

Reaching Out to Fisherfolk

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ABSTRACT

Fisheries scientists and managers in the Gulf and Caribbean region still do not reach out to fisherfolk enough to get them fully involved in fisheries science and management. Some recent attempts at outreach have been good and well-intentioned, but they have not been sufficient. Fishermen are usually excluded from knowing what fisheries scientists and managers are working on unless their assistance is required in some way. Yet, fishermen have a wealth of knowledge on fish, fishing and the marine environment. Often they are only too willing to freely share their knowledge with others in ways that scientists and managers seem reluctant to do. Observations made at sea by small-scale fishermen are detailed and accurate. I am a fisherman with information to share. The 2006-2007 fishing season in the eastern Caribbean was a peculiar one in many ways. It begs for those with formal training in fisheries science to reach out and explain to fishermen the reasons for what took place and to link their conclusions to what is proposed for fisheries management and research that is relevant to the profession of fishing. In this paper I describe some observations and share thoughts on how fishermen's knowledge can be incorporated into fisheries science and management, as well as more fisheries science be incorporated into fishing.

KEY WORDS: Fishermen, knowledge, research

Extensionismo a Pescadores

Científicos y gerentes de pesca dentro de la región del Golfo y el Caribe aun no logran una conexión con los pescadores de tal manera que puedan involucrarlos de lleno en la ciencia y el manejo de la pesca. Algunos intentos recientes de extensionismo pueden considerarse buenos y bien intencionados, pero no ha sido suficiente. Los pescadores usualmente son excluidos de conocer el trabajo que realizan los científicos y gerentes de pesca a menos que de alguna manera su asistencia sea requerida. Sin embargo, los pescadores poseen un cúmulo de conocimiento sobre peces, pesca y el medioambiente marino. Frecuentemente están dispuestos a compartirlo libremente con otros de una manera que los científicos no parecen ser capaces de hacer. Observaciones efectuadas en alta mar por pescadores artesanales son minuciosas y exactas. Yo soy un pescador con información que compartir. La temporada de pesca 2006-2007 en el Caribe Oriental fue de diversa manera muy peculiar. Exige que aquellas personas con educación formal en ciencia pesquera hagan un esfuerzo por explicar las razones de lo ocurrido y vincular estas conclusiones a lo que esta siendo propuesto para el manejo de la pesca e investigaciones que sean relevantes a la profesión de la pesca. En este escrito, describo algunas observaciones y comparto mi opinión sobre como el conocimiento de los pescadores puede ser incorporado dentro de la ciencia y manejo pesquero, así como mas ciencia pesquera puede ser incorporado dentro de la pesquería.

PALABRAS CLAVES: Pescador, conocimiento, investigación

INTRODUCTION

Across the globe, torrential rains are being experienced like never before and causing severe flooding in several parts of the world. This is happening in Peru, China, India, the United States of America, and even in places not accustomed to flooding, such as London and certain parts of Africa. The end result is loss of life, infrastructure and food crops.

Super tornadoes have hit towns in the USA. Heat waves have occurred in the USA, Bulgaria, Australia and Southern Europe. Brush fires were burning out of control just two weeks ago in California, leaving behind a trail of destruction.

Killer hurricanes, blowing across the Caribbean at unbelievable strengths, have been ending up in places where they are not the norm, such as Belize and Mexico. Coral reefs in the Red Sea are dying because of a two degree rise in the water temperature. The Great Barrier Reef is under stress, and glaciers are melting at a phenomenal rate. All of these things I have just mentioned, and some I did not mention, are attributed mainly to one culprit: "Global Warming".

My presentation is first about how I think global warming affects my livelihood: fishing in the Caribbean. However, since most fisherfolk do not have much scientific information on the impacts of global warming on the marine environment in the Caribbean, much of what I have concluded is based on personal observation and a little research. Fishermen hear about a lot about their role in depleting fish stocks everywhere. We also want to hear about other things concerning marine and fisheries science, especially non-fishing impacts on the environment in which we work in order to prepare for climate change just like other sectors that are receiving more attention. We want fisheries scientists at meetings such as this, and through other means, to reach out to fisherfolk and tell us more about the causes and impacts of climate change and how it may impact our livelihoods and lifestyle.

