

# NEW SPECIES AND NEW RECORDS OF ASTERACEAE FROM IRAN

V. Mozaffarian

Received 2014. 07. 06; accepted for publication 2015. 05. 15

Mozaffarian V. 2015. 06. 30: New species and new records of Asteraceae from Iran.-*Iran. J. Bot.*21(1): 24-29. Tehran.

Two new species, *Lactuca birjandica* and *L. gilanica* (Asteraceae) are described. In addition, a new record, *Cichorium glandulosum* Boiss. & Huet. is reported for Iran. Furthermore an interesting collection of *Lactuca muralis* L. from Gilan Forest in Iran is discussed for the first time. Taxonomic characters and illustrations are given for all species.

Valiollah Mozaffarian (correspondence < mozaffar@rifr-ac.ir >) Research Institute of Forests and Rangelands P. O. Box 13185-116, Tehran, Iran.

**Key words:** New species; new record; *Lactuca*; *Cichorium*; Gilan; Iran.

گونه‌های جدید و گزارش‌های تازه از تیره کاسنی در ایران.

ولی‌اله مظفریان، دانشیار مؤسسه تحقیقات جنگلها و مراتع کشور.

دو گونه جدید برای جهان گیاه شناسی شرح داده می‌شود، همچنین یک گزارش تازه و گونه‌ای جالب از جنگل‌های گیلان برای ایران تشخیص داده شده که تصاویر آن‌ها ارایه می‌گردد. گونه‌های جدید شامل:

*Lactuca birjandica* و *Lactuca gilanica* (Asteraceae)

و گزارش‌های تازه به نام *Cichorium glandulosum* Boiss. & Huet. و *Lactuca muralis* L. گونه جالب توجه از جنگل‌های گیلان است. صفات تاکزومیک و تصاویر همه گونه‌ها ارائه شده است.

## INTRODUCTION

During the study of author's plant collections from different parts of Iran (Gilan), the author have come to conclusion that the following taxa are clearly distinct from any *Lactuca* species which were formerly reported from Iran (Matthews 1975, Rechinger 1977, Kirpichnikov 2001).

*Lactuca* L. (Asteraceae, Lactuceae) with about 100-150 species is one of medium-sized genera of vascular plants in the world. The *Lactuca* species are adapted and chiefly distributed in Eurasia extending to tropical & S. Africa and with few species in N. & C. America.

According to Flora Iranica 12 species of *Lactuca* are growing in Flora Iranica area of which 9 species grow in Iran, that also are distributed in Iraq, Afghanistan, Pakistan, India (Mt. Himalayas), C. Asia, Caucasus and Transcaucasia. Regarding to these new and a record species the number of *Lactuca* species in Iran increases to 12. Two of them are annual and the others are perennial.

Annual, perennial, with variable habit, leaves herbaceous or subcoriaceous, more often pinnately-lobed or pinnatisect or runcinate, rarely dentate or

sublyrate. Capitula usually in paniculate synflorescence, with 3-26 flowers, mostly cylindric, with (2-) 3-4 series of herbaceous phyllaries. Receptacles glabrous, ligules yellow, sky-blue to purplish. Achenes 2-6 x 1 mm, flattened, oblong-obovate, oblong-elliptic or oblong-linear, 4-20 ribbed, brown to dark brown or blackish, rostrate. Pappus 2.5-7 mm long, white. The new records, *Lactuca muralis* L. is a distinct species with having only 5-flowers and 2-series of phyllaries sometimes included in the genus *Mycelis* Cass. (Kirpichnikov 2001).

The aim of this paper is to describe two new species and report a new taxon for the flora of Iran and point to an interesting species from Gilan. The specimens of all taxa are preserved in TARI.

## New species

*Lactuca birjandica* Mozaff. sp. nov. (fig. 1).

