SHETLAND FISHERMEN'S ASSOCIATION

FISHY FALSEHOODS

A series of papers debunking myths about our industry

01

"Fishing releases more CO_2 than aviation"

False & misleading

Although recent newspaper articles have claimed that trawling releases as much CO_2 globally each year as the aviation industry, this is misleading and almost certainly false.

Source

The source of these claims is a paper published in the scientific journal *Nature*[1] which describes an attempt to estimate how much carbon *might* be released from the seafloor by trawling. Trawling can disturb seafloor sediments, and this may result in carbon being released from those sediments into the overlying water. However, it s likely that a high proportion of that carbon will be reabsorbed by the seabed, and it is not known how much (if any) might be released into the atmosphere as CO_2.

Misleading comparison

The figures published in the paper are estimates of how much carbon might be released from the seabed into the overlying water by trawling. *The paper does not make any estimate of how much of that carbon (if any) might be released into the atmosphere as CO_2.*

Comparing carbon released from the seabed into the overlying water with CO_2 emitted into the atmosphere from aviation is like comparing apples with chalk – a comparison between two completely different things but one likely to have been chosen for its sensation value.

No comparison

The scientists who wrote the paper in *Nature* did not make any comparison between their results and CO_2 emissions from aviation. That comparison was made in a press release from the National Geographic Society[2] which was designed to draw maximum attention to the publication of the paper by creating a sensational headline.

1 Sala, E. & others. 2021. Protecting the global ocean for biodiversity, food and climate. Nature, 592, 397-402. doi.org/10.1038/s41586-021-03371-z.

2 https://blog.nationalgeographic.org/2021/03/17/study-in-nature-protecting-the-ocean-delivers-a-comprehensive-solution-for-climate-fishing-and-biodiversity/

So much for theory

The analysis carried out in the *Nature* paper is entirely theoretical and based on many very general assumptions (if not guesses). Nobody knows how much (if any) CO_2 is released into the atmosphere by trawling because nobody has attempted to actually measure such emissions.

Among other things the paper's analysis was based on dividing the whole area of the global seabed into 50km x 50km rectangles and making assumptions about the nature of the seabed and the amount of fishing activity in each rectangle. But we know that the nature of the seabed and levels of fishing activity differ greatly over much smaller scales than that.

Where the carbon is

The distribution of carbon in seabed sediments is highly variable. Most organic carbon in sediments is concentrated in the very deep ocean where very little fishing takes place. In coastal waters where most fishing does take place most organic carbon is again concentrated in relatively small areas, such as deep sheltered sea lochs where organic material can accumulate. Across large area of the seabed around the UK organic carbon levels in sediments are relatively low so there is little potential for fishing to release significant quantities of carbon from the seabed.

Furthermore, the seabed around much of the UK is regularly disturbed by waves and currents so any carbon which may accumulate is as likely to be released by natural processes as by fishing.

A poor choice for comparison

Despite its high profile, aviation only accounts for about 2% of global CO_2 emissions (24% of emissions are from industry, 18% from buildings and 16% from transport)[3]. It is clear that the comparison of fishing with aviation was chosen because it sounds sensational, but it doesn't mean that fishing is a large source of CO_2 or that restricting fishing will do much to prevent global warming.

3 https://ourworldindata.org/emissions-by-sector

Would the alternatives be any better?

The purpose of fishing is to supply food, and nutritious, high-quality food at that. Globally, one billion people rely on fish and seafood as their main source of protein.[4] If fishing is restricted then people will have to obtain a comparable quantity of similar quality food from other sources. Yet other means of producing food also produce CO_2 emissions and have other environmental impacts that fishing does not. So, restricting fishing would be likely to result in greater impacts on the environment and probably greater CO_2 emissions.

Motivations

The *Nature* paper was clearly written to provide an argument for restricting commercial fishing activity through the creation of more Marine Protected Areas (MPAs). From the beginning the paper takes it for granted that MPAs are good, that there aren't enough of them, and that fishing should be restricted.

The lead author is described as a "full-time conservationist" and founder of the National Geographic Society's Pristine Seas project[5] which aims to "inspire" the creation of more MPAs where fishing will be banned. The other authors include Boris Worm who was responsible for the infamous and widely discredited claim that "there would be no fish left in the sea by 2048".

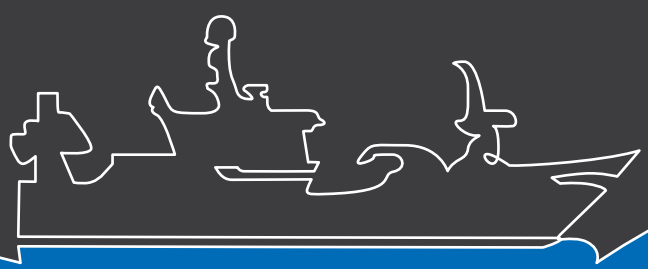
So, the authors of the paper can hardly claim to be impartial. They had a clear agenda and the results they report reflect their preconceptions and their agenda.

4 https://www.wwf.org.uk/what-we-do/addressing-unsustainable-fishing-and-seafood

5 https://blog.nationalgeographic.org/2021/03/17/study-in-nature-protecting-the-ocean-delivers-a-comprehensive-solution-for-climate-fishing-and-biodiversity/

SHETLAND
FISHERMEN'S ASSOCIATION

Shetland Fishermen's Association
Mair's Quay, Holmsgarth, Lerwick, Shetland, ZE1 0PW
Telephone: +44 (0) 1595 693197 Fax: +44 (0) 1595 694429
Email: info@shetlandfishermen.com



www.shetlandfishermen.com