



2015 PICES Annual Meeting

Change and Sustainability of the North Pacific

Program

Qingdao, China
October 14-25, 2015

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For convenience all presentations (oral and posters) include the presenter's name only.
Please refer to the Book of Abstracts for the full list of co-authors.

Notes for Guidance

The North Pacific Marine Science Organization (PICES) announces its 2015 Annual Meeting to be held October 14-25, 2015, at Shangri-La Hotel in Qingdao, China. The meeting is hosted by the State Oceanic Administration of China (SOA), in coordination with the PICES Secretariat. Local arrangements are made by the First Institute of Oceanography (FIO) of SOA and Qingdao City.

Presentations

In order to allow the sessions to run smoothly, and in fairness to other speakers, please note that all presentations are expected to adhere strictly to the time allocated. All authors should designate at least 5 minutes for questions. Authors can download their presentations straight to the computers where the session/workshops will be held.

Important: Please rename your files - time-name.ppt (e.g. 0900-Smith.ppt, 1530-Kim.ppt).

If complications occur due to incompatibilities between PCs and Macs, Macintosh owners may use their own computers to make presentations.

Posters

Posters of general interest to the PICES Scientific Committees, including those not necessarily matching the themes of the Topic Sessions and workshops, are welcome. Posters will be on display from October 21 (morning) until the end of the Evening Poster Session/Reception on October 22, when poster presenters are expected to be available to answer questions.

Internet access

Internet access via wireless LAN will be available. A few desktop computers will also be available for participants.

Social activities

1. *Monday, October 19 (18:30-21:00)*
Ballroom 2-3, Shangri-La Hotel

Welcome Reception

The Welcome Reception for all participants (and registered guests).

2. *Wednesday, October 21 (18:00-21:00)*

Sport Event

This year the sport event is Jianzi, sort of Chinese hacky sack using heavily weighted shuttlecock. Please sign up for participation at the Registration Desk.

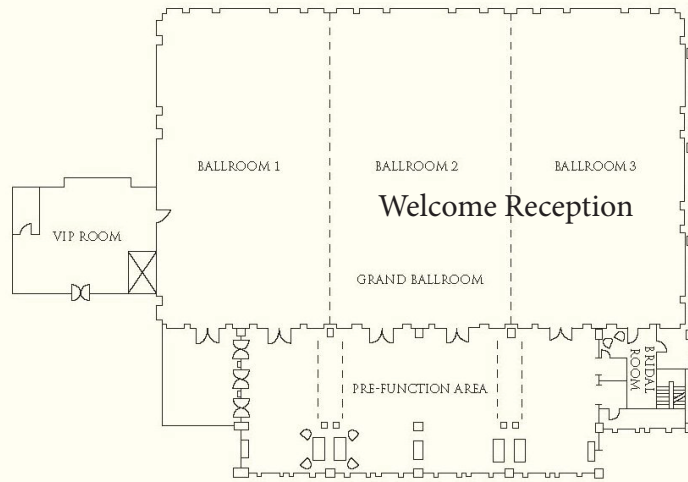
3. *Thursday, October 22 (18:00-20:30)*
Shangri-La Hotel

Wine & Cheese Poster Session Reception

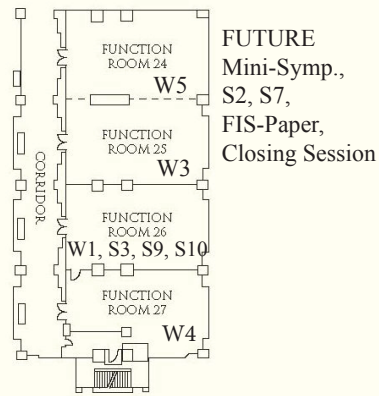
The wine & cheese Poster Session at the meeting venue will allow participants to roam around the poster displays and chat with presenters while sipping beer or wine and nibbling on hot and cold hors d'oeuvres. Poster presenters are expected to be available to answer questions.

Venue Floor Plan

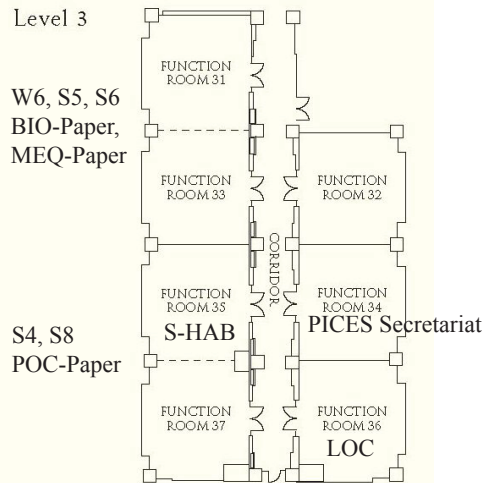
CITY WING
Level 1



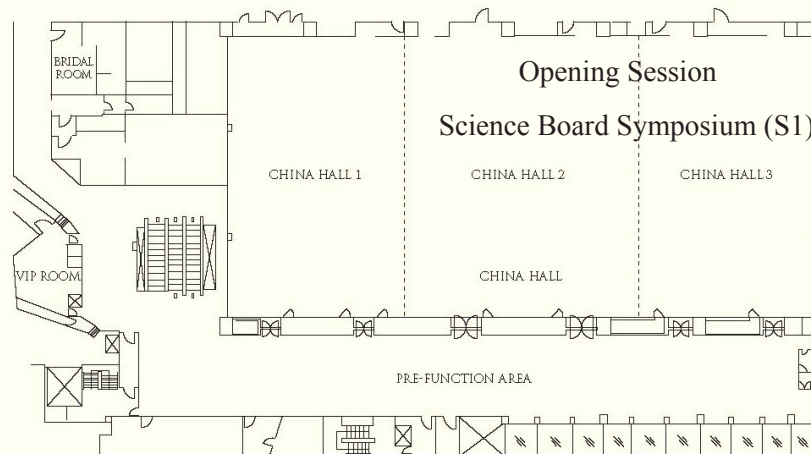
Level 2



Level 3



VALLEY WING
Level 2



List of Sessions/Workshops

S1	Oct. 19	Change and Sustainability of the North Pacific
S2	Oct. 21	The 2014/15 El Niño and anomalous warming of the North Pacific: What happened?
S3	Oct. 22	Eastern-western approaches to fisheries: Resource utilization and ecosystem impacts
S4	Oct. 22	Indicators of emerging pollution issues in the North Pacific Ocean
S5	Oct. 21	Ocean circulation of the Western Pacific and its response to climate change
S6	Oct. 22	Ocean Acidification Observation Network for the North Pacific and adjacent areas of the Arctic Ocean
S7	Oct. 22	Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5
S8	Oct. 21	Marine ecosystem services and economics of marine living resources
S9	Oct. 23	Experiences and lessons learned in managing shared/transboundary stock fisheries
S10	Oct. 20	The human dimensions of harmful algal blooms
BIO-P	Oct. 20	BIO Contributed Paper Session
FIS-P	Oct. 20	FIS Contributed Paper Session
S-HAB	Oct. 17	HAB Section Meeting
MEQ-P	Oct. 23	MEQ Contributed Paper Session
POC-P	Oct. 20, 23	POC Contributed Paper Session
W1	Oct. 15-16	Contrasting conditions for success of fish-killing flagellates in the western and eastern Pacific — A comparative ecosystem approach
W2	Oct. 16	Identifying major threats to marine biodiversity and ecosystems in the North Pacific
W3	Oct. 15	Linking climate change and anthropogenic impacts to higher trophic levels via primary producers
W4	Oct. 15	Marine environment emergencies: detection, monitoring, response and impacts
W5	Oct. 15-16	Monitoring and Assessment of Environmental Radioactivity in the North Pacific
W6	Oct. 17	Best practices for and scientific progress from North Pacific Coastal Ocean Observing Systems

Meeting Timetable

Wednesday, October 14								
09:00 18:00	PICES/MAFF Project Science Team Meeting* (FR 31)							
Thursday, October 15								
08:55 18:00	FR 26 W1 Day 1 Fish-Killing Flagellates	FR 25 W3 Links via Primary Producers	FR 27 W4 Marine Envir. Emergencies	FR 24 W5 Day 1 Marine Radioactivity	FR 31 WG-27 Meeting	FR 33 WG-32 Meeting Day 1		
Friday, October 16								
08:55 12:30	FR 26 W1 Day 2 Fish-Killing Flagellates	Chairman R. W2 Threats to Marine Biodiversity	FR 25 WG-28 Meeting Day 1	FR 35 WG-29 Meeting	FR 24 W5 Day 2 Marine Radioactivity and WG-30 Meeting	FR 33 SG-NPESR3 Meeting	FR 27 AP-MBM Meeting	FR 31 PICES/MoE PST Meeting*
14:00 18:00	SG-SEES Meeting							
18:00 20:00	FR 31 AP-CREAMS Meeting			FR 33 SG-SCOOP Meeting				
Saturday, October 17								
08:55 18:00	FR 25 WG-28 Meeting Day 2	FR 26 WG-31 Meeting	FR 24 WG-32 Meeting Day 2	FR 31, 33 W6 Best Practices NPCOOS and AP-NPCOOS Meeting	FR 27 S-CC Meeting	FR 32 S-CCME Meeting	FR 35 S-HAB Meeting	
18:00 20:00	FR 32 SG-SCISC Meeting							
Sunday, October 18								
09:00 12:15	FR 24-25 FUTURE Mini-Symposium							
12:30 15:30	FR 26 Science Board Meeting*							
15:45 17:45	FR 26 FUTURE SSC Meeting							
18:00 20:00	FR 26 BIO Meeting Day 1	FR 27 FIS Meeting Day 1	FR 31 MEQ Meeting Day 1	FR 24 MONITOR Meeting Day 1	FR 25 POC Meeting Day 1	FR 37 TCODE Meeting Day 1	FR 32 S-HD Meeting Day 1	
Monday, October 19								
09:00 10:00	China Hall 2-3 Opening Session							
10:30 18:00	China Hall 2-3 Science Board Symposium (S1) Change and Sustainability							
18:30 21:00	Room Ballroom 2-3 Welcome Reception for all participants and registered guests							

Meeting Timetable (continued)

Tuesday, October 20							
08:55 12:30	FR 26	FR 31, 33		FR 24-25	FR 35, 37		FR 32
	S10 HD of HABs	BIO-Paper Session		FIS-Paper Session	POC-Paper Session Day 1		APC* Meeting
14:00 20:00	FR 26	FR 27	FR 31	FR 24	FR 25	FR 37	FR 32
	BIO Meeting Day 2	FIS Meeting Day 2	MEQ Meeting Day 2	MONITOR Meeting Day 2	POC Meeting Day 2	TCODE Meeting Day 2	S-HD Meeting Day 2
Wednesday, October 21							
08:55 18:00	FR 24-25		FR 31,33		FR 35, 37		FR 32
	S2 El Niño		S5 West Pacific Circulation		S8 Marine Ecosystem Services		F&A Meeting*
18:00 21:00	Sport Event****						
Thursday, October 22							
08:55 18:00	FR 26	FR 35, 37		FR 31, 33		FR 24-25	
	S3 E-W Fisheries Approaches	S4 Pollution Indicators		S6 Ocean Acidification		S7 Climate IPCC	
							SG-RSP Meeting [14:00-16:00]
18:00 20:30	“Wine and Cheese” Poster Session**						
Friday, October 23							
08:55 12:20	FR 26		FR 31, 33		FR 35, 37		
	S9 Shared Stock Fisheries		MEQ-Paper Session		POC-Paper Session Day 2		
12:30 13:30	FR 24, 25 Closing Session***						
13:35 14:35	FR 35, 37 Joint FUTURE SSC/SB Meeting*						
14:40 18:00	FR 35, 37 Science Board Meeting*						
18:30 21:00	Chairman’s Reception* [by invitation only]						
Saturday, October 24							
09:00 18:00	Chairman Room Science Board Meeting*			FR 35, 37 Governing Council Meeting*			
Sunday, October 25							
13:00 18:00	FR 35, 37 Governing Council Meeting*						

