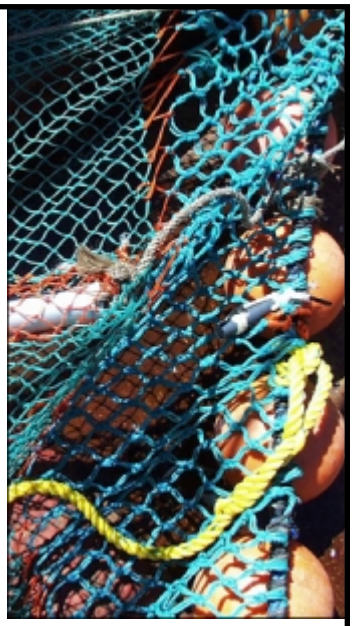
The Observatory

THE ELECTRONIC NEWSLETTER OF THE ST. LAWRENCE OBSERVATORY – WINTER 2001

The Observatory of the St. Lawrence (OSL) is an Internet portal available to everyone interested in the diffusion and exchange of oceanographic and hydrographic data. The contributing scientists are indispensable to the operation of the OSL. We extend a sincere thank you to all of our partners, who have had confidence in us, as well as to the 6,125 Internet users who visited the OSL during its first year on the Internet. And welcome to those new partners who would like to join the OSL in 2001!

A new Internet site for the Sentinel Fisheries Program



The OSL and the Laurentian Region's Sentinel Fisheries Program have the pleasure of announcing the opening of the Sentinel Fisheries Internet site for the northern Gulf of St. Lawrence. The site includes a description of the program, the results since 1994, and information on the scientific personnel, the program developers, the coordinators, and the fishers involved. There is a section that describes the fishing gear as well as a section with photographs of the fishers at work. Until now, the Web site development has focused on that part of the program dealing with the fixed gear; the mobile gear component will be developed during 2001. Summary reports describing results from the July and October 2000 surveys are available on line.

We invite you to send your comments and to stay abreast of the latest developments of the Sentinel Fisheries Program via this new Web site, accessible from the *Menu* page of the OSL (http://www.osl.gc.ca).

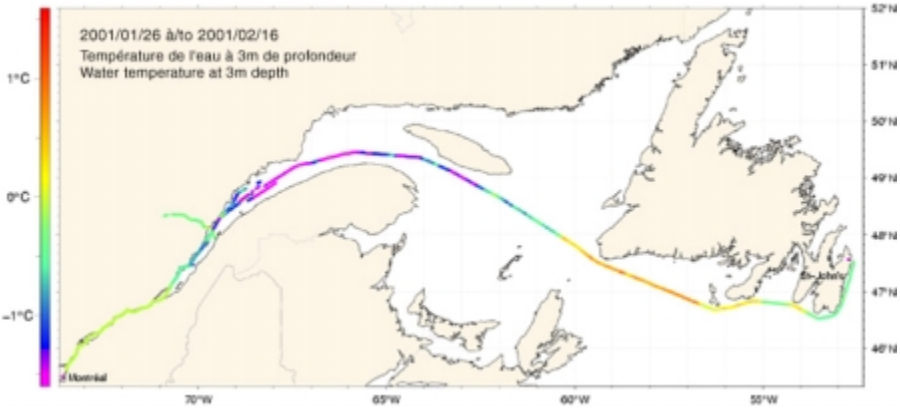
The Sentinel Fisheries Program was set up in 1994, at the time when the abundance of several cod stocks off the Atlantic coast of Canada had dropped to the point that the Federal Government imposed moratoriums on the commercial fishing of this species. This fishery closure resulted in a lack of information concerning the tendencies of the stock abundance. The Fisheries Resource Conservation Council (FRCC) thus recommended setting up sentinel fisheries programs with the help of certain fishers to follow changes in the stocks. The main objective of the Sentinel Fisheries Program is to develop time series of abundance that can be used for stock evaluation. The program also collects information on other species and environmental conditions and collaborates with other research programs.

Alain Fréchet (frecheta@dfo-mpo.gc.ca)-scientist responsible for the Sentinel Fisheries Program, Division of Fish and Marine Mammals (MLI).

Summary

Shipboard thermosalinographs

Last year, a thermosalinograph measuring temperature (T) and salinity (S) was installed on board the commercial ship *Cicero*, belonging to the company *Oceanex*. The water entry point that supplies the instrument is about three meters below the water line. The *Cicero* makes a weekly run between Montréal and St. John's (Newfoundland). Since November 2000, a second thermosalinograph has started collecting data aboard the commercial ship *Nordik Express*, belonging to the company *Relais Nordik*, Inc. The *Nordik Express* travels between Rimouski and Blanc-Sablon each week, stopping at several villages on the lower North Shore. This second installation, which is similar to that on the *Cicero*, has increased the spatio-temporal coverage of the surface TS measurements for the St. Lawrence Gulf and Estuary. These data are used as inputs to models that forecast ice cover as well as for validating NOAA satellite images of sea-surface temperature. The thermosalinograph data will be of use to several research programs as the length of the time series increases. This project is a collaboration between industry (*Oceanex* and *Relais Nordik Inc.*), the Canadian Ice Service (Environment Canada), MLI's Division of Ocean Sciences (Department of Fisheries and Oceans, Canada), and the Canadian Coast Guard, Laurentian Region. This initiative was made possible with financial support from the Program of Energy Research and Development of Natural Resources Canada under the supervision of N. Michaud, F. J. Saucier, and R. Corriveau and carried out by B. Pettigrew, P. S. Galbraith, S. Cantin, R. Pigeon, R. Desmarais, and A. Gosselin.



The site that displays the thermosalinograph data was developed by Peter Galbraith (galbraithp@dfo-mpo.gc.ca) and is accessible from the *Menu* page of the OSL.

