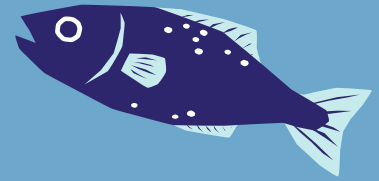


Aquaculture: The Next Ethical Frontier in Food?



10%  ¹

in aquaculture & capture fisheries production by 2032

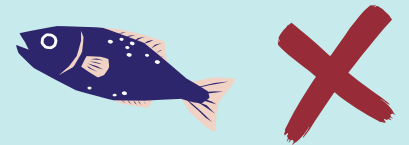
Systems also vary:

from low-impact ponds to industrial net pens



Yet Aquaculture Isn't Just "Fish Farming" it's...

Finfish farming (e.g. salmon)



...It's also

Filter-feeders (e.g. bivalves + seaweed)



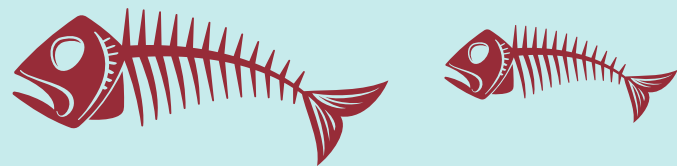
Intensive systems (e.g. net pens) pose ethical & ecological risks

Farmed Fish Dominates

In 2022, ²
farmed seafood **surpassed** wild catch for the **1st time**



Over **3.7M** ³ animals **died** in the U.S., Canada, & Denmark from 2019–2021



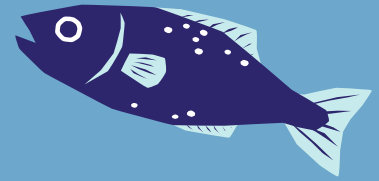
Is industrial efficiency coming at an ethical cost?

Mass mortality events are infrequent but **catastrophic**

The Ferrater Mora

Oxford Centre
for
Animal Ethics

Aquaculture: The Next Ethical Frontier in Food?



3M⁴ fish escape each year from industrial aquaculture operations in Europe

Valuable resources⁵

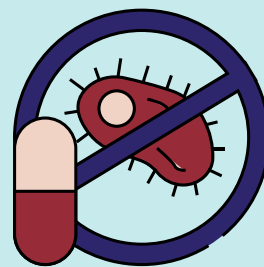
like feed, water, & energy are wasted when farmed fish die or escape



Risks to people + planet

Fish farms can:

- Have **disease** challenges
- Create nutrient **pollution**
- Use medically important **antimicrobial** drugs
- Use **harmful chemicals**



Industrial aquaculture: Let's not repeat the mistakes made on land

1,2. FAO. "FAO Report: Global Fisheries and Aquaculture Production Reaches a New Record High." Newsroom, 7 June 2024, www.fao.org/newsroom/detail/fao-report-global-fisheries-and-aquaculture-production-reaches-a-new-record-high/en.

3. Sajid, Zaman, et al. An Aquaculture Risk Model to Understand the Causes and Consequences of Atlantic Salmon Mass Mortality Events: A Review – Sajid – 2024 – Reviews in Aquaculture – Wiley Online Library, Wiley Online Library, 4 May 2024, onlinelibrary.wiley.com/doi/full/10.1111/raq.12917.

4. Jackson, Dave, et al. "A Pan-European Valuation of the Extent, Causes and Cost of Escape Events from Sea Cage Fish Farming." Aquaculture, Elsevier, 3 Nov. 2014, www.sciencedirect.com/science/article/pii/S0044848614005481.

5. Love, David C., et al. "Aquatic Food Loss and Waste Rate in the United States Is Half of Earlier Estimates." Nature News, Nature Publishing Group, 13 Dec. 2023, www.nature.com/articles/s43016-023-00881-z.