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Kickxia petrana (Scrophulariaceae), a new species from Jordan**Abstract**

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Kickxia petrana from Petra in Jordan is described as a species new to science.

Kickxia petrana Danin, sp. nova

Typus: I. Künne 3488 (Holo- HUJ, iso- B).

Ill.: Feinbrun, Flora Palaestina 3: fig. 306 (1978) [sub "*Kickxia kneuckeri*"].

Affinis *K. macilentae* (Decaisne) Danin, *K. acerbianae* (Boiss.) Taeckh. & Boulos et *K. judaicae* Danin sed differt indumento biformi e pilis glandulosis brevibus et longis consistenti, seminibus tri-vel quadrangulatis, nec teretibus, tuberculis ad angulos seriatim dispositis nec aequae distributis.

Suffrutex ramosissimus, viscidulus, glandulis stipitatis brevibus et longis, multicellularibus dense obsitis. Rami rigidi, elongati, breviter ramulosi. Folia petiolata, basalia triangularia, hastata vel sagittata; folia caulina minuta, basi hastata. Racemi terminales, laxi, breviter bracteati; pedicelli capillares, calyci subaequilongi. Calyx 3-4 mm, glandulosus, laciniis subulatis 2-2.5 mm longis 0.5-0.8 mm latis. Corolla calcare incluso 9 mm longa, hirtella, pilis multicellularibus, eglandulosis obsita, flava, labio inferiore purpureo-punctato, calcare tenui purpureo 4.5 mm longo. Stylus basim puberulus. Capsula globosa, conoidea, calyce subbrevior, glanduloso-puberula, apice dehiscens et persistens. Semina minuta, 0.5-0.6 x 0.2-0.3 mm, 25-35 in quaque capsula, ellipsoidea, prismatica, facie verrucosa nec tuberculata, angulis 3-4 manifeste tuberculatis, tuberculis glochidiatis (Fig. 1).

Specimens examined:

Jordan, Petra: Aufstieg ed-Deir, 910 m, Ostern 1987, I. Künne 3488 (B, HUJ); El Hesma, 22 km N of Queira, 800 m, 30. 3. 1936, Eig, Zohary & Feinbrun (HUJ); Aqaba region, Naqb Ashter (68 km NE of Aqaba), 3. 6. 1942, Capt. Glober (HUJ); Ma'an, 5 km NW Rum Eisenbahnstation, 720 m, 13. 4. 1980, Frey & Kürschner V05030 (HUJ); Wadi Abu Kusheibe, 700 m, 10. 87, I. Künne 3483 (HUJ); Wadi es-Siq, SO of Gharandal, c. 430 m, 8. 4. 1987, Baierle & Pimpl 87-209 (BSB).

