

# BIO Paper Session

Co-Convenors: *Michael J. Dagg (U.S.A.) and Sinjae Yoo (Korea)*

Oral and poster presentations on biological aspects of the Annual Meeting theme are welcome, as well as papers on all aspects of biological oceanography in the North Pacific and its marginal seas (except those related to the BIO-sponsored Topic Sessions S3 and S8). Early career scientists are especially encouraged to submit papers to this session.

## Friday, October 30 (9:00-17:50)

- 9:00 **Introduction by Convenors**
- 9:05 **David Mackas, Sonia Batten, Ken Coyle and Russ Hopcroft**  
Perspectives on a decade of change in the Alaska Gyre: A comparison of three Northeast Pacific zooplankton time series (BIO-P-5937)
- 9:25 **Bryan A. Black**  
Growth-increment chronologies reflect ecosystem responses to climate variability in the northeastern Pacific (BIO-P-5884)
- 9:45 **Seung-Hyun Son, Meng-Hua Wang and Jae Hoon Noh**  
Satellite-observed chlorophyll *a* data in the dump site of the Yellow Sea (BIO-P-5703)
- 10:05 **Shinji Shimode and Atsushi Tsuda**  
Geographical distribution and ontogenetic migration of *Eucalanus californicus* (Johnson) in the western North Pacific Ocean (BIO-P-5851)
- 10:25 **Coffee / tea break**
- 10:50 **Mi Hee Chung and Won Duk Yoon**  
Variation of the epiphytic community and biomass on *Zostera marina* (eelgrass) related to the host plant and environmental factors (BIO-P-5863)
- 11:10 **Tatyana N. Krupnova and Yury I. Zuenko**  
Development *Laminaria japonica* early stages in the coastal waters of Primorye caused by climate change (BIO-P-5810)
- 11:30 **Hongyan Bao, Ying Wu, Lixin Tian, Jing Zhang and Guiling Zhang**  
Sources and distributions of terrigenous organic matter in a mangrove-dominant small tropical estuary, South China (BIO-P-5867)
- 11:50 **Evgenia E. Vekhova, Michael I. Kusaykin and Konstantin V. Kiselev**  
The phytoplankton contribution to the common mussel diet (*Bivalvia*: Mytilidae) of the Sea of Japan (BIO-P-5835)
- 12:10 **Anastasia Dolganova**  
Modern condition of fauna of *Polychaeta* in the Amur Bay (Peter the Great Bay, Sea of Japan) (BIO-P-5565)
- 12:30 **Lunch**
- 13:50 **Toru Kobari, Haruko Mori and Hitomi Tokushige**  
Nucleic acid and protein contents of ontogenetically migrating copepods in the subarctic Pacific Ocean as influenced by development stage and depth (BIO-P-5561)

