

# CALENDULA KARAKALENSIS (ASTERACEAE), A NEW RECORD FOR THE FLORA OF IRAN

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*Calendula karakalensis* Vass. which has been collected from Khorassan province is reported as a new species from Iran.

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**Key words.** *Calendula*, *Calenduleae*, *Asteraceae*, new record, Taxonomy, Iran.

## **Calendula karakalensis Vass.**

گونه *Calendula karakalensis* از تیره کاسنی به عنوان یک گونه جدید از ایران (خراسان) گزارش می‌گردد. رویشگاه دقیقی این گونه نیز بر اساس محل جمع‌آوری نمونه‌های هرباریومی ارایه شده است.

## **Introduction**

The genus *Calendula* belongs to the tribe *Calenduleae* (*Asteraceae*). The taxon includes about fifteen species in the Mediterranean, Irano-Turanian and Saharo-Arabian regions. According to Flora Iranica (Rechinger 1989) there are six species of *Calendula* in different regions of Iran, *Calendula aurantiaca* is the only endemic. *Calendula* species generally grow in variable sites such as mountains, dry stony slopes, foothills, field edges, margin of gardens, and road sides. The genus distributes in most part of Iran and also in N. Africa to Spain, Palaestine, Pakistan, Iraq, Turkey, Turkmenistan, Europe and adjacent areas (Boissier 1875; Parsa 1949

In this search, based on plant specimens of "Ferdowsi University Herbarium" (FUMH) *Calendula karakalensis* is presented as a new record for the flora of Iran. The species was previously recorded from Turkmenistan (Shishkin, 1990).

**Calendula karakalensis** Vass. –Figs. 1 & 2.

Khorasan: NW of Bojnoord, 4 km Shishkhan to Khorramdeh, 548 m, Memariani and Zangoeei 38827 (FUMH).

Annual, glandular-pubescent. Stem ascending, more than 50 cm long. Heads terminal. Involucre consist of

one row of oblong, herbaceous, sharp leaflets. Florets yellow. External achenes sickle-shaped, 10-15 mm long, along dorsum with longitudinal groups of prickles- bristles, formed by two lateral bristly toothed wings, on ventral side winged and irregularly toothed; middle achenes boat-shaped (with membranous wings convoluted inside), with fine teeth-prickles along dorsum, half as large as the external achenes; internal achenes ring- shaped, wingless, prickly-toothed along dorsum.

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Fig. 1. *Calendula karakalensis*.

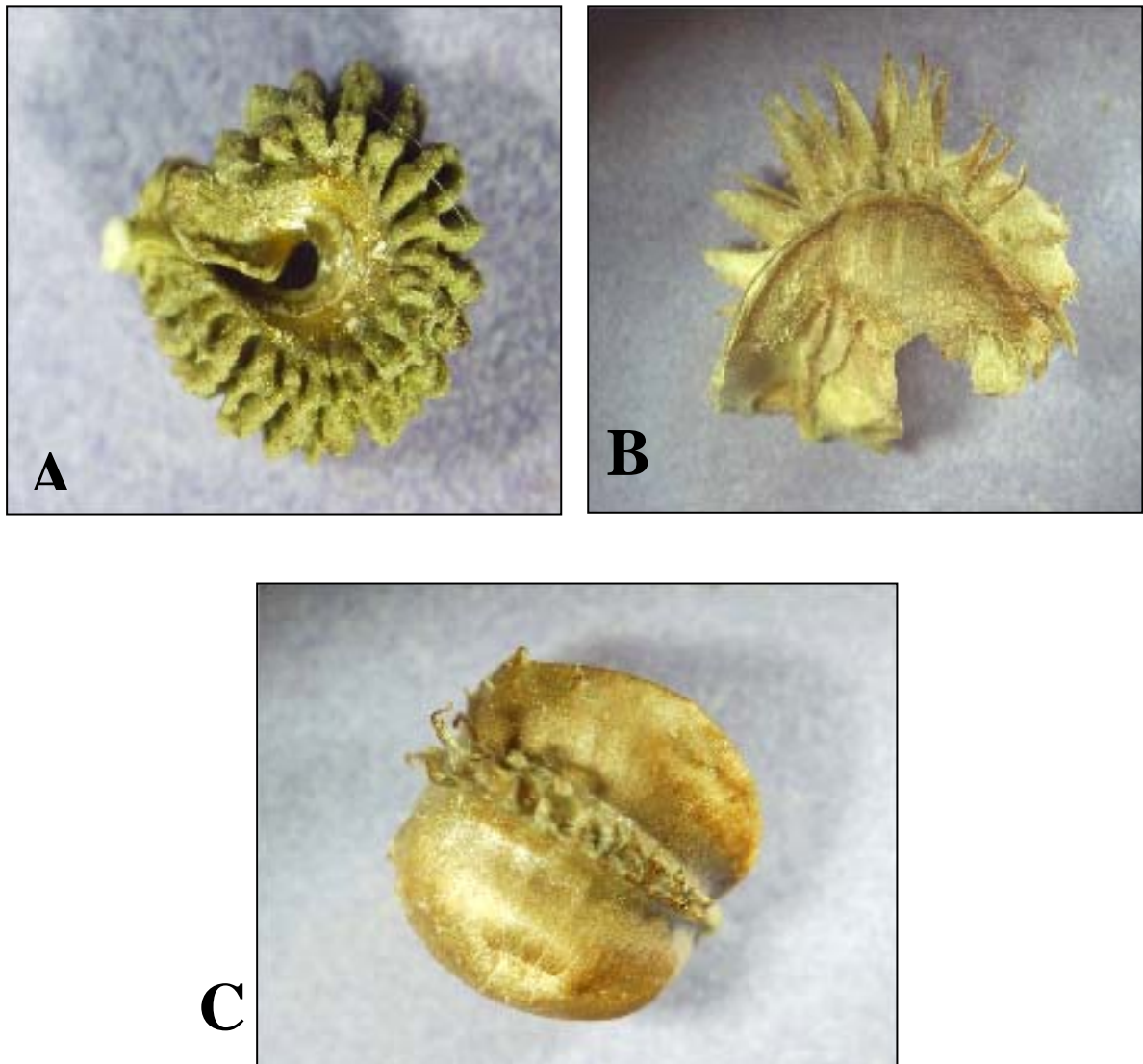


Fig. 2. *Calendula karakalensis* A: external achene, B: middle achene, C: internal achene.