Consequences of microclimate variation on insect pollinator visitation in two species of Chaetanthera (Asteraceae) in the central Chilean Andes

Consecuencias de las variaciones microclimáticas sobre la visita de insectos polinizadores en dos especies de C

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Insect pollinator activity can be influenced by biotic (e.g., patch floral density and floral display) or by abiotic factors (e.g., temperature, wind velocity, cloudiness). In spite of microsite, seasonal and interannual variation in temperature in the alpine zone, the consequences of local microclimatic variation on pollinator activity has been rarely studied in high mountain ecosystems. In this study we compared flower visitation rates on a north-facing slope and a west-facing slope in Chaetanthera apiculata (3,100 m of altitude) and on an east-facing slope and a west-facing slope in Chaetanthera lycopodioides (3,300 m of altitude). We studied the breeding system in each species in order to determine level of dependence on external pollinators. While the north-facing slope inhabited by C. apiculata was warmer (1.8 °C) and visited (7.8-fold) more frequently than the west-facing slope, in C. lycopodioides the east-facing slope was warmer (3 °C) and visited more frequently (4-fold) than