

Z109 Genetic Variation and Speciation of *Rana dybowskii* and *R. amurensis* in Korea

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Isozyme analysis on 29 populations of Brown frogs, *Rana dybowskii* and *R. amurensis* from Korea was performed to estimate the degrees of genetic variation and genetic diversity. A sum of 19 loci were screened from 14 enzymes and general proteins. The genetic variation of Kangnung population of *R. dybowskii* was the highest ( $H_o=0.188$ ,  $H_e=0.158$ ) whereas Kosong population of *R. amurensis* was the lowest ( $H_o=0.027$ ,  $H_e=0.033$ ). The average genetic variation of *R. dybowskii* ( $\bar{H}_o=0.117$ ,  $\bar{H}_e=0.127$ ) is higher than that of *R. amurensis* ( $\bar{H}_o=0.076$ ,  $\bar{H}_e=0.081$ ). The level of genetic differentiation between *R. dybowskii* and *R. amurensis* ( $\bar{D}=0.478$ ,  $\bar{S}=0.604$ ) was the average value of interspecific level for the vertebrate species, in general.

Z110 A systematic study on the Brown frogs of the Genus *Rana* from Korea and Japan

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Surveys of electrophoretic variation in isozyme and general proteins were conducted to assess systematic interrelationships for three brown-frog species of the genus *Rana* from Korea (*R. dybowskii* and *R. amurensis*) and Japan (*R. dybowskii* and *R. tsushimensis*). Among *R. dybowskii* populations from Korea, a few populations showed specific level of discrete genetic differences ( $\bar{D}=0.546$ ,  $\bar{S}=0.559$ ). It is confirmed that Korean and Japanese *R. dybowskii* are conspecific ( $\bar{D}=0.094$ ,  $\bar{S}=0.851$ ). The average genetic relatedness among *R. amurensis* and *R. tsushimensis* and two taxa of *R. dybowskii* was estimated.