

# FISHBYTES

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## Seasoned academics and young optimists: both essential ingredients in conservation science

by Sarika Cullis-Suzuki

Suddenly, after two hours along a dirt road, passing ominous logging trucks and dodging potholes, you arrive at a majestic scene. Welcome to Bamfield, population 300. The term “quaint” seems too patronizing for a town with so much character.

There’s an air of excitement and discovery here at Bamfield Marine Science Centre (BMSC), where I’m currently teaching assistant for the



Students ask Dr Pauly questions after the talk.  
Photo by Sarika Cullis-Suzuki

protect: the ocean, clean air, community.

The research station itself overlooks Bamfield Inlet. The bright red roofs of the Coast Guard are visible through the windows of our classrooms, their station separated from us by a mere strip of calm sea, and we’re often interrupted by the loud whirr of helicopter blades. From the orcas spotted last week to the bears that roam the shoreline, convenient

distractions from class abound. But it is the ocean itself that is the main allure of Bamfield.

On May 14th this year, Dr Daniel Pauly arrived as a guest lecturer, the first of the Distinguished Speaker Series. These talks were the vision of Dr Richard Peter, the last director of BMSC, who died unexpectedly in March. His series will contribute greatly to the Bamfield community.

Dr Pauly delivered his talk to the packed room in the new Ritz Centre, a beautifully architected building in the shape of a giant clam with windows for walls, looking out onto the picturesque inlet. After the talk, the class gathered around Dr Pauly and asked question upon question. After more than two weeks of intensive lectures and studies on fish and fisheries, the students could finally meet and probe the scientist behind many of the issues discussed in class.

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Biology of Fishes course taught by Dr Tom Reimchen from the University of Victoria. Perhaps it’s because everyone is doing research, or perhaps it’s that everyone is helping each other. Or maybe it’s being surrounded by the very things we try so hard to

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Dr Pauly's strong views on fisheries deeply affected the students. Their realisation followed a remarkable sequence: they became incredulous, saddened, and then motivated. And then they wrote to their government. They decided to form an organization. They switched their schedules to take fisheries classes next semester at UBC. They became proactive.

The passion of these students awoke in me the sense of urgency that sometimes wanes, especially after being in the company of somber scientists and weary professors. Knowledge, it seems (especially in this field), often results in a deep

comprehension from which cynicism is born. We need the knowledge of our elders and scientists, but we also need the ingenuity and optimism of our youth.

Bamfield is an exceptional place that spurs motivation and research, introspection and challenge. The bumpy ride out of Bamfield isn't so bad now, with such ample fuel for reflection.



*After stirring up the students, Dr Pauly skipped the bumpy ride home and opted for the float plane. Photo by Sarika Cullis-Suzuki*

## A whale tale

A minke whale skeleton recently arrived in the AERL atrium to provide company to the lone killer whale skeleton that was hung in 2006. Minke whales filter small schooling fish and krill using their baleen and are found in all of the world's oceans. They are found off the coast of BC mainly during the summer months, but are relatively rare and very elusive. Very little is known about this species.

This female minke whale was 7.6 m (25 foot) and 7 to 8 tonnes when she beached herself near Echo Bay, off the northeast coast of Vancouver Island, while being chased by two transient killer whales in October, 2004. Evidence of the chase and beaching can be noted in the three fractured ribs.

Dr Andrew Trites and a number of students, staff and other volunteers traveled to Vancouver Island to recover the skeleton (see *FishBytes* vol. 11 issue 1). The bones spent the next 6 months on the bottom of the ocean while marine creatures did some fine-scale cleaning. They were then dried and sent to Mike de Roos for museum preparation and re-articulation.

Preparing marine mammal skeletons has become a family affair for Mike who brought his father, uncle and friend to UBC to assist in hanging the skeleton. With additional assistance from UBC's Dave Gummesson and Chad Nordstrom, they re-hung the killer whale and suspended the minke

whale in a realistic (and secure) feeding position that captures the beauty and power of this magnificent mammal.

The UBC Marine Mammal Skeleton Project is funded by the Marine Mammal Research Unit (Fisheries Centre), UBC Properties and PetroCanada.



*(L) The minke whale skeleton hangs in the lobby while being re-assembled. (R) Mike de Roos and his father Bob de Roos after attaching the whale's lower jaw. Photos by Sherman Lai*

## Carl Walters awarded the 2007 Timothy R. Parsons Medal

Please join us in congratulating Dr Carl Walters, who has been awarded the 2007 Timothy R. Parsons Medal for excellence in multidisciplinary ocean sciences. The Timothy R. Parsons Medal was established by Fisheries and Oceans Canada (DFO) to recognize achievement in ocean sciences. The medal is awarded to a scientist for distinguished accomplishments in multidisciplinary facets of ocean sciences. It recognises excellence during the lifetime of the recipient (or for a recent outstanding achievement), while working for Canadian institutions for the benefit of Canadian science.

Dr Wendy Watson-Wright, DFO's Assistant Deputy Minister, Science, presented the medal to Dr Walters at a ceremony at UBC on June 7, 2007. The ceremony was attended by Dr Walters' colleagues, friends and family, as well as by Dr Parsons himself, who made a short speech.

