

## A NEW SPECIES OF *HIERACIUM* L. (ASTERACEAE) FROM PAKISTAN

SULTANUL ABEDIN AND ZAMARRUD

*Department of Botany, University of Karachi,  
Karachi -75270, Pakistan  
E-mail: flora@super.net.pk*

### Abstract

A new species *Hieracium sherwalii* (Asteraceae) S.Abedin & Zamarrud is described from Pakistan.

### Introduction

During the course of taxonomic study of *Hieracium* for the flora of Pakistan, a specimen was encountered with some unique characters. *Hieracium* is one of the most difficult genera of the family Asteraceae. It has more than 1500 species (Sell & West 1976) mainly distributed in Europe at high altitudes. It is represented in Pakistan by 7 species including the present one.

The new taxon is characterized by having many branched stems from the base with numerous leaves and capitula. The branches and leaves along the margin and on both surfaces sparsely bulbous based hairy in the upper parts, while 2-4 mm long, dense, bulbous based and flexuous hairy in the lower parts. Middle leaves amplexicaul, bluish-green, drying dark green. The involucre has appressed and 4-seriate phyllaries, outer ones with few minute glandular and eglandular hairs on the margin,  $\pm$  obtuse, linear-lanceolate, glabrous or slightly stellate hairy at the base. Ligules yellow, drying deep yellow, sparsely hairy outside in the middle and below. Anthers polleniferous. Style/stigma yellow, drying blackish to black. Cypselas (immature) numerous, truncate, ribbed, brownish-red.

Juxip (1966) has recorded 785 species from USSR. He has divided the genus into 3 subgenera. The concerned subgenus Euhieracium is divided into 12 sections. Sell & West (1975) reported 99 species from Turkey and placed them into 13 series. Many of the series are equal to the sections of Juxip. The same authors (Sell & West, 1976) recognized more than 1500 species into 38 numbers. Each number has one to several groups. It is concluded from these works and those of Mamgain and Rao (1995), and Lack (1977), that the present taxon with amplexicaul leaves may belong to the group or series or section named Prenanthoidea, Sabauda, Foliosa and Italica.

The characters in combination do not match with any section. The section Prenanthoidea has dense glandular hairs on involucre and peduncles, while the present taxon is almost glabrous with minute glandular hairs on involucre (observed in high magnification) and on margin of outer phyllaries. The section Sabauda has hairy peduncles and leaves not reticulately veined beneath. In the present species the peduncles are glabrous and the leaves are dark reticulately veined beneath. Next comes the section Foliosa and out of many species of this section it may be close to *Hieracium virosum* Pallas. This section is characterized by having margin of recaptacular pits long-

fimbriately toothed, leaves setose only along margin, glabrous ligules and yellow style/stigmas. While in the present taxon the receptacular pits are dentate, leaves glabrous or densely flexuous, bulbous based hairy in the basal parts, the ligules are hairy and style/stigma are drying blackish to black. The last one is series *Italica* that comprises 11 species in Turkey (Sell & West, 1975). The four species of this series are included in the section *Pseudostenotheca* (Juxip, op.cit.) which is characterized by having capitulum with more or less few florets. This series (*Italica*) is characterized by having leaves often with minute glandular hairs on margin, capitula few to numerous, involucre phyllaries with sparse to dense hairs; ligules glabrous or sparsely hairy at apex as noted by Sell & West (1975). The only species of this series *Hieracium artivense* (Woronow & Zahn) Juxip is close to the present taxon but the latter differs by having c. 100 leaves and c. 70 capitula, each with numerous, hairy, ligules, leaves on the margin glabrous or simple hairy. Presently it can not be assigned to any section and we refrain to form a new section because of single specimen though there is a remark on the label that plant is very common.

***Hieracium sherwalii* S. Abedin & Zamarrud sp. nov. Fig. a -c.**

Herbae perennes, aphyllopoda, caulis usque ad 30 cm longus, paniculato ramosissima. Folia caulina numerosa (c. 100), 4-30 x 3-8 mm, linear-lanceolata, sessilia, amplexicaulea, integra vel inconspicue denticulate, basalia longi flexuosos. Inflorescentia paniculato. Capitula plurima (c. 70). Involucra campanulata, basalia pauci stellata et glandulosa, atrovirida. Ligule in siccitate luteus, ciliatae. Achenia 3-4.5 mm longa.

**Holotypus:** Pakistan: Gilgit Distt.: Harmosh, Khun Plataeu, Khaltarow, open meadows, 30 cm tall, perennial, erect herb, flowers yellow, latex present, very common in grass lands, ± 3500 m, 30.7.2007, *Sherwali Khan & Shabbir Hasan* 934 (KUH).

***Hieracium sherwalii* S. Abedin & Zamarrud in *Pak. J. Bot.***

Perennial, aphyllopodous, 30 cm tall herb, densely, divaricately branched, almost glabrous above or sparsely simple hairy, at the base with dense, long, bulbous based, flexuous, 2-4 mm long hairs, branches thin. Leaves numerous all over, more so below, more than 100, 0.4-3 x 0.3-0.8 cm, acute, entire or somewhat undulate, some with teeth, lower leaves with long, flexuous, bulbous based hairs on the margin and beneath, above sparsely hairy, broadly or narrowly lanceolate, amplexicaul, all leaves with dark reticulate veins beneath; upper leaves gradually reducing, glabrous or so. Inflorescence paniced. Capitula c. 70, 1-1.2 cm long and broad. Involucre campanulate, 8 x 10 mm, phyllaries dark green, glabrous or outer phyllaries with minute glandular hairs on the margin and with scattered stellate hairs at the base, outer ones linear, 4 x 1 mm; inner ones linear – lanceolate, 8 x 2 mm, marginate. Ligules many, yellow, drying deep yellow, 12 mm long, sparsely hairy below. Anthers polleniferous, pollen regular. Styles and stigmas slightly blackish to black. Receptacle with dentate margin pits. Cypselas 3-4.5 mm long, cylindrical, ribbed, truncate; pappus 5-7 mm long, yellowish, barbellate.

