Figures for: Floral phenology of an Andean bellflower (*Centropogon granulosus*, Lobelioideae) and pollination by Buff-tailed Sicklebill (*Eutoxeres condamini*)

Figure 1. A: Presumed pollination niches within hummingbird-adapted centropogonids. K_{tot} is ‘total curvature’ in degrees as defined in Boehm et al (2021); measurement protocols are described in the Supp. Mat. Top left: Eugenes fulgens (photo: Ronald E. Thill). Top centre: Phaethornis guy (photo: Mike Hooper). Top right: Eutoxeres condamini (photo: Julian Heavyside). Bottom left: Centropogon talamancensis (photo: Nancy Overholtz). Bottom centre: Centropogon solanifolius (photo: Terry Gosliner). Bottom right: Centropogon granulosus (photo: Josh Vandermeulen). Evidence for pollination in each species pair are described in (from left to right): Colwell (1973); Snow (1977); this study. All photos used with permission from their owners. B: Elevational heatmap of Peru and neighbouring countries with study site marked (+). Coloured cells represent meters above sea level. Map generated using tmap v.3.3-2 (Tennekes, 2018). C: Montane cloud forests of the eastern Andes (San Pedro, Peru) showing vegetation typical of study site.

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Figure 3. Developmental trajectories for the flowers of C. granulosus, and effects of pollinator exclusion (green) versus the control treatment (orange). The bars represent the median duration spent in each stage. 95% CIs are estimates of when a stage could end. At stage E, where some individuals begin, others will have already finished and moved onto stage F (see ‘Results’ for descriptions of the eight stages). No fruits (stage H) were produced by plants with pollinators excluded.

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Figure 4. Flowering rates in C. granulosus. The x-axis represents the number of days elapsed since the first flower opened. The y-axis counts the cumulative number of flowers opened since t=0, not the number of flowers open simultaneously. Each line shows the flowering rate of an individual belonging to the exclusion treatment (green) or control group (orange). Rates vary between individuals (p=0.027, t_8=2.70, d=1.91), but do not vary between treatments (p=0.200, t_8=1.40, d=0.99).

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