Petri Suuronen: Tackling bycatch requires buy-in from fishers

By Emma Desrochers
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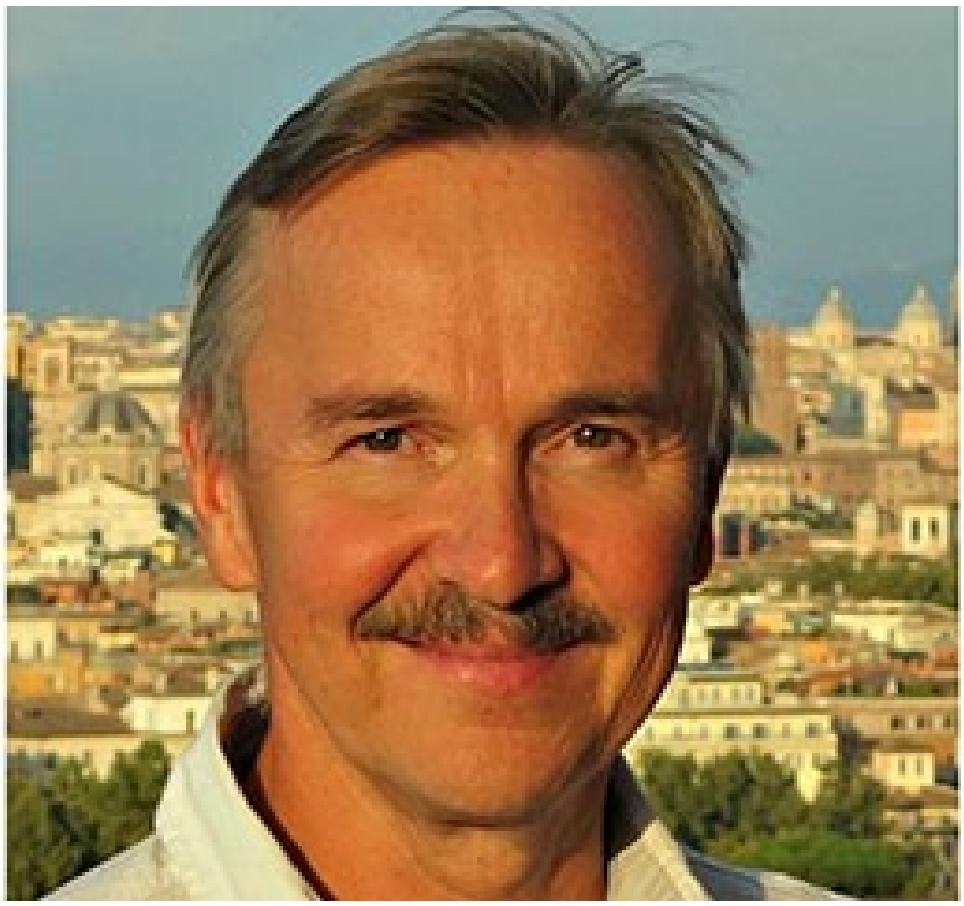

There is a growing awareness across the global seafood industry of the importance of reducing bycatch. But change remains stubbornly hard to come by, according to International Seafood Consulting Group Fisheries Expert Petri Suuronen.

“It is evident that the harsh circumstances and the complex reality faced by commercial fishers often make it a challenging undertaking to adopt bycatch-reduction technologies. That is, the solutions defined and developed by fisheries scientists and managers do not always meet the reality faced by fishers,” Suuronen said.

Based in Scandinavia, Suuronen’s International Seafood Consulting Group provides advice and support on fisheries and seafood value chains. To explore the challenges to wider adoption of bycatch-reduction technology and to provide recommendations for improvement, Suuronen served as lead author of a scientific paper, “Understanding perspectives and barriers that affect fishers’ responses to bycatch reduction technology” published in the ICES Journal of Marine Science in March 2022.

“Fishers frequently have a different perspective on the magnitude and impact of their bycatches than other stakeholders. In general, fishers do not believe that their fishery poses a marked threat to the species caught as bycatch. They may see the utility of reducing bycatch of juveniles of commercially valuable species but are less convinced of the need to reduce the bycatch of species that lack commercial value. This is especially the case when the bycatch rate of a species is relatively low,” Suuronen said. “Fishers may also be concerned that regulations dealing with bycatches may unnecessarily weaken their ability to compete and may create benefits to other fisheries [that] are subject to a less-restrictive bycatch-management framework. Furthermore, fishers often note that there is little evidence that the calculated long-term biological and socioeconomic benefits of bycatch reduction are realized as predicted.”

