



DAILY NOTES

2007 GEORGIA BASIN PUGET SOUND RESEARCH CONFERENCE MARCH 26–29, 2007 VANCOUVER, BRITISH COLUMBIA

Photos: Surf scoters, Mike Yip; Waves, Marsha Engel; Eelgrass, Stock photo

‘Leaning on the wall’ between science and advocacy

Modern societies must rethink the role of science in the political process, Dr. Daniel Pauly, director of the University of British Columbia Fisheries Centre, will suggest in his keynote address this morning.

“We have to lean on the wall that separates advocacy from science,” he said in a pre-conference interview. More specifically, scientists must think about how they relate to the use—or non-use—of their results by public authorities.

Human activity and industry have increased to the point that they present a genuine threat to the planet, Dr. Pauly said. It may have been simpler to live sustainably when populations were smaller.

But now, “everything we do matters, and everything we do is amplified by our numbers.”

Meanwhile, politicians are trained to treat environmental concerns as just one of many variables in their decision-making.

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Chief Leah George-Wilson of the Tsleil-Waututh Nation provided a traditional Coast Salish welcome to the 2003 Georgia Basin Puget Sound Research Conference. Chief George-Wilson will welcome participants again at this year’s conference on behalf of her nation and the Musqueam and Squamish Nations, marking the event’s return to Canada. She will be joined by her sisters, Carleen and Joanne Thomas, who will sing the Coast Salish anthem.

Research results link science to action

The linkage between science and policy-making is a key focus for this conference, serving as a foundation for the collaborative effort to protect and restore the Georgia Basin Puget Sound ecosystem.

Faced with the impacts of urbanization and climate change, water quality issues and threats to biodiversity, the region’s future rests on the knowledge that science can transcend political boundaries and bring communities of interest together. In the next several days, participants will have a chance to debate some critical questions:

- Are we doing the right science? What research questions will we be

asked to answer over the next 10 to 15 years?

- Is the science right? Do we have the right tools, capacities, and skill sets to do the job?
- Are we doing all that we can, and all that we must, to effectively integrate and communicate knowledge from different jurisdictions, disciplines, and cultural traditions?

Conference chairs Justin Longo of Environment Canada and Sarah Brace of the U.S. Environmental Protection Agency (EPA) hope to see participants galvanized by the four days onsite. Plenary and breakout sessions will present compelling research findings and explore ways of “energizing the

interface between science and action,” Longo said.

“Here, scientists talk to scientists,” he noted. “We’ll be looking at how to translate science into usable knowledge for policy-makers and individuals to act on.”

Stimulating public concern over the endangered ecosystem of the Georgia Basin is a challenge that will be present throughout the conference.

“We live our lives above the water, and if you ask people to describe the [Georgia Basin Puget Sound] area, they talk about the beautiful landscape,” Longo said. “Scientists also see the imperilled ecosystem on the landscape, in the air, and below the water.”

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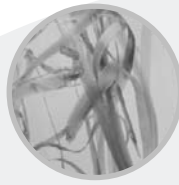
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2007 GEORGIA BASIN PUGET SOUND RESEARCH CONFERENCE — A CO-SPONSORED INITIATIVE





Photos: Surf scoters, Mike Yip; Waves, Marsha Engel; Eelgrass, Stock photo

Irene Brooks

‘No need for negotiations’ at IJC

Canada and the United States are close enough on transborder water quality issues that negotiations are almost beside the point, according to Irene Brooks, U.S. co-chair of the International Joint Commission (IJC).

During the *Georgia Basin Puget Sound Research Conference*, Brooks will discuss the International Watershed Initiative, an IJC program that addresses emerging environmental issues along the border.

Created nearly a century ago under the *Boundary Waters Treaty* of 1909, the IJC’s purpose is to prevent and resolve disputes arising from the use and quality of boundary waters. When problems arise, Brooks explained, Canadian and U.S. governments turn to the IJC. The IJC assembles a task force made up of experts from both countries, then advises the governments based on the best available evidence.

A key objective of the International Watershed Initiative is to facilitate problem-solving at the local level, without any direct involvement by the IJC. In an ideal world, Brooks said, this type of direct consultation and collaboration would eliminate the need for the IJC. Realistically, though, there will always be a role for a bilateral structure that examines “the big picture.”

