

Searching and monitoring four endangered tree species in northern Ecuador: *Brunellia pauciflora*, *Aiouea palaciosii*, *Miconia yeseniae* and *Ocotea pachypoda*

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Depending on the bibliographic source, there are 512–672 endemic tree species in Ecuador, from which ca. 192–229 are endangered under IUCN criteria (EN or CR status). For this project (2022–2024), we attempted to locate and monitor four of such endangered species: *Brunellia pauciflora* (Brunelliaceae), *Aiouea palaciosii* (Lauraceae), *Miconia yeseniae* (Melastomataceae) and *Ocotea pachypoda* (Lauraceae) and/or high stature of most trees (> 20 m). During 2024, we plan to continue searching and monitoring new populations of the four endemic and endangered tree species that this project targets in the northern Andes of Ecuador, including the two species that have not yet been found (*Miconia yeseniae* and *Ocotea pachypoda*). These species were selected because: (1) their geographic distribution was in the mountain forests of the northernmost provinces of Ecuador (Carchi, Imbabura and Pichincha), i.e. close to Yachay Botanical Garden; (2) few botanical collections have been made in the past; and (3) there were no focused conservation actions from any botanical garden, university, NGO or local government. Until present, we have only located *Brunellia pauciflora* and *Aiouea palaciosii* in the field. *Brunellia pauciflora* turned out to be relatively common at Solferino, Carchi province, in the ecotone between pasture and high Andean forest. There, the phenology, growth and herbivory of 45 adult individuals are being monitored once a month. Propagation trials of *Brunellia pauciflora* based on seeds or cuttings have not been successful, but we will soon attempt in vitro propagation trials. Regarding *Aiouea palaciosii*, a population has been located at El Cedral Reserve at Yunguilla, in the mountain forest of the Andean Chocó, northwest of Quito, Pichincha province. There, 14 adult individuals have been located and their growth and phenology are being monitored every 2–3 months. Propagation of this species, however, is still not possible due to lack of seeds.