



Reading the Vital Signs of the Global Ocean –

Is it Time For an Ocean ICU?

If we accept seasoned science journalist, Alanna Mitchell's claim that our Global Ocean has "vital signs" then it should be possible to replicate the model of the modern hospital Intensive Care Unit (ICU) by way of monitoring the health of the ocean.

By TIM LYNCH. PHOTOS COURTESY OF HARBOR BRANCH

Alanna Mitchell has gone where few people have gone before – 3000 feet to the bottom of the ocean in a submersible. She is an internationally renowned science journalist and her book, *Dancing at the Dead Sea: Tracking the World's Environmental Hotspots*, was named one of the five best non-fiction books in 2004 by the Canadian publishing industry.

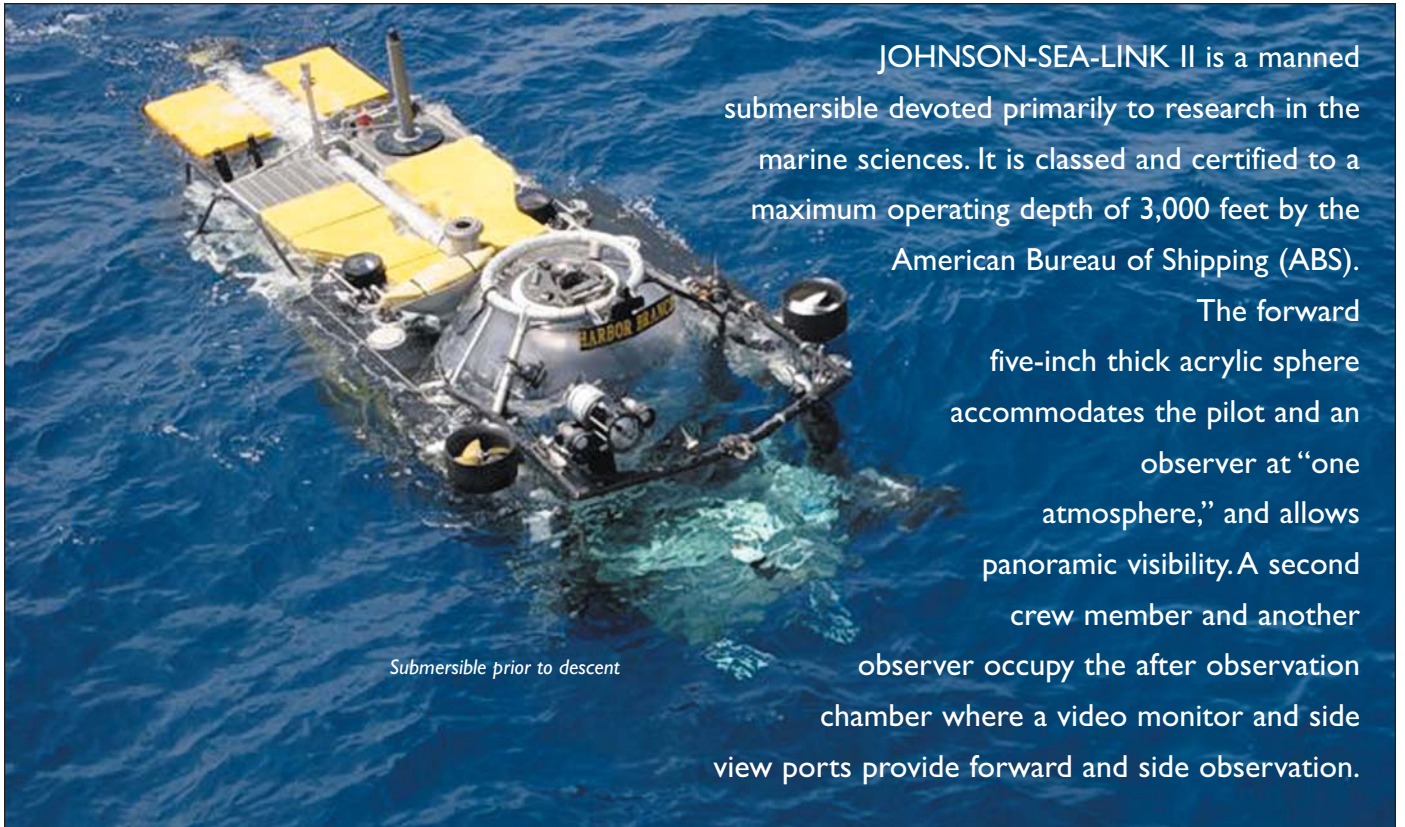
Mitchell refuses to accept the conventional demarcations such as Atlantic and Pacific oceans. She maintains that there is only one ocean – the Global Ocean. In November 2007, Mitchell participated in a conference at the UBC School of Journalism about the challenges scientific journalists face in getting their message out into the public domain.

