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Taxonomic studies on three forms of *Hynobius leechii* from Korea. II. Morphological variation of *H. leechii* complex

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In order to evaluate the level of morphological differentiation among three genetically divergent groups of Korean selamander, *Hynobius leechii* Boulenger(1887), the morphological variation of 29 populations was estimated by using thirteen skeletal characters. Various statistic methods(MANOVA, discriminant function analysis, principal component analysis and mahalonobis distance) were applied to measure the degree of morphological differentiation among them and there was no significant differencies among three groups.

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A Study on the Genetic and the Morphological Variation of *Onychodactylus fischeri*

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Seven populations of *Onychodactylus fischeri* which inhabits in high mountain streams in Korea were collected to investigate the genetic and the morphological variation. Horizontal starch gel electrophoresis was applied to analyze the degree of genetic variation. A total of 20 loci were detected from 18 enzymes and other proteins. Based on electrophoretic data, we estimated the degree of genetic variation and the level of genetic diversity in each population. Wonju population showed the highest degree of the genetic variation as Ho=0.107, He=0.147 whereas Muju population showed the lowest(Ho=0.045, He=0.062). The average degree of the genetic variation of all populations was $\overline{A}$=1.49, %$\overline{P}$=28.6, $\overline{Ho}$=0.082, and $\overline{He}$=0.109. The genetic similarities(Rogers' S) among populations were S=0.774 through S=0.913. For a morphometry, multivariate analysis of variance(MANOVA) and discriminant function analysis were conducted to scrutiny degree of the morphological variation in each population dealing with 13 skeletal characters and no significant differences among populations were found.