

# PICES

North Pacific Marine Science Organization (PICES)  
Fifth Annual Meeting

Program  
October 11-20, 1996

Nanaimo, British Columbia, Canada

## Schedule

Day / Time		Events				
11th 09:00 - 12:30 13:30 - 17:30		TCODE and Working Group Meetings				
12th 09:00 - 12:30 13:30 - 17:30		TCODE and Working Group Meetings				
13th 09:00 - 12:30 10:00 - 15:00 15:00 - 17:00 17:00 - 20:00		Review and Finalize Reports of TCODE and Working Group Meetings CCCC Task Teams CCCC Implementation Panel / Executive Committee*				
14th 07:30 - 08:30 08:30 - 11:00 11:00 - 12:30 12:30 - 16:30 13:30 - 17:30 18:30		Registration Opening Session Governing Council*				
15th 08:30 - 12:30 13:30 - 17:30 17:30 - 18:30		BIO Topic	POC Papers	FIS Papers		
16th 08:30 - 12:30 13:30 - 17:30 18:30 - 22:30		MEQ Topic	F & A Meeting*	F & A Meeting*		
17th 08:30 - 12:30 13:30 - 17:30 18:30 -		BIO Papers	POC Meeting	FIS Meeting	POC Topic	Governing Council*
18th 08:30 - 17:30 17:30 - 18:30		MEQ Papers	FIS Topic	TCODE Meeting		
19th 08:30 - 17:30		BIO Meeting	MEQ Meeting	POC Meeting	FIS Meeting	
20th 13:30 - 17:30		Canadian Thanksgiving Dinner				
18:30 -		Extravaganza Dinner				
18th 08:30 - 17:30 17:30 - 18:30		Science Board Symposium Closing Session				
19th 08:30 - 17:30		Science Board*				
20th 13:30 - 17:30		Governing Council*				

\* Closed Session

### 11<sup>th</sup> Oct., 96 (Friday)

TCODE and Working Group Meetings (09:00 - 12:30, 13:30 - 17:30)  
TCODE, Working Groups 8, 9, 11 and 12

### 12<sup>th</sup> Oct., 96 (Saturday)

TCODE and Working Group Meetings (09:00 - 12:30, 13:30 - 17:30)  
TCODE, Working Groups 8, 9, 11 and 12

### 13<sup>th</sup> Oct., 96 (Sunday)

Working Group and Task Team Meetings (09:00 - 12:30, 13:30 - 15:00/17:30)  
Working Groups 10, 11, BASS, REX and MODEL  
CCCC Implementation Panel/Executive Committee Meeting\* (15:00 - 17:00)  
Registration (17:00 - 20:00)

14<sup>th</sup> Oct., 96 (Monday)

Registration (07:30 - )

Opening Session (08:30 - 11:00)

Opening / welcome address by representative of host country.

Remarks by Chairman.

Remarks by representatives of contracting parties.

Announcements.

Keynote lecture by Prof. Timothy R. Parsons: "Taking stock of biological studies in the ocean".

Governing Council Meeting\* (11:00 - 12:30)

Finance & Administration Committee Meeting\* (13:30 - 17:30)

**REGIONAL AND INTERANNUAL VARIANTS IN LIFE HISTORIES OF KEY SPECIES (12:30 - 16:30)**

(Biological Oceanography Committee: Topic 3)

Co-Conveners: David L. Mackas (Canada) & Tsutomu Ikeda (Japan)

M.D. Ohman. Subpolar copepods of the Pacific - A tale of two hemispheres

S. Uye. Characteristics of the life history of key copepod species along a eutrophic-mesotrophic-oligotrophic transect in Japanese coastal waters

V.A. Bizikov & A.V. Verkhunov. Seasonal and interannual variability of stock structure and distribution of gonatid squid *Berryteuthis magister* (*Gonatidae*) in the western Bering Sea during 1993-1996 in relation to the oceanographic conditions

K. Taki & T. Ogishima. Distribution of *Euphausia pacifica* in the northwestern Pacific Ocean in summer

T. Ikeda. Life history of major zooplankton species in the southern Japan Sea (East Sea): a review

M. Terazaki. Life history, distribution, seasonal variability and feeding of the pelagic chaetognatha, *Sagitta elegans* in the subarctic Pacific

J.M. Napp, K.M. Bailey & M.K. Cohen. Adaptations of spring-spawning walleye pollock, *Theragra chalcogramma*, to the inherent environmental variability of three regions

