

INTRODUCING TWO NEW AND A RARE SPECIES OF THE GENUS *COUSINIA* CASS., SECT. *CYNAROIDEAE* (ASTERACEAE)

A. Ghahreman, M. Iranshahr & F. Attar

Ghahreman, A., Iranshahr, M. & Attar, F., 1999 08 01: Introducing two new and a rare species of the genus *Cousinia* Cass. Sect. *Cynaroideae* (Asteraceae). -Iran. Journ. Bot. 8(1):15-22 Tehran.

Cousinia parsana and *Cousinia shebliensis* are described as new species. These species are related to *C. elwendensis* Bornm. and *C. gilliatii* Rech. f. respectively. Description of *C. elwendensis* is completed.

Ahmad Ghahreman & Farideh Attar, Central Herbarium of Tehran University, Department of Botany, Faculty of Sciences, Tehran, Iran. Musa Iranshahr, Plant Pests and Diseases Research Institute, P.O. Box 1454-19395, Tehran, Iran.

Key Words. *Cousinia*, Asteraceae, new species, Iran.

معرفی دو گونه جدید و یک گونه نادر از جنس کوزینیا (بخش
Cynaroideae) از ایران

احمد قهرمان، موسی ایرانشهر و فریده عطار

گونه‌های *Cousinia parsana* و *C. shebliensis* به ترتیب از ارتفاعات الوند (همدان) و گردنه شبلی (نزدیک تبریز) به عنوان گونه‌های جدید شرح داده می‌شوند. گونه اول نزدیک به گونه *C. elwendensis* Bornm. است ولی در تعداد گل، طول جام، تعداد براکته و بعضی صفات دیگر از آن جدا می‌شود. گونه دوم با *C. gilliatii* Rech. f. قرابت دارد ولی در صفاتی چون فقدان پوشش کرکی سفیدرنگ، تعداد گل، اندازه براکته‌ها و برگشته بودن آنها با آن اختلاف دارد. همچنین یک گونه نادر به نام *C. elwendensis* Bornm. از ارتفاعات الوند (همدان) گزارش شده و شرح آن تکمیل می‌گردد.

Introduction

In a floristic study in Iran, two new species of the genus *Cousinia* Cass., Section *Cynaroideae* were found. These species are described as *C. parsana* and *C. shebliensis*. The first species is found together with *C. kornhuberi* Heimerl and *C. ecbatanensis* Bornm. in the area. *C. parsana* is regarded as the affinity of *C. elwendensis* Bornm. and *C. shebliensis* as the affinity of *C. gilliatii* Rech. f.

A species named *C. elwendensis* Bornm. also gathered on the Alvand mountains at the elevation begins from 1660-1700 meters. On the basis of a defective specimen (vegetative parts with lack of open heads), this species was given a poor description in the Flora Iranica (Rechinger 1972). It has an appearance similar to the genus *Onopordon* L. This plant has only been collected by Strauss some 93 years ago on Alvand mountains near Hamadan and also on Kenesht mountains in Kermanshah. The plant has meager branches and few heads and it is similar to *C. kornhuberi* Heimerl, but differs in white coloration and length of corolla, its trapezoid-shaped median phyllaries, short-stemmed branching and limited heads. However aditive characters are given

for this species.

