## Cladistic relationships in the genus Schizanthus (Solanaceae)

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The cladistic relationships between Schizanthus species, based primarily on morphology, and chemical characters when available are presented. In this investigation we did not find supporting evidence for the theories grouping of Grau and Gronbach (Mitt. Bot. München 20 (1984) 111). The anomalous presence of hygrolines in S. integrifolius Phil. is a case of primitivism and isolation of this group, and it is not closely related to S. grahamii Gill. or S. hookeri Gill. Pseudohygrolines in S. pinnatus R. et P., S. hookeri, and S. litoralis Phil. appear as ancestral features and are unreliable for establishing phylogenetic relationships. The chemical evolution in Schizanthus runs, in parallel from the pyrrolidine to the tropane series, with subsequent dimerization or trimerization. © 2001 Elsevier Science Ltd. All rights reserved.