



Lesson Plan

Unit 2 — PEST INVADERS

Online activity — Something fishy

Setting the scene

Something Fishy encourages students to explore the problems that aquarium fish can cause when unintentionally introduced into a river system — an issue often misunderstood by many children and their parents.

Working through this scenario students are informed, in a fun but realistic way, of the important reasons why goldfish and other aquarium fish should not be introduced to Australian waterways.

In many states and territories it is illegal to release alien fish into an Australian waterway. It is also illegal in many states and territories to release alien fish species caught by an angler back into a waterway.

This activity allows students to make appropriate decisions and engage in a realistic scenario whilst acknowledging:

- Several different species of alien fish are already established in Australian waterways
- natural animal behaviour
- disturbed river habitats
- species adaptations
- environmental change
- community concerns and actions.

It is recommended teachers work through the activity prior to student involvement. On average the online activity takes around 40 minutes to complete.

Recommended reading for teachers

To gain further information on this topic prior to teaching it in the classroom is recommended that you examine sections of the following:

- [Murray–Darling Basin Authority \(Native Fish Strategy\)](#)
- [Australian pest animal website](#)
- [New South Wales Department of Primary Industries](#)
- [Waterwatch Victoria](#)

Aim

Using computer based technologies, students make informed decisions about releasing goldfish into a river system and what consequences may follow.

Student outcomes

Students will:

- participate in research
- investigate a problem solving activity using digital technologies
- identify issues that arise when people's actions affect other living things
- identify the dimensions of the issue, including problems, how they impinge on people and other living things, and how they are managed
- evaluate the capacity of some animals to take advantage of environmental changes
- investigate ways we conserve endangered species by protecting habitats and introducing legal restrictions
- become aware of current scientific advances in pest control management

Materials

- computer
- [Something fishy online activity](#)
- pen and paper
- access to a printer (optional)

What to do

- Note** Students can work on this activity individually or in pairs.
- Step 1** Introduce the topic by discussing with the students what they think about goldfish and the role they play as one of the most sold aquarium pets around the world. List the benefits people may receive from owning goldfish and other aquarium fish. Benefits may include:
- a relaxing and rewarding hobby
 - enjoyment in caring for a family pet
 - cheap to buy and easy to care for
 - aesthetically pleasing to watch
- Step 2** Ask the question — Do you think it is wrong to release goldfish into a river?
Note: There is no right or wrong answer to this question. The purpose is to provide a discussion point for students so if there are many different answers to the question more discussion and reflection should occur.
- Step 3** Before students commence the activity they must carefully read through the list of instructions. These points are highlighted in upper case at the beginning of the activity (located at the 'start' symbol). Teacher reinforcement / guidance may be required so also familiarise yourself with the list of instructions.
- Step 4** Allow students to progress at their own pace.
- Step 5** The content of Something Fishy is intended to provide students with a level of understanding on the following list of learning objectives:
- Students understand what an alien fish species is and what allows it to be successful in Australian waterways.
 - Students understand that different species of fish often have different environmental tolerances.
 - Which environmental factors can contribute to a disturbed river system in Australia.
 - Invasive or alien species of fish are often better able to adapt to a disturbed environment than many native fish species.
 - Students appreciate that once an alien species has established itself in an Australian river it is almost impossible to remove completely.
 - Students recognise that the majority of alien fish invasions into Australian waterways have occurred due to human assistance.
 - Students are aware of how to limit new alien fish species establishing in Australian rivers.
- Step 6** Once the activity has been completed, encourage further discussion amongst students to see if their opinions or behaviours have changed.
- Encourage students to discuss their findings with their friends and family.
- Step 7** Extension opportunities
1. Encourage students to appreciate the beauty and biology of native fish by creating their own native fish aquarium for your classroom.
Student participation would include:
 - researching native fish found in your area
 - recording native fish species in aquarium shops
 - researching and creating a suitable native fish habitat
 - maintenance of the native fish habitat
 - the creation of information posters highlighting native fish found locally
 2. Visit your local waterway
Many waterways including rivers, lakes, wetlands and creeks can be found near a school. To assist your students in examining and understanding Australian river systems you can contact the following organisations*.
 - WaterWatch
 - RiverSmart (ACT only)
 - Greening Australia
 - Landcare Australia
 - Wetland Care Australia

*(Note: information current as of 2010)



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