



FIG. 1. Phylogeny of family Pottiaceae based on a majority rule consensus tree from the Bayesian analysis of the combined 2-gene, *trnL-F* and *trnG* data matrix. Dashed lines refer to clades not resolved in strict consensus of the parsimony analysis. Numbers at nodes indicate posterior probabilities and MP bootstrap values in that order. The Roman numbers correspond to the subfamilies classification described in the text: I-Werner et al. (2004), II-Zander (2006). Abbreviations: B = subfamily Barbuloideae, M = subfamily Merceoideae, P = subfamily Pottioideae, T = subfamily Trichostomoideae.

in one of the few places in the world where the transition between the tropics and the temperate zone is not a desert but a transition of landscapes dominated by dry forests and woodlands. The Argentinean sample was collected in a nature reserve of 4,200 hectares known as La Quebrada in the Sierras Chicas, a region located in northern Córdoba province (Fig. 3A). The Sierras Chicas range covers an area of about 1,400 km² and consists essentially of low rolling hills covered between 500 and 1,300 m altitude by Chaco Serrano forest. The climate is temperate with mean maximum and minimum temperatures of 26°C and 10°C respectively. The annual 750 mm of rainfall is concentrated mostly from October

to April in the warm season (Luti et al. 1979; Moglia and Giménez 1998). The characteristic vegetation is a low and open woodland dominated by *Acacia caven* (Molina) Molina, *Aspidosperma quebracho-blanco* Schlttdl., *Fagara coco* (Gillies ex Hook. f. & Arn.) Engl., and *Lithraea ternifolia* (Gillies ex Hook. & Arn.) F. A. Barkley. Here, *Guerramontesia microdonta* was found living on granite rock near of a stream at 840 m (Fig. 3A). It grew with herbaceous plants such as *Cuphea* P. Browne, *Glandularia* J. F. Gmel., *Rivinia* Mill., and the liana *Mandevilla pentlandiana* (A. DC.) Woodson.

The Bolivian locality is in the Serranía del Aguaraque National Park, in eastern Tarija department, Gran Chaco