

Marine scientist devotes career to reversing trend of bycatch

March 10 2016, by Joann Adkins



Marine scientist Jeremy Kiszka surveys for marine mammals during a recent research trip.

Each time a commercial fisher casts a net, they run the risk of catching more than their intended targets. This is particularly true in small-scale and artisanal fisheries in Africa.

It's not unheard of to find manta ray and sea turtles among the netted fish headed for market. Dolphins too. In fact, the bycatch issue is the most serious problem facing marine mammals today, according to FIU marine scientist Jeremy Kiszka.

More than 95 percent of the world's fishers come from artisanal, small-scale operations. The majority of those come from developing countries. The problem with that is they often view bycatch differently.

"To many of them, nothing is bycatch," Kiszka said. "What they can't eat, they use as bait."

Kiszka has devoted his career to reversing this trend of incidental catches. A native of France, he spent his childhood exploring the ocean with his father, a spear fisherman and scuba diver. He is driven by both a love and respect for the marine life that sustains the oceans. While at the Université de la Rochelle in France, he spent five years living in Mayotte, a small French island in the Indian Ocean near Madagascar, where he worked with marine mammals and sharks. Today, he focuses some of his efforts in East Africa, where species such as [dolphins](#), [sea turtles](#) and sharks are critical for the stability of the ecosystems. It's also an area where few scientists are working, though East Africa and areas like it largely rely on fish for food.



A hawksbill turtle is captured off Madagascar. Credit: Y. Razafindrakoto

Research published by Kiszka in 2012 confirms that bycatch is significantly reducing important species such as sharks, turtles and dolphins and may be reducing them in some areas beyond safe biological limits. Yet the need to feed people in these impoverished regions will only grow as populations continue to grow. This makes finding effective, yet economical, solutions all the more critical.

"Aside from the biological importance of these species, there is also an economic value in which they can be used in a non-consumptive way," Kiszka said.

He offers Zanzibar as an example, where dolphins were once used as

bait for fishers. At some point, local officials working with scientists began to understand their value as a draw for tourists. Today, dolphin tours have become a mainstay in Zanzibar, and dolphins are now protected in the island nation.

"The fishers understand the importance of these species. They don't want to catch them anymore," he said.

Kiszka and a team of international scientists are currently exploring options in the Western Indian Ocean to help mitigate the number of incidental catches of non-targeted species. In some areas, bycatch data is readily available. In others, it's largely anecdotal. The team is working with local fishers to collect more accurate data. But most importantly, they are conducting trials of mitigation tactics to try and reduce the number of incidental catches without affecting catches of targeted [species](#).

Whatever they try, Kiszka knows the mitigation tactics must come with a very low price tag. Since most fishers in the region are artisanal operations, they cannot afford expensive equipment to curtail unintended targets from entering their nets.

"If we can find cheap mitigation devices for the Western Indian Ocean, this could be expanded on a global scale," Kiszka said. "There is a potential to save a lot of animals."

Provided by Florida International University

Citation: Marine scientist devotes career to reversing trend of bycatch (2016, March 10) retrieved 4 July 2024 from <https://phys.org/news/2016-03-marine-scientist-devotes-career-reversing.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.