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***Apocynaceae: Periploca* (ed. 1)**

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APOCYNACEAE

in part

Katerina Goula¹

Periploca L.

Sp. Pl.: 211. 1753. Type: *Periploca graeca* L. About 14 species. In Greece, two species.

Description: Erect shrubs or woody climbers, with latex. Leaves deciduous or persistent, opposite, petiolate, broadly to linear elliptic or ovate, entire. Inflorescences cymose, simple or branched, axillary, few- to many-flowered. Calyx with colleters at base within. Corolla rotate; corolla lobes overlapping to right in bud, **patent at anthesis**, glabrous to hairy adaxially, often fleshy and dark-coloured in centre and with densely papillose white spots and a glandular patch at base. **Corolline corona** forming an annulus inserted at corolla mouth **comprising 5 basally undivided to 3-segmented lobes in staminal sectors, middle segments long, filiform and curved toward centre of flower**. Stamens inserted below corona, fused to style head; filaments short, flattened; anthers ovate to hastate, barbed on back, not lignified and without guide rails; **pollen in tetrads**, shed onto 5 spoon-shaped translators with an adhesive disc mechanism positioned directly above nectar troughs. Gynostegium exposed at base of corolla. Nectaries 5 alternistaminal troughs. Ovary of 2 free carpels, apices coalesced into style head. Follicles paired, suberect to horizontally spreading, sometimes connate at apex, narrowly ovoid. Seeds ovate, compressed, comose.

Literature: Rechinger (1970), Markgraf (1972), Browicz (1978), Venter (1997), Heneidak & Naidoo (2015), Strid (2016a, 2016b).

Key to species

1. Woody climber; corolla lobes hairy; follicles suberect, connate at apex **1. *P. graeca***
 - Erect shrub; corolla lobes glabrous; follicles spreading almost horizontally **2. *P. angustifolia***

1. *Periploca graeca* L.

Sp. Pl.: 211. 1753. Lectotype (designated by Goyder in Jarvis & al. 1993: 74): Herb. Clifford: 78, *Periploca* 1 (BM000558169!).

Description: **Deciduous, woody climber** with twining shoots, to 15 m tall. Leaves opposite, herbaceous; lamina 4–10(–13) × 3–5(–8) cm, elliptic to ovate, cuneate to rounded at base, obtuse to acuminate at apex, usually glabrous and glossy adaxially or rarely pubescent abaxially, **with visible lateral veins**; petiole c. 1 cm long. Cymes pedunculate, with 2–15 flowers. Corolla c. 2 cm in diam.; corolla lobes oblong, obtuse; abaxial side yellowish-green, glabrous; adaxial side dark brownish-purple, **white-hairy**, with an elliptic, paler to white papillose spot near base. Corona dark purple; middle part of corona segments filiform, shorter

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than lobes, usually glabrous. **Follicles 6–10(–15) cm long, narrowly ovoid, arcuate, suberect, slightly connate at apex.** Seeds c. 15 × 4 mm, with apical coma of white hairs c. 30 mm long.

Distribution: An E Mediterranean element, distributed from Italy and the Balkan Peninsula to Caucasus and N Iran. All floristic regions except KK (Dimopoulos & al. 2013).

Karyology: $2n = 22, 24$ (Strid & Franzén 1981; Moore 1982).

Status	Conservation status		Legal status	
N	—		—	
Life form	Functional trait	Chorology	Distribution in Greece	
P	*	Me	All except KK	
Habitat	Geology	Altitude	Flowering	Fruiting
W	**	0–500 m	V–VI	V–VII

* Pollination by insects (flies, Ollerton & al. 2019). Seed dispersal by wind.

** Grows on various substrates.

General comments: Cardiotonic effect and antitumor abilities (Huang & al. 2019).

2. *Periploca angustifolia* Labill.

Icon. Pl. Syr. 2: 13. 1791. Homotypic synonym: *Periploca laevigata* subsp. *angustifolia* (Labill.) Markgr. Lectotype (first step designated by Browicz 1966: 44; second step designated by Ferrer-Gallego 2021: 28): “Orient.”, *Labillardière s.n.* (FI055611; isolectotypes: BM001014113, FI055612, G00177315!).

Description: **Evergreen, erect shrub**, to 3 m tall, with terminal shoots sometimes twining at apex. Leaves mostly fasciculate or upper ones opposite, coriaceous; lamina 10–30(–35) × 2–6(–8) mm, narrowly ovate to oblong-lanceolate, cuneate at base, obtuse to acute at apex, glabrous, **with invisible lateral veins**; subsessile. Cymes with 2–15 flowers. Corolla c. 1 cm in diam.; corolla lobes oblong, obtuse; abaxial surface yellowish-green, glabrous; adaxial surface yellowish-green on edges, brownish-purple inside, **glabrous**, with a paler spot in centre. Corona reddish-purple; middle part of corona segments filiform, puberulent. **Follicles 5–7(–9) cm long, narrowly ovoid, spreading almost horizontally.** Seeds c. 7 × 3 mm, with coma of white hairs c. 40 mm long.

Distribution: N Africa and locally in Spain, Malta, Sicily, Kriti and W Syria. Recorded from KK (Dimopoulos & al. 2013), where it is known only from the small islands S of Kriti: Gavdopoula, Gavdos and Chrisi (Strid 2016b).

Karyology: $2n = 22$ (Heneidak & al. 2019).

Status	Conservation status		Legal status	
N	—		—	
Life form	Functional trait	Chorology	Distribution in Greece	
P	*	Me	KK	
Habitat	Geology	Altitude	Flowering	Fruiting
P	**	0–150 m	IV–V	-

* Pollination by insects (flies, Ollerton & al. 2019). Seed dispersal by wind.

** Grows on various types of soil, but prefers calcareous substrates (Dghim & al. 2018).

General comments: Antimicrobial and antioxidant properties. In traditional medicine used for diabetes, rheumatism, haemorrhoids and gastric ulcers (Dghim & al. 2015; Huang & al. 2019).

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