

REPORT OF TECHNICAL COMMITTEE ON DATA EXCHANGE

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The meeting of the Technical Committee on Data Exchange was held from 13:30-17:30 hours on October 23, 2002. The Chairman, Dr. Igor I. Shevchenko, called the meeting to order and welcomed the participants (*TCODE Endnote 1*). The Committee reviewed the draft agenda and it was adopted as provided (*TCODE Endnote 2*).

Progress on items in the 2001/2002 TCODE Workplan (Agenda Item 3)

Revise/update TCODE web pages

The Chairman reviewed the TCODE Home Page (<http://tcode.tinro.ru>). This website contains records of previous TCODE activities and various documents. Dr. Shevchenko demonstrated the opportunities for using this website for exchange of information amongst TCODE members and other interested parties.

PICES/GLOBEC Data Management Workshop

The joint PICES/GLOBEC Workshop on *Exchange, inventory and archival of GLOBEC data* was held on Saturday, October 19, 2002, and was well attended. There was a series of talks on current initiatives that are relevant to the PICES/GLOBEC data management, and an active discussion on the next stages in data management. Dr. Thomas C. Royer suggested that the best contact for the United States would be with the NE Pacific GLOBEC group, rather than US GLOBEC main office. The convenors (Igor Shevchenko - TCODE and Hester Willson - GLOBEC International Programme Office) have prepared a meeting summary and posted it on the TCODE website.

Provisional list of metadata keywords

Dr. Bernard A. Megrey and Mr. Allen Macklin reported on their efforts to define a set of metadata keywords that are relevant to PICES activities. They have extracted an extensive list from the Global Change Master Directory. Dr. Shevchenko demonstrated the opportunities for using a website for collaborative work with

these metadata keywords. He will alert all Committee Chairmen of this activity at the Science Board meeting, and circulate the provisional list, along with background material and instructions, to the Scientific Committees and Program for further distribution and comments back to TCODE by March 1, 2003.

POC Working Group 17 on Biogeochemical data integration and synthesis

Mr. Robin M. Brown reported on the progress of this Working Group. Through these activities, an extensive inventory of CO₂ (and related parameters) cruise data has been assembled. This inventory has substantial contributions from Japan, Canada and the United States, but no information from Russia, China and Korea. The Working Group has requested the assistance of TCODE members from these countries to identify key contacts for CO₂-related data, in order to complete this inventory. Mr. Toru Suzuki and Ms. Sachiko Oguma (MIRC) presented the resulting on-line data inventory accessible at <http://picnic.pices.jp> and <http://wg17.pices.jp/>.

Feedback and recommendations for future electronic poster sessions

Mr. Brown reviewed the feedback and recommendations arising from the Electronic Poster Session on *Regional and national data centers* at PICES X (Victoria, Canada). This report is posted on the TCODE website.

Electronic Poster Session at PICES XI

Mr. Macklin reported on preparations for the E-poster Session. There were 15 presentations. The organizers informed that there was very weak response to the original call for submissions, but many participants responded favourably when they were approached directly by the session convenors. Mr. Brown indicated that the same pattern was observed for the E-poster Session at PICES X. Some concern was expressed about separation between the main Poster Session (on the first floor) and the

proposed location for the E-poster Session (upstairs in the multi-purpose room, where Internet access was available). As few e-posters required Internet access, it was decided to relocate the E-poster Session to the area adjacent to the main Poster Session.

Review of TCODE activities since its formation

The former TCODE Chairman, Mr. Brown, reviewed TCODE activities since its formation. This report is posted on the TCODE website.

Updates on data management activities in PICES member countries (Agend Item 4)

Several presentations were received on activities in PICES nations.

Japan

Mr. Muneharu Tokimura reported on the restructuring of the Japanese Fisheries Agency and implications of these changes for data management and archival. He informed that oceanographic data holdings will be transferred to JODC for archival and distribution. In addition, he noted that discussions about the archival and distribution of biological data were underway, but there has been no decision yet. Mr. Norio Baba presented some information on the IODE-WESTPAC Global Oceanographic Data Archaeology and Rescue project.

People's Republic of China

Mr. Ling Tong reported on the National Marine Information and Service System (NMISS) Project. Details can be found at <http://www.coi.gov.cn/> (Chinese version) and <http://www.coi.gov.cn/eindex.html> (English version).

