



**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 902-426-9388 by 6 March 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 9:45am	<u>Venetia Stuart</u> – Introduction to remote sensing
9:45am to 10:15am	Break
10:15am to 11:00am	<u>Marie-Hélène Forget</u> - Approach development to guide fishermen for profitable fishing using remote sensing: experience in the Japanese and Indian waters.
11:00am to 11:45am	Discussion session on Remote Sensing Applications to Fish Harvesting
11:45pm to 1:00pm	Lunch
1:00pm to 1:30pm	Trevor Platt and <u>Cesar Fuentes-Yaco</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	Kimberly Hyde and <u>Trevor Platt</u> - Application of Ocean Color and Sea Surface Temperature Products to Fisheries Research and Management
3:30pm to 4:00pm	<u>Nick Dulvy</u> – Toward predicting the influence of climate change on global fish production
4:00pm to 4:45pm	Discussion session on Remote Sensing Applications to Fisheries Management
4:45pm to 5:00pm	Workshop synthesis and recommendations