Perennial, many-stemmed, greenish, caespitose, glabrous. Stem 50-80 cm high; nearly striate, in lower parts leafy, at  $\frac{1}{3}$  divaricate-furcate branched in  $\frac{1}{3}$  upper part, rather thick,  $\pm$  leafless. Leaves often basal, very likely rosulate or nearly basal; petiole absent or very

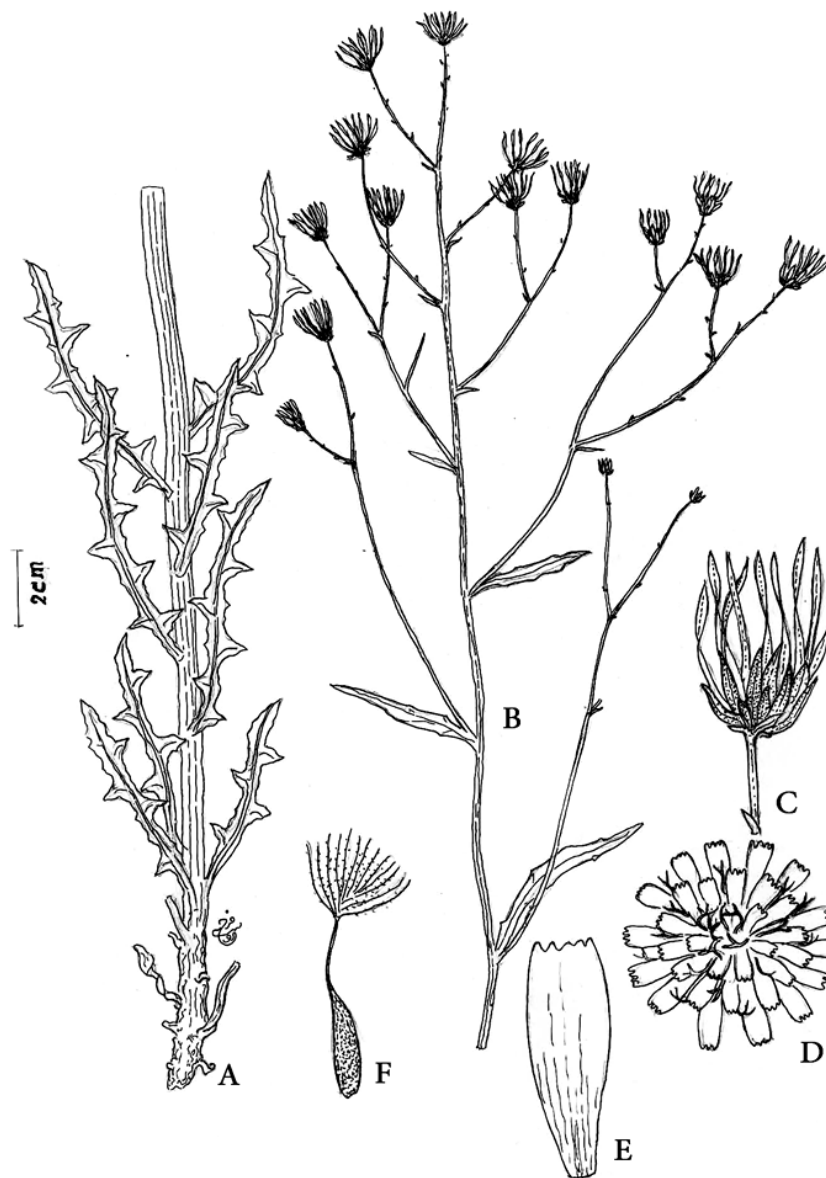


Fig. 1. *Lactuca birjandica* Mozaff. A, & B, habit; C, opened capitulum; D, feature of capitulum from above; E, ligule; F, achene.

short, including the 8-15×1.5-3 cm petiole, oblong-lanceolate, nearly lobed-sinuate or pinnately lobed; lobes horizontally spreading, or entire or ± turned backwards; subtended branches leaf entire, at the base hastate-auriculate; upper most stems or branch leaves decreased to scales. Synflorescence often large; capitula arranged in ones on the top of the narrowed branches, 20-30 flowered. Involucres 10×8 mm, glabrous; phyllaries 3-4 seriate, loosely imbricate, outer involucre bracts small, acute lanceolate-triangular, the

inner involucre bracts linear, black-tipped. Corolla pale red. Achenes 3×1 mm, oblong-elliptic, compressed, 3-5-costate, pale brown; rostellum white, 2 mm; pappus 2.5-3 mm long; white.

*Affinity:* The new species with having many stems and ± leathery glabrous basal leaves is an isolated species and there are not very close species to it in the Flora Iranica area and Flora of USSR.

