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High times, high seas, high blood pressure: completing an MSc at the Fisheries Centre has it all

by Sarika Cullis-Suzuki

This fall 2009, I closed the door on part of my life: I finished my three-year MSc at the Fisheries Centre at UBC. Unfortunately, what was not put to an end: all the ocean's problems.

Certainly one of the most overwhelming things I dealt with early in my studies was becoming aware of the global crisis of fisheries, and the resultant feeling of being so small as to be completely ineffectual in the face of it. I definitely remember my early days at the Fisheries Centre, rushing over to my supervisor's office, plunking myself into a chair and asking: how do the oceans even stand a chance? And how do you maintain your composure?? I suppose Dr Daniel Pauly has witnessed (or been the victim of) such a reaction before. He calmly explained to me how you do what you can: you put the parts back, tiny piece by tiny piece[1]. And so that's what I tried. As we all do, as members of the *Sea Around Us* Project.

Initially for my research, I began working on global Marine Protected Areas (MPAs), continuing on with the work of Dr Louisa Wood, who graduated from UBC in 2006. While this did lead to some interesting results (see Alder *et al.* 2009; Cullis-Suzuki and Pauly *in press*), after a year it was time to move on to something new.

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Yet while we continue to blanket the seas with RFMOs, the question of whether or not these management bodies are even effective remains unanswered.

While taking a course in marine resource law, I became very intrigued with the concept of an ocean 'commons', and the idea that there could still be areas of the sea essentially unowned by people. What happens to the resources in these areas? Who is responsible for them? Comprising about 60% of the ocean's surface, the high seas are often left out of the global fisheries discussion.

This is what led me to my thesis topic: the effectiveness of global regional fisheries management organizations on the high seas. Regional fisheries management organizations, RFMOs, are currently the only fishery bodies mandated to manage and conserve the fish resources in the high seas (United Nations 1995). Currently, RFMOs cover the majority of the global oceans (Figure 1). Through increased management, RFMOs are touted as being part of the solution to overfishing; thus calls to increase their numbers have been made, and as a result, more are slated to come into existence soon[2].

Yet while we continue to blanket the seas with RFMOs, the question of whether or not these management bodies are even effective remains unanswered.

I conducted a two-part study. The first part examined the state of RFMOs in theory, i.e., how well they did when compared to guidelines (see Lodge *et al.*, 2007). The second part examined the effectiveness of RFMOs in practice, i.e., how well they scored in relation to the status of the stocks which they manage.

The average score across RFMOs in the first part of the study was 57%: the majority of RFMOs fail to meet the best-practices requirements. Scores were particularly low regarding schemes to promote compliance. The results of the second part of the study were even more shocking: two-thirds of the stocks examined under RFMO management were either depleted or overexploited, which matches with FAO's current estimate (FAO 2009). These results show that high seas stocks are worse off than those within EEZs, and with a much shorter fishing history, too[3]. The RFMOs scored predictably worse in this half of the study, averaging 49%.

There appeared to be no correlation between how RFMOs scored in the first assessment, and how they scored in the second; in other words, what an RFMO says it's doing does not necessarily reflect what is actually happening in the sea.

My study concluded that RFMOs face many organizational problems which can account in part for their low scores, but generally, the most pressing concern is our failure to accept

