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for total abundance and another for species richness, to determine if there were differences between different categories of diameter and different elevational zones within trees. Results showed greater abundance and richness of orchids in the canopy of the medium-sized

trees. Thus, estimates of plant diversity in cloud forests including the canopy are important. With regard to size of trees, it could be argued that the three diameter categories are associated with different temporal stages in the population dynamics of these orchids.

## Reproductive biology of *Masdevallia coccinea* and *Masdevallia ignea* in Guasca (Cundinamarca: Colombia)

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*Masdevallia coccinea* and *Masdevallia ignea* (popularly known as “banderitas”) are ornamental orchids which are prized by amateur farmers and collectors. In Colombia, the harvest pressure on these species has been enormous, and few natural populations survive. Therefore, both species are on Appendix II of CITES. The goal of the project was to study the reproductive biology and pollination biology of *M. coccinea* and the *M. ignea* (Pleurothallidinae) under semi-cultivation conditions in the Villa Rosa farm located in the Municipality of Guasca, Cundinamarca (Colombia). For both species we studied floral morphology, phenology, breeding system, floral visitors, and pollinators, as well as visual and

chemical cues. *Masdevallia coccinea* and *M. ignea* differ in floral color and in length of the sepals. In both species the labellum is articulated at the base of the column, but the lip is devoid of nectar and osmophores. Both species flower asynchronously and are self-compatible but pollinator-dependent. *Masdevallia coccinea* and *M. ignea* were visited by 15 and 7 insect morphospecies, respectively. Both orchid species were pollinated by female flies (Diptera: Drosophilidae) that performed different activities on the flowers. The flowers of *M. coccinea* and *M. ignea* reflected through all wavelengths such as UV, blue, and red. Floral volatiles of *M. coccinea* and *M. ignea* were also different.

## Identificación de bacterias endófitas asociadas a raíces de *Cattleya quadricolor* Lindl.

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Las bacterias endófitas se encuentran colonizando los tejidos internos de las plantas sin ocasionar infección y aportando características competitivas importantes para éstas. El objetivo de este trabajo fue identificar especies endófitas asociadas a raíces de *C.*

*quadricolor*. Los aislamientos se realizaron lavando las muestras con agua corriente, desinfectando con hipoclorito de sodio 1%/3min, etanol 50%/3min y agua destilada estéril; posteriormente, se retiró la corteza y se maceró el cilindro central, sembrando