

OCEANA

WINTER 2016 | OCEANA.ORG



GLOBAL FISHING WATCH LAUNCHES

Oceana, SkyTruth and Google's new online platform, highlighted by Leonardo DiCaprio at the 2016 Our Ocean Conference, allows anyone to monitor and track fishing activity worldwide.



Daniel Pauly is the principal investigator of the Sea Around Us Project at the University of British Columbia's Institute for the Oceans and Fisheries and a member of the Board of Oceana.

Big Problems with the Way We Use Small Fish

While the cows, pigs and other mammals we process into steaks and schnitzels are generally of similar sizes—a cow or pig is usually about the same size as other cows or pigs—fish in the sea range drastically in size.

For example, bluefin tuna and swordfish can reach lengths of 10 feet and beyond while anchovies do not even grow to 10 inches. Some people prefer to consume bits of large fish (think fish steaks or the slivers of tuna on sushi) while others prefer to eat small fish such as herring, sardines or anchovies. The latter group that tends to incorporate small fish into its diet is making the smarter decision, since small fish contain large quantities of the omega-3

Small fish to try: Herring, sardines, anchovies and yes, even menhaden, are tasty little fish that, when well prepared, can be part of a sumptuous meal.

fatty acids that fish are famous for but none of the pollutants that large fish are infamous for. Big fish such as tuna

or swordfish live much longer than small fish and thus have more opportunities to accumulate heavy metals such as mercury and persistent organic pollutants such as dioxin or polychlorinated biphenyls, which are really nasty.

Small fish are generally abundant, which has led to their use as food for other domestic animals, such as chicken or pigs, or even as

fertilizer. Thus, unsurprisingly, when large fish became so depleted in the wild that it became commercially advantageous to raise them in captivity, those farming fish decided to feed their stock with small fish, notably in the form of pellets made from dried and ground up individuals, or fishmeal.

Farmed salmon are raised this way, as are many other species of carnivorous fish that are farmed. About one quarter of the 120 million metric tons of fish caught per year is sent to reduction plants where they are cooked, pressed, dried and ground up into fishmeal while the precious fish oil is separated out. The fishmeal and fish oil are then used mainly as animal feed and additives, respectively, mostly for salmon and other carnivorous fishes.

Reduction fisheries occur throughout the world; for example, in Peru, they're based on a local species of anchovy and, in the United States, on two sardine-like species, Atlantic and Gulf menhaden. Business is booming. So all is well?

Not really. The main problem is that small fish can and are eaten directly by people in many parts of the world, mainly in developing countries where they often contribute the only animal protein to which people have access.

Thus, locals sometimes have to compete for a significant part of their food supply. For example, the foreign industrial sardinella fisheries off Northwest Africa, which supply feed fish to salmon and pig farms in well-to-do Europe, compete with local fishers who supply African markets, including in the impoverished interior of the continent where sun-dried sardinella is often the only fish and the only available source of animal protein and its associated micronutrients. For people in West Africa, access to small fish is a question of food security and of equity.

That's not the only way small fish are misused, however. In the United States and other rich, discerning markets, consumers often choose to eat fish because it is a healthy option. And where do the healthy omega-3 fatty acids you get by eating farmed salmon come from? The fishmeal and fish oil in their diet. And where did that come from? The anchovies or sardines or other fish that were ground up to feed that salmon.

So why not get those health benefits straight from the source and eat the small fish instead?

Further reading: Check out *The Perfect Protein* by Oceana CEO Andy Sharpless.