



EDUCATIONAL TOOL-KIT

# ARCTIC INVASIONS

## SYLLABUS-IN-ONE-SHOT

### TARGET GROUP

STUDENTS 13-19 YEARS OLD

### THINGS TO LEARN

- What is ecological niche?
- Why does it matter?
- What is the difference between exotic and invasive species?
- What can YOU do?

### WHY TEACH THIS TOPIC?

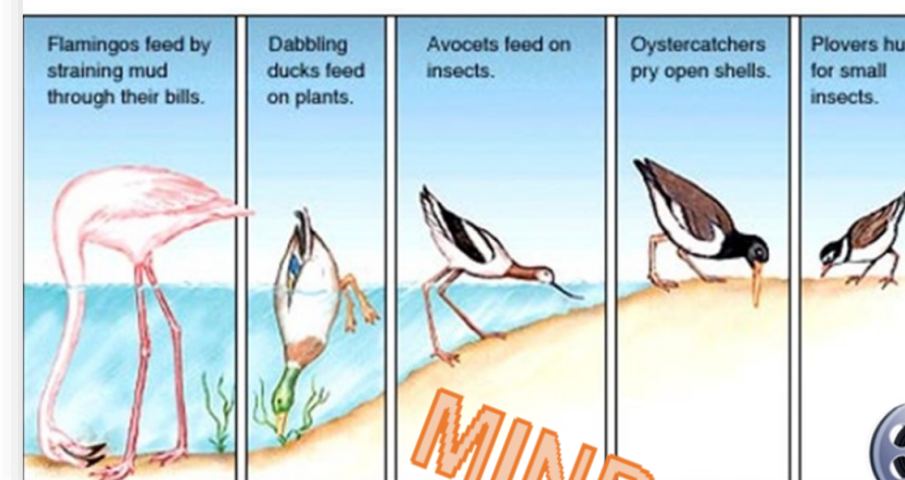
- ☐ Critical thinking and problem solving
- ☐ Global awareness
- ☐ Environmental literacy



Invasive species disrupt the established niche system of the ecosystem. This is a serious threat to sustainability of ecosystems, which affects all human well-being as everything we do depends on intact ecosystems in one way or another.

The Arctic ecosystems are particularly vulnerable if invaded by exotic species. All its native species live at extremes. The Arctic is also particularly affected by the warming climate, and increased tourism, a major cause of invasive species.

An organism's **habitat** is its "address" while its **niche** is its "occupation"



MIND MAP

**Niche competition** = happens if more than one species tries to occupy the same niche. It typically occurs when exotic species invade new areas. Because only one species can occupy a niche over time\*\*\*, the most competitive species will "win" the niche, while the other one will have to adapt to occupying another niche (or become extinct!).

ARE ALL MEANS TO ERADICATE AN INVASIVE SPECIES ACCEPTABLE?  
WHICH ARE OR WHICH ARE NOT?  
WHY?



Photo showing Lykke, a dead young dog who was accidentally caught and killed in a trap set out to kill invasive rodents in Finnmark, northern Norway 2021.



Collecting invasive pink salmon using nets to catch the fish. Then various methods can be used to kill the fish. Which methods would be acceptable to your students?

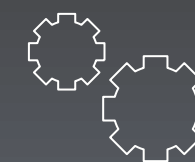


Collecting lupins by hand

Only some examples to start the debate!

### FUN FACTS

- ✓ THE PARTY FACTOR
- ✓ THE FIRST EVER INVASIVE
- ✓ AND THE CHAMPION IS: THE EUROPEANS!
- ✓ IT WAS THE SCIENTISTS WHO DID IT
- ✓ ROBOTS TO THE RESCUE!



The tool-kit comes with the following files:

- SYLLABUS (this document)
- LESSON PLAN
- MATERIALS FOR TEACHERS
- WORKSHEET FOR STUDENTS
- WORKSHEET, TEACHER'S VERSION
- DIGITAL ESCAPE ROOM
- OFFLINE VERSION OF ESCAPE ROOM
- RECORDED WEBINAR
- ADDITIONAL RESOURCES (listed in worksheet, teacher's version)

