



Date / Pacific Time Victoria, BC, Canada	#	(HOST group) Session Title
WORKSHOP VW4 SB Topic Workshop <i>How does the Pacific Arctic gateway affect the marine system in the Central Arctic Ocean (CAO)?</i>		
October 13, 18:00-21:00		
Tues, Oct 13 18:00-18:30	1	<i>Jackie Grebmeier (INVITED-RECORDED)</i> <i>The Pacific Arctic Gateway: connecting the marine ecosystems of shelf/slope regions to the Central Arctic Ocean</i>
Tues, Oct 13 18:30-18:50	2	<i>Hein Rune Skjoldal (LIVE)</i> <i>The influence of Pacific water on the central Arctic Ocean ecosystem: Some productivity considerations</i>
Tues, Oct 13 18:50-19:10	3	<i>Zijia Zheng (LIVE)</i> <i>Mechanisms of persistent high primary production during the growing season in the Chukchi Sea</i>
Tues, Oct 13 19:10-19:30	4	<i>Takafumi Hirata (RECORDED)</i> <i>Sensitivity Study on Planetary Boundary Forcing to the Arctic Marine Ecosystems</i>
Tues, Oct 13 19:30-19:50	5	<i>Atsushi Yamaguchi (RECORDED) YouTube</i> <i>Life cycles of the two dominant mesopelagic carnivorous copepods (<i>Paraeuchaeta glacialis</i> and <i>Heterorhabdus norvegicus</i>) in the Arctic Basin: Insights from SHEBA samples</i>
Tues, Oct 13 19:50-20:10	6	<i>Kohei Matsuno (RECORDED)</i> <i>Predicting changes on zooplankton community in the pacific sector of Arctic Ocean analyzed by generalized dissimilarity modeling</i>
Tues, Oct 13 20:10-20:30	7	<i>Irene D. Alabia (RECORDED) YouTube</i> <i>Marine biodiversity patterns under warming and sea ice-free Pacific Arctic</i>
GENERAL DISCUSSION: 20:30-21:00		
E-POSTERS		
Ruijing Li	<i>Occurrence and transport of persistent toxic substances in the North Pacific - Arctic region under climate change</i>	
Peng Lian	<i>Dynamical Importance Triangle: a new model to explain the multi-scale variation of groundfish in Eastern Bering Sea</i>	



Date / Pacific Time Victoria, BC, Canada	#	(HOST group) Session Title
WORKSHOP VW6 (FIS): Research priorities for understanding the population dynamics of small pelagic fish in the North Pacific		
October 14, 18:00-21:00		
Wed, Oct 14 18:00-18:05	Intro	<i>Chair</i> <i>Brief introduction to WG-43, workshop objectives, and symposium announcement</i>
Wed, Oct 14 18:05-18:25	1	<i>Wei Yu (LIVE)</i> <i>Trans-Pacific "synchrony" in multidecadal change of habitat patterns for <i>Ommastrephes bartramii</i> and <i>Dosidicus gigas</i></i>
Wed, Oct 14 18:25-18:45	2	<i>Tatiana Naumova (LIVE)</i> <i>Some data on biology and distribution of larval capelin (<i>Mallotus villosus catervarius</i>) on the west Kamchatka shelf</i>
Wed, Oct 14 18:45-19:05	3	<i>Pavel Emelin (LIVE / RECORDED)</i> <i>Diel vertical migrant species in structure of epipelagic nekton of Pacific waters off the Kuril Islands in autumn of 2019</i>
Wed, Oct 14 19:05-19:25	4	<i>Beatriz S. Dias (RECORDED)</i> <i>Influence of environmental and population factors on herring spawn timing in Prince William Sound</i>
BREAK: 19:25-19:35		
Wed, Oct 14 19:35-19:55	5	<i>Peter Kuriyama (LIVE)</i> <i>Evidence of time-varying processes in Pacific sardine stock assessments</i>
Wed, Oct 14 19:55-20:15	6	<i>Elizabeth Saraf (RECORDED)</i> <i>Particle tracking reveals Pelagic Red Crabs as indicators of anomalous conditions in the California Current</i>
Wed, Oct 14 20:15-20:35	7	<i>Johanna L.K. Wren (LIVE)</i> <i>Towards a plankton-based predictor of tuna recruitment</i>
Wed, Oct 14 20:35-21:00	8	Final comments and discussion
E-POSTERS		
<i>Juhyun Yi</i>	<i>Accounting for price responses in economic evaluation of climate impacts for a fishery</i>	
<i>Olga Maznikova</i>	<i>Polar cod (<i>Boreogadus saida</i>) stock in the Bering Sea</i>	
<i>Elena Ustinova</i>	<i>Variability and change of the oceanographic conditions in the feeding migrations and reproduction areas of sardine, mackerels and saury in the Northwest Pacific</i>	
<i>Dongliang Wang</i>	<i>Environmental impact assessment of spawning grounds in the Western Guangdong Waters, South China Sea, using RS/GIS</i>	