Mitchell was a journalist at The Globe and Mail for 14 years until late 2004. In June 2001 she did a series of in depth articles for the Globe entitled *Death Wish*. In these articles she explored the influence of humanity on the classic Greek elements: earth, air, water and fire. In the Water article Mitchell notes, “The Abbotsford Aquifer in British Columbia is polluted with nitrates, the waste products of farming. It supplies more than 100,000 people in Abbotsford and neighbouring Washington State, but almost three quarters of the samples taken since 1992 have shown unsafe nitrate levels. Some water is nine times what is considered tolerable.”

During an interview at the UBC conference Ms Mitchell

stressed that it is the run-off of agricultural nitrates into the sea that are causing plankton and coral to “binge out,” die and decompose in large numbers. Eventually this process results in sections of the ocean being without oxygen and hence unable to support any form of life. She referred to these areas as “dead zones,” stressing that the United Nations Environmental Program is tracking about 200 such known zones around the globe.

In her *Death Wish* series Mitchell provides an in-depth account of “how the north is getting burned” and concludes by discussing “Why ice matters,” where she notes: “North America has glaciers in the Columbia Icefield melting at what



Submersible prior to descent

JOHNSON-SEA-LINK II is a manned submersible devoted primarily to research in the marine sciences. It is classed and certified to a maximum operating depth of 3,000 feet by the American Bureau of Shipping (ABS).

The forward five-inch thick acrylic sphere accommodates the pilot and an observer at “one atmosphere,” and allows panoramic visibility. A second crew member and another observer occupy the after observation chamber where a video monitor and side view ports provide forward and side observation.

ladner traps

deep sea fishing

sea world

richard keevil

wc fuels

heads up

reading the vital signs

appears to be an exponential rate; so-called permafrost that no longer lives up to its name; and, of course, the old, blue-tinted, multi-year sea ice in the Western Arctic that is turning to water. And climate scientists now talk freely about the days to come when the Northwest Passage through the Arctic Ocean will open as a trade route.” During the six years since those words were published there has been considerable debate among Canadian politicians, but little in the way of a road map for addressing the reality of the environmental circumstances confronting the nation.

Getting the message out

A seasoned science journalist, Mitchell provided the conference delegates, many of whom were students, with insight around the challenges in getting one’s message past the editorial filter that characterises all media outlets. She described how emotionally draining it is to have researched an article over a period of several weeks, interviewing some of the leading world scientist in the field, maintain a degree of balance in the reporting of the facts and then have some editor relegate a portion of the article to a few paragraphs on an inside page.

Sub being lowered into water



In our post Al Gore’s, An Inconvenient Truth era, news establishments tend to jump on the band wagon. During discussions at the conference concern about the degree to which an article should be “balanced” when the evidence is insurmountable was debated. There is always an opposing view; the flat earth society and intelligence design were cited as examples. It was stressed that newspapers exist more to make money for their owners than to provide information that the public needs to know. The consensus seemed to be that editorial staffs gradually acquire a new revelation that the world is changing and perhaps they should let their readers know about it. This characteristic was compared with politicians who decide they should lead their people in accordance with the latest opinion poll.

Mitchell, who is currently an associate of the Winnipeg-based International Institute for Sustainable Development (IISD), has a new passion, the publication of her next book, Evidence of a System Switch: Reading the Vital Signs of the



Global Ocean. In this book she equates the Global Ocean to the human body. Just as we have to monitor our body's dietary intake and output along with blood pressure, temperature, oxygen level, pH balance, ionic balance, etc. Mitchell maintains the Global Ocean has the same set of "vital signs." Her prognosis of the Global Ocean to support life that exists above, on, and below its surface as well as on and below the sea bottom and around its borders, will depend on its vital signs, how they are monitored and what treatment prescribed when its health is threatened.

The medium is the message

Describing how the craft of journalism is changing, Alfred Hermida, Assistant Professor at UBC School of Journalism, compared two stories on leatherback turtles. One was told by Vancouver Sun's Pamela Fayerman on April 10, 2007 about two turtle raised in captivity for research purposes at UBC. The other story referenced a website developed under the direction of a veteran America journalist that tracked the migration of such turtles from Costa Rica across the Pacific Ocean to their feeding grounds around the Galapagos Islands. Both stories served to emphasize the plight of the leatherback turtle.

