

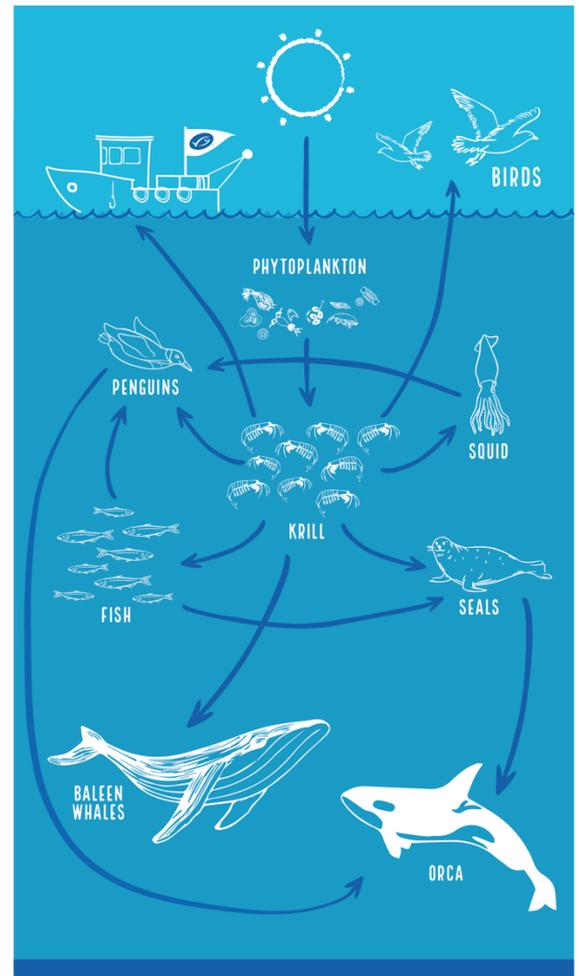
ANTARCTIC KRILL FISHERY

KŌRERO PUKAPUKA / READ

Krill in Southern Ocean

In the wild, Krill are thought to live for 5 to 6 years and reproduce when they are around 2 to 3 years old (CCAMLR, 2021). Krill are important in the food chain. They feed on phytoplankton and sometimes zooplankton. Krill are eaten by many other sea creatures (including penguins and some whales) and are an important part of the Antarctic food web. They have been called a ‘keystone’ species of the Southern Ocean ecosystem (CCAMLR, 2021).

There are several different species of Krill in the Southern Ocean but the Antarctic Krill species (*Euphausia superba*) is common. One estimate says it is likely there are 380 million tonnes of this Antarctic krill in the Southern Ocean (CCAMLR, 2021). Each year more than half of all the krill is eaten by whales, seals, penguins, squid and fish; and replaced through reproduction and re-growth of the krill populations (CCAMLR, 2021).



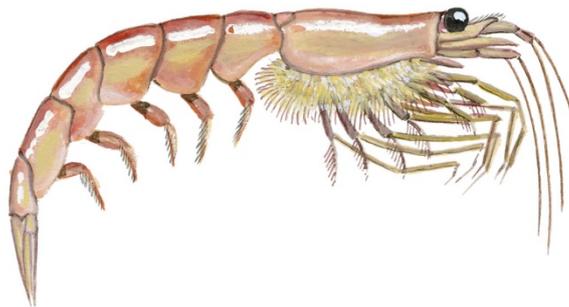
Who fishes for krill, when, how much and why?

In the 1980s krill was fished mainly by fishing vessels from the Soviet Union, Japan, Chile, Poland and Korea (CCAMLR, 2021). In recent years the vessels have been from Chile, China, Korea, Norway and Ukraine (CCAMLR, 2021).

Krill is fished in the Southern Ocean from December to July. In 2019, a catch of almost 400,000 tonnes was reported and in 2020 the catch was over 450,000 tonnes (CCAMLR, 2021). There is a seasonal catch limit of 620,000 tonnes - less than 2% of the species (Reuters, 2022). Krill is a source of oil, used as a health supplement, and is eaten as canned or frozen krill tails. It is also increasingly used in aquaculture feed.

