SL208 Phylogeny and ITS sequences of *Lespedeza* and its allied genera (Leguminosae)

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The genus *Lespedeza* is included in the subtribe Lespedezinae of the tribe Desmodieae, Leguminosae. In the subtribe the taxonomic relationships among *Lespedeza*, *Campylotropis* and *Kummerowia* has been controversial, because the latter two genera are often considered to be indistinct from the former. *Lespedeza* is composed of about 40 species, of which about 30 species distribute in eastern Asia and the other about 10 species in eastern North America. There are variations among species of the genus in breeding system, phyllotaxis, and morphologies of seedlings, flowers, fruits and pollen grains. The diversity of these characteristics is also most conspicuous in eastern Asia, especially in Korea and Japan, where might be the center of distribution and speciation of the genus. Owing to the presence of interspecific hybrids and a great morphological variation in taxonomic characters, the delimitation among East Asian species of the genus has been confused. In the present study the internal transcribed spacer (ITS) regions of nuclear ribosomal DNA for 26 species including outgroup were sequenced to examine the phylogenetic relationships among inter- and infrageneric groups of *Lespedeza*. Sequence divergence between species ranged from 0.00% to 17.33%. ITS sequence data suggested that *Kummerowia* is a sister group of the genus *Lespedeza* and subgenus *Macrolespedeza* is monophyletic. In the subgenus *Lespedeza*, North American species having alternate type of seedling is separated from East Asian having opposite type. Molecular and seedling data indicated that within the subgenus *Lespedeza* American species evolved separatly from East Asian and the species of subgenus *Macrolespedeza* are diverged from the common ancestor of subgenus *Lespedeza* in East Asia. The taxonomic relationships among East Asian species of *Lespedeza* are discussed based on morphological and molecular data.