- 14:10 **Young-Ok Kim, Pung-Guk Jang, Eun-Jin Yang, Seung-Won Jeong and Kyoungsoon Shin**  
Tintinnid species as biological sensors for monitoring the Kuroshio Extension in Korean coastal waters (BIO-P-5897)
- 14:30 **Yuichiro Nishibe, Shuhei Nishida and Atsushi Yamaguchi**  
Vertical distribution, population dynamics and lipid storage of the cyclopoid copepod *Oithona similis* in the Oyashio region, western subarctic Pacific (BIO-P-5813)
- 14:50 **Julie E. Keister, Emanuele Di Lorenzo, Cheryl A. Morgan, William T. Peterson, Vincent Combes and Neri Mariani**  
Zooplankton species composition is linked to ocean transport in the Northern California Current (BIO-P-5850)
- 15:10 **Elena Dulepova and Anatoly Volkov**  
East-west contrasts in production of zooplankton communities in the Bering Sea (BIO-P-5546)
- 15:30 **Naoki Tojo, Ryuichi Matsukura, Hiroki Yasuma, Kenji Minami, Akira Nishimura, Orio Yamamura, Tetsuichiro Funamoto, Satoshi Honda and Kazushi Miyashita**  
Environmentally driven seasonal distribution of zooplankton along the Pacific coast off eastern Hokkaido, Japan (BIO-P-5701)
- 15:50 *Coffee break*
- 16:10 **Yugo Shimizu, Kazutaka Takahashi, Shin-ichi Ito, Shigeo Kakehi, Hiroaki Tatebe, Ichiro Yasuda, Akira Kusaka and Tomoharu Nakayama**  
Transport of large subarctic copepods from the Oyashio area to the mixed water region by the coastal Oyashio intrusion (BIO-P-5577)
- 16:30 **C. Tracy Shaw, Leah R. Feinberg and William T. Peterson**  
Population dynamics of the euphausiids *Euphausia pacifica* and *Thysanoessa spinifera* off Newport, OR, USA in relation to environmental conditions (BIO-P-5523)
- 16:50 **Andrey Suntsov, Richard D. Brodeur and Jason Phillips**  
Interannual variability and spatio-temporal characteristics in populations of three dominant myctophid species in the northern California Current System (BIO-P-5955)
- 17:10 **Olga Yu. Tyurneva, Yuri M. Yakovlev and Vladimir V. Vertyankin**  
Photographic identification of the Korean-Okhotsk gray whale (*Eschrichtius Robustus*) offshore northeast Sakhalin Island and southeast Kamchatka Peninsula (Russia), 2008 (BIO-P-5641)
- 17:30 **Tabitha C.Y. Hui, Rowenna Flinn, Edward J. Gregr, Ruth Joy and Andrew W. Trites**  
Are Steller sea lions (*Eumetopias jubatus*) affected by prey availability in the western Gulf of Alaska and Aleutian Islands? (BIO-P-5667)
- 17:50 *Session ends*

**BIO-Paper Posters**

- BIO-P-5510 **Andrey P. Chernyaev and Alexandra S. Petrova**  
Determination of n-nonylphenol in the coastal waters of Vladivostok
- BIO-P-5519 **Chun-Yi Chang, Pei-Chi Ho, Akash R. Sastri and Chih-Hao Hsieh**  
Development and application of an automatic mesozooplankton image classification system in the East China Sea, a region of complicated hydrography
- BIO-P-5525 **Evgeniya A. Tikhomirova**  
Distribution of biogenic substances in waters of Amursky Bay (Peter the Great Bay, Japan/East Sea)
- BIO-P-5538 **You-Ree Jun, Akash R. Sastri and Chih-Hao Hsieh**  
Field estimates of size-based ingestion rate of zooplankton using FlowCAM in the subtropical western Pacific
- BIO-P-5539 **Wei-Hsuan Teng, Akash R. Sastri and Chih-Hao Hsieh**  
Investigation of size-trophic level relationships of zooplankton in different ocean environments - A stable isotope approach
- BIO-P-5556 **Atsushi Tsuda, Hiroaki Saito and Hiromi Kasai**  
Vertical distribution of large suspension feeding copepods in the Oyashio region during the growing period
- BIO-P-5557 **Atsushi Yamaguchi and Yoshimi Matsumoto**  
Life history and production of the chaetognath *Eukrohnia hamata* in the Oyashio region, western subarctic Pacific
- BIO-P-5569 **Guo Ying Du and Ik Kyo Chung**  
Estimating areal production of intertidal microphytobenthos based on spatio-temporal community dynamics and laboratory measurements
- BIO-P-5579 **Seung Ho Baek, Kyoungsoon Shin, Shinji Shimode, Myung-Soo Han and Tomohiko Kikuchi**  
The role of vertical migration and cell division on dinoflagellates *Ceratium furca* and *C. fusus*
- BIO-P-5580 **Hong-Bo Li and Fengao Lin**  
Relationships between bacterioplankton and virioplankton in coastal areas of Hebei, China
- BIO-P-5592 **Min-Chul Jang, Kyoungsoon Shin, Woo-Jin Lee and Ok-Myung Hwang**  
Grazing impact of calanoid copepods on phytoplankton size-fractions in Jangmok Bay, South Coast Korea
- BIO-P-5594 **Pung-Guk Jang, Kyoungsoon Shin, Min-Chul Jang, Woo-Jin Lee and Hyun-Su Kim**  
The succession of phytoplankton assemblage by nutrient property on summer in the coastal area
- BIO-P-5599 **Masato Minowa, Toru Kobari, Hiroyasu Akamatsu and Toshihiro Ichikawa**  
Impacts of small copepods on sinking particles in a semi-enclosed and deep embayment
- BIO-P-5601 **Evgeniy A. Sigida, Svetlana S. Musko, Lidia I. Titova and Alexandra A. Dvornik**  
Sakhalin's shelf pelagic marine bacteria *Pseudoalteromonas* sp. and *Pseudomonas* sp. as prospective destructors of ocean oil pollution
- BIO-P-5607 **Bonggil Hyun, Kyoungsoon Shin, Min-Chul Jang, Woo-Jin Lee, Jeongmi Song and Seung Ho Baek**  
The survival possibility of introducing phytoplankton via ships ballast water

