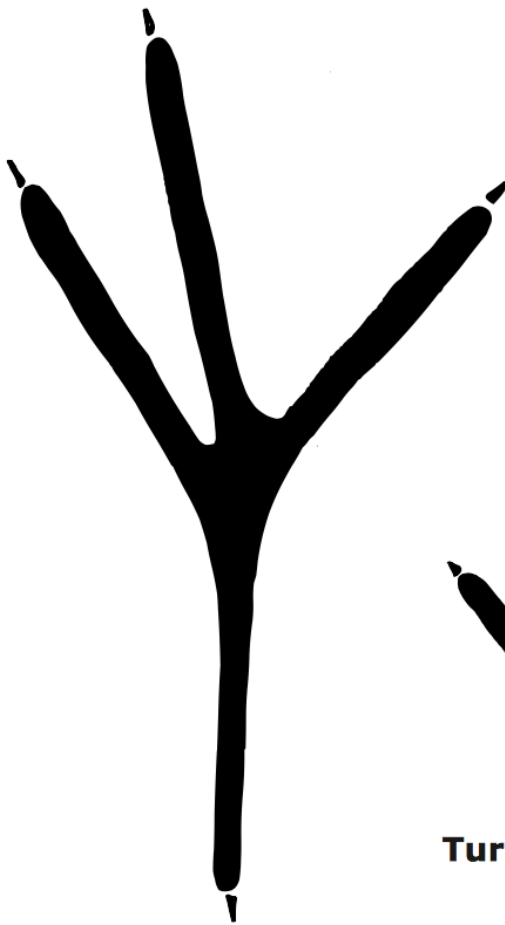




Duck
3 inches



Pelican
6.5 inches



Heron
7 inches



Killdeer
1 inch



Turkey Vulture
4 inches



Plover
less than 1 inch