

## REPORT OF GOVERNING COUNCIL MEETING



The Governing Council met from 13:30-17:30 on October 7, from 13:30-17:30 on October 12, and from 9:00-12:00 on October 13, under the chairmanship of Dr. Hyung-Tack Huh. Dr. Alexander S. Bychkov served as rapporteur.

All Contracting Parties were represented at the three sessions (*GC Endnote 1*). Dr. William G. Doubleday attended only the first session. The Chairman of the Science Board, Ms. Patricia Livingston, the Chairman-elect of the Science Board, Dr. R. Ian Perry, and observers from Mexico, Drs. Daniel Lluch-Belda and Arthuro Muhlia Melo, were in attendance during the last session.

### **Agenda Item 1. Opening remarks**

At the first session, the Chairman welcomed the delegates and noted that for this Annual Meeting Ms. Hiroko Watanabe represented Mr. Takashi Osanai (Japan); Mr. Qian-Fei Liu represented Mr. Zheng-Ping Tang (China); Ms. Hong-Mei Xin represented Mr. Jing-Guang Li (China); and Dr. Jin-Yeong Kim represented Mr. Young-Suk Kim (Korea).

Dr. Doubleday announced that this would be his last Council meeting and introduced Dr. Elisabeth Marsollier, who would take over his responsibilities as Canadian Delegate. Council welcomed Dr. Marsollier and expressed its gratitude for Dr. Doubleday's leadership and valuable contribution to PICES activities.

### **Agenda Item 2. Adoption of agenda**

The Chairman reviewed the agenda (*GC Endnote 2*) and suggested the order in which to take up the various items. Dr. Vera Alexander proposed the adoption of the agenda without changes, seconded by Dr. Laura Richards. This

report summarizes the treatment of each agenda item during the course of the three sessions.

### **Agenda Item 3. Preliminary Report on Administration**

The Executive Secretary summarized the activities of the Organization and the Secretariat since the PICES Ninth Annual Meeting (*GC Endnote 3*).

### **Agenda Item 4. Membership and observers from other countries**

The Secretariat did not receive proposals from non-member countries to accede to the PICES Convention in 2001.

At the Eighth Annual Meeting, Council adopted the resolution reflecting a strong interest in having Mexico accede to the PICES Convention (Decision 99/A/5). This interest has been confirmed at the Ninth Annual Meeting, when, in response to an invitation from Mexico, Council approved a visit of a PICES delegation to La Paz (Decision 00/A/6). The purpose of the visit should be to facilitate the incorporation of Mexico to PICES by presenting information on the history, structure, objectives and procedures of the Organization to a wider array of potential Mexican participants.

The Executive Secretary reported on the results of the visit of the PICES delegation to La Paz, in May 2001 (*GC Endnote 4*), and then updated Council on the progress in implementing recommendations adopted at the joint meeting:

1. A draft of the presentation document indicating the importance and relevance of PICES for Mexican scientists, and suggesting the accession of Mexico to the

Organization, was prepared on behalf of major Mexican marine research institutes. After approval by the directors of the institutes, it will be circulated to relevant government agencies.

2. Mexican scientists expressed sufficient interest in attending PICES X. In total, 19 papers were submitted by Mexican scientists and accepted for oral (8) or poster (11) presentation at various scientific sessions and workshops. It was expected that 18 scientists from all major marine research institutes would participate in the Annual Meeting. Six scientists formally applied and received partial travel support from PICES. Dr. Gilberto Gaxiola (CICESE) was invited to attend the MONITOR workshop to provide an over-view of Mexico's IMECOCAL time-series.
3. A proposal was received to convene a 3-day PICES symposium on *North Pacific transitional areas* hosted by CIBNOR and CICIMAR in La Paz, in spring 2002. This proposal was endorsed by the Science Board and forwarded to Council for approval.

In August 2001, directors of CICESE, CICIMAR, CIBNOR and INP were invited as observers from Mexico to attend the PICES Tenth Annual Meeting. Responses expressed great interest in PICES activities and in maintaining direct contact with PICES, and indicated that Drs. Silvio Guido Marinone, Daniel Lluch-Belda and Arthuro Muhlia Melo would represent CICESE, CICIMAR and CIBNOR, respectively, at PICES X.

By the invitation of Council, Drs. Lluch-Belda and Muhlia Melo attended the last meeting. They confirmed the support of Mexican scientists for Mexico to join PICES, provided information about the current status of the presentation document, and suggested that the next step should be an international scientific symposium organized by PICES and hosted by Mexico.

Council noted a steady progress in developing PICES-Mexico relations. Council also approved the recommendation to hold an international symposium on *North Pacific transitional areas* in La Paz, Mexico, in April 2002 (Decision 01/S/1).

#### **Agenda Item 5. Relations with relevant international organizations**

At the Ninth Annual Meeting, Council approved some additions to the Standing List of International Organizations and Programs, and a selected subset of organizations and programs that were considered to have the highest priority for PICES with respect to scientific cooperation in the year 2001 (Decision 00/S/5). The Science Board Chairman and Executive Secretary reported on interactions with the relevant organizations and programs since last year's meeting (details are reflected in the Report on Administration and in the Science Board Report).

Council noted that integration, coordination, and communication with other international organizations and major international programs of regional and global scale improved and extended significantly after PICES became better known in the scientific community. These cooperative links have brought new scientists into the PICES community, and have allowed the Organization to advance its scientific agenda and to integrate PICES activities with global climate change programs. Canada indicated that impressive progress in relations with other organizations was the result of efforts by the Science Board and the Secretariat. U.S.A. suggested the importance of collaborating with national regional programs and regional fisheries organizations, especially now, when the development of a North Pacific Ecosystem Status Report was approved as a high priority project for PICES.

Council reviewed and approved the revised Standing List of International Organizations and Programs as recommended by the Science Board (*SB Endnote 8*) and agreed with identified priorities in 2002 (Decision 01/S/6(i)).

Council specifically discussed cooperation with ICES, and accepted the recommendation that the Science Board develop potential areas of cooperation based on specific proposals for interaction between ICES and PICES (Decision 01/S/6(ii)).

Census of Marine Life Program (CoML)  
Climate Variability and Predictability Program  
Global Ocean Ecosystem Dynamics (GLOBEC)  
Gulf Ecosystem Monitoring Program (GEM)  
International ARGO Science Team (IAST)  
International Council for the Exploration of the Sea (ICES)  
International Geosphere-Biosphere Program (IGBP)  
International Pacific Halibut Commission (IPHC)  
Joint Global Ocean Flux Study (JGOFS)  
North Pacific Anadromous Fish Commission (NPAFC)

Pacific Salmon Commission (PSC)

Sir Alister Hardy Foundation for Ocean Science (SAHFOS)  
Scientific Committee on Oceanic Research (SCOR)

Letters of invitation to attend PICES X were sent to inter-governmental and non-governmental organizations on the agreed Standing List of Organizations and Programs, and the following sent observers:

Mr. Jay Charland  
Dr. Howard Freeland  
Dr. Roger Harris  
Ms. Molly McCammon  
Dr. Stephen Riser  
Dr. Pentti Malkki  
Dr. Barrien Moore III  
Dr. Bruce Leaman  
Dr. Toshiro Saino  
Dr. Vladimir Karpenko  
Mr. Vladimir Fedorenko  
Mr. Yoshikiyo Kondo  
Mr. Don Kowal  
Dr. James Woodey  
Dr. P. Christopher Reid  
Dr. Peter Burkill

#### **Agenda Item 6. Tenth Anniversary of PICES**

The Executive Secretary reported on the implementation of Council's decisions made at the Eighth and Ninth Annual Meetings (Decision 99/A/4 and Decision 00/A/5) to commemorate the tenth anniversary of PICES (*F&A Endnote 4*). Council commended the Secretariat for the excellent response to these decisions and thanked all organizations that provided voluntary contributions to support PICES X and activities related to the tenth anniversary of the Organization.

#### **Agenda Item 7. PICES Intern Program**

At the Ninth Annual Meeting, Council extended the deadline for applications to the 2001 PICES Intern Program to February 1, 2001 (Decision 00/A/8(ii)). Three nominations were received prior to this deadline, and Dr. Jung Hwa Choi (Republic of Korea) was selected as the second Intern in March 2001. The recommended period of appointment for Dr. Choi, from 6 to 10 months, was meant to give him the opportunity to be involved in all major PICES activities

including the organizing of the PICES Tenth Annual Meeting in Victoria, Canada, in October, 2001. The Executive Secretary reported that the existing funding allowed a 10-month appointment, but the actual duration of the Intern's term was limited to 6 months by Canadian visa regulations. A dialogue with Canadian authorities (Human Resources Development Canada, Citizen and Immigration Canada, and the Department of Foreign Affairs and International Trade) on proper arrangements for the Program is in progress, with kind assistance of Fisheries and Oceans Canada.