- BIO-P-5609 **Yulia V. Zavertanova, Larisa E. Vasilyeva, Olesya A. Sharova and Vladimir A. Rakov**  
Species composition of ichthyoplankton in Alekseeva Bay (Peter the Great Bay, Japanese Sea) in 2006 – 2009
- BIO-P-5614 **Bo-Bae Lee, Jae-Suk Choi, Yu-Mi Ha, Kee Hun Do and In Soon Choi**  
Inhibitory effects of seaweed extracts on *Helicobacter pylori* growth and urease activity
- BIO-P-5616 **Yu-Mi Ha, Jae-Suk Choi, Kee Hun Do, Bo-Bae Lee, Su Hwa Shin and In Soon Choi**  
Inhibitory effects of *Sargassum sagamianum* extracts on the growth of several oral pathogens and collagenase activity
- BIO-P-5650 **Zhisong Cui, Li Zheng, Li Tian, Ping Han, Xiaoying Zhang, Qian Liu, Xiaoru Wang and Frank S.C. Lee**  
Characterization of polycyclic aromatic hydrocarbons-degrading *Cycloclasticus* strains isolated from Yellow Sea sediment of China and their syntrophic effects with crude oil degraders *Alcanivorax* strains
- BIO-P-5660 **Goh Onitsuka, Masatoshi Moku, Toru Kobari, Tetsutaro Takikawa, Akihiko Morimoto, Atsushi Watanabe, Yutaka Yoshikawa and Tetsuo Yanagi**  
Distribution of nutrients and plankton around the lee eddy of the Tsushima Islands
- BIO-P-5663 **Li Zheng, Baijuan Yang, Junhui Chen, Jiaye Zang and Xiaoru Wang**  
Primary source identification of the invasive *Enteromorpha prolifera* in Qingdao based on hierarchical cluster analysis of fatty acids
- BIO-P-5683 **Takeshi Terui and Michio J. Kishi**  
A Lagrangian ensemble model of Copepoda (*Neocalanus cristatus*) in the northwestern subarctic Pacific
- BIO-P-5704 **Seung-Hyun Son and Meng-Hua Wang**  
Marine environmental responses to the Saemangeum Reclamation Project in South Korea
- BIO-P-5705 **Seung-Hyun Son and Meng-Hua Wang**  
Temporal and spatial variability of water turbidity derived from satellite ocean color in the Yellow Sea and East China Sea
- BIO-P-5717 **Natalia P. Fadeeva, Marina S. Selina, Elena V. Smirnova and Inna L. Stonik**  
Communities of sandy beaches: What factors influence their diversity and zonation patterns in shallow subtidal environments of the northwestern part of the Sea of Japan?
- BIO-P-5734 **Kanako Toge, Masaaki Fukuwaka, Orio Yamamura and Yutaka Watanuki**  
Biennial change of pink salmon biomass and the body condition of a pelagic shearwater: Evidence of competition between fish and bird
- BIO-P-5790 **Hiroshi Koshikawa, Hironori Higashi, Masanobu Kawachi, Toru Hasegawa, Kazumaro Okamura, Yoko Kiyomoto, Kou Nishiuchi, Hideki Akiyama, Kunio Kohata and Shogo Murakami**  
Dominance of the dinoflagellate *Prorocentrum dentatum* on the central continental shelf of the East China Sea in early summer, 2007
- BIO-P-5815 **Yuji Okazaki and Kazuaki Tadokoro**  
Comparison of sampling gear (MOHT vs. BONGO net): Implication for euphausiid abundance
- BIO-P-5825 **Evgeniya A. Tikhomirova**  
Spatial and temporal variability of primary production in Amursky and Ussuriysky Bays (Japan/ East Sea) from modelling results

