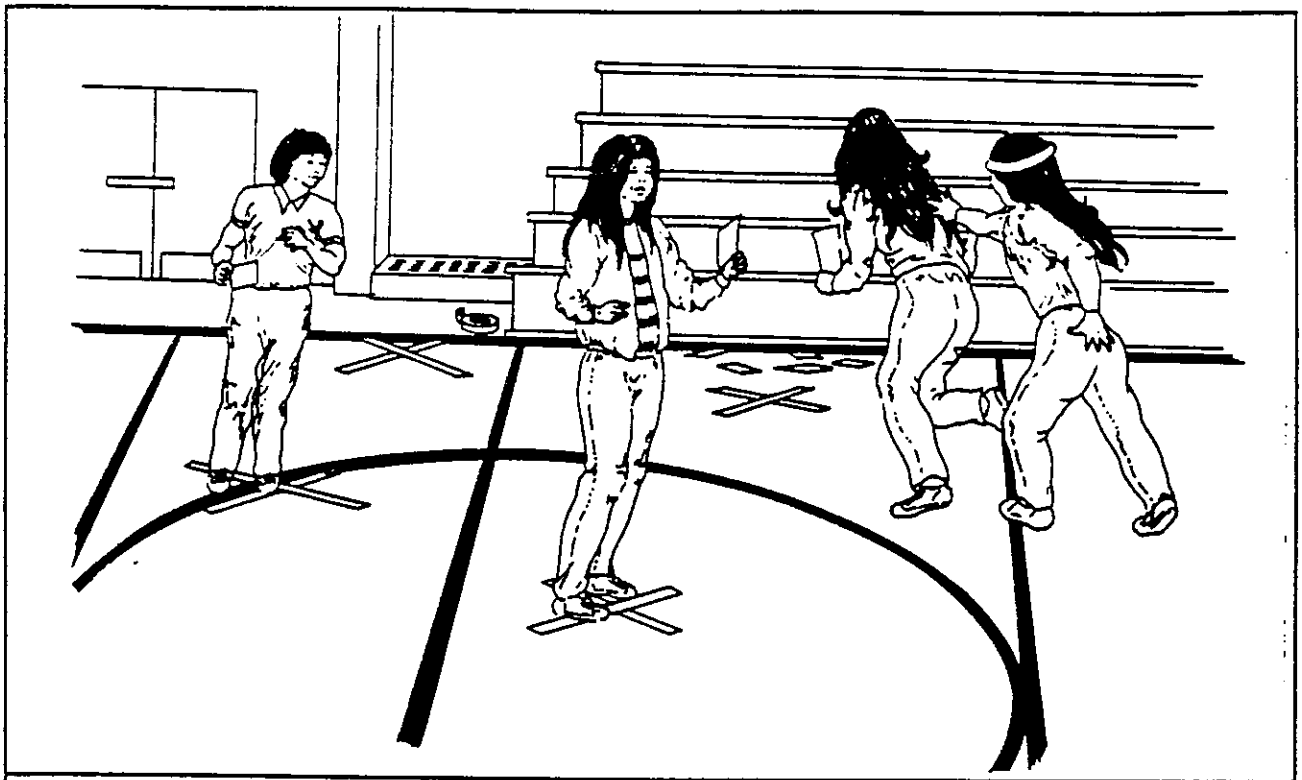
HABITAT TAG



OBJECTIVE:
In a highly active game, students will learn that all animals including seabirds must have food, clean water, shelter and space to survive, and about the impact humans can have on habitat and wildlife species.

BACKGROUND:
Every living creature requires specific kinds and quantities of food, water, shelter and space in a suitable arrangement. These needs are called **habitat requirements**. Different birds and animals live in different habitats because they have different habitat requirements. For seabirds, the open ocean provides all habitat requirements during winter. During the summer nesting season seabirds require the shelter of land, usually protected cliffs and coastal areas, to raise their young.

In this tag game, each bird must find its habit requirements in order to survive. Predators get food by capturing (tagging) prey. The habitat component in shortest supply determines the number of animals that can survive. This is known as the **limiting factor**. Humans can change the available habitat in many ways. They can damage food and water sources, introduce disease and parasites, destroy shelter, overfish, kill predator and prey species, or introduce (accidentally or intentionally) new predator species such as rats and foxes.

