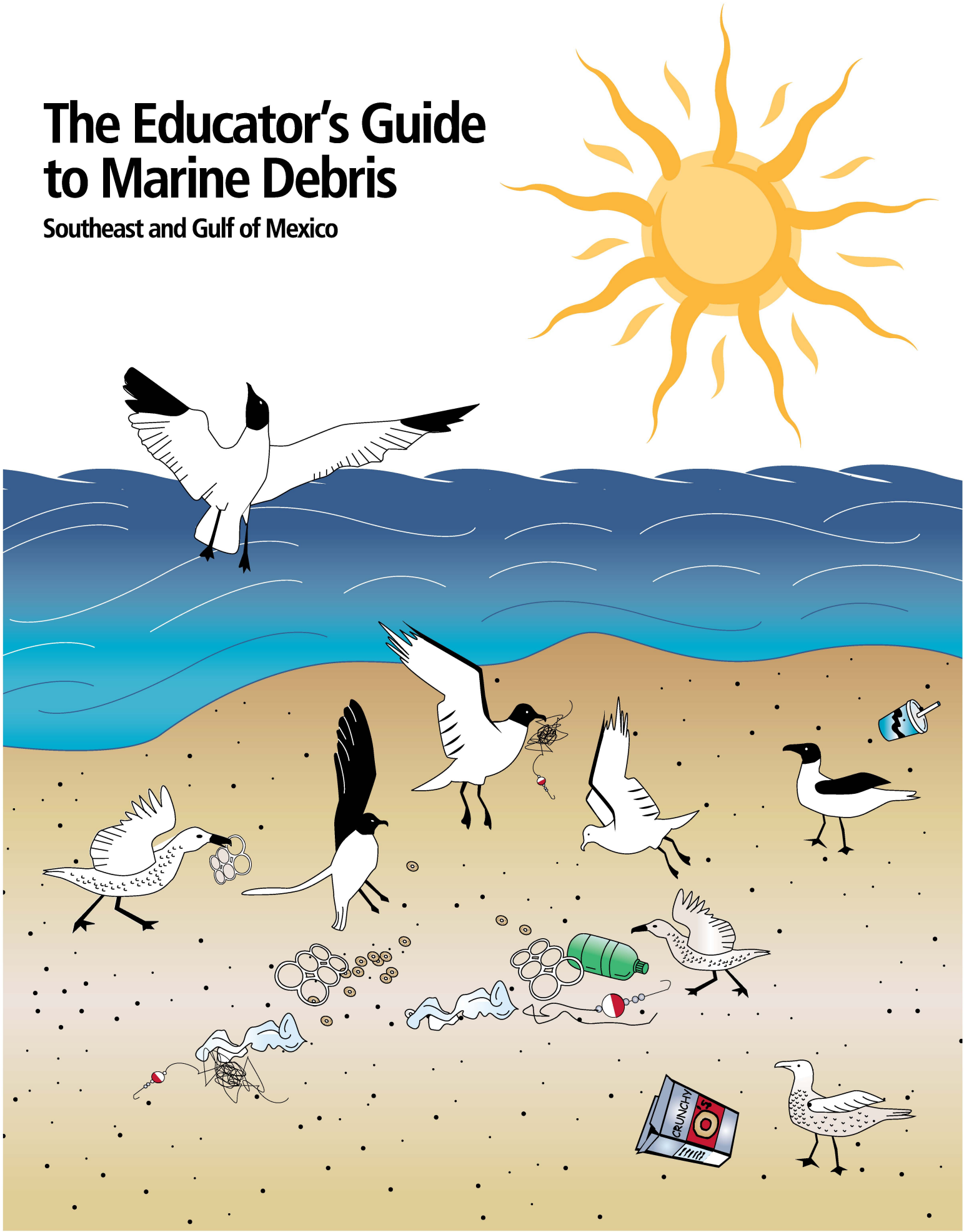
The Educator's Guide to Marine Debris

Southeast and Gulf of Mexico



Activity | Ties That Bind

Pelicans and people often find themselves fishing the same water. Abandoned monofilament fishing line may entangle seabirds, such as pelicans, and lead to serious injury or death. As monofilament fishing line is difficult to break, the entangled birds have difficulty moving or feeding when entangled by fishing line.

Procedure 1: Entanglement and behavior

1. Give each student one large rubber band, and instruct students to wrap the rubber band around the back of one hand (see Figure 1). In this simulation, the hand represents a bird's body.
2. Each student should place the other hand in a pocket or behind his or her back.
3. Instruct the students that they will have 10 seconds to remove these rubber bands.

Observation

Record how many students were able to remove the rubber bands without assistance.

Discussion for procedure 1: Entanglement and behavior

1. Describe how you felt when trying to remove the rubber band from your hand.
2. How do you think a seabird would behave when it is entangled in fishing gear debris such as monofilament fishing line?
3. What are the consequences of seabirds becoming entangled in monofilament line?