Council reviewed the results from the first two years of the Intern Program, and concluded that PICES and member countries benefit from the Intern Program, and that it should continue.

The Executive Secretary reminded Council that the Intern Program was not budgeted for 2001, and following Decision 00/A/8(iii), letters were sent to invite member countries to make voluntary contributions to support the Intern Program in 2001 and beyond. Only two countries, Canada and U.S.A., contributed \$10,000 and \$12,000, respectively, to the Trust

Fund to finance the Program. These contributions allowed the continuation of the Intern Program in 2001.

In 2000, and again in 2001, Canada suggested that the Intern Program should gradually be built into the annual budget. Dr. Richard Marasco reported that the F&A Committee did not reach a consensus on this proposal; Russia and the United States supported the Canadian position, but China and Japan expressed a desire to finance the Program from voluntary contributions and/or the Trust Fund. As a result, there was no special allocation for the Intern Program in the proposed *FY 2002* budget and forecast *FY 2003* budget. Although the member countries made no firm commitments, Canada and the United States indicated a willingness to support the Program if funds become available at fiscal year end.

Permanent funding for the Intern Program requires replenishing the Trust Fund on a regular basis or developing some other mechanism to support it. Council debated various approaches to finance the Program and agreed to use registration fees collected for the Annual Meeting to support the Intern Program (Decision 01/A/4(iv)).

In April 2001, National Delegates were reminded that according to the Guidelines for application and selection procedure, they should invite and review applications for the 2002 PICES Internship from their home country and submit nominations to the Secretariat before October 7, 2001, the date of the first Council meeting at PICES X. At the second meeting (October 12), the Executive Secretary informed Council that two nominations were received prior to the deadline, and Ms. Natalya Bessmertnaya (TINRO-Centre, Russian Federation) was selected as the third Intern.

#### **Agenda Item 8. PICES Visiting Scientist Program**

Council reviewed the proposal to establish a PICES Visiting Scientist Program. The initial document was prepared by the Secretariat and

circulated to all National Delegates in July 2001. Comments were included in the draft presented at the meeting. Council noted that the Program will provide an opportunity for national agencies and/or other international science organizations to contribute “in kind” toward achieving PICES goals, and thus enhance the ability of the Organization and the Secretariat to support the increasing work demand and improve the way the Organization functions. Council made editorial changes that allowed more flexibility in the duration of term, and approved the PICES Visiting Scientist Program as amended (Decision 01/A/6, *GC Appendix B*).

The Program will be initiated in 2002, and the selected expert’s term will start after the approval of the specific MOU. The Science Board identified the high priority projects for PICES and gave the highest rank to the development of the North Pacific Ecosystem Status Report. It was suggested that the secondment of experienced scientists from PICES member nations through the Visiting Scientist Program would be the most reliable approach to organize and coordinate the work involved in producing this report. Possible tasks for the visiting scientist include: (i) to identify and to solicit data summaries, syntheses and overviews from regions and for taxa/species of interest; (ii) to compile contributions to the report; (iii) to co-convene a meeting of a group of experts to review the draft report and revise it as necessary; (iv) to participate in workshop development for improving future reports; and (v) to assist in fund-raising for training and capacity building efforts in developing countries to improve the regional/national ecosystem status reports.

#### **Agenda Item 9. Schedule and financing of future Annual Meetings of the Organization**

At PICES IX, Council endorsed the proposal by the People’s Republic of China to host the Eleventh Annual Meeting in 2002 (Decision 00/A/4(ii)). The dates and place of PICES XI were not identified at that time. Discussion with representatives of the host country and GLOBEC International proceeded during the year, and ended with the recommendation to

hold PICES XI from October 18-26, 2002, in Qingdao, concurrently with the second GLOBEC Open Science Meeting (October 15-18, 2002). Council approved this recommendation (Decision 01/A/4(i)) and confirmed a willingness to provide \$40,000 to China to partially cover meeting costs.

A letter from the Korean Ministry of Marine Affairs and Fishery (MOMAF) confirmed the earlier offer of the Republic of Korea to host the Twelfth Annual Meeting. Council then approved the proposal to hold PICES XII from October 17-25, 2003, in Seoul, and requested that sufficient budgetary information be provided as soon as possible, to facilitate *FY 2003* budget planning (Decision 01/A/4(ii)).

In keeping with the six-year rotation cycle, Council invited the United States of America to explore the feasibility of hosting PICES XIII in October 2004, and inform the Secretariat on this matter by the end of 2001. The most desirable dates for the meeting are October 15-23, 2004 (Decision 01/A/4(iii)).

Council discussed the financing of future Annual Meetings of the Organization, and by the recommendation of the Finance and Administration Committee, approved charging a registration fee for the PICES Annual Meetings. Council adopted the proposed registration fee structure and unanimously agreed that collected fees be credited to the Working Capital Fund, and used to support the Intern Program and high priority projects. (Decision 01/A/4(iv)).

#### **Agenda Item 10. Assistant Executive Secretary position**

According to the PICES operational procedures, the term of office for the Assistant Executive Secretary is three years, and may be extended or renewed at the discretion of Council. Dr. Stewart M. (Skip) McKinnell was appointed as the Assistant Executive Secretary, effective September 7, 1999, and his term will come to an end in September 2002, immediately prior to the Eleventh Annual Meeting. Council discussed possible options and at the recommendation of the Finance and Administration Committee,

agreed to offer Dr. McKinnell a second term. Dr. McKinnell should inform the Executive Secretary on his decision by January 31, 2002.

#### **Agenda Item 11. Report and recommendations of Finance and Administration Committee**

The Finance and Administration Committee met under the chairmanship of Dr. Richard J. Marasco, who presented the report to the Governing Council (see F&A Report for text). Council approved the report.

##### **11.1 Audited accounts for fiscal year 2000**

At the recommendation of the Finance and Administration Committee, Council accepted the audited accounts for *FY 2000*. Council agreed to retain the existing auditor *Flader & Greene* for another year (Decision 01/A/1).

##### **11.2 Annual contributions**

Council reviewed historical statistics on the payment schedule of annual fees to the Organization (*F&A Endnote 5*), and directed the Executive Secretary to send a letter to member countries commending them for improved performance in submitting annual contributions in 2000-2001, and advising on the benefits of paying contributions by the first day of the PICES fiscal year (January 1), as required by Regulation 5(ii) of the Financial Regulations (Decision 01/A/3).

##### **11.3 Budget**

###### **11.3a Estimated accounts for fiscal year 2001**

The estimated accounts for *FY 2001* were reviewed by the Finance and Administration Committee and approved by Council (Decision 01/A/2).

###### **11.3b Proposed budget for fiscal year 2002**

Council approved the proposed *FY 2002* budget of \$623,000. The amount of \$59,000 will be transferred from the Working Capital Fund to the General Fund to reduce the total required

contribution to \$564,000, setting the 2002 fees at \$94,000 per Contracting Party (Decision 01/A/2(i)).

### **11.3c Forecast budget for fiscal year 2003**

The *FY* 2003 forecast budget of \$639,000 was prepared under guidelines adopted by Council in 1999 and presented as an information item for Contracting Parties. It will be further considered at PICES XI (Decision 01/A/2(ii)).

### **11.3d Working Capital Fund**

The Working Capital Fund is forecast to be \$196,700 at the end of 2001. Council approved a transfer of \$59,000 to the General Fund to reduce the fees for each Contracting Party, and a transfer of \$16,600 to the Trust Fund to recover all 2001 expenditures and restore the Trust Fund to the level of \$105,000. After these transfers, the Working Capital Fund will total approximately \$122,400, including \$12,300 contributed by the National Marine Fisheries Service (NOAA, U.S.A.) to finance the development of a North Pacific Ecosystem Status Report through the proposed PICES Visiting Scientist Program (Decision 01/A/2(iii)).

### **11.3e Home Leave and Relocation Fund**

The status of the Home Leave Relocation Fund was reviewed. It was noted that expenditures in *FY* 2001 were offset by bank interest earned by the Fund and in part by the transferred income tax levies. The Fund will be at its maximum level of \$110,000 at the end of the fiscal year.

