Phylogeny of the Southwest Asian *Pimpinella* and related genera based on nuclear and plastid sequences

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ABSTRACT. *Pimpinella* L. is a large genus and arguably one of the most complex genera in the family Apiaceae. In this study, the infra-generic relationship between Southwest Asian *Pimpinella* species and their generic allies in the tribe Pimpinelleae Spreng were investigated using sequence data from the cpDNA (chloroplast DNA) *rps16* exon and *rpL16* intron and nuclear ribosomal DNA internal transcribed spacer regions. In total, 185 accessions representing 52 species of *Pimpinella*, 8 species of *Aegopodium*, and the monotypic *Opsicarpium* Mozaff. were analyzed using maximum parsimony and Bayesian methods. In our phylogenetic study, *Pimpinella* and *Opsicarpium* were considered together as a monophyletic group within the tribe Pimpinelleae. As a result, *Opsicarpium insignis* Mozaff has been formally transferred to *Pimpinella*. Our results indicate that the genera *Pimpinella* and *Reutera* Boiss formed a monophyletic group and also supported merging the
genus *Reutera* with *Pimpinella*. This study confirms the transfer of the Southwest Asian *Pimpinella anthriscoides* (Boiss.) F. Ghahrem., Khajepiri & Mozaff to the genus *Aegopodium* as *Aegopodium tribracteolatum* Schmalh.

**Key words:** cpDNA *rps16* exon; cpDNA *rpL16* intron; nrDNA ITS; Phylogeny; *Pimpinella*; Umbelliferae