How are other marine creatures affected by the krill fishery?

Other marine creatures are potentially affected by krill fishing. Krill is a major source of food for many Antarctic creatures. If we fish too much krill then this reduces food available for other animals such as penguins and whales. Other marine life can also be caught as ‘bycatch’ or unintended catch during the process of fishing.



Common name: Antarctica Krill

Māori name: Kōura rangi

Scientific name: *Euphausia superba*

Eats: Phytoplankton

Size: up to 6cm in length

Weight: up to 2 grams

Location: Antarctic waters,
Southern Ocean

Photo credit: Professor Dr. habil. Uwe Kils



Marine
Stewardship
Council



Some good things that are happening that protect krill and other Antarctic marine creatures:

- Unregulated fishing around Antarctica could result in overfishing of krill and other Antarctica marine life. To prevent too much growth of krill fisheries the Commission for the Conservation of Marine Living Resources (CCAMLR) was created. CCAMLR looks after Antarctic fisheries, like krill and takes a cautious approach when setting catch limits.
- Under established rules within the Antarctic Treaty System, trawlers must stay largely confined to four areas off the Antarctic Peninsula, with a seasonal catch capped at 620,000 tonnes - less than 2% of the species (Reuters, 2022).
- Major Antarctic krill fishing companies, including Aker BioMarine, have formed the Association of Responsible Krill Harvesting Companies (ARK) that aims to ensure sustainable harvest of krill
- Mindful of the threat krill fishing poses to penguins, eight krill fishing companies in 2018 pledged to stay at least 30 km away from key breeding colonies during incubation and chick-rearing season. An analysis for Reuters by the Global Fishing Watch monitoring agency found that since 2019 the trawlers in operation have upheld that promise.
- Some companies fishing for krill in Antarctica have been assessed against the [Marine Stewardship Council sustainable fishery standard](#) and certified sustainable by the Marine Stewardship Council.

References:

Dickie. G. (2022, February 25) [In Antarctica, does a burgeoning krill fishery threaten wildlife?](#)

CCAMLR. (2021, September 30) [Ecosystem-based management of krill fishery.](#)

MSC. (2022) [Antarctic Krill](#)

HE PĀTAI / QUESTIONS

How well did you read?

(1) In the wild krill are thought to live for?

- a. 5-6 years
- b. 10-20 years
- c. 9 years
- d. 1 month

(2) What do krill feed on?

- a. whales
- b. seals
- c. only zooplankton
- d. phytoplankton & some zooplankton

(3) True or False. Each year more than half of all the krill is eaten by whales, seals, penguins, squid and fish; and replaced through reproduction and re-growth of the krill populations.

- a. True
- b. False

(4) True or False. There is no seasonal catch limit for krill.

- a. True
- b. False



(5) Krill is a source of oil, used as a health supplement, and is eaten as canned or frozen krill tails. It is also increasingly used in _____.

- a. Cat food
- b. Aquaculture feed
- c. Calamari
- d. Fish and chips

(5) True or False. Mindful of the threat krill fishing poses to penguins, eight krill fishing companies in 2018 pledged to stay at least 30 km away from key breeding colonies during incubation and chick-rearing season.

- a. True
- b. False

KŌRERO PUKAPUKA / MORE READING FOR EXPERTS:

ARK. [Association of Responsible Antarctic Krill Fisheries.](#)

Cool Antarctica. [Antarctic Krill.](#)

Marine Stewardship Council (2022) [The MSC Fisheries Standard](#)

WWF. [Top ten facts about Antarctic Krill.](#)

CCAMLR. [Krill biology, ecology and fishing.](#)

Pew Foundation. [Eight Facts About Antarctic Krill.](#)



KĒMU PATAPATAI / QUIZ

[Play MSC's](#)

[Antarctic Krill Fishing](#)

[Kahoot!](#)



HE WHAKAUTU / ANSWERS FOR TEACHERS

- (1) a
- (2) d
- (3) a
- (4) b
- (5) b
- (6) b