### **11.3f Trust Fund**

In *FY* 2001, the Trust Fund was used to bring young scientists from all PICES member countries and scientists from countries with "economies in transition" to the PICES Tenth Annual Meeting, to finance the Intern Program, and to support activities of Working Groups and Task Teams. These expenditures were compensated only partly by the voluntary contributions from Canada and U.S.A. for the Intern Program, travel grants from the Scientific Committee of Oceanic Research (SCOR) and Fisheries and

Oceans Canada (DFO), and bank interest (for details see *GC Endnote 3*). As a result, the Trust Fund was reduced by about \$11,600.

The Trust Fund is forecast to be \$88,400 at the end of 2001. The approved transfer of \$16,600 from the Working Capital Fund will recover all 2001 expenditures and restore the Trust Fund to the level of \$105,000 (Decision 01/A/2(iii)). This amount includes \$5,000 provided by DFO for Canadian academics and not used in 2001.

Transfers of residual surpluses from the Working Capital Fund have allowed the Trust Fund to be replenished for the last several years. Council confirmed that this practice should continue, but recommended that the Finance and Administration Committee explore other options for the Trust Fund replenishment, as it is unlikely that surpluses of this magnitude will remain in the future.

### **11.4 Fund-raising activities**

Council noted high level of external funding for various activities initiated by PICES and thanked the Science Board Chairman and the Secretariat for their effective fund-raising efforts. Voluntary contributions and grants received for financing special activities in *FY* 2001 are reflected in the Report on Administration (*GC Endnote 3*).

Council reviewed the performance of the Fund-Raising Committee and approved the proposal to disband this Committee and assign its functions to the Finance and Administration Committee. Council also agreed to task the Science Board with the responsibility of providing fully developed project proposals to facilitate fund-raising activities (Decision 01/A/5).

### **Agenda Item 12. Report and recommendations of Science Board**

The Science Board met under the chairmanship of Ms. Patricia Livingston, who presented the report to the Governing Council (see Science Board Report for text). Council approved the Science Board Report. Details are given in *Appendices A-C*.

### **Agenda Item 13. Other business**

The Tenth Annual Meeting provided an opportunity to review progress made by PICES from its inception in 1992, and to discuss the future development of the Organization. To ensure that PICES can take on new activities and continue to serve as a major international forum for marine science in the North Pacific, Council decided to perform an internal audit of the Organization that should determine if the original purposes of the Organization are being

realized. Council agreed to establish a Review Committee that was charged with the task of reviewing the objectives, functions and role of PICES, analyzing the existing structure of PICES and, if necessary, developing proposals for change to meet future needs. The Review Committee should submit its report to Council at PICES XI. Dr. Marasco was requested to draft the terms of reference and proposal for membership for the Committee by December 31, 2001 (Decision 01/A/7).

#### ***GC Appendix A. Decisions***

##### **01/A/1: Auditor**

Council accepted the audited accounts for 2000 and agreed to retain *Flader and Greene* as auditor for another year.

##### **01/A/2: Budget**

Council accepted the estimated accounts for 2001 and agreed to the following actions:

- i. *2002 Budget*  
The budget of \$623,000 was approved. The amount of \$59,000 will be transferred from the Working Capital Fund to reduce the total required contribution to \$564,000, setting the 2002 fees at \$94,000 per Contracting Party.
- ii. *Forecast 2002 Budget*  
The forecast budget of \$639,000 for 2003 was reviewed and will be further considered at the Eleventh Annual Meeting.
- iii. *Inter-fund Transfers*  
A transfer of \$59,000 from the Working Capital Fund to the General Fund for 2002 was approved. A transfer of \$16,600 from the Working Capital Fund to the Trust Fund was approved to recover all 2001 expenditures and restore the Trust Fund to the level of \$105,000. After these transfers, the Working Capital Fund will total \$122,400 including the \$12,300 contribution by the National Marine Fisheries Service (NOAA, U.S.A.) to finance the North Pacific Ecosystem Status Report.

##### **01/A/3: Annual contributions**

The Executive Secretary will send a letter to member countries commending them for improved performance in submitting annual contributions in 2000-2001, and advising on the benefits of paying contributions by the first day of the PICES fiscal year (January 1), as required by Financial Regulations 5(ii).

##### **01/A/4: Future Annual Meetings**

- i. Council agreed to hold the Eleventh Annual Meeting in Qingdao, the People's Republic of China, from October 18-26, 2002.
- ii. Council approved the proposal of the Republic of Korea to hold the Twelfth Annual Meeting October 17-25, 2003, in Seoul<sup>1</sup>. Sufficient budgetary information should be provided as soon as possible, to facilitate *FY 2003* budget planning.
- iii. Council requested the United States of America to explore the possibility of hosting the Thirteenth Annual Meeting, and inform the Secretariat on this matter by the end of 2001. The most desirable dates for the meeting are October 15-23, 2004.

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<sup>1</sup> After the Annual Meeting, PICES learned of a conflict between the dates proposed for PICES XII and those of a Lowell Wakefield Symposium (Anchorage, U.S.A), and Council agreed that PICES XII be held October 10-18, 2003.

- iv. Council approved charging a registration fee for the PICES Annual Meetings and adopted the following registration fee structure:

Type	CDN \$
Early registrants	100
One-day fee	75
Late registrants	150
Students	40

Fees will be collected by the Secretariat and credited to the Working Capital Fund. These funds will be used to support the Intern Program and high priority projects.

#### **01/A/5: Fund-Raising Committee**

Council agreed to disband the Fund-Raising Committee and assign its functions to the Finance and Administration Committee. Council also tasked the Science Board with the responsibility of providing fully developed project proposals to facilitate fund-raising activities.

#### **01/A/6: Visiting Scientists Program**

Council approved the PICES Visiting Scientist Program as amended (*GC Appendix B*).

#### **01/A/7: PICES Review Committee**

Council approved the establishment of a Review Committee to perform an internal audit of the Organization and to submit a report at PICES XI. Dr. Marasco will draft the terms of reference and proposal for membership for the Committee by December 31, 2001.

#### **01/S/1: Inter-sessional Meetings, Working Group and CCCC Program Workshops**

The following inter-sessional meetings, Working Group and CCCC Program workshops are to be convened (see Acronym List at the end of the Annual Report):

- A 4-day IRI/IPRC/PICES *Pacific climate – fisheries* Workshop, November 14-17, 2001, Honolulu, Hawaii, U.S.A.;
- A 4-day MODEL/REX Workshop to build a NPZF (nutrient-phytoplankton-zooplankton-

fish) version of the PICES NEMURO model, January 24-27, 2002, Nemuro/Yokohama, Japan (postponed from 2001);

- A 2-day meeting of WG 14 on *Effective sampling of micronekton*, February 16-17, 2002, Honolulu, Hawaii, U.S.A.;
- A 3-day MONITOR Workshop on *Voluntary observing systems*, February 2002, Corvallis, Oregon or Seattle, Washington, U.S.A.;
- A 2-day NPAFC/NASCO/IBSFC/PICES/ICES Symposium on *Causes of marine mortality of salmon in the North Pacific and North Atlantic Oceans and in the Baltic Sea*, March 14-15, 2002, Vancouver, Canada;
- A 2-day BASS/MODEL Workshop on *Using models to test hypothesis on effects of climate change on the North Pacific subarctic gyre system*, April 21-22, 2002, La Paz, Mexico;
- A 3-day International Symposium on *North Pacific transitional areas*, April 23-25, La Paz, Mexico;
- A 3-day *North Pacific Ecosystem Status Report* Workshop, June 2002, Sidney, Canada;
- A 3-day meeting of WG 16 on *Climate change, shifts in fish production, and fisheries management*, June 2002, Qingdao, People's Republic of China;
- A 3-day PICES/CREAMS/ONR Workshop on *Recent progress in studies of physical processes and their impact to the Japan/East Sea ecosystem*, August 2002, Seoul, Republic of Korea;
- A 2-day TCODE/GOOS Workshop, August 2002, Vladivostok, Russia (in conjunction with NEAR/GOOS meeting);
- A ½-day MONITOR Workshop on *Requirements and methods for early detection of ocean change*, October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- A ½-day MONITOR Workshop on *Monitoring from moored and drifting buoys*, October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- A 1-day CCCC Integration Workshop, October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- A 1-day PICES/GLOBEC Data Management Workshop on *Exchange, inventory and archival of GLOBEC data*, October 2002,



- Qingdao, People's Republic of China (in conjunction with PICES XI);
- A 1-day PICES/CLIVAR Workshop on *Implementation of CLIVAR in the North Pacific* (postponed from 2001), October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- A 2-day WG 15 Workshop on *Development of common standards for HAB data*, October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- ½-day meetings of WG 14, WG 15, WG 16 and CPR and MBM Advisory Panels, and 1-day meetings of WG 17 and IFEP Advisory Panel, October 2002, Qingdao, People's Republic of China (in conjunction with PICES XI);
- A 3-day JGOFS/PICES Symposium on *Carbon cycle in the North Pacific II: Last JGOFS synthesis*, December 4-6, 2002, Nagoya, Japan;
- A 4-day ICES/PICES/GLOBEC International Symposium on *Role of zooplankton in global ecosystem dynamics: Comparative studies from the world oceans*, May 20-23, 2003, Gijón, Spain;
- The Third PICES Workshop on *Okhotsk Sea and adjacent areas*, June 2003, Vladivostok, Russia.