Cousinia parsana Ghahreman, Iranshahr & Attar, **sp. nov.**

Perennes monocarpicae. Caulis albus usque ad 45-50 cm altus, valde ramosus, dense foliatus, interrupte alatus. Folia utrinque araneoso-tomentosa, nervatione pinnato-reticulata, utrinque prominenti; folia basalia usque 14x6 cm, oblongo-lanceolata, pinnatim sinuato-dentata, dentibus majoribus in spinas validas 2-3 mm longas excurrentibus, dentibus brevioribus breviter spinulosis intermixtis; costa mediana crassa; folia caulina inferiora et intermedia usque 5x3 cm, incomplete decurrentia, superiora sensim decrescentia. Capitula singula, spinis inclusis 4-6 cm diametro, plus minusve 110-flora; involucrum absque spinis usque ad 2x3 cm, globosum, superne leviter constrictum, araneoso-tomentosum, viridum; phylla plus minusve 100, exteriora recurvata, appendiculata, 20 mm longa; appendices recurvae, 17 mm longae, 10-12 mm latae, spinae usque ad 3 mm longae, dentato-spinosae; phylla intermedia appendiculata, imbricato-potentia; appendices 9-17 mm longae, 8-10 mm latae, spinulosae; appendices phyllorum interiorum breves, apice abrupte spinoso

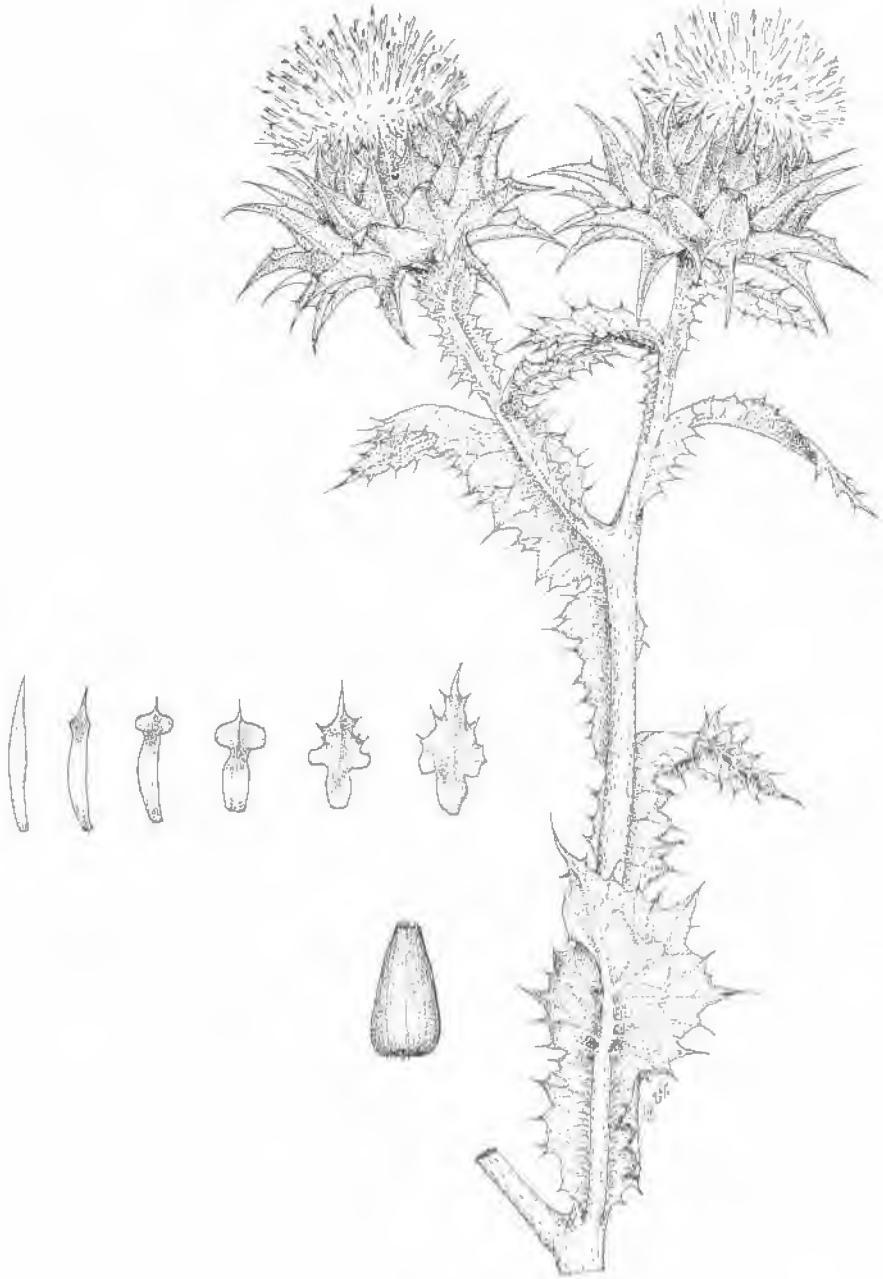


Fig. 1. *Cousinia parsana* (nat. size) ; achene (x3).