Russia

Dr. Igor D. Rostov reported on several activities underway in Russia to coordinate physical and chemical oceanographic databases and to prepare web sites and CD-ROM under the ESIMO project (<http://www.oceaninfo.ru>). This website will be available in English in the future (Russian only at this time.)

Dr. Rostov also informed on the successful completion of the electronic version of the

Oceanographic Atlas of the Okhotsk Sea, Bering Sea and Japan/East Sea by the Pacific Oceanological Institute (Vladivostok). This first edition is available on CD-ROM and at <http://www.pacificinfo.ru>, and comments are welcome.

United States

Dr. Megrey reported that his proposal (supported by PICES) to expand the Bering Sea Metadata Base to cover all of the North Pacific has been approved and funded. TCODE members will be required to assist in determining key contacts in PICES member countries to provide access to databases and sources of metadata. It was through TCODE discussions that the idea to extend the database to the North Pacific was promoted. Mr. Brown, as TCODE Chairman, and Dr. Alexander Bychkov, as PICES Executive Secretary, wrote letters of support to funding agencies for Dr. Megrey. This is an example of the low-cost, "soft" TCODE approach – convincing others to modify/expand activities to better meet PICES objectives, without actually spending any PICES money. The PICNIC website is a similar example.

Dr. Royer mentioned that there were discussions underway in the United States on a US GOOS observing system and that this included data management/distribution discussions.

Review Committee Report (Agenda Item 5)

The Committee had a brief discussion on the PICES Review Committee Report. It was agreed that the Chairman (assisted by the former Chairman) would provide a draft TCODE Strategic Plan that integrates comments from this report, the TCODE review prepared by the former Chairman, discussions with Science Board Chairman and the Science Board Symposium presentation by Dr. Neville Smith.

North Pacific Ecosystem Status Report (Agenda Item 6)

The Committee had a short discussion on the North Pacific Ecosystem Status Report and reiterated its strong support for this ambitious project.

PICES capacity building (Agenda Item 7)

The Committee was not able to discuss this agenda item in detail, but agreed that it is an important topic for PICES to address.

Items from Science Board (Agenda Item 8)

Topic Session for PICES XI

TCODE proposes an Electronic Poster Session for PICES XII on *GIS/Geographic-based applications applied to marine systems (TCODE Endnote 3)*; recommended convenors: Bernard A. Megrey (U.S.A.) and Korean convenors to be identified, presumably Sung-Dae Kim (KORDI) and Hee-Dong Jeong (NFRDI).

PICES XIII theme

This item was discussed but there were no recommendations forwarded to the Science Board.

Other items

There is a possibility that TCODE could arrange for ESRI to sponsor some workshop/training courses.

Summary of items with financial implications (Agenda Item 9)

The Chairman will request financial support to ensure participation of data management experts in PICES activities if applicable.

Best Presentation Award

Mr. Andrew Golik (Pacific Oceanological Institute, Vladivostok, Russia) won the Best Presentation Award for his E-Poster entitled "Development of Geographic Information System of Northwestern Pacific based on Internet/Intranet", co-authored by V. Fischenko.

TCODE Workplan for 2002/2003 (Agenda Item 11)

1. TCODE members to gather information and/or identify key national contacts for the 2003 update of the GLOBEC National, Multi-National and Regional Activity Report that will be prepared by the

GLOBEC International Programme Office (IPO). The GLOBEC IPO will circulate the previous version as a "starting point" for this exercise. (Action: Shevchenko and Brown)

