Lonicera floral traits change to adapt to environmental variabilities

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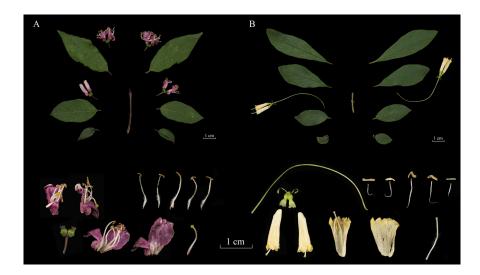
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Abstract

Species in Lonicera genus are magic elves with excellent adaptability to varying environments with the aid of the divergent morphological and color pattern variation. Flowers undergo strong selection of both biotic and abiotic factors with species-specific morphology and color strategies. Take Lonicera nervosa (L. nervosa) and Lonicera tangutica (L. tangutica) as representative species, two sister taxa of Lonicera widespread in alpine to subalpine ecosystems in the same region, which present ideal subject in terms of evolution and adaptation of flowers to determine underlying ecological implications with close evolutionary relationship: (1) both species present differentiation in floral structure, corolla orientation and anther position; (2) L. nervosa has constant color while L. tangutica undergoes color change during florescence (3) Both species share the same pollinators, distribution and specimen coordinates show that the two species of Lonicera have similar distribution centers.

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