provisa; phylla intima non appendiculata, erecta, non exserta, apice lanceolato-acuminata, linearia, membranacea, acuminata. Receptaculi setae scabrae. Corolla in vivo lactea, 18-20 mm longa, tubo limbum subaequantem, laciniis plus minusve 8 mm longis. Anthera tubus lacteus, glaber. Achaenia (matura) 5x2 mm, obpyramidata, compressa, superne truncata, basin versus attenuata, striata, obsolete marginato-denticulata, maculis atrobrunneis; pappi setae scabrimae, valde caducae.

Typus. Hamadan: Road of Malayer, 20 km to Hamadan, Ecbatan dam, 1800 m, Ghahreman, Attar & Ghahremani-Nejad, 20553 (hol. TUH).

Monocarpic perennial, stem white, up to 45-50 cm long, branched from the base, densely leafy, interruptively winged. Leaves arachnoid-tomentose on both surfaces; nervation pinnate-reticulate; prominent; basal leaves pinnately sinuate-dentate; dents long and short, long dents terminating to a 2-3 mm long spine; rachis thick; lower and median stem leaves up to 5x3 cm, incompletely decurrent; upper leaves gradually reduced. Capitula solitary, 4-6 cm in diam. (included spines), more or less 110-flowered; involucre 2x3 cm

(excluded spines), globular, slightly contracted at the apex, arachnoid-tomentose, green; bracts more or less 100; outers recurved, appendiculate, 20 mm long, appendages recurved, ca. 17 mm long, 10-12 mm broad, margin dentate-spinose, terminating to a recurved c. 3 mm long spine; intermediate bracts imbricate-spreading; appendages 9-17 mm long, 8-10 mm broad; inner bracts with short appendages; innermost bracts exappendiculate, linear, membranous, acuminate, non exserted. Seta of receptacle scabrous. Corolla in vivo milky, 18-20 mm long; tube almost equalling the limb; lobes more or less 8 mm long. Anther tube milky, glabrous. Mature achene 5x2 mm, obpyramidal, compressed, attenuate towards the base, striate, dark-brown, apex truncate, indistinctly margined-denticulate; pappus caducous.

Differs from *C. elwendensis* Bornm. in following characters: flowers 110 (not 230); corolla 19-21 mm long (not 25-26); limb equalling the tube (not shorter); phyllaries 100 (not 130); appendages of median phyllaries distinctly spinose, 10x10 mm (not entire, 14-17x13 mm); leaves interruptively decurrent (not continuously decurrent); terminal spine of the leaves 5

mm long (not 15-16mm); stem 40-50 cm long (not 60-70).

Cousinia shebliensis Ghahreman, Iranshahr & Attar, *sp. nov.*

Perennis, monocarpica, araneoso-tomentosa. Caulis 40-60 cm altus, dense foliatus, interrupte alatus, in parte superiore ramosus. Folia basalia ignota. Folia caulina oblonga, basi cuneata, araneoso-tomentosa, grosse sinuato-dentata, dentibus in spinas validas usque ad 5 mm longas excurrentibus; folia superiora decrescentia, triangularia, basi cordata vel cuneata, nervatione pinnato-reticulata utrinque prominenti. Capitula spinis inclusis 6-8 cm diametro, plus minusve 180-flora; involucrium absque spinis 2.5x2.5 cm., superne constrictum; phylla plus minusve 120, appendiculata, araneoso-tomentella; appendices phyllorum exteriorum 30-33x4-5 mm, lanceolatae, margine remote spinulosae, dorso prominenter carinatae, patulo-recurvae; appendices phyllorum intermediorum lanceolatae, sensim in spinam excurrentes, 30-35x6-7 mm, margine sparse irregulariter spinuliferae; appendices phyllorum interiorum integrae, rhombico-triangularae, longe acuminatae, 19-22x4-5 mm; phylla intima non appendiculata,

