

# COUSINIA OLIVIERI DC. (ASTERACEAE), AN EARLIER NAME FOR TURKISH C. CIRSIODES BOISS.

I. Mehregan

Received 14.03.2012. Accepted for publication 09.05.2012.

Mehregan, I., 2012 12 31: *Cousinia olivieri* DC. (Asteraceae), an earlier name for Turkish *C. cirsioides* Boiss. – *Iran. J. Bot.* 18 (2): 231-234. Tehran.

*Cousinia olivieri* DC., a species with unknown origin is located and lectotypified. Regarding the morphological similarities observed between *C. olivieri* and species distributed mainly in southern Turkey, and the absence of any relevant material from Iran, it is concluded that the type material of the species must be from Turkey, not Iran. *Cousinia cirsioides* Boiss. & Balansa, a narrow endemic of S Turkey is here reduced as a synonym of *C. olivieri*.

Iraj Mehregan, Department of Biology, Science and Research Branch, Islamic Azad University, Tehran, Iran. E-mail: [iraj@daad-alumni.de](mailto:iraj@daad-alumni.de).

**Key words.** *Cousinia*, new synonym, lectotypification, Turkey, Iran.

**C. cirsioides Boiss. نام قدیمی تر برای گونه Cousinia olivieri DC. (Asteraceae)،**  
ایرج مهرگان، استادیار دانشگاه آزاد اسلامی، واحد علوم و تحقیقات، تهران، ایران.

در این مقاله مبدا و لکتوتیپ گونه ناشناخته *Cousinia olivieri* DC. تعیین شده است. با توجه به مشاهده شباهت های مورفولوژیک بین این گونه و گونه های جنوب ترکیه، و فقدان هر نوع نمونه هرباریومی مرتبط از ایران، چنین نتیجه گیری شد که نمونه های تپ این اسم از ترکیه و نه از ایران جمع آوری شده است. در این مقاله هم چنین نام *Cousinia cirsioides* Boiss. & Balansa که گونه ای بومی جنوب ترکیه است به عنوان همنام این گونه کاهش یافته است.

## Introduction

The genus *Cousinia* Cass. (Asteraceae: Cardueae) has more than 600 species worldwide and is mainly centered in eight centers of biodiversity in SW and C Asia (Rechinger, 1986, Susanna & Garcia-Jacas, 2006). Flora Iranica (Rechinger, 1972, 1979) describes ca. 450 species in its area, grouped in ca. 50 sections. The number of species drops towards the west. According to Huber-Morath (1972, 1975), *Cousinia* is represented in Turkey with ca. 40 species, more than half of them from *C. sect. Cousinia*. Number of species of section *Cousinia* (22 species, Huber-Morath, 1975) in Turkey is larger than those of Flora Iranica area (ca. 10 species, Rechinger, 1979). Turkey therefore seems to be the main center of biodiversity of *C. sect. Cousinia*. 19 out of 22 species of section *Cousinia* in Turkey are reported as endemics (Huber-Morath, 1975). Among all those species, some groups of related taxa could be identified. *Cousinia cirsioides* Boiss. & Balansa, *C. ermenekensis* Hub.-Mor. and *C. iconica* Hub.-Mor. are morphologically related and distributed mainly in S Turkey (Fig. 1, areas B3, B4, C3, C4 & C5 after regional categories of Flora of Turkey, Huber-Morath, 1975). In this paper, I aim to find the origin of type

material of *C. olivieri* (allegedly from Iran) which is morphologically similar to that group of Turkish taxa.

## Material and methods

All *Cousinia* material deposited in herbaria W, B, JE, K, E, P, KAS, M, ANK, GAZI, TARI and IRAN (abbreviations after Thiers, 2008+) was studied morphologically. In order to locate the names, protologues of all related taxa were examined.