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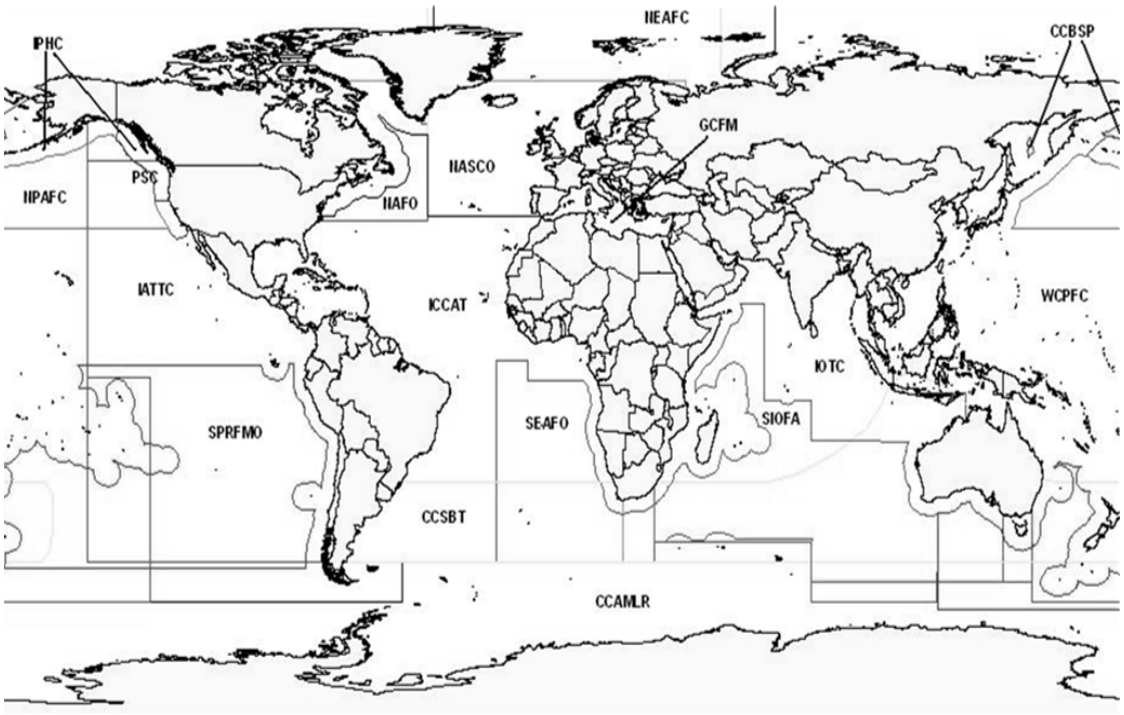

The global distribution of RFMOs. The IWC covers the entire ocean.

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that the 'Freedom of the Seas' exists no longer. "First, the principle of freedom of fishing could be retired from the pantheon of fundamental principles. Indeed, the continued articulation of the principle is both inaccurate and misleading, if not downright disingenuous" (Rayfuse 2007). And because we don't accept this, we continue to treat the high seas like a global commons. Flags of convenience, IUU, and high rates of bycatch are all rampant on the high seas, illegal acts aided easily by their immensity and unmonitored state.

Until we succeed in giving RFMOs both full responsibility and accountability for managing and conserving fish in the high seas, their state- and that of the fish- can only be expected to get worse.

These findings will soon be submitted to a journal. Yet while valuable, they are overwhelmingly depressing. It's a strange feeling: part triumphant at finishing one's degree, part despair upon realizing just how bad it is for the oceans.

Ah, the ups and downs; they definitely get one's blood flowing.

Thankfully, there were other, more uplifting parts of my time at the Fisheries Centre. Like what it's like to be at the epicentre of cutting-edge global fisheries research, or to exchange ideas with an incredibly diverse and competent international group of people. Or to have conversations with the leading minds in fisheries science… and sometimes, even to disagree with them. Or to shrink in one's seat in a classroom, surrounded by professors, post-docs, and students, all people of imposing analytical capacity. Or to collect an eminent scientist at the airport because she is scheduled to give a lecture at your institution- a scientist who will soon go on to work for the Obama Administration, becoming the first female in history to head NOAA[4]. Or to have your hero write to you because he read an article you wrote in *FishBytes*. Or, to have the freedom to do science while acting on the responsibility we have as scientists and as citizens.

My time at the Fisheries Centre has been replete with opportunities and intellectual stimulation (and exhaustion). These things have all made my three years here matchless in scope, and very, very full. For all this, I am grateful and proud. Thanks to all who have been part of it.

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Notes

[1] 'Tiny' being relative: the topics of theses supervised in the context of the *Sea Around Us* Project, being global in scope, are notoriously ambitious!

[2] For a list of current and future RFMOs, see www.fao.org/fishery/rfb/search.

[3] Unlike coastal fisheries, high seas fishing only really began in the 1950s.

[4] Dr Jane Lubchenco gave a FISH 500 seminar at the Fisheries Centre as part of the lecture series in March 2008, exactly a year before she became administrator of NOAA.

And because we don't accept this, we continue to treat the high seas like a global commons.