- BIO-P-5869 **Tetsuichi Fujiki, Kazuhiko Matsumoto, Shuichi Watanabe, Takuji Hosaka and Toshiro Saino**  
Time-series observation of phytoplankton productivity in the western subarctic gyre of the North Pacific
- BIO-P-5873 **Keiko Yamada, Sang-Woo Kim and Ji-Suk Ahn**  
Interannual variability of primary production in the East/Japan Sea estimated by satellite data, in consideration of influence of atmospheric aerosol
- BIO-P-5878 **Yuya Yamamoto, Yasuyuki Kishi, Hirotada Moki and Kisaburo Nakata**  
A model study to predict zooplankton biomass in intermediate and deep water
- BIO-P-5900 **Jiyeon Kim, Chaewoo Ma and Wongyu Park**  
Spatio-temporal variability of epifaunal distributions caused by the Hebei Spirit oil spill in the surf zone on the Hakampo beach on the west coast of Korea
- BIO-P-5906 **Toshikazu Suzuki, Hisako Mori and Daisuke Nakatsugawa**  
Spatial distribution of filamentous cyanobacteria, *Trichodesmium* spp., in spring in the East China Sea
- BIO-P-5915 **Hye Seon Kim, Ah-Ra Ko and Se-Jong Ju**  
A comparative study of the lipid dynamics of the euphausiid, *Euphausia pacifica*, from Korean seas (East/Japan Sea, South Sea, and Yellow Sea)
- BIO-P-5917 **In Joon Hwang and Hea Ja Baek**  
Acute exposure of waterborne polycyclic aromatic hydrocarbon, benzo[a]pyrene during ovarian recrudescence in a marine fish, *Chasmichthys dolichognathus*
- BIO-P-5925 **Oh Youn Kwon, Jung-Hoon Kang, Yong Hwan Cha and Man Chang**  
Environmental factors affecting dynamics of the phytoplankton community in port baseline surveys in Korea
- BIO-P-5926 **Joji Ishizaka, Hisashi Yamaguchi, Sarat Tripathy, Takashi Makino, Takeshi Matsuno and Takahiro Endoh**  
Short term variability of primary production in the Changjiang River Plume in the East China Sea observed in summer 2008
- BIO-P-5941 **Soo-Jung Chang, Donghyun Lim, Won Duk Yoon and Suam Kim**  
A phylogenetic study of Medusozoa (Scyphozoa, Hydrozoa) in Korean waters
- BIO-P-5951 **Young Shil Kang, Weol Ae Lim, Young Sik Lee and Yang-Soon Kang**  
Ecosystem consequence of a *Noctiluca scintillans* bloom in the southern coast of the Korean Peninsula
- BIO-P-5981 **Ji-Woong Ko, M. Sidharthan, Sung Hwan Cho, Seock Jung Han and Hyun Woung Shin**  
Climate change triggered fecundity of the solitary ascidian, *Herdmania momus* in the Jeju coast, Korea: Implications for benthic community structure and artificial reef function