*Typus:* Khorassan, Birjand, Kuh-e Bagheran from Band-e Omar Shah valleys 32° 47' N; 59° 10' E, 2024 m, Mozaffarian 97408 (TARI).

***Lactuca gilanica* Mozaff. sp. nov.** (fig. 2).

Perennial herb, rootstock mostly robust, with conspicuous underground long spindle-shaped tuber, entirely glabrous. Stems 100-120 cm high, erect, regularly leafy in upper part, paniculately branched above. Basal leaves dying off at flowering period; lower stem leaves thin herbaceous, sessile, more or less rounded auriculate, in outline oblong-lanceolate, sinuate-lobed, along margin nearly irregularly toothed; upper stem leaves oblong-lanceolate, more or less loosely crenate-dentate, conspicuously rounded-auriculate; leaves of branches small, conspicuously rounded-auriculate more or less amplexicaul; leaves in uppermost branches scale-like. Synflorescence with divaricate thin branches. Heads cylindrical, glabrous, 8-9 mm long, 2.5-4.5 mm wide, sessile on short branches, terminal or nearly lateral, 10-15-flowered. Involucral bracts in two to three rows, imbricate, outer ones lanceolate, obtuse, short; inners linear-lanceolate, obtuse, erect, narrowly to slightly scarious along margins, with black spots on the back. Corolla orange-red. Achenes compressed, ovate-orbicular, glabrous; rostellum short, ca. 1 mm long; pappus 5 mm long, white.

*Affinities:* The new species with spindle-shaped rootstock is isolated in Flora Iranica region, but it is close to *Lactuca raddeana* and *Lactuca triangularia* in Flora of USSR area but differs from them in exactly glabrous leaves, and conspicuously rostellate achenes.

*Typus:* Gilan Fuman, Masule, along Gilevand road, 37° 08' 22" N; 49° 04' 11" E, 660 m, Mozaffarian 97409 (TARI).

### New records

***Cichorium glandulosum* Boiss. & Huet** (fig. 3).

*Specimens seen:* Azarbaijan: Miane, Bozghoush mountain region, Gharibdust village 1670 m, V. Mozaffarian 93484 (TARI); Chahrmahal-e Bakhtiary: Farsan, Deh-e Cheshme towards Gushe Village, 2100 m, N. 32,13,64; E. 50,32,31, V. Mozaffarian 97362 (TARI); Ilam: Eivan, Bankul, Mozaffarian without herbarium number,

Slender annual up to 60 cm. Leaves sparsely pubescent; basal leaves shortly petiolate, obovate, dentate; cauline leaves sessile, somewhat auriculate, lanceolate, dentate except uppermost which are entire. Capitula up to 1 cm broad, borne at end of slightly thickened glandular-hairy peduncles. Phyllaries glandular-hairy; the outers ovate-elliptic; the inners

narrower, ±equal in length to the outers. Pappus ca 5 × shorter than achene.

This species was recently collected from different parts of Iran specially from crop fields. A distinct species with dense glandular stem and capitulum. Its general distribution is the Irano-Turanian Region in Turkey, Syria and Iran.

***Lactuca muralis* (L.) Gaertn.** (fig. 4).

Syn: *Mycelis muralis* (L.) Dumort.

perennial rhizomatous herb with short stock. Stems erect, glabrous, 20-100 cm. leaves membranous, glabrous, alternate, lyrate-pinnatisect, with 2-6 lateral lobes; basal with petioloid bases, uppers sessile, ± auriculate, usually glabrous. Capitula ligulate, homogamous, 5-flowered. Involucre narrowly cylindrical; phyllaries 2-seriate, those of outer row much shorter than inner. Receptacle naked. Flowers yellow. Achenes homomorphic, fusiform, blackish-brown, subcompressed, many-ribbed, beaked; beak comparatively stout. Pappus white

*Specimen seen:* Gilan: road from Asalem to Khalkhal, Almas neck mountain, Shahgerdekuh, Kal-e Kal-e forest, 37° 38' 45" N; 48° 44' 36" E, 1504 m asl, Mozaffarian 97530 (TARI)

This is an interesting species which has been recollected after many years from Arasbaran and then from Gilan at the altitude of ca. 1500 m in rather dense *Fagus orientalis* forest.

