

From the front lines of the 2012 AAAS meeting

by Claire Hornby, Sarah Harper, Robin Ramdeen, Dyhia Belhabib, Frédéric Le Manach and Aylin Ulman



The Sea Around Us Project booth at the AAAS meeting, held in Vancouver earlier this year, was a big success and attracted attendees of all ages. (Photo: Yoshi Ota)

The American Association for the Advancement of Science (AAAS) held its 178th Annual Meeting in Vancouver from February 16-20, 2012. The theme of this year's conference was "Flattening the world: building a global knowledge society". *Sea Around Us* Project members were among the 8,000 attendees, participating and presenting in numerous symposium sessions and volunteering at the Project's booth in the exhibition hall. Additional notable sessions were presented by other members of the Fisheries Centre.

Highlights from the conference included a symposium titled "Underreported yet overoptimistic: fisheries catch reconstructions and food security", organized by *Sea Around Us* Project members Dr Dirk Zeller and Sarah Harper. Dirk gave an informative

presentation outlining the methods used in reconstructing countries' fisheries catches, while Frédéric Le Manach expanded on the importance of this task for tackling issues of human rights and ethics. Frédéric explained that fishing access agreements between the European Union and host countries, citing the example of Madagascar, are perpetuating socio-economic inequalities between most- and least-developed countries. The catch reconstruction work for Madagascar made the first step toward revealing some of these inequalities, which suggest that fishing access agreements need to be revised to be more ethical.

In the final part of the session, Nicola Smith, a graduate of the University of British Columbia now working in the Caribbean, described her reconstruction of the catches

The *Sea Around Us* Project Newsletter
Issue 69 | January/February 2012

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of the Bahamas. She found that recreational fisheries catches, which account for a large proportion of the country's total catches, are entirely missing from official statistics. As is the case for much of the Caribbean, the economy of the Bahamas is dominated by tourism – visitors want to fish and eat seafood as part of their holiday experience. This places intense demand on the local marine environment. The take-home message of this symposium was that proper accounting of all fisheries sectors is a key component of managing fisheries resources in both a sustainable and ethical manner. The examples that Dirk, Frédéric and Nicola presented are just a handful of the 150 or so countries that will be reconstructed by the end of this year. There will definitely be many more interesting stories to tell once the reconstruction of catches for all fishing countries is complete!

Another successful symposium was "Whole-ocean economics" organized by Dr Rashid Sumaila. He revealed the newly developed Eco2 Index, which measures the economic and environmental health of developed and developing countries. Dr William Cheung also presented a conservation risk index that combines economic figures and fisheries population growth rates to reveal the economics/conservation trade-offs of fishing. It was clear from the model that not all developed countries are doing well in terms of conservation. The audience showed a particular interest in the "Whole-ocean economics" session and there was plenty of participation by professors, researchers, non-governmental organization representatives and students. A roundtable session followed

the presentations and questions relating to fisheries, marine protected areas and governance generated stimulating discussions. This session succeeded in highlighting the commitment of the Fisheries Centre members to global research and collaboration.

Another symposium organized by the *Sea Around Us* Project was titled "Leveling the global playing field: global inferences from reliable global samples". Dr Kristin Kleisner, a postdoctoral fellow with the *Sea Around Us* Project and organizer of the session, explained how to design sampling methods and why it is important to infer scientifically sound global trends. Dr Thomas Lovejoy, from the H. John Heinz III Center for Science, Economics, and the Environment in Washington DC, then discussed the use of technology to monitor biodiversity trends and species extinction. Closing the symposium, Dr Molly Jahn, from the University of Wisconsin, stressed the need to build a global information system to meet our future needs.

The *Sea Around Us* Project booth was also a major success. It allowed Project members to share their work with a diverse audience. For Claire Hornby, the AAAS was her first major science conference, and she was excited and nervous to have a chance to interact with scientists of various disciplines from all over the world. It was amazing to see the wide range of people that approached the booth, eager to hear about the Project's work. Surprisingly, it seemed everyone – no matter if they were a budding scientist of five years old or an established professor – wanted to learn something about fisheries. The majority of attendees that approached the booth knew about the current state of the world's oceans and the decline of many commercial fisheries.

Family day at the AAAS brought many up-and-coming scientists to the booth. Robin Ramdeen,

The *Sea Around Us* Project Newsletter is published by the Fisheries Centre at the University of British Columbia. Six issues are published annually, and subscriptions are free of charge.

Our mailing address is UBC Fisheries Centre, Aquatic Ecosystems Research Laboratory, 2202 Main Mall, The University of British Columbia, Vancouver, BC, Canada, V6T 1Z4. Our fax number is +1 (604) 822-8934. Our e-mail address is SeaNotes@fisheries.ubc.ca. All queries, subscription requests and address changes should be sent to Lisa Boonzaier, the *Sea Around Us* Project Newsletter editor.

The *Sea Around Us* Project website can be accessed at www.seaaroundus.org and contains up-to-date information on the Project.



The *Sea Around Us* Project is a scientific collaboration between the University of British Columbia and the Pew Environmental Group that began in July 1999. The Pew Environmental Group works around the world to establish pragmatic, science-based policies that protect our oceans, wild lands and climate. Pew also sponsors scientific research that sheds new light on the dimensions of and solutions to the problems facing the global marine environment.



