



WHY EUROPE NEEDS TO ADOPT Turtle Excluder Devices

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Trawl fisheries have long been recognized to have major negative impacts on species and habitats, and tropical shrimp trawlers are especially damaging to sea turtles, resulting in turtle deaths estimated in the millions worldwide each year. Turtle excluder devices (TEDs) are grids designed to allow turtles and other marine megafauna to escape from trawls while retaining shrimp. When installed correctly, TEDs exclude at least 97 percent of the turtles with minimal loss of target catch (less than 2 percent). Any losses that do occur are largely compensated for by the other many advantages of using TEDs, such as quicker and safer processing of the catch, less net damage, reduced fuel costs, and higher market prices for better-quality shrimp because crushing by large objects or animals is reduced.

TEDs are a simple but elegant solution for minimizing sea turtle bycatch in trawl fisheries. As such, they are now mandated by many governments around the world and their use is enforced. Regulatory measures have been the key to creating incentives for TED use. American fleets are required by U.S. federal law to use TEDs, and foreign fleets wishing to export wild-caught shrimp to the United States must demonstrate that they are not incidentally capturing marine turtles. More than 40 shrimp-exporting countries now meet the requirements of U.S. Public Law 101-162, Section 609. However, Europe, which is the largest market for fisheries products in the world, has no such regulation and provides an alternative market for countries that do not use TEDs.

French Guiana, in South America, has become one of the most recent tropical shrimp trawl fisheries to implement TEDs. Even though French Guiana does not export shrimp to the United States, being certified under the U.S. Section 609 program allows the industry to receive technical support from U.S. shrimp fishing gear experts. Marine turtles are ubiquitous in French Guiana's Exclusive Economic Zone, and historically they were frequently captured by the shrimp fisher. TEDs were introduced through a collaboration with the World Wildlife Fund to reduce turtle mortality. TEDs have since been adopted voluntarily by local fishers, who subsequently brought the TED issue to the attention of the French national fisheries administration, requesting that TEDs become mandatory in French Guiana.

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Since then, the French Guiana Regional Fisheries Committee (CRPMEM Guyane) has officially requested that France and the European Union (EU) develop a TED implementation strategy based on the successful collaborative fisheries research model, which promotes and fosters the development of working relationships between fishers, scientists, and managers. A report titled "Wild-Caught Tropical Shrimp Imports into the EU and Associated Impacts on Marine Turtle Populations: The Need for EU Import Restrictions" identifies six countries that export wild-caught shrimp to the EU but are not certified to export wild-caught shrimp to the United States: Bangladesh, India, Indonesia, Madagascar, Thailand, and Vietnam. All of these countries, except for Vietnam, have national regulations requiring TEDs, yet they do not enforce their laws. The report makes the case that by restricting the countries' access to European markets, Europe can potentially save tens of thousands of marine turtles a year.

For example, India is one of the largest exporters of shrimp globally, generating approximately US\$6 billion in revenue in 2017 alone. The largest export markets for Indian shrimp, including wild-caught and farmed, are the United States, Europe, Southeast Asia, and Japan.

AT LEFT: A trawl captain installs and adjusts a TED as part of testing trials in Texas.
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Currently, European markets account for about 30 percent of the farmed and wild-caught shrimp exported from India. Shrimp trawl fisheries pose an enormous threat to sea turtles and their habitats along India's east coast, which includes the olive ridley arribada (mass nesting) sites in the state of Orissa. Trawlers in this region unintentionally entangle turtles in their nets, resulting in more than 10,000 turtles reported as bycatch every year. In response, the local government in Orissa has enacted several protective measures, such as closing areas near arribada sites to trawl fishing during the nesting season and mandating the use of TEDs in trawl nets. Nevertheless, very few trawl operators actually use TEDs, and the threat to turtles persists. The failure can be attributed to varied and complex factors, primarily the poor implementation of regulations, lack of coordination between departments, misconceptions related to TEDs, lack of incentives, and political interests. In response to this dire situation, WWF-India is engaging with multiple stakeholders to address these factors. For example, they are changing the misconception that the use of TEDs causes a 30 percent loss of total catch by carrying out experimental trials with operators on board that clearly demonstrate losses under 2 percent with 100 percent exclusion of turtles. Nonetheless, so far there has been a lackadaisical response from stakeholders in India, perhaps because they perceive their largest markets to be ensured (the United States for farmed shrimp and the EU, which does not require TEDs, for wild-caught shrimp).

The main European countries that receive shrimp exports from the six tropical export countries that are not certified to export wild-caught shrimp to the United States are Belgium, Denmark, France, Germany, Italy, the Netherlands, and the United Kingdom. Although the EU has made important progress toward creating a more sustainable fishing industry in its waters and abroad, it needs to address the lack of TED use in wild caught shrimp imports as an important step toward sustainability and as part of its ongoing conservation efforts and international environmental obligations. Accordingly, European businesses, consumers, and governments should implement measures to ensure that wild-caught tropical shrimp imports are sourced from fisheries that follow voluntary restrictive measures and therefore are not implicated in marine turtle bycatch.

Following the publication of its report in February 2017, CRPMEM Guyane, together with WWF-France, have brought this issue to the attention of the French government. France's ministry of the environment recognized the importance of the topic and the need to regulate tropical shrimp imports at the EU level. France, including the French National Fisheries Committee, has been very supportive of the initiative. France's environment minister at the time, Ségolène Royal, committed strongly to this effort and in March 2017 asked the European Commission to regulate and control tropical shrimp imports and create incentives for all stakeholders to modernize their shrimping fleets and practices.

As the only country fishing for tropical shrimp in EU waters and as a significant importer of wild tropical shrimp, France could play a leading role in addressing the problem of turtle bycatch in shrimp trawl fisheries. Its government could rally other importing EU countries and reach out to the European Commission to create and implement coherent regulations that would include providing technical support to exporting countries to develop TED capacity-building programs and implementation. The time for action is now. ■