

A719

Allozyme Variation of the Korean Populations of
Atractomorpha lata (Motschulsky) (Orthoptera:
Pyrgomorphidae)

문 두 호*, 구 덕 서¹, 정 명 기¹
부산대학교 사범대 생물교육과, ¹경상대학교 자대 생물학과

Allozyme variation of five enzyme systems were analyzed from 200 individuals from five Korean populations of Atractomorpha lata. Interestingly, populations of the species maintain substantially higher levels of allozyme variation ($P_p = 96.7\%$, $A_p = 3.53$, and $H_{ep} = 0.548$) than average values of most other insects examined. Wright's F -statistics indicated, however, that high levels of genetic structuring both within and among populations. The heterozygote deficiencies in most populations and at most loci indicate that probable consanguineous mating coupled with limited migration might occur within the species and/or a Wahlund effect might be explanatory factor causing heterozygote deficiencies.

A720

Genetic Diversity and Structure in Korean Populations
of Two Sympetrum species (Odonata: Libellulidae)

여 상 덕*, 박 중 석, 정 명 기
경상대학교 자연과학대학 생물학과

We investigated levels of genetic diversity and structure in Korean populations of Sympetrum darwinianum (Selys) and S. eroticum eroticum (Selys). Starch gel electrophoresis was conducted on 188 individuals in eight populations. Electrophoretic data revealed that the two species maintain considerably higher level of genetic variation than those of most other insects. Mean population genetic diversity (H_e : 0.361 vs. 0.333) and percent polymorphic loci (P : 81.5% vs. 87.2%) found in S. darwinianum were very comparable with those for S. eroticum eroticum. The results indicated that the two species might have similar phylogenetic histories, or ecological and life history traits. Wright's F -coefficients indicated that a near conformance of genotype frequencies to Hardy-Weinberg expectations (the mean F_{IS} estimates in S. darwinianum and S. eroticum eroticum were -0.072 and 0.048, respectively), suggesting mating was nearly panmictic. Mean genetic identity between species was 0.666. In addition, Mdh^a , Mdh^b , and Mdh^c were diagnostic alleles for S. darwinianum.