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Two new species of *Origanum* (*Labiatae*) from Jordan

Abstract

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Two species of *Origanum*, i.e. *O. petraeum* and *O. punonense*, from Edom in Jordan are described as new to science. In addition, a key for the species of *Origanum* found in the area of Flora Palaestina is provided.

The publication of a paper on new floristic findings in S Jordan (Baierle, El-Oqlah & Kürschner 1988) drew my attention to the material from Edom near Fenan determined as *Origanum dayi* Post. This species is one of the relatively narrow endemics of *Origanum* that are known from Israel and Sinai (Ietswaart 1980, Danin 1983). However, a careful study of the specimen collected by Baierle and Kürschner and additional specimens collected by Mrs. I. Kuenne made the description of the following two species new to science necessary.

Origanum petraeum Danin, sp. nova - Fig. 1a.

Typus: I. Künne 21. 8. 4 (Holo- HUJ).

Ab *O. dayi* Post differt calyce bilabiato (non actinomorfo), dentibus calycinis inaequalibus, duobus dentibus cuspidatis et recurvatis 2.5 mm longis, tribus dentibus acutis et erectis 1.5 mm longis (non aequalibus, acutis, 1.5-2 mm longis), foliorum margine pilis 5-10-cellularibus ciliari, ramis patule pilis multicellularibus obsitis.

Ab *O. ramonense* Danin differt calyce bilabiato (non actinomorfo), 6-7 (non 4) mm longo, indumento paulo piloso (non copiose villosa).

Dumulosa, 10-60 cm alta, pilis simplicibus multicellularibus, glandulis paucis stipitatis minutis glandulisque sessilibus multis dense obsita. Caules numerosi, simplices vel sparse ramosi, ramis fragilibus. Folia cordato-ovata, inferne prominenter nervosa; folia aestivalia 2-4 mm longa et lata, hiemalia 10-15 mm longa et lata, margine et nervis utrinque paucis pilosa. Rami, parte inferiore excepta, floriferi. Ramuli laterales 1-3 cm longi in cymas 1-8-floras terminantes. Bractee ovato-lanceolatae, basi attenuatae, prominenter nervosae, calyce aequales vel longiores. Calyx tubuloso-campanulatus, bilabiatus, tubo 4 mm longo, nervis 10-15, dentibus labii superioris erectis acutis, 1.5 mm vel 1.5-2 mm longis, dentibus labii inferioris cuspidatis recurvatis, 2.5 mm longis, fauce pilosa. Corolla 8 mm longa, alba, tubo 5 mm longo, extus paucipiloso. Stamina longe exserta, filamentis scabridis, antherae ante anthesin purpureae.

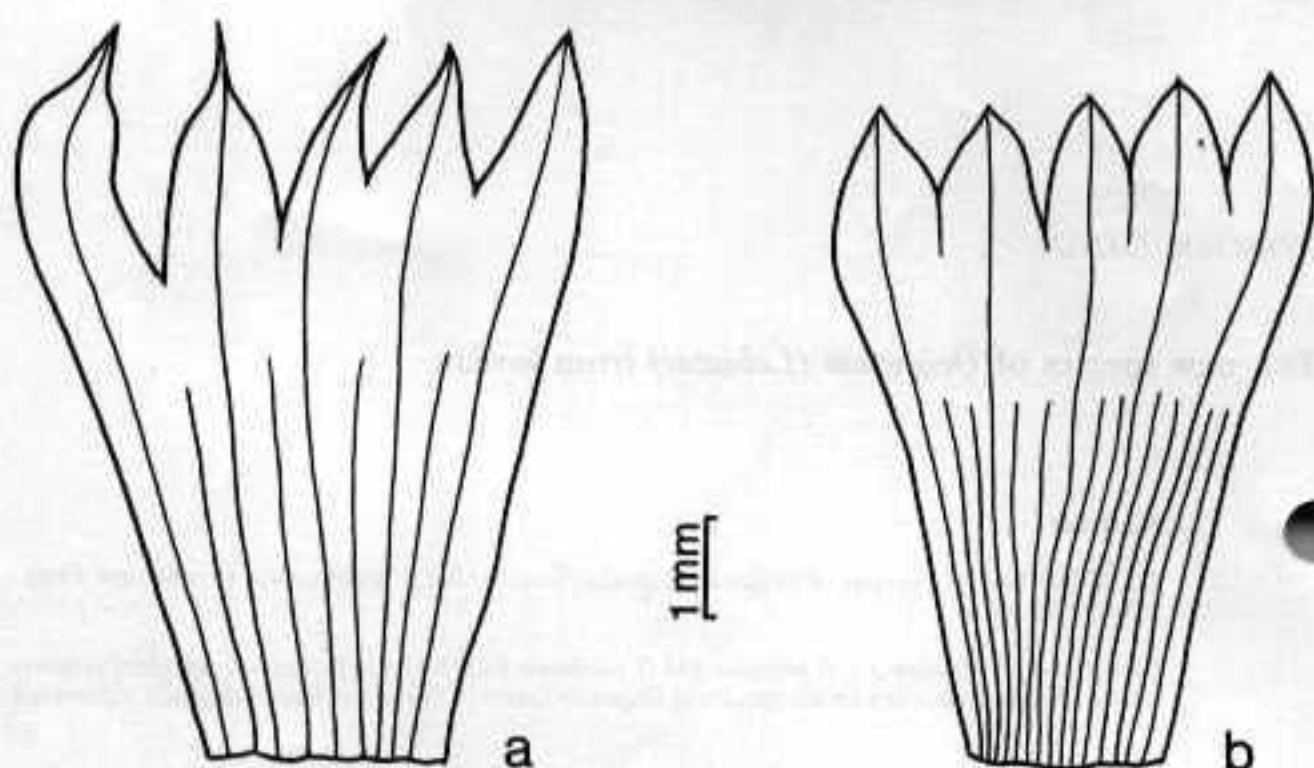


Fig. 1. a *Origanum petraeum* Danin. Calyx; b *O. punonense* Danin. Calyx.

