Gustavo Heiden^{1,2} & José Rubens Pirani²

¹Embrapa Clima Temperado, Pelotas, Brasil. gustavo.heiden@embrapa.br

²Universidade de São Paulo, São Paulo, Brasil. pirani@usp.br

comprehensive phylogenetic hypothesis for the predominantly Neotropical American megadiverse genus Baccharis (Asteraceae: Astereae) is necessary to test its monophyly and clarify the infrageneric relationships within the genus. Given its great morphological diversity and wide geographic distribution, phylogenetic studies based on molecular data to test the monophyly of the genus and investigate the relationships of its infrageneric groups are proposed, allowing the recognition and taxonomic revision of smaller and monophyletic taxa. Therefore, a phylogenetic hypothesis for Baccharis is discussed based on 248 species sampled, four molecular regions and Bayesian analyses. The results confirm subtribe Baccharidinae as a monogeneric lineage, and support a wide definition of Baccharis s.l., monophyletic and including all genera that were previously segregated from it. Thus, comprehensive lists of infrageneric taxa and taxa accepted at species level were compiled to move towards a phylogeny-based infrageneric classification of Baccharis. The names accepted at species level totalize 433 taxa that should be assigned to the most inclusive infrageneric category possible in the light of the data currently available. The seven main lineages recovered should be treated at subgeneric level and a survey of names published in the ranks of sections accounted 68 sections, being 22 sections considered synonyms, though the number of accepted sections is supposed to decrease after future studies are accomplished with a larger sampling.