

- A109** Genetic Diversity and Population Structure of two Korean Pond Frog Species *Rana nigromaculata* and *R. plancyi* (Anura, Ranidae), with a Survey of Temporal Genetic Variation in *R. nigromaculata*

Suh-Yung Yang, Jong-Bum Kim*, Mi-Sook Min, Jae-Hwa Suh
Department of Biology, Inha University, Incheon 402-751, Korea

Korean *R. plancyi* occupies a restricted area in the western South Korea and shows relatively low level of genic variability (%P=15.2, Ho=0.052, He=0.048) in comparison with other Korean amphibia species. In contrast, *R. nigromaculata* is broadly distributed over all areas in South Korea. The observed low level of variability (%P=14.3, Ho=0.042, He=0.043) of *R. nigromaculata* is probably due to its recent colonization. The observed levels of gene flow among populations of *R. nigromaculata* ($Nm=1.427$) over a broad geographic range is relatively higher than other amphibian species. A survey of temporal genic variation of *R. nigromaculata* showed that there was no significant change on the overall average genetic diversity from 1978 (average He=0.044) to 1997 (average He=0.040). Wright's F-statistics also indicated no significant genetic differentiation from 1978 ($F_{ST}=0.118$) to 1997 ($F_{ST}=0.108$).

- A110** A Taxonomic Study of the Genus *Volucella* (Diptera: Syrphidae) from Korea

Deuk-Soo Choi* and Ho-Yeon Han
Department of Life Science, Yonsei University

The genus *Volucella* Geoffroy of Korea is taxonomically revised. Based on the specimens either directly collected or borrowed from other institutions, adult external morphology including male genitalic structure is studied. As a result, we have recognized the following nine *Volucella* species including two species with uncertain identity: *Volucella coreana* Shiraki, *V. jeddona* Bigot, *V. nigricans* Coquillett, *V. nigropicta* Portschinsky, *V. nitobei* Matsumura, *V. pellucens tabanoides* Motschulsky, *V. suzukii* Matsumura, *V. sp. near inanooides* Herve-Bazin, and *V. sp. near zonaria* (Poda). A key to the species, descriptions and illustrations of the Korean *Volucella* are provided. In addition, we confirmed the identity of *V. nigropicta*, which had been confused with *V. coreana*, *V. sp. near inanooides*, and *V. sp. near zonaria*.