

NEW RECORDS OF THE TRIBE INULEAE (ASTERACEAE) FOR THE FLORA OF ARMENIA

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During the study of the tribe *Inuleae* (*Asteraceae*) in ERE herbarium some new record species are recognized for flora Armenia. These species are: *Filago desertorum* Pomel, *Helichrysum davisianum* Rech. f., and *Gnaphalium stewartii* C. B. Clarke ex Hook. f. Here the taxa are compared with their closest relatives. Distribution map and pictures of these species are provided.

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Key words. *Inuleae*, *Filago*, *Helichrysum*, *Gnaphalium*, new records, Armenia.

گزارش‌های جدید از تبار اینوله (تیره کاسنی) از ارمنستان

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طی مطالعه تبار اینوله در هرباریوم مؤسسه گیاه‌شناسی ارمنستان سه گونه جدید زیر برای فلور ارمنستان شناسایی شدند:

Filago desertorum Pomel و *Helichrysum davisianum* Rech. f. و *Gnaphalium stewartii* C. B. Clarke ex Hook. f. این

گونه‌ها با گونه‌های نزدیک خود مقایسه می‌شوند. نقشه پراکنش و تصاویر آنها نیز ارائه می‌گردد.

Introduction

The tribe *Inuleae* Cass. includes 11 genera in Armenia (Avetisyan, 1995). During the study of the tribe *Inuleae* (*Asteraceae*) in herbarium ERE three taxa were identified and recognized as new records for the flora of Armenia: *Filago desertorum* Pomel, *Helichrysum davisianum* Rech. f. and *Gnaphalium stewartii* C. B. Clarke ex Hook. f. Among them, *Helichrysum davisianum* has been previously recognized as an endemic of Iran (Rechinger, 1980). Specimens of all these three taxa are deposited at ERE herbarium.

***Filago desertorum* Pomel** -Fig. 1.

Annual herbs. Stem absent or with stem, 0.5-5 cm long, densely grey-tomentose. Leaves oblong to spatulate, obtuse. Glomerules made of 5-13 capitula. Involucre

indistinctly 5 angled; paleae 5 to 7 series, at fruiting-time divergent to stellately expanded; outer and intermediate lanceolate, apex aristate, densely tomentose; inner phyllaries long-ciliate, apex obtuse-dentate, Female florets in the axils of paleae and in the center of receptacle, bisexual florets 5-7. Cypselas 0.7-1 mm long, obovate, papillose. Pappus 1.7-2.5 mm long, caduceus.

Filago desertorum is morphologically similar to *F. pyramidata* L. It differs from *F. pyramidata* by the margin of paleae (long-ciliate in this species vs. smooth in *F. pyramidata*), involucre shape (indistinctly 5-angled vs. pyramidal and distinctly 5-angled).

In Flora Armenia (Avetisyan, 1995) the specimen of this species seems to have been determined as *Filago spathulata* Presl.



Fig. 1. *Filago desertorum*.

General distribution. Spain, N Africa, SW Asia (Qaiser & Rubina 2003).

Studied specimen. Armenia. Meghri district, Nyuvadi, in direction of Zangelan, 15.5.1979, Gabrielian 128457.

***Helichrysum davisianum* Rech. f. -Fig. 2.**

Perennial, shrublet. Stems erect or curved, up to 30 cm tall, densely arachnoid-tomentose. Resting buds fusiform, 1.5-3.5 mm in diameter, wooly to glabrous. Leaves linear, acute, densely arachnoid-tomentose, 4-25 mm long, revolute at margin. Compound synflorescences terminal, nearly making corymbs of 3-9 heads. Capitula homogamous, obconical, 3-5 mm long; phyllaries pale yellow, 7-8 series, apex obtuse. Flowers yellow. Achene cylindrical, gelatinous-glandular; pappus 3- 3.5 mm long, with 23-25 bristles.

H. davisianum is similar to *H. artemisioides* Boiss. & Hausskn. It differs from *H. artemisioides* by the shape of phyllaries (oblong vs. obovate to spatulate), phyllaries series (7-8 vs. 9-11), capitula shape (obconical vs. obconical-turbinate).

In Flora Armenia (Avetisian, 1995) the specimens of this species seems to have been determined as *H. armenium*.

Geographical distribution. Iran and Armenia (Rechinger, 1980).

Studied specimens. Armenia. Malishka, dry hills, 1450 m, 2.7.1935, Takhtajan 26083; Mikoyan region, South from Khachik, 22.VII.1950, Mulkijanian 116160.

