

# **W2** CCCC/REX Workshop **The seasonal cycle of plankton production in continental shelf waters around the Pacific Rim**

*Workshop Convenors: Kaoru Nakata (Japan) and William T. Peterson (U.S.A.)*

The REX Task Team has the responsibility for developing inter-comparisons among regional coastal marine ecosystems. Given that the long-term goal of the PICES CCCC Program is the application of models to understanding the influence of climate variability on plankton and fish production in the North Pacific, near-term goals are: (a) to learn more about the influence of climate variability on plankton production cycles, and (b) to determine if we can model the seasonal cycle of plankton production with the NEMURO model at many sites around the Pacific Rim.

At this workshop, we hope to locate as many site-specific studies as possible, each with several years of observations for as many boxes in the NEMURO lower tropic level model as is possible in order to facilitate model verification studies that must be conducted in the future. Since NEMURO is an NPZ model, successful model<>data comparisons will require data sets on temporal changes in light, nutrients, phytoplankton and zooplankton over (ideally) several seasonal cycles. Although the long-term objective of the workshop is to facilitate model-comparisons at many sites around the Pacific Rim (including the Bering Sea), the proximate goal is to discuss linkages and time lags between primary and secondary production cycles; and where possible, the potential match-mismatch between phytoplankton and zooplankton biomass cycles and the spawning and growth of important fish species. If long time series are available, we ask “How do interannual and decadal scales differences in the timing of the spring bloom and other blooms affect zooplankton production and fish spawning?” The possibility of publishing the results in the *Journal of Oceanography* will be explored.

*Thursday, October 14, 2004 9:00-17:00*

- 09:00-09:10     **Introduction by Convenors**
- 09:10-09:45     **Yasuhiro Yamanaka, Naoki Yoshie, Taketo Hoshioka and Michio J. Kishi** (Invited)  
Extension of NEMURO to represent habitat segregation of plankton groups in the western North Pacific (W2-1886)
- 09:45-10:10     **Hiromi Kasai and Tsuneo Ono**  
Variability in timing and magnitude of the spring bloom in the Oyashio water: An analysis from the “A-line” oceanographic database (1990-2003) (W2-2016)
- 10:10-10:30     **Coffee break**
- 10:30-10:55     **Atsushi Yamaguchi, Tsutomu Ikeda, Toru Kobari, Gadi Padmavati, Satoko Shoden, Sei-ichi Saitoh and Kenshi Kuma**  
Year-to-year variations in developmental timing of large grazing copepods at Site H in the Oyashio region (W2-1866)
- 10:55-11:20     **Kaoru Nakata, Kiyotaka Hidaka, Yutaka Hiroe, Akihiro Shiimoto, Tomoo Watanabe, Kosei Komatsu, Kiyo Kurita and Hiroshi Kiyosawa**  
Seasonality in the community structure of planktonic ecosystem in the epipelagic layers of the subtropical water off Kuroshio (W2-2100)
- 11:20-11:45     **Toru Kobari**  
Seasonal changes in plankton biomass, production and community structure in southern Japan (W2-1816)

- 11:45-12:10     **Hyun-Cheol Kim, Sinjae Yoo and Im Sang Oh**  
Relation between phytoplankton blooming and wind stress in the central Japan/East Sea (W2-1887)
- 12:10-13:30     **Lunch**
- 13:30-14:05     **Young Shil Kang** (Invited)  
Variability in seasonal cycles of zooplankton in the seas surrounding the Korean peninsula (W2-2126)
- 14:05-14:30     **Christine L. Abraham, Shaye G. Wolf, J. Mark Hipfner and William J. Sydeman**  
The seasonal cycle of euphausiid zooplankton in the California Current system: A predator's perspective (W2-2074)
- 14:30-14:55     **William Peterson, Rian Hooff, Leah Feinberg and Tracy Shaw**  
Seasonal cycle of nutrients, phytoplankton and zooplankton in the coastal upwelling zone off Oregon, U.S.A. (W2-2082)
- 14:55-15:15     **Coffee break**
- 15:15-15:40     **Thomas C. Wainwright, Rian C. Hooff and William T. Peterson**  
Seasonal dynamics of plankton in the northern California Current ecosystem: A model-data comparison (W2-2045)
- 15:40-17:00     **Discussion of future directions**

## Posters

### **Hui Liu, Laura M. Slater, Cheryl Clarke and Russell R. Hopcroft**

Growth rates, fecundity and development times of *Neocalanus flemingeri* in the Gulf of Alaska: A synthesis of laboratory and field approaches (W2-1932)

### **Alexei I. Pinchuk and Russell R. Hopcroft**

Egg production and early development of *Thysanoessa inermis* and *Euphausia pacifica* (Crustacea: Euphausiacea) in the northern Gulf of Alaska (W2-1933)

### **Hyeon Gyeong Jeong, Ho Young Soh, Yang Ho Yoon and Hae-Lip Suh**

Seasonal variation of the neustonic zooplankton community in the central region of the South Sea, Korea (W2-2057)

### **Yeongha Jung, Hyung-Ku Kang and Yong Joo Kang**

*In situ* egg production rate of the planktonic copepod *Acartia steueri* in Ilkwang Bay, southeastern coast of Korea (W2-1954)