#### **01/S/2: Travel support**

PICES will provide travel support for:

- One invited speaker per Scientific Committee and Program for topic sessions at the PICES Eleventh Annual Meeting (additional requests by the Scientific Committees is subject to fund availability; the Science Board Chairman and Executive Secretary are instructed to use criteria suggested by the Science Board in prioritising these requests);
- Seven scientists to attend various CCCC Task Team Workshops;
- Selected speakers to attend the International Symposium on *North Pacific transitional areas* (April 23-25, 2002, La Paz, Mexico);
- Two scientists to attend the interim meeting of WG 14 on *Effective sampling of micronekton* (February 16-17, 2002, Honolulu, Hawaii, U.S.A.);

- CCCC Co-Chairman to attend the meeting of the ICES Cod and Climate Change Program (April 19-20, 2002, Copenhagen, Denmark);
- Two to three scientists to attend the interim meeting of WG 16 on *Climate change, shifts in fish production, and fisheries management* (June 2002, Qingdao, People's Republic of China);
- Two to three scientists to attend the *North Pacific Ecosystem Status Report Workshop* (June 2002, Sidney, Canada);
- Two scientists to attend the PICES/CREAMS/ONR Workshop on *Recent progress in studies of physical processes and their impact to the Japan/East Sea ecosystem* (August 2002, Seoul, Republic of Korea);
- Two scientists to attend the meeting of WG 15 on *Ecology of harmful algal blooms in the North Pacific* (October 2002, Qingdao, People's Republic of China) (support for one scientist will be provided from the Trust Fund);
- One Russian scientist to attend the meeting of the Advisory Panel on *Marine Birds and Mammals* (October 2002, Qingdao, People's Republic of China) (support will be provided from the Trust Fund);
- Science Board Chairman to attend the NPAFC/NASCO/IBSFC/PICES/ICES Symposium on *Causes of marine mortality of salmon in the North Pacific and North Atlantic Oceans and in the Baltic Sea* (March 14-15, 2002, Vancouver, Canada); the International Symposium on *North Pacific transitional areas* (April 23-25, 2002, La Paz, Mexico); the ICES Annual Conference and Centenary (October 1-8, 2002, Copenhagen, Denmark); and the Second GLOBEC Open Science Meeting (October 13-18, 2002, Qingdao, People's Republic of China);

#### **01/S/3: Publications**

The following publications were approved for 2002:

- Final report of WG 13 on CO<sub>2</sub> in the North Pacific; Proceedings of PICES X Anniversary Symposium; Proceedings of the 2001 CCCC Task Team Workshops; and National

reports on Harmful algal blooms in the PICES region of the North Pacific in the PICES Scientific Report Series;

- Progress reports of WG 13 on CO<sub>2</sub> in the North Pacific, WG 14 on Effective sampling of micronekton, WG 15 on Ecology of harmful algal blooms in the North Pacific, WG 16 on Climate change, shifts in fish production, and fisheries management, CCCC Task Teams, and Advisory Panels on Continuous Plankton Recorder, Iron Fertilization Experiment and Marine Birds and Mammals in the 2001 Annual Report;
- Papers resulted from the 1999 MEQ Practical Workshop in a special issue of *Marine Environmental Research* (Guest editors: Richard F. Addison and John E. Stein);
- Selected papers from the 2001 POC/BIO/FIS Topic Session on “The physics and biology of eddies, meanders and rings in the PICES region” in a special issue of *Journal of Oceanography* (Guest editors: William B. Crawford, Alexander S. Bychkov, Stewart M. (Skip) McKinnell and Takashige Sugimoto);
- Selected papers from the 2001 CCCC Topic Session on “A Decade of variability in the physical and biological components of the Bering Sea ecosystem 1991-2001” in a special issue of *Progress in Oceanography* (Guest editors: Allen Macklin, Jeffrey M. Napp, Vladimir I. Radchenko, Sei-ichi Saitoh and Phyllis J. Stabenro);
- Selected papers from the 2001 FIS Topic Session on “Migration of key ecological species in the North Pacific Ocean” in a special issue of *Canadian Journal of Fisheries and Aquatic Sciences* (Guest editor: James Irvine);
- Selected papers from the 2001 PICES/JGOFS Topic Session on “Plankton size classes, functional groups, and ecosystem dynamics: Causes and consequences” in a special issue of *Progress in Oceanography* (Guest editors: Alexander S. Bychkov and Angelica Peña);
- CD-ROM Oceanographic Atlas of Okhotsk Sea, Bering Sea, and Japan/East Sea.

#### **01/S/4: Future of current Working Groups**

- Study Group on *North Pacific Ecosystem Status Report and Regional Analysis Centers*

(RACs) should complete its task in December 2001, and be disbanded (see *SB Endnote 7* for Study Group report and recommendations);

- WG 12 on *Crabs and shrimps* should complete its final report in 2001 and be disbanded;
- WG 13 on *CO<sub>2</sub> in the North Pacific* should complete its final report in 2002 and be disbanded (no further meetings of the Working Group are required);
- WG 14 on *Effective sampling of micronekton* and WG 15 on *Ecology of harmful algal blooms in the North Pacific* will remain until 2003, and prepare their final reports for publication in 2004;
- WG 16 on *Climate change, shifts in fish production, and fisheries management* will convene an interim meeting in July 2002, and a final meeting in October 2002 at PICES XI, and prepare a final report for publication in 2003.

#### **01/S/5: New PICES groups**

- i. WG 17 on *Biogeochemical data integration and synthesis* will be organized under the direction of the Physical Oceanography and Climate Committee (see *GC Appendix C* for terms of reference). The Technical Committee on Data Exchange will identify a member to sit on the Working Group;
- ii. *North Pacific Data Buoy* Advisory Panel will be organized and sponsored collaboratively by the Physical Oceanography and Climate Committee and the Data Buoy Co-operation Panel (see *GC Appendix C* for terms of reference).

#### **01/S/6: Relations with other organizations and programs**

- i. Council approved the revised Standing List of International Organizations and Programs and agreed with identified priorities for interaction in 2002 (*SB Endnote 8*).
- ii. Science Board will develop potential areas of cooperation with ICES based on specific proposals for interaction between the two Organizations.

## ***GC Appendix B. Visiting Scientist Program***

### **Rationale**

Scientific activities sponsored and/or conducted by PICES have increased significantly since its inception in 1992, as has its production of scholarly works. Growth was achieved by making efficient use of national contributions and by attracting external funding for PICES activities. Unprecedented level of participation in PICES activities associated with the Ninth (Hakodate, Japan, October 2000) and Tenth (Victoria, Canada, October 2001) Annual Meetings, confirmed the Organization's rapid growth and suggested a need to anticipate and plan for even further growth.

Neither the annual contributions by member countries, nor the size of the Secretariat staff have expanded with the increased level of activity, and the capacity of the staff has already been driven to the limit. Given the current reluctance of member countries to increase annual contributions, PICES is seeking alternative ways to enhance the ability of the Organization and the Secretariat to support the increasing demand. Establishing a PICES Visiting Scientist Program will allow national agencies and/or other international science organizations to contribute "in kind" toward achieving PICES goals, and improve the way the Organization functions.

### **Objectives of the program**

- to strengthen the capacity of the Organization to develop and implement projects that have high priority for PICES and member countries; and
- to provide professional development of marine scientists and managers from PICES member countries.