Robin Ramdeen explains the catch reconstruction work of the Sea Around Us Project to an interested attendee at the AAAS Annual Meeting. (Photo: Claire Hornby)

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who volunteered that day, described how wonderful it was to see so many primary school children intrigued by the *Sea Around Us* Project's display of ocean primary productivity. Their level of understanding of the importance of plankton for producing the energy upon which marine food webs are based was astounding. These inquisitive junior scientists answered their own questions about where energy comes from, both on land and at sea, and about how phytoplankton and zooplankton are essential to the diet of fish via the

food web. Importantly, they were able to connect how changes in primary production could affect one of the ocean's top predators: humans.

These were just a some of the highlights of *Sea Around Us* Project's and the Fisheries Center's contributions to the 2012 AAAS meeting. The conference was yet another example of how committed the *Sea Around Us* Project is not only to doing good research, but also to communicating its work to the world.



Welcome and farewell!

We're pleased to welcome new *Sea Around Us* Project members to the team. **Danielle Knip** and **Boris Jovanovic** have joined as postdoctoral fellows. Danielle comes from Australia where she recently completed her PhD tracking sharks. Boris completed his PhD in Fisheries Biology and Toxicology at Iowa State University.

A number of new research assistants have started working at the *Sea Around Us* Project. **Anna Garland** is currently on leave from her position as a Fisheries Resource Officer in Queensland, Australia, where she coordinates ecological sustainability assessments. A graduate of UBC's Bachelor in Conservation Biology program, **Claire Hornby** has worked with marine resources in places as diverse as Bamfield Marine Science Centre, Alert Bay and Chile. **Carmen Mok** studied Physical Geography at Simon Fraser University. **Ava Mai** graduated from Iowa Wesleyan College with a major in Accounting, and previously worked as an accounting and admin clerk.

We also have a student, **Isaac Trindade Santos**, visiting us for six months from Brazil, where he studies with Kátia Meirelles Felizola Freire. He has a scholarship from the Science without Borders Program.

On a sadder note, the *Sea Around Us* Project Newsletter is also saying farewell to **Megan Bailey** who has been the dedicated and enthusiastic editor of this newsletter for almost four years. We wish her all the best in her future endeavours!

Honoring a great mind

by Claire Nouvian

Thank you to the French Ecological Society for rewarding this native of France whose talent has been expressed beyond our country's borders

During February of this year, Dr Daniel Pauly was acknowledged for his outstanding professional achievements by the French Ecological Society (Société Française d'Ecologie), which awarded him their 2011 Grand Prize. Following is a summary of the address that Claire Nouvian, president and founder of the nonprofit conservation organization BLOOM, presented at the Natural History Museum in Paris when Daniel was officially awarded the prize. Claire and Daniel have collaborated on a number of conservation projects in the past.

Daniel Pauly is well-known for his high-impact scientific work, which has led to an overhaul of thoughts and systems. A French-born scientist, he is gifted with vision. He has, like no other, the ability to detect and demonstrate trends at work in the world. Like Darwin following his intuitions about the great dynamics structuring nature, Daniel has deployed his workforce around a consistent axis: the identification of global trends from a cloud of seemingly insignificant data points.

Daniel was the first to describe the global fisheries crisis as catastrophic. He convincingly demonstrated that the Tragedy of the Commons, as described by Hardin in 1968, was taking place in the oceans. We must be grateful to him for taking on the role of the Prophet of Doom, because, to paraphrase philosopher Jean-Pierre Dupuy, knowing does not necessarily result in action; our ability to blind ourselves in front of sheer evidence is the main obstacle that the Prophet of Doom must overcome, or at least circumvent.

Probably the main difficulty Daniel has had to face is the incredulity of his peers regarding the advent of the disaster. The role of the Prophet of Doom is to avoid the worst – provided it is still possible. It is a thankless task because if the Prophet fulfills his mission, the worst is avoided, but when the worst is avoided, the Prophet's detractors will relentlessly denounce exaggerated and unjustified claims. This is despite the fact that it was the Prophet's "enlightened catastrophism" that doubtless provided the jolt without which no system, human or other, could rethink its behavior and adjust accordingly.



Daniel Pauly (center) with the president of the French Society of Ecology (left) and Claire Nouvian, president of the nonprofit organization Bloom. (Photo: © C. Thébaud 2012)

Solitude threatens any messenger of doom, because the revelation of a frightening situation is inaudible to most. Daniel has managed to avoid this threat thanks to the robustness of his work and his charismatic personality, which attracts people to him like moths to a flame.

Anyone who has worked with Daniel, read his literature or heard him speak can only praise the wit, joviality and timely sense of humor of this legendary "iconoclast," as the New York Times called him. Only a great mind can dare to use striking mental images to make a point. While today such shortcuts are a pretty sure indicator of embryonic thought, with Daniel they are raised to the rank of art – a sign of multi-disciplinary erudition belonging to times past. They allow him to sum up complex processes in a catchy allegory that is deeply anchored in reality and therefore universal in effect.

It is easy to understand why this great mind has received numerous prestigious awards, and why Daniel has become a Fellow of the Royal Society of Canada, but it is difficult to understand why his work has not been recognized by any French award committee up to now. Thank you to the French Ecological Society for rewarding this native of France whose talent has expressed itself beyond our country's borders.

Ultimately, it is Daniel's tenacious spirit, as well as his radical resistance to injustice, consensual thought and any form of mediocrity that I want to congratulate. I believe that beyond the objective elements which justify praising Daniel, it is also the moral value of his defiance that makes him a figure capable of surviving the work of time.

