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Centaurea sehat-niakii نامی جدید برای *C. deflexa* Wagenitz (Asteraceae, Cardueae)

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چکیده

جنس *Centaurea*، چهارمین جنس بزرگ خانواده Asteraceae شناخته می‌شود و حدود ۶۰۰ گونه در دنیا دارد. به دلیل مشکلات تاکسونومی، این جنس به تازگی به چهار جنس به نام‌های *Rhaponticoides*، *Centaurea* s. str.، *Psephellus* و *Cyanus* تقسیم شده است. پژوهش حاضر حاصل مطالعه نام‌گذاری گونه‌های جنس *Centaurea* و انطباق دقیق با کد بین‌المللی نام‌گذاری گیاهی است. طی این مطالعه مشخص شد *Centaurea deflexa* Wagenitz (1974) تاکسونی نامعتبر است؛ زیرا هم‌نام مؤخری نسبت به *Centaurea deflexa* Tat. in Wlangali (1856) است؛ بنابراین *Centaurea sehat-niakii* Negaresh نامی جایگزین برای *Centaurea deflexa* Wagenitz پیشنهاد شد؛ به علاوه موقعیت تاکسونومی *C. sehat-niakii* و صفات تشخیصی آن با تاکسون خویشاوند بحث شد؛ همچنین مترادف‌های مربوط به گونه *C. sehat-niakii*، جزئیات تیپ، رویشگاه و تصویر لکتوتیپ آن تهیه شد. **واژه‌های کلیدی:** Asteraceae، *Centaurea*، نام‌گذاری، نام جایگزین، هم‌نام مؤخر.



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***Centaurea sehat-niakii*, A New Name for *C. deflexa* Wagenitz (Asteraceae, Cardueae)**

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Abstract

The genus *Centaurea* is considered as the fourth largest genus belonging to the Asteraceae family that includes ca. 600 species in the world. Due to taxonomic confusions, this genus has recently been divided into four genera: *Centaurea* s. str., *Rhaponticoides*, *Psephellus*, and *Cyanus*. This research is the result of the nomenclatural study of species of the genus *Centaurea* and the exact checking of its species with the International Code of Botanical Nomenclature. During this study, it was found that *Centaurea deflexa* Wagenitz (1974) is an illegitimate name as a later homonym of *Centaurea deflexa* Tat. in Wlangali (1856). So, the name *Centaurea sehat-niakii* Negaresh *nom nov.* is proposed here as a replacement name for *Centaurea deflexa* Wagenitz. In addition, taxonomic position and diagnostic morphological of this and closely related taxons are presented. Also, the relevant synonyms, type details, and habitats are given for *C. sehat-niakii*. Finally, an image of the lectotype is provided.

Keywords: Asteraceae, *Centaurea*, Nomenclature, Replacement Name, Later Homonym.

Introduction

The genus *Centaurea* L., in its highly fluctuating *senso lato* borders, comprises ca. 600 species as the fourth largest genus among the genera in Asteraceae and also the second largest genus in the tribe Cardueae (Wagenitz, 1975, 1980; Bremer, 1994; Hellwig, 2004). Taxonomic confusions associated with *Centaurea* are the most long-lasting problems encountered in Asteraceae as the largest family among flowering plants (Bremer, 1994; Wagenitz and Hellwig, 1996; Garcia-Jacas et al., 2000, 2001; Hellwig, 2004). Subsequently, *Centaurea* s. l. was sorted into four genera: *Centaurea* s. str., *Rhaponticoides* Vaill., *Psephellus* Cass., and *Cyanus* Mill. (Wagenitz and Hellwig, 2000; Greuter, 2003). The genus *Centaurea* is still the subject of research (e.g., Romashchenko et al., 2004; Garcia-Jacas et al., 2006; Wagenitz et al., 2006; Susanna and Garcia-Jacas, 2007, 2009; López & Devesa, 2008; Uysal et al., 2009; Ranjbar & Negaresh, 2013a; Negaresh & Rahiminejad, 2018). Following the progression in taxonomy, numerous taxonomic changes and rearrangements have been proposed in the genus (Wagenitz, 2006; Ranjbar & Negaresh, 2013b, 2014; Hilpold et al., 2014; Negaresh et al., 2014, 2015; Negaresh & Rahiminejad, 2014, 2015; Oreizi et al., 2017; Negaresh, 2018, 2019, 2020).

