A new university research report concludes that poor fishing practices and inadequate management result in industrial fishing fleets dumping nearly 10 million tons of good fish back into the ocean annually, despite a decline in fish stocks.

That amounts to the equivalent of enough fish to fill some 4,500 Olympic sized swimming pools every year, according to researchers with Sea Around Us, an initiative at the University of British Columbia’s Institute for the Oceans and Fisheries and the University of Western Australia.

The open access study was published June 26 in Fish & Fisheries, online at [http://onlinelibrary.wiley.com/doi/10.1111/faf.12233/full](http://onlinelibrary.wiley.com/doi/10.1111/faf.12233/full)

Researchers concluded that harvesters discard a portion of their catch because fishing practices damage the fish and make them unmarketable. The fish are too small, the species is out of season, only part of the fish needs to be harvested — as with Alaska Pollock roe — or the fishers caught species that they were not targeting, they said.

High grading also plays a roll, said Dirk Zeller, lead author for the study.

“If they catch bigger fish, they throw away the smaller ones; they usually can’t keep both loads because they run out of freezer space or go over their quota,” Zeller said.

Zeller is a professor at the University of Western Australia and a senior research partner with the Sea Around Us.
The study looked at the amount of discarded fish over time. In the 1950s, some 5 million tons of fish were discarded every year, while in the 1980s that figure grew to 18 million tons. The discards decreased to current levels of nearly 10 million tons annually over the past decade.

While the decline in discards could be attributed to improved fisheries management and new technology, Zeller and his colleagues said it’s likely also an indicator of depleted fish stocks.

The study also shows how industrial fleets move to new waters once certain fisheries decline.

“The shift of discards from Atlantic to Pacific waters shows a dangerous trend in fisheries of exporting our fishing needs and fishing problems to new areas,” said Tim Cashion, another researcher participating in the study.

A 2016 reconstruction of catch data from 1950 to 2010 by Sea Around Us researchers revealed that catches have been declining at a rate of 1.2 million tons of fish annually since the mid 1990s.

That study, https://www.nature.com/articles/ncomms10244, was published online by Nature Communications on Jan. 19, 2016.