

## REDISCOVERY OF *MYOPORDON AUCHERI* BOISS. (ASTERACEAE) FROM SOUTHWEST IRAN

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During the study of the vegetation of Khuzestan Province and plant collection from high mountain areas, a small population of *Myopordon aucheri* Boiss. was observed in the summer of 2022 on the ridge of Mt. Keyno, located in the southwest of Iran. The new collection is far from the original collection in Zardkoh Bakhtiari from about 176 years ago and extends the distribution of species to Khuzestan.

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**Keywords:** Keyno mountain; Conservation status; Flora; Rediscovery; Khuzestan.

کشف مجدد گونه *Myopordon aucheri* Boiss. (تیره مینا) از جنوب غرب ایران

مهري دیناروند: استادیار پژوهشی، بخش تحقیقات جنگلها و مراتع، مرکز تحقیقات و آموزش کشاورزی و منابع طبیعی استان خوزستان، سازمان تحقیقات، آموزش و ترویج کشاورزی، اهواز، ایران.

ولی‌اله مظفریان: استادیار پژوهشی، مؤسسه تحقیقات جنگلها و مراتع کشور، سازمان تحقیقات، آموزش و ترویج کشاورزی، تهران، ایران. طی مطالعه پوشش گیاهی استان خوزستان و تکمیل جمع‌آوری گونه‌های گیاهی از مناطق کوهستانی مرتفع، جمعیت کوچکی از *Myopordon aucheri* Boiss. در تابستان ۱۴۰۱ در خط الراس کوه کینو واقع در جنوب غرب ایران و دور از محل تیپ آن جمع‌آوری گردید. این گونه بعد از گذشت تقریباً ۱۷۶ سال از اولین مشاهده و جمع‌آوری آن در زردکوه بختیاری ایران، به عنوان محل تیپ گزارش می‌شود.

### INTRODUCTION

The genus *Myopordon* Boiss. comprises six species, four from Iran, one from Lebanon, and one from Syria and Turkey; they all are perennial and occur at very high elevations (Hidalgo *et al.*, 2008). Boissier (1846) described the genus *Myopordon* with two new species from Iran, *M. aucheri* Boiss. and *M. persicum* Boiss. Subsequently, three further species were added by Wagenitz (1958): *M. hyrcanum* (Bornm.) Wagenitz from Iran, *M. pulchellum* (C. Winkl. & Barbey) Wagenitz from Lebanon, and *M. thiebautii* (Genty) Wagenitz from Syria and Turkey. These species were first recognized in different genera like *Jurinea*, *Centaurea*, *Austraria*, and *Haradjanina*. The most recent addition to the genus *Myopordon* is *M. damavandicum*

Mozaff. from Iran (Mozaffarian 1991). In *Flora Iranica*, three endemic species of Iran, *M. aucheri* Boiss., *M. persicum* Boiss., and *M. hyrcanum* (Bornm.) Wagenitz have been reported (Dittrich & al. 1979). *Myopordon aucheri* was first collected by Aucher from Zardkoh Bakhtiari (type locality) and identified by Boissier (1845). In *Flora of Iran* (Mozaffarian & al. 2018), it is also mentioned that the first collection of this species was from Zardkoh Bakhtiari, and no other specimen was collected after that. Hidalgo & al. (2008) in a phylogenetic study of the genus *Myopordon* have also mentioned *Myopordon aucheri* Boiss. in their list of materials from Iran, but the detailed collection data was not provided. In our study, for the first time a small

population of *Myopordon aucheri* Boiss. was discovered in the summer of 2022 from the ridge of Mount Keyno, in the southwest of Iran, a locality far from the type locality in Zardkuh. It is reported here as a new locality and new collection for this species. The herbarium material of this new specimen is preserved in TARI.

***Myopordon aucheri*** Boiss., *Diagn. Pl. Or. Nov. Ser.* 1,6: 108 (1846). (Figs. 1-3).

Type: Bakhtiary, Zard kuh. AUCHER-ELOY 3188, G-BOISS! (Fig.4).