**Distribution:** Presently known only from type locality.

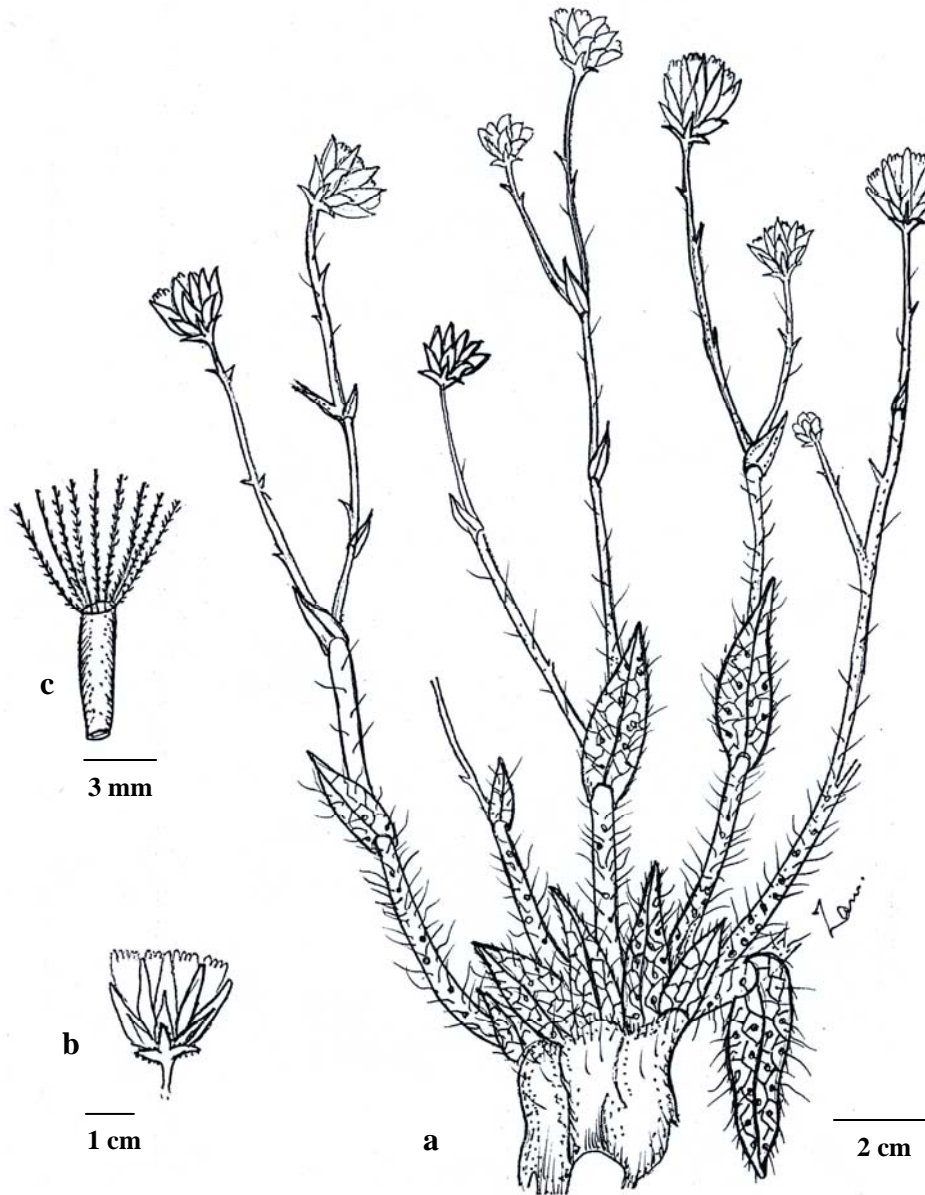


Fig. 1. *Hieracium sherwalii*: a- Habit; b- Capitulum; c- Cypsel.

#### Acknowledgement

I thank the Director, KUH, for providing herbarium and library facilities. Thanks are due to Prof. Dr. S. I. Ali and Prof. Abdul Ghafoor (KUH) for sharing their knowledge and experience. I am also grateful to Mr. Niaz Ahmed for industrious secretarial work.

**References**

- Juxip, A.J. 1960. In: *Flora of The USSR*, (Ed.): Schischkin, 30: pp 732. Akademia Nauk SSR Publishers. Moscow-Leningrad.
- Lack, H.W. 1977. In: *Flora Iranica*, (Ed.): K.H. Rechinger, 122: 171-182. Ackademisch Druck-u. Verlagsanstalt Graz-Austin.
- Mamgain, S.K. and R.R. Rao. 1995. In: *Flora of India*, (Eds.): P.K. Hajra, R.R. Rao, D.K. Singh and B.P. Uniyal, 12: 240-246. Botanical Survey of India. Calcutta.
- Sell, P.D. and C. West. 1975. In: *Flora of Turkey*, (Ed.): P.H. Davis. 5: pp 890. Edinburgh University Press. Edinburgh.
- Sell, P.D. and C. West. 1976. In: *Flora Europea*. (Eds.): T.G. Tutin, V.H. Heywood, N.A. Burges, D.M. Moore, D.H. Valentine, S.M. Walters and D.A. Webb, 4: pp.505. Cambridge.

(Received for publication 12 October 2007)