During her work with interstate river basin commissions, Brooks’ early training in political science and public administration “came in handy,” she said. But there has been little call for these skills at the IJC: Canada and the U.S. are so close that negotiations are scarcely a part of the picture.

The IJC has not been asked to examine any issues in the Pacific Northwest, and there “seems to be great cooperation between British Columbia and Washington State,” Brooks said. Noting that a large part of the IJC’s work has to do with the Great Lakes, she said this conference would give her an opportunity to learn more about the Georgia Basin Puget Sound ecosystem.

With that in mind, she said she was looking forward to meeting research scientists involved with water quality in the region.

‘Leaning on the wall’

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In fisheries, for example, the biomass of the stock is but one consideration among many, including economic conditions, the job rate, and more.

In some cases, he warned, policy-makers are driven by dangerously unscientific world views.

Yet many scientists are reluctant to engage in the policy-making process. Dr. Pauly said many are employed by governments that expect loyalty, and would not look kindly on those who speak out. Others are bound by ethics—they feel that advocacy and political involvement would contaminate their results.

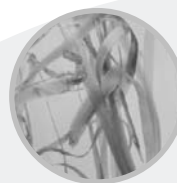
Despite these considerations, Dr. Pauly said scientists must find a way to ensure that human harm to the environment becomes the dominant consideration for politicians, not one of many.

“It shouldn’t be possible to just ignore a big issue like global warming,” he said. “This is something people will pay for dearly in terms of risk and damage to health, to communities, and to future prosperity.”

Dr. Pauly looked ahead to a day when policy decisions will have to pass scientific review, similar to the ethical review undergone by researchers. Politicians would be obliged to demonstrate the science behind a recommendation or policy, and a science advisor could be elevated to the role of policy screener.

In the meantime, while they cannot cross the line between advocacy and science, Dr. Pauly said it is up to scientists to engage more with policy-makers and society at large. Scientists cannot leap over that wall, he acknowledged: but they must learn to lean.





Lost in Translation into Policy

Dr. Daniel Pauly of the University of British Columbia Fisheries Centre warned against the fusing of science and policy. He compared the current situation to a *mille-feuille*, a French dessert in which the layers of pastry and cream cannot be distinguished from one another. Similarly, in the current government structure, pure science (if, he cautioned, “such a thing exists”) is lost in its translation into policy.



Pauly described what he called the “rules” that emerged in the first scientific societies. Proof can only be sought in evidence and not in rhetoric. Findings must be exchanged and not be considered the property of individual scientists. Findings are

universal and not reserved to any one class, religion, or nationality. Scientists should look to be selfless.

Science, however, has faced suppression throughout history. Pauly spoke of Bruno, a 16th century thinker who was “burned at the stake for saying that the sun was one of many stars.” Science did not develop in the universities since universities were “too busy propagating this burning habit,” he explained. Science developed at the courts of princes.

“The tension between science and its patrons has not been resolved,” Pauly said. Author Rachel Carson, for one, wrote only after she had attained

financial independence and was no longer an employee of the government. Her influential book *Silent Spring* “changed our perception of the world around us and ushered in a movement which made possible the world today,” he said. Suppressive practices continue. Some contemporary researchers have had their university positions threatened as a result of publishing information contrary to the interests of major oil companies or pharmaceuticals.

Pauly stressed the need to be able to distinguish between science and policy. The current *mille-feuille* model has not served society well and must not be continued.

SOUND OFF

Are we doing the right science? Are we doing the science right?

I think what’s needed is to produce consistent science across jurisdictions so that we can compare and contrast. We need to integrate all the “c-words”: communication, collaboration, and coordination.

- Ecologist, Vancouver Island

Taking Care of the Place We Call Home: Opening Plenary Session

Justin Longo, Conference Co-Chair and representative of Environment Canada, opened the first plenary session by celebrating the conference’s achievement of carbon-neutral status.

Chief Leah George-Wilson of the Tsleil-Waututh Nation welcomed participants to the homeland of the Tsleil-Waututh, Musqueam and Squamish First Nations. “It is our collective responsibility and obligation to take care of this place we call home, and that’s the legacy we will leave our children,” she said. With other Coast Salish members, she sang a Coast Salish prayer song to officially open the conference.

Conference Co-Host Elin Miller, Regional Administrator with the Environmental Protection Agency Region 10, said the EPA recently elevated Puget Sound to special status, one of very few water bodies in the U.S. specifically detailed in their new five-year National Strategic Plan.

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