According to Suuronen, improving uptake will require new regulations, but enhancing the voice of fishers in the process of researching, hypothesizing, piloting, advocating, and implementing bycatch-mitigation measures is crucial to the success of such efforts.

“Most of the development work on bycatch reduction technology has been done by research organizations and other organizations which have the human resources, capital, and expertise needed for such work. Although fishers have extensive practical expertise with fishing gears and operations, their role has been relatively small in this development activity. Nonetheless, some of the most widely-adopted bycatch reduction technologies are those where the idea originated with fishers,” Suuronen said. “To become inspired in the development process, fishers need to understand and accept the problem and believe that there is a functional and affordable solution in a not-too-distant future. Furthermore, fishers may suspect that by sharing their detailed knowledge, the consequence may be further restrictions of their fishing operations. Hence, they may limit the amount of knowledge that they want to share. Despite all these obstacles, it is widely assumed that greater integration of fishers’ knowledge and perspectives has a potential to result in more practical and acceptable solutions that could lead to more successful outcomes during the implementation.”

Fishers must be convinced of the merits of participation in such programs through measures that go beyond economic incentives via trust-building for the measures to have much chance of success, Suuronen said.

“The key lessons I have gained during my 40 years work with commercial fishers is that the essential element for the success is fishers’ motivation and readiness to the change. Fishers need a clear vision of what the suggested technologies means for their livelihood. They also need solid evidence that these technologies to minimize bycatch perform sufficiently well in the conditions they are designed for,” Suuronen said. “Economic incentives often are assumed necessary for fishers to adopt modifications to their fishing gear or fishing operation. Nonetheless, financial benefit [alone] is rarely a sufficient stimulus for fishers to make a change in their gear or fishing operation. Fishers often consider the economic rewards projected too small and uncertain. Besides, the effect of an economic incentive may fade over time and as a result, the motivation to continue the use of a modified practice would require an additional economic reward. Clearly, both the magnitude and the frequency of the economic incentive should be sufficient to have an enduring effect, and even then, fishers may overlook the benefits and have little motivation to a change.”

One project cited by Suuronen that is taking a more inclusive approach toward fisher involvement in bycatch-reduction efforts is The Oceans Foundation’s effort with artisanal fishermen in Costa de Pájaros, Costa Rica. Initiated in 2019, the program has applied several incentives in its effort to engage the communities in working to preserve marine ecosystem biodiversity by applying gear, criteria, and fishing changes, but social rewards have been proven to be the most effective, Suuronen said.

“There is some evidence that social rewards and motivations can inspire fishers to behave in a socially approved

manner and can play a role in motivating fishers to a change. Social and cultural factors may affect the intrinsic motivation and can build confidence in mutually agreed objectives within fishing communities," Suuronen said. "That may be influential in shaping the compliancy also in bycatch management."

For The Oceans Foundation CEO Jorge Serendero said his group is defining the project's success more broadly than its metrics in achieving eradication of illegal fishing and shark-finning, also in providing alternative sources of income to local communities and in achieving bycatch reduction across all species, not just targeted species.

"[Community] leaders were highly motivated to achieve joint work commitments with the purpose of combating illegal fishing and seeking a dignified life for that community," Serendero said. "We managed to sign an agreement with them based on the elaboration of an ecotourism project with education, (language, boat construction, engine repair, craft decoration of boats, and food handling, among others). With this strategy, we would be able to reduce the enormous influence and damage that drug trafficking is causing in coastal communities through the recruitment of young people who do not have other opportunities."

Fifty-three families signed the participation commitment in the first stage of adoption and training with a second stage set to involve 650 families and a final stage that will influence life for 16,000 families of artisanal fishermen in Costa Rica.

"What we are looking for is the adhesion and transformation of coastal communities to be sustainable and respectful of resources, without the need to be dependent only on fishing," Serendero said. "These communities are unable to provide a decent livelihood for their families as a result of illegal industrial fishing, which with its irrational exploitation does not allow the species to reproduce in order to maintain a balanced marine fauna."

Photo courtesy of Petri Suuronen/LinkedIn

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