During examination of *Cousinia* material deposited in herbarium P in 2006, I found type material of *C. olivieri* DC. (Figure 2) collected by Olivier & Bruguere from an unknown area (mistakenly reported from "Persia" after De Candolle, 1838: 552, but see Rechinger, 1972: 90). That material was critically examined and compared with type material of *C. cirsioides* (Figure 3, collected "ad Bereketly Cappadociae" in Turkey by Balansa; see Boissier, 1859: p. 117) deposited in same herbarium. Both material show high degree of similarity (Fig. 2). Origin of type material of *C. olivieri* in unknown (Rechinger, 1972) and no further material of that species has ever been recollected from Iran (Attar et al., 2007). In addition, no information regarding the exact origin of type

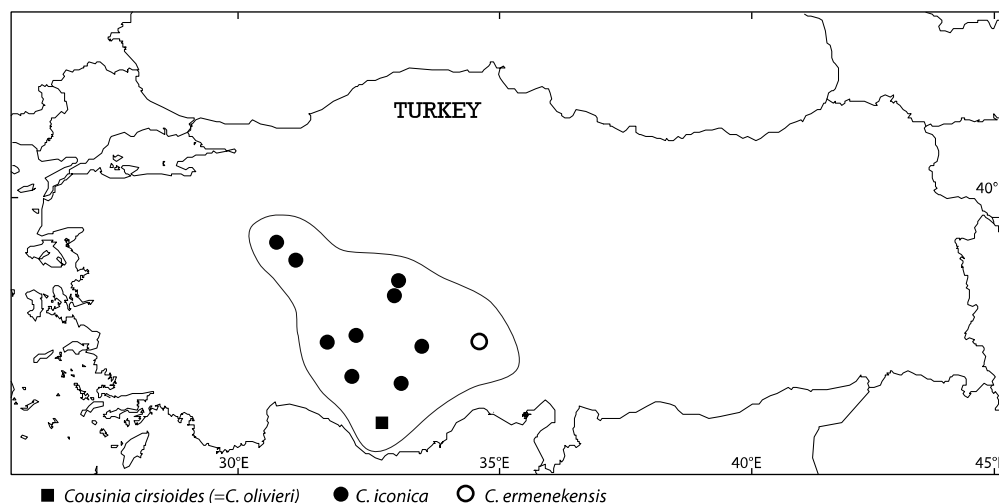


Fig. 1. Distribution map of *Cousinia cirsioides* (= *C. olivieri*), *C. iconica* and *C. ermenekensis* in Turkey.

material of *C. pyrrhocephala* Jaub. & Spach which was described based on the same type material of *C. olivieri* was observed (also cited as “In Oriente, loci notitia definitior non datur” in Jaubert & Spach, 1846: p. 85). Names *C. olivieri* and *C. pyrrhocephala* are based on the same material and therefore were synonymed by Rechinger (1972). Searching for origin of that material, I examined all *Cousinia* material deposited in herbaria W, B, JE, K, E, P, KAS, M, ANK, GAZI, TARI and IRAN. Only material morphologically similar to type material of *C. olivieri*, was that of Turkey.

## Results and discussion

Regarding the high similarity observed between type material of *C. olivieri* (with unknown origin) and type material of *C. cirsioides* (originated from Turkey, see Fig. 1), I here suggest that type material of *C. olivieri* is in fact originated from Turkey, not from Iran. After my opinion, differences in morphology of both species are very low and both material are representing the same species. Both plants have similar perennial habit, discolor, pinnately dissected leathery leaves, ovate and arachnoid capitula with erect-spreading phyllaries and smooth receptacular bristles.

## Taxonomy

*Cousinia olivieri* DC., Prodr. 6: 552 (1838).

Type: “In Oriente”, [Turkey], 1822, Olivier & Bruguier, s. n. (Lectotype (designated here): G-DC., fide Rechinger, 1972: 89; isolectotype P!).

Syn.: *C. pyrrhocephala* Jaubert & Spach, Ill. Pl. Orient.

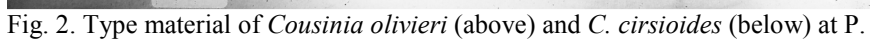
2: 85, tab. 167 (1846), Type: “In Oriente”, [Turkey], 1822, Olivier & Bruguier, s. n. (P!); *C. cirsioides* Boiss. & Balansa in Boiss., Diagn. Pl. Orient. Ser. 2 (6): 117 (1859); *Arctium cirsioides* (Boiss. & Balansa) Kuntze, Revis. Gen. Pl. 1: 307 (1891), Type: Turkey, “in Cappadocia prope Bereketly”, 1500 m, 6. sept. 1856, Balansa 696 (Lectotype (designated by Huber-Morath, 1972: 239 [as “holotype”]): G-BOIS, fide Huber-Morath, 1972: 239; isotypes P!).

