

Phylogenetic and biogeographic aspects of *Sophora* sect. *Edwardsia* (Papilionaceae)

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Sophora comprises 45-50 species of worldwide distribution, but no general proposal as to the evolution of this group has been put forth. We used cladistic relationships of the quinolizidine alkaloids (matrine, sparteine, methylcytisine, anagyrine, and sophoranol) with morphological and palynological characters to suggest a hypothesis of evolutionary and biogeographic relationships. The mainland Chilean species of *Sophora* appear to have been derived from ancestors phylogenetically near the extant Argentinean species *S. linearifolia* and *S. rhynchocarpa* and the psammophyte *S. tomentosa*, growing at tropical coastal sites around the world. The Boreotropic hypothesis of Lavin and Luckow is incorporated in our model as the most parsimonious explanation of the evolution of the species of *Edwardsia*. *Sophora* is a taxonomic group that meets the following criteria: a center of diversity in North America, an early Tertiary record in North America, and a pantropical distribution. *Styphnolobium* and *S*