

A107**Identification of Genetic Variation of *Ceramium kondoi* (Rhodophyta) by RAPD assay**

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Naturally existing DNA polymorphisms in *C. kondoi* populations could be identified by the random amplified polymorphic DNA (RAPD) technique. Samples were collected from six locations on the West coast of Korea; Daeyonpyongdo, Mukdo, Bangpo, Oeyondo, Kyukpo and Jindo. Standard RAPD analysis was performed using 20 short (10-mer) primers of random sequence which were commercially available (Operon Technologies, Inc.). Reproducible fingerprints from DNA of most *C. kondoi* population could be generated using single arbitrarily chosen primers and the polymerase chain reaction (PCR). In case of using OPA-11 (5'-CAATCGCCGT), for example, variation in banding pattern was observed: 3 bands (ca 550, ca 800 and ca 1300 bp) from Daeyonpyongdo; 3 bands (ca 700, ca 800 and ca 1000 bp) from Mukdo; 2 bands (ca 700 and ca 900 bp) from Bangpo; 2 bands (ca 500 and 700 bp) from Oeyondo; 2 bands (ca 700 and ca 1000 bp) from Kyukpo; 3 bands (ca 550, ca 700 and 1000 bp) from Jindo. Phylogenetic analysis was performed with cluster program.

A201**Phylogenetic analysis of Ulmaceae**

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A phylogenetic analysis of the Ulmaceae, Cannabaceae, Barbeyaceae and the Moraceae suggest that the Ulmaceae should be divided split into two families, the Ulmaceae and the Celtidaceae after Grudzinskaya. The Moraceae appears to have been derived from the Celtidaceae. The Barbeyaceae is the outgroup for the Ulmaceae, and the genus *Ampelocera* appears to be the outgroup for the Celtidaceae. The genus *Ampelocera* may occupy a taxonomic position isolated from the other celtoid taxa at the subfamilial or familiar level. The similarity of *Ampelocera* to the fossil celtoid flower *Eoceltis* further supports the the primitive nature of this taxon and its primitive position among the celtoids. Based on this analysis, the Ulmaceae is not a monophyletic group.