### **Nature of the program**

Each visiting scientist (expert) will be made available to PICES through secondments from national agencies and/or other international science organizations. He/she will be given a specific task that is important to PICES and

which is also in the interests of his/her agency/organization. The secondment should be governed by an MOU (Memorandum of Understanding) developed between PICES and the seconding agency/organization. The MOU spells out the terms of reference for the tasks, responsibilities, duration, as well as the legal terms.

The expert will work at the PICES Secretariat while remaining on the payroll of his/her agency/organization. The agency/organization shall pay the salary, allowances, and expenses incurred in travel to and from the place of residence and the location of the Secretariat, at the beginning, during, and at the end of his/her assignment. Since the expert will continue to be an employee of his agency/organization while at the PICES Secretariat, his/her expenses relating to taxes, medical and life insurance coverage, and any other benefits to which the expert is entitled, will remain the responsibility of his/her agency/organization.

PICES shall provide appropriate facilities at the Secretariat, similar to those normally granted to members of its own staff, including office space and administrative services.

Travel expenses associated with the expert's work in the Secretariat will be shared by PICES and the agency/organization as agreed upon in the MOU.

### **Qualification**

The expert should be an experienced individual (Ph.D. or master's level scientist with over 5 years of post-master's degree experience) with good scientific writing and oral communication skills in English. Someone familiar with integrated marine observation and prediction programs (e.g., GLOBEC, GOOS, etc.) would be desirable.

### **Duration and starting date**

The program will be implemented following the approval of the program by the Governing Council at the PICES Tenth Annual Meeting

(October 5-13, 2001), and identification of potential tasks by the Science Board. The expert's term will start after approval of the

specific MOU. Duration of the term will depend on the specific task.

### ***GC Appendix C. Terms of Reference for new PICES groups***

#### WG 17 on Biogeochemical data integration and synthesis

1. Develop a North Pacific database for ocean CO<sub>2</sub> and related parameters in association with existing data centers. Advise data centers which of the available historical data sets should be assigned a high priority for acquisition and conversion to an electronically readable form.
2. Prepare a written guide of best practices for oceanic CO<sub>2</sub> measurements and data reporting. Carry out, as needed, inter-laboratory method comparisons to assure future measurement quality. Encourage the availability of suitable reference materials.
3. Develop a strategy to co-ordinate the planning of future North Pacific measurement programs to ensure optimal use of resources to obtain appropriate temporal and spatial coverage as well as maximum comparability with historical data. Efforts should be made to encourage timely availability of the "new" data.
4. Organize a symposium or an Annual Meeting Topic Session on the impacts of climate change on the carbon cycle in the North Pacific.

#### North Pacific Data Buoy Advisory Panel

1. Maintain an observational buoy programme north of 30°N in the North Pacific Ocean providing meteorological and oceanographic data for real-time and/or research purposes in support of the World Weather Watch (WWW), the World Climate Research Programme (WCRP), the Global Climate Observing System (GCOS), the Global Ocean Observing System (GOOS), and other relevant WMO and IOC programmes as well as those sponsored by PICES.
2. Support the aims and objectives of the Data Buoy Co-operation Panel (DBCP) as set out in the terms of reference of DBCP, in particular with respect to (i) provision of good quality and timely data to users; (ii) insertion of real-time (or near real-time) data into the Global Telecommunication System; and (iii) exchange of information on data buoy activities and development and transfer of appropriate technology;
3. Support the aims and objectives of PICES, in particular with respect to encouraging (i) the exchange of ocean data and information in the North Pacific, and (ii) the development of new sensors that increase the utility of ocean data buoys and the exchange of information about those sensors.

### **GC Endnote 1**

#### **Participation List**

##### Canada

William G. Doubleday  
Elisabeth Marsollier  
Laura Richards  
Peggy Tsang (Advisor)

##### Japan

Nagahisa Uki  
Hiroko Watanabe (Alternate Delegate)  
Tokio Wada (Advisor)

People's Republic of China

Qian-Fei Liu (Alternate Delegate)  
Hong-Mei Xin (Alternate Delegate)

Republic of Korea

Hye-Jung Kim  
Jin-Yeong Kim (Alternate Delegate)

Russia

Lev N. Bocharov  
Alexander A. Kurmazov (Advisor)  
Igor I. Shevchenko (Advisor)

U.S.A.

Vera Alexander  
Richard J. Marasco  
Elizabeth Tirpak (Advisor)  
William L. Sullivan (Advisor)

Other

Hyung-Tack Huh (Chairman, PICES)  
Alexander S. Bychkov (Executive Secretary)  
Patricia Livingston (Chairman, Science Board)  
R. Ian Perry (Chairman-elect, Science Board)  
Daniel Lluch-Belda (Observer, Mexico)  
Arthuro Molina (Observer, Mexico)

**GC Endnote 2**

**Governing Council Meeting Agenda**

- |   |   |
|---|---|
| 1. Opening remarks  | 11.1 Audited accounts for financial year 2000   |
| 2. Adoption of agenda   | 11.2 Annual contributions                       |
| 3. Preliminary report on administration                                 | 11.3 Budget                                     |
| 4. Membership and observers from other countries                        | a. Estimated accounts for fiscal year 2001      |
| 5. Relations with relevant international organizations                  | b. Proposed budget for fiscal year 2002         |
| 6. Tenth anniversary of PICES   | c. Forecast budget for fiscal year 2003         |
| 7. PICES Intern Program   | d. Working Capital Fund                         |
| 8. PICES Visiting Scientist Program                                     | e. Home Leave and Relocation Fund               |
| 9. Schedule and financing of future Annual Meetings of the Organization | f. Trust Fund                                   |
| 10. Assistant Executive Secretary position                              | 11.4 Fund-raising activities                    |
| 11. Report and recommendations of Finance and Administration Committee  | 12. Report and recommendations of Science Board |
|   | 13. Other business                              |

**GC Endnote 3**

**Report on Administration for 2001**

**I. NATIONAL CONTRIBUTIONS**

According to Regulation 5(ii) of Financial Regulations, all national contributions to PICES

are payable by the first day of the financial year (January 1) to which they relate. Dues for 2001 were paid as follows:

Japan -----	December 13, 2000
U.S.A.-----	January 3, 2001
Canada -----	January 24, 2001
Russian Federation-----	May 18, 2001
Republic of Korea-----	August 23, 2001
People's Republic of China-----	<b>not received as of October 1, 2001</b>

## II. EXTERNAL AND ADDITIONAL FUNDING

This year serious efforts were made to get external and additional funding for various activities initiated by PICES. The following reflects special contributions and grants received:

- A grant of \$32,000 (US \$21,800) from the Alfred P. Sloan Foundation, received in 2000, was used this year to finance the PICES/CoML/IPRC Workshop on *Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific* and a subsequent publication in the PICES Scientific Report series.
- In addition to their annual fees, Canada and U.S.A. contributed \$10,000 and \$12,000 (US \$7,800), respectively, to finance the PICES Intern Program.
- National Oceanic and Atmospheric Administration (NOAA, U.S.A.) and National Marine Fisheries Service (NMFS, U.S.A.) contributed \$15,350 (US \$10,000) and \$26,250 (US \$17,100), respectively, to support the PICES Tenth Anniversary. To reduce PICES expenses for the Annual Meeting, Fisheries and Oceans Canada (Pacific Region) offered to host the Welcoming Reception and provide computers, audio-video equipment and staff for technical and logistical support.
- An Ocean Exhibition, organized in conjunction with PICES X, raised \$9,000 in revenue.
- SCOR provided a grant of \$7,600 (US \$5,000) to support travel of scientists from countries with “economies in transition” to the PICES Tenth Annual Meeting.
- National Marine Fisheries Service (NMFS, U.S.A.) contributed \$12,300 (US \$8,000) to finance the production of a North Pacific Ecosystem Status Report through the proposed PICES Visiting Scientist Program.
- A grant from the Nakajima Foundation was approved to finance a MODEL Workshop on *Improvements to the PICES NEMURO Model* to be held in January 2002, in Nemuro/Yokohama, Japan.

The Asia-Pacific Network (APN) did not approve funding for a one-year pilot project

entitled “APN/PICES ECOPAC: Capacity Building in Climate and Marine Ecosystem Study” (proposal submitted to APN in September 2000).

