**ACTIVITY: Freshwater fish of New Zealand quiz**

**Activity idea**

In this activity, students test their knowledge of New Zealand freshwater fish online or in a paper-based quiz. The quiz can be used as an introductory tool to gauge students’ prior knowledge, as a summative assessment or as an engaging treasure hunt to introduce students to some of the different adaptations, habitats and threats of New Zealand native freshwater fish.

By the end of this activity, students should be able to:

* answer specific questions about freshwater fish in New Zealand
* check or revise their answers using related web resources
* identify some of New Zealand’s native fish species, habitats and threats
* discuss aspects of the New Zealand Threat Classification System rankings of some of our freshwater fish.

[Background information for teachers](#Introduction)

[Student instructions](#student)

**Background information for teachers**

Many New Zealanders know more about our introduced freshwater fish than our natives ones. A lot of our native freshwater fish are unique to New Zealand and are adapted specially for living in our streams and rivers. Many are also under threat and are found on the International Union for Conservation of Nature (IUCN) Red List – an international list that rates how endangered animals are.

The [Conservation threat status](https://www.sciencelearn.org.nz/images/3302-conservation-threat-status) table shows the IUCN Red List ratings and New Zealand Threat Classification System rankings of some of our freshwater fish.

Students can complete the [online quiz](https://www.sciencelearn.org.nz/admin/embeds/80-freshwater-fish-of-new-zealand-quiz) or the [paper-based quiz](#2et92p0). The quiz covers general and specific questions about freshwater fish, conservation, habitats and adaptations. Questions 3 and 4 are designed to stimulate classroom discussion around the conservation status of native freshwater fish.

The following resources provide background information about New Zealand freshwater fish and conservation mentioned in the quiz. Students can use the resources to check their answers, revise incorrect answers or extend their knowledge.

***Fish adaptations and general knowledge about fish***

[Freshwater fish of New Zealand](https://www.sciencelearn.org.nz/resources/2539-freshwater-fish-of-new-zealand)

[Freshwater fish – key terms](https://www.sciencelearn.org.nz/resources/2546-freshwater-and-freshwater-fish-key-terms)

[New Zealand freshwater fish](https://www.sciencelearn.org.nz/image_maps/56-native-freshwater-fish) – interactive

[Whitebait](https://www.sciencelearn.org.nz/resources/442-whitebait)

[Longfin eels](https://www.sciencelearn.org.nz/resources/441-longfin-eels)

***Fish habitats***

[Native fish in the city](https://www.sciencelearn.org.nz/resources/2538-native-fish-in-the-city)

[Give our native fish a hand](https://www.sciencelearn.org.nz/resources/2548-give-our-native-fish-a-hand)

***Conservation and native freshwater fish***

[Conservation rankings](https://www.sciencelearn.org.nz/resources/1379-conservation-rankings)

[Conservation threat status](https://www.sciencelearn.org.nz/images/3302-conservation-threat-status)

[Stream works for fish](https://www.sciencelearn.org.nz/resources/2537-stream-works-for-fish)

[Healthy farms, healthy fish](https://www.sciencelearn.org.nz/image_maps/54-health-farms-healthy-fish) – interactive

[Planting stream edges](https://www.sciencelearn.org.nz/resources/2543-planting-stream-edges)

***Quiz answers***

Questions 3 and 4 are designed to stimulate classroom discussion around the conservation status of native New Zealand freshwater fish. In question 3, students are made aware that the only native fish protected in the update of legislation is a fish that no longer exists, yet as question 4 points out, we protect exotics from overfishing in New Zealand but none of our endangered natives.

* + - 1. A
			2. C
			3. B
			4. B
			5. A
			6. B
			7. C
			8. A
			9. B
			10. C
			11. A
			12. C
			13. A

**Student instructions**

Answer the questions to find out how much you know about freshwater fish in New Zealand.

* + - 1. **How many of our 54 native freshwater fish are only found in New Zealand (endemic)?**
1. 51
2. 54
3. 11
	* + 1. **What is one of the biggest threats to our freshwater fish?**
4. Koi carp and other introduced fish
5. Sediment run-off into waterways
6. Habitat loss through clearing of land
	* + 1. **What native New Zealand fish are protected?**
7. All of them
8. The extinct grayling
9. The endangered longfin eel
	* + 1. **In New Zealand, fishing is regulated for which of these species?**
10. Longfin eel
11. Introduced trout
12. Our native whitebait species
	* + 1. **How can we best protect our native freshwater fish?**
13. Restore streams and rivers
14. Stop eating them
15. Put them in aquariums
	* + 1. **Whitebait are**
16. Delicious
17. Made up of five galaxiid species native to New Zealand
18. White-coloured fish used for bait
	* + 1. **The Tarndale bully is listed as least concern on the IUCN Red List because**
19. They are found in most water bodies throughout New Zealand
20. They breed really well
21. They are only found in a small extremely isolated area
	* + 1. **The shortjaw kōkopu is**
22. Secretive and rare
23. Adapted to many different habitats
24. Not endangered

* + - 1. **A** **diadromous fish is one that**
1. Has scales that glitter in sunlight
2. Spends part of its lifecycle in freshwater and part in saltwater
3. Lives in sunny streams
	* + 1. **Mudfish have a special ability to**
4. Climb and jump
5. Convert mud into clean water
6. Live out of water for weeks at a time
	* + 1. **Many New Zealand native freshwater fish migrate**
7. To feed and/or to complete their life cycle
8. To escape predators
9. Because they like to travel
	* + 1. **Why do fish need trees and shrubs planted alongside waterways?**
10. For shade, to keep the water temperature cooler
11. To create a healthy habitat for their food, like insects
12. Both of the above
	* + 1. **The most polluted waterways in New Zealand are found**
13. In urban areas
14. On farmland
15. In bush