### ACKNOWLEDGEMENTS

I wish to thank Ms. Nowbakt and Ms. Farahdoost, the artists of the Research Institute of Forests & Rangelands for drawing the illustrations.

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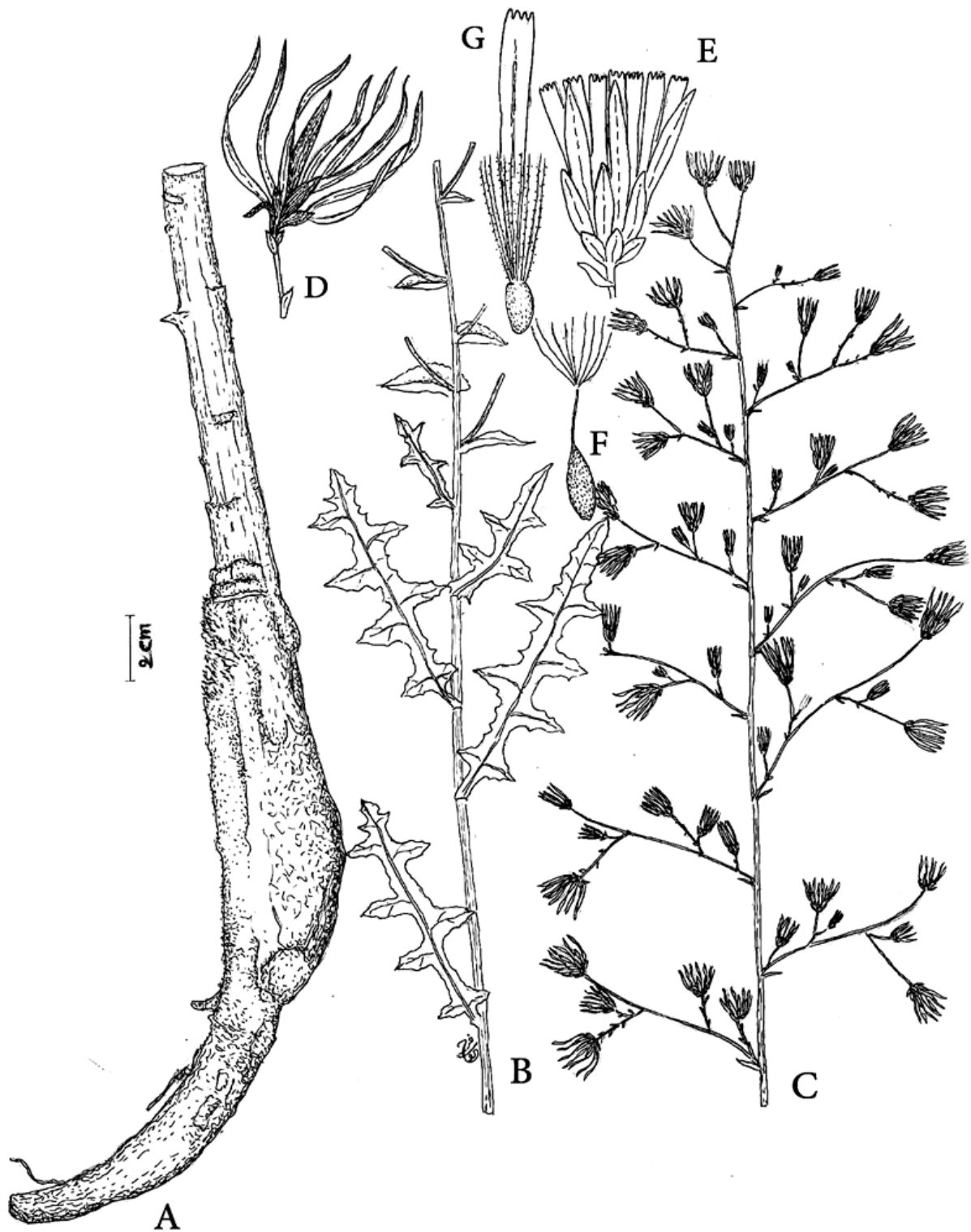


Fig. 2. *Lactuca gilanica* Mozaff. A, rootstock; B, lower part of stem; C, upper part of stem. D, opened capitulum; E, capitulum; F, and G, achenes.