angustiora, vix prominentia, membranacea, lineari-lanceolata. Receptaculi setae laeves. Corolla palide rosea, 23-24 mm longa, tubo limbum subaequantem, laciniis c. 4 mm longis. Antherarum tubus roseus, glaber. Achaenia (matura) obpyramidata c. 4x2 mm, cinerea, irregulariter atro-maculata, vix denticulata; pappus caducus.

Typus. Iran. Azerbaijan: 20 km to Tabriz: Shebli Pass 20580 m, Ghahreman, Attar & Ghahremani-Nejad, (hol TUH).

Monocarpic perennial, arachnoid-tomentose. Stem 40-60 cm long, branched on the upper part, densely leafy, interruptively winged. Basal leaves unknown. Cauline leaves oblong, cuneate at the base, nervation pinnate-reticulate, prominent on both surfaces, arachnoid, coarsely sinuate-dentate, dents terminating to a 5 mm long spine; upper leaves reduced, triangular, cordate-cuneate at the base. Capitula 6-8 cm diam. (included spine), more or less 180-flowered; involucre 2.5x2.5 cm (excluded spine), contracted at the apex; bracts more or less 120, appendiculate, arachnoid-tomentellose; appendages of outer bracts 30-33x4-5 mm, lanceolate, spinuliferous, dorsal carinate, spreading-recurved; appendages of intermediate bracts lanceolate, gradually

