

SUSTAINABLE FISH STOCKS WORKSHEET



To be called 'sustainable' a fishery must meet all three Marine Stewardship Council Fisheries Standard principles.



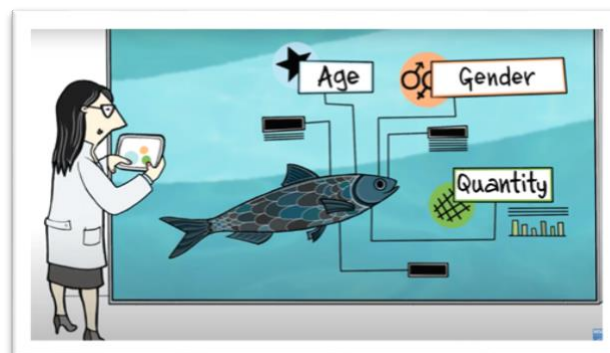
Principle One says the fishery must be sustainable. Sustainable means leaving enough fish in the sea so that fishing can go on forever. But what information does the Marine Stewardship Council need to figure out if a fish stock is sustainable?

Information from scientists helps fishers and the Marine Stewardship Council to work out if a fishery is sustainable. Scientists need to know the size of a fish stock to figure out if fish are being fished sustainably. Scientists use data [information] from fishers to help them work out the size of a fish stock.



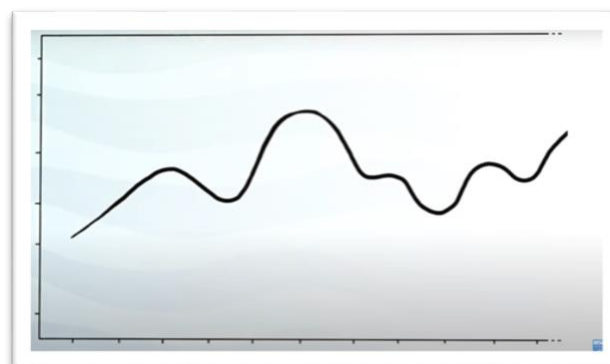
A fish stock is a group of fish that live independent or separate from other groups of the same kind of fish. Scientists also need to know which fish stock a fish has come from so they can work out if a fishery is sustainable.

Samples of fish caught are sent to scientists so that they can understand more about the fish including how old the fish are [maturity]. The data [information] needed to understand whether a fishery is being fished sustainably is not always available.



In other words, for some fisheries there is no knowledge of the size of the fish stock. So many fisheries have to undertake some new research to help understand their fishery and how to fish their fishery sustainably.

The size of every fish stock changes over time. Changes can be due to human action (such as fishing) or due to natural events (such as the amount of food available). If the number of fish in a fishery declines it can be due to overfishing or natural causes.



Fisheries that are certified by the Marine Stewardship Council must be able to show that they can respond quickly to changes in the size of the fishery.

In the early 2000s catches in the Marine Stewardship Council certified Aotearoa New Zealand western [Hoki fishery](#) declined due to changes in the environment. To allow the fishery to recover, for several years the Hoki fishers greatly reduced their catch.



Fishers earned less money during this time, but the approach paid off. The Hoki fishery recovered and is back to healthy levels.

WANT TO LEARN MORE?

Read more: About Marine Stewardship Council and [sustainable fishing](#)

Watch again: [Sustainable fish stocks](#) (Principle 1)

Extension: How do scientists tell the age of a fish? Click on the images in this article by NIWA “Determining the age of fish” to see [growth rings](#).

Extension: Find three interesting facts about Hoki and investigate the likely cause of the Hoki fishery collapse. Be prepared to justify your answer. See [Te Ara’s hoki case study](#) and [Hoki larvae and their food](#).



QUESTIONS

What did we learn?

(1) Principle One says the fishery must be sustainable. Sustainable means leaving enough fish in the sea so that fishing can go on _____.

- a. For ten years
- b. For a year
- c. Forever
- d. For twenty years

(2) Scientists need to know the _____ of a fish stock to figure out if fish are being fished sustainably.

- a. Size
- b. Colour
- c. Mood
- d. Shellfish

(3) Samples of fish caught are sent to _____ so that they can understand more about the fish including how old the fish are [maturity].

- a. Other fishing boats
- b. Scientists
- c. Restaurants
- d. Fish markets

(4) If the number of fish in a fishery declines it can be due to _____ or natural causes.

- a. Under fishing
- b. Plankton Blooms
- c. Weather
- d. Overfishing

5) Fisheries that are certified by the Marine Stewardship Council must be able to show that they can respond _____ to changes in the size of the fishery.

- a. Quickly
- b. Slowly
- c. A little
- d. Within five years

6) In the early 2000s catches in the Marine Stewardship Council certified Aotearoa New Zealand western Hoki fishery _____ due to changes in the environment.

- a. Improved
- b. Increased
- c. Declined
- d. Sped up



ANSWERS

- (1) ANSWER: c.
- (2) ANSWER: a.
- (3) ANSWER: b.
- (4) ANSWER: d.
- (5) ANSWER: a.
- (6) ANSWER: c.