Caespitose-pulvinate, 4-8 cm high, strongly attached to the ground, densely tufted. Stem leafless, close together, branched, sparsely arachnoid-tomentose, with a woody base and fibrous collar from the dead leaf petioles present. Leaves radical,

pubescent, gray, 1-2 cm long, 3-6 mm wide, pinnatifid; segments irregular in size and shape, all with specified short spines; basal leaves subpetiolate. Capitulum oblong-ovate, 10-15 mm long, loosely canescens-tomentose; phyllaries 4-5 seriate, 10-14mm long, 4-5 mm wide, all with a long-reflexed spine. Flowers 10 mm long, in living state light pink; corolla tubular, lacinate 2-3.5 mm long. Achene dark brown 2-4.5 mm long.

**Specimen examined:** Khuzestan Province, Andica to Bazoft, Lebde village, Zagros Mountain, Keyno peak. UTM: 365146, 3604453, 3745 m. 30. Jul. 2022, Dinarvand, Rostami, Molaee & Ashrafipour. 10909 (TARI).

**Distribution:** Iran, Endemic. An Irano-Turanian element.



Fig. 1. Habitat of *Myopordon aucheri* in Mt. Keyno (Photo by Dinarvand).

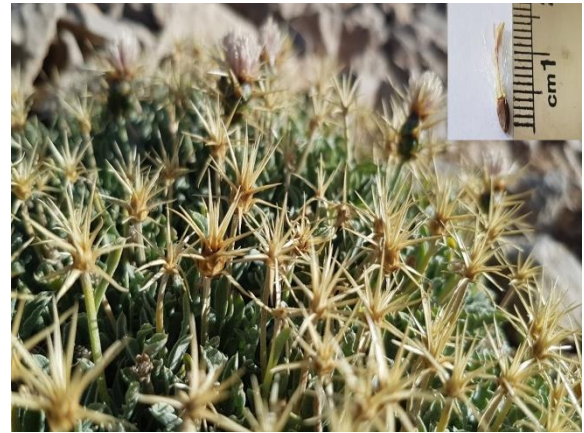


Fig. 2. Phyllaries with long reflexus spins, Achene, and corolla tube (Photo by Dinarvand).



Fig. 3. Capitula with light pink flowers of *Myopordon aucheri* (Photo by Dinarvand).

