ON SOME RARE AND NOTEWORTHY CRUCIFERS FROM INDIA

During the course of revisionary studies on Brassicaceae for the 'Flora of India Project' the author came across two specimens which, on scrutiny, are found to be rare and interesting. They are *Cardaria chalepensis* (Linn.) Hand.-Mazz. and *Thlaspi septigerum* (Bunge) Jafri—known from India by a single collection so far. A scrutiny of the literature indicates that Schulz as early as 1927 recorded these species from Kashmir based on collections in 1888 & 1893 respectively. Since that time, Schulz's (*l.c.*) work probably remained unnoticed and as such, they have neither been mentioned in any other Indian works nor included in the additional floristic lists published afterwards. (Razi, 1959 ; Nayar & Ramamurthy, 1973 ; Ghosh & Dutta, 1976 ; Ghosh, 1977 ; Ghosh, 1979 ; Nayar & Karthikeyan, 1981). Even Singh & Kachroo (1976) as well as Kachroo *et al.* (1977) did not make any mention of these species. However, both Stewart (1972) and Jafri (1973) in their respective 'Flora of West Pakistan' recorded the occurrence of these species in Kashmir ; but their reports too were based on only a few specimens collected quite long back. It should be kept in mind that being chiefly a mountaineous region, several parts of North-Western India are not accessible even to-day due to high elevation upto *c.* 6,000 m or more covered with snow throughout the year, extreme cold climate, lack of proper communication facilities, geographical position, etc. In such a situation with several areas remaining botanically under-explored or unexplored, the status (present or extinct) of these species are very much uncertain ; and if not traced in the near future in and around the reported areas, then the few herbarium specimens at our hand would only serve as the proof of their once existence in India. Considering their extreme rarity, a detailed description for each species is provided to facilitate a thorough search of them in our country.

Cardaria chalepensis (Linn.) Hand.-Mazz. Ann. Nat. Hofmus. Wien 27 : 55. 1913. *Lepidium chalepense* Linn. Cent. Pl. 2 : 23. 1756. *L. draba* L. ssp. *chalepense* (Linn.) Thell. Monogr. Lepidium 88. 1906 ; O. E. Schulz in Notizblatt. 9 : 1086. 1927. *C. draba* (Linn.) Desv. ssp. *chalepense* (Linn.) O. E. Schulz var. *repens* (Schrank) O. E. Schulz in Engler & Prantl. Pflanzenfam. ed. 2. 17b : 417. 1936.

Erect herbs, 20-40 cm long, corymbosely branched in the upper part, glabrous or grey pubescent, irregularly toothed to entire. Basal leaves obovate-spathulate, narrowed into a petiole ; middle and upper leaves oblong to oblong-lanceolate, sessile, sagittate-auricled at the base. Inflorescence a short corymbose panicle, scarcely elongating in fruit. Sepals 2.0-2.5 mm long, obovate or oblong ; petals 3.0-3.25 mm long, obovate-spathulate, long clawed. Fruiting pedicels 6-12 mm long, slender, spreading. Silicula 2.5-6.0 mm × 4.0-6.0 mm, ovate to broadly obovate with entire base ; valves obscurely veined, glabrous to minutely pubescent when young ; style 1-2 mm long. Seeds 1.25-2.0 mm long, oval, brown to black.

Fls. & Frts. : April-July.

Distribution : INDIA : Jammu & Kashmir. Rare. Bashki, Kashmir, *W. Gollan* Saharanpur Herb. No. 9137, 15.6.1888 (DD). C. & SW. ASIA. Introduced and naturalised in N. America.

Thlaspi septigerum (Bunge) Jafri in Notes Roy. Bot. Gard. Edin. 22 : 119. 1956. *Eutrema septigerum* Bunge, Verz. Suppl. Fl. Altai 73. 1836 ; Schulz in Notizblatt.

9 : 1084. 1927 et in Engler & Prantl, Pflanzenfam. ed. 2, 17b : 586. 1936.

Erect herbs, 15-30 cm long, glabrous. All leaves entire. Basal leaves long-petioled, ovate to elliptic-ovate or suborbicular, blade 5-20 mm long ; cauline leaves 12-25 mm × 3-7 mm, oblong lanceolate, the lower short petioled, upper subsessile. Racemes upto 10 cm long in fruit, pedicels 3-7 mm long, slender, ascending. Silicula 6-12 mm × 1.5-2.0 mm, narrowly oblong, slightly narrowed to the base, laterally compressed, apex truncate or slightly emarginate ; style 0.5 mm long. Seeds 4-6 in each cell, 1.5 mm long, ellipsoid, dark brown.

Fls. : Not seen. *Frts.* : Sept.

Distribution : INDIA : Jammu & Kashmir. Rare. Burzil Pass, 13,000', Kashmir, *J. F. Duthie* 14030, 14.9.1893 (CAL). C. ASIA.

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REDISCOVERY OF *CAREX BORII* NELMES (CYPERACEAE) FROM LAHUL VALLEY (H. P.)*

During the course of systematic studies on the flora of Lahul valley (H. P.) by one of us (BSA), special attention was paid to relocate the rare plants of this area. In this attempt *Carex borii* Nelmes has been rediscovered and collected from the type locality for the first time after its type collections.

The species is described herewith photograph. The data on its rarity, phenology, ecology, distribution and specimens examined are also given to facilitate its identification.

Carex borii Nelmes in Kew Bull. 1949 : 38. 1949 ; Stewart in Bull. Bot. Surv. Ind. 9 : 152. 1967 ; *et* Anno. Cat. Vas. Pl. W. Pak. 74. 1972.

Densely tufted sedges. Rhizomes thick, woody, shortly creeping. Stems erect, obscurely trigonous, smooth. Leaves basal,

*C. D. R. I. Communication No. 3221.