The greatest threat to Alaska's seabirds is NOT an oil spill; it is the escape of rats onto seabird nesting islands. Since rats are not native to Alaska, seabirds have no way to defend themselves from this highly effective **predator**. Rats could escape from visiting boats or barges, or from vessels that have run aground. Rats are capable of wiping out seabird colonies because their size and agility lets them go wherever seabirds nest. Some seabird colonies are still empty after foxes, another introduced predator, were dropped onto seabird islands before the 1930s by people hoping to make money from later trapping the foxes for their fur.

Many traditional societies adopted rituals, rules, and accepted behavior to ensure that their required resources would always be available. Today we have habitat protection laws, hunting and fishing regulations, and predator control programs to prevent habitat destruction and over-exploitation of wildlife. One of our **habitat requirements** is to see that wildlife continues to thrive.

MATERIALS:
- cards labeled "food" and "water" (one each per student plus a few extra)
- bases for shelter/nesting areas (tape Xs on the floor, carpet squares, or paper plates)
- optional: tags or vests to differentiate players

PROCEDURE:
1. Place "food" markers on one side of the room or yard and place "water" markers on the other. Scatter several bases around the playing area which will serve as shelter (nesting areas) for students to stand on. Designate a few of these as predator shelter.

2. Explain that for any animal (including birds and fish) to survive, it must have food, water, and shelter (a place to hide). The object of the game is to get a food and a water marker and reach shelter before being caught by a predator. Predators get food by tagging a prey. Predators must get a water marker, tag a prey and return to the predator shelter bases. Only one person may be on a base at a time. If a prey does not have food and water, he may only stand on a shelter for the count of 10. If a prey has food and water, she may displace a thirsty or hungry prey player with only one marker (food or water). Predators cannot touch prey players when they are on a shelter base.

3. Select a few students to be predators. The rest will be prey. Possible predator/prey examples to use are foxes/kittiwakes or puffins/pollock. Start the prey on one side of the room or yard and the predators on the other. After saying 'start', play for 3-5 minutes.

4. At the end of the round, stop activity and discuss what happened. Explain that for seabirds, especially in winter, the open ocean serves as "shelter." Those prey who obtained food, water, and shelter survived. Those prey who did not survive become predators. Original predators become prey.

5. Play more rounds, adding variations. Possibilities include varying the distance between shelter spots, limiting the number of food or water markers or players, or changing the ratio of predators to prey. Students will learn the importance of the arrangement of habitat components and that the resource in shortest supply (food, water or shelter) will limit the number of animals that survive (limiting factor).

6. After students have played the game with varying numbers of predators, food, water, and shelter markers, introduce a new type of predator - a "super-predator" - representing rats or foxes. Rats can catch prey even if they are on shelter markers and they can catch as many as they wish. They can also catch predators. Anyone caught by a rat is out of the game. The game is over when there is no more prey. What happens when rats (or other "super-predators") are introduced to a seabird colony? How can we prevent rats from ever reaching our seabird colonies? (See "Can Do!", to implement your students' ideas in your community.)

EXTENSIONS:
Introduce a new twist - humans. Humans can catch predators or prey, and they may catch as many as they wish. Anyone caught by a human is out of the game. The game is over when there is no more prey. What happens when humans catch too many prey or predators? In what other ways do humans harm seabird habitat? (Oil spills, plastic trash and other pollution, overfishing, etc.) Ask the students how they could keep the game going and still have humans. They

may make new rules, perhaps limiting the number of predator or prey players they can catch. They might limit the amount of time the human players can play, perhaps to 30 seconds per round. This simulates creating habitat protection laws, and hunting and fishing regulations and quotas. These regulations are designed to ensure that humans don't destroy too much habitat or take too many animals. Traditional cultures also maintain rules that protect wildlife resources, for example, collecting seabird eggs only early in the season so the birds can re-lay successfully. Do any such rules exist in your community? What kinds of rules could be made to protect seabirds?

Adapted from: *Alaska Wildlife Week 1983,* Alaska Department of Fish and Game.