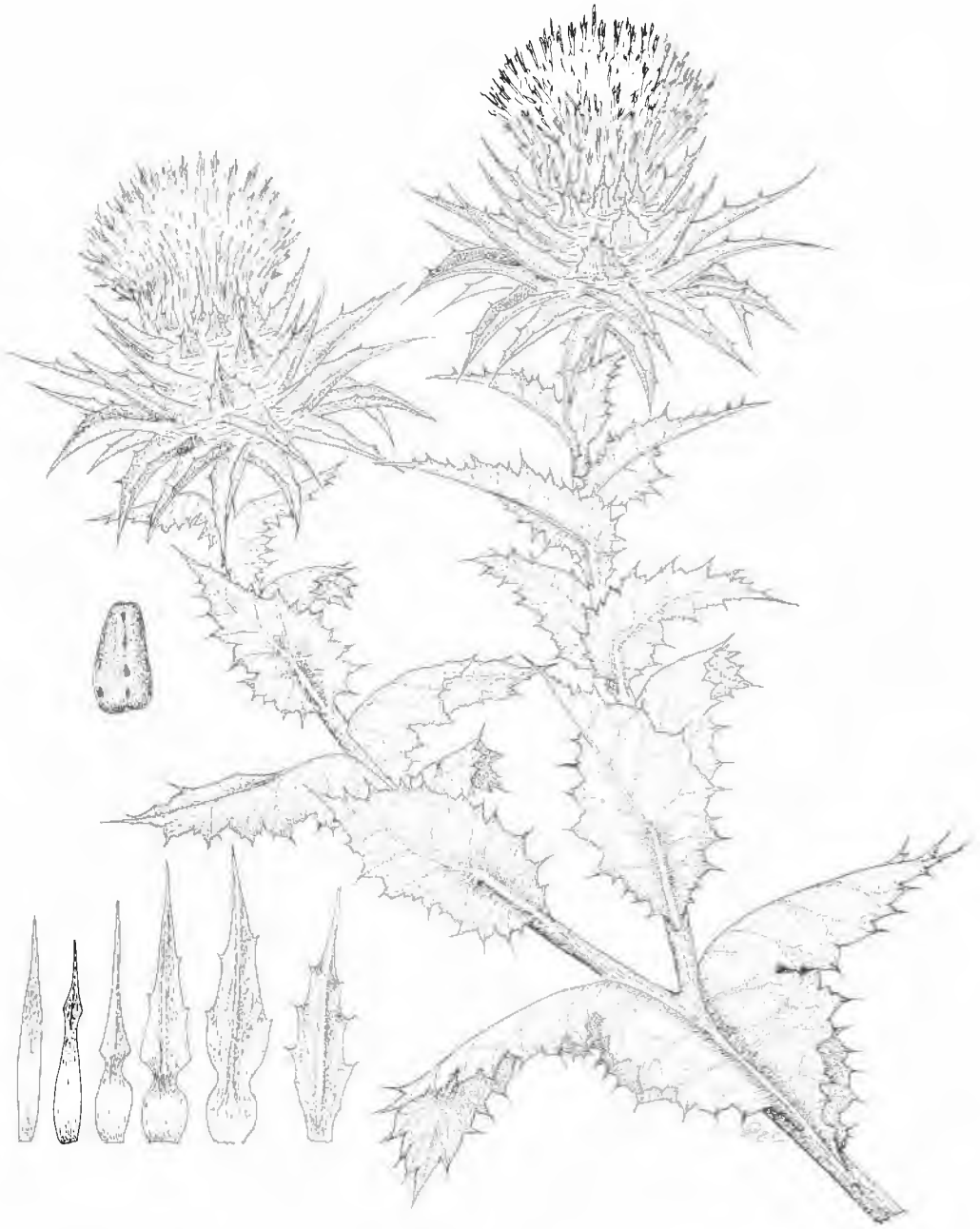


Fig. 2. *Cousinia shebliensis* (nat. size); achene (x3.5).

attenuate towards the apex into long spine, irregularly spinuliferous; appendages of inner bracts entire, rhomboid-triangular, acuminate, 19-22x4-5 mm; innermost bracts narrow, exappendiculate, slightly exerted, membranous, linear-lanceolate. Seta of receptacle smooth. Corolla pale pink, 23-24 mm long; tube equalling the limb or longer; lobes ca. 4 mm long. Anther tube pale pink, glabrous. Achene (maturity) pyramidal, ca. 4x2 mm, cinerescens, irregularly atro-maculate, indistinctly denticulate; pappus caducous.

Differs from *C. gilliatii* Rech.f. in following characters: arachnoid-tomentose (not whitish arachnoid-tomentose), 180-flowered (not 60-70), bracts 120 (not 70-80), intermediate bracts spinulose (not entire), appendages up to 40 mm long (not up to 25 mm long), corolla 18-20 mm long (not 22-24 mm long), lobes 8 mm long (not 4-5 mm long).

***Cousinia elwendensis* Bornm.,
descriptio completa**

Caulis 60-70 cm altus. Folia basalia 35x8 cm. Receptaculi setae scabrae. Flor ca. 230. Corolla 25-26 mm longa, lactea; tubus limbum leviter longior, laciniis ca. 5 mm longis. Antherarum tubus lacteus, glaber. Achaenia 5x2.5 mm., obpyramidale, brunnescens, irregulariter atro-maculata, striata, superne vix denticulata, papposa. Hamadan: Alvand mountains, 2140 m, Ghahreman, Attar & Ghahremani-Nejad, 20566-(TUH).

Acknowledgement

We wish to thank Mr. M. Mirtajoddini for drawing the illustrations.

Reference

Rechinger, K.H., 1972: *Cousinia* in K. H. Rechinger Fl. Iranica, no. 90. -Graz.

