



## First record of the genus *Pentzia* (Asteraceae) in Oman

MATS THULIN<sup>1,3\*</sup> & ANNETTE PATZELT<sup>2,4</sup>

<sup>1</sup>Systematic Biology, Department of Organismal Biology, EBC, Uppsala University, Norbyvägen 18D, SE-752 36 Uppsala Sweden.

<sup>2</sup>Oman Botanic Garden, Diwan of Royal Court, P.O. Box 808, Muscat 122, Sultanate of Oman.

<sup>3</sup>✉ [Mats.Thulin@ebc.uu.se](mailto:Mats.Thulin@ebc.uu.se); <http://orcid.org/0000-0001-5970-8343>

<sup>4</sup>✉ [annette.patzelt@gmail.com](mailto:annette.patzelt@gmail.com); <http://orcid.org/0000-0003-3510-4582>

\*Author for correspondence: ✉ [Mats.Thulin@ebc.uu.se](mailto:Mats.Thulin@ebc.uu.se)

### Abstract

*Pentzia arabica*, previously known only from a few collections from Yemen, is reported also from Jabal Samhan in Oman. This is the first record of a *Pentzia* in Oman, and the locality is the northernmost and easternmost known for the genus. A map of the distribution of *P. arabica* and its presumed sister species, *P. somalensis* in Somalia, is presented. Apart from these two species in the Horn of Africa region, the disjunct *Pentzia* comprises 26 species in southern Africa and two species in North Africa.

### Introduction

The highly disjunct genus *Pentzia* Thunberg (1800: 145) currently comprises 26 species in southern Africa (South Africa, Namibia, Botswana and Zimbabwe), two species in North Africa (Morocco, southern Algeria and Tchad), and two species in the Horn of Africa region (Källersjö 1988, Thulin 2001, Magee & Tilney 2012, Magee *et al.* 2015). The two species in the Horn of Africa region are *P. somalensis* E.A.Bruce ex Thulin (2001: 249) in Somalia and *P. arabica* Thulin (2001: 251) in Yemen. We here report *P. arabica* also from Jabal Samhan in the Dhofar region of Oman.

### *Pentzia arabica* Thulin (2001: 251)

OMAN. Dhofar: Jabal Samhan, 26 September 2006, Patzelt *et al.* 2722/II (E, OBG), 14 November 2006, Patzelt *et al.* 2884 (OBG), 29 May 2007, Patzelt *et al.* 3012/II (E, OBG), 27 October 2009, Patzelt *et al.* 3849 (OBG), 23 January 2012, Patzelt *et al.* 4109/DOJAN 67 (OBG), 12 September 2018, Patzelt *et al.* 5050/PAHA 222 (E, OBG), 12 October 2018, Patzelt *et al.* 5182/PAHA 404 (E, M, OBG, ON), 25 December 2018, Al Hatmi & Al Hinai/SHAH 522 (OBG), 11 September 2019, Patzelt *et al.* 5305/PHHR 70 (OBG).

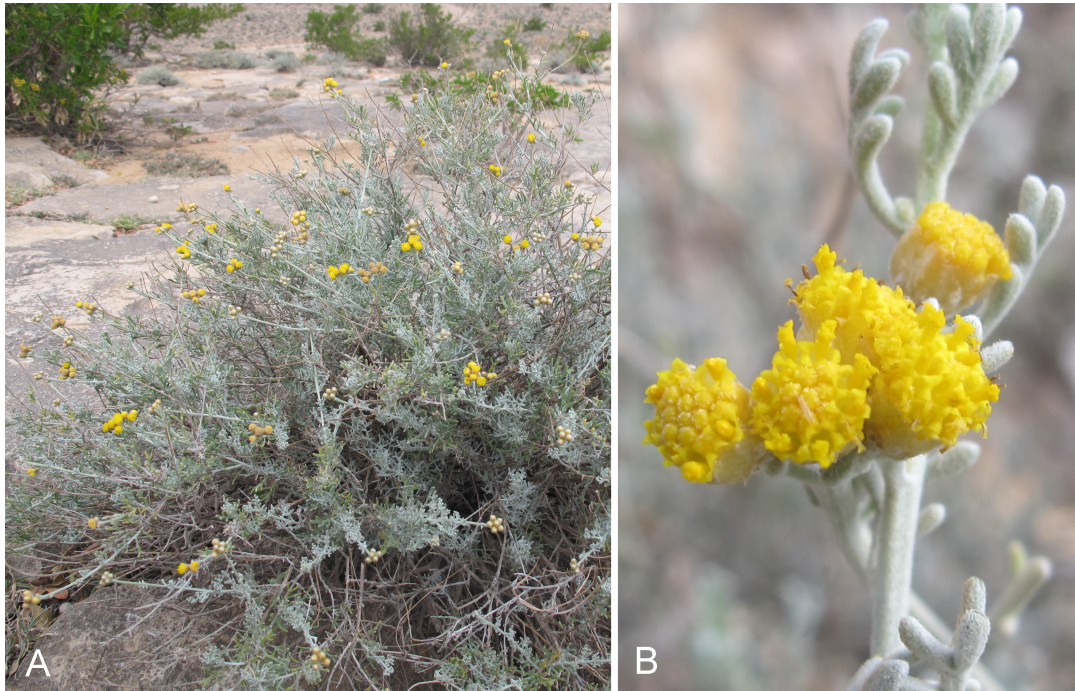
New record for Oman. The collections, all in flower, were first identified as “*Helichrysum* sp. nov.”, and were made in shrubland with low bushes on a dissected limestone plateau at elevations of about 1400–1540 m on Jabal Samhan (Fig. 1). The precise geographical locations have been omitted for conservation reasons.