OBSERVATIONS

Amidst all of the above global events, the immediate past fishing season, roughly from October 2006 to July 2007, was both good and bad for fishermen in Barbados. Never before have I seen so many dolphinfish

(*Coryphaena hippurus*) in my entire life. However, the average size of the fish was smaller than usual for most of the early part of the season, and particularly during the peak of the dolphinfish season, which is typically from February to March each year. I wondered what changes in the environment may have caused this increased abundance and size shift.

Flyingfish (*Hirundichthys affinis*), barracuda (*Sphyraena barracuda*), and triple tail (*Lobotes surinamensis*) were also abundant, and there continues to be a growing local market demand for the latter two species. Indeed the unit price for barracuda and triple tail occasionally exceeded that of the usually more favored large pelagics.

Our deep slope demersal fishery has so far been a great one for this hurricane season (our low season for pelagic fishes). Snappers (various *Lutjanidae*) and brims (queen snapper *Etelis oculatus*) have also been caught in great numbers, and the sizes have been greater than I have seen in recent times, some weighing as much as 10 kilograms.

Despite this abundance of some species, our pelagic longline season has been the poorest in a long while, and wahoo (*Acanthocybium solandri*), were also scarce. Things got so bad that our longline fishermen resorted to catching flyingfish and dolphinfish, not even bothering to put their longlines overboard. Paradoxically, our flyingfish boats recorded higher landings of yellowfin tuna (*Thunnus albacares*) than in previous years as the tunas were biting better at live flyingfish bait rather than at frozen squid. In Barbados, the longliner fleet performed poorly. However, our counterparts in the south, the Trinidadians, and the Grenadians to the west south west, both enjoyed a bumper longline season, this can be attributed to a use of a different type of bait. They have been using live jacks (mainly bigeye scad *Selar crumenophthalmus*). Are we seeing changes in bait preference among target species? Why?

Fishing is one of the oldest professions in the world. My question is how in 2007, when the most frequent phrases you hear are “diminishing fish stocks” and “overfishing”, we have recorded (or at least fishermen have thought them to be) the best catches in the history of Barbados. Do these observations have anything to do with climate change? Or was this just an unusual year in the context of recollection in living memory? Other questions I would like answered are why does the flyingfish season shut itself down? What is happening in the lives of the flyingfish, wahoo, and dolphinfish during the low season that may also have changed due to climate or other factors?

Each day life presents us with new challenges, and we must be prepared and equipped to deal with them. The cost of living keeps escalating; your standard of living depends on how much you earn. How much you earn depends on how much you know or how much you produce. Each year you need more money to maintain the same standard of living, and fishermen are not exempted from this pattern.

No matter the dilemma we face, we must act responsibly. Undisciplined harvesting is certainly not the answer. I have first hand knowledge and experiences. Our sea urchin fishery is a casualty of indiscriminate harvesting. Two Bajan proverbs come to mind: “hungry mek cat eat salt” which means hardship cause people to do things they would not normally do, and “one bellyful does not fatten the hog”, which means always do things in a sustainable manner or you may be found wanting. Too often I have seen fishermen harvesting too many small fish with existing gear, or making adjustments to their gear in order to catch them.

Fish stocks around the world continue to come under a three pronged attack: overfishing, pollution, and climate change in the form of global warming. Which one is having the greatest effect is debatable. But what I know, and I know that you know, is that overfishing, pollution and climate change have two things in common:

- i) They cause destruction, and
- ii) They are all attributable to the practices of man.

