Integrating endemic flora into creative cities: A nature-based approach to the UNESCO Creative Cities Network

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Supplementary Material

Supplementary Tables S1–S3 present detailed species-level evaluations for the Mediterranean, Euro-Siberian, and Irano-Turanian phytogeographical regions, respectively. The species are evaluated according to their endemism status, geographical distribution, habitat characteristics, EndeFlora criteria, and corresponding links to UNESCO Creative Cities Network themes. Species whose native ranges are confined to the territory of Turkey are classified as endemic to Turkey, irrespective of the extent of their distribution within the country.

Table S1. Endemic plant species from the Mediterranean phytogeographical region in Turkey (Davis, 1965–1985; Yildiztugay et al., 2009; Güner et al., 2012; Tunçkol & Akkemik, 2013; POWO, 2024).

Endemic species (Turkey)	Endemic status	Distribution (Turkey)	Habitat	EndeFlora criterion	Link to UCCN themes
Origanum minutiflorum O.Schwarz & P.H.Davis	Endemic to Turkey	Antalya	Maquis, rocky slopes	Conservation of endemic aromatic plants	Gastronomy, Ecotourism
Campanula antalyensis Ayasligil & Kit Tan	Endemic to Turkey	Antalya	Biennial; rocky and open habitats (temperate biome)	Conservation of local Mediterranean endemics	Cultural landscapes, biodiversity awareness
Crocus antalyensis B.Mathew	Endemic to Turkey	Antalya	Coastal and rocky areas	Habitat restoration	Sustainable Tourism
Allium sandrasicum Kollmann, Özhatay & Bothmer	Endemic to Turkey	Muğla–Antalya	Rocky slopes	Endemic geophyte conservation	Creative agriculture
Fritillaria carica Rix	Endemic to Turkey	SW Anatolia	Forest openings	Conservation of endemic geophytes	Cultural landscapes
Ajuga postii Briq.	Endemic to Turkey	SW–S Anatolia	Rocky and open slopes	Conservation of endemic Lamiaceae taxa	Cultural landscapes
Roemeria carica A.Baytop	Endemic to Turkey	SW Turkey	Rocky slopes	Endemic flora conservation	Cultural landscapes
Dianthus multiflorus Deniz & Aykurt	Endemic to Turkey	Antalya	Serpentine rocky slopes, forest clearings	Conservation of serpentine endemic flora	Cultural landscapes
Bupleurum turcicum Snogerup	Endemic	SW & Central Turkey	Dry open habitats, steppe-like areas	Conservation of endemic steppe flora	Cultural landscapes, Sustainable tourism
Anthemis fimbriata Boiss.	Endemic	Central & Eastern Anatolia	Rocky slopes, dry steppes	Conservation of endemic Anatolian flora	Cultural identity, Biodiversity awareness
Jordania minuartioides (Jaub. & Spach) Boiss. & Hrldr.	Endemic	West-Central and South-Southwestern Anatolia	Rocky and dry open habitats (temperate biome)	Local endemism and habitat specialization	Biodiversity conservationhabitat continuity
Minuartia isaurica McNeill	Endemic	South Anatolia	Rocky slopes and open mountain habitats (temperate biome)	Conservation of narrow-range mountain endemics	Biodiversity conservationcultural landscapes

Table S2. Endemic plant species from the Euro-Siberian phytogeographical region in Turkey (Davis, 1965–1985; Yildiztugay et al., 2009; Güner et al., 2012; Tunçkol & Akkemik, 2013; POWO, 2024).

Endemic species (Turkey)	**Endemic status**	**Distribution (Turkey)**	**Habitat**	**EndeFlora criterion**	**Link to UCCN themes**
Lathyrus woronowii Bornm.	Endemic to Turkey	NE Anatolia	Annual; temperate forest margins and open habitats	Conservation of narrow-range forest-steppe endemics	Biodiversity conservation, sustainable landscapes
Papaver pilosum Sm.	Endemic to Turkey	NW Anatolia	Perennial; temperate open and rocky habitats	Conservation of narrow-range temperate endemics	Biodiversity conservation, sustainable landscapes
Megacaryon orientale (L.) Boiss.	Endemic to Turkey	N & N-Central Turkey	Biennial; temperate grasslands and open habitats	Conservation of northern Anatolian endemic flora	Biodiversity conservation, habitat sustainability
Iris haussknechtii Bornm. ex Baker	Endemic to Turkey	N & N-Central Turkey	Rhizomatous geophyte; temperate grasslands	Conservation of endemic geophytes	Biodiversity conservation, native ornamental potential
Campanula grandis Fisch. & C.A.Mey. subsp. *grandis*	Endemic to Turkey	N Anatolia	Meadows	Conservation of northern Anatolian endemic Campanulaceae	Biodiversity conservation, montane meadow ecosystems
Campanula lazica (Boiss. & Balansa ex Boiss.) Kharadze	Endemic to Turkey	NE Anatolia, Rize	Rocky habitats,	Conservation of Euxine endemic flora	Mountain biodiversity conservation, habitat specificity
Jasione idaea Stoj.	Endemic to Turkey (micro-endemic)	Kaz Dağı	Rocky slopes,	Conservation priority for single-mountain endemic	Mountain biodiversity conservation, habitat specificity
Lophosciadium thirkeanum Boiss.	Endemic to Turkey	N & Central Anatolia	Temperate open habitats, perennial	Conservation of Anatolian steppe-transition endemics	Steppe biodiversity, ecotone conservation
Rhododendron smirnowii Trautv. ex Regel	Endemic to Turkey	N.E. Anatolia	Montane scrub & *Picea* forests	Conservation of *Euxine montane* woody endemics	Forest biodiversity, climate refugia
Cyclamen mirabile Hildebr.	Endemic to Turkey (SW Anatolia)	SW Anatolia (Mediterranean element)	*Quercus macchie*, *Pinus brutia* forest, 400–1000 m	Conservation of Mediterranean limestone endemics	Mediterranean forest biodiversity, habitat specificity
Bellevalia clusiana Griseb.	Endemic to Turkey (regional)	N & Central Anatolia	Temperate open habitats, bulbous geophyte	Conservation of Anatolian geophyte endemics	Steppe–forest ecotone biodiversity
Isatis arenaria Azn.	Endemic to Turkey	NW Turkey	Temperate open sandy habitats	Conservation of regional edaphic endemics	Habitat specialization, steppe–coastal biodiversity

