

## SUPPLEMENTARY DATA

### *Study sites*

This study involved three geographically distant regions in Europe and North America. On each region we focused in specific plant communities dominated by small woody or herbaceous perennials and annuals that are insect-pollinated. In Spain, we studied the flowering plant species inhabiting sandy limestone-dolomitic outcrops of the Baetic Ranges, characterized by high species richness and endemism (Mota *et al.*, 2008). Here, we studied four outcrops in the Natural Park of Cazorla, Segura y Las Villas (Jaén province, Andalusia, Spain), separated by 1.6–5 km linear distances in a heterogeneous, complex mountainous landscape. These are protected from trampling and herbivory by wild and domestic ungulates by permanent exclosures.

In USA, we studied the flowering plant species within the serpentine seeps of California. These endemic-rich communities are adapted to serpentine soils and temporally available water (Alexander *et al.*, 2007). We selected five serpentine seeps at the Donald and Sylvia McLaughlin Natural Reserve (northern California, USA). Seeps were separated by 0.3–5 km linear distance within a grassland matrix.

In Mexico, three sites representative of canopy clearings in the sub-tropical dry coastal scrublands were selected at the northern coast of the Yucatan. This Yucatan dry zone is the most endemic rich area in the Peninsula (Espadas Manrique *et al.*, 2003). Two sites were located close to each other (distance 5 km) nearby Progreso village in a relatively flat area and mostly surrounded by secondary vegetation growing on homogeneous limestone bedrock (karstic) soils. The third site was located in San Felipe with a similar environment but ca. 150 km apart.

Region	Site (code)	Geographic location
Andalusia	Fuente Bermejo (F)	37° 56' N / 02° 50' W
	Arenales del Guadalentin (G)	37° 55' N / 02° 50' W
	Nava de las Correhuelas (N)	37° 56' N / 02° 52' W
	Raso del Madrigal (R)	37° 55' N / 02° 53' W
California	Banana Slug (BS)	38° 52' N / 122° 24' W
	Research Hill A (RHA)	38° 51' N / 122° 25' W
	Research Hill B (RHB)	38° 51' N / 122° 24' W
	Tailings Pond 8 (TP8)	38° 52' N / 122° 26' W
	Tailings Pond West (TPW)	38° 52' N / 122° 27' W
Yucatan	San Felipe (SFE)	21° 32' N / 88° 14' W
	Capilla (CAP)	21° 17' N / 89° 35' W
	Dzemul (DZE)	21° 18' N / 89° 20' W

### References

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- Espadas Manrique C, Durán R, Argáez J. 2003. Phytogeographic analysis of taxa endemic to the Yucatán Peninsula using geographic information systems, the domain heuristic method and parsimony analysis of endemism. *Diversity and Distributions* **9**: 313–330.
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