Are there enough fish to go around?

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Scientists from the University of York have released a report highlighting the gap between declining wild fish supplies and healthy eating advice recommending more seafood.

While the health benefits of eating fish have become better appreciated in recent years, many wild fish stocks continue to be overfished.

In a study published in *Marine Pollution Bulletin*, Dr Ruth Thurstan, now a Research Fellow at the University of Queensland, and Professor Callum Roberts, Professor of Marine Conservation at the University of York, used historical fisheries data and population estimates to show how fish availability per person, both nationally and globally, have changed since records began.

Sifting through 124 years of fisheries landings records, the researchers found that UK domestic fishery landings have fallen to their lowest point for over 70 years. When they accounted for processing losses and human population growth, fish availability from domestic supplies showed an almost continual decrease since the early 20th century.

Today, domestic fish supplies fall far below consumption levels recommended by the Food Standards Agency, supplying just one fifth of the two portions per week advice. The shortfall has been masked in part by increased imports and aquaculture, which together raise the figure to four fifths.

The researchers say that global patterns in wild fish production reflect

these worrying trends. In terms of fish available per person, supplies have been in decline for over 40 years, falling by nearly a third. Only rapid growth in fish farming has shielded consumers from the consequences of overfishing and human population increase. Half of our seafood now comes from farms. However, Dr Thurstan and Professor Roberts say that fish farming is not a win-win solution.

Professor Roberts said: "Many aquaculture operations inflict heavy environmental costs on wild fish stocks and coastal ecosystems, such as habitat loss, pollution, disease and pests. To be viable in the long-term and help feed the world, there has to be a Blue Revolution in fish farming to sustainable production methods. Better management of wild fisheries could also boost production while helping heal damage to ocean life."

Although fish production is increasingly globalised, the trends observed in the UK, of falling domestic supply and an increased reliance on imports, are emblematic of many other developed nations. Europe imports 55 per cent of the fish it consumes, while America imported 91 per cent last year.

Dr Thurstan said: "Our paper shows the serious disconnect between healthy eating recommendations and the finite capacity of wild fish stocks to meet those aspirations. It demonstrates how UK consumers have so far been protected from falling domestic production by increasing imports, but this demand is often filled at a high social and environmental cost in producer nations, many of them very poor.

"These findings are a wake-up call to the UK government that our national health aspirations have to be considered on a global stage, and that we need to think carefully about the implications of promoting greater fish consumption in a world where many people are already protein deficient."

Provided by University of York