Date / Pacific Time Victoria, BC, Canada	#	(HOST group) Session Title
WORKSHOP VW9 FUTURE Topic Workshop Building a PICES early career professional network		
October 15, 18:00-21:00		
Thurs, Oct 15 18:00-18:35	1	<i>Introduction & overview of the workshop</i>
Thurs, Oct 15 18:35-19:35	2	<i>The Legacy of PICES Panel Discussion</i> <i>Cisco Werner (previous PICES Governing Council member),</i> <i>Sonia Batten (PICES Executive Secretary),</i> <i>Vera Trainer (PICES Science Board Chair)</i>
Thurs, Oct 15 19:35-19:45	3	<i>Break</i>
Thurs, Oct 15 19:45 -20:45	4	<i>Discussion on early career ocean professional engagement in PICES</i> <i>Topics include: collaborative interdisciplinary science, policy engagement & science communication,</i> <i>and early career professional coordination & diverse engagement</i>
Thurs, Oct 15 20:45 -21:00	5	<i>Conclusion/wrap-up</i>
E-POSTERS		
<i>Juhyun Yi</i>	<i>Economic feasibility of developing the low-fishmeal feed for Olive Flounder</i>	
<i>Dongliang Wang</i>	<i>Marine Fishery Policy Adjustment in China since 2011</i>	



Date / Pacific Time Victoria, BC, Canada	#	(HOST group) Session Title
Mon, Oct 26 18:00 - 19:30		<p>PICES-2020 OPENING CEREMONY</p> <ol style="list-style-type: none"> 1. Welcoming Address <i>PICES Chair, Dr. Chul Park</i> 2. Award presentations: <ul style="list-style-type: none"> • Wooster Award • POMA Award • Zhu-Peterson Early Career Scientist Award 3. PICES Year in Review <i>PICES Science Board Chair, Dr. Vera Trainer</i> 4. Opening of the Science Board Symposium <i>PICES Science Board Chair, Dr. Vera Trainer</i> 5. Short break 6. Start of SB Symposium



Date / Pacific Time Victoria, BC, Canada	#	(HOST group) Session Title
SESSION VS1 (Science Board) Science Board Session; How does 30 years of research on changing North Pacific ecosystems inform the UN Decade of Ocean Science for Sustainable Development Goals (SDGs)?		
DAY ONE: October 26, 19:30-20:30		
Mon, Oct 26 19:30 - 20:00	1	<i>Steven J. Bograd (LIVE oral)</i> <i>PICES Engagement with the UN Decade of Ocean Science for Sustainable Development</i>
Mon, Oct 26 20:00 - 20:30	2	<i>Pengbin Wang (LIVE oral)</i> <i>The contributions of Early Career Ocean Professionals to PICES within the context of the UN Decade of Ocean Science for Sustainable Development (2021-2030)</i>
DAY TWO: October 27, 18:00-21:00		
Tues, Oct 27 18:05-18:30	3	<i>Stephanie Taylor (LIVE oral)</i> <i>The International Year of the Salmon Pan Pacific High Seas Expedition 2021: A collaborative international approach to understanding how a rapidly changing ocean affects Pacific salmon</i>
Tues, Oct 27 18:30-18:55	4	<i>Misty Peacock (LIVE oral)</i> <i>Collaborative research with Indigenous partners: meeting them on their waters</i>
Tues, Oct 27 18:55-19:20	5	<i>John A. Barth (LIVE oral)</i> <i>Where are we now and where can we go with ocean technology for addressing climate change impacts on the North Pacific?</i>
Tues, Oct 27 19:20-19:45	6	<i>Carlo Cattano (VS1-RecordedOral-14948)</i> <i>Changes in fish communities due to benthic habitat shifts under ocean acidification conditions</i>



