



## A new species of *Oxytropis* (Fabaceae: Papilionoideae) from India

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### Abstract

A new species *Oxytropis sanjappae* is described and illustrated from the Himalaya in India. The new species is widely scattered from Losar to Kaza in Lahul-Spiti region of Himachal Pradesh State. The relationship of the species has been discussed with *O. cachemiriana* and *O. tatarica*. The new species differs in having hairs very dense, silky and white, stems generally absent or quite reduced, racemes capitate, globose-ovoid or oblong, many-flowered, dense and elongating in infructescence, calyx teeth distinctly longer than tube, corolla light purplish pink and almost equal to calyx, wing petals obtuse at apex, mucro of the keel petal *ca.* 1 mm long and pods comparatively larger in size. A taxonomic key to the all 18 species of the genus occurring in India including new ones has been provided for the first time. In addition, the ecological studies related with the frequency, density, basal cover and importance value index (IVI) have also been carried out to know the conservation status of the species in the Himalaya.

**Key words:** Conservation status, Ecology, *Oxytropis sanjappae*, Relationship, Taxonomic key

### Introduction

The genus *Oxytropis* Candolle (1802: 24, 66), a member of subtribe *Astragalinae* of tribe *Galegeae*, consisting of 300–400 species has been divided into three subgenera and 20 sections (Vassilczenko 1984, Zhu & Ohashi 2000, Lock & Schriire 2005, Zhu *et al.* 2010). In India the genus is represented by about 17–20 species which are confined only to the Himalaya at high reaches (Sanjappa 1992, Kumar & Sane 2003). The maximum diversity of the species lies in the N. W. Himalaya, mainly in the cold deserts of Lahul-Spiti and Leh & Ladakh, while the N. E. Himalaya harbors only a few species. The majority of the species shows affinity either with European or Sino Himalayan elements. Since *Oxytropis* grows in very cold climate in very dry and hard soil, it develops perennial thick woody root-stock and herbaceous and profusely caespitose habit to counter the environmental stress. As the habitats of *Oxytropis*, are covered by heavy snow during the most part of the year, the life cycle (flowering & fruiting) of the species is completed within short span of time during July to September.

While revising the genus for India the authors collected an interesting species of *Oxytropis* from the N. W. Himalaya which on critical examination and comparison with the described species of the India (Baker 1876, Sanjappa 1992, Kumar & Sane 2003) and others (Ali 1959, 1977, Vassilczenko 1977, 1984, Grierson & Long 1987, Press *et al.* 2000, Zhu & Ohashi 2000, Welsh 2001, Zhu *et al.* 2010) as well as the examination of herbarium specimens housed at BSD, BSHC, CAL, CDRI, DD, K and LWG (herbarium acronyms according to Thiers 2012) turned to be a new species which has been named as *O. sanjappae* Chaudhary. The new species has so far been noticed only in the cold desert regions of Spiti area of Himachal Pradesh in the Himalaya at different locations. It belongs to the subgenus *Oxytropis* under section *Rechingeria* Vassilcz. which is chiefly characterized by having inflated pods (Vassilczenko 1984). The new species differs from its allied species *O. cachemiriana* Cambessedes (1844: 38) and *O. tatarica* Baker (1876: 138) in density and

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