A NEW GENUS RECORD OF ASTERACEAE (SOLIVA PTEROSPERMA) FOR THE FLORA OF IRAN

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Naqinezhad, A. R., Saeidi Mehrvarz, Sh., Djavadi, S. B. & Ramezankhah, S. 2007 12 31: A new genus record of *Asteraceae (Soliva pterosperma)* for the flora of Iran. –*Iran. J. Bot. 13 (2); 104-106.* Tehran.

Soliva pterosperma belongs to the family of *Asteraceae* and is reported as new genus for the flora of Iran. This species has been collected from the coastal line of Rudsar and Stile wetland of Astara in Guilan province, Iran. Characteristics, geographical distribution and illustration of this taxon are presented.

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Submitted: 2007. 10. 10 Accepted for publication on: 2007. 12. 19

Key words. Coastal plant, Soliva pterosperma, Iran, new record.

گزارش یک جنس جدید از تیره (Soliva pterosperma) از فلور ایران علی رضا نقی نژاد، دکتر شهری ار سعی دی مهرورز، سیده باهره جوادی و سمی مضانخواه Soliva pterosperma از تیره کاسنی برای اولین بار از فلور ایران گزارش می گردد. این گونه از خط ساحلی روستای رمشایه واقع در شهرستان رودسر و تالاب استیل آستارا در استان گیلان جمع آوری شده است. ویژگیها پراکندگی جغرافیایی و تصویر این تاکسون ارائه می شود.

Introduction

During our studies on the flora of Caspian coastal line of Rudsar and Astara, Guilan province, some small populations of a nice *Compositae* species were collected. This plant was determined by key of Flora Europaea (Tutin 1976) as *Soliva pterosperma* (Juss.) Less. This genus was not known from Iran in Flora Iranica (Rechinger 1977-1982), therefore it is the first report of the genus and species in Iran. When this paper was in final preparation, we recognized this species from another locality "Stile wetland of Astara" that it has been collected by Miss. Khodadi during of our studies on the flora of Stile wetland.

The identification of above cited specimen was confirmed by comparing with South American and European specimens of the Royal Botanical Gardens Kew, UK. The specimens were deposited in Herbarium of University of Guilan (GUH). Soliva pterosperma (Juss.) Less. -Fig. 1.

Material examined. Guilan: Roudsar, Ramshayeh village [50° 15 31.7 E, 37° 03′ 16.1 N], 5. 7. 2006, Ramezankhah 3880 (GUH); Astara, 5 km to Astara, Stile Wetland, near the main road, -10 m, 26. 5. 2006, Khodadi 3892 (GUH).

The main features of this new plant record is as follows: More or less villous annual, with procumbent stems up to 15 cm. Leaves 2-pinnatisect; segments 3-5; petioles flattened, enlarged and scarious at base. Capitula 5-8 mm in diameter. Achenes 3-3.5 mm, with a wide wing, deeply lobed near the base.

Taxonomic remarks

The genus of *Gymnostyles* Juss. resembles *Soliva*, but achenes of *Gymnostyles* are villous with a transversely sulcate, thick wing. *S. pterosperma* is differentiated from its closest species, *S. sessilis* Ruiz & Pavón, by the deeply lobed wings of achenes. The latter species can be readily distinguished by the entire wings of the achenes (Tutin 1976).



Fig. 1. Soliva pterosperma.

Ecological remarks

According to Flora Europaea, S. pterosperma is native to South America and this species was first described in Chile in 1794. This weed was naturalized in California by 1836 (Radford et al. 1968). It may have traveled from Chile in hide shipments (Ray 1987). Soliva is commonly found in watered lawns, golf courses, and hard-packed soils near paths and roadsides of some parts of Europe with increasing infestations in coastal plains. It also produces the sharp seeds, or burs, during the summer which penetrate skin and tires. These seeds are then dispersed by attaching themselves to anyone using these high traffic areas. Human activities are the probable cause of seed dispersal and establishment in areas of maintained recreational use world-wide (Ray 1987). Its occurrence in similar ecological conditions of studied area is probably by immigration of birds from Caucasus and European countries to Caspian coast line. This species also occurs in New Zealand and Australia (Johnson & Lovell 1980).

Flowering and fruiting time of this species is May-August. This species found near to Rudsar at about -25m altitude in wet sites with vegetation *Eryngium caucasicum*, *Mentha pulegium*, *Ranunculus oxyspermus*, *Geum urbanum* and *Viola alba*.

Acknowledgments

We are very grateful to Dr. David Goyder (Royal Botanical Gardens, Kew Herbarium, UK) for his helps during herbarium studies in Kew. We also would to thank the University of Guilan Research Council for its financial support of this project.

References

- Johnson, C. D. & Lovell. P. H. 1980: Germination, establishment and spread of Soliva valdiviana (Composite). -New Zealand Journal of Botany. Vol. 18: 487-93.
- Radford, A. E., Ahles, H. F. & Bell, C. R. 1968: Manual of the Vascular Flora of the Carolinas. -University of North Carolina Press, Chapel Hill. p. 1139.
- Ray, Martin F. 1987: Soliva (Asteraceae: Anthemideae) in California. –Madrono vol. 34, no. 3, pp 228-239.
- Rechinger, K. H. 1977-1982: Compositae I- VII in K. H. Rechinger (ed.). Flora Iranica 121-164. -Graz.
- Tutin, T. G. 1976: Soliva in T. G. Tutin, V. H. Heywood, N. A. Burges, D. M. Moore, D. H. Valentine, S. M. Walters & D. A. Weeb (eds.) Flora Europaea 4: 178. -Cambridge University Press, Cambridge.