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Authors: Mirtadzadini, Mansour, and Attar, Farideh

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MANSOUR MIRTADZADINI & FARIDEH ATTAR

Cousinia (sect. *Spinuliferae*) *hazarensis* (Compositae, Cardueae), a new species from SE Iran

Abstract

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Cousinia hazarensis, a distinctive species endemic to Hazar Mt in the Kerman province in southeastern Iran is described as new to science and illustrated. A key to all six species of *C.* sect. *Spinuliferae* is provided.

Cousinia sect. *Spinuliferae* Rech. f., which is diagnosed by pink corollae and involucre bracts with ciliate or spinose margins and a sub-basal constriction, comprises five species, of which three (*C. longifolia* C. Winkl. & Bornm., *C. sicigera* C. Winkl. & Bornm., *C. fragilis* C. Winkl. & Bornm.) are distributed in central and eastern Iran and two (*C. shahrestanica* Rech. f. and *C. qaisarensis* Rech. f.) in Afghanistan. A sixth species is here described as new.

Cousinia hazarensis Mirtadzadini & Attar, **sp. nova** – Fig. 1

Holotypus: Iran, Kerman, NE slope of Hazaran (Hazar) mountain, fall of Rayen, 2900 m, 6.7.1997, Mirtadzadini (TUH 29790).

Perennis, pluricaulis. *Caulis* 45-66 cm altus, striatus, albidus, erectus, ramosus, foliosus, laxe pilosus, glandulosus, cum pilis glanduliferis. *Folia* 27-32 × 7-8.5 cm, coriacea, viridia, glaberrima, utrinque glandulosa, pilis flavis glanduliferis; nervatura pinnato-reticulata, albida, prominentia, costa mediana crassa; folia basalia pinnatilobata, lobis plus minusve 20-jugis, acuta vel acuminata, in spinam terminalem et lateralem usque 6-7 mm longam vulnerantem excurrentia; folia caulina breviter decurrentia (plus minusve 5 mm longa), auriculata; superiora basi semicordata, parva. *Capitula* terminalia, subglobosa, plus minusve 165-flora, spinis inclusis 7.5 cm diametro. *Phylla* plus minusve 80, in spinam terminalem attenuata, lateraliter utrinque plurispinosa (spinis usque 10 mm longis), flavo-glandulifera; phylla exteriora plus minusve 24 × 6 mm, supra basin leviter constricta, superne viridia, patentia vel reflexa; phylla intermedia usque 30 × 5 mm; supra basin leviter constricta, interiora breviter spinosa, 25 × 5 mm, acuminata; phylla intima prominentia, erecta, apice lanceolato-acuminata, ciliata, arachnoidea, papillosa, brunneo-glan-

