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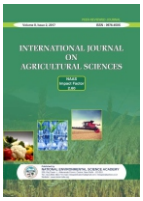

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LARGEST DIAMETER (DBH) TREE OF *CAPPARIS DECIDUA*-AN IMPORTANT GENETIC RESOURCE FROM INDIAN DESERT

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Short Communication

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Capparis decidua (Forsk.), Edgew. (synonym *Capparis aphylla,* Roth) belongs to family Capparaceae which consist of 16 genera and about 480 species distributed across new as well as old world (Steven, 2001, Lansky et al., 2013). *Capparis* species are well adapted and distributed in wide range of habitats. Total 16 species of *Capparis* are distributed in India and most of them are endemic (Maurya et al., 2020), while Rajasthan harbors 5 species (Shetty & Singh, 1987).

C. decidua commonly known as Kair/Ker is one of most economic, medicinally and ecologically important species of desert. It is multipurpose perennial woody small tree, well adapted for arid conditions and can grow in different habitats. It is highly recommended species for stabilizing sand dunes and controlling soil erosion. *C. decidua* is considered as one of keystone species of desert ecosystem as it provides for number of birds and animals. Immature fruits are economic important and used as pickles, vegetables either alone or in combination. Fruits are rich source of proteins, minerals and carbohydrates (Chouhan et al; 1986). The green immature fruit is major ingredient of the 'Panchkuta' which is popular delicacy of Rajasthan. Fruits and plant parts have different medicinal properties like cardiac, gastric, diabetic, laxative, diaphoretic, alexeteric, anthelmintic, coughs, asthama, inflammation, rheumatism (Kirtikar and Basu, 1933; Dalziel, 1948).

During the survey of Barmer district for mapping and documentation of Forest Genetic Resources (January, 2021), a gigantic tree of *C. decidua* was encountered at Hum ki Dhani, near Chawa Rawatsar in district of Barmer (71.59131 E and 25.73535 N) (Fig.1). The average annual rainfall of Barmer district is 297 mm. Entire district is extreme desert and experiences extremes of heat in summer (48 °C) and cold in winter (0 °C), high wind velocity (20-40 km/hr) during summer forming dust storms.

A single tree of 32 feet tall and main stem (solid trunk) of 196 cm (fig.2) circumference with average canopy 24.5 feet was found among the scattered population of *Capparis decidua*. In earlier surveys in western Rajasthan by Researchers of Forest Ecology division of Arid Forest Research Institute, Jodhpur reported maximum stem circumferences at sites Dhorimanna (Barmer) 204 cm, Sandhoi mata oran (Raniwara, Jalore) 210.9 cm and Sarnavu (Raniwara, Jalore)

