New Study to Highlight Waste of Seafood
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GLOBE - An alarming new study to be published in November in the Annual Review of Environment and Resources finds that one-third of the world’s marine fish catches are ground up and fed to farm-raised fish, pigs, and poultry, squandering a precious food resource for humans and disregarding the serious overfishing crisis in our oceans.

According to the Stony Brook University, lead author Dr. Jacqueline Alder, senior author Dr. Daniel Pauly, and colleagues urge that other foods be used to feed farmed animals so that these “forage fish” can be brought to market for larger-scale human consumption. “Forage fish” include anchovies, sardines, menhaden, and other small- to medium-sized fish species which are the primary food for ocean-dwelling marine mammals, seabirds (especially puffins and gulls) and several large fishes.

Currently, catches of forage fish are predominantly used in animal feed, but these species are highly nutritious and well-suited for direct human consumption.

“We need to stop using so many small ocean fish to feed farmed fish and other animals,” Alder said. “These small, tasty fish could instead feed people. Society should demand that we stop wasting these fish on farmed fish, pigs, and poultry.” Although feeds derived from soy and other land-based crops are available and are used, fishmeal and fish oil have skyrocketed in popularity because forage fish are easy to catch in large numbers, and hence, relatively inexpensive.

Entitled “Forage Fish: From Ecosystems to Markets,” the study is a product of the nine-year Sea Around Us Project, a partnership between the University of British Columbia in Vancouver and The Pew Charitable Trusts. The Sea Around Us Project has been primarily funded by the Pew Institute for Ocean Science, which is now the Institute for Ocean Conservation Science at Stony Brook University. The abstract is available online at http://arjournals.annualreviews.org/toc/energy/33/1.

“It defies reason to drain the ocean of small, wild fishes that could be directly consumed by people in order to produce a lesser quantity of farmed fish,” said Dr. Ellen K. Pikitch, executive director of the Institute for Ocean Conservation Science and a Professor at Stony Brook University’s School of Marine and Atmospheric Sciences. “Skyrocketing pressure on small wild fishes may be putting entire marine food webs at great risk.”

Forage fish account for a staggering 37 percent (31.5 million tonnes) of all fish taken from the world’s oceans each year, and 90 percent of that catch is processed into fishmeal and fish oil. In 2002, 46 percent of fishmeal and fish oil was used as feed for aquaculture (fish-farming), 24 percent for pig feed, and 22 percent for poultry feed. Pigs and poultry around the world consume more than double the seafood eaten by Japanese consumers and six times the amount consumed by the U.S. market.

Despite this large-scale extraction, few management plans have been created to guide the sustainable removal of these fish, and little is known about the role of forage fish in the marine ecosystem and how fishing impacts them. The most intensive commercial use of these fish is for farmed-animal feed, but there is also a growing demand for human fish oil supplements. In some areas of the world, especially developing countries, almost all of the small fish used as farm feed are, or once were, eaten by people. These include the Peruvian and European anchovy, capelin, Japanese pilchard, round sardinella, and European anchovy. “The use of forage fish for animal husbandry competes directly with human consumption in some areas of the world,” the authors write. Excessive removal of forage fish could also hurt populations of seabirds and marine mammals that rely upon them as food.

“We must find a better way to manage forage fisheries before we cause irreversible damage to the
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