A212 A taxonomic study of the genus *Plocamium* Lamouroux (Plocamiales, Rhodophyta) in Korea

Hyun Ah Park*, Eun Hee Bae and In Kyu Lee
Department of Biology, Seoul National University

Four taxa of the genus *Plocamium*, *P. telfairiae* (Harvey) Harvey, *P. telfairiae* (Harvey) Harvey f. *uncinatum* Okamura, *P. ovicornis* Okamura and *P. leptophyllum* Kützing var. *flexuosum* J. Agardh, were investigated taxonomically. They have erect thalli with typical sympodial branches. Taxonomic characters to distinguish the species have been adopted thallus dimension, number and form of the ramuli in alternating series, and generally position, morphology, and developmental anatomy of the cystocarps, as well as the tetrasporangial stichidia. In this study, we attempted to clarify their taxonomic identities by investigation of traditional morphotaxonomical characteristics and also DNA sequence data. Especially the taxonomic entities between *P. telfairiae* and *P. telfairiae* f. *uncinatum* were compared among their populations by ITS(Internal Transcribed Spacers) sequences of the nuclear ribosomal DNA. The detailed results are discussed.

A213 Relationship of the Korean *Polygonatum* (Liliaceae) using the RAPD analysis

Chang-Gee Jang* and Yun-Shik Kim
Department of Biology, Korea University

For 15 taxa of the Korean *Polygonatum*, RAPDs analysis was performed to illustrate their systematic relationship using the UPGMA method. The 15 taxa clustered into 2 groups at 63.2%. One had verticillate leaf, the other had alternate leaf. And the latter clustered into 2 groups at 65%. These result concorded with the cluster analysis based on morphology and cytology. Also *P. inflatum*, basic chromosome numbers is x=11, was seperated from another bracteate taxa at 68.2%. The RAPDs analysis was useful method for classifying the *P. odoratum* complex. The *P. odoratum* complex was clustered into 2 groups. One group consist of *P. odoratum* var. *odoratum*, *P. odoratum* var. *pluriflorum*, and *P. robustum*. The basic chromosome numbers of these taxa was x=10, while the other taxa was x=9.