



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

***Oxalis corniculata* L. subsp. *pilosa* (Nutt. ex Torr. & A. Gray) Lourteig (Oxalidaceae)- A new distributional record for the Kingdom of Saudi Arabia.**

E.S. Santhosh Kumar^{1*} and D. Vijayadas²

1. Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram district, Kerala 695562, India.

2. Electro Saudi Services Ltd, Riyadh, Saudi Arabia

Manuscript Info**Manuscript History:**

Received: 26 June 2014
Final Accepted: 22 July 2014
Published Online: August 2014

Key words:

New Weed, Gardens, Kingdom of Saudi Arabia.

Abstract

Oxalis corniculata L. subsp. *pilosa* (Nutt. ex Torr. & A. Gray) Lourteig (Oxalidaceae) is here reported for the first time for the Kingdom of Saudi Arabia. A detailed description, photographs, and other pertaining notes are provided.

***Corresponding Author**

E.S. Santhosh Kumar

Copy Right, IJAR, 2014. All rights reserved

Introduction

During the study on the garden weeds in Riyadh, the second author collected a curious specimens of *Oxalis* from Janadiriah near Riyadh in Saudi Arabia. Perusal of literature and type specimens, it was identified as *Oxalis corniculata* subsp. *pilosa*, a species native of Central and North America, which is so far not recorded from the country (Chaudhary, 1999, 2000; Collette, 1985, 1999; Migahid, 1988). It is described and illustrated here. The specimens are kept at the Estates Department, Salwa Garden Village, Kingdom of Saudi Arabia.

Oxalis corniculata L. subsp. *pilosa* (Nutt. ex Torr. & A. Gray) Lourteig, Phytologia 42(2): 134. (1979). *Oxalis pilosa* Nutt. ex Torr. & A. Gray, Fl. N. Amer. 1(2): 212 (1838). *Xanthoxalis pilosa* (Nutt.) Small, N. Amer. Fl. 25 (1): 54. (1907). *Oxalis albicans* Kunth subsp. *pilosa* (Nutt. ex Torr. & A. Gray) Eiten, Amer. Midl. Naturalist 69: 303. (1963), (Fig.1)

Perennial, caulescent, creeping herb with rigid root stock; stem rigid, often flat on the ground rarely rooting from nodes, pilose hairy. Leaves on either side of the stem, trifoliate, pale brown in colour; leaflets 2.5-6 x 2-5 mm, broadly obovate, obcordate, glabrous above and pubescent beneath, ciliate along the margins; petiole 3-8 mm long, glabrescent; stipules with ciliate margins. Flowers 1-3, yellow, axillary peduncled umbelliform cymes; pedicels 4-8 mm long, pubescent; bracts linear-lanceolate, ciliate along the margins. Sepals 5, ovate-lanceolate or elliptic-lanceolate, glabrous and slightly hairy along the margins. Petals 5, yellow, oblong, 4-6 mm long, clawed at the base, obtuse at apex. Stamens 10, 5 longer and 5 shorter, all united at the base; filaments 1-3 mm long, glabrous. Ovary ellipsoid to cylindrical, slightly hairy; style 0.5 mm long. Fruits linear-cylindrical, 0.6-0.8 x 0.1-0.15 mm, sepals persistent, dehiscence longitudinally. Seeds ovoid, rough, 0.5 mm long.

Flowering and fruiting:— March - November

Specimen examined:— Saudi Arabia, Riyadh, Janadiriah, Salwa Garden Village, 20 April 2014, D Vijayadas 115.

Discussion:— *Oxalis corniculata* L. subsp. *pilosa* is often treated as a variant of *O. corniculata* which in the KSA, which is widely distributed as a noxious weed both in the arable and waste lands. However, its dwarf habit with pilose stem, smaller bronze coloured leaves with short petioles, shorter peduncles and pedicels, shorter sepals and petals make it a distinct taxon. It has been variously treated over time. It was considered as a distinct species (Nesom, 2009) or treated as a subspecies of *O. corniculata* (Lourteig, 1979) or as a subspecies of *O. albicans* (Eiten, 1963), or as *Xanthoxalis pilosa* (Small, 1907). We prefer to follow the concept of Lourteig (1979) here. Anilkumar and Udayan (2013) proposed a new species from Varadimala in the Palakkadu district in Kerala, India viz. *Oxalis varadimalayana*, which appears to be very similar to *O. corniculata* subsp. *pilosa*. The morphological differences between these two taxa appear to be quite negligible. More studies are needed to ascertain their taxonomic status. We are refraining from merging them together pending further study in future.

Acknowledgements

The senior authors is grateful to Dr P. G. Latha, Director, JNTBGRI for the facilities and constant encouragements. They are also thankful to Dr J.F. Veldkamp, National Herbarium of the Netherlands, Leiden for positive remarks.

REFERENCES

- Anil Kumar, K.A. and Udayan, P.S., 2013, A new species of *Oxalis* L. (Oxalidaceae) from Western Ghats of Kerala, India, *International Journal of Advanced Research*, 1(10), 55-58.
- Chaudhary S. A., 1999, *Flora of the Kingdom of Saudi Arabia*, Ministry of Agriculture and Water, Riyadh, 1, pp. 691.
- Chaudhary S. A., 2000, *Flora of the Kingdom of Saudi Arabia*, Ministry of Agriculture and Water, Riyadh, 2 (Part 3), pp. 432.
- Collenette, S., 1985, *An illustrated guide to the flowers of Saudi Arabia*. Scorpion Publishing Ltd., London, pp. 514.
- Collenette, S., 1999, *Wild Flowers of Saudi Arabia*, National Commission for Wildlife Conservation and Development, Riyadh, pp. 799.
- Eiten, G., 1963, Taxonomy and regional variations of *Oxalis* section *Corniculatae*, I. Introduction, keys and synopsis of the species. *The American Midland Naturalist*, 69, 257-309.
- Lourteig, A., 1979, Oxalidaceae extra-austroamericanae, 2, *Oxalia* L. Sectio *Corniculatae* DC., *Phytologia*, 42: 57-198.
- Migahid, A.,M., 1988, *Flora of Saudi Arabia*, Vol.1 (Third Edition), King Saud University, Saudi Arabia, pp. 252.
- Nesom G. L., 2009, Notes on *Oxalis* Sect. *Corniculatae* (Oxalidaceae) in the South Western United States, *Phytologia*, 91 (3), 527-533.
- Small, J. K. 1907. Oxalidaceae In: Britton, N.L. (ed.) *North American Flora*, New York Botanical Garden, 25, pp.383.

Fig. 1. *Oxalis corniculata* L.subsp. *pilosa* (Nutt. ex Torr. & A. Gray) Lourteig: a. Habit; b. Plants in the field; c. a portion of stem; d. & e. inflorescence- front and back view.