RECORDED NON-SCHEDULED TALKS

<p><i>Yumi Kobayashi, Jun Chishima, Tamura Kyohei, Toyota Masaki, Matsuda Nao, Nori Sasaki, Sekitani Yuta, and Ayumi Yamada</i></p>	<p>Population trends of the Kuril harbor seal <i>Phoca vitulina</i> from 1974 to 2020 in southeastern Hokkaido, Japan</p>
<p><i>Atsushi Yamaguchi, Hikaru Hikichi, Kohei Matsuno, Hiromichi Ueno</i></p>	<p>Yearly changes in mesozooplankton biomass in the southeastern Bering Sea shelf during the summer of 1955-2013: Insights from T/S Oshoro-Maru data VS1-RecordedOral-14927 [73 Mb, MP4] view video on YouTube</p>
<p><i>Tatiana Dautova</i></p>	<p>Vulnerable Marine Ecosystems of the Emperor Chain Seamounts: Indicator Taxa, Landscapes, and new data regarding the status and health of the North Pacific Ocean</p>

E-POSTERS

<p><i>Kui Zhang, Jianzhong Guo, Youwei Xu, Yane Jiang, Jiangtao Fan, Shannan Xu, and Zuozhi Chen</i></p>	<p>Long-term variations in fish community structure under multiple stressors in a semi-closed marine ecosystem in the South China Sea VS1-E-poster-14906 [1 Mb]</p>
<p><i>Minbo Luo, Tingting Jian</i></p>	<p>Phytoplankton community structure and environmental factors in the East China Sea VS1-RecordedOral-14942 (changed Recorded to Eposter)</p>
<p><i>Igor I. Shevchenko</i></p>	<p>PICES TCODE Catalog Service VS1-E-poster-14970 [pdf, 0.1 Mb], [MP4-1, 9 Mb], [MP4-2, 3.5 Mb]</p>



DAY THREE: October 28, 18:00-21:00

SESSION VS3 (S13): MEQ Topic Session: NOTE THIS IS A CONCURRENT SESSION WITH VS4
Using eDNA to assess and manage non-indigenous species in the North Pacific

Wed Oct 28 18:00-18:25	1	<i>Hitoshi Araki (INVITED-LIVE)</i> <i>Environmental DNA for identifying "red zone" of endangered/invasive species</i>
Wed Oct 28 18:25-18:50	2	<i>Satoshi Nagai (INVITED-LIVE)</i> <i>Recent progress of eukaryotic metabarcoding in Japanese coastal waters</i>
Wed Oct 28 18:50-19:15	3	<i>Kwang Young Kim (INVITED-LIVE)</i> <i>Early detection and quantification of non-indigenous protists using environmental DNA (eDNA)</i>
Wed Oct 28 19:15-19:35	4	<i>Sergei V. Turanov (LIVE)</i> <i>A preliminary report on the implementation of eDNA-based techniques to biodiversity monitoring of fish from the Far East of Russia</i>
BREAK: 19:35-19:50		
Wed Oct 28 19:50-20:10	5	<i>Thomas W. Therriault (LIVE)</i> <i>Applied molecular biosurveillance in the Northeast Pacific part I: integrating a new eDNA tool for broad detection capacity</i>
Wed Oct 28 20:10-20:30	6	<i>Kristen Marie Westfall (LIVE)</i> <i>Applied molecular biosurveillance in the Northeast Pacific part II: improving targeted detection and quantification</i>
Wed Oct 28 20:30-20:50	7	<i>Jeanette Davis (LIVE)</i> <i>The use of eDNA as an intergovernmental approach to tracking and managing nonindigenous species in the USA</i>