***Gnaphalium stewartii* C. B. Clarke ex Hook. f. -Fig. 3.**

Perennial, caespitose herbs. Stems 2-17 cm tall, densely floccose-tomentose. Basal leaves rosette, linear-ob lanceolate, 15-30×1.5-3 mm, acute, densely white tomentose on the lower surface, less on the upper surface. Capitula 3-8 in narrow spike, campanulate. Phyllaries 3-4 seriate, ovate, acute, pale yellow, brownish at the apex. Female florets many, filiform, bisexual florets 5-6. Cypsela 1-1.5 mm long, sparsely covered with short hairs.

G. stewartii is similar to *G. supinum* L. It differs from *G. supinum* by capitula number (3-8 vs. 1-4), female florets shape (narrow & small lobes vs. from below increased & large lobes), cypsela coating (papillose vs. hairy).

In Flora Armenia (Avetisian, 1995) the specimens of this species seems to have been determined as *G. supinum*.

Geographical distribution. Turkey, Afghanistan, Pakistan, Kashmir, India, China and Armenia (Qaiser & Rubina, 2003).

Studied specimens. Armenia. Zangezour, Mt. Kaputdjugh, eastern macroslope, on alpine carpets, 3500 m, 13.8.1955, Gabrielian 84507; Kirovakan [Vanadzor] region, Mt. Maymekh, northern slope, 18.8.1935, Narinjan 26570; Artik region, NW slope of Mt. Aragats, upper line of alpine zone, on carpets of pasture, 17.8.1945, Akhverdov 141304; Martuni region, farm Yankh, Chingili yurd, alpine meadow, near snow flake, northern slope, 1.8.1955, Mulkijanyan 84501; Kirovakan [Vanadzor] region, NW from settlement Hamzachimian [Margahovit], SE slope, upper forest edge, near road, 13.6.1961, Avetisian 84506; Gegham range, near lake Akna, scree, SW slope, 3200 m, 30.8.1963, Mulkijanian 84505; Vardenis range, southern macroslope of Mt. Vardenis, on rock streams, 3000-3100 m, 6.8.1988, Baloyan 137037; Ghukasian region, Mt. Chivilu, around of



Fig. 2. *Helichrysum davisianum*.