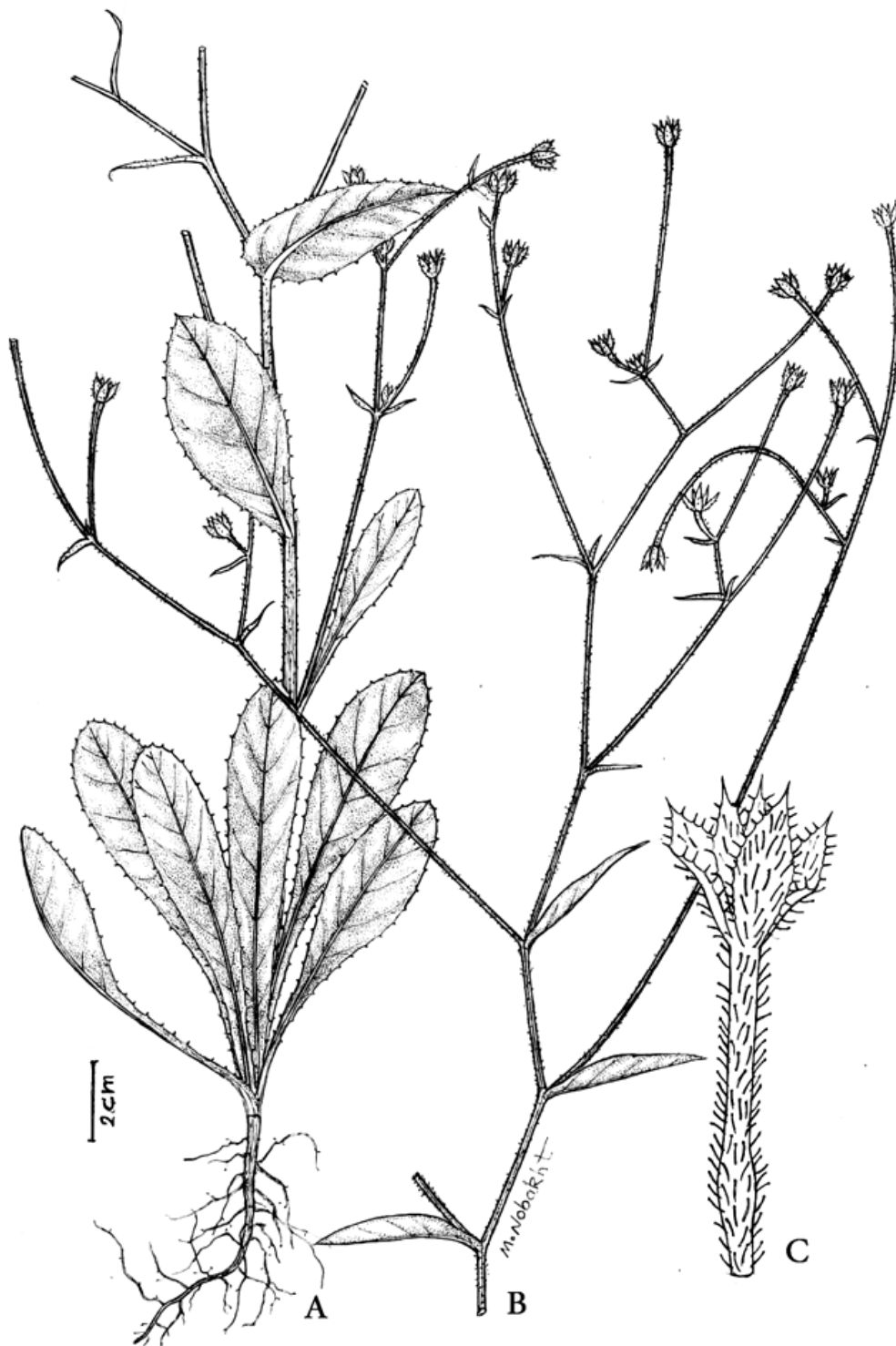


Fig. 3. *Cichorium glandulosum* Boiss. & Huet. A and B, feature of plant; C, upper part of peduncle, phyllaries and its indumentum.



Fig. 4. *Lactuca muralis* L. A, lower stem leaves; B, flowering branches; C, capitulum; D, achene.