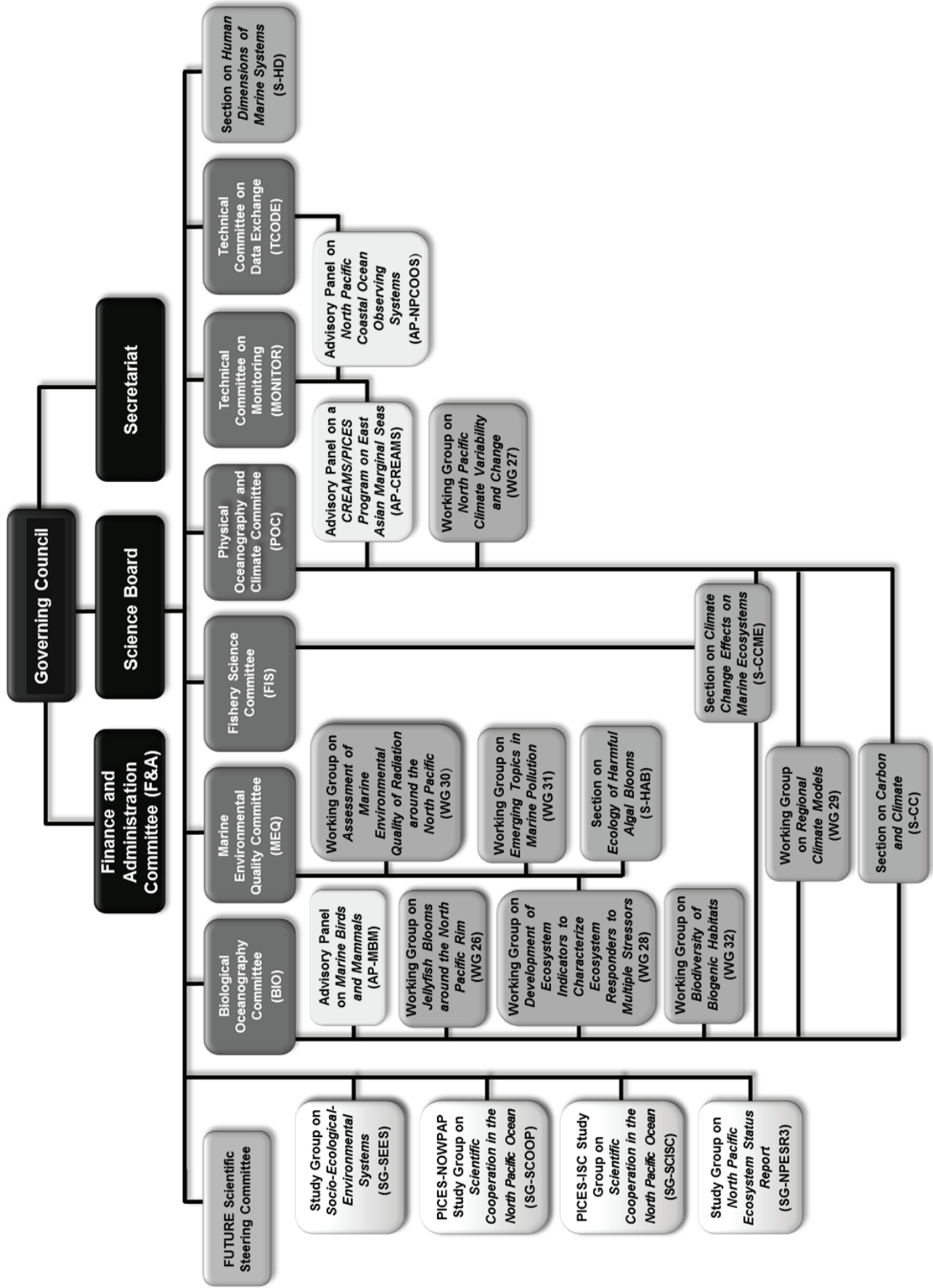
* Closed meetings

** Poster presenters are expected to be available to answer questions

*** Award-winning scientists (Best Oral/Poster presentations) will be announced during the Closing Session

**** Jianzi, sort of Chinese hacky sack using heavily weighted shuttlecock

North Pacific Marine Science Organization (PICES) structure for 2014–2015



List of Business Meetings

Committees

BIO	Biological Oceanography Committee
FIS	Fishery Science Committee
MEQ	Marine Environmental Quality Committee
MONITOR	Technical Committee on Monitoring
POC	Physical Oceanography and Climate Committee
TCODE	Technical Committee on Data Exchange

Advisory Panels

AP-CREAMS	Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas <i>(reports to MONITOR and POC Committees)</i>
AP-MBM	Advisory Panel on Marine Birds and Mammals <i>(reports to BIO Committee)</i>
AP-NPCOOS	Advisory Panel on North Pacific Coastal Ocean Observing Systems <i>(reports to TCODE and MONITOR Committees)</i>

Sections

S-CC	Section on Carbon and Climate <i>(reports to BIO and POC Committees)</i>
S-CCME	Section on Climate Change Effects on Marine Ecosystems <i>(reports to BIO, FIS and POC Committees)</i>
S-HAB	Section on Ecology of Harmful Algal Blooms in the North Pacific <i>(reports to MEQ Committee)</i>
S-HD	Section on Human Dimensions of Marine Systems <i>(reports to Science Board)</i>

Study Groups

SG-NPESR3	Study Group on North Pacific Ecosystem Status Report-3 <i>(reports to Science Board)</i>
SG-RSP	Study Group on Revising the Strategic Plan <i>(reports to Governing Council)</i>
SG-SCISC	Study Group for Scientific Cooperation of ISC and PICES <i>(reports to Science Board)</i>
SG-SCOOP	Joint PICES-NOWPAP Study Group on Scientific Cooperation in the North Pacific Ocean <i>(reports to Science Board)</i>
SG-SEES	Study Group on Socio-Ecological-Environmental Systems <i>(reports to Science Board)</i>

Working Groups

- WG-27** Working Group on North Pacific Climate Variability and Change
(reports to POC Committee)
- WG-28** Working Group on Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors
(reports to BIO and MEQ Committees)
- WG-29** Working Group on Regional Climate Modeling
(reports to BIO and POC Committees)
- WG-30** Working Group on Assessment of Marine Environmental Quality of Radiation around the North Pacific
(reports to MEQ Committee)
- WG-31** Working Group on Emerging Topics in Marine Pollution
(reports to MEQ Committee)
- WG-32** Working Group on Biodiversity of Biogenic Habitats
(reports to BIO Committee)

Scientific Program

- FUTURE-SSC** Forecasting and Understanding Trends, Uncertainty and Responses of North Pacific Marine Ecosystems Scientific Steering Committee

Detailed Schedules

* Flags an Early Career Scientist

Thursday, October 15

W1, Day 1 [FR 26]		W3 [FR 25]		W4 [FR 27]		W5, Day 1 [FR 24]	
<p>Contrasting conditions for success of fish-killing flagellates in the western and eastern Pacific –A comparative ecosystem approach</p> <p>Convenors: Douding Lu (China) Vera L. Trainer (USA)</p>		<p>Linking climate change and anthropogenic impacts to higher trophic levels via primary producers</p> <p>Convenors: Joji Ishizaka (Japan) Angelica Peña (Canada) Sinjae Yoo (Korea)</p>		<p>Marine environment emergencies: Detection, monitoring, response and impacts</p> <p>Convenors: Seong-Gil Kang (Korea/NOWPAP) Olga Lukyanova (Russia) Peter Ross (Canada) Ziwei Yao (China)</p>		<p>Monitoring and assessment of environmental radioactivity in the North Pacific</p> <p>Convenors: Kathryn A. Higley (USA) Yusheng Zhang (China)</p>	
8:55	Introduction by Convenors	8:55	Introduction by Convenors	8:55	Introduction by Convenors	8:55	Introduction by Convenors
9:00	Changkyu Lee (Invited) Fish-kill dinoflagellates in Korean coastal waters – A comparative ecosystem approach	9:00	Heather A. Bouman (Invited) Detection and distribution of phytoplankton types: A view from space, and implications for higher trophic levels	9:00	Yongge Sun (Invited) Geochemical and microbial community response to oil spill: A five year investigation after the Xingang oil pipeline explosion, the Dalian Bay, North China	9:00	Ronald Szymczak (Invited) Asia/Pacific marine ecosystem impacts from the Fukushima Daiichi nuclear power plant accident: A 2011–2015 overview
9:25		9:25	Kirill Kivva Seasonal nutrient dynamics in the western Bering Sea			9:25	Michio Aoyama (Invited) ¹³⁴ Cs and ¹³⁷ Cs in the North Pacific Ocean derived from the TEPCO Fukushima Dai-ichi Nuclear Power Plant accident, Japan in March 2011: Transport processes and estimation of ¹³⁴ Cs and ¹³⁷ Cs inventories
9:30				9:30	Seong Gil Kang (Invited) Marine pollution preparedness and response to oil and HNS spill incidents in the Northwest Pacific Action Plan (NOWPAP) region		
9:45	Charles G. Trick (Invited) Comparing physiologies and toxicities in <i>Heterosigma akashiwo</i> : An east-west perspective	9:45	Young Baek Son Collapse of summer biological activity in the East China Sea during 1998-2014				
9:50				10:00	Peter Ross The MV <i>Marathassa</i> : Lessons learned from the 2015 spill of Bunker fuel in Vancouver Harbour	9:50	Minhan Dai (Invited) Sources and inventory of Cesium and Plutonium in China seas
10:00							
10:05		10:05	Xin-Ming Pu Effects of Changjiang Diluted Water on the planktonic ecology of the Yellow Sea Cold Water Mass			10:15	Kyung-Tae Jung Development of a radionuclide transport model applicable to coastal regimes with multi-fractional cohesive and non-cohesive sediments
10:15				10:20	Chuanyuan Wang Distribution and sources of hydrocarbons in surface sediments from tail reaches of the Yellow River Estuary		
10:20							