V.I. Radchenko. Interannual variability

**PAPERS FOR THE FISHERY SCIENCE COMMITTEE (12:30 - 16:30)**

E.C. Carmack & E.B. Bennett. The thermal curtain hypothesis: (2) Implications to salmon distributions in the North Pacific

S.G. Hinch & P.S. Rand. Evaluating risk of energy depletion and mortality in upriver migrating salmon

J.U. Lee & C.S. Park. Recent changes in population structure of yellow croaker, *Pseudosciaena polyact* bleeker, in the west coast of Korea and the East China Sea

M.C. Bourque & P.H. LeBlond. Studying the effect of ocean currents on returning salmons: results from a fine resolution coastal model

T.C. Wainwright & L.A. Weitkamp. Ecological risks associated with declining spawner size in Puget Sound coho salmon (*Oncorhynchus kisutch*)

J. Zheng, G.M. Kruse & M.C. Murphy. Consequences of size selective fishing on tanner crab populations that exhibit periodic recruitment

R.D. Brodeur, M.T. Wilson, P.J. Stabeno, J.M. Napp & J.D. Schumacher. Distribution of juvenile pollock relative to frontal structure near the Pribilof Islands, Bering Sea

S.C. Cox & S.J. Hinch. Marine growth of Fraser River sockeye salmon: the role of habitat and abundance

## 14<sup>th</sup> Oct., 96 (Mon.) cont'd

- of Dolly varden *Salvelinus malma* (Walbaum) distribution in the deep-water zone of the Bering Sea in relation with oceanological conditions
- D.E. Hay & P.B. McCarter. Effects of annual temperature variation the timing and geographic distribution of herring spawning locations in British Columbia
- L. Huato. Climate and the life history of sockeye salmon
- L.A. Gayko. Interrelation between hydrometeorological and biological parameters of marine farms of Primorye (Possiet Bay, Sea of Japan / East Sea)
- S. Kim & S.J. Yoo. Did climate regime shift in 1976 in the North Pacific occur in Korean waters?
- K.A. Thomson & D.J. Blackbourn. Environmental indices for predicting Fraser River sockeye salmon return times
- Y. Watanabe & H. Zenitani & R. Kimura. Variations in spawning ground area and egg density of the Japanese sardine in the Pacific coastal and oceanic waters
- C.L. Lin, B. Xu & S. Li. Fisheries and stock biomass of filefish *Navodon septentrionalis* and variations of physical environment in the East China Sea

Seafood Spectacular Reception (18:30 - )

## 15<sup>th</sup> Oct., 96 (Tuesday)

### PROCESSES OF CONTAMINANT CYCLING (08:30 - 12:30)

(Marine Environmental Quality Committee: Topic 5)

Co-Conveners: Lee Harding (Canada), Tracy Collier (U.S.A.) & Dong-Beom Yang

- S. Harada, M. Watanabe, H. Koshikawa & K. Sato. Analyses on the variations in marine carbon cycles accompanied with shifts of planktonic ecosystem structure
- L.N. Luchsheva. Connection of high phytoplankton productivity on the Okhotsk Sea shelf with anomalies of mercury
- A.I. Obzhirov, L.N. Luchsheva & G.I. Mishukova. Anomal contents of mercury and methane concentrations and their possible correlation with phytoplankton on the Okhotsk Sea shelf

### PAPERS FOR THE PHYSICAL OCEANOGRAPHY AND CLIMATE COMMITTEE (08:30 - 12:30)

D. Yong. The fuzzy analysis of the relationship between the sea skin-bulk temperature difference and wind speed, air temperature in the coastal area of Qingdao

M.Y. Zhou, F.L. Qian, C. Chen & L.R. Su. Geographical variation and deposition of atmospheric trace elements in East China Sea

Y.C. Yuan, C.T. Liu, Z.Q. Pan & S.P. Zheng. The circulations east of Taiwan and in East China Sea and east of the Ryukyu Islands during early summer 1985

G.I. Yurasov. Tidal currents in the Korea Strait

A.B. Rabinovich, R.E. Thomson & P.H. LeBlond. Lagrangian measurements of diurnal tidal currents near

