

# Waterways tag

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Your teacher will explain how this game works. This game mostly focuses on feeding relationships, shelter relationships, and human interventions. In this version the relationships explored are between eels and other elements of their environment. The feeding relationships are predator/prey relationships and do not include plants, because eels are carnivorous.

## How to play

- All players must stay within the designated area [the stream].
- The eels (or other predators) try to tag the prey. When tagged the prey go to the timeout area and count to 20 before rejoining the game.
- Prey cannot be tagged while they are in a hoop (seeking shelter and food). Only two prey at a time can be in a hoop and they can only stay there for five seconds.

### Scenario 1

Normal healthy stream

5 eels

rest of class – prey (insect larvae, worms, water snails, fish, koura)

5 hoops

### Questions

What do you notice? Was there enough food for the eels? Was there enough food and shelter for the prey?

### Scenario 2

The cows have been crossing the stream to get to the milking shed, and have destroyed all the safe places and food sources for the prey.

5 eels

rest of class – prey (insect larvae, worms, water snails, fish, koura)

1 hoop

### Questions

What do you notice about the population of the prey? Are they able to maintain their numbers? What effect will this eventually have on the eels?

### **Scenario 3**

Someone has been catching the eels. There is only 1 eel left.

1 eel

rest of class – prey (insect larvae, worms, water snails, fish, koura)

5 hoops

### **Questions**

What do you notice about the population of prey? What problems might this cause them? What do you think might be the impact to the stream community?

### **Scenario 4**

Some new eels have arrived to live in the stream.

10 eels

rest of class – prey (insect larvae, worms, water snails, fish, koura)

5 hoops

### **Questions**

What do you notice about the population of prey? What problem will this cause the eels?

### **Scenario 5**

A disease has wiped out all the water snails

4 young eels (eat water snails)

1 old eel (eats koura)

rest of class – prey (koura)

5 hoops

### **Questions**

What do you notice about the population of eels? What problems will this cause for the eels in the future?

## **Scenario 6**

The stream has had its banks bricked and tidied. There is nowhere for the young eels to hide from the kingfishers.

4 young eels (eat mayfly larvae)

5 kingfishers (eat young eels)

rest of class – prey (mayfly larvae)

0 hoops

## **Questions**

What do you notice about the population of eels? What effect might this have on the kingfishers? What effect might there be on the mayflies?