

Shark science and fisheries: lesson 2
of 3

Counting the catch

What the global data says
about sharks and fishing



A Philippine fish market. Photo: MCP



Half a century of decline

71%

fall in oceanic sharks and
rays since 1970

**18
times**

increase in relative fishing
pressure

3 in 4

oceanic species now
threatened



Sharks killed by fishing

**76
million**

in 2012

**80
million**

in 2019, and up to 101
million including
unidentified sharks

**25
million**

of them from threatened
species



Why didn't finning bans work?

Between 2012 and 2019, laws against finning, cutting off fins and throwing the body back, spread widely. They largely stopped the wasteful practice.

But total deaths did not fall. Sharks were simply landed whole, and markets for shark meat grew. Regional bans on catching or keeping sharks did reduce deaths.

What is the difference between a law that controls how sharks are killed and one that controls how many?



Where the deaths happen

Coastal fisheries

95% of shark deaths. Rose by 4% between 2012 and 2019.

Open-ocean fisheries

Fell by 7%, especially in the Atlantic and western Pacific, where rules are stronger.



Evaluate the evidence

1. In groups, read your evidence card: one of the two studies.
2. What exactly was measured, and how? What are the uncertainties?
3. What does it suggest governments should do?
4. Report back: do the two studies agree?



Talk about it

Why are coastal fisheries so hard to regulate?

Why do scientists report a range, such as 80 to 101 million?

Which policy seems most effective, according to the evidence?

Next time: write a policy brief



Photos and sources

Photos: fish market by MCP. All illustrations drawn for this lesson by Marine Conservation Philippines.

Sources:

- Pacoureaux, N. and others (2021). Nature 589: 567-571.
- Worm, B. and others (2024). Science 383: 225-230.
- Dalhousie University (2024). Shark alert.

Full links are in the teacher reading. Free to use and share for education. Made by Marine Conservation Philippines. More free lessons: marineconservationphilippines.org/resources/teachers-resources/