## III. INTER-SESSIONAL MEETINGS

The following inter-sessional meetings were convened/co-sponsored, for which financial, travel and logistical arrangements were made:

- A 3-day WG 13/TCODE Test Workshop on *CO<sub>2</sub> data integration*, January 22-24, 2001, in Sidney, B.C., Canada;
- A 2-day Third Annual Workshop on *Salmon ecology in coastal ecosystem*, January 31-February 1, 2001, in Nanaimo, B.C., Canada;
- A 2-day BASS/MODEL Workshop on *Quantification of a food web model for the subarctic gyre systems*, March 5-6, 2001, Honolulu, U.S.A.;
- A 3-day Workshop on *Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific* (co-sponsored by the Census of Marine Life, through the Alfred P. Sloan Foundation, and the International Pacific Research Center), March 7-9, 2001, in Honolulu, U.S.A.;
- A 3-day *International Argo Science Team Meeting (IAST-3)*, March 20-22, 2001, in Sidney, B.C. Canada;
- A 3-day WG 13/TCODE Implementation Workshop on *CO<sub>2</sub> data integration* (co-sponsored by the National Institute for Environmental Studies and Marine Information Research Center, Japan), July 30-August 1, 2001, in Tokyo, Japan;
- A 4-day *NEAR-GOOS Forecasting* Workshop (in conjunction with the Fifth IOC/WESTPAC Scientific Symposium), August 27-30, 2001, in Seoul, Korea;
- A 2-day WG 15 Workshop on *Taxonomy and identification of HAB species* (in conjunction with PICES X), October 5-6, 2001, in Vancouver, B.C. Canada;
- A 2-day series of CCCC Task Team Workshops: a BASS/MODEL Workshop on *Ecosystem models for the Subarctic Pacific gyres*; a MONITOR Workshop on *Progress in monitoring the North Pacific*; a REX Workshop on *Temporal variations in*

*size at age for fish species in coastal areas around the Pacific Rim*; a REX/MODEL Workshop on *Higher trophic levels in the PICES NEMURO Model* (in conjunction with PICES X), October 5-6, 2001, in Victoria, B.C., Canada;

- A 4-day *Pacific climate - fisheries* Workshop (co-sponsored by the International Research Institute for Climate Prediction, the Center for Sustainable Fisheries, Intergovernmental Oceanographic Commission, GLOBEC and the International Pacific Research Center), November 14-17, 2001, in Honolulu, U.S.A.

A 4-day MODEL Workshop on *Improvements to the PICES NEMURO Model*, planned for summer 2001, is postponed and will be held in January 2002, in Nemuro (2 days) and Yokohama (2 days). A special grant from the Nakajima Foundation was approved to finance the workshop. Additional co-sponsorship will be provided by the city of Nemuro.

A 1-day PICES/CLIVAR Workshop on *Implementation of CLIVAR in the Pacific Ocean*, and a 1-day TCODE Workshop on *Data management methods and issues for the 21st century*, planned in conjunction with PICES X, are postponed and will be held in 2002, inter-sessionally or in conjunction with PICES XI.

Preparation and arrangements are in progress for the 3<sup>rd</sup> Zooplankton Production Symposium on *The role of zooplankton in global ecosystem dynamics: Comparative studies from the World Oceans* (co-sponsored by ICES, PICES and GLOBEC) to be held May 20-23, 2003, in Gijon, Spain; and for an International Symposium on *Recent progress in studies of physical processes and their impact to the Japan/East Sea ecosystem* (co-sponsored by PICES, CREAMS and ONR) to be held in May 2002, in Seoul, Korea.

#### IV. PUBLICATIONS

List of publications produced this year:

- PICES 2000 Annual Report was published and circulated in February;

- Announcement for the Tenth Annual Meeting was printed and distributed in February;
- Vol. 9 nos. 1 and 2 of PICES Press were circulated in February and July;
- Proceedings of the CREAMS 2000 International Symposium on Oceanography of the Japan/East Sea were published and distributed in February;
- PICES 2000 Directory was updated and circulated in July;
- Special issue of *Progress in Oceanography* on *Pacific climate variability and marine ecosystem impacts* (selection of papers presented at the Beyond El Niño Conference in March 2000) was published in August and distributed at PICES X in October;
- PICES Scientific Report No. 16: *Environmental assessment of Vancouver Harbour: Data report for the PICES Practical Workshop* (final report of WG 8), was published in August and distributed in September;
- PICES Scientific Report No. 17: *Climate Change and Carrying Capacity Program/Report on the 2000 BASS, MODEL, MONITOR and REX Workshops, and the 2001 BASS/MODEL Workshop*, was published and distributed in September;
- PICES Anniversary Publication: *Historical Atlas of the North Pacific Ocean: Maps of discovery and scientific exploration 1500-2000*, was published in August and distributed at PICES X in October;
- PICES Scientific Report No. 18: *Proceedings of PICES/CoML/IPRC Workshop on Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific*, was published and distributed in September;
- Poster for the PICES Eleventh Annual Meeting was printed and distributed in September, and at the 2001 Annual Meeting in October;
- Poster and the first announcement for the 3<sup>rd</sup> Zooplankton Production Symposium on *The role of zooplankton in global ecosystem dynamics: Comparative studies from the World Oceans* (co-sponsored by ICES,

PICES and GLOBEC) were printed and distributed in September, and at the 2001 Annual Meeting in October;

- A Book of Abstracts for the Tenth Annual Meeting was prepared for circulation at the meeting in October;
- PICES Scientific Report 19: *Crustacean resources of the North Pacific Ocean* (final report of WG 12), will be published by the end of this year (after approval by FIS);
- Review and results from the 1999 and 2000 PICES method inter-comparisons for carbonate parameters will be published in a bilingual (Japanese/English) report by the Center for Global Environmental Research (CGER) of the National Institute for Environmental Studies, Japan, and in the PICES Scientific Report Series (PICES Scientific Report No. 20) by the end of this year;

#### V. TRAVEL AND REPRESENTATION AT OTHER ORGANIZATION MEETINGS

- Travel support was provided to Drs. Paulette Murphy (U.S.A.) and Tsuneo Ono (Japan), and Mr. Alexander Kozyr (U.S.A.), to participate in the WG 13/TCODE Test Workshop on *CO<sub>2</sub> Data Integration*, in Sidney, B.C., Canada, in January;
- Drs. Skip McKinnell (co-convenor), PICES Assistant Executive Secretary, and Frank Schwing (invited speaker) attended the Thrd Annual Workshop on *Salmon ecology in coastal ecosystem*, in Nanaimo, B.C., Canada, in January;
- Dr. Alexander Bychkov, PICES Executive Secretary, went to Vancouver, Canada, in February, to visit the North Pacific Anadromous Fish Commission and meet with Mr. Yuichi Kusumoto, Consul-General of Japan;
- Dr. Skip McKinnell was invited to participate in a workshop on *Abnormal behaviour of Fraser river sockeye salmon* convened by the Pacific Salmon Commission, in Vancouver, B.C., Canada, in February;
- Partial or full travel support was provided to 14 scientists from all PICES member countries and staff of the Secretariat (paid by Alfred P. Sloan Foundation grant), to attend the Workshop on *Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific* in Honolulu, U.S.A., in March;
- Travel support was provided to Dr. Yury Volkov and Mr. Vladimir Yakuhin (Russia), to participate in the 3<sup>rd</sup> International Argo Science Team Meeting in Sidney, B.C., Canada, in March;
- Dr. Alexander Bychkov and Ms. Christina Chiu, PICES Administrative Assistant, attended the International Fisheries Commission Pension Society Meeting in Vancouver, Canada, in April;
- Dr. Vera Alexander (Vice-Chairman of PICES), Ms. Patricia Livingston (Science Board Chairman), Dr. Warren Wooster (founding father and first Chairman of PICES) and Dr. Alexander Bychkov travelled to La Paz, Mexico, in May, to meet with directors and leading scientists from Mexican research institutes, to inform them about PICES and explore an interest of Mexico to accede to the PICES Convention;
- Dr. Skip McKinnell travelled to Seattle, U.S.A., to attend a mini-Symposium to mark the 2001 cruise of T/S *Oshoro-maru*, in July;
- Dr. Alexander Bychkov attended the JGOFS Scientific Steering Committee Meeting and IGBP Open Science Conference in Amsterdam, The Netherlands, in July (partial support);
- Dr. Hyung-Tack Huh, Chairman of PICES, participated in IOC's (Inter-Governmental Oceanographic Commission) Assembly in Paris, France, in July (paid by Korean Government);
- Drs. Skip McKinnell and Yoshioki Oozeki (Japan) attended the NEAR-GOOS Forecasting Workshop, Dr. McKinnell also attended the NEAR-GOOS Coordinating Committee Meeting, in Seoul, Korea, in August;
- Full or partial travel support was provided to the following scientists to participate in various CCCC Task Team Workshops: Drs. Jacquelynne King (Canada), Bernard Megrey (U.S.A.) and Daniel Ware (Canada)



in a BASS/MODEL Workshop on *Quantification of a food web model for the subarctic gyre systems*; Dr. Andrey Krovnin (Russia) in a BASS/MODEL Workshop on *Ecosystem models for the Subarctic Pacific gyres*; Drs. Nikolai Naumenko and Olga Temnykh (Russia) in a REX Workshop on *Temporal variations in size at age for fish species in coastal areas around the Pacific Rim*; and Dr. Francisco Werner (U.S.A.) in a REX/MODEL Workshop on *Higher trophic levels in the PICES NEMURO Model*;