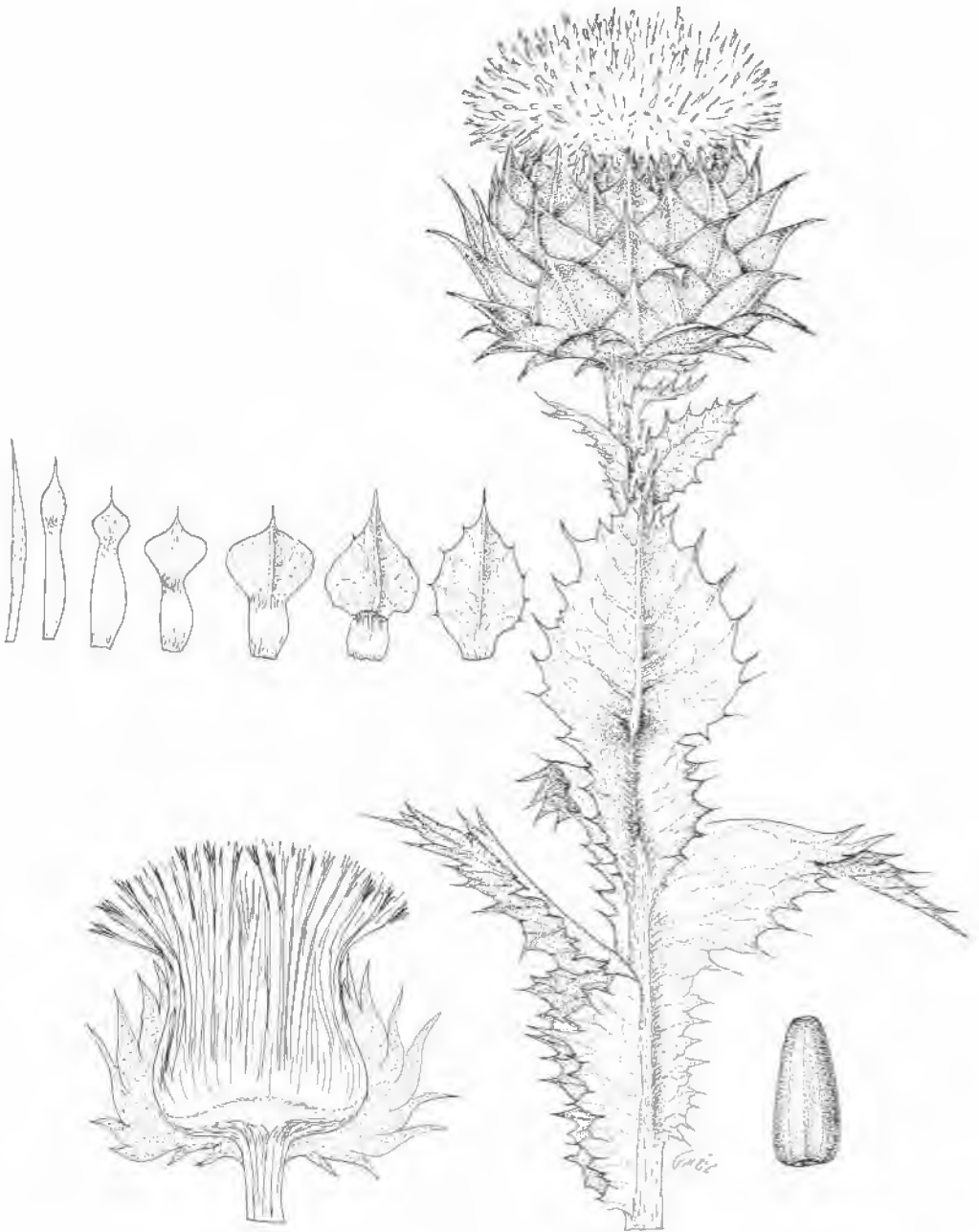


Fig. 3. *Cousinia elwendensis* (nat. size); achene (x3.5).