Specimens examined:

Jordan: Edom, ca. 20 km S of Petra, Wadi Umm el Alla, 700–800 m, at the foot of sandstone cliff, 28. 9. 1988, I. Künne 21. 8. 4 (HUJ); Jebel ei Jathum-Massiv, above Wadi Sabra, ca. 900 m, in rocks, 21. 10. 1987, I. Künne 21. 8. 3 (HUJ).

O. petraeum exhibits a special set of characters that does not fit well with the division of *Origanum* proposed by Ietswaart (1980). It has a 2-lipped calyx such as Ietswaart's group A (op. cit., p. 34), a large calyx (6 mm long) but bracts that do not differ much from the stem leaves (except for the cordate leaf base versus the cuneate base of bracts). In this character *O. petraeum* is closer to *O. sect. Campanulaticalyx* Ietswaart and follows the diagnosis of the section (op. cit., p. 93). The new species has a unique structure of calyx teeth when compared with the other four *Origanum* species of Israel, Jordan, and Sinai: the two teeth of the lower calyx lip are 2.5 mm long, cuspidate, and recurved whereas those of the upper lip are 1.5 mm long, acute, and erect (Fig. 1a).

Origanum punonense Danin, sp. nova – Fig. 1b.

Typus: Baierle & Kürschner 86–193 (Holo-BSB).

Ab *O. petraeo* Danin differt calyce actinomorpho (non bilabiato), dentibus aequilongis (non inaequalibus), nervis tubo 15–18 (non 10–15), pilis simplicibus (non glandulosis) 3–6 cellularibus (non 5–7 cellularibus). Ab *O. dayi* Post differt foliorum margine ciliari, pilis multicellularibus (3–6 cellularibus) ramis patule pilosis, pilis multicellularibus. Ab *O. ramonense* Danin differt calyce 6 (non 4) mm longo, indumento paulo piloso (non copioso villosa).

Dumulosa, 20–30 cm alta, pilis paucis, simplicibus, 3–6-cellularibus, glandulis stipitatis minutis, glandulisque sessilibus multis dense obsita. Caules numerosi, simplices vel rami sparse ramosi fragiles. Folia cordato-ovata, inferne prominenter nervosa; folia aestivalia 2–4 mm longa et lata, hiemalia 10–15 mm longa 8–10 mm lata, margine paucipiloso. Rami, parte inferiore excepta, floriferi. Ramuli laterales 1–3 cm longi, in cymas 1–8 floras terminantes. Bractee ovato-lanceolatae, basi attenuatae, prominenter nervosae, calyce aequales vel longiores. Calyx tubuloso-campanulatus, tubo 4–4.5 mm longo, nervis 15–18, fauce pilosa, dentibus acutis, 1.5–2 mm longis, aequalibus. Corollam non vidi.

Specimen examined:

Jordan: Edom (Karak), Wadi Ghuweir, SE of Fenan (the Biblical Punon), 450 m, in sandstone crevices, 7. 3. 1986, *Baierle & Kürschner 86-193* (BSB).

O. punonense resembles *O. petraeum* in its indumentum but has less long hairs. The hairs on the leaf margins are a prominent character of both species: those of *O. petraeum* are denser than in *O. punonense*. Multicellular hairs cover most large veins on both sides of the leaves in *O. petraeum*, whereas there are only sparse hairs on the leaves of *O. punonense*. The latter species seems to bloom in spring, but since only the type specimen is known so far it is recommended that colleagues able to collect in Edom will pay attention to this species throughout the year.

Origanum petraeum is named after Petra, in Edom, Jordan, *O. punonense* after Punon, the Biblical name of Fenan, in Edom, Jordan.

Key to the *Origanum* species of the area covered by Flora Palaestina:

1. Leaves, stems, and calyces covered with 3–10-celled patent hairs, those of the leaf margin prominent. Plants growing in Edom, Jordan 2
- Leaf indumentum of dense simple hairs or such hairs only on the leaf base or rarely on stems. Plants growing in the Negev and the Judean Desert, Israel 3
2. Calyx bilabiate, teeth of upper lip erect, acute, 1.5–2 mm long, teeth of the lower lip cuspidate, recurved, 2.5 mm long. Calyx tube 10–15 veined *O. petraeum* Danin
- Calyx actinomorphic, all teeth acute, 1.5–2 mm long. Calyx tube 15–18 veined *O. punonense* Danin
3. Calyx 5.5–6.5 mm long. Corolla 11–13 mm long, white or cream, before anthesis yellow. Simple patent hairs rarely on stems or on the leaf base *O. dayi* Post
- Calyx 3–4.5 mm long. Corolla 8–9 mm long, white-lilac, before anthesis purple. Dense simple hairs on leaves, stems and calyces *O. ramonense* Danin

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