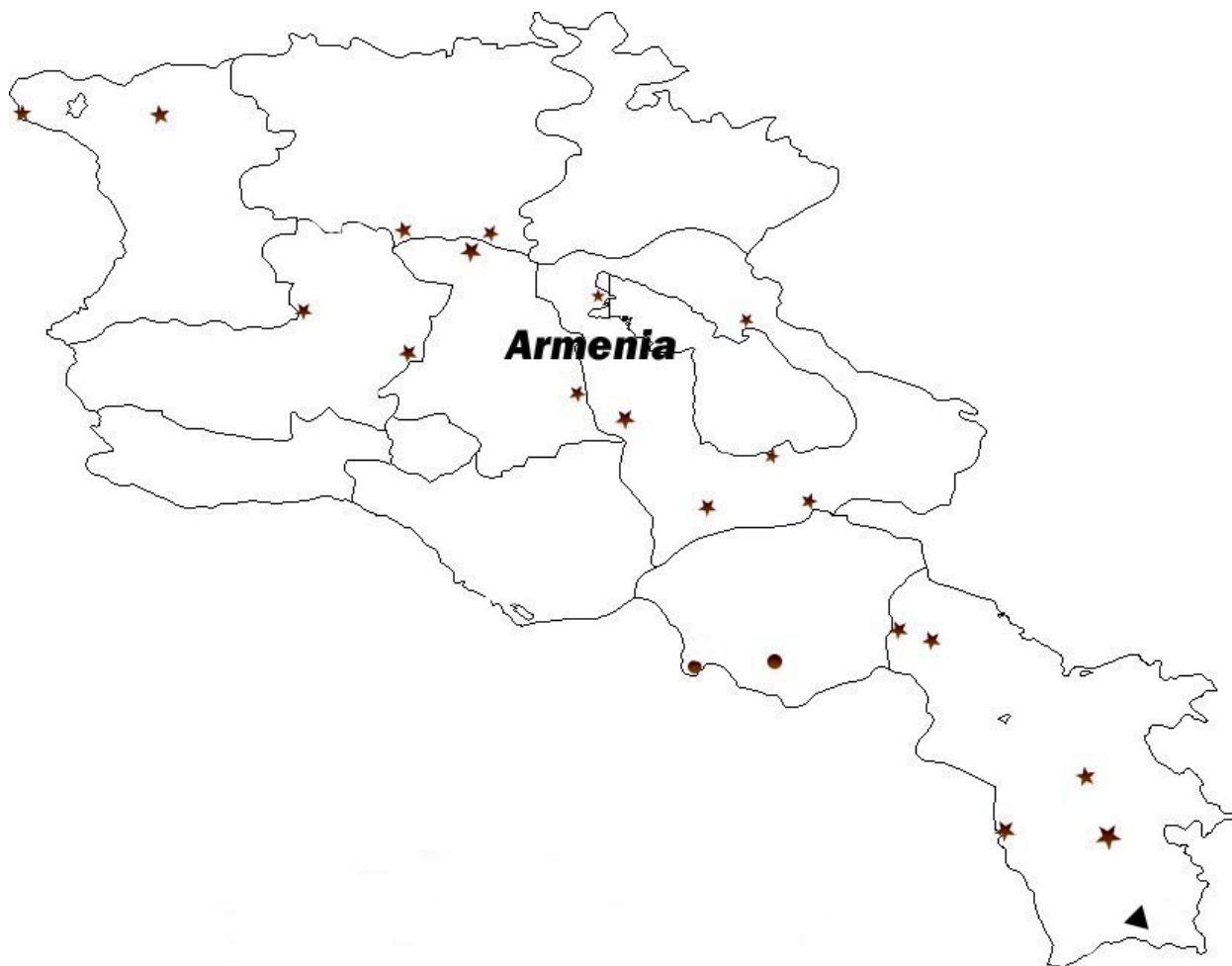


Fig. 3. *Gnaphalium stewartii*.

village Krasar, meadow, N slope, 20.7.1957, Mulkijanian & Avetisian 84504; Hrazdan region, Pambak range, Mt. Keroghli, northern slope, up from village Meghradzor side, 2200–2800 m, 19.7.1983, Chanjian 122511; Amasia region, Mt. Agbaba [Ghukasian], northern macroslope, 3000 m, 24.7.1969, Gabrielian & Poghosian 96155; Kotayk region, Mt. Akmagan, lake Akna, NE bank, southern slope, black screed, 4.8.1960, Gabrielian 69249; Zangezur, Kapan region, Mt. Kaputdjugh, on cobble slopes, 8.VIII.1950, Akhverdov 124718; Alagez [Aragats], shore of lake Kara-Gel [lake Kari], NE slope, 28.8.1932, Magakian 31559; Zangezur. Bergushet range, on cobble carpets, 2900 m, 9.VIII.1951, Akhverdov & Mirzoeva 141305; Zangezur, Mt. Khustup, subalpine belt, 2.8.1959, Gabrielian & Yelenevski 105997; Aparan region, Mt. Arai, in front of village Kosha-Bulakh, NW slope, 4.8.1959, Mulkijanian 84503; Sisian region, around of village Sarnakunk, mountainously meadow-steppe, with *Festuca*, SW macroslope, 2700–2900 m, 2.9.1956, Mulkijanian & Karapetian 84502; Sisian region, NE from Bazarchay [Gorayk], broken up alpine pasture, 2650 m, 30.7.1956, Mulkijanian 124864; Sisian region, NE from Bazarchay [Gorayk], broken up alpine pasture, 2650 m, 30.7.1956, Mulkijanian 84499; Prope Nor-Bajazet [Gavar], in fauc. Gri-Zor, in declivibus NW, in pratis subalpinis, 3100 m, 16.8.1928, Schelkovnikov and Kara-Murza 3420; distr. Novo-Bajazet, in jugo Artshanotz prope pagum Tzamakapert, 2100–2700 m, 11.7.1923, Grossheim & Zedelmejer 3416; Alagez [Aragats], road to Chichak-Yurt, up to spring of collective farm of village Takyarlu [Artavaz], 2400 m, 25.8.1932, Bush 6506; Nor-Bajazet [Gavar], In jugo Konguro-Alangessky, 2.8.1919, Zedelmejer & Gejdeman 3419; Ripa Günei, prope Ardanyc [Artanish], in jugo Jach-Dag, 2600 m, 25.7.1927, Schelkovnikov & Kara-Murza 3418; Prope Nor-Bajazet [Gavar], in fauc. Gri-Zor, in decliv NW, 3300 m, 16.8.1928, Schelkovnikov & Kara-Murza 3421; Distr. Novo-Bajazet. Kejty-Janych, in monte Gezeldara, 3000–3600, 30.7.1927, Grossheim & Zedelmejer 3417.

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Map 1. Distribution map of: ▲ *Filago desertorum*. ● *Helichrysum davisianum*. ★ *Gnaphalium stewartii*.