During his acceptance speech, Dr Walters spoke of the strongly divided views held by himself and Dr Parsons during the many years they were colleagues at UBC. As many readers will know, Parsons had a distinguished career in oceanography and focused on developing an ecosystem approach to fisheries management, based on the measurement of dynamic relationships between fish and their oceanographic environment. Walters, however, maintained that ecosystem dynamics were inherently unpredictable and that management must therefore be adaptive and robust to uncertainty. Whilst still holding the latter view, Dr Walters admitted he owed an apology to Dr Parsons about the former, telling the story of a fishing trip with his younger son, William, shortly after Dr Parsons' retirement, that led to the development of 'foraging arena theory' and, eventually, to the dynamic ecosystem model, Ecosim, which does reasonably well at predicting ecosystem dynamics. Dr Walters ended his speech by thanking DFO, colleagues and, especially, his wife Sandra.

For more information visit [www.dfo-mpo.gc.ca/science/Awards/parsons\\_award/Parsons\\_e.htm](http://www.dfo-mpo.gc.ca/science/Awards/parsons_award/Parsons_e.htm).



(L-R) Timothy Parsons, Wendy Watson-Wright and Carl Walters at the presentation ceremony. Photo by John Corry

## Cambridge conference on conservation science

by Jonathan A. Anticamara

Conferences can be relaxed, friendly, and conducive to learning and discussion. This is how I found the Student Conference on Conservation Science (SCCS) that I attended at the University of Cambridge on 27-29 Mar 2007. The many great aspects of the SCCS 2007 included the following:

- 1) A wide geographic coverage of study sites were presented in 98 talks and posters, involving 52 countries;
- 2) A session allowing participants to interact with conservation organizations from around the UK, plus mini workshops on several topics such as grant writing, publishing, systematic conservation planning and stakeholder dialogue; and
- 3) One month internships, offered to engage a few selected applicants in conservation projects within the UK.

As well as giving me the

opportunity to learn about the biology and ecology of many different species, communities and ecosystems, and implications for conservation actions, the conference gave me pause for thought. For example, I was a little surprised at the heavy bias towards terrestrial ecosystems.

Out of the 28 talks, 20 had terrestrial themes, with few marine topics (5), and even fewer freshwater topics (3). Similarly, out of the 70 posters, 60 were terrestrial, 5 were marine and the remaining 5 were freshwater topics. I also noticed a strong bias towards birds: a third of the talks and posters that focused on species or taxonomic groups were about birds. I wondered if these figures reflect the global effort (money, time and expertise) spent on conservation and, if so, what is the implication for

non-terrestrial ecosystems?

I also wondered if it is right that, given the intensity of current conservation challenges, students in general still devote their time, money and effort to compiling basic biology and ecology knowledge rather than trying to apply or test the conservation value of the massive amount of ecological knowledge existing in volumes of journals? Certainly, the lessons I learned and the discussions I had with other SCCS participants will help me evaluate how I would like my own work to contribute to advancing marine conservation.

I would like to thank the University of Cambridge, the Pacific Fisheries Biologist scholarship ([www.fisheries.ubc.ca/grad/pacific.php](http://www.fisheries.ubc.ca/grad/pacific.php)), and Project Seahorse for supporting my participation in the SCCS 2007.



# Université de Montréal awards honorary doctorate to Daniel Pauly

by Lyne Morissette

On May 25<sup>th</sup>, the Université de Montréal (UdM) awarded an honorary doctorate to Dr Daniel Pauly at the 2007 spring convocation of doctorate degrees. Dr Pauly has had an important impact on the way biological oceanography is taught at the Department of Biological Sciences at UdM and was thus recognized for his scientific achievements and contributions to marine ecology and fisheries science. He attended the ceremony with his wife Sandra, his son Ilya, his daughter Angela and his only student from Université de Montréal, yours truly. During the ceremony, he was introduced with the following words:

*"The name of Daniel Pauly is closely linked to the battle for the conservation of marine resources on a planetary scale. Adopting a rigorous scientific approach, he criticized commercial fishing practices and provided evidence of their harmful effects on habitats on a worldwide scale."*

He received his diploma and medals from the rector Luc Vinet and André Caillé, chancellor and chairman of the board.

Earlier that day Dr Pauly presented a seminar at the *Institut de Recherche en Biologie Végétale*, located within the Montreal Botanical Garden, one of the largest and most prominent botanical gardens in the world. Because of a technical problem, his presentation originally entitled "Fisheries Impacts on Marine Ecosystems" was replaced by a masterful improvisation: "On Biodiversity and Databases". With only the FishBase.org website projected on the screen, this new and spontaneous seminar raised much interest from the audience, most of whom happened to be just back from a conference on biodiversity, their heads full of new ideas on how to find, organise and store information

about species. Daniel insisted on four matters to be considered when building important biodiversity databases such as FishBase:

- 1) Using a widely-recognised **taxonomic authority**;
- 2) Collecting **data**, data, ... and more data;
- 3) Using **common names**, which allow access to the public; and
- 4) Recognizing and citing all **collaborators**.

Dr Pauly spent the weekend in Montréal with his family. This is the second honorary doctorate he has received, after being awarded one from the Aristotle University in Thessaloniki, Greece, in 2005. His pleasure was genuine, as he said to me, smiling: "Two is great. Now I will be able to mention my honorary doctorates!" Please join me in congratulating Daniel Pauly on this award.



(L-R) Luc Vinet, Daniel Pauly and André Caillé at the convocation ceremony.

Photo by Lyne Morissette

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