Southern Arabia is part of the Horn of Africa global biodiversity hotspot (Thulin 2004, Mallon 2011). Jabal Samhan is part of the Dhofar mountain chain, which is a key centre for plant endemism in southern Arabia (Patzelt 2014, 2015). It is a mostly barren limestone mountain massif, rising steeply from the coastal plain. The southwest monsoon, which brings fog and drizzle from June to September, enables the existence of deciduous fog forest and shrubland in the westernmost part of Jabal Samhan. The area of the high plateau, where *Pentzia arabica* occurs, is situated near the edge of the escarpment and regularly exposed to the spill-over effect of the monsoon.

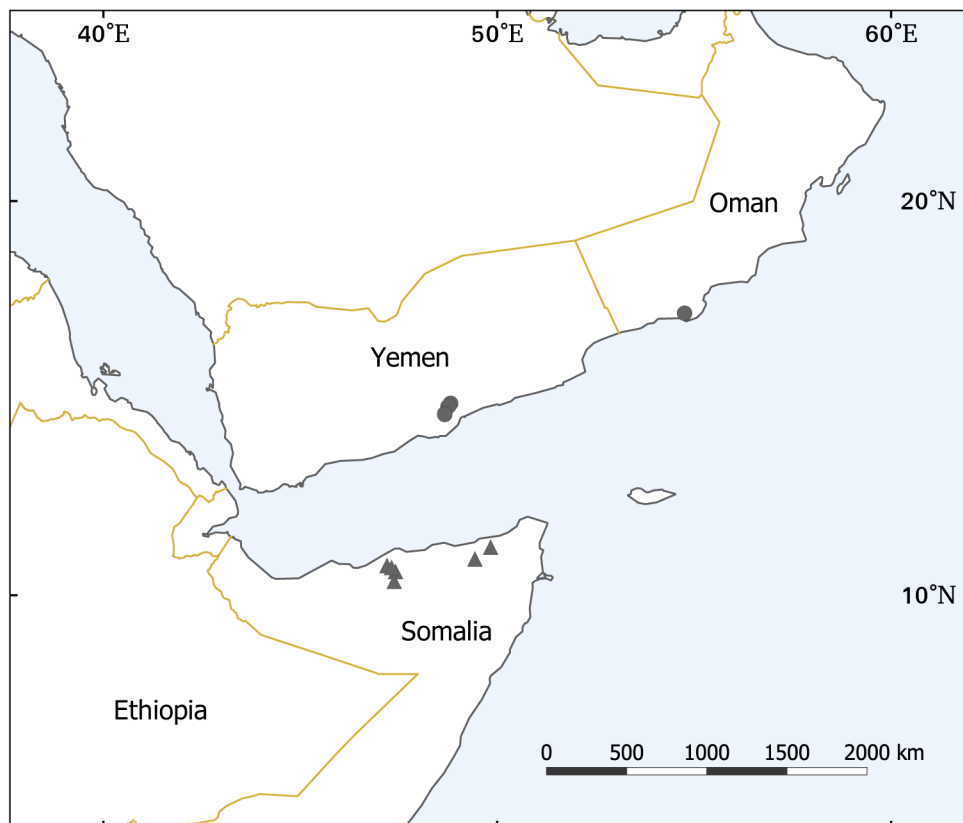
*Pentzia arabica* was described based on two collections from the Hadramaut region in Yemen (Thulin 2001), one made in 1955 (Hemming 528) and the other, the type, made in 1992 (Thulin *et al.* 8097). The species was recorded from rocky places in the highest parts of the limestone plateau of Hadramaut at elevations of 1650–1850 m. Information from some further collections, made by Hein, Kilian and collaborators in 1999–2001, is found in the Virtual Herbarium of B, all from the same part of Hadramaut and collected at elevations between 1250 and 1820 m. The populations in Oman fall within the same habitat and elevation range as known for the species in Yemen.

*Pentzia arabica* and the closely related *P. somalensis* in northern Somalia can be seen as a pair of sister species distributed on either side of the Gulf of Aden (Thulin 2001). Magee & Tilney (2012) treated *P. arabica* and *P. somalensis* as two of six members of the informal “*P. incana* group”, along with four species from southern Africa. In a molecular phylogenetic study

by Magee *et al.* (2015), this group was not retrieved, but *P. somalensis*, which was one of the species included in the study, was found to be nested within *Pentzia*. The map in Fig. 2 shows the distributions of *P. arabica* and *P. somalensis* in the Horn of Africa region, including the new record of *P. arabica* in Oman. The Omani locality is the northernmost and easternmost known for any species of *Pentzia*.



**FIGURE 1.** *Pentzia arabica*, from Oman, Jabal Samhan **A.** Plant in flower; **B.** Capitula and leaves. Photographs: Annette Patzelt.



**FIGURE 2.** Map of Horn of Africa and southern Arabia, showing distributions of *Pentzia arabica* (circles), including new record from Oman, and *P. somalensis* (triangles).

**IUCN Red List Assessment:**—A decline in the quality and extent of the habitat of *Pentzia arabica* in Oman has been observed since its discovery in 2006, and a decline also in the number of individuals is inferred. As the area is ecologically sensitive and fragile, and currently being made more accessible by vehicles, even small-scale disturbances could threaten the survival of the species. Due to the limited extent of occurrence and area of occupancy of *P. arabica*, it is here preliminary assessed as Endangered B2ab(iii) for Oman under the IUCN Red List Categories and Criteria (IUCN 2012). The same assessment is made for the species over its entire range.

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