Visitors to the website were provided with the option of learning more about the life cycle of the turtle and a lot of enlightening information about the plight of such marine species. The organizers of the website arranged a race among the tagged turtles and they named the turtles after various private sponsors, which brought in some revenue. They also named one of their turtles after television personality Stephen Corbett. When Mr. Corbett discovered this portrayal of himself he raised the matter on his program. This event resulted in a spike in the traffic visiting the website and presumably some attention to the plight of leatherback turtles.

While the 2000 word Vancouver Sun article provided some considerable insight into the dilemmas these turtles faced, it was agreed that having GPS signals attached to them that could be updated on the web every 10 minutes proved to reach a larger readership / audience. The compare and contrast analysis of these two examples lead to debate about the changes in journalism. The consensus was that in our multimedia, 500 channels universe, journalists need to practice a different kind of craft.

sm products

This example of how journalism is changing was supported by statistics that show demographics of people who play games on the web. While it was accepted that less than 30% of people over age 45 play such games it was noted that 100% of kids between six and 10, and 97% between 11 and 15 rank gaming as their primary form of entertainment. These findings suggested that journalists, and people who have stories they want journalists to report on, will have to create games around their message in the future.

Web based journalism

UBC School of Journalism has been gearing up to educate the next generation of journalists about the need to convey their interpretation of events by fully exploiting all forms of new technology. It was acknowledged that in the absence of specific news time slots, what constitutes news can be very fluid in nature. There was agreement that the interpretation of news will likely still require someone to provide an 800 to 2000 word account of the situation with a beginning, middle and an ending. Such articles will likely be part of an online news story, or supported by web links leading to credible sources of further insight and understanding.

Illustrating the need for such a vehicle, Richard Black, a veteran BBC World News reporter commented on the status of web-based reporting received when a traditional journalist



Alanna dismounting from the submersible




interviewed Colin Powell. During the interview Mr. Powell stated that he checks BBCNews.com every morning for a quick overview of world affairs. This revelation resulted in many traditional journalists wanting their material published on the BBC News website. Black described how web based journalism is proving to be more liberating for the journalist in that it is not subject to the traditional prerogative of the editor as to what gets published.

mid island ice

redden net

An ocean ICU

Fishing folk in BC have many stories that need to be told about changes and tensions within their communities. There is a realization that their communities are integrated with nature and the marine sciences. If we accept Mitchell's claim that our Global Ocean has "vital signs" then it should be possible to replicate the model of the modern hospital Intensive Care Unit (ICU) by way of monitoring the health of the ocean. With the right creativity the information being processed through such an ICU could be presented in the form of games and supported by credible commentary. Given the ubiquitous nature of the Internet and its infinite ability to process data in real time, as illustrated by the example of the turtles, such monitoring should be made available for all Canadians to witness.

In our multimedia mega-channels universe where information is diced, spliced, packaged and delivered to suite our individual flavour, it would be easy to lose awareness of such traumatic events. All we can hope for is that there will always be journalists who can read, interpret and raise our consciousness by whatever media they choose about actions we need to take or can persuade our elected officials to take. Extending the analogy one step further, in order to differentiate truth from spin, perhaps there should be some designation of ethics in science journalism that is equivalent to a physician's Hippocratic Oath. 

Websites

International Institute for Sustainable Development (IISD)

<http://www.iisd.org/>

UBC School of Journalism

<http://www.journalism.ubc.ca>

United Nations Environment Program

<http://www.unep.org/>

JOHNSON-SEA-LINK II, submersible

<http://www.hboi.edu/marineops/jsl1.html>

(See related **Fisherman Life** articles: *The Southern Strait of Georgia NMCA: An Ecological Dream*, July 2007; *Illegal Fishing and the Universal Fisherman*, April 2007; *Flood Mitigation in the BC Lower Mainland: A Katrina waiting to Happen*, April 2006; *Finding a Balance: Meeting the requirements of SARA*, December 2004; *Walking With Salmon: A Bureaucrat's Guide to Seine Boat Salmon Fishing*, November 2004. These articles are available read-only at: www.infolyнк.ca/bcmaritimepolicy.html.

Tim Lynch is a public policy analyst living in Steveston.
Send comments to tim@infolyнк.ca

harbour hardware