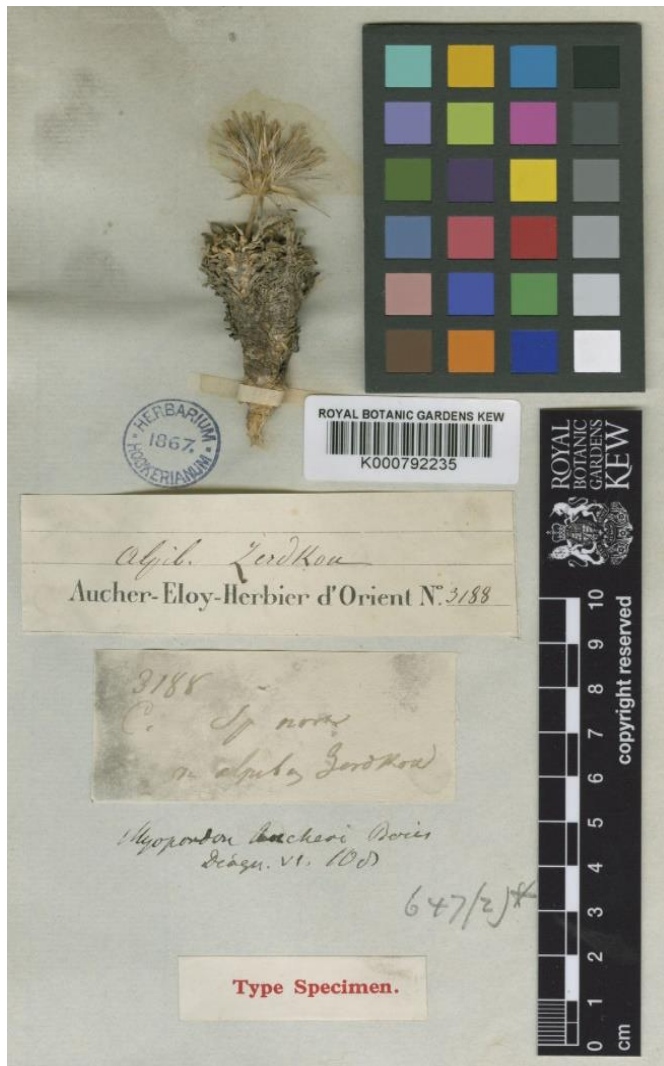


Fig. 4. Type specimen of *M. aucheri* Boiss. (<https://powo.science.keew.org>).



Fig.5. Habitat of *Myopordon aucheri* with cushion form and alpine species in Mt. Keyno (Photo by Dinarvand).

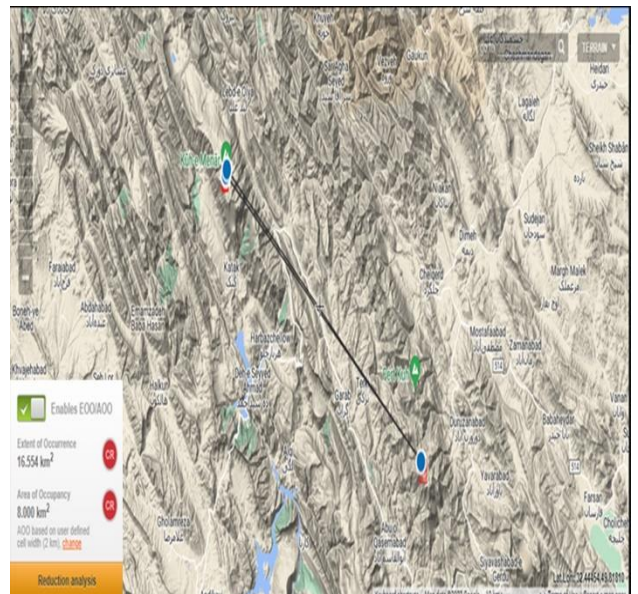


Fig.6. The GeoCat map, showing the Extent of Occurrence and the Area of Occupancy of *Myopordon aucheri*.

**Habitat:** The area is covered with loose rubbles and unstable gravel. Keyno Peak, at a height of 3745 meters above sea level, is one of the highest peaks of the Zagros Mountain range. This area is located in the northwest of Chahar Mahal Bakhtiari Province and northeast of Khuzestan Province and has numerous peaks and permanent glaciers in deep valleys. The Keyno Mountain corresponds to the Shimbar protected area from the southwest and to Lebad village from the northeast. Most of the vegetation of the area is cushion form and alpine species (Fig. 5). The species such as *Onobrychis cornuta* (L.) Desv., *Stachys acerosa* Boiss., *Acantholimon melananthum* Boiss. and *Astragalus murinus* Boiss. are the dominant and companion species.

#### Conservation status

According to our observations and the last report (176 years ago), the distribution of *Myopordon aucheri* is restricted to two locations (Zardkoh and Keyno) in Iran. The studied population size in Keyno is very small, and the number of individuals is less than 50. The Area of Occupancy (AOO) measured in Keyno is ca. 0.0003 km<sup>2</sup>. GeoCAT software analysis for this species showed EOO (Extent of Occurrence) at 16.5 km<sup>2</sup> and AOO (Area of Occupancy) at 8 km<sup>2</sup>, based on software standards (Fig. 6). These measures define the Critically Endangered (CR) category for *Myopordon aucheri*, according to IUCN (IUCN 2017).

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