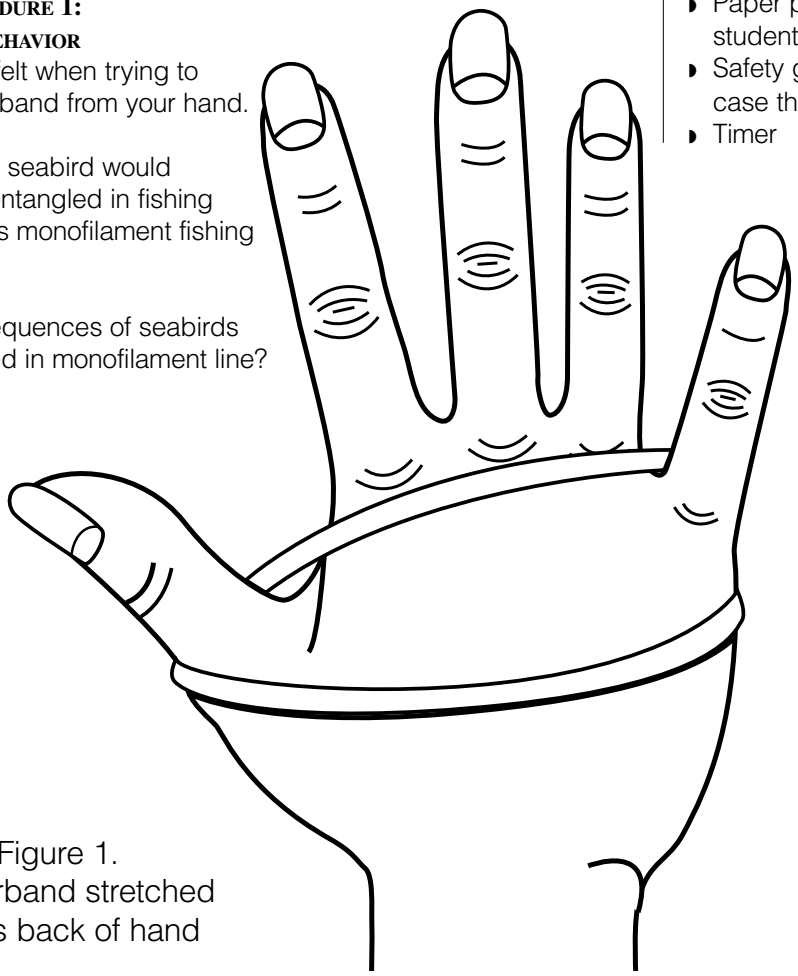


Figure 1.
Rubberband stretched across back of hand

Purpose

To simulate the effect of fishing line on an entangled bird.

Objectives

The students will:

- Simulate how hard it is to remove monofilament fishing line
- Investigate how entanglement affects the ability of a sea bird to feed

Materials

- One large rubber band per student
- Small objects to simulate food (popcorn, dried beans, rice, etc.)
- Paper plate for each pair of students
- Safety goggles for students in case the rubber band breaks.
- Timer

PROCEDURE 2: ENTANGLEMENT AND FEEDING

1.Give each student pair a paper plate containing a variety of the food items.
2.The fingers represent a bird's beak. Students should wrap the rubber bands once around their fingers (see Figure 2).
3.Time how many simulated food pieces the students can pick up in five seconds.
4.Repeat with the rubber band wrapped two or three times. Time for five seconds and record how many pieces the students can pick up.

OBSERVATIONS

Compare feeding records among the different student pairs.

DISCUSSION FOR PROCEDURE 2: ENTANGLEMENT AND FEEDING

How do you think a seabird would be affected by an entangled beak?

CONCLUSION

1.Describe how monofilament fishing line affects sea birds.
2.What can people do to reduce the impact of plastic debris?

Source: Modified from *Ripples,* a publication by
North Carolina Big Sweep: www.ncbigsweep.org/Ripples.html

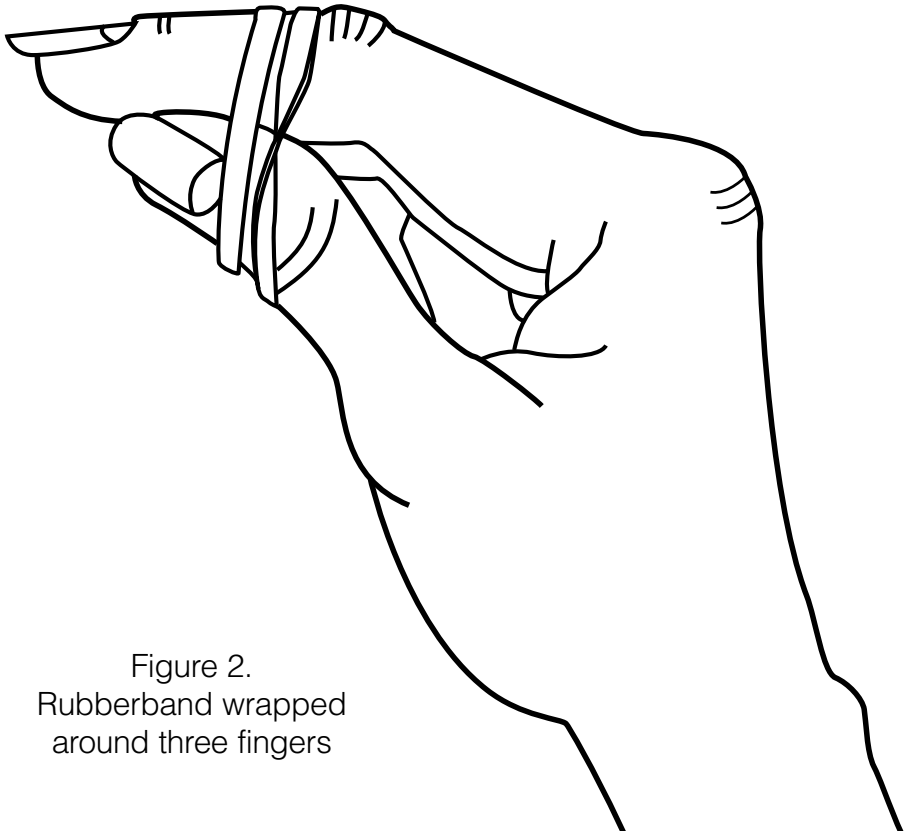


Figure 2.
Rubberband wrapped
around three fingers