W1, Day 1 [FR 26]		W3 [FR 25]		W4 [FR 27]		W5, Day 1 [FR 24]	
10:30	<i>Coffee break</i>	10:30	<i>Coffee break</i>				
10:35						10:35	<i>Coffee break</i>
10:40				10:40			
10:50	Svetlana Esenkulova <i>Heterosigma akashiwo</i> bloom and associated environmental conditions in Cowichan Bay, Canada in 2014	10:50	Shu Yang Regional differences in decadal variations of diatom primary productivity in the southern Yellow Sea and adjacent seas over the past 100 years			10:55	Chang Zhao Long-term transport and dispersion of ¹³⁷ Cs released into ocean off Fukushima nuclear accident
10:55				11:00			
11:00							
11:10	Vera L. Trainer Fish-kill flagellates in the Salish Sea –A comparative ecosystem approach	11:10	Soonmi Lee Variability of chlorophyll-a bloom timing associated with physical forcing in the East Sea/Sea of Japan (1998-2014)			11:15	Shin-ichi Ito Model developments to estimate movements of radioactive cesium with ocean sediment after the Fukushima Dai-ichi nuclear power plant accident
11:15							
11:20				11:20			
11:30	Ichiro Imai Biological characteristics of the red tide causing raphidophytes <i>Heterosigma akashiwo</i> and <i>Chattonella</i> spp. in the coastal Sea of Japan	11:30	<i>Discussion/Summary</i>			11:35	<i>Discussion</i>
11:35							
11:40				11:40			
11:50	Douding Lu Fish-killing <i>Heterosigma akashiwo</i> blooms in Chinese coastal waters						
12:00							
12:10	Tatiana Yu. Orlova Raphidophytes in the coastal waters of Far East of Russia during the latter period of the last century			12:00		12:00	Un Hyuk Yim Lessons learned from the Hebei Spirit oil spill: Environmental perspectives
12:20						12:20	<i>Lunch</i>
12:30	<i>Lunch</i>	12:30	<i>Lunch</i>			12:30	<i>Lunch</i>
14:00	Yeseul Kim Testing several hypotheses on the outbreak mechanisms of <i>Cochlodinium polykrikoides</i> blooms in the southern coastal waters of Korea	14:00	Yuping Zhou Effects of increasing nutrient loads on the competition and succession between two predominant red tide algae of East China Sea	14:00		14:00	Yongliang Wei Oil spill trajectory prediction using the GNOME model and satellite images
							John N. Smith Transport of the Fukushima radioactivity plume to the Eastern North Pacific Ocean

W1, Day 1 [FR 26]		W3 [FR 25]		W4 [FR 27]		W5, Day 1 [FR 24]	
14:40	Discussion	14:20	Sinjae Yoo Variability of the phytoplankton functional types under changing winter vertical mixing in the Ulleung Basin, East Sea: A modeling study	14:20	Ferdinant Mkrtchyan Features of GIMS- technology in environmental monitoring of marine ecosystems	14:20	Hideki Kaeriyama Monitoring activity on radioactive cesium in seawater and sediment in the North Pacific by Fisheries Research Agency after the Fukushima Dai-ichi Nuclear Power Plant Accident
14:40		14:40	Svetlana Esenkulova Examining linkages between juvenile salmon growth and phytoplankton, zooplankton dynamics during the early marine period	14:40	Yoon Young Back The activities of Marine Environmental Emergency Preparedness and Response Regional Activity (MERRAC) for oil and HNS spills preparedness and response in the Northwest Pacific Action Plan (NOWPAP) region	14:40	Wen Yu Distribution and impact of radioactivity in the seawater of northwest Pacific in 2014
15:00	Nicola Haigh USA: Presentation of spreadsheets describing <i>Heterosigma</i> , <i>Chattonella</i> and <i>Cochlodinium</i>	15:00	Yi Xu Migration behavior changes of juvenile North Pacific albacore linking to environmental variability	15:00	Coffee break	15:00	Takami Morita Radioactive cesium in marine biota off Fukushima
15:20	Tatiana Orlova Russia: Presentation of spreadsheets describing <i>Heterosigma</i> , <i>Chattonella</i> and <i>Cochlodinium</i>	15:20	Coffee break	15:20	Discussion	15:20	Wu Men The radioactive level of nekton species in the Northwest Pacific more than one year after Fukushima nuclear accident
15:40	Coffee break	16:00	Discussion/Summary			15:40	Coffee break
16:00	Ichiro Imai, Shigeru Itakura Japan: Presentation of spreadsheets describing <i>Heterosigma</i> , <i>Chattonella</i> and <i>Cochlodinium</i>					16:00	Hiroyuki Togashi Temporal changes in the distribution of radioactivity in the distribution of radioactivity among ten dominant coastal fish species in Sendai bay and the coastal area off Fukushima
16:20	Chunjiang Guan, Chunlei Gao, Hao Guo China: Presentation of spreadsheets describing <i>Heterosigma</i> , <i>Chattonella</i> and <i>Cochlodinium</i>					16:20	Yutaka Kurita Radioactivity contamination histories of Japanese flounder <i>Paralichthys olivaceus</i> after the 2011 Fukushima Nuclear Power Plant accident

W1, Day 1 [FR 26]		W3 [FR 25]		W4 [FR 27]		W5, Day 1 [FR 24]	
16:40	Changkyu Lee, Hae Jin Jong Korea: Presentation of spreadsheets describing <i>Heterosigma</i> , <i>Chattonella</i> and <i>Cochlodinium</i>					16:40	<i>Discussion</i>
17:00	<i>Discussion</i> East-West comparison and assignments for Day 2			17:00	<i>Workshop ends</i>		
17:50						17:50	<i>Summary</i>
18:00	<i>Workshop ends</i>	18:00	<i>Workshop ends</i>			18:00	<i>Workshop ends</i>

W2 [Chairman Room]		Friday, October 16		W1, Day 2 [FR 26]	
		W5, Day 2 [FR 24]			
Identifying major threats to marine biodiversity and ecosystems in the North Pacific		Monitoring and assessment of environmental radioactivity in the North Pacific		Contrasting conditions for success of fish-killing flagellates in the western and eastern Pacific – A comparative ecosystem approach	
Convenors: Chris Rooper (USA) Takafumi Yoshida (Japan/NOWPAP)		Convenors: Kathryn A. Higley (USA) Yusheng Zhang (China)		Convenors: Douding Lu (China) Vera L. Trainer (USA)	
8:55	Introduction by Session Convenors	8:55	Introduction by Session Convenors		
NOWPAP-related talks					
9:00	Noriaki Sakaguchi (Invited) IPBES Asia-Pacific regional/subregional assessment on biodiversity and ecosystem services	9:00	Kathryn A. Higley Challenges in calculating radiation dose to marine organisms	9:00	Discussion and writing
9:20	Takafumi Yoshida Regional report on the impact of major threats to marine biodiversity in the NOWPAP region	9:20	Jinju Du Assessment on marine environmental impact from artificial radionuclides in the coastal waters of Liaodong Bay		
9:40	Bei Huang Assessment of the impacts of major threats to marine biodiversity in coastal waters of Yantai and Dalian, China	9:40	Ken Fujimoto Use of otoliths to estimate the concentration of radioactive strontium		
10:00	Young Nam Kim Case study of identifying major threats to marine biodiversity in Korean coastal waters	10:00	Jianhua He A new device for precipitation and filtration of radiocesium in seawater		
10:05	Tatiana Orlova Potential threats to marine biodiversity and ecosystems in the Russian area of NOWPAP	10:20	Zhenfang Dong Auto-system development and invention for measurement of ¹³⁷ Cs/ ¹³⁴ Cs <i>in-situ</i>		
10:20	Coffee break	10:40	Coffee break	10:40	Coffee break
10:45	Discussion/Summary	11:00	Discussion	11:00	Discussion and writing

W2 [Chairman Room]		W5, Day 2 [FR 24]		W1, Day 2 [FR 26]	
12:30	<i>Lunch</i>	12:30	<i>Workshop ends</i>	12:30	<i>Lunch</i>
W2 GENERAL talks					
14:00	Malcolm Clark (Invited) Threats to marine biodiversity in the Deep Sea: Experience from New Zealand in data-poor situations				
14:25	Fang Li Preliminary study on the connection effects between nearshore islands and the continent in the sea area of Liaoning Province, China and its effects				
14:45	Cherise Du Preez Unique and vulnerable community assemblages on a shallow North Pacific seamount				
15:05	Janelle Curtis Distribution of vulnerable marine ecosystem indicator taxa in relation to fishing effort on Cobb Seamount				
15:25	Malcolm R. Clark Sustainable deep-sea fisheries and environmental conservation: How can we balance conflicting objectives?				
15:45	<i>Coffee break</i>				
16:05	<i>Discussion/Summary</i>				
18:00	<i>Workshop ends</i>	15:45	<i>Coffee break</i>	16:05	<i>Discussion and writing</i>
		18:00	<i>Workshop ends</i>		

FR stands for "Function Room"

Saturday, October 17	
S-HAB [FR 35]	W6, AP-NPCOOS meeting [FR 31/33]
<i>Section on Ecology of Harmful Algal Blooms in the North Pacific meeting</i>	
<p>Convenors: Shigeru Itakura (Japan) Vera L. Trainer (USA)</p>	
<p>Convenors: Jack Barth (USA) Sung Yong Kim (Korea) Tony Koslow (USA)</p>	
8:55	Introduction by Convenors
9:00	Daji Huang (Invited) Chinese efforts in coastal ocean observation in 21 st century
Country Reports (2013-15) and HAE-DAT (year 2008) reports	
9:15	China: Douding Lu
9:30	USA: Vera L. Trainer
9:45	Japan: Shigeru Itakura
10:00	Korea: Changkyu Lee
10:15	Canada: Charles Trick
10:30	Coffee break
10:50	Russia: Tatiana Morozova
11:00	Matthew R. Baker Research in the Arctic: Coordinated approaches to baseline understanding of the ecosystem and analyses of change in the Northern Bering Sea, Chirikov Basin, and Chukchi Sea
11:10	Peng Zhao Emergency monitoring and forecasting system of green tide in the Yellow Sea
11:15	Song Sun (Invited) Brief introduction of marine observing system in China
10:00	S. Kim Juniper Development and implementation of best practices for the Ocean Networks Canada ocean observatories
10:30	Coffee break
10:50	Song Sun (Invited) Brief introduction of marine observing system in China
10:30	Coffee break
10:50	S. Kim Juniper Development and implementation of best practices for the Ocean Networks Canada ocean observatories
11:10	Matthew R. Baker Research in the Arctic: Coordinated approaches to baseline understanding of the ecosystem and analyses of change in the Northern Bering Sea, Chirikov Basin, and Chukchi Sea
11:15	Peng Zhao Emergency monitoring and forecasting system of green tide in the Yellow Sea

S-HAB [FR 35]		W6, AP-NPCOOS meeting [FR 31/33]	
11:30	Han Gao Prey cells and extraction trigger DSP toxin production by <i>Dinophysis acuminata</i>	11:30	John A. Barth Coastal ocean observing in the northeast Pacific
11:45	Ke Sun Modelling of the <i>Prorocentrum donghaiense</i> bloom in the coastal waters of the East China Sea	11:50	J. Anthony Koslow Fishes as indicators of ecosystem change and how they can be incorporated into coastal ocean observing systems
12:00	Anna A. Ponomareva HAB monitoring in Paris Bay (the north-western part of the East/Japan Sea) where marine mammals are kept in captivity	12:10	Jiajia Liu An overview of wireless communication technology in ocean observing system
12:10	Yan Tian <i>Karenia mikimotoi</i> bloom, massive fish-killing and shellfish-killing in the East China Sea	12:30	Sung Yong Kim A vision for the integrated coastal ocean observing system in Korea
12:15	Lunch	12:50	Lunch
12:30	Charles Trick and Vera L. Trainer	14:00	AP-NPCOOS meeting
12:50	Mark Wells		
14:00	Henrik Enevoldsen and Vera L. Trainer		
14:15	Shigeru Itakura and Vera L. Trainer		
14:30	Discussion Workshop proposals, part III, Contrasting conditions for success of selected harmful algal species in the western and eastern Pacific – A comparative ecosystem approach		
14:45	Coffee break		
15:00	Discussion Workshop proposals, part III, Contrasting conditions for success of selected harmful algal species in the western and eastern Pacific – A comparative ecosystem approach		
15:30	Coffee break	15:40	Coffee break
15:40	Discussion Proposals for the future and review of assignments		
16:00	Meeting ends	18:00	Meeting ends

Monday, October 19

[China Hall 2-3]

S1: Change and Sustainability of the North Pacific

Convenors:

Thomas Therriault (SB)
Angelica Peña (BIO)
Elizabeth Logerwell (FIS)
Chuanlin Huo (MEQ)
Jennifer Boldt (MONITOR)
Kyung-Il Chang (POC)
Toru Suzuki (TCODE)
Steven Bograd (FUTURE)
Hiroaki Saito (FUTURE)
Igor Shevchenko (Russia)

10:30-11:15

Lixin Wu (Keynote)

Multiscale processes of Pacific western boundary currents and their roles in climate

Ocean University of China and Qingdao National Laboratory of Marine Science and Technology

Pacific Ocean western boundary currents were among the first currents of these types to be explored by pioneering oceanographers. It has been recognized that these western boundary currents are highly variable with complex spatial and temporal scales. The widely accepted but poorly quantified importance of these currents—in processes such as the El Niño/Southern Oscillation, the Pacific Decadal Oscillation, winter storm genesis, and carbon uptake in mid-latitudes—has triggered renewed interest. Ongoing efforts are seeking to better understand their energy balance, multiscale air-sea interaction, potential predictability, interaction with Asian marginal seas and possible changes associated with greenhouse-gas-induced climate change. Only a concerted international effort will close the observational, theoretical and technical gaps currently limiting a robust answer to these elusive questions.

