

Kyong Ha^{1,2}, Min-Ho Jang², Gea-Jae Joo², Noriko Takamura¹

¹Landscape Ecology Research Team, National Institute for Environmental Studies, Tsukuba, Japan; ²Department of Biology, Pusan National University, Busan, Korea

Grazer-induced colony formation was examined using two strains of blue-green alga *Microcystis aeruginosa* Kutzling and green alga *Scenedesmus dimorphus* (Turpin) Kutzling. Each alga was cultured in a medium with or without filtered water in which *Daphnia magna* or *Moina macrocopa* had been reared. Colony formation was obviously promoted in both *Scenedesmus* and *Microcystis* by exposure to zooplankton filtered water (ZFW), although the colony formation of *Microcystis* was weakly influenced by ZFW rather than that of *Scenedesmus*. The particle volume as well as the number of cells per one colony of both *Scenedesmus* and *Microcystis* increased between 24 and 48 hours after exposure to ZFW, which were caused by an infochemical released from *Daphnia* or *Moina* probably as a part of defense mechanism against zooplankton grazing.

B431 Fish fauna survey and fish capture using different mesh size of gill net in two different habitats of the tropical Perak River, Malaysia

Ga-ik Cho¹, Min-Ho Jang¹, Ahyudin B. Ali² and Gea-Jae Joo¹

¹ Department of Biology, Pusan National University; ² School of biological science, Universiti sains Malaysia.

Perak River is the 2nd largest river system in the Peninsular Malaysia with 15,151 km² of catchment area. The river flows into the Malacca Sea. Within this basin, annual precipitation varies from 1,500 mm to 3,600 mm. We surveyed fish fauna at two different sites of the river in Sept. 2001. One is the largest riverine reservoir, Temenggor that was located in upper part

of the river, and the other is the estuarine part of the river, Teluk Intan. Twelve species with 136 individuals (6 families) were collected and Cyprinidae *Mystacoleucus marginatus* dominated (relative abundance, 35.3%) in Temenggor Reservoir. Cyprinidae (86.0%) was dominant family. 155 individuals of 14 family 17 species were collected and *Parambassis apogonoides* (Chandidae) was dominant (21.3%) in Teluk Intan. Arridae (29.7%) was dominant family. On using mesh size 5 cm of gill net, collected species and individuals (20 species with 117 individuals) were higher than others (total 5 mesh size classes; 3 times of collection). Highest capture of fish occurred from 18:00 to 02:00 (19 species with 159 individuals).

B432 Seasonal Changes of the Phytoplankton Community in the Imjin River

Kyung Lee and Sook-Kyung Yoon¹

School of Life Sciences, The Catholic University of Korea

Seasonal changes of the phytoplankton community structure was investigated from July 2000 to April 2001 at five stations in the Imjin River. The phytoplankton standing crops varied from 89,431 cells/ℓ at station 1 in October 2000 to 8,825,050 cells/ℓ at station 3 in April 2001. There was a bimodal pattern showing maximum of phytoplankton standing crops on April and July-October at the all investigated stations except for the station 1 in October 2000 and January 2001. The major dominant species were *Achnanthes minutissima*, *Anabaena* sp., *Aulacoseira ambigua*, *A. granulata*, *A. graunulata* v. *angustissima*, *Cylindrotheca closterium*, *Cymbella affinis*, *Diatoma vulgare*, *Merismopedia elegans*, *Stephanodiscus hantzschii* f. *tenuis*, and especially *Aulacoseira* sp. and *Stephanodiscus* sp. were major dominant species at the all investigated stations except for the station 1.