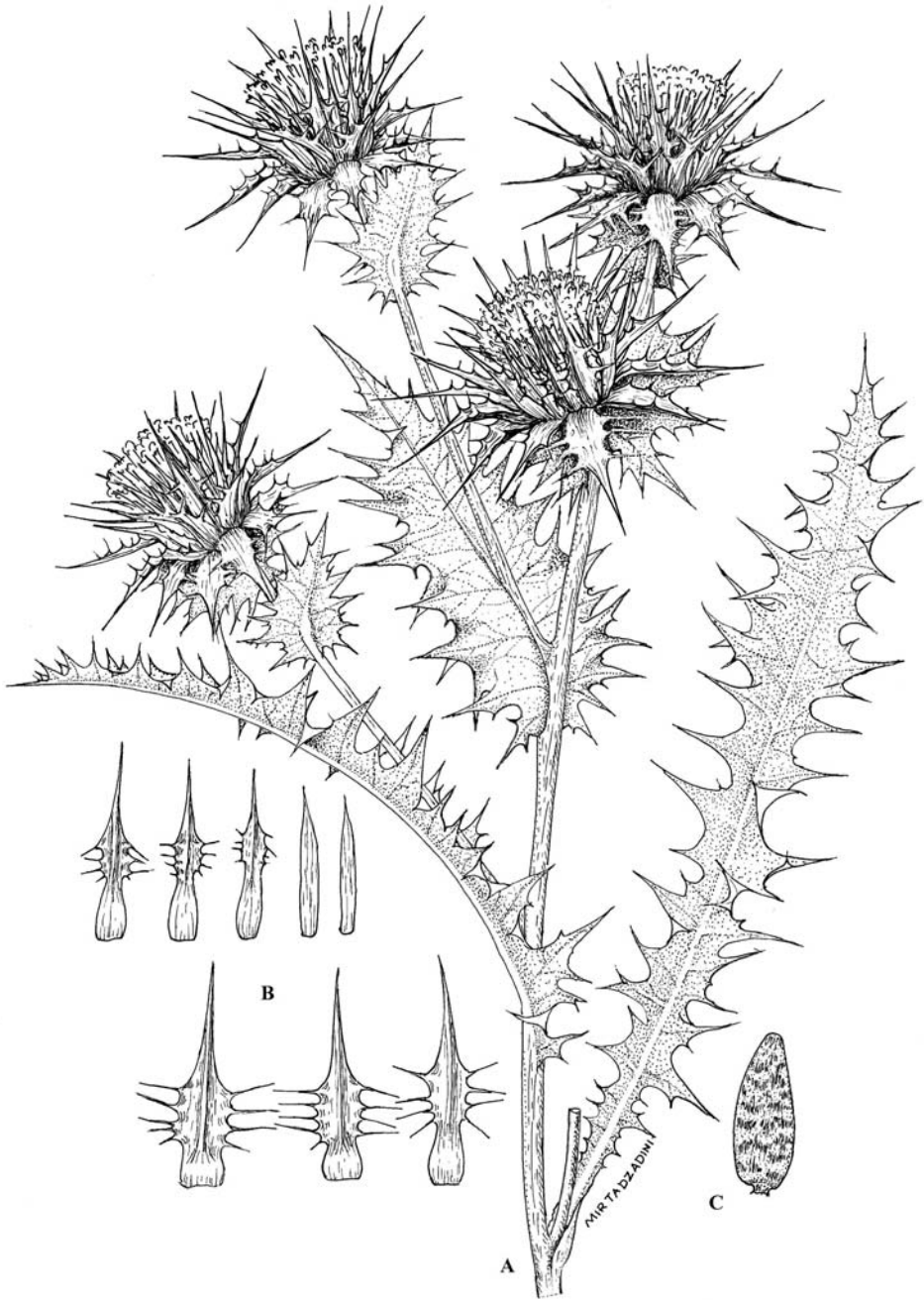


Fig. 1. *Cousinia hazarensis* – A: habit; B: involucral bracts; C: achene. – Drawn from the holotype by M. Mirtadzadini.

dulifera, dorso carinata. *Receptaculi setae* laeves, usque 25 mm longae. *Corolla* 20 mm longa, rosea, tubus limbum circiter aequans; laciniae 3-5 mm longae. *Antherarum tubus* roseus. *Achaenia* compressa, basi attenuata, superne rotundata, denticulata, cinerascenti-brunnescentia, irregulariter atrimaculata, 5 mm longa, 2 mm in diam. *Pappus* setis 3-7 mm longis, scabris, valde caducis.

Multistemmed perennial. *Stems* 45-66 cm high, striate, white, erect, branched, leafy, loosely covered by glandular or eglandular hairs. *Leaves* 27-32 × 7-8.5 cm, leathery, bright green, glabrous or with yellow stipitate or sessile glands on both surfaces; nervation pinnate-reticulate, whitish, prominent; midrib thickened; basal leaves lanceolate, pinnatilobed, acute or acuminate; lobes 20, terminal and lateral spines 6-7 mm long; cauline leaves decurrent on stems and branches for c. 5 mm and auriculate; uppermost leaves smaller, semicordate. *Capitula* solitary, subglobose, ± 165-flowered, 7.5 cm in diam. (including spines). *Involucral bracts* ± 80, attenuate into an apical spine up to 10 mm long, laterally multispinose (spines up to 10 mm long), slightly constricted above base, sometimes incised (lobes terminating in a long spine), dorsal and ventral surface with yellow stipitate or sessile glands, midrib distinct, prominent, dorsally keeled; outer involucral bracts ± 24 × 6 mm, distal half green, spreading or reflexed; middle involucral bracts up to 30 × 5 mm; inner involucral bracts with shorter spines on the margin, 25 × 5 mm, acuminate; innermost involucral bracts prominent, erect, acuminate, ciliate at the margin, dorsally brown in distal half, arachnoid, covered by papillae and brown glands, exserted. *Receptacle bristles* smooth, up to 25 mm long. *Corolla* dark pink, 20 mm long, limb almost as long as tube; laciniae of limb 3-5 mm long. *Anther tube* pink, glabrous. *Achenes* compressed, attenuate towards base, rounded and denticulate above, dark greyish brown, irregularly spotted, 5 mm long and 2 mm in diam. *Pappus* of caducous, scabrous bristles 3-7 mm long.