- Dr. Hyung-Tack Huh and Ms. Patricia Livingston travelled to Victoria, Canada, in October, for the PICES Tenth Annual Meeting;
- Full or partial travel support was provided to the keynote speaker (Dr. Warren Wooster) for the Opening Session, 5 invited speakers for the Science Board Anniversary Symposium, and 20 invited speakers (paid by PICES and co-sponsoring programs and organizations) for scientific sessions at the PICES Tenth Annual Meeting, in Victoria, Canada, in October;
- Partial travel support (paid by the Trust Fund and SCOR grant) was provided to 4 Chinese, 5 Mexican, 7 Russian, and 10 young scientists from all PICES member countries, to participate in the PICES Tenth Annual Meeting in Victoria, Canada, in October;
- Travel support was provided to Dr. Laurie Connell (U.S.A.), invited speaker with expertise in molecular biology of phytoplankton, to attend the WG 15 Workshop on *Taxonomy and identification of HAB species*, in Vancouver, B.C., Canada, in October;
- Drs. R. Ian Perry and Alexander Bychkov to represent PICES at the Census of Marine Life Steering Committee Meeting and the SCOR Executive Committee Meeting, in Mar Del Plata, Argentina, in October;
- Dr. Douglas E. Hay (FIS Chairman) and representatives of the Secretariat to participate in the NPAFC Ninth Annual Meeting in Victoria, Canada, in October-November;

- Two PICES' representatives to attend a *Pacific climate – fisheries* Workshop, in Honolulu, U.S.A., in November.

## VI. RELATIONS WITH INTERNATIONAL SCIENTIFIC ORGANIZATIONS AND PROGRAMS

The following reflects expanding relationships with international scientific organizations and programs that are considered to have the highest priority for PICES with respect to cooperation and facilitation of ecosystem research in the North Pacific during this year:

- Global Ocean Ecosystem Dynamics project of IGBP (GLOBEC)
  - a. The PICES-GLOBEC Program on Climate Change and Carrying Capacity (CCCC) provides a mechanism for integrating national GLOBEC research programs in the North Pacific and is a regional component of the international GLOBEC effort;
  - b. GLOBEC co-sponsored a topic session on *Results of GLOBEC and GLOBEC-like Programs in the North Pacific Ocean (with emphasis on a possible 1998/99 regime shift)* at the PICES Tenth Annual Meeting, in October 2001;
  - c. GLOBEC accepted a proposal by PICES to organize and co-sponsor (with PICES and ICES) a 3<sup>rd</sup> Zooplankton Production Symposium on *The role of zooplankton in global ecosystem dynamics: Comparative studies from the World Ocean*, to be held May 20-23, 2003, in Gijón, Spain;
  - d. It was agreed to hold the PICES Eleventh Annual Meeting and the second GLOBEC Open Science Conference (OSC) concurrently in October 2002, in Qingdao, People's Republic of China. A PICES/CCCC Topic Session will be fully integrated into the GLOBEC OSC as a theme session, and every opportunity will be used for joint meetings of GLOBEC Foci Working Groups and PICES CCCC Task Teams with overlapping interest.

- Joint Global Ocean Flux Study project of IGBP (JGOFS)
  - a. JGOFS participated in the planning and co-sponsored a topic session on *Plankton size classes, functional groups and ecosystem dynamics: Causes and consequences* at the PICES Tenth Annual Meeting, in October 2001;
  - b. A collection of contributed papers from JGOFS-related field programs in the North Pacific will be published in spring 2002, as a special JGOFS/PICES issue of *Deep-Sea Research II* (Topical Studies in Oceanography) on *North Pacific Biogeochemical Processes*;
  - c. JGOFS North Pacific Synthesis Group requested PICES to co-sponsor an International Symposium on *Biogeochemical Cycles in the North Pacific* to be held in December 2002, in Nagoya, Japan, and a subsequent special issue of *Journal of Oceanography* on *JGOFS North Pacific synthesis* to be published in fall 2003.
  
- International Geosphere-Biosphere Program (IGBP)
  - a. GLOBEC and JGOFS are the major IGBP core projects working closely with PICES (see above);
  - b. Dr. Berrien Moore III, Chairman of IGBP, was invited to give a talk on "Marine science-IGBP: Partners in the 21<sup>st</sup> century" at the PICES Tenth Anniversary Symposium on *Ten years of PICES science: Decadal-scale scientific progress and prognosis for a regime shift in scientific approach* to be convened in October 2001, in Victoria, Canada.
  
- International Council for the Exploration of the Sea (ICES)
  - a. ICES accepted a proposal of PICES' to organize and co-sponsor (with PICES and GLOBEC) a 3<sup>rd</sup> Zooplankton Production Symposium on *The role of zooplankton in global ecosystem dynamics: Comparative studies from the World Oceans* to be held May 20-23, 2003, in Gijón, Spain;
    - b. Discussion is in progress for joint activities of the ICES CCC and PICES CCCC Programs.
  
- Scientific Committee on Oceanic Research (SCOR)
  - a. SCOR provided a grant of \$7,600 (US \$5,000) to support travel of scientists from countries with "economies in transition" to the PICES Tenth Annual Meeting;
  - b. The Science Board Chairman and Executive Secretary of PICES are planning to attend the SCOR Executive Committee Meeting in October 2001, to discuss future cooperation between the two organizations;
  - c. SCOR will be approached to co-sponsor a 3<sup>rd</sup> Zooplankton Production Symposium on *The role of zooplankton in global ecosystem dynamics: Comparative studies from the World Oceans* to be held May 20-23, 2003, in Gijón, Spain, and joint meetings of GLOBEC Foci Working Groups and PICES CCCC Task Teams in conjunction with the 2<sup>nd</sup> GLOBEC Open Science Conference and PICES Eleventh Annual Meeting, in October 2002, in Qingdao, People's Republic of China. A GLOBEC/PICES proposal on this issue will be submitted to SCOR by the end of 2001.
  
- Census of Marine Life program (CoML)
  - a. CoML, through the Alfred P. Sloan Foundation, jointly with PICES and the International Pacific Research Center, co-sponsored a workshop on *Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific*. The workshop was attended by more than 60 scientists from all PICES member countries and representatives from several international organizations and programs. One of the main purposes of the workshop was to facilitate the compilation of data and knowledge of the status and trends of North Pacific ecosystem components into a North Pacific Ecosystem Status Report. This

annual report will provide a synthesis of North Pacific monitoring data at all ecosystem levels, and will identify progress in climate and ecosystem change predictions that can be used to move towards ecosystem-based marine policy- and decision-making.

▪ Inter-American Tropical Tuna Commission (IATTC) and International Pacific Halibut Commission (IPHC)

- a. IATTC and IPHC participated in the PICES/CoML/IPRC workshop on *Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific*, and contributed to the report from the workshop (PICES Scientific Report No. 18);
- b. Both organizations agreed to provide information on species of their concern for an annual North Pacific Ecosystem Status Report compiled and produced by PICES.

▪ North Pacific Anadromous Fish Commission (NPAFC)

- a. NPAFC agreed to provide information on species of their concern for an annual North Pacific Ecosystem Status Report compiled and produced by PICES;
- b. PICES was invited to be one of the co-organizers of a joint international symposium on *The causes of marine mortality of salmon in the North Pacific and North Atlantic Ocean and in the Baltic Sea* (other co-organizers are NPAFC, NASCO (North Atlantic Salmon Conservation Organization), IBSFC (International Baltic Sea Fishery Organization) and ICES).

