Systematic Study and Variation of Ants Genus *Camponotus* from Korea Using RAPD-PCR Data (Hym., Formicidae)

Kim, Ki-Gyung and Kim, Byung-Jin[1]

National Honam Agricultural Experiment Station, RDA,

[1]Division of Biological Science, Wonkwang University

Systematic study of *Camponotus* in Korea was made using both morphological analysis and RAPD-PCR.

Morphometric analysis showed that in *Camponotus* the most variable character was clypeus (CL) and propodeum width (PDW). Therefore the most stable characters were EW and EL, which were significant diagnostic characters in the systematics of this group.

Camponotus sp.1 group and quadrinotatus group were separated at 80% degree of similarity, while each species became independent group in 80% similarity, and 9 groups appeared at 40%. *C. jejuensis* and *tokioensis* were thought to be the same species by several authors, owing to their morphological similarity (95%), but it was suggested by the present author that they are full species because they showed only 29.54% similarity in RAPD analysis. *C. atrox* and sp.1 differ slightly in propodeum declination and the degree of anterior protrusion of the petiole. They were 82% similar in morphological analysis, but only 8.89% in RAPD, so the author also considers these as full species.

Each primer produced unique bands according to each species, but of the primers used in this study, primers 5 and 9 were the most useful in species level systematics. The other useful primer ranked in order of importance were numbers 10, 5, 16, 19, 11, 2 and 15.