Distribution and habitat. – Endemic to southeastern Iran (Kerman province), growing on rocky slopes of Hazar Mt (Fig. 2).

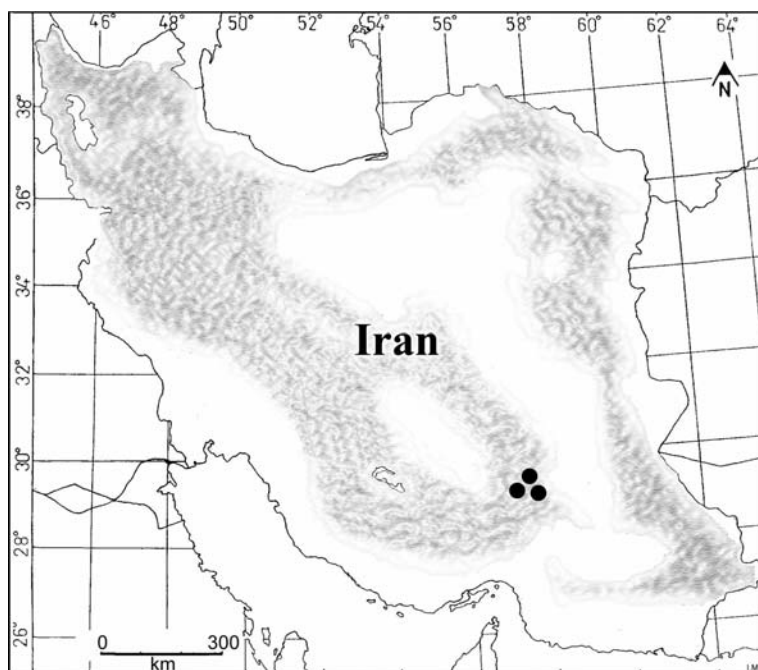


Fig. 2. Distribution of *Cousinia hazarensis*.

Table 1. Comparison between <i>Cousinia hazarensis</i> and its closest ally <i>C. qaisarensis</i> .		
	<i>C. qaisarensis</i>	<i>C. hazarensis</i>
Corolla [length]	25 mm	20 mm
Involucral bracts	> 100	± 80
Leaf lobes	± 7 on each side	c. 20 on each side
Leaf indumentum	loosely arachnoid-floccose	glandular, otherwise glabrous
Stem indumentum	arachnoid-floccose	glandular, otherwise ± glabrous

Additional specimens seen. – IRAN: KERMAN: Rayen to Babzangi, 2820 m, 17.6.2002, *Mirtadzadini* (TUH 29789); Rayen, Babini, 2750 m, 17.6.2002, *Mirtadzadini* (TUH 29788).

Relationships. – *Cousinia hazarensis* is closely related to *C. qaisarensis*, which is distributed in N Afghanistan (Maimana), see Table 1.

Key to the species of the *Cousinia* sect. *Spinuliferae*

- 1. Leaves subherbaceous, margin coarsely crenate *C. shahrestanica*
- Leaves coriaceous, margin different 2
- 2. Receptacle bristles scabrous; involucral bracts with subserrulate margins *C. sicigera*
- Receptacle bristles smooth; involucral bracts with denticulate or spinulose margins 3
- 3. Corolla 25 mm long, involucral bracts more than 100 *C. qaisarensis*
- Corolla ≤ 20 mm long, involucral bracts ± 80 or less 4
- 4. Involucral bracts ± 80, corolla 20 mm long. *C. hazarensis*
- Involucral bracts 30-60, corolla ≤ 15 mm long 5
- 5. Involucral bracts 30-35; capitulum 2.5-3(-4) cm in diam. *C. longifolia*
- Involucral bracts 50-60; capitulum 5-6 cm in diam. *C. fragilis*

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Addresses of the authors:
Mansour Mirtadzadini, Department of Biology, Faculty of Science, Shahid-Bahonar University, Kerman, Iran; e-mail: mirtadz@mail.uk.ac.ir
Farideh Attar, Central Herbarium of Tehran University, Faculty of Science, Tehran University, Tehran, Iran.