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Research Note

A New Record from Lebanon: *Panderia pilosa* Fisch. & C.A.Mey. (Chenopodiaceae)

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Abstract: *Panderia pilosa* Fisch. & C.A.Mey. (Chenopodiaceae) was never previously reported for the flora of Lebanon, although it occurs in all neighbouring countries. Specimens collected from Mount Mnaitra in the Mount Lebanon range confirm its presence.

Key Words: Biodiversity, Chenopodiaceae, flora, Lebanon, Mediterranean

Introduction

Panderia is represented in Turkey, Syria, Jordan and Palestine by the single species *P. pilosa* Fisch. & C.A.Mey. (Zohary, 1966; Aellen, 1967). This taxon has a circle of distribution stretching from Anatolia into Central Asia (Mouterde, 1966; Zohary, 1966; Aellen, 1967; Hedge et al., 1997). It has never been identified from Lebanon nor listed in its flora (Post, 1932; Mouterde, 1966). Twenty-five years of ongoing field research reviewing the flora of Lebanon under the "Wild Flora Project" has found *P. pilosa* in the heights of the Mount Lebanon range.

Results and Discussion

Panderia pilosa Fisch. & C.A.Mey., Ind. Sem. Hort. Petrop. 2:46 (1835). Figure 1.

Examined specimens: Lebanon: Kesrouan Province: Mount Mnaitra, 1807 m, 34˚04'52'' N, 35˚55'50'' E, 10.vii.2005, *R. Haber and M. Semaan*, no. 3518 (BEI).

Annual herb, up to 10 cm, hirsute; stem spreading, simple or branched from base; leaves 5-7 mm, linear to oblong-lanceolate, obtuse, alternate, sessile, hirsute. Inflorescence a dense leafy spike; flowers 2-2.5 mm, in clusters of 2-3 in the axils of the upper leaves, sessile, hermaphrodite, ebracteolate; perianth urceolate, dry membranous, partly hairy with long simple hairs, united below, with 5 equal, rounded connivent lobes which have a green tubercle towards the apex; stamens 5 with long filaments; anthers ovoid, exserted; style short; stigma 2, filiform; seeds vertical, elongate, with membranous pericarp.

Distribution and habitat. *Panderia pilosa* was collected from the heights of Mount Mnaitra at about 1800 m. The region receives comparatively high precipitation and is covered by snow in winter (Service Météorologique, 1966, 1967). It has wide fluctuations in temperature between the wet winter and dry summer. *P. pilosa* was found on wet spongy soil deposited in large shallow pockets eroded in the rocks. While the plant usually reaches a height of about 10-30 (-89) cm (Zohary, 1966; Aellen, 1967), the plants of the population found in Lebanon grow only up to 10 cm. This might be due to extensive grazing and trampling by goats, which constitute the main threat to the vegetation in the area. The extant plant community is basically formed of herbaceous annual and perennial species characterised by grasses in addition to prostrate woody plants, such as *Prunus*. The flowering season of *P. pilosa* stretches from May to September.

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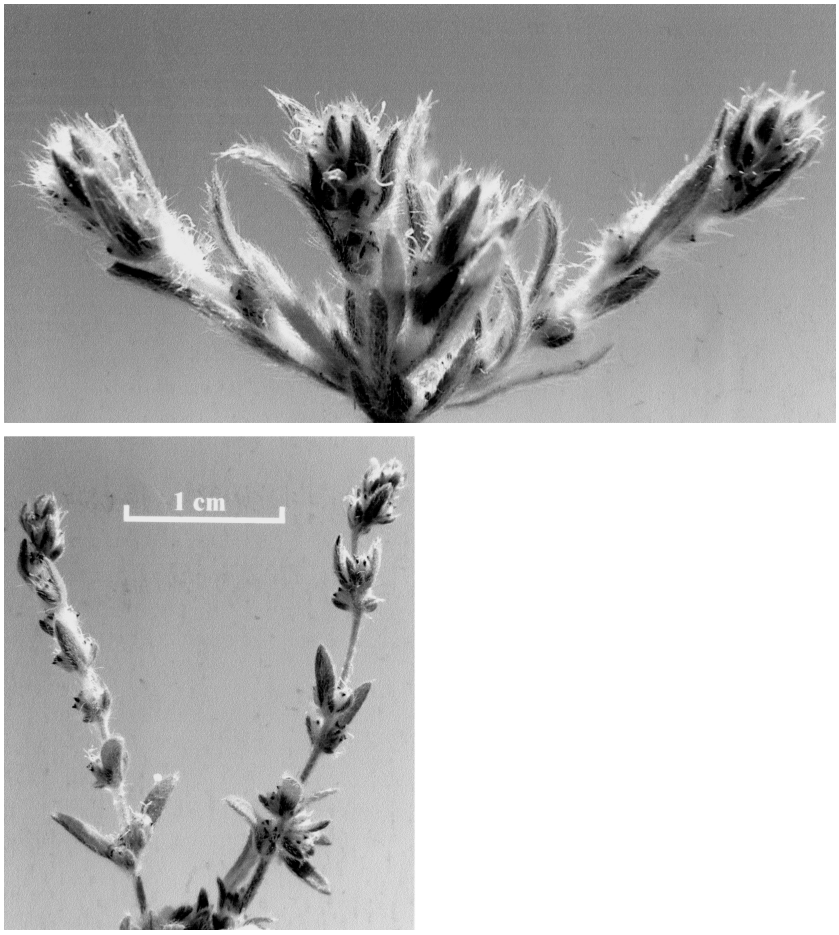

Figure 1. *Panderia pilosa* Fisch. & C.A.Mey., photo of the collected specimens taken by the authors. –A. Whole Plant. –B. Spike

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References

Aellen P (1967). *Panderia* Fisch. & Mey. In: Davis PH (ed.) *Flora of Turkey and the East Aegean Islands*, vol. 2, pp. 315. Edinburgh: Edinburgh University Press.

Hedge JC, Akhani H, Freitag H, Kothe-Heinrich G, Podlech D, Rilke S & Uotila P (1997). Chenopodiaceae. In: Rechinger KH (ed.) *Flora Iranica*, vol. 172. Graz: Akademische Durck und Verlagsanstalt.

Mouterde P (1966). *Panderia* Fisch. & Mey. In: *Nouvelle Flore du Liban et de la Syrie*, vol. 1, pp. 418. Beirut: Dar El-Machreq.

Post G (1932). *Panderia* Fisch. & Mey. In: *Flora of Syria, Palestine and Sinai*, vol. II, pp. 436-437. Beirut: American Press.

Service Météorologique (1966). *Atlas Climatique du Liban: Pluie, Température, Pression, Nébulosité*. Direction de l'Aviation Civil, Service Météorologique, Beyrouth. Tome I.

Service Météorologique (1967). *Atlas Climatique du Liban: Humidité Atmosphérique, Statistique Diverses de Fréquence*. Direction de l'Aviation Civil, Service Météorologique, Beyrouth. Tome II.

Zohary M (1966). *Panderia* Fisch. & Mey. In: *Flora Palaestina*, vol. 1, pp. 151. Jerusalem: Israel Academy for Science and Humanities.