INTRODUCTION
Astragalus L., belonging to the tribe Astragaleae of the family Papilionaceae, is one of the largest angiosperm genera. Comprising over 1600 species, Astragalus is widely distributed in temperate regions, nearly throughout the world. None of its species has, however, been recorded from Australia and southern Africa. This genus has attained maximum diversity in South western Asia in the Old world and western parts of North and South America in the New world (Spellenberg, 1976).
In the Indian sub-continent, *Astragalus* is represented by over 150 species (Hooker, 1879 and Ali, 1977), most of which have been reported from the western Himalaya. From the Kashmir Himalaya alone, over 50 species of this genus have been recorded (Ali, 1977 and Dhar and Kachroo, 1983); 25 of these are supposed to be endemic to this region (Dhar and Kachroo, 1983).

Plants belonging to the genus *Astragalus* can be identified on the basis of (i) paripinnately or imparipinnately compound leaves, (ii) presence of stipules, (iii) absence of stipels, (iv) erect calyx, (v) absence of mucro in the keel and (vi) glabrous style.

Commonly called milk vetches, poison vetches or locoweeds, some species like *A. gummifer* and *A. microcephalus* are economically important as source of gum tragacanth. Because of being colourless, tasteless and resistant to thermal and acidic degradation, gum tragacanth is used in pharmaceuticals and cosmetics, as a thickening agent in syrups, dressings and sauces, in industrial textile sizing and as an adhesive for cigar wrapper leaves (BOSTID, 1979).

Some of the medicinally important species of this genus include *A. hamosus* (during irritation of mucous membranes, nervous affections and catarrhal affections), *A. multiceps* (colic and leprosy) and *A. sarcola* (antirheumatic)
A. cicar (cicer milk vetch) and A. multiceps are important fodder plants (Watt, 1890 and Johnston, Smoliak, Hanna and Hironaka, 1975). While making collections for the present work, some species of this genus like A. bakeri, A. chlorostachys, A. coluteocarpus, A. graveolens, A. hoffmeisteri, A. macropterus, A. peduncularis and A. stewartii were found being used as fodder. Species like A. munroi and A. peduncularis bear beautiful flowers and can be exploited as ornamentals.

A perusal of the available literature reveals that despite the large size of this genus and the economic importance of its species no detailed cytological/cytogenetical work has been done. The little information available is limited to listing of the chromosome numbers only and these too are known only for 471 species (about 30%). Despite the little information available, the genus seems to be cytologically interesting as various species of this genus are on record with chromosome numbers 2n = 16, 22, 24, 26 - 30, 32, 36, 42, 44, 48, 52, 56, 64, 65, 80, 82, 96 and 160 (Fedorov, 1969; Ornduff, 1967, 1968, 1969; Moore, 1970, 1971, 1973, 1974, 1977; Ladingham and Pepper, 1973; Spellenberg, 1974, 1976 and LÖve and LÖve, 1980, 1982a, 1982b).
Before the initiation of the present work, no detailed taxonomical and/or cytological work had been done on the species of *Astragalus* found in Kashmir Himalaya. The present work on cytogenetical studies of the species of *Astragalus* was initiated with a view to have a better understanding of the relationships between these taxa and to establish the factors responsible for evolution and inter and intra-population differences in them. In all, 24 species of *Astragalus* have been studied for morphological and cytogenetical details.