

# Microworlds: What do Marine Mammals Eat?

## OBJECTIVE

Students will learn why it is difficult to study what marine mammals eat.

learn why population is declining  
changes in diet could indicate changes in ecosystem

## TIME REQUIRED

15 minutes

## RESOURCES

NOAA Microworlds: What do Marine Mammals Eat?  
DVD or website  
[http://www.youtube.com/watch?v=Ntu\\_x9Jkrxl](http://www.youtube.com/watch?v=Ntu_x9Jkrxl)

## BACKGROUND

Fur seals spend most of their lives at sea. When they are on land they do not eat. Scientists have used many different ways to study fur seal food habits. This video of Dr. Tony Orr from the Alaska Fisheries Science Center's National Marine Mammal Lab explains how Tony studies what fur seals eat.

## MATERIALS

- NOAA Microworlds: What do Marine Mammals Eat? DVD or website

## PROCEDURES

Watch "What do marine mammals eat?"

## DISCUSSION

Discuss or write about the following.

- Why is it so hard to study what marine mammals eat?

instruments are expensive: underwater video cameras, satellite tags

marine mammals move quickly: very hard to follow under water, dive to great depths

marine mammals eat underwater: do not bring food to the surface, feed at night or in deep water

In the video Tony mentions he studies northern fur seal food habits by using scats, spews, and hair.

- What are different ways scientists study northern fur seals diets?

DNA from scat

animal tissue (whiskers, blood, hair, blubber)

- Why is it so important to know what they eat?

fishing pressure

competing with humans for food

## Microworlds: What do Marine Mammals Eat?

1. Name three reasons why it is hard to study what marine mammals eat.

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2. Describe methods that scientists use to study northern fur seal diets.

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3. Why is it important to know what northern fur seals eat?

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## Microworlds: What do Marine Mammals Eat?

1. Name three reasons why it is hard to study what marine mammals eat.

Marine mammals feed underwater. It is hard to see what they eat.

Putting cameras on the animals is very expensive.

The environment where they eat is often deep and dark.

2. Describe methods that scientists use to study northern fur seal diets.

Radio and satellite tags.

Scat analysis. DNA from scat.

Animals tissue: blubber, hair, whiskers, blood

3. Why is it important to know what northern fur seals eat?

Northern fur seals compete with humans for the same fish.

The northern fur seal population is declining. Scientists need to figure out why the population is not stable.

Northern fur seals are part of a complex ecosystem. Changes in the fur seals diet could indicate changes in the larger ecosystem.