A NEW RECORD OF THE GENUS MANDRAGORA (SOLANACEAE) FOR THE FLORA OF IRAN

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During the project of collecting plants in Khuzestan province, the specimens of *Mandragora autumnalis* were collected from Shimbar protected area. It grows in two marginal locations of this wetland. *Mandragora autumnalis* is reported as a new record for the flora of Iran.

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Key words: Mandragora; Solanaceae; New record; Shimbar wetland; Khuzestan; Iran.

گزارش گونه جدیدی از جنس Mandragora متعلق به تیره Solanaceae برای فلور ایران

مهری دیناروند، عضو هیات علمی مرکز تحقیقات کشاورزی و منابع طبیعی خوزستان و دانشجوی دکتری دانشگاه فردوسی مشهد حمید هویزه، عضو هیات علمی مرکز تحقیقات کشاورزی و منابع طبیعی خوزستان

طی جمع آوری نمونههای گیاهی از منطقه حفاظت شده شیمبار از توابع اندیکا گونه Mandragora autumnalis برای اولین بار به صورت خودرو در دو محل به فاصله حدود ۳ کیلومتر در حاشیه تالاب و زیراشکوب جنگلهای خشک بلوط مشاهده شد. تعداد افراد این گونه در هر محل حدود 20 بایه بود. مشاهدات محلی نشان می دهد این گونه تحت خطر انقراض است.

INTRODUCTION

The genus Mandragora from Solanaceae family includes about 6 species, distributed in Mediterranean Region in West to Himalayas in East; one species (Mandragora turcomanica) has been known in the USSR (Linczevsky 1955). Schonbeck-Temesy (1972) recognized this genus in Flora Iranica only with one species (Mandragora turcomanica) which was considered as an endemic of Turkmenistan. There is one species in Turkey (Davis 1978) and Palestine (Zohary 1978) named M. autumnalis. There are two species in Europe M. autumnalis & M. officianrum L. (Hawkes 1972). Akhani (2003) reported the species Mandragora turcomanica Mizgir. from gardens of Dahaneh village in Golestan Province (NE of Iran) as a transplanted from wild population by local people many years ago but he did not determined the real wild population. Khatamsaz (1998) in Flora of Iran noted that no specimen of this species has been collected in Iran, but it was used by people as a medicine plant.

In a program of collecting plants in Khuzestan, the

specimens of *Mandragora autumnalis* were collected from Shimbar wetland. It grows wildly in two marginal locations of this wetland and among oak forest in the protected area.

Mandragora autumnalis Bertol., Elench. PI. Hort. Bot. Bon. 6 (1820).

Specimen examined: Khuzestan province: Andica, Shimbar protected area, 1400m, Dinarvand, Howeizeh & Mohammadi, 8960 (TARI and Herbarium of the Research Center of Agriculture & Natural Resources of Khuzestan).

Habitat: The Shimbar or Shirin bahar with an area about 53000ha is located in 45 km north east of Masjed Soleyman, Andica town and north of Shahid Abbaspour Dam, in Zagrosian district of Irano-Turanian Region. This area contains two parts: oak forests and wetland. *Mandragora autumalis* was found in the margin of wetland and oak forest in the protected area. The ambrotermic diagram of the Shimbar area is shown in fig. 1.

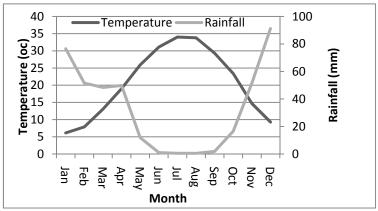


Fig. 1. Climatic diagram of Shimbar protected area, recent 13 years.

Perennial herbs. Stemless, rosette with 90 to 120 cm diameter. Root branched (very similar to man body), more than 3 cm in diameter, white. Leaves large, 18 to 30 cm wide and 35 to 45 cm long, ovate to oblong-ovate, crispate in margins, cuneate at base; petiole long, 10 to 12 cm. Flowers axillary, 3 cm long, violet; pedicels 11 to 13 cm, sparsely hairy. Calyx 2 cm, then grows to 5 cm in fruiting, lanceolate, with large lobes, sparsely hairy. Corolla longer than calyx, 3 cm long, sparsely hairy at outside, recurved, ovate. Stamens 5, filaments 1 cm, with tufted long hairs at the base; anthers violet. Style longer than stamens, 2 cm long. Berry globose, 5 cm in diameter, smooth (figs. 2 & 3).

This species wildly grows in two marginal locations of wetland and oak forest in the Shimbar protected area. Each site was about with 20 individuals, so it is likely an endangered plant in Iran.

Distribution: Mediterranean Region.

This species is similar to M. officianrum but it is different from the later by the color of its flowers.

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REFERENCES

Akhani, H & Ghorbani, A. 2003: *Mandragora turcomanica* (*Solanaceae*) in Iran: a new distribution record for an endangered species. Systematics & Biodiversity 1 (2):177-180

Davis, P. H. 1978: *Solanaceae* in Flora of Turkey and the East Aegean Islands vol. 6: 437-458 Edinburgh.

Hawkes, J. G. 1972: Mandragora. In Tuitin, T. G., Hywood, V. H., Burges, N. A., Moore, D. M., Valentine, D. H., Walters, S. M. & Webb, D. A. (eds.), Flora Europaea 3: 193-201. .-Cambridge University Press.

Khatamsaz, M. 1998: Flora of Iran (Solanaceae), no: 24. -Tehran.

Linczevsky, I. A. 1955: Mandragora. In Komarov, V. L.(ed.), Flora of the U. S. S. R. vol. 22:67-68. – Moskva & Leningrad.

Schonbeck-Temesy, E. 1972: Solanaceae. In Rechinger, K. H. (ed.), Flora Iranica no: 100, Akademische Druck-u. Verlagsanstalt.- Graz-Austria.

Zohary, M. 1978: Solanaceae. In Flora Palaestina vol. 4: 158-169.- Jerusalem.

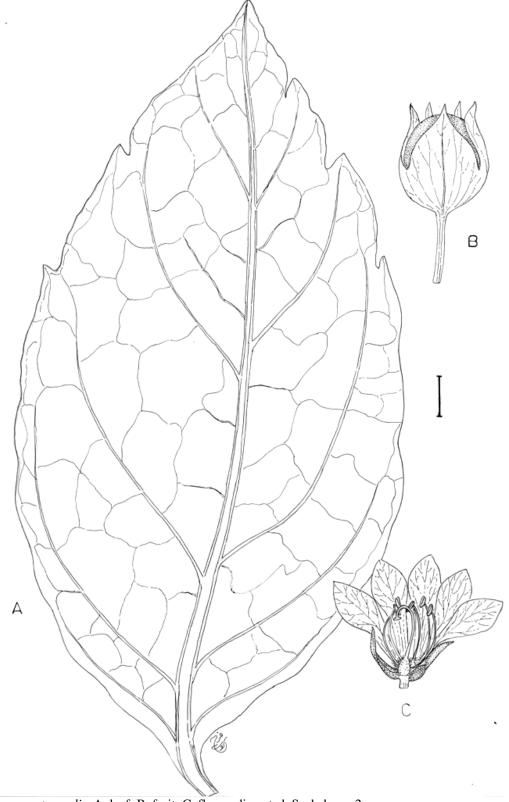


Fig. 2. *Mandragora autumnalis*. A, leaf; B. fruit; C, flower dissected. Scale bar = 2 cm.



Fig. 3. Root of *Mandragora autumnalis*.