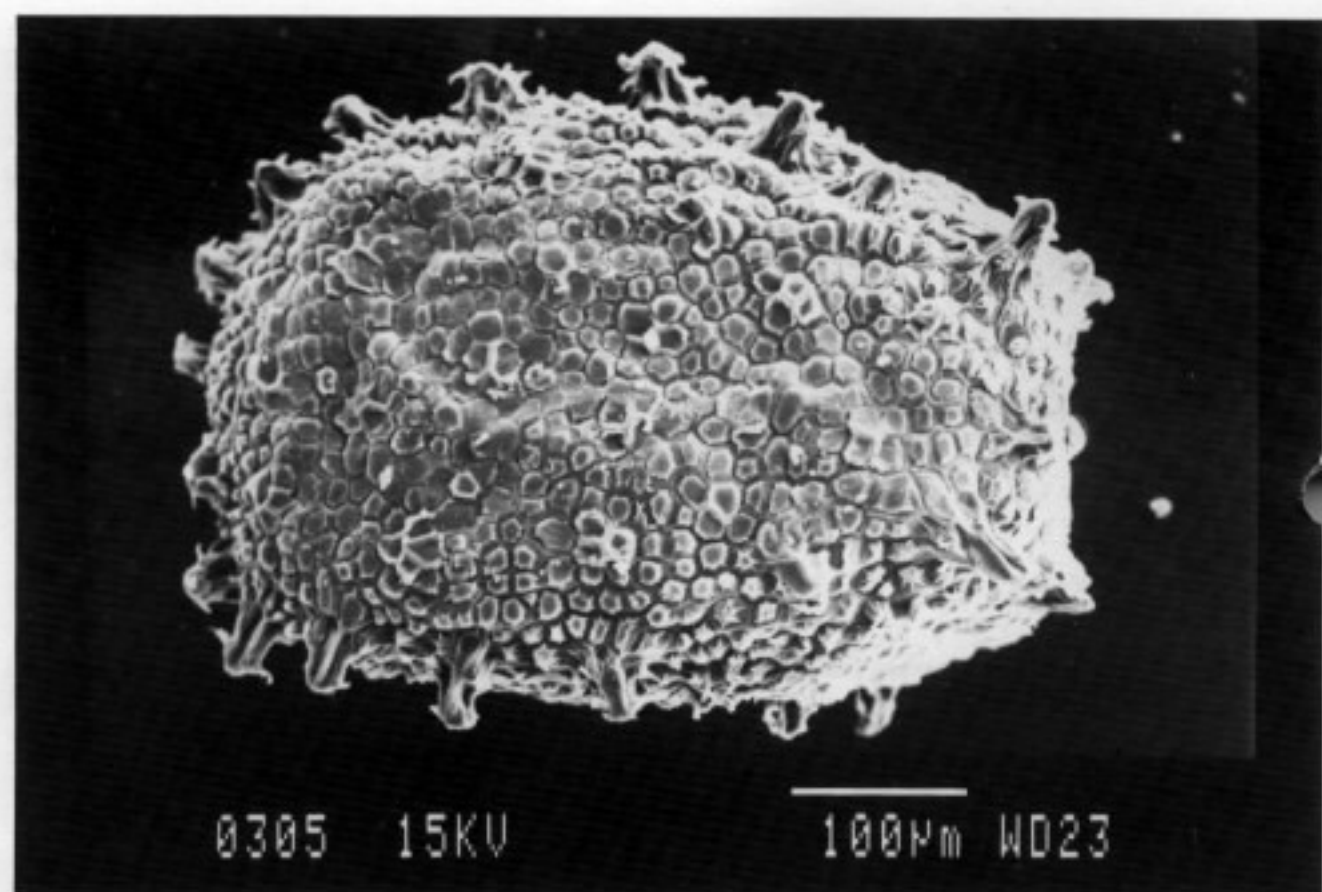


Fig. 1. *Kickxia petrana* Danin. SEM photograph of seed.

Distribution and habitat: Endemic to a small area north, west and south of Petra. Confined to crevices in sandstone cliffs and steep slopes.

For the circumscription of the genus *Kickxia* we follow the views of Sutton (1988) who rejected the proposal of Betsche (1984) to split it into three genera.

A short historical note may clarify the status of *Kickxia kneuckeri* (Bornm.) V. Täckholm & Boulos in Feinbrun-Dothan (1978) and its relation to *K. petrana*. While preparing the account of *Kickxia* for Flora Palaestina Prof. N. Feinbrun-Dothan realized the difference between the specimen collected by Capt. Glocker and *K. acerbiana*. She considered that specimen to belong to *K. kneuckeri*. After studying the syntype of the latter (in Z) I brought to her attention that *K. kneuckeri* is in fact a synonym of *K. acerbiana*. However it was too late to remove the illustration from the book. It was only possible to add in the text-volume of Flora Palaestina 3 a comment referring to Fig. 306 as an illustration of *K. acerbiana*. Capt. Glocker's specimen perfectly matches Fig. 306 and is the first and only drawing of the new taxon.

Kickxia petrana is closely related to *K. macilenta*, *K. judaica*, *K. colletteana* D. A. Sutton, and *K. acerbiana*. The three former are narrow endemics confined to crevices in hard rocks. Such habitat function as a refuge in desert areas. The new species, which has a somewhat intermediate position between *K. macilenta*, *K. judaica* and *K. acerbiana* was found in Petra in a similar habitat. Petra is well known for its wealth in rare and poorly known taxa (Baierle, El-Oqlah & Kürschner 1988, Künne & Wanke 1989, Danin 1990). The diagnostic characters of *Kickxia petrana* and its closely related species are presented in Table 1.

Table 1. Differential diagnostic characters of *Kickxia petrana* and some related species (partly after Danin 1977).

	<i>K. petrana</i>	<i>K. judaica</i>	<i>K. macilenta</i>	<i>K. acerbiana</i>
Indumentum	viscid with long and short stipitate glands	viscid with short stipitate glands	young branches somewhat scabrous at base, glabrous above	pubescent with long glandular hairs
Length of pedicels at anthesis (mm)	2.5-3	5-6	2-2.5	0.5-1
Corolla length incl. spur (mm)	9-10	8.5-10	10-11	7-8
Corolla width at base of lip (mm)	1.5-2	4-4.5	3-3.5	2-2.5
Length of spur (mm)	4-4.5	2.5-3	4-4.5	3-3.5
Corolla colour	yellow & purple spots	yellow	yellow with red spots and veins	yellow with red spots and veins
Base of calyx lobes	broadly scarios	broadly scarios	narrowly to not scarios	broadly scarios
Shape of capsule top	conoid	bilobate	rounded	rounded
Ratio of valve/capsule length	1/2.5	1/2	1/3	2/3
Habitat	crevices in sandstone cliffs and steep slopes	hanging or overhanging from limestone cliffs	crevices of smooth-faced granite outcrops	alluvial ground in runnels, in fissured limestone, dolomite, magmatic and metamorphic rocks
Altitude (m)	340-1200	(-)250-400	500-2.460	(-)380-2.000
Annual rainfall (mm)	100-300	100-300	50-100	20-100

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References

- Baierle, H. U., El-Oqlah, A. A. & Kürschner, H. 1988: Some new and interesting records for the flora of Transjordan. - Notes Roy. Bot. Gard. Edinburgh 45: 457-468.
- Betsche, I. 1984: Taxonomische Untersuchungen an *Kickxia* Dumortier (s.l.). Die neuen Gattungen *Pogonorrhinum* n. gen. und *Nanorrhinum* n. gen. (*Phanerogamae: Scrophulariaceae*). - Cour. Forsch. Inst. Senckenberg 71: 125-142.

- Danin, A. 1977: *Kickxia judaica* sp. n. (*Scrophulariaceae*) and some related species from the deserts of Israel and Sinai. – Israel J. Bot. **26**: 23–31.
- 1990: Two new species of *Origanum* (*Labiatae*) from Jordan. – Willdenowia **19**: 401–404.
- Künne, I. & Wanke, M. 1989: Petra: Landschaft und Pflanzenwelt, p. 233–256. – In: Linder, M. v. (ed.), Petra und das Königreich der Nabataer. – Delp.
- Sutton, D. A. 1988: A revision of the tribe *Antirrhineae*. – London.

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