15<sup>th</sup> Oct., 96 (Tues.) cont'd

- A.V. Tkalin & B.J. Presley. Pollutant accumulation in the Japan Sea coastal bottom sediments
- D.B. Yang, J.R. Oh, K.T. Kim & C.K. Park. On the chemical contaminants of surface sediments in the southern part of the Yellow Sea
- I. Yuasa & Y. Fujioka. Relation between changes of the marine ecosystem structure and chemical toxics of coastal environments (seawater and bottom sediment etc.) in the Seto Inland Sea, Japan
- B.B. McCain, D.W. Brown, S.L. Chan, J.T. Landahl, B.B. Horness, M.M. Krahn, C.A. Sloan, K.L. Tilbury & S.M. Pearce. Temporal trends in concentrations of chlorinated and aromatic hydrocarbons in fish and sediment from selected sites along the Pacific coast of the U.S.
- the Kuril Islands
- P.F. Cummins & L.Y. Oey. Simulation of barotropic and baroclinic tides off northern British Columbia
- C.N.K. Mooers & J. Wang. Numerical simulation of the circulation in Prince William Sound
- O.G. Yurasov. On the properties of 3D circulation at oceanic density fronts
- E.B. Bennett & E.C. Carmack. The thermal curtain hypothesis: Physical basis for stationary mixing structures in the North Pacific Ocean
- F.A. Whitney & C.S. Wong. Recent changes in surface water properties along Line P in the N.E. Pacific Ocean
- H.J. Freeland. Near surface changes in the mixed layer at Ocean Station Papa in the N.E. Pacific Ocean
- W.W. Hsieh. Forecasting the sea surface temperature anomalies in the Pacific Ocean
- S. Yukimoto, M. Endoh & Y. Kitamura. Interdecadal variations of the Pacific Ocean as an impact of interdecadal tropical variability in an MRI coupled GCM
- I.S. Berman. Interannual fluctuations of the sea surface temperature (SST) in the Northwest Pacific
- F.F. Khrapchenkov. Hydrological and acoustic characteristics of the cold currents in the Northwest Pacific and Atlantic Oceans
- S.V. Gladyshev & S.C. Riser. Some features of water exchange through the Okhotsk Sea, Bussol and Kruzenshtern Straits: Evidence for deep ventilation of the North Pacific
- S.Yu. Glebova, Y.V. Novikov & E.V. Samko. Investigation of dependence of summer thermodynamics of waters of Sakhalin-Kuril Region from winter-spring atmospheric processes
- T.A. Shatilina. Some peculiarities of atmospheric processes over the Sea of Okhotsk and the adjoining Pacific part in 1970-1996
- N.A. Dashko & S.M. Varlamov.

## 15<sup>th</sup> Oct., 96 (Tues.) cont'd

- Analysis of climate change tendency in the Far East Seas area (Bering, Okhotsk, Japan/East Seas)  
M.A. Danchenkov, A.A. Nikitin & I.A. Goncharenko. Structure of surface water temperature in the NW Japan/East Sea  
A.L. Figurkin. Classification of the shelf water circulation off the western Kamchatka  
C.J. Yul, K.V. Ivanova & V.V. Ivanov. Variations of the air pressure, air temperature and sea level of the synodic periods of the moon and planets  
V.A. Abramov. Tectonospheres crater of the Pacific of a transitive zone, new mechanisms of earthquakes and ecological problems of seismicity

Finance & Administration Committee Meeting\* (08:30 - 12:30)  
CCCC Implementation Panel Meeting (13:30 - 16:30)  
ECOPATH II Demonstration by Prof. Daniel Pauly (16:30 - 18:00)  
Science Board Meeting\* (17:30 - 18:30)

## 16<sup>th</sup> Oct., 96 (Wednesday)

### EXCHANGES OF WATER, ORGANISMS, AND SEDIMENT BETWEEN CONTINENTAL SHELF WATERS AND THE NEARBY OCEAN (08:30 - 12:30)

(Physical Oceanography and Climate Committee: Topic 2)  
Co-Conveners: Kenneth L. Denman (Canada) & Kuh Kim (Korea)

- J.M. Huthnance. Physical processes of exchange between continental shelf waters and the nearby ocean  
P. van Meurs & P.J. Stabeno. Evidence of on-shelf flow at the Bering Sea shelf break  
M. Foreman & R.E. Thomson. Cross-shelf exchanges off Vancouver Island  
S.E. Allen. Shelf-break canyons: Flow patterns and deep water advection during an upwelling episode  
D.L. Mackas, D.R. Yelland, K.L. Denman, J.R. Forbes & D.F. Moore.