* Flags an Early Career Scientist

- 10:30 **Lixin Wu (Keynote)**
Multiscale processes of Pacific western boundary currents and their roles in climate
- 11:15 **Emanuele Di Lorenzo (Invited)**
Towards a social-ecological-environmental system approach for the coastal ocean
- 11:45 **Michael Foreman (Invited)**
Regional climate modeling and FUTURE – An overview and possible future directions
- 12:15 **Mitsutaku Makino (Invited)**
Toward the integrated research in fisheries science
- 12:45 **Lunch**
- 14:15 **George G. Waldbusser (Invited)**
Impacts of ocean acidification on bivalve production in the Pacific Northwest
- 14:45 **Jeffrey Polovina**
Using earth systems model output to project climate change impacts to the North Pacific Subtropical Ecosystem over the 21st Century
- 15:05 **Lingbo Li***
Fighting a hard battle: Effects of hypoxia and temperature on euphausiids in the North Pacific
- 15:25 **Andrew W. Trites**
Top predators partition the Bering Sea and are unlikely to respond favourably to climate change
- 15:45 **Coffee break**
- 16:05 **Leonie A. Robinson (Invited)**
A European perspective on Integrated Ecosystem Assessment
- 16:35 **Shin-ichi Uye**
Jellyfish blooms as a threat to the sustainability of the East Asian Marginal Seas: An overview of recent jellyfish studies in China, Japan and Korea
- 16:55 **Vladimir I. Ponomarev**
Multiple scale climate variability in the North Pacific and features of recent climatic regime
- 17:15 **Takamitsu Ito**
Anthropogenic aerosols and climate variability control decadal variability of dissolved oxygen in the North Pacific
- 17:35 **Jameal F. Samhouri**
Social-ecological vulnerability of forage fish and fishermen to climate change
- 17:55 **Session ends**

Tuesday, October 20

S10 [FR 26]		BIO-Paper [FR 31/33]	FIS-Paper [FR 24/25]	POC-P, Day1 [FR 35/37]
<p>The human dimensions of harmful algal blooms Convenors: Mitsutaku Makino (Japan) Mark Wells (USA)</p>		<p>Convenors: Angelica Peña (Canada) Atsushi Tsuda (Japan)</p>		
8:55	Introduction by Convenors	8:55	Introduction by Convenors	8:55
9:00	Lorraine C. Backer (Invited) Human dimensions of harmful algal blooms (HABs): Contributing to ecosystem-based management	9:00	Samuel R. Laney Using imaging flow cytometry to examine phytoplankton assemblage structure in the Bering Sea	9:00
9:20	Takasi Kamiyama (Invited) Changes in occurrence of paralytic shellfish poisoning and the effects on bivalve aquaculture in Tohoku region of Japan after the Great East Japan Earthquake	9:20	Mitsuhide Sato* Distribution of mixotrophic phytoplankton along the latitudinal transect of the central North Pacific	9:20
9:40	Aoi Sugimoto* Suggestions for reducing environmental, social and economic impacts by mariculture on coastal communities based on a case study in Andabolinao, northwestern Philippines	9:40	Yunyun Zhuang* Using 454 pyrosequencing to analyze the <i>in situ</i> diet of the marine copepod <i>Calanus sinicus</i>	9:40
10:00	ZhengXi Zhou* Untangling the relationship between harmful algal blooms and environmental factors in the coastal waters adjacent to the Changjiang River estuary	10:00	C. Tracy Shaw The euphausiids <i>Euphausia pacifica</i> and <i>Thysanoessa spinifera</i> in the coastal upwelling zone off the Oregon Coast, USA	10:00
<p>Convenors: Xianshi Jin (China) Elizabeth Logerwell (USA)</p>		<p>Convenors: Kyung-Il Chang (Korea) Michael Foreman (Canada)</p>		
<p>Introduction by Convenors</p>		<p>Introduction by Convenors</p>		
<p>Fangli Qiao The development of a high resolution global ocean surface wave-tide-circulation coupled model</p>		<p>Shinya Ohshima* Annual variability in the distribution and biomass of dominant myctophid fishes off western Kyushu, Japan</p>		
<p>Hironichi Ueno Global distribution of mergers and splits of oceanic mesoscale eddies</p>		<p>Sandra Neidetcher Image-analysis software applied to assess spatial and temporal variability of fecundity in Walleye pollock, <i>Gadus chalcogrammus</i></p>		
<p>Ze-Nan Zhu Tomographic mapping of nonlinear tidal and residual currents</p>		<p>Shannon G. Obradovich* The impact of fine-scale spatial behaviour of quillback rockfish (<i>Sebastes maliger</i>) on a hook-based relative abundance index from longlines</p>		
<p>Michael Foreman ADCP measurements in the Discovery Islands, British Columbia, Canada</p>		<p>Michael Foreman ADCP measurements in the Discovery Islands, British Columbia, Canada</p>		

S10 [FR 26]		BIO-Paper [FR 31/33]	FIS-Paper [FR 24/25]	POC-P, Day1 [FR 35/37]
10:20		Yongjiu Xu* Interannual variation of summer zooplankton size structure and its relation to physical and biological processes in the Yellow Sea and East China Sea	Jennifer Boldt An index of relative biomass, abundance, and condition of juvenile Pacific Herring (<i>Clupea pallasii</i>) in the Strait of Georgia, British Columbia	Xinyuan Diao* Structure and formation of the South Yellow Sea water mass in spring
10:30	<i>Coffee break</i>			10:20
10:40		<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
10:50	Vera L. Trainer The impacts of a massive harmful algal bloom along the US west coast in 2015			
11:00		Hwa Hyun Lee* Buoyancy and vertical distribution of Pacific mackerel eggs and larvae and its climate change implication for the temporal variability of recruitment	Elizabeth Logerwell Environmental drivers of benthic fish distribution in and around Barrow canyon in the northeastern Chukchi Sea and western Beaufort Sea	Xiu-mei Fan* Extracting fronts from chlorophyll and SST satellite data and analysing the relation between them
11:10	Polina A. Kameneva* Diarrhetic shellfish poisoning in socio-economic perspective in Prymorsky region, Russia			11:00
11:20		Andrew Trites Archeological data indicate that northern fur seals are likely to once again become a dominate predator in the California Current System	Olga Novikova Stock abundance dynamics of saffron cod on West and East Kamchatka and natural determinants of the dynamics	Yisen Zhong* Submesoscale eddy structures in the South China Sea
11:30	Jinhui Wang Do the aquaculture and ballast discharge influence the scope of Harmful Algal Bloom?			11:20
11:40		Kenji Konishi Decadal scale change in the feeding habits of sei whales in the western North Pacific off Japan	Alexey A. Khoruzhiy* Structure of the nekton community of the upper epipelagial in the North western Pacific Ocean in February-April	Rui Saito* Subsurface hydrographic structures and the temporal variation of Aleutian eddies
11:50	Baodong Wang Does reduced sediment load contribute to increased outbreaks of harmful algal blooms off the Changjiang Estuary?			11:40
12:00		Elliott L. Hazen Scales of inference: The influence of spatial and temporal resolution on habitat-based models for marine predators	Zhongxin Wu* Trophic flows in the marine ecosystem of an artificial reef zone in the Yellow Sea China	Wei Hu* An improved wave-induced mixing parameterization in the Great Lakes
12:10	Svetlana Esenkulova* Monitoring of harmful algal blooms in the Strait of Georgia by a Citizen Science program, Canada 2015			12:00
12:20		<i>Summary</i>	Tsuyoshi Wakamatsu Development of a regional marine environment analysis system for fishery applications	<i>Summary</i>
12:30	<i>Session ends</i>	<i>Session ends</i>	<i>Session ends</i>	<i>Session ends</i>

Wednesday, October 21

S2 [FR 24/25]	S5 [FR 31/33]	S8 [FR 35/37]
<p>The 2014/15 El Niño and anomalous warming of the North Pacific: What happened?</p> <p>Convenors: Lisa Eisner (USA) Tony Koslow (USA)</p>	<p>Ocean circulation of the Western Pacific and its response to climate change</p> <p>Convenors: Wang Dongxiao (China) Dezheng Sun (USA) R. Dwi Susanto (USA) Zexun Wei (China)</p>	<p>Marine ecosystem services and economics of marine living resources</p> <p>Convenors: Shang Chen (China) Keith Criddle (USA) Mitsutaku Makino (Japan) Minling Pan (USA) Ian Perry (Canada) Sebastian Villasante (Spain/ICES)</p>
<p>8:55 Introduction by Convenors</p> <p>9:00 Nicholas A. Bond (Invited) Causes and effects of the recent warming in the Northeast Pacific Ocean</p> <p>9:25</p> <p>9:35 Emanuele Di Lorenzo (Invited) Persistent record-high temperatures in the North Pacific in 2014/2015: A climate hypothesis</p> <p>9:40</p> <p>9:50</p> <p>10:10 John (Jack) A. Barth Arrival of 2014-2015 Warm Anomaly waters off Oregon</p> <p>10:15</p> <p>10:25</p> <p>10:35</p> <p>10:40 Coffee break</p> <p>10:50</p>	<p>8:55 Introduction by Convenors</p> <p>9:00 Tangdong Qu (Invited) Sea surface salinity variability in the equatorial Pacific and ENSO</p> <p>9:25 Jianping Gan (Invited) Extrinsic control on the China Seas circulation from the western Pacific Ocean</p> <p>9:50 Xiaopei Lin (Invited) The Kuroshio decadal variability and its climate impact</p> <p>10:15 Raden Dwi Susanto Indonesian throughflow and its proxy from satellite altimeters and gravimeters</p> <p>10:35 Coffee break</p>	<p>8:55 Introduction by Convenors</p> <p>9:00 Daniel K. Lew (Invited) Economic values of protected marine species in the U.S.: Empirical studies and conceptual challenges for ecosystem-based management</p> <p>9:40 Sebastian Villasante (Invited)* Social transformations of marine ecosystem services: A new conceptual framework for integrated assessments</p> <p>10:25 Coffee break</p> <p>10:50 Luo-ping Zhang Evaluation of marine ecosystem intrinsic value</p>