REACHING OUT

If ever there was the need for fishermen and scientists to work together, the time is now. No longer can we afford to sit back to prove each other wrong. It is no longer who is right, but what is right. We need to reach out to each other, but I think that, in the Caribbean, scientists have the greater responsibility to reach out to fisher folk and the public in general. Scientists are paid, and paid handsomely, to study ecology, movements, and to advocate the sustainability of the animal where necessary. Fishermen in most parts of the world are paid very little for their efforts. Therefore, there is this tendency to take as many fishery resources as you can when the opportunity presents itself, for as we all know every day is fishing day but not catching day.

Fishermen in different parts of the world view fisheries science differently. No one has all of the answers no matter how much experience, or PhDs, or professorships you may possess. That is why it is imperative that we share our thoughts, experiences, and conclusions with each other. Sometimes we fishermen believe that fisheries scientists do not have a clue what they are talking about, especially if our experiences tell us otherwise. But I will concede that scientists' experiences and assessments may be true reflections based on the locations where the studies may have been done. Our fishing experience shows that fish congregate and behave differently from territory to territory, so findings can vary significantly by location. A fisherman may see more situation-specific variation than a scientist who expects or wants findings to apply more generally.

I have been a part of this great forum from time to time. I have sat and listened and viewed several wonderful presentations on various types of fisheries research conducted, but never have I ever heard anything about the

moon phases in which they have been conducted. We fishermen know that the moon phases are very important. The same way we have mixed feelings about fishery scientists, I am sure that they believe we are some of the most uneducated jackasses they have ever come across.

Fishermen believe that their experiences give them the God given right to be classified as experts, and that you need to be at sea for a long time before they are willing to give you an ear. This is both wrong and senseless. Experience without science is baseless. On the other side, scientists and managers for too long unilaterally made decisions that had direct impacts on the livelihoods of the fishermen without their involvement. This led to gross disrespect and distrust. As a result, a lot of valuable information went 'abegging' on both sides. Science without experience is flawed.

A lot of the time valid information is not reaching the intended target groups. Feedback from fisheries researchers, such as students, often does not occur. Fishermen usually do not know how information obtained from them is used. Researchers need to explain to fishers about the outputs and outcomes of their research. The fisheries science and management information dissemination process in the region needs revisiting and revising. This includes the means of communication. Some fishermen are only interested in the money factor and do not read any correspondence given to them, but a man that does not read is not any better than a man that cannot read. Written reports, however, are not enough.

Change is constant, and in order to remain effective we too must change. This also applies to this great institute and its board of directors. In this institute there is a wealth of knowledge and skilled personnel that must be used to full advantage. This institute has the capacity to play a pivotal role in the collaboration between fisheries scientists and fishermen. Sub-committees can be formed to look at special projects such as workshops, strengthening of fisherfolk organizations or anything they may deem fit. New links must be forged between stakeholders in other fishery-based organizations around the region, and a new and improved way of disseminating information.

However, all is not lost, I remember not so long ago when I was the only commercial fisherman presenting at a GCFI meeting. Today there are others, and many more in the audience who are here to participate in this great forum. There is the need for a concerted and cohesive approach to right the wrongs we have created such as climate change.

For then, and only then, will we be able to effectively manage our environment, and our fish stocks. At present we congregate in the same places but continue to sing from different song sheets. There must be a marriage of science (research) and experience (practice). Combining science and experience is the way forward.

The ideal approach would be to have fisheries scientists and fishermen working together in the field. Since this approach cannot always be accomplished, the

next approach would be to train fishermen in data collection and have them present whenever and wherever possible when this information is being analysed. One reason is because the fishermen spend more time at sea than scientists. Since conditions and situations have been known to change at the twinkle of the eye, there will be someone in place to capture this information. Another reason is that you cannot have confidence in data you collected unless you have any confidence in yourself through combining science and experience. I said before, and I will say again, that education remains the greatest tool on planet earth. The more you know about a subject the better you are equipped to deal with it. Together we aspire, together we achieve.

I will now ask you to join me in welcoming all the fishermen in attendance and to thank the Board of Directors of the GCFI, the funding agencies and all those entrusted with getting the necessary funding to get us here to this meeting.

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