

Crayfish tag

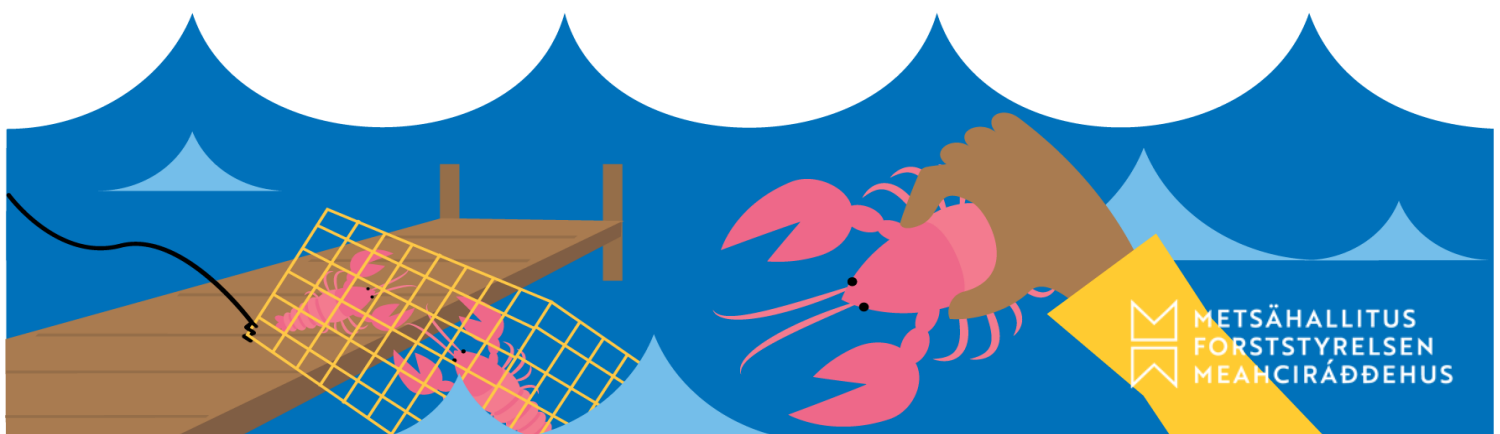
For whom: Primary school	Where: Outdoors (or in the gym)
Wilderness passport section: Fishing	When: All seasons
Learning objectives: Learning about the crayfish species in Finland and the dangers they face.	What you need: (team bibs)
Duration: Around 15 minutes	Personnel resources: 1

INSTRUCTIONS

Before starting the game, you can show the pupils pictures of the crayfish found in Finland. You can observe the distinguishing features of the crayfish species, talk about their sizes and habitats, and discuss the concepts crayfish plague and trap.

How the game is played:

1. You draw a large circle on the ground to mark a crayfish trap.
2. You then select two players. One of them is the 'crayfish plague' and the other the 'crayfish catcher' who have the role of chasers. The rest of the players are crayfish.
3. You divide the other players (the crayfish) into two groups, or noble crayfish and signal crayfish, for example based on the colours of their clothes ('red and black are noble crayfish and the rest are signal crayfish'), or give them team bibs.
4. The crayfish plague and the crayfish catcher start chasing after the crayfish, which run away.
 - The crayfish plague can ONLY catch noble crayfish. When the crayfish plague catches a noble crayfish, the crayfish freezes (becomes sick). If another crayfish goes over and gives it a hug, it can be saved and run away again.



- The crayfish catcher can catch both noble crayfish and signal crayfish. When the crayfish catcher has caught a noble crayfish or signal crayfish, they are taken to the trap. A caught crayfish in the trap can be saved if two others grab it by the hands and take it out of the trap.
5. The game ends when everyone is frozen in place or caught in the trap, or when the teacher tells them to stop.

Variations:

- There is only one chaser: either the crayfish plague or the crayfish catcher
- The players are not divided into noble and signal crayfish
- Players can only move about by crab walking

BACKGROUND

There are two common crayfish species in Finland: the noble crayfish and the signal crayfish. In addition, narrow-clawed crayfish have been introduced to a few lakes in Finland, and Chinese mitten crabs are occasionally found in the Baltic Sea. The noble crayfish is the original Finnish species and the most common crayfish species in Europe. Signal crayfish, originally from North America, were introduced to Finland in the 1960s.

The crayfish is a useful benthic animal that eats dead benthic organisms (plants and animals). The crayfish have ten limbs and are approximately 10-12 cm long. The front limbs of the crayfish have developed into strong claws, and a large crayfish can easily even snip off a human finger! The rear limbs are for swimming, and the middle ones for walking. The crayfish has a hard chitinous shell that serves as an exoskeleton and protects the animal. This means that the crayfish does not have a skeleton, and its muscles attach directly to the shell. In order to grow, the crayfish must change its shell regularly. The crayfish casts off its old shell and only stays within the new shell while it remains flexible and allows the crayfish to grow. It then sheds the shell again.

Crayfish use their antennae and the tips of their claws to smell and taste with. Crayfish can see in all directions at once, as their eyes are at the end of 'stalks' and move independently from one another. Crayfish breathe with their gills. Crayfish occurring in Finland hibernate in winter.

While the **noble crayfish** (*Astacus astacus*) and **signal crayfish** (*Pasifastacus leniusculus*) are similar, there also are clear differences between them. The noble crayfish has smaller and narrower claws than the signal crayfish. The signal crayfish has a smoother shell. The signal crayfish derives its name from a bluish or white spot on the claw hinge. The noble crayfish does not have this spot. Look at the images below and compare their features!

Crayfish plague is a viral disease that kills crayfish. Signal crayfish almost always carry the crayfish plague virus and can infect the noble crayfish even if they do not fall ill themselves. This is why signal crayfish must never be introduced to water bodies where noble crayfish are present. Equipment for catching crayfish, including traps, must also be disinfected after each use to prevent the crayfish plague from spreading with them. In many places, signal crayfish have caused a decline in noble

crayfish populations. The main reason for this is the crayfish plague but also the more aggressive behaviour of the signal crayfish which, for example, interferes with noble crayfish reproduction.

Crayfish are a prestigious festive food that is eaten especially during the crayfish season in late summer. The crayfish season begins in July and ends at the end of October. Catching crayfish is prohibited at other times. At the height of the crayfish season in August, people often have crayfish parties. This tradition originated in Sweden and spread to Finland with the Swedish-speaking Finnish population.

The crayfish are prepared by cooking. In hot water, the brown crayfish shell turns red, as the chitinous shell contains a wide range of pigment molecules (white, yellow, blue, black, brown and red), and heat destroys all of them except the red ones.



Signal crayfish (photo: Laura Ticklen/Metsähallitus)



Noble crayfish (photo: Mikko Suonio/Vastavalo)