S2 [FR 24/25]		S5 [FR 31/33]		S8 [FR 35/37]	
10:55		10:55	Zexun Wei Pacific to Indian Ocean throughflow and its South China Sea branch		
11:00	Angelica Peña Phytoplankton responses to the anomalous warming in the NE Pacific	11:15	De-Zheng Sun Response of El Niño events to higher CO ₂ forcing: Role of nonlinearity	11:15	Stephen Kasperski* Using socio-economic and fisheries involvement indices to understand Alaska Fishing Community well-being
11:15					
11:30	Eliana Gómez-Ocampo* Warm Blob effects on subtropical NE Pacific Ocean phytoplankton	11:35	Rong-Hua Zhang ENSO modulations by Freshwater Forcing and Ocean Biology-induced Heating in the Tropical Pacific	11:40	Shang Chen Valuing ecosystem diversity maintenance services of the Shandong marine protected areas: An application of the contingent valuation method
11:35					
11:40					
11:55		11:55	Lunch		
12:00	Sonia Batten The effects of the anomalous warming on lower trophic levels in the NE Pacific, from Continuous Plankton Recorder sampling			12:05	Aoi Sugimoto* Fish as “Bridge” that connects migrant fishermen and local community: Proposing a new value of marine resources from socio-cultural aspects
12:05					
12:30	Lunch			12:30	Lunch
14:00	Tony Koslow The effects of the Blob on the zooplankton and upper trophic levels of the Northern California Current off Oregon	14:00	Xin Wang* The responses of the Indian Ocean Dipole and South China Sea to El Niño Modoki	14:00	Chengcheng Shen* Assessment and regulation of ocean health based on ecosystem services: Case study in the Laizhou Bay, China
14:20		14:20	Shuangwen Sun* A triggering mechanism for the Indian Ocean Dipoles independent of ENSO	14:25	Emmanuel A. Sweke* Job satisfaction: Perspectives from fishers in northeastern Hokkaido, Japan
14:25					
14:30	Akash R. Sastri Observations of anomalously low crustacean zooplankton production rates along the west coast of Vancouver Island in the spring of 2015	14:40	Yan Sun* Weak ENSO asymmetry due to weak nonlinear air-sea interaction in CMIP5 climate models	14:50	Pavan Kumar* Assessment and monitoring of natural marine ecosystems: An economic perspective towards climate
14:40					
14:50					
15:00	Sam McClatchie Ichthyoplankton and corrosive waters off southern California	15:00	Hyung-Gyu Lim* Impact of the chlorophyll bias on tropical mean states with bio-geophysical feedback	15:15	Linhua Hao Assessment of ecological damage and compensation from marine engineering construction projects in Shandong
15:15					

S2 [FR 24/25]		S5 [FR 31/33]		S8 [FR 35/37]	
15:20		15:20	Yu Zhang* The development of a new eddy-resolving global ocean forecasting system in NMEFC		
15:30	<i>Coffee break</i>	15:40	<i>Coffee break</i>	15:40	<i>Coffee break</i>
15:50	John C. Field Anomalous patterns in California Current pelagic micronekton distribution and abundance in 2015	16:00	Bin Xiao* Internal tides in the Pacific Ocean – A look into a high-resolution Wave-Tide-Circulation (WTC) coupled model	16:00	Ohidul Alam* A review of marine ecosystem services and economic resources of the Bay of Bengal
16:20	Anne B. Hollowed Preliminary observations of the impact of the BLOB on the summer distribution of marine fish in the Gulf of Alaska	16:20	Chenghao Yang* The annual velocity along the Slope of Northern South China Sea (SNSCS) from mooring observation	16:25	<i>Summary</i>
16:25				16:35	<i>Session ends</i>
16:35					
16:40		16:40	Dandi Qin Comparison between surface cyclonic and anticyclonic eddies along the Kuroshio in the northwestern Pacific Ocean		
16:50	R. Ian Perry Anomalous warming and its impacts in the NE Pacific from a Canadian perspective	17:00	Jianhong Wang The structure analysis of typical western Pacific Ocean eddies forced by strong typhoons		
17:00					
17:20	Fei Chai Anomalously warm conditions and their impact on marine ecosystem and seabirds during 2013-2015 off the U.S. west coast and in the Northeastern Pacific Ocean	17:20	<i>Discussion</i>		
17:50	<i>Discussion</i>	17:50	<i>Session ends</i>		
18:00	<i>Session ends</i>				

Thursday, October 22

S3 [FR 26]		S4 [FR 35/37]		S6 [FR 31/33]		S7 [FR 24/25]	
Eastern-western approaches to fisheries: Resource utilization and ecosystem impacts		Indicators of emerging pollution issues in the North Pacific Ocean		Ocean Acidification Observation Network for the North Pacific and adjacent areas of the Arctic Ocean		Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5	
Convenors: Xianshi Jin (China) Jacquelynne King (Canada) Gordon H. Kruse (USA) Mitsutaku Makino (Japan) Marie-Joëlle Rochet (France) Shijie Zhou (Australia)		Convenors: Olga Lukyanova (Russia) Peter S. Ross (Canada)		Convenors: Liqi Chen (China) Fei Chai (USA) Toru Suzuki (Japan) Kitack Lee (Korea)		Convenors: Kyung-II Chang (Korea) Anne Hollowed (USA) Shin-ichi Ito (Japan) Chan Joo Jang (Korea) Sukgeun Jung (Korea) Angelica Peña (Canada) Ho-Jeong Shin (Korea) Zhenya Song (China)	
8:55	Introduction by Convenors	8:55	Introduction by Convenors	8:55	Introduction by Convenors	8:55	Introduction by Convenors
9:00	Xianshi Jin (Invited) The marine fisheries resource utilization, ecosystem impacts and fisheries management in China	9:00	Hideshige Takada (Invited) Microplastic: An emerging threat to marine environment and a new tool for POP monitoring	9:00	Richard A. Feely (Invited) The Global Ocean Acidification Observing Network (GOA-ON): Status and initial results	9:00	Jacquelynne King (Invited) Report from Brazil: Effects of climate change on the world's oceans
9:25	Zuozhi Chen Exploitation and management of fisheries resources in northern South China Sea	9:30	Vladimir Shulkin (Invited) Spatial variability of trace metal concentrations in different mussels from coastal areas of the northwestern Pacific Ocean	9:25	Richard Bellerby (Invited) Arctic Ocean acidification: Present understanding, management requirements and future research strategies	9:30	Zenghong Liu The latest progress on global Argo observations
9:30							
9:45	Gui lin Dai New normal: The structural analysis of modern fisheries economic development in China	10:00	Tomohiko Isobe (Invited) Levels and temporal trends of legacy and emerging POPs in small cetacean species from Japan	9:50	Kunshan Gao (Invited) Effects of ocean acidification on marine primary producers	9:50	Ho-Jeong Shin The CMIP5 ocean heat storage and temperature
9:50							
10:00							
10:05	Gordon H. Kruse An ecosystem-based fishery management approach toward sustainable groundfish resource utilization in the eastern Bering Sea						

S3 [FR 26]		S4 [FR 35/37]		S6 [FR 31/33]		S7 [FR 24/25]	
10:10						10:10	Lei Wang* Evaluation on air-sea CO ₂ fluxes in the equatorial Pacific simulated by CMIP5 models
10:15				10:15	Ja-Myung Kim (Invited)* Shifts in biogenic carbon flow from particulate to dissolved forms under high carbon dioxide and warm ocean conditions		
10:25	Binduo Xu Optimization of sampling design for a fishery-independent survey with multiple objectives						
10:30						10:30	Coffee break
10:40		10:30	Coffee break	10:40	Coffee Break		
10:45	Coffee Break					Marine ecosystem and biogeochemistry	
10:50						10:50	Shoshiro Minobe (Invited) SST habitat and food change projections for Pacific salmon (<i>Oncorhynchus</i> spp.) in the North Pacific and adjacent seas based on CMIP5 climate models
11:00		11:00	Hyo-Bang Moon (Invited) Monitoring of legacy and emerging contaminants in wildlife from Korea	11:00	Liqi Chen Ocean Acidification Observation Network for the Arctic and sub-Arctic Pacific Oceans		
11:05	Guanqiong Ye* An integrated assessment approach for natural fishery resource restoration – A case study of wild Yellow Croaker <i>Pseudosciaena crocea</i> (Richardson) in Guanjiangyang, Fujian, China						
11:20				11:20	Di Qi* Recent accelerated intrusion of Pacific aragonite corrosive "acidified" water into the Arctic Ocean	11:20	Anne B. Hollowed S-CCME's international coordinated research program to project climate change impacts on fish and fisheries by 2019
11:25	Shengle Yin* Selection of suitable coastal aquaculture sites with environmental and socio-economic consideration: A case study in the Menai Strait, UK	11:30	Iana Blinovskaia* Microplastic is the macroproblem of the world's oceans, including the Russian Far East				
11:30							
11:40				11:40	Wei-Jun Cai Carbon cycle and ocean acidification strongly modulated by sea-ice retreat in the Pacific sector of the Arctic Ocean over the past two decades	11:40	Sukgeun Jung Climate-change driven range shifts of chub mackerel (<i>Scomber japonicus</i>) projected by bio-physical coupling individual based model in the western North Pacific
11:45	Juri Hori* Effects of changes in marine ecosystem services on human well-being: International comparison of human well-being structure						
11:50		11:50	Patrick D. O'Hara At-sea distributions reveal where Cassin's Auklets are exposed to microplastics in the fall in British Columbia 2014				

S3 [FR 26]		S4 [FR 35/37]		S6 [FR 31/33]		S7 [FR 24/25]	
12:00				12:00	Zhongyong Gao Comparison of carbon fluxes and ocean acidification between two gateways in the Arctic Ocean: The Chukchi Sea and the Nordic Sea	12:00	Hiroomi Miyamoto Potential effect of climate change for copepods distribution in western North Pacific Ocean
12:05	Discussion The ecosystem approach: From the ecosystem to society	12:10	John E. Elliott Spatial and temporal mercury trends in seabird eggs from Pacific Canada 1968-2012 are due to diet: Evidence from sulfur isotopes	12:20	Bofeng li Spatiotemporal distributions of carbon species in the North Pacific subpolar region by using the parameterization technique	12:20	Lunch
12:10							
12:20		12:30	Lunch	12:40	Lunch		
12:30				14:00	Fei Chai (for Peng Xiu*) Variability of oceanic carbon cycling and its relation to the ocean acidification in the North Pacific Ocean		
12:35	Lunch			14:20	Feng Zhou* Hypoxia off the Yangtze River estuary: Observations and simulations	14:20	Hyoun-Woo Kang Near future lower-trophic ecosystem projection in the seas around Korea
12:40		14:00	Yanbin Li* Mercury speciation and major factors controlling the cycling of methylmercury in the Yellow Sea and Bohai Sea, China	14:40	Naohiro Kosugi* Autumn depression in pCO_2 in the Japan Sea and contribution of Changjiang diluted water	14:40	Fei Chai Future changes of nutrient dynamics and biological productivity in California Current System
14:00	Shijie Zhou (Invited) Alternative fishing strategies and their consequences	14:20	Vasily Yu. Tsygankov* Persistent organic pollutants in the food chain: Salmon, seabirds and marine mammals from the North-West Pacific (Russian Far East)	15:00	Juying Wang Variation of sea surface pCO_2 and controlling processes in cold seasons in the northern Yellow Sea, China	Ocean dynamics	
14:20		14:40	Olga N. Lukyanova Bioindicators of marine pollution in impacted areas of the Sea of Okhotsk			15:00	Yongqiang Yu (Invited) Impacts of external forcing on the decadal climate variability in CMIP5 simulations
14:25	Richard Law Exploiting the natural productivity of aquatic ecosystems	15:00	Peter S. Ross Emerging ocean pollution issues in the NE Pacific Ocean vary by matrix: Lessons from sediments, shellfish and marine mammals				
14:40							
14:45	Vladimir V. Kulik* The effects of fishing on ecosystem structure of the Northeastern part of the Okhotsk Sea						
15:00							

