

# S5 MEQ Topic Session

## The role of submerged aquatic vegetation in the context of climate change

*Co-Convenors: Ik-Kyo Chung (Korea) and Hiroshi Kawai (Japan)*

This session will focus on the practical measures utilizing submerged aquatic vegetation (SAV) such as seaweeds and sea grasses in coping with climate change in coastal regions. Discussion is expected on immediate and practical SAV measures that mitigate and adapt against global warming and sea level rise. Participants will present papers highlighting their ideas on such practical measures against climate change and global warming as well as on other pertinent subjects.

### Wednesday, October 28 (9:00-12:30)

- 9:00 **Introduction by Convenors**
- 9:10 **Xuelei Zhang, X.J. Zhang and J.W. Wang**  
Restoration of seagrass/algal beds as a measure to abate climate change (S5-5700)
- 9:30 **Kwang-Seok Park, Hyung-Suek Kim, Heon-Woo Park, Gun-Mok Sohn and Hyeon Park**  
Climate change adaptation using seaweed bed of BioSlag in marine environment (S5-6000)
- 9:50 **I. Nyoman Radiarta, Sei-Ichi Saitoh and Toru Hirawake**  
The impact of climate change on the development of marine aquaculture: A case study on Japanese scallop aquaculture in Funka Bay, Hokkaido, Japan (S5-5619)
- 10:10 **Seokjin Yoon and Michio J. Kishi**  
Estimation of the role of eelgrass and associated epiphytic algae on the carbon cycle in Akkeshi Lake, Japan (S5-5637)
- 10:30 **Coffee / tea break**
- 10:50 **Taehee Na, Ik Kyo Chung and Tongsup Lee**  
Estimation of carbon sequestration by seaweed beds (S5-5589)
- 11:10 **Hack-Churl You, Munho Sohn and Grevo Gerung**  
Red-algae pulp and paper, bio-ethanol (S5-5962)
- 11:30 **Eduard A. Titlyanov and Tamara Titlyanova**  
Coral-algal competition on damaged reefs (S5-5688)
- 11:50 **Sang Yong Lee and Yong-Gun Gong**  
Seasonal variation in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values for the temperate seagrass *Zostera marina* and its relation to leaf production (S5-6003)
- 12:10 **Tatyana N. Krupnova, Vladimir A. Pavlyuchkov and Vera V. Agarkova**  
Resource management of sea urchin *Strongylocentrotus intermedius* on the basis of its biotic relations with brown alga *Laminaria japonica* (S5-5848)
- 12:30 **Session ends**

**S5 Posters**

- S5-5732 **Miryang Kim, Jeong Chan Kang, Jong Chul Lee and Myung Sook Kim**  
Subtidal macroalgal species diversity during wintertime in Jeju Island, Korea
- S5-5742 **Sang Rul Park and Kun-Seop Lee**  
Growth and photosynthetic characteristics of three *Zostera* spp. (*Z. japonica*, *Z. marina* and *Z. caespitosa*) along vertical gradient: Implications for seagrass zonation
- S5-5794 **Seong Cheol Kim, Mi Sook Hwang, Jae Min Baek, Seock Jung Han, Nack Joong Choi, Mi Kyung Choe and Moon Ho Yang**  
Management of artificial coastal CO<sub>2</sub> removal belt in Korea
- S5-5856 **Yoon-Seok Choi, Choonkoo Jung and Min-Woo Park**  
The effect of geochemical characteristics and environmental factors on the growth of cultured ark shell *Scapharca broughtonii* at several shellfish-farming bays on the south coast of Korea
- S5-6001 **Ik Kyo Chung, Kwang-Seok Park, Hyung-Suek Kim, Jin-Hwan Hwang, Jae-Young Lee and Jung Hyun Oak**  
Research and development roadmap for climate change adaptation and CO<sub>2</sub> mitigation in the Korean maritime and fisheries sector
- S5-6002 **Jin Ae Lee, Jung Hyun Oak and Siew-Moi Phang**  
The Asian Network for Using Algae as a CO<sub>2</sub> Sink of the Asian Pacific Phycological Association