During a nomenclatural revision of the genus *Centaurea*, the author of the present study noticed that the name *Centaurea deflexa* Wagenitz is illegitimate because there exists an earlier homonym. A new name, *C. sehat-niakii* Negaresh, is proposed for *C. deflexa* Wagenitz.

Taxonomic Treatment

Wagenitz's study (1974), providing a revision of the *Centaurea* species for the Flora of Turkey, showed that there are morphological and geographical gaps between *C. nivea* (Bornm.) Wagenitz var. *nivea* and *C. nivea* var. *declinata* (Boiss.) In his review paper, Wagenitz (1974) considered the latter variety as a separate species and made a new name necessary for var. *declinata* at a specific level, (i.e. *Centaurea deflexa* Wagenitz). But, Wagenitz (1974) overlooked that the binomen had already been used by Tatarinow in Wlangali (1856), and according to the International Code of Botanical Nomenclature (Article 53.1; Turland *et al.*, 2018), *Centaurea deflexa* Wagenitz is an illegitimate later homonym of *Centaurea deflexa* Tat. The replacement name *C. sehat-niakii* Negaresh is therefore presented here.

The Data of the New Name

Centaurea sehat-niakii Negaresh, *nom. nov.*

Replaced name: *Phaeopappus declinatus* Boiss., Fl. Orient. 3: 595 (1875). *Cheirolepis declinata* (Boiss.) Czerep., Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.S.R. 20: 471 (1960). *Centaurea nivea* (Bornm.) Wagenitz var. *declinata* (Boiss.) Wagenitz, Bot. Jahrb. 82: 172 (1963). *Centaurea deflexa* Wagenitz, Notes Roy. Bot. Gard. Edinburgh 33: 229 (1974), nom. illegit., non *Centaurea deflexa* Tat. in Wlangali, Beitr. Kenntn. Russ. Reiches 20: 252 (1856).

Type

Turkey, C2 Antalya, in lacunosis prope Elmalu Lyciae, 9 July 1860, *Bourgeau* 152 (lectotype: G00016447! (two sheets comprising one specimen), designated by Wagenitz (1975: 517); isolectotypes: C10007074!, E00201451!, E00201452!, GOET001234!, K000251324!, P00646489!, P00646490!, US00116160!) (Fig. 1).



Figure 1. Lectotype of *Centaurea sehat-niakii* Negaresh (G00016447)

Etymology

The specific epithet is given in honor of Nosratollah Sehat-Niaki, who was the oldest botanist at the Agricultural Sciences and Natural Resources of the University of Khuzestan and published several botanical books.

Taxonomic and Distributional Remarks

Centaurea sehat-niakii belongs to sect. *Cheirolepis* (Boiss.) O.Hoffm., which includes taxa with stem usually simple or branched above, erect, or decumbent, undivided or with few teeth leaves, medium-sized capitula, ovoid to nearly cylindrical involucre, small appendages, triangular 2-4 lateral cilia and a terminal

spinule or larger and more scarious with irregularly fringed margins, yellow flowers, large achenes, and pappus longer than the achene, plumose, non-differentiated inner row (Wagenitz, 1975). It is endemic to Antalya and Konya provinces, in the southwestern part of Turkey (Fig. 2). *Centaurea sehat-niakii* is a Mediterranean element and grows on rocky slopes, in the steppe and mid-montane zones, at elevations of 1400-2000 m. It is similar to *C. nivea*, which is endemic to Turkey, in shape and length of the stem, the color of flowers and length of achenes, but differs from this species by its basal and lower cauline leaves lanceolate, entire, dentate or with few coarse teeth or lobes (vs. rhomboid to broadly lanceolate), cylindrical involucre, 13-15 mm width (vs. cup-shaped, ca. 22 mm wide), medium-sized appendages, concealing most of basal part of phyllaries, nearly orbicular with broad hyaline irregularly fringed to the ciliate border, ending in a 2.5-4 mm mucro (vs. small, not concealing basal part of phyllaries, narrowly triangular with several short teeth (scarcely 1 mm), ending into a ca. 3 mm mucro).