S3 [FR 26]		S4 [FR 35/37]		S6 [FR 31/33]		S7 [FR 24/25]	
15:05	Km. Neha* Appraisal of fisheries management options to mitigate climate change based on a simulation model of impacts in western Indian Ocean coral reefs	15:20	<i>Coffee break</i>	15:20	Shintaro Takao* Diurnal variation of pH in Oshoro Bay, Hokkaido, Japan – A monitoring study assessing and projecting impacts of ocean acidification on a coastal ecosystem		
15:20	Saang-Yoon Hyun Poster: Assessment of Korean pollock population under data-limited situation						
15:25	Tetsuichiro Funamoto Poster: Stock assessment system in Japan						
15:29	Yunlong Chen Poster: Redistribution of anchovy (<i>Engraulis japonicus</i>) wintering stock under climate change scenarios in the Yellow Sea						
15:30	<i>Coffee break</i>						
15:40		15:40	<i>Discussion</i>	15:40	<i>Coffee break</i>		<i>Coffee break</i>
15:50	Xinyu Guo Modeling interannual variations of Japanese common squid (<i>Todarodes pacificus</i>) resources around Japan			16:00	Michiyo Yamamoto-Kawai Calcium carbonate saturation and ocean acidification in Tokyo Bay, Japan	15:50	Lei Zhou A genesis potential index for tropical cyclone using oceanic parameters
16:00				16:20	Tsuneo Ono Spatio-temporal variation of $p\text{CO}_2$ in shore-reef waters off Arasaki district, Sagami Bay, Japan	16:10	Yong Sun Kim* Seasonal characteristics of the long-term sea surface temperature variability in the Yellow and East China Seas
16:10	Hyun A Kim* Management of small yellow croaker, <i>Larimichthys polyactis</i> stock in Korean waters using a length-based production value-per-recruit analysis						
16:20							
16:30	Minkyong Bang* Changes in ecological characteristics of walleye pollock <i>Gadus chalcogrammus</i> in accordance with the biomass fluctuation					16:30	Dmitry V. Stepanov Effects of atmospheric forcing on circulation variability in the northern Japan/East Sea in 1948 to 2010

S3 [FR 26]		S4 [FR 35/37]		S6 [FR 31/33]		S7 [FR 24/25]	
16:40				16:40	Julie E. Keister Differential sensitivities of crustacean zooplankton to ocean acidification	16:50	Dongxiao Wang Anomalous tropical cyclone activity in the northwestern Pacific in 2014
16:50	Discussion Fishing strategies, from stocks to ecosystem			17:00	Liang Xue* Is ocean acidification disturbed by climate?		
17:00				17:20	Ian S.F. Jones The expected impact of ocean nourishment on ocean acidity	17:10	Discussion
17:05	Marie-Joëlle Rochet (Invited) The Landing Obligation in the European Union Common Fisheries Policy: Can a regulation focused on resource utilization address broader management objectives such as limited environmental impacts, economic development, and food supply?			17:40	Kannan Gunasekaran* Impact of ocean acidification on morphological variation in captive condition of the benthic foraminifera <i>Ammonia beccarii</i>	17:30	Session ends
17:10							
17:20							
17:30	Hee Joong Kang* Acceptable Biological Catch in the ecosystem-based TAC management						
17:40							
17:50	Chongliang Zhang Poster: Efficacy of fishery closure in rebuilding depleted stocks: accounting for trophic interactions						
17:52	Discussion Managing bycatch and discards			18:00	Session ends		
18:00	Session ends	18:00	Session ends	18:00	Session ends		

* Flags an Early Career Scientist
FR stands for "Function Room"

		Friday, October 23			
S9 [FR 26]		MEQ-Paper [FR 31/33]		POC-Paper, Day 2 [FR 35/37]	
Experiences and lessons learned in managing shared/transboundary stock fisheries Convenors: Shang Chen (China) Keith Criddle (USA) Mitsutaku Makino (Japan) Minling Pan (USA)		Convenors: Chuanlin Huo (China) Darlene Smith (Canada)		Convenors: Kyung-II Chang (Korea) Michael Foreman (Canada)	
8:55		8:55		8:55	
9:00	Robert Blasiak (Invited)* Balloon effects in global fisheries: Shifting paradigms	9:00	Kathryn Higley Summary of Workshop 5 on "Monitoring and Assessment of Environmental Radioactivity in the North Pacific"	9:00	Yuri Zuenko The structure of regional climate variability in the Far-Eastern Seas
9:20				9:20	
9:25	Kanae Tokunaga (Invited)* Cooperative management of trans-boundary fish stocks	9:30	Hongzhi Li* Radioactivity estimates at North Pacific Ocean based on radiation dose rate	9:40	Yuping Guan Filtering methods for detecting ocean striations
9:30					
9:40					
9:50	Ekaterina Kurilova Management of transboundary stocks of walleye pollock in the Russian Federation	9:50	Shizuho Miki* Strontium-90 in marine fishes	10:00	Vadim Navrotsky On specifics and effects of processes in stratified bottom layers in the shelf zone of the sea
10:00					
10:10	Catarina Wor* The use of a Lagrangian movement model and management strategy evaluation to assess management performance for transboundary stocks	10:10	Discussion Radionuclides	10:20	Kyung-II Chang Seasonal variation of coastal currents in the East/Japan Sea
10:20					
10:30	Coffee break	10:20	Qian Zhou Accumulation of microplastics on coastal beaches, China: Abundance, composition and sources	10:40	Summary
10:40					
10:45					

S9		[FR 26]		MEQ-Paper		[FR 31/33]	
10:50	Minling Pan	Spillover effects of marine environmental regulation for sea turtle protection					
11:00				11:00	Sergey Kulbachnyi*	Hydrocarbon exploration on the Sea of Okhotsk shelf and its possible impact on marine ecosystems	
11:10	Mikhail A. Stepanenko	Interannual variability of Bering Sea pollock seasonal migrations and the impact of ecosystem changes		11:20	Yu Hao	Historical trends of terrigenous organic carbon transported by the Yangtze River (Changjiang)	
11:20				11:40	Lijun Qi*	The geochemical signals in the abandoned Huanghe River Delta surface sediments	
11:30	Yu Heng Lu*	The role of fishery cooperative associations on fishery management and the conservation of fishery resources: A case study of Sakuraebi (<i>Sergia lucens</i>) in Taiwan and Japan					
11:40							
11:50	Discussion			12:00	Summary		
12:00				12:20	Session ends		

POSTER SESSION, October 22

S1. Change and Sustainability of the North Pacific

- S1-P1 **Robert Blasiak**
Socio-ecological linkages enhancing the resilience of Japan's Urato Islands
- S1-P2 **Yury Zuenko**
Change of the dense bottom water production on the northern Okhotsk Sea shelf and its transport to the intermediate layer of the North Pacific
- S1-P3 **Yury Zuenko**
Climatic changes of temperature, salinity and nutrients in the Amur Bay of the Japan Sea
- S1-P4 **Shin-ichi Ito**
Geographic variation in Pacific herring growth in response to regime shifts in the North Pacific Ocean
- S1-P5 **Xiansen Ye**
A multivariate assessment of eutrophication in three typical bays of the northern Zhejiang, East China Sea
- S1-P6 **Swati Katiyar**
Change dynamics analysis of the shoreline using optical sensors in coastal stretch of Bay of Bengal, India
- S1-P7 **Min Zhang**
Seasonal variability of phytoplankton in the North Pacific and North Atlantic Ocean from space
- S1-P8 **Meng Wei**
A quantitative definition of global warming hiatus and 50-year prediction of global mean surface temperature
- S1-P9 **Yuan-yuan Wang**
Plankton distribution characteristics and its interactive relationship in southern waters of Miaodao Archipelago
- S1-P10 **Hui Zhang**
Ichthyoplankton assemblage structure of spring in the Yangtze estuary revealed by biological and environmental visions
- S1-P11 **Yang Liu**
The impact of winter East Asia Monsoon and ice coverage variation on Japanese scallop aquaculture in Saroma Lake, Japan
- S1-P12 **Changdong Liu**
Exploring nonstationary and scale-dependent relationships between aquatic species distribution and habitat variables using geographically weighted regression
- S1-P13 **John A. Barth**
Occurrence of demersal fishes in relation to near-bottom oxygen levels within the California Current large marine ecosystem
- S1-P14 **Umesh K. Pradhan**
Impact of typhoon on the changing particulate organic matter characteristics: Case study of Nanduijiang along the tropical Hainan Island, China

- S1-P15 **Yiping Ren**
Evaluating management strategies of limited data species based on hierarchical demographic approaches: An example using yellow croaker (*Larimichthys polyactis*) along north Pacific coast of China
- S1-P16 **Oleg Bulatov**
Climate change and the fishery in Russia–2030
- S1-P17 **Andrew R.S. Ross**
The International Group for Marine Ecological Time Series (IGMETS): Assessing global oceanic changes through joint time series analysis
- S1-P18 **Zhiwei Zhang**
Island economic vulnerability to natural disasters — The case of Changdao

S3. Eastern-western approaches to fisheries: Resource utilization and ecosystem impacts

- S3-P1 **Saang-Yoon Hyun**
Assessment of Korean pollock population under data-limited situation
- S3-P2 **Tetsuichiro Funamoto**
Fishery stock assessment and management system in Japan
- S3-P3 **Yunlong Chen**
Redistribution of anchovy (*Engraulis japonicus*) wintering stock under climate change scenarios in the Yellow Sea
- S3-P4 **Chongliang Zhang**
Efficacy of fishery closure in rebuilding depleted stocks: Accounting for trophic interactions

S4. Indicators of emerging pollution issues in the North Pacific Ocean

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Acute effects of emamectin benzoate on the calanoid copepod *Pseudodiaptomus poplesia*
- S4-P2 **Qian Zhou on behalf of Cui Zhang**
Phototransformation of oxytetracycline in saline waters under simulated sunlight irradiation: Kinetics, mechanism and products
- S4-P3 **Tatyana A. Belan**
Assessment of marine environment quality of the coastal zone of Peter the Great Bay (the Sea of Japan/ East Sea)
- S4-P4 **Vasiliy Yu. Tsygankov**
Metal concentrations in pink and chum salmon (Kuril Islands, the North Western Pacific)
- S4-P5 **Oleg V. Losev**
Estimation of seawater pollution in Uglovoy Bay (Peter the Great Bay, Japan/East Sea)

S5. Ocean circulation of the Western Pacific and its response to climate change

- S5-P1 **Jiepeng Chen**
Influences of Indian Ocean and Atlantic Ocean SST on the intensity of interannual variability in summer rainfall over southern China
- S5-P2 **Yonggang Wang**
The vertical distributions of the volume transport through major exit passages of the Pacific to Indian Ocean Throughflow
- S5-P3 **Zhan Lian**
A comparison of wind stress datasets for the South China Sea
- S5-P4 **Junchuan Sun**
Numerical study on the bottom branch of the Yellow Sea Warm Current
- S5-P5 **Feng Nan**
Rapid freshening of the upper ocean in the South China Sea since the early 1990s
- S5-P6 **Wei Cui**
A statistical analysis of mesoscale eddies in the northwest Pacific Ocean from 22 years of altimetry data

