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Recolonization of benthic macroinvertebrate communities  
after aquatic habitat disturbance in streams.

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Recently the streams are closely related to many human activities. Therefore streams are much affected by artificial disturbances such as riverine development and gravel-mining as well as physicochemical deterioration of water quality. The goal of the present study was to elucidate the restoration process of the secondary community after artificial disturbances in small scales. Field experiments were conducted from 3 sites under different environmental conditions in the natural and the urbanized stream. The results showed that restorative patterns in terms of individual and species numbers were dependent on the environmental conditions and had significant differences among them. The restorative patterns in terms of taxa and functional feeding groups also showed significant differences. Furthermore the biological indices and measured values of physicochemical factors differed among communities from 3 different sites. The result indicated that the restoration process of the community depended on the degree of artificial impacts in streams. This study demonstrated that disturbance of habitats for benthic macroinvertebrates affected important roles in structures and functions of the aquatic community.

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Life History of Two Potamanthid mayflies (*Potamanthus yooni* and  
*Rhoenanthus coreanus*: Potamanthidae, Ephemeroptera) in Korea

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Life history of *Potamanthus yooni* and *Rhoenanthus coreanus* was studied in the Kapyong stream, Kyonggi-do, from February 1997 to September 1998. Samplings were taken quantitatively by Surber net (50x50cm, mesh size: 0.05mm) once a month but twice a month in the emergence period. *P. yooni* was univoltine with emergence period from late May to mid-July. Its larval size distribution was relatively homogeneous during the sampling period, and its life history pattern was relatively simple. Very early instar larvae occurred just after the emergence period. Few larvae were sampled for a short period after emergence. This may be due to the vertical movement of early instar larvae. On the other hands, *R. coreanus* was regarded either univoltine or semivoltine and may have more complexed life history because mature larvae occurred almost entire the sampling period. *R. coreanus* emerged earlier than *P. yooni*. *P. yooni* and *R. coreanus* showed similar substrate preference, but it could be changed with larval growth and development as in *Anthopotamus vertis* (Bae and McCaferty 1995). More studies on egg hatching, larval development, emergence behavior, etc. using degree day analysis are needed to elucidate their life history adaptation.