

ENVIRONMENTAL IMPACT OF FISHING

OVERVIEW

Bycatch happens when fish or other marine species are caught by accident while trying to catch another type of fish bycatch species are caught by mistake. They are different from the target species (the animal the gear is intended to catch) because they are not sold or used. Habitat damage occurs when the method of fishing negatively impacts the habitat of the target species.

These activities explore the environmental impacts of fishing including bycatch, when fish or other marine species are caught by accident while trying to catch another type of fish Bycatch species are caught by mistake. For more information see slides [Environmental Impact](#) slide set.

LEARNING OBJECTIVES

- Understand that fishing can impact habitat and non target species (and understand that these impacts must be minimised for fish to receive the MSC Blue Fish Tick)
- Investigate how one or more fishing methods impact on marine habitats and non target species
- Identify how fishing methods can be modified or new methods created to reduce bycatch and impacts on habitats
- Use scientific and fishery related vocabulary

FOCUS QUESTIONS

- *How can fishing impact habitat and non-target species (do these impacts need to be minimised to receive a MSC Blue Fish Tick)?*
- *What impact do different fishing methods have on marine habitats and non-target species?*

LOCATION

Indoors & Outdoors

DURATION

50 mins + field trip

LEVEL

Level 3 – 5+

CURRICULUM

Science; Technology;
Engineering; Maths; Social
Science; Geography;
Pūtaiao; Tikanga-ā-iwi;
Hauora

Key competencies:

Thinking; Managing Self;
Relating to others

NEXT STEPS

- Tāiko (black petrel) as bycatch

PRIOR LEARNING

- Overfishing
- Sustainable fishing



MATERIALS

- [Environmental Impact slide set](#)
- [Teacher Outline \[this\]](#)
- Something to write with
- Internet access [for film clips]
- Bycatch in a bucket materials – see [Bycatch in a Bucket](#)
- Bycatch field trip – see [Bycatch field trip](#)

PROCEDURE

1. EXPLORE effects of fishing on the marine environment (habitat & endangered species) [slides 27 - 29]
2. WATCH the short film about [marine habitat and species protection](#) [2:11] [slide 27]
3. WATCH the short film about [bycatch](#) [1:00] [slide 30]
4. INVESTIGATE the relationship between bycatch and different fishing methods and complete the [Bycatch in a Bucket](#) and/or [Bycatch Field trip](#) activities [slide 30]
5. CREATE your own Bycatch game using [Scratch](#) [slide 30]

KEY WORDS

Bycatch

Fishing method

Target species


Habitat

Non-target species

CURRICULUM LINKS

Nature of Science (Level 3-5)

- Investigating in science
- Communicating in Science

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- Participating and Contributing

Living World (Level 3-5)

- Ecology

Science (Level 6)

- Ecology
- Participating and Contributing

Social Studies (Level 3-5)

- Understand how people make decisions about access to and use of resources (Level 3)
- Understand how people's management of resources impacts on environmental and social sustainability (Level 5)

Geography (Level 6, 7, 8)

Relevant achievement standards related to:

- Geographic research
- Geographic issue of a global scale
- New Zealand contemporary issue
- Geographic concept: Sustainability

Technology

- Nature of technology

Maths (Level 3-5)

- Statistics

Pūtaiao

- The Natural World: The Biological Environment: Investigate the effect of human actions, and natural processes, on an Aotearoa ecosystem (Level 6)