▪ Argo project

- a. Following recommendations of the PICES Eighth and Ninth Annual Meetings to assist in the implementation of the Argo project, and a statement delivered by the Chairman of PICES at the *International Implementation*

*Planning Meeting for Argo Floats in the Pacific Ocean and Adjacent Regions* (Tokyo, Japan, May 2000), PICES co-sponsored a 3<sup>rd</sup> meeting of the International Argo Science Team (IAST-3) in Sidney, B.C., Canada, in March 2001. The meeting was attended by 39 scientists and managers from 13 countries and representatives of two international organizations (IOC and PICES). An article about the meeting, written by Dr. Dean Roemmich, IAST Chairman, was published in PICES Press, Vol. 9, No. 2.

▪ Climate Variability and Predictability Program (CLIVAR)

- a. Collaboration between CLIVAR and non-physical programs is clearly needed - both on scientific and on logistical/resources issues, and PICES is an important means of fostering this collaboration in the Pacific;
- b. PICES scientists attended the CLIVAR-Pacific Workshop (February 2001), and CLIVAR was represented at the PICES/CoML/IPRC Workshop on *“Impact of climate variability on observation and prediction of ecosystem and biodiversity changes in the North Pacific”* (March 2001);
- b. To foster collaboration, PICES and CLIVAR agreed to convene a 1-day joint workshop on *Implementation of CLIVAR in the Pacific Ocean* in 2002, inter-sessionally or in conjunction with PICES XI.

▪ North-East Asian Regional Global Ocean Observing System (NEAR-GOOS)

- a. PICES is actively communicating with scientists in the NEAR-GOOS effort and participating in NEAR-GOOS meetings. With the idea of broadening the program to an ecosystem-based effort, PICES co-sponsored the NEAR-GOOS Forecasting Workshop that was held in conjunction with the Fifth IOC/WESTPAC Scientific Symposium, in Seoul, Korea, in August 2001.

▪ Intergovernmental Oceanographic Commission (IOC)

- a. PICES has led the way in revealing the linkages between North Pacific climate variations and changing productivity and composition of fish communities. To further progress in this direction and ensure that the Organization will continue to serve as a regional focal point for integrating North Pacific climate research, PICES is strengthening its ties with the IOC research programs such as Argo, CLIVAR, GLOBEC, GOOS, etc. (see above).
- b. PICES Working Group 13 on *CO<sub>2</sub> in the North Pacific* has been actively coordinating the standardization, collection, and synthesis of CO<sub>2</sub> data in the region. To improve the overall quality of oceanic CO<sub>2</sub> measurements, PICES co-sponsored an international method inter-comparison study for carbonate parameters (more than 15 labs from 6 countries), which began in 1999 and continued through 2000. Results from this method inter-comparison were reviewed at two Technical Workshops, in April 1999 and October 2000, and will be published in the PICES Scientific Report series in summer 2001. To identify what needs to be done to provide for effective data exchange, PICES co-sponsored a series of multinational data integration/synthesis workshops aimed at achieving a detailed comparison of existing data sets for CO<sub>2</sub> in the North Pacific. The *CO<sub>2</sub> Data Integration Test Workshop* was held in January 2001, and the *CO<sub>2</sub> Data Integration Implementation Workshop* was held in August 2001.

These activities are highly valued by the IOC/SCOR CO<sub>2</sub> Panel. In a proposal about the design of Ocean Carbon Observation System, the Panel emphasized the importance of regional international forum, and supported PICES as an excellent forum for the Pacific region.

▪ Circulation Research of the East Asian Marginal Seas Program (CREAMS)

- a. PICES co-sponsored the publication of the Proceedings of CREAMS 2000 International Symposium on *Oceanography of the East Asian Marginal Sea* (May 2000, Vladivostok, Russia);
- b. An International Symposium on *Recent progress in studies of physical processes and their impact to the Japan/East Sea ecosystem* (co-sponsored by PICES, CREAMS and ONR) will be held in July-August 2002, in Seoul, Korea.

## 7. PICES INTERN PROGRAM

At the Ninth Annual Meeting, Council discussed the results from the first year of the PICES Intern Program (approved in 1999 and commenced in 2000), and concluded that PICES and member countries benefit from the Intern Program, and that it should be continued. After reviewing the Program, Council adopted the amendment to the Guidelines for application and selection procedure, extended the deadline for applications for the 2001 Intern Program to February 1, 2001, and invited member countries to make voluntary contributions to support the Intern Program in 2001 (see Decision 00/A/8).

PICES was able to continue the Intern Program in 2001 because Canada and U.S.A., in addition to their annual fees, contributed \$10,000 and \$12,000 (US \$7,800), respectively, to the Trust Fund to finance the Program. Prior to the new deadline, the Executive Secretary received three nominations for the 2001 term, and Dr. Jung Hwa Choi (Republic of Korea) was selected as the second Intern in March 2001. The recommended period of appointment, from 6 to 10 months, was meant to give him the opportunity to be involved in all major PICES activities including the organizing of the PICES Tenth Annual Meeting in Victoria, Canada, in October 2001. The existing funding allows a 10-month appointment, but the actual duration of the Intern's term is limited to 6 months by Canadian visa regulations. A dialogue with Canadian authorities on proper arrangements for the Program is in progress, with kind assistance of Fisheries and Oceans Canada.

## GC Endnote 4

### Report on the visit of the PICES delegation to Mexico

PICES representatives Dr. Vera Alexander (Vice-Chairman), Ms. Patricia Livingston (Chairman of the Science Board), Dr. Warren Wooster (founder and first Chairman of PICES) and Dr. Alexander Bychkov (Executive Secretary) met with Mexican scientists and officials from May 2-3, 2001, at CIBNOR (La Paz, Mexico). The purpose was to facilitate the incorporation of Mexico to PICES by presenting information on the history, structure, objectives and procedures of the Organization to a wider array of potential Mexican participants.

An open meeting was attended by a number of scientists from Mexican marine research institutes, and later the officials and some invited scientists met with the PICES delegation in a working session. Mexican officials included Dr. Mario Martínez García, Director of CIBNOR (Centro de Investigaciones Biológicas del Noroeste, SC - *Northwest Biological Research Center*), who hosted the meeting; Dr. Guillermo Compeán Jiménez, President of INP (Instituto Nacional de la Pesca - *National Fisheries Institute*); Lic. Ricardo Belmontes Acosta (Director de Políticas y Acuerdos Pesqueros Internacionales; Secretaría de Agricultura, Ganadería, Pesca y Alimentación - *Director of International Affairs, Ministry of Agriculture, Livestock, Fisheries and Food*); Lic. Clara Morán (Subdirectora de Asuntos Multilaterales, Consejo Nacional de Ciencia y Tecnología - *Deputy Director of Multilateral Affairs, National Council of Science and Technology*); Dr. Javier Mendieta, Director of CICESE (Centro de Investigación y Educación Superior de Ensenada - *Center for Scientific Research and Higher Education of Ensenada*); Dr. Francisco Arreguín Sánchez, Director of CICIMAR (Centro Interdisciplinario de Ciencias Marinas del Instituto Politécnico Nacional - *Interdisciplinary Center for Marine Sciences, National Polytechnical Institute*); Dr.

Federico Páez, representing the Director of the Instituto de Ciencias del Mar y Limnología, Universidad Nacional Autónoma de México - *Institute of Marine Science and Limnology, Mexican National Autonomous University*); Dr. Antonina Ivanova, Directora de Investigación Interdisciplinaria y Postgrado - *Director of Interdisciplinary Research and Graduate Education, Autonomous University of Baja California Sur*); and Dr. Jaime Farber Lorda (Coordinador de la Red Mexicana de Oceanografía y Pesca - *Coordinator of the Mexican Network of Oceanography and Fisheries*). Other scientists and representatives included Drs. Sergio Hernández-Vázquez and Salvador E. Lluch Cota (CIBNOR), Drs. Gerardo López Lemus and Luis Fletcher (INP) and Dr. Daniel Lluch Belda (CICIMAR).

There was a general consensus of interest in the potential accession of Mexico to PICES. Three main lines of action were adopted:

1. Mexican officials will further explore the interest of other government agencies involved and the formal procedures to be followed;
2. Mexican scientists will be encouraged to participate in PICES activities, beginning with the PICES Tenth Annual Meeting to be held October 5-13, 2001, in Victoria, Canada; and
3. PICES and Mexican participants will explore the possibility of organizing a special symposium in the spring of 2002, in La Paz, locally hosted by CIBNOR and CICIMAR. It was proposed that the symposium will examine recent advances in understanding the dynamics of marine ecosystems in high gradient regions of the Asian and North American coastal zones and in the open Pacific.