Bernard Pettigrew (pettigrewb@dfo-mpo.gc.ca)-Coastal Processes Section, Division of Ocean Sciences (MLI).

A new project: the CDEENA site

The OSL is developing a Web site to present data from the program "*Comparative Dynamics of Exploited Ecosystems in the Northwest Atlantic*" (CDEENA). It is a partnership of research scientists from the Maurice-Lamontagne Institute (Mont-Joli), the Bedford Institute of Oceanography (Halifax), the Gulf Fisheries Center (Moncton), and the Northwest Atlantic Fisheries Center (St. John's). This site will present trophic relationships as well as production, mortality, and predation rates and commercial captures for more than 30 groups of species in the principal regions of the northwest Atlantic (Newfoundland and Labrador, the northern and southern Gulf of St. Lawrence, and the eastern and western Scotian Shelf). The first results should be available for viewing by summer 2001.

About current projects...

The Oceanographic Data Management System (ODMS)

More than 12,000 data files have been archived in the ODMS, and work is currently underway to improve several aspects of the system. Soon the site will contain much more information on the data file formats and on the codes used in the data files. In this way, it will be easier for the general public to understand and interpret the file contents. The site will also include useful complementary information, such as maps indicating the location of the monitoring program's fixed stations and a schema of "data flow," from data acquisition to data availability within the system as well as the various processing steps along the way. A new section will offer links to other sites that present oceanographic data on the St. Lawrence. The user will also find programs for converting data files into formats that are easier to import into spreadsheet programs. In short, only improvements to the current version of the system.

Bernard Pelchat (pelchatb@dfo-mpo.gc.ca)-ODMS project leader, Data Management Section, DSO (MLI).

Summer 2000 temperature and salinity data report available on line

Between 5 and 31 August 2000, 242 CTD profiles were recorded in the northern Gulf of St. Lawrence during the groundfish and shrimp monitoring mission on the *NGCC Needler*. Less than three months later, the report concerning the temperature and salinity data from this mission was distributed on line from the OSL, thanks to the efforts of Denis Gilbert (gilbertd@dfo-mpo.gc.ca), research scientist from MLI's Division of Ocean Sciences. The report includes temperatures and salinities at four depth intervals as well as analyses of data on the cold intermediate layer and the stratification of the surface layer. Many graphics and maps are included with descriptions of the results. This report is in the ***Publications*** section of the OSL, along with the 1999 and 1998 reports.

The Canadian tides site

(http://www.lau.chs-shc.dfo-mpo.gc.ca/marees/produits/accueil.htm)

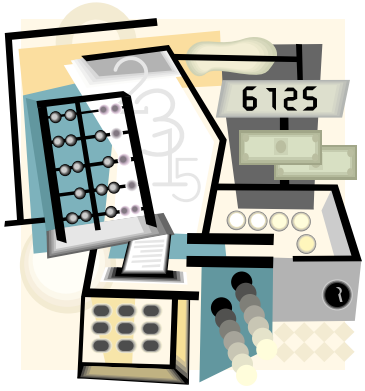
An overhaul of the site is planned over the next few months (phase 3 of the project). This project is being developed at MLI in partnership with the Canadian Hydrographic Service, the Physical Modeling Section of the Division of Ocean Sciences, and the OSL.

Real-time temperature and salinity data from the "Buoy-IML"

The buoy-IML has been removed from its mooring for the winter. While waiting for its redeployment (spring 2001) and for it to begin retransmitting data in real time, we invite you to look at the time series of temperature and salinity data that were measured at the buoy during the project's first year (from June through November 2000). In our next bulletin, we will talk about the modifications that will be made to ***The St. Lawrence Live*** project for the 2001 season.

Encouraging statistics

Annual statistics—2000



During the year 2000, a total of 6,125 Internet users visited the site, 1,212 of whom were return visitors. There were 15,351 Internet sessions having an average length of 16 minutes. More than 300,000 documents were consulted on the site, generating traffic of more than three million KB. About half of the visitors were from Canada; the rest were from more than 40 foreign countries, mostly the United States, France, the United Kingdom, Japan, Germany, Belgium, Norway, and Australia. The Canadian Department of Fisheries and Oceans alone generated about 41% of the site traffic; 26% was from Internet access providers and another 9% from other government organizations in Canada.

After a full year on the Internet, this first annual summary of site visits is very encouraging and motivates us to do even better in 2001. Look for an ever-increasing variety of materials in the months to come.

The monthly site statistics are available on line in the section ***What's new***.

Of note

Recent additions to the OSL's toolbox

This section has been improved with the addition of several useful hyperlinks. Some of these lead to scientific tools available on the Internet (calculators and scientific tables); others permit access to software developed by the OSL team, such as a program that automates FTP transfers; a library of functions used to create GIF, PNG, and JPG files; and a library of functions for the conversion of dates and hours. These programs are in the public domain and are made available either by the source code

Electronic publication on the carbon flows in the Gulf of St. Lawrence

The English version of this non-technical article is now available on the OSL from the section ***Publications***.

Notice that we now have a link available in the section ***Publications*** titled "***How to cite an Internet document?***" We have included several example references.

Reserved section for partners and projects under development

We recently opened a section reserved exclusively for our scientific partners who diffuse their data from the Web site. They will find information and documents that allow them to follow the development of the OSL, to monitor the site traffic and the promotion of their products, to find useful links, and so on. This section completes the development site "**OSL-Prototypes**," where our partners are already able to follow the progress of their projects by examining the layouts and testing the functions before they are diffused on the Internet.

This project is supported by:
Fisheries and Oceans Canada, Canada Economic Development, and St. Lawrence Vision 2000.

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Disponible en français

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