2. TCODE members to encourage submission of PICES/GLOBEC metadata to the GLOBEC IPO. This will require TCODE representatives to identify key GLOBEC data contacts in each country and work with these individuals to ensure that existing metadata entries are accurate and complete. Where no national GLOBEC program exists, TCODE representatives will identify key contacts for "GLOBEC-like" data. (Action: Shevchenko and Brown)
3. TCODE will communicate regularly with the Data Manager at the GLOBEC IPO and consider GLOBEC Data Manager representation at the PICES Annual Meetings. (Action: Shevchenko)
4. Assist in expansion of the Bering Sea Metadata base to cover the entire North Pacific. This will include updating existing entries to ensure accuracy, identifying key contacts and Data Centers in PICES nations. (Action: Megrey)
5. Complete evaluation of metadata key list with input from the Scientific Committees by March 1, 2003. (Action: Megrey and Shevchenko)
6. Organize Electronic Poster Session for PICES XII in Seoul, Korea. (Action: Megrey and presumably, Sung-Dae Kim and Hee Dong Jeong)
7. Update inventory of real-time data sources for the North Pacific and publish on TCODE web pages (Action: Shevchenko and Brown)
8. Establish/update TCODE web pages for (i) links to real time and quasi-real time data for the North Pacific; (ii) exchange of computer software for the display (visualization) and analysis of data (using the existing inventory of software tools available for marine science); and (iii) description of inter- and intra- data exchange policies in PICES member countries. (Action: Royer and Shevchenko)
9. Develop TCODE Strategic Plan (in consultation with the Science Board Chairman) for presentation at Science Board

- Meeting in the spring of 2003. (Action: Shevchenko and Brown)
10. Assist MEQ WG 15 in the Workshop preparation on shellfish toxicity data (see www.nodc.noaa.gov/cgi-bin/hab/hab.pl -

portion of data HAB DMS and www.nodc.noaa.gov/col/projects/habs/pacindex.html - Pacific Region website). (Action: seeking volunteer(s))

TCODE Endnote 1

Participation List

Members

Robin M. Brown (Canada)
 Bernard A. Megrey (U.S.A.)
 Igor D. Rostov (Russia)
 Thomas C. Royer (U.S.A.)
 Igor I. Shevchenko (Russia, Chairman)
 Ling Tong (China)
 Muneharu Tokimura (Japan)

Observers

Norio Baba (Japan)
 Andrew V. Golik (Russia)
 Hee-Dong Jeong (Korea)
 Sung-Dae Kim (Korea)
 Allen Macklin (U.S.A.)
 Sachiko Oguma (Japan)
 Soo-Yang Park (Korea)
 Toru Suzuki (Japan)

TCODE Endnote 2

TCODE Meeting Agenda

1. Welcome and introduction of members
2. Adoption of agenda
3. Review progress on items in the 2001/2002 Workplan
 - Revise/update TCODE webpages
 - PICES/GLOBEC Data Management Workshop
 - Provisional list of metadata keywords
 - POC WG 17 on *Biogeochemical data integration and synthesis*
 - Feedback and recommendations for future electronic poster sessions
 - Electronic Poster Session for PICES XI
 - Review of TCODE activities since formation and TCODE Strategic Plan
4. Updates on data management activities in PICES nations
5. Review Committee Report
6. North Pacific Ecosystem Status Report
7. PICES capacity building initiative
8. Items from Science Board
 - Topic session proposals for PICES XII
 - PICES XIII theme
 - Other items
9. Summary of items with financial implications
10. New business (additional items added at the meeting)
11. TCODE Workplan for 2002/2003

TCODE Endnote 3

Proposed TCODE E-Poster Session at PICES XII on *GIS/Geographic-based applications applied to marine systems*

Over the past two decades there has been increasing recognition that problems in Marine and Fisheries Science are nearly all manifest in the spatio-temporal domain. Geographical Information Systems (GIS), the natural

framework for spatial data handling, are being recognized as a powerful tool with useful applications in marine sciences. Geographic Information Systems are becoming invaluable tools for monitoring and managing open and

coastal marine systems. Widespread acceptance and adoption of these and other geo-referenced methods speak to their power and effectiveness for addressing the diverse mix of factors that impinge on aquatic systems. The aim of this session is to provide an opportunity to showcase new and exciting GIS developments by PICES member countries including coastal, continental and deep ocean studies, dynamic relations that characterize the marine world, and the development of oceanography and fisheries GIS

tools and applications. Electronic posters on topics such as coastal mapping, land and sea use, coastal observing and forecast systems, real-time catch and/or vessel monitoring systems, classification of surface waters, sea bed mapping, mapping of fisheries production, biological and genetic data, spawning grounds, environmental variation of production, migration corridors, seasonal essential habitats, and applications of GIS to ocean and fisheries resource management are welcome.