### PAPERS FOR THE BIOLOGICAL SCIENCE COMMITTEE (08:30 - 12:30)

- B.A. Belyaev. The importance of pelagic fishes in the marine ecosystems and fishery in the Northwest Pacific  
K. Kawaguchi, H. Watanabe, M. Moku & A. Hayashi. The community structure of myctophid fishes and warm core ring in the transitional waters of the western North Pacific  
A.M. Orlov. Heat loving fishes in Pacific waters off the northern Kuril Islands and Southwest Kamchatka  
P.S. Rand & S.G. Hinch. Spatial patterns of salmon prey, feeding and growth in the Northeast Pacific Ocean  
K. Nakata. Long-term fluctuations in the food availability for Japanese sardine larvae on the coastal side of

## 16<sup>th</sup> Oct., 96 (Wed.) cont'd

- Horizontal exchange of plankton and nutrients between the Vancouver Island continental shelf and the adjoining deep North Pacific.
- K.L. Denman, M.A. Pena, J.R. Forbes, R.E. Thomson & S.E. Calvert. The annual cycle in shelf-edge to deep ocean gradients in sinking particles and their composition off Vancouver Island, Canada
- A.I. Agatova & N.M. Lapina. The intensity of organic matter transformation in the shelf and pelagic waters of the Bering and Okhotsk Seas
- K. Iseki, K. Okamura & Yoko Kiyomoto. Short and long-term variations of particulate fluxes at the continental margin in the East China Sea
- F.R. Likht & A.V. Alekseev. Zonality of near-continental sedimentary process and azonate matter fluxes
- H. Yagi, I. Tanaka, G. Kantakov, A. Samatov, A. Nakata & T. Watanabe. Seasonal changes of the cold water belt in the Soya Straits and adjacent areas and its chemical and biological properties
- I. Tanaka, A. Nakata, H. Yagi, A. Samatov & G. Kantakov. Result of direct current measurements in La Perouse Strait (the Soya Strait), 1995-1996
- A. Nakata, I. Tanaka, H. Yagi, G. Kantakov & A. Samatov. Origin of water in the cold water belt appearing offshore side of the Soya Warm Current near La Perouse Strait (the Soya Strait)
- C.N.K. Mooers & H.S. Kang. Numerical simulation of the Japan Sea (East Sea) circulation
- C.S. Wong, Y. Nojiri, T. Kimoto & J. Zeng. Monitoring of nutrients and chlorophyll-a in the subarctic North Pacific
- G.V. Khen, S.A. Shershenkova & V.Y. Efimkin. Dynamics of the hydrological regions on the western part of the Bering Sea shelf in the Kuroshio
- Y.I. Zuenko, Y.U. Novikov, S.Y. Glebova, L.N. Bokhan, A.A. Batyaluk & V.N. Filatov. Empirical prognostic model of environments development and saury migration off southern Kuril Islands
- L.P. Nikolenko. Influence of climate and oceanological factors on yield of Greenland turbot brood of the Okhotsk Sea
- G.V. Khen, V.A. Snytko & E.P. Karedin. Interdecadal ice cover variations in the far eastern seas during current century and observed responses in ichthyocenosis
- K. Matsushita. How do eggs and larvae come to nursery beyond front?
- K. Tadokoro & T. Sugimoto. Role of top-down and bottom-up control on variations in plankton biomass in the subarctic Pacific
- A. Shiromoto. East and west changes of standing stock and size composition of phytoplankton chlorophyll-a in the transition domain in the North Pacific, spring and summer
- H. Kasai, T. Kono, A. Tsuda & H. Saito. Short period variability of primary production in early summer in the Oyashio region
- T. Kono, M. Kawamiya, H. Kasai & H. Saito. Influence of the stratification to the primary production of the Oyashio region using a one-dimensional model

**Marine Environmental Quality Committee:**

1. V. Dulepov & N. Lelioukh. Waters pollution and ecological systems of Peter the Great Bay
2. S. George, S. Hills, K. Mance, G. Weller, C. Packett & O. Parsons. Building a geo-referenced knowledge base for Arctic contaminants
3. C.M. Stehr, M.S. Myers, D.G. Burrows, M.M. Krahn, J.P. Meador, B.B. McCain & U. Varanasi. Chemical contamination and associated liver diseases in two species of fish from San Francisco Bay and Bodega Bay
4. K.L. Tilbury, J.E. Stein, S.A. Blokhin, R.L. Brownell Jr., J. Bolton, W. Dyer & D. Ernest. Chemical contaminants in gray whales (*Eschrichtius robustus*) stranded along eastern Pacific coasts and from off their western Bering Sea arctic feeding grounds