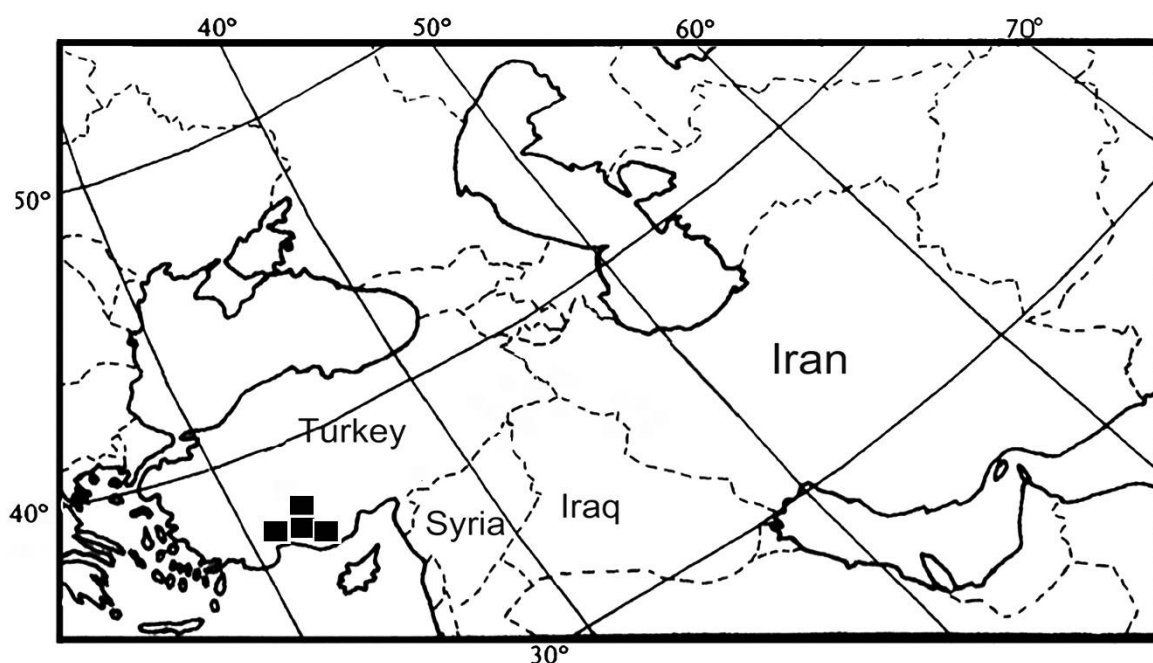


Figure 2. Distribution of *Centaurea sehat-niakii*.

As several recent studies show (Romashchenko et al., 2004; Flamini et al., 2006; Garcia-Jacas et al., 2006; Uysal, 2012; Çitak and Dural, 2018; Çitak et al., 2019), there is a considerable amount of ongoing active research of *Centaurea deflexa* (*Centaurea sehat-niakii*).

Selected Specimens Examined

Turkey. C4 Konya: d. Ermenek, Beşkuyu to Hamitseydi, 16 August 1949, Davis 16252 (E!); Gevne valley, Küçükklü village, 36°49'710" N, 32°27'461"E, 1750-1800 m, 7 July 2004, Uysal 693 (KNYA); Hadim-Taşkent-Alanya road, 25 km to Taşkent, steppe, 1750-1800 m, 21 July 2015, Ertuğrul & Dural 5011 (KNYA); Taşkent-Ermenek road, 5-6 km to Başyayla fork, loamy hills, 1800 m, 19 July 2012, Ertuğrul &

Dural 4699 (KNYA); Taskent, 25 km from Taskent to Ermenek, Feslikan yaylasi, steppe, 31 July 2000, Ertugrul 2315 (KNYA).

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