S6. Ocean Acidification Observation Network for the North Pacific and adjacent areas of the Arctic Ocean

- S6-P1 **Miming Zhang**
The surface seawater DMS distributions, sea-air fluxes and its influence to sulfur aerosols in the North Pacific Ocean
- S6-P2 **Yumei Zhao**
Ocean acidification observation system at Bohai Gulf based on ocean acidification characteristic parameters
- S6-P3 **Yanmin Wang**
Advances in ocean acidification of a vulnerable carbon pool in the Southern Ocean
- S6-P4 **Jiexia Zhang**
Surface undersaturation and subsurface maxima of nitrous oxide in the Chukchi Sea Shelf and Chukchi Abyssal Plain
- S6-P5 **Suqing Xu**
Seasonal variation of distribution of air-sea CO₂ flux in the Taiwan Strait and its controlling mechanism
- S6-P6 **Naohiro Kosugi on behalf of Masao Ishii**
Trend of ocean acidification in the tropical and subtropical zones of the western North Pacific along 137°E
- S6-P7 **Weimin Wang**
Effects of CO₂-driven ocean acidification on the early development of scallop *Argopecten irradians* (Lamarck, 1819)
- S6-P8 **Jianfang Chen**
Monitoring of eutrophication and ocean acidification off the Changjiang Estuary

S6-P9 **Alex Kozyr**
CDIAC data management and archival support for a high-frequency atmospheric and seawater pCO₂ data set from 14 open ocean moorings

S6-P10 **Chengxuan Li**
Spatial distributions of dimethylsulfide (DMS) and dimethylsulfoniopropionate (DMSP) and influencing factors in the Norwegian and Greenland seas during summer

S7. Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5

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Effects of CO₂-driven ocean acidification (OA) on early life stages of marine medaka (*Oryzias melastigma*)

S7-P2 **Dmitry V. Stepanov**
Features of the circulation structure in the Okhotsk Sea based on high-resolution numerical simulation in 1979 to 2000

S7-P3 **Guoping Zhu**
Variation and its periodicity of sea surface temperature in the eastern Yellow Sea in the recent 30 years

S7-P4 **Hee Seok Jung**
Development of a regional climate coupled model for the seas around Korea

S7-P5 **Yajuan Song**
The effects of runoff forcing on the summer monsoon onset in a climate model

S7-P6 **Lin Liu**
The Wyrтки jet simulated in CMIP5 models

S7-P7 **Yan Li**
The detecting and adjusting of the sea surface temperature data homogeneity over coastal zone of Circum Bohai Sea

S7-P8 **Lyubov Vasilevskaya**
Change of beginning and duration of the first stage of Far-Eastern summer monsoon on the southern coast of Primorye

S7-P9 **Zhi Li**
Modulation of interannual variability of tropical cyclone activity over Southeast Indian Ocean by negative IOD phase

S7-P10 **Baochao Liu**
The impact of local SST and tropical ISO on the monsoon onset over BOB in CMIP5 coupled models

S7-P11 **Kuiping Li**
Monsoon onset in the Bay of Bengal associated with the first northward-propagating intra-seasonal oscillation

S8. Marine ecosystem services and economics of marine living resources

- S8-P1 **Liang Liu**
Evaluation of the Marine Ecosystem services of the Liaodong Gulf, Bohai Gulf and Laizhou Gulf, China
- S8-P2 **Wei Xu**
Sea use intensity assessment and practice in China—A new methodology for ocean management
- S8-P3 **Ke-liang Chen**
Marine ecosystem services value accounting and driving forces: A case study of Xiamen Bay

S10. The human dimensions of harmful algal blooms

- S10-P1 **Renyan Liu**
Toxic *Protoceratium reticulatum* and yessotoxins from the Chinese Yellow Sea
- S10-P2 **Ren-Cheng Yu**
Application of qPCR methods in detection of PST-producing *Alexandrium* species in the Yellow Sea and East China Sea
- S10-P3 **Yang Lin**
Advances in marine algae hemolysin molecules
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Numerical study on the prediction of the Harmful Algae Blooms in the East China Sea
- S10-P5 **Dan Wang**
Prediction, prevention and mitigation of harmful algal blooms in the China Sea
- S10-P6 **Chunjiang Guan**
Study on the changes of phytoplankton composition and climate in Qingduizi Bay Chinese northern Yellow Sea

BIO Contributed Paper Session

- BIO-P1 **Anders Knudby**
Distribution modeling for species and species assemblages, an exploration of spatial patterns with gradient forest
- BIO-P2 **Yu Xin**
Spatial distribution of $\delta^{15}\text{N}$ of chlorophyll-*a* in surface sediment of the northern Benguela Upwelling System
- BIO-P3 **Rubao Ji**
Phytoplankton phenology in the Bering Sea: Variability and drivers
- BIO-P4 **Soeon Ahn**
Diet of long-beaked common dolphin (*Delphinus capensis*) in the East Sea (Japan Sea), Korea
- BIO-P5 **Haifeng Zhang**
Paleoceanographic changes since 50 ka B.P. inferred from radiolarian assemblages in Gulf of Alaska, subarctic North Pacific

- BIO-P6 **Feiyan Du**
Ecological characteristics of zooplankton in the northern waters of Nan'ao Island
- BIO-P7 **Yan Liu**
Polyamines response to nutrient limitation stress and their physiological roles in *Skeletonema costatum*
- BIO-P8 **Howon Lee**
Contribution of bacterial communities to total primary production in the Northwestern Pacific Ocean
- BIO-P9 **HuiTae Joo**
Carbon and nitrogen uptake rates of phytoplankton in the East Sea (Japan Sea) in 2012
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Spatial and temporal patterns of primary production in the Japan/East Sea
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Relationship between phytoplankton macromolecular compositions and zooplankton proximate compositions in the Southwestern Japan/East Sea
- BIO-P12 **Jihong Zhang**
Long term change of chlorophyll-*a* concentration in Sanggou Bay, China
- BIO-P13 **Chiyuki Sassa**
Comparative reproductive biology of three dominant myctophids of the genus *Diaphus* on the slope region of the East China Sea
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Responses of microbial communities to dosing with the algicide thiazolidinedione derivative TD49 in a mesocosm experiment
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The application of products from Geostationary Ocean Color Imager (GOCI) in China Sea
- BIO-P16 **Ye Won Kim**
Comparison of macromolecular compositions of different size phytoplankton in Gwangyang Bay, Korea
- BIO-P17 **Pan Jun**
The use of the LOPC to measure horizontal and vertical zooplankton size and abundance of 35°N section in summer
- BIO-P18 **Shinji Shimode**
Three-year variability of *Eucalanus californicus* population in Sagami Bay, Japan: Relationships between population density and duration of surface occurrence
- BIO-P19 **Qian Xu**
Spatial variations of phytoplankton communities in July of 2011 and 2013 in the East China Sea derived by photosynthetic pigments
- BIO-P20 **Takafumi Yamaguchi**
Seasonal changes in prosome length and egg reproduction of planktonic copepod *Calanus sinicus* in Sagami Bay, Japan
- BIO-P21 **Daisuke Hasegawa**
Oyashio spring bloom observed by an underwater glider

- BIO-P22 **Nam-II Won**
Marine microbiological communities in Korean coastal waters examined by NGS analysis
- BIO-P23 **Nam-II Won**
Trophic linkages among biological communities in Korean coastal waters examined by stable isotope analyses
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Marine virus mediated sphingolipid metabolic regulation and the apoptosis-inducing in marine *Emiliania huxleyi*
- BIO-P25 **Naoki Yoshie**
Phytoplankton change in the Kuroshio region of the East China Sea associated with the Kuroshio frontal eddy
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Chlorophylls and phycoerythrins as markers of ecological forcing on phytoplankton in New Caledonia and oceanic adjacent area
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The influence of decadal typhoon events on chlorophyll and carbon fixation in the East China Sea
- BIO-P28 **Kazuaki Tadokoro**
Seasonal variation of mesozooplankton community in the Oyashio and Kuroshio-Oyashio Transition waters, western North Pacific
- BIO-P29 **Sachihiko Itoh**
Mixed layer depth and chlorophyll *a*: Profiling float observations in the Kuroshio-Oyashio Extension region
- BIO-P30 **C. Tracy Shaw**
Hypoxia tolerance in oxygen minimum zone euphausiids
- BIO-P31 **Seung Won Jung**
Effects of temperature and nutrients on changes in genetic diversity of bacterioplankton communities as revealed by 454 pyrosequencing in a semi-closed bay, South Korea
- BIO-P32 **Seung Won Jung**
Microphytoplankton community structure of a *Cochlodinium polykrikoides* bloom in the Tongyeong coastal waters of South Korea using morphological and 454 pyrosequencing methods
- BIO-P33 **Qinsheng Wei**
Hypoxia off the Changjiang River estuary and its relationships with plume front and upwelling in summer
- BIO-P34 **Taek-Kyun Lee**
Identification of microalgae in South Sea of Korea by species-specific PCR
- BIO-P35 **Qinsheng Wei**
Ecological responses to the offshore detached Changjiang diluted water in summer
- BIO-P36 **Franz Mueter**
Delineating a physical and biological break point in the Gulf of Alaska
- BIO-P37 **Leslie Brown**
Examination of water quality of an oligotrophic salmon lake in British Columbia, Canada using MERIS satellite imagery
- BIO-P38 **Zhichuang Lu**
Analysis of finless porpoise diet using prey morphological characters and DNA barcoding

FIS Contributed Paper Session

- FIS-P1 **Alexey Khoruzhiy on behalf of Alexander Zavolokin**
Shifts in hydrological regime and their implication for distribution and abundance of fish in the western Bering Sea in 21st century
- FIS-P2 **Kui Zhang**
Stock assessment for the *Trichiurus japonicus* fishery in the East China Sea based on Bayesian state-space modelling
- FIS-P3 **Ekaterina Kurilova on behalf of Albina Kanzeparova**
The impact of climate factors on Pacific salmon within Khabarovsk territory
- FIS-P4 **Jun Zhang**
In situ target strength measurements of skipjack tuna *Katsuwonus pelamis* and yellowfin tuna *Thunnus albacares* in the South China Sea
- FIS-P5 **Hongjun Li**
Genetic diversity and differentiation of seven geographical populations of hard clam (*Meretrix meretrix*) assessed by COI and microsatellite markers
- FIS-P6 **Hitomi Oyaizu**
Modeling the migration and growth of immature Pacific saury (*Cololabis saira*) using an individual-based bioenergetics model
- FIS-P7 **Su Min Kim**
Proximate composition and stable isotope ratios ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) of Japanese jack mackerel (*Trachurus japonicus*) in the Geumo Island nursery ground
- FIS-P8 **Wen-Bin Huang**
Evaluation of a commercial CPUE standardization model applied to the Pacific saury fishery in the North Pacific
- FIS-P9 **Xinqing Zheng**
A mass-balance ecosystem model of a subtropical bay
- FIS-P10 **Elizabeth Logerwell**
Examining two macro invertebrate communities using functional traits and environmental variables in and around Barrow Canyon in the Chukchi and Beaufort seas
- FIS-P11 **Jin-Koo Kim**
Restricted separation of the spawning areas of two lineages of sand lance, *Ammodytes personatus*, in the Yellow Sea and East Sea
- FIS-P12 **Jung Hwa Ryu**
Diversity and community structure of marine fish species in Korean waters during 2006-2013
- FIS-P13 **Se Hun Myoung**
The role of Gangjin Bay: Spawning or nursery grounds for fish?
- FIS-P14 **Zhongxin Wu**
Food partitioning among three reef fish in the Lidao coastal waters of northern Yellow Sea, China
- FIS-P15 **Matthew R. Baker**
Environmental thresholds and species distribution: Implications for interactions and recruitment in multispecies models

