



**Canadian Information Session
on Remote-Sensing Applications to Fisheries**
Bedford Institute of Oceanography
March 13, 2009

Fish harvesters know that the colour of the sea changes from place to place and from season to season. Generally speaking, water that is more greenish indicates a place that is more biologically rich, due to high phytoplankton production, and therefore more favourable to fish. We can quantify these differences in colour using optical instruments and thus convert ocean colour into estimates of productivity and biomass. Furthermore, we can obtain estimates over wide spatial scales using instruments carried on spacecraft orbiting the Earth, giving continuous information over the entire global ocean. This method, called remote sensing, yields rich information on the marine ecosystem. It allows us to observe the state of the ecosystem in real time at low incremental cost. We can see the geographical differences in the form of maps, then the seasonal changes and the variation between years when we present the data as time series.

Why is this of interest to fish harvesters? Fish harvesters know that healthy fish populations depend on healthy ecosystems, so an economical way to keep watch on the ecosystem must be of value. Also, annual ecosystem changes affect the recruitment and growth of exploited populations. Such applications have already been demonstrated in Atlantic Canada for a groundfish (haddock) and an invertebrate (Northern shrimp). It is time for the fish harvesters to be informed about what is available and what might be possible.

Free registration, lunch provided and limited travel funds available. Registration is essential. Online registration form www.geosafari.org should be emailed to forgetmh@mar.dfo-mpo.gc.ca or faxed to 902-426-6650 by 27 February 2009.



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Bedford Institute of Oceanography, Provisional Agenda

Friday, March 13, 2009	
8:30am to 8:45am	<u>Trevor Platt</u> - Introductory Remarks
8:45am to 9:00am	<u>Tana Worcester</u> – On the use of remotely-sensed data for fisheries harvesting, science & management
9:00am to 9:30am	<u>Venetia Stuart</u> – Introduction to remote sensing
9:30am to 10:00am	<u>Marie-Hélène Forget</u> - Practical fisheries information exchange system between scientist, fishermen and space agency
10:00am to 10:30am	Break
10:30am to 11:00am	<u>Shubha Sathyendranath</u> - Approach development to guide fishermen for profitable fishing using remote sensing: experience in the Indian tropical waters
11:00am to 12:00pm	Discussion session on Remote Sensing Applications to Fish Harvesting
12:00pm to 1:00pm	Lunch
1:00pm to 1:30pm	<u>Trevor Platt</u> – Ecological indicators of the ocean by remote sensing: the haddock example
1:30pm to 2:00pm	<u>Alida Bundy</u> - From space to sea: remotely sensed ecosystem indicators and ecosystem approaches to fisheries management
2:00pm to 2:30pm	<u>Peter Koeller</u> - Shrimp egg hatch and phytoplankton bloom times match throughout the North Atlantic
2:30pm to 3:00pm	Break
3:00pm to 3:30pm	<u>Kimberly Hyde</u> - Application of Ocean Color and Sea Surface Temperature Products to Fisheries Research and Management
3:30pm to 4:00pm	<u>Nick Dulvy</u> – TBA
4:00pm to 5:00pm	Discussion session on Remote Sensing Applications to Fisheries Management
5:00pm to 5:15pm	Workshop synthesis and recommendations