*Illustration*. Jaubert & Spach, Ill. Pl. Orient. 2: tab. 167 (1846) sub “*C. pyrrhocephala*”; here: Fig. 2.

*Diagnosis*. Perennial, 15-30 cm. high. Stems white-tomentose. Leaves arachnoid and glabrescent above, white-tomentose below, pinnately-lobate to pinnatifid, with lanceolate to linear-lanceolate, spiny segments, becoming broader upwards. Capitula 10-35-flowered. Involucre ovoid, arachnoid-woolly, with usually 50 to more than 100 phyllaries; outer and middle phyllaries linear-subulate, erect-spreading to recurved. Bristles of receptacle smooth. Flowers yellow.

*Relationship and affinity*. *Cousinia olivieri* belongs to a group of morphologically related taxa distributed mainly in central and southern Turkey (areas B3, B4, C3, C4 & C5). These are *C. ermenekensis* and *C. iconica* (Fig. 1). Limits of these three species need to be redefined.

The name *C. olivieri* was mistakenly appeared under an image of *C. serratuloides* Boiss. Boissier (1875) suggested the morphological similarity between *C. olivieri* and *C. cirsioides* and put them together in the section *Rectispinae*. After that, the species was



mistakenly grouped with other species belonging to section *Serratuloides* (Rechinger, 1972). Distribution of *C. olivieri* is out of natural range of *C. sect. Serratuloideae* in N Iran (Fig. 1).

*Distribution and habitat.* Endemic to southern Turkey (Fig. 1), in steppes and fallow fields.

### Acknowledgements

The author would like to thank staff of the herbaria W, B, JE, K, E, P, KAS, M, ANK, GAZI, TARI and IRAN for kindly let him to access their collections.

### References

- Attar, F., Ghahreman, A., Mahdigholi, K. & Sheidai, M. 2007: A synopsis of *Cousinia* sect. *Serratuloides* (Asteraceae) in Iran.- *Novon* 17: 1-7.
- Boissier, E. 1859: *Diagnoses Plantarum Orientalium Novarum* Ser. 2. -Lipsiae [Leipzig]: B. Herrmann.
- De Candolle, A. 1838: *Prodromus Systematis Naturalis Regni Vegetabilis, sive enumeratio contracta ordinum generum specierumque plantarum huc usque cognitatum, juxta methodi naturalis, normas digesta* Vol. 6. -Paris: Sumptibus Sociorum Treuttel et Würtz.
- Huber-Morath, A. 1972: Die anatolischen Arten der Gattung *Cousinia* Cass. *Ber. Schweiz. -Bot. Ges.* 82: 223-268.
- Huber-Morath, A. 1975: *Cousinia* Cass. In: Davis P. H. (ed.), *Flora of Turkey and the eastern Aegean Islands* Vol. 5, pp. 329-353. -Edinburgh: Edinburgh Univ Press.
- Jaubert, H. F. & Spach, É. 1846: *Illustrationes Plantarum Orientalium*. -Paris: Roret.
- Rechinger, K. H. 1972: *Compositae-Cynareae* I. *Cousinia* Cass. In: Rechinger, K. H. (ed.), *Flora Iranica* no. 90. -Graz, Austria: Akademische Druck und Verlagsanstalt.
- Rechinger, K. H. 1979: *Compositae-Cynareae* III. *Cousinia* Cass. In: Rechinger, K. H. (ed.), *Flora Iranica* no. 139a, pp. 108-153. -Graz, Austria: Akademische Druck und Verlagsanstalt.
- Rechinger, K. H. 196: *Cousinia*: morphology, taxonomy, distribution and phytogeographical implication. -*Proceedings of the Royal Society of Edinburgh* 89 B: 45-58.
- Susanna, A. & Garcia-Jacas, N. 2006: *Tribe Cardueae* Cass. In: Kadereit J. W. & Jeffrey C (volume ed.), *The families and genera of vascular plants* Vol. 8, pp. 123-147 -Berlin, etc.: Springer.
- Thiers, B. (ed.) (2008+ continuously updated) ; *Index Herbariorum: A global directory of public herbaria and associated staff*. -New York: New York Botanical Garden's Virtual Herbarium. Website:<http://sweetgum.nybg.org/ih/> [accessed 10 December 2011].