- FIS-P16 **Chris Rooper**
Using species distribution models to define essential fish habitat in Alaska
- FIS-P17 **Hiroshi Kuroda**
Particle tracking experiments to specify hatching areas of the Pacific stock of chub mackerel off the southeastern coast of Japan
- FIS-P18 **Motomitsu Takahashi**
Interannual variations in growth trajectories of juvenile jack mackerel *Trachurus japonicus* in the Tsushima Warm Current
- FIS-P19 **Zhe Li**
Behavioral responses of Pacific cod (*Gadus macrocephalus*) juveniles to food deprivation, temperature gradients and light
- FIS-P20 **Tetsuichiro Funamoto**
Optimum survival temperature for walleye pollock larvae
- FIS-P21 **Rintaro Koide**
Acoustic survey of dominant mesopelagic fishes off eastern Hokkaido, Japan
- FIS-P22 **Jiaguang Xiao**
Complete mitochondrial genome of *Sillago* species: Insights into taxonomy and phylogeny
- FIS-P23 **Zhiqiang Han**
Genetic evidence for speciation in Japanese sand lance *Ammodytes personatus*: Pleistocene isolation, temperature and current promoted speciation
- FIS-P24 **Olga Zikunova**
The abundance of the chinook salmon *Oncorhynchus tshawytscha* (Walbaum) population in the basin of the Kamchatka River
- FIS-P25 **Lu Liu**
Genetic variation and population structure of marbled rockfish (*Sebastes marmoratus*) in the Northwestern Pacific inferred from microsatellite analysis
- FIS-P26 **Xin Yu**
Evaluating three size removal methods in otolith shape analysis, using the Japanese grenadier anchovy (*Coilia nasus*) and Osbeck's grenadier anchovy (*Coilia mystus*) in Chinese coastal waters
- FIS-P27 **Alexei M. Orlov**
"Jawless Fishes of the World" – A new book dealing with various aspects of lampreys and hagfishes worldwide

MEQ Contributed Paper Session

- MEQ-P1 **Shijie He**
Study of impact of moderate and heavy weathering processes on individual carbon and hydrogen isotope of n-alkanes in oils
- MEQ-P2 **Hyeon Ho Shin**
The role of temporary cysts in dense blooms caused by *Cochlodinium polykrikoides* Margalef
- MEQ-P3 **Ruijing Li**
The occurrence and Distribution of HBCDs in Laizhou Bay of China

- MEQ-P4 **Ping Du**
Responses of mesozooplankton communities to different anthropogenic activities in a subtropical eutrophic bay
- MEQ-P5 **Dabin Lee**
Estimation of carrying capacity by measuring coastal environmental parameters in Geoje-Hansan Bay, Korea
- MEQ-P6 **Yuya Shigenobu**
Radiocesium transfer from contaminated sediment to benthic organisms and demersal fish
- MEQ-P7 **Daisuke Ambe**
Spatio-temporal variation of radiocesium in sea sediment on benthic marine ecosystem based on five-minute resolution mapping
- MEQ-P8 **Pokin Channimitsri**
Distribution of major and trace elements in surface sediments of the Gulf of Thailand
- MEQ-P9 **Thanakorn Jivarungrueangkul**
Clay mineralogical records of sediment provenance change during the sea level rise of last deglaciation in the southern South China Sea
- MEQ-P10 **Sang Pham Nhu**
Geochemical records of provenance and East Asian monsoon evolution during the Late Quaternary in the western South China Sea
- MEQ-P11 **Takami Morita**
Radioactive cesium in marine organisms around Japan
- MEQ-P12 **Jin Huang**
Research of pore water nutrients diffusion fluxes in the Yangtze River Estuary adjacent waters
- MEQ-P13 **Zhun LI**
Resting cysts of potentially harmful dinoflagellates in Korean coastal area
- MEQ-P14 **Jun Zhao**
Early diagenesis of sedimentary chloropigments in the Changjiang and Mississippi river-dominated ocean margins: Implications for source, transport and burial of organic carbon
- MEQ-P15 **Sung-Suk Suh**
Detection of *Cochlodinium polykrikoides* using sandwich hybridization integrated with nuclease protection assay
- MEQ-P16 **Min-bo Luo**
Large ocean engineering impact on distribution characteristics of epifauna community in waters around Yangshan Islands in Hangzhou Bay
- MEQ-P17 **Yang-Guang Gu**
Heavy metal concentrations in wild fishes captured from the South China Sea and associated health risks

POC Contributed Paper Session

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Time-series wavelet transform exposes South Atlantic Ocean changes during the last 40 years
- POC-P2 **Miaohua Mao**
Investigation of shallow and deep water wave dynamics using unstructured SWAN: An application to Lake Michigan
- POC-P3 **Neil K. S. Cheong**
Paleoenvironmental reconstruction from deepwater sedimentary records in the central South China Sea since the middle Pleistocene
- POC-P4 **Xiang-nan Wang**
Study on the hydrodynamic performance of a flap bottom-hinged wave energy converter
- POC-P5 **He Wang**
Dynamic evaluation of Envisat ASAR derived ocean swell in North Pacific
- POC-P6 **Xiaoqi Huang**
Error variation analysis and global assessment for total water vapor of HY-2 Scanning microwave radiometer
- POC-P7 **Svetlana Marchenko**
Seasonal variability of water circulation in the deep Bering Sea
- POC-P8 **Mingbing Li**
Application of Wave Drifter to marine environment observation
- POC-P9 **Zhanming Hu**
Analysis on the formation dynamics of a typical small-scale eddy in the Bohai Sea
- POC-P10 **Jianjun Kang**
Analysis of ocean surface wave spectra from a new wave buoy
- POC-P11 **Ying Li**
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- POC-P12 **Georgiy S. Moiseenko**
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- POC-P14 **Svetlana Yu. Glebova**
Winter cyclonic activity in the Asia-Pacific region and its effect on surface temperature in the Sea of Okhotsk in the 2000s
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(cancelled) **Evgeniya Maryina**
Features resulting from reconstructing vector fields of tidal currents on the shelf of eastern Sakhalin Island (Sea of Okhotsk)
- POC-P16 **Tsuyoshi Wakamatsu**
Long term, high-resolution ocean reanalysis of the Northwest Pacific Ocean

- POC-P17 **Ferdinant A. Mkrtchyan**
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Measurements of the turbulent energy dissipation rate in the Changjiang river near-field plume
- POC-P19 **Jae-Kwi So**
A preliminary study on the tidal effects on the Yellow Sea Bottom Cold Water and its ecosystem using a physics-ecosystem coupled model
- POC-P20 **Hee Dong Jeong**
Variation of sea surface chlorophyll *a* in the southwestern boundary area of the East Sea
- POC-P21 **Svetlana P. Shkorba**
Linkages of climatic anomalies in the North Pacific, Asia at temperate latitudes, Indo-Pacific and Arctic oceans
- POC-P22 **Fei Yu**
The formation process of Southern Yellow Sea Cold Water Mass in spring
- POC-P23 **Vladimir I. Ponomarev**
Simulation of mesoscale and submesoscale circulation in the northwestern Japan Sea
- POC-P24 **Chuntao Chen**
Assessment of GPS buoy accuracy for altimeter sea surface height calibration
- POC-P25 **Gang Wang**
Decadal variability of upper ocean heat content in the Pacific
- POC-P26 **Yuanling Zhang**
Intercomparison of reanalysis datasets on ocean heat content

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- W2-P1 **Jianguo Du**
Assessing ecological risks of heavy metals to marine organisms by species sensitivity distributions
- W2-P2 **Kwang-Sik Choi**
Macroalgal-coral phase shifts on subtidal benthic community on the northern coast of Jeju Island, Korea

W3. Linking climate change and anthropogenic impacts to higher trophic levels via primary producers

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How does explicit treatment of spatial variability in environmental conditions affect simulated anchovy recruitment?
- W3-P2 **Jingjing Zheng**
A modeling study of the hypoxia dynamic off the Changjiang Estuary
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The satellite net primary production and its control mechanisms in the Changjiang Estuary, China
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The merged global ocean chlorophyll content product

W4. Marine Environment Emergencies: Detection, monitoring, response, and impacts

- W4-P1 **Pavan Kumar**
Exploring the potential of Geospatial Technology for oil spill detection in shallow coastal areas in the Arabian Gulf
- W4-P2 **Yifei Zhang**
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Drift prediction of oil spill and its decision support for emergency response

W5. Monitoring and Assessment of Environmental Radioactivity in the North Pacific

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- W5-P2 **Hongqi Shi**
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- W5-P3 **Dekun Huang**
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Radionuclide tracers suggest different migratory patterns in two groups of North Pacific albacore (*Thunnus alalunga*)
- W5-P6 **Galina S.Borisenko**
Assessment impact of radioactive contamination on the Pacific saury after the Fukushima Dai-ichi Nuclear Power Plant accident

W6. Best practices for and scientific progress from North Pacific Coastal Ocean Observing Systems

- W6-P1 **Fanglin Cheng**
A representative assessment method for the coastal marine observation environment
- W6-P2 **Ryuta Murashige**
Temporal change of plankton and environmental factors during typhoons observed at the Oshima Cabled Observatory

POSTERS FROM OBSERVING ORGANIZATIONS

AOOS	Phil Mundy Alaska Ocean Observing System
Argo	Jianping Xu Observing the Oceans in Real Time
CLIVAR	Lei Han CLIVAR: 20 years' progress in coordinating international activities on climate and ocean research
ESSAS	Franz Mueter ESSAS – Ecosystem Studies of Subarctic and Arctic Seas
GESAMP	Peter Kershaw Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
IMBER	Yi Xu IMBER – Research for marine sustainability: Synthesis and the way forward
ISC	Gerard Thomas DiNardo and Chi-Lu Sun International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
MABIK	Keyseok Choe Introduction to the National Marine Biodiversity Institute of Korea
NEAR-GOOS	Hee-Dong Jeong North-East Asian Regional GOOS program
NPRB	Matthew R. Baker Integrated ecosystem research programs – North Pacific Research Board
SAHFOS	George Graham Integrated marine environmental sensing with the SAHFOS Continuous Plankton Recorder survey
SCOR	Sun Song Scientific Committee on Oceanic Research

Upcoming International Events

9th International Conference on Marine Bioinvasions

January 19–21, 2016, Sydney, Australia

6th ICES/PICES Zooplankton Production Symposium on “New challenges in a changing ocean”

May 9–13, 2016, Bergen, Norway

<http://www.ices.dk/news-and-events/symposia/Pages/6th-Zooplankton-Production-Symposium.aspx>

ICES Symposium on “Understanding marine socio-ecological systems: Including the human dimension in Integrated Ecosystem Assessments”

May 30–June 3, 2016, Brest, France

<http://www.ices.dk/news-and-events/symposia/Pages/Understanding-marine-socio-ecological-systems.aspx>

PICES/ICES Symposium on “Drivers of small pelagic fish resources”

March 6–11, 2017, Victoria, Canada

<http://www.ices.dk/news-and-events/symposia/Pages/Symposium-on-Drivers-of-dynamics-of-small-pelagic-neritic-fish-resources.aspx>



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