Table S3. Endemic plant species from the Irano-Turanian phytogeographical region in Turkey (Davis, 1965–1985; Yildiztugay et al., 2009; Güner et al., 2012; Tunçkol & Akkemik, 2013; POWO, 2024).

Endemic species (Turkey)	Endemic status	Distribution (Turkey)	Habitat	EndeFlora criterion	Link to UCCN themes
Campanula malatyaensis Mutlu & Karakuş	Endemic to Turkey	Malatya (Eastern Anatolia, Irano-Turanian region)	High-altitude steppe slopes	Conservation of steppe mountain endemics	Cultural landscapes
Isatis floribunda Boiss. ex Bornm.	Endemic to Turkey	Central & Eastern Anatolia (Irano-Turanian region), Turkey	Perennial; temperate steppe and rocky habitats	Conservation of Anatolian steppe endemics	Biodiversity conservation, sustainable landscapes
Noccaea lilacina (Boiss. & A. Huet) Al.-Shehbaz	Endemic to Turkey	N & E Central Anatolia (Irano-Turanian region), Turkey	Perennial; temperate steppe and rocky habitats	Conservation of narrow-range steppe endemics	Biodiversity conservation, sustainable landscapes
Bornmuellera cappadocica (Willd.) Cullen & T.R. Dudley	Endemic to Turkey	Eastern Anatolia	Subshrub; temperate rocky and steppe habitats	Conservation of mountain steppe endemics	Biodiversity conservation, sustainable landscapes
Paronychia beauverdii Czeczott	Endemic to Türkiye	N & Central Anatolia (primarily Irano-Turanian region), Turkey	Subshrub; temperate dry and rocky habitats	Conservation of Anatolian steppe endemics	Biodiversity conservation, sustainable landscapes
Astragalus karamasicus Boiss. & Balansa	Endemic to Turkey	Central Anatolia (Irano-Turanian region), Turkey	Perennial; temperate steppe and rocky habitats	Conservation of Anatolian steppe endemics	Biodiversity conservation, sustainable landscapes
Trifolium pannonicum subsp. *elongatum* (Willd.) Zohary	Endemic to Turkey (subspecies)	Central Anatolia (Irano-Turanian region), Turkey	Perennial; temperate steppe and open habitats	Conservation of endemic steppe legumes	Biodiversity conservation, sustainable landscapes
Crataegus tanacetifolia (Poir.) Pers.	Endemic to Türkiye	Central Anatolia (Irano-Turanian region), Turkey	Tree; temperate dry woodland and steppe margins	Conservation of endemic woody taxa	Cultural landscapes, biodiversity conservation
Ballota larendana Boiss. & Heldr.	Endemic to Turkey	Central Anatolia (Irano-Turanian region), Turkey	Perennial/subshrub; steppe and rocky dry habitats	Conservation of endemic Irano-Turanian steppe flora	Biodiversity conservation, dryland landscape sustainability
Muscari aucheri (Boiss.) Baker	Endemic to Turkey	Central & Eastern Anatolia (Irano-Turanian region), Turkey	Bulbous geophyte; steppe and open temperate habitats	Conservation of endemic geophytes	Biodiversity conservation, sustainable native plant use
Scrophularia amana S.S.Lall	Endemic to Turkey	Central-Southern Turkey (Irano-Turanian region)	Perennial; steppe and dry open habitats	Conservation of endemic Anatolian flora	Biodiversity conservation, dryland ecosystem sustainability
Linaria corifolia Desf.	Endemic to Turkey	Central Anatolia (Irano-Turanian region), Turkey	Perennial; steppe and rocky slopes	Conservation of endemic steppe perennials	Biodiversity conservation, dryland ecosystem sustainability