GENERAL DISCUSSION: 20:50-21:00

E-POSTERS

<i>Shufang Liu, Ming Mu, Zhimeng Zhuang</i>	<i>Influencing factors and quantitative evaluation of environmental DNA metabarcoding</i> <i>VS3-E-poster-14931</i>
<i>Yun-Sik Lee, Michael Dadole Ubagan, Taekjun Lee, Seung Bin Park, Bal Dev Bhattra, Sook Shin</i>	<i>Distribution and Occupancy Status of Alien Barnacles in South Korea</i> <i>VS3-E-poster-14968</i>
<i>Taekjun Lee, Michael Dadole Ubagan, Taekjun Lee, Seung Bin Park, Bal Dev Bhattra, Sook Shin</i>	<i>First record of non-indigenous colonial ascidian in the Korean coasts, confirmed by DNA Barcoding</i> <i>VS3-E-poster-14969</i>
<i>Chunjiang Guan, Yanlong Chen, Yongjian Liu, Yujuan Ma, Lu Yang, Jialu Shi, Jingfang Zhang</i>	<i>Monitoring of drifting seaweed (<i>Sargassum horneri</i>) in Liaodong Bay in 2020</i> <i>VS3-E-poster-14989 [1 Mb]</i>



DAY THREE: October 28, 18:00-21:00

SESSION VS4 (S14): FIS Topic Session: NOTE THIS IS A CONCURRENT SESSION WITH VS3
Implementing a collaborative, integrated ecosystem high seas survey program to determine climate/ocean mechanisms affecting the productivity and distribution of salmon and associated pelagic fishes across the North Pacific Ocean

Wed Oct 28 18:00-18:05		<i>Introduction by Convenors</i>
Wed Oct 28 18:05-18:30	1	<i>Dick Beamish and Brian Riddell (LIVE)</i> <i>Gulf of Alaska expeditions in 2019 and 2020</i>
Wed Oct 28 18:30-18:50	2	<i>Evgeny Pakhomov and Albina Kanzeperova + International TEAMS of the 2019 and 2020 Gulf of Alaska Expeditions (LIVE)</i> <i>Comparative oceanographic conditions during the International Gulf of Alaska Expedition 2019 and 2020</i>
Wed Oct 28 18:50-19:10	3	<i>Christoph M. Deeg (LIVE) with Albina Kanzeperova, Alexei Somov, Svetlana Esenkulova, Emiliano Di Cicco, Karia H. Kaukinen, Amy Tabata, Tobi J. Ming, Shaorong Li, Richard J. Beamish, and Kristina M. Miller</i> <i>Way out there: Pathogens and stressors of overwintering salmon in the Gulf of Alaska</i>
Wed Oct 28 19:10-19:30	4	<i>Laurie Weitkamp (LIVE) with Chrys Neville, Alexey A Somov, Albina Kanzeperova</i> <i>Potential effects of wounds and sea lice on the health of Pacific salmon on the high seas</i>
BREAK 19:30 - 19:50		
Wed Oct 28 19:50-20:10	5	<i>Brian Hunt (LIVE) with Evgeny A. Pakhomov, Alexei Somov, Albina Kanzeperova, Mikhail Zuev, Vladimir Radchenko</i> <i>Food web structure and salmon trophic ecology in late winter in the Gulf of Alaska</i>
Wed Oct 28 20:10-20:30	6	<i>Charles D. Waters (LIVE) with Chrys Neville, Todd Miller, Emily Fergusson, Dion Oxman, and Edward Farley Jr.</i> <i>Winter energetic status of Pacific salmon in the Gulf of Alaska</i>
Wed Oct 28 20:30-20:50	7	<i>Sarah Z. Rosengard (LIVE) with Cameron Freshwater, Skip McKinnell, Yi Xu, Philippe Tortell</i> <i>Co-variability of Fraser River sockeye productivity and phytoplankton biomass distributions in the NE Subarctic Pacific Ocean</i>

Closing remarks from convenors 20:50 - 21:00

Please see next two pages for associated recorded non-scheduled talks and e-posters.



RECORDED NON-SCHEDULED TALKS

<p>Lisha Guan, Xiujuan Shan, Xianshi Jin, Tao Yang, Zhongyi Li, Harry Gorfine</p>	<p><i>Simultaneous evaluations on the spatio-temporal dynamics of major fish stocks: a case study of the Bohai Sea ecosystem in China</i> VS4-RecordedOral-14909</p>
<p>Halle Berger, Samantha Siedlecki, Catherine Matassa, Simone Alin, Isaac Kaplan, Emma Hodgson, Darren Pilcher, Emily Norton and Jan Newton</p>	<p><i>A regional vulnerability assessment for the Dungeness crab (<i>Metacarcinus magister</i>) to changing ocean conditions: Insights from model projections and empirical experiments</i> VS4-RecordedOral-14933 [NOT OPEN to public, Login to view] [MP4, 25 Mb]</p>
<p>Siyu Meng, Xun Gong, Yang Yu, Xiaohong Yao, Xiang Gong, Keyu Lu, Chao Zhang, Jie Shi, Xiaojie Yu, Huiwang Gao</p>	<p><i>Strengthened Ocean-desert Process in the North Pacific over the Past Two Decades</i> VS4-RecordedOral-14946</p>
<p>Ferdenant A. Mkrtchyan, Vladimir F. Krapivin</p>	<p><i>GIMS technology in remote monitoring of ocean ecosystems</i> VS4-RecordedOral-14974 [0.5 Mb, pdf], [MP4, 2 talks, 11 Mb]</p>
<p>Ferdenant A. Mkrtchyan, Vladimir F. Krapivin, Vladimir V. Klimov and Vladimir Yu. Soldatov</p>	<p><i>Some aspects of the microwave radiometry and spectroellipsometric technologies for monitoring aquatic systems</i> VS4-RecordedOral-14975 [2.5 Mb, pdf], [MP4, 2 talks, 11 Mb]</p>
<p>Megumi Enomoto, Shin-ichi Ito, Motomitsu Takahashi, Chiyuki Sassa, Tomihiko Higuchi and Kotaro Shirai</p>	<p><i>Vertical habitat changes of juvenile Japanese jack mackerel (<i>Trachurus japonicus</i>) estimated by otolith microchemistry</i> VS4-Eposter-14986</p>
<p>Brian K. Wells, Nate J. Mantua, Brian J. Burke and Jerome Feichter</p>	<p><i>An ecosystem-science approach to support salmon management</i> VS4-RecordedOral-14992</p>
<p>Peng Lian, Zelin Chen, Jiayue Gu, Suwen Ye, Hao Xun, Fan Yang, Yinxing Liu, Meiqi Zhang</p>	<p><i>Study on the response mechanism of Yellowfin Tuna <i>Thunnus albacores</i> to the ocean heat content in the Indian Ocean</i> VS4-RecordedOral-15005</p>



E-POSTERS

<i>Nina Okrestina, Maxim Zharkov, Olga Isaeva</i>	<i>Use of natural food attractants in the diet of Pacific salmon fish (<i>Oncorhynchus kisutch</i>) on Kamchatka</i> VS4-E-poster-14900 [3 Mb]
<i>Georgy Shevchenko, Valery Chastikov</i>	<i>Amur River water and sea ice on northeastern Sakhalin shelf in June</i> VS4-E-poster-14902 [2 Mb]
<i>Dmitry Lozhkin, Georgy Shevchenko</i>	<i>SST lowering in the Sea of Okhotsk as the result of global warming</i> VS4-E-poster-14903 [2 Mb]
<i>Anastasia M. Khrustaleva, Ekaterina V. Ponomareva and Marya V. Ponomareva</i>	<i>Microevolutionary processes in Asian sockeye salmon <i>Oncorhynchus nerka</i> populations during Late Pleistocene climatic oscillations</i> VS4-E-poster-14949 [3 Mb]

DAY FOUR: October 29, 18:00-21:00

SESSION VS5 (S5): October 29, 18:00-21:00

BIO/POC Topic Session

Atmospheric nutrient deposition and microbial community responses, and predictions for the future in the North Pacific Ocean

Thurs Oct 29 18:00-18:10	Intro	<i>Co-chairs (LIVE)</i> <i>Session introduction</i>
Thurs Oct 29 18:10-18:30	1	<i>Clarissa Baldo (LIVE oral)</i> <i>Atmospheric aerosol iron from coal combustion</i>
Thurs Oct 29 18:30-18:50	2	<i>Lei Huang (LIVE oral)</i> <i>Atmospheric outflow of anthropogenic iron and its deposition to China adjacent seas</i>
Thurs Oct 29 18:50-19:10	3	<i>Qin Wang (LIVE oral)</i> <i>Impact of atmospheric deposition on phytoplankton community structure in the Yellow Sea</i>
Thurs Oct 29 19:10-19:30	4	<i>Asuto Sakai (LIVE oral)</i> <i>High-frequency observation of the spring bloom in the western North Pacific by Himawari-8</i>
BREAK: 19:30-19:50		
Thurs Oct 29 19:50-20:10	5	<i>Andrew R.S. Ross (LIVE oral)</i> <i>Spatial and temporal variations in copper ligand concentration along Line P</i>
Thurs Oct 29 20:10-20:30	6	<i>Haoyu Jin (LIVE oral)</i> <i>Air pollutants promote the utilization of dissolved organic phosphorus (DOP) by phytoplankton in China coastal seas</i>
Thurs Oct 29 20:30-20:50	7	<i>Yang Gao (LIVE oral)</i> <i>Elucidating the role of climate and emission in modulating the atmospheric nitrogen deposition over the North Pacific Ocean</i>

Closing remarks from convenors

Please see next two pages for associated recorded non-scheduled talks and e-posters.



RECORDED NON-SCHEDULED TALKS	
Gloria S. Duran Gomez, and Takeyoshi Nagai	<i>Elevated nutrient supply caused by the Kuroshio approaching to the continental shelf in the south of Japan associated with submesoscale flows and near-inertial waves</i> VS5-RecordedOral-14908
Ja-Myung Kim, Kitack Lee, In-Seong Han, Joon-Soo Lee, Yang-Ho Choi, Ju Hyeon Lee and Ji-Young Moon	<i>Anthropogenic nitrogen-induced changes in seasonal carbonate dynamics in a productive coastal environment</i> VS5-RecordedOral-14930
Emily A. Miller, Susan E. Lisin, Celia M. Smith and Kyle S. Van Houtan	<i>Herbaria macroalgae as a proxy for historical upwelling trends in Central California</i> VS4-VS5-RecordedOral-14962
Kazuki Kamezaki, Shohei Hattori, Yoko Iwamoto, Sakiko Ishino, Hiroshi Furutani, Mitsuo Uematsu, Kazuhiko Miura and Naohiro Yoshida	<i>New ocean-atmosphere biogenic nitrogen recycling in the equatorial Pacific</i> VS5-RecordedOral-14979 [pdf, 12 Mb], [MOV, 20 Mb] view video on YouTube
Yuta Sakuragi, Vladimir N. Burkanov, Russel D. Andrews and Yoko Mitani	<i>Diving classification of lactating northern fur seals based on three-dimensional movements</i> VS5-RecordedOral-14985
E-POSTERS	
Koki Yamanaka, Yoshiko Kondo, Natsuho Fujita, Yudai Sunahara and Hajime Obata	<i>Fe redox status and its bioavailability in the East China Sea shelf break area</i> VS5-E-poster-14912 [0.7 Mb]
Seonock Woo	<i>Microbiome Composition of Azooxanthellate Coral and Seawater in the South Sea</i> VS5-E-poster-14914 [0.5 Mb]
Haowen Li, Ying Chen, Shengqian Zhou, Fanghui Wang, Tianjiao Yang, Yucheng Zhu and Qingwei Ma	<i>Change of dominant phytoplankton groups in the eutrophic coastal sea due to atmospheric deposition</i> VS5-E-poster-14915 [2.5 Mb]
Shengqian Zhou, Ying Chen, Shan Huang, Guipeng Yang, Honghai Zhang, Adina Paytan, Hartmut Herrmann, Alfred Wiedensohler, Laurent Poulain, Haowen Li, Fanghui Wang, Yucheng Zhu, Tianjiao Yang	<i>On the relationship between aerosol methanesulfonate and surface phytoplankton biomass in the mid-latitude oceans of the Northern Hemisphere</i> VS5-E-poster-14917 [2.5 Mb]
Lin Liu, Juan Li	<i>Extreme sea level rise off the northwest coast of the South China Sea in 2012</i> VS5-E-poster-14918 [1 Mb]
Nayun Lee, Seungshic Yum and Seonock Woo	<i>Differentially expressed genes of octocoral, <i>Eleutherobia rubra</i> against heat stress and the local environment</i> VS5-E-poster-14921 [1 Mb]



E-POSTERS - continued	
<i>Olga G. Shevchenko, Kirill O. Tevs</i>	<i>Dominant microalgae species in Paris Bay (Peter the Great Bay, Sea of Japan) near the net pens with marine mammals</i> VS5-E-poster-14922 [2.5 Mb]
<i>Rumi Naoe, Shigenobu Takeda, Kei Tamura and Masataka Doi</i>	<i>Spatial distributions of atmospheric water soluble nitrogen and phosphorus depositions to the Pacific Ocean</i> VS5-E-poster-14926 [3 Mb]
<i>Mona Mostafaei, Ann-Lise Norman</i>	<i>Trans-Pacific transport signals of Asian dust from 1998-2011 in aerosols at Saturna Island, B.C</i> VS5-E-poster-14932
<i>Anna A. Ponomareva, Olga G. Shevchenko, Kirill O. Tevs</i>	<i>Dynamics of the bloom-forming genus Skeletonema from the Peter the Great Bay (Sea of Japan)</i> VS5-E-poster-14935 [16 Mb]
<i>Chao Zhang, Zongbo Shi, Yan Zhang and Huiwang Gao</i>	<i>Air emissions from shipping stimulate oceanic phytoplankton growth</i> VS5-E-poster-14937
<i>Kanako Amei, Ryo Dobashi, Naoto Jimi, Minoru Kitamura and Atsushi Yamaguchi</i>	<i>Diel, seasonal, and vertical changes in abundance, biomass, and community structure of the pelagic polychaetes down to 1000 m depths in the western subarctic Pacific Ocean</i> VS5-E-poster-14941 [NOT OPEN to public, Login to view]
<i>Gang Yuan, and Jianhua Qi</i>	<i>Concentration distribution of atmospheric particulate nitrogen and phosphorus over the North Pacific Ocean</i> VS5-E-poster-14953 [1.5 Mb]
<i>Jiao Wang, Ming Zhou, Bao-shuang Liu, Jian-hui Wu, Xing Peng, Yu-fen Zhang, Su-qin Han, Yin-chang Feng, Tan Zhu</i>	<i>Characterization and source apportionment of size-segregated atmospheric particulate matter collected at ground level and from the urban canopy in Tianjin, a coastal city</i> VS5-E-poster-14961 [0.5 Mb]
<i>Hitoshi Kaneko, and Shin-ichi Ito</i>	<i>Horizontal scale of chlorophyll a variability affected by eddy activities in the midlatitudes of global oceans</i> VS5-E-poster-14964
<i>Feng Xu, Xu-Xu Gao, Hong-Hai Zhang and Gui-Peng Yang</i>	<i>Occurrence and cycle of biogenic dimethyl sulfide in the western Pacific Ocean and its contribution to atmospheric sulfate aerosols</i> VS5-E-poster-14972
<i>Liliya A. Pozolotina, Anna V. Klimova, Nina G. Klochkova</i>	<i>Zinc and lead accumulation by Fucus distichus (Fucales) in coastal waters of southeastern Kamchatka and Commander Islands during 2000-2020</i> VS5-E-poster-14976 [2 Mb]
<i>Shan-Shan Liu, Zhen He and Gui-Peng Yang</i>	<i>Spatial distributions of methyl halides and influence of nitrate concentration on their production in the western Pacific Ocean (2 °N to 24 °N)</i> VS5-E-poster-14978



GP: General E-Poster Session	
Mikhail A. Stepanenko, and Elena V. Gritsay	<i>The role of environmental indicators in ecosystem-enhanced Bering Sea pollock fishery management</i> GP-E-poster-14895 [5 Mb]
V.S. Labay, G.V. Shevchenko, I.V. Motylkova, N.V. Konovalova, I.A. Atamanova, V.N. Chastikov, R.V. Turchin, B.A. Dotzenko	<i>Oceanographic and biological conditions ensuring the presence of a high productive bottom community in the Marine feeding area of gray whales near north-eastern Sakhalin Island</i> GP-E-poster-14898 [2 Mb]
Chunmao Zhu, Yugo Kanaya, Ryota Nakajima, Masashi Tsuchiya, Hidetaka Nomaki, Tomo Kitahashi, Katsunori Fujikura	<i>Rapid detection of aquatic microplastics on filter substrates based on hyperspectral imaging</i> GP-E-poster-14894 [NOT OPEN to public, Login to view]
Wei Yu, Jian Wen, Zhong Zhang, Xinjun Chen and Yang Zhang	<i>Spatio-temporal variations in the potential habitat of neon flying squid in the Northwest Pacific Ocean</i> GP-E-poster-14905 [NOT OPEN to public, Login to view]
Ye Jin Jo, Seungshic Yum and Seonock Woo	<i>Identification of functional genes in deep-sea corals from seamounts in West Pacific by de novo RNA sequencing</i> VS5-E-poster-14920 [1 Mb]
David W. McGowan	<i>Spatial and temporal dynamics of Pacific capelin (<i>Mallotus catervarius</i>) in the Gulf of Alaska: using data synthesis to improve monitoring of small pelagic fishes in the Northeast Pacific</i> GP-E-poster-14923 [2 Mb]
Yongjiu Xu, Hongliang Zhang, Joji Ishizaka, Cungen Yu, Huijun Wang, Yali Hu	<i>Seasonal dynamics of dominant fish populations in Zhoushan Archipelago Seas: role of oceanic front and fishing</i> GP-E-poster-14939
Amrtatjuti V. Sereda	<i>Enhance ecosystem-based approach principles in Marine Policy of Pacific Russia to contribute to fulfilling the Ocean Decade Challenges</i> GP-E-poster-14955
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AMAP	Arctic Monitoring and Assessment Program
CERF	Coastal and Estuarine Research Federation
CLIVAR	Climate and Ocean - Variability, Predictability and Change
NANOOS	Northwest Association of Networked Ocean Observing Systems
NOWPAP	Northwest Pacific Action Plan
NPAFC	North Pacific Anadromous Fish Commission
NPFC	North Pacific Fisheries Commission
POGO	Partnership for Observation of the Global Oceans
PSC	Pacific Salmon Commission
SOLAS	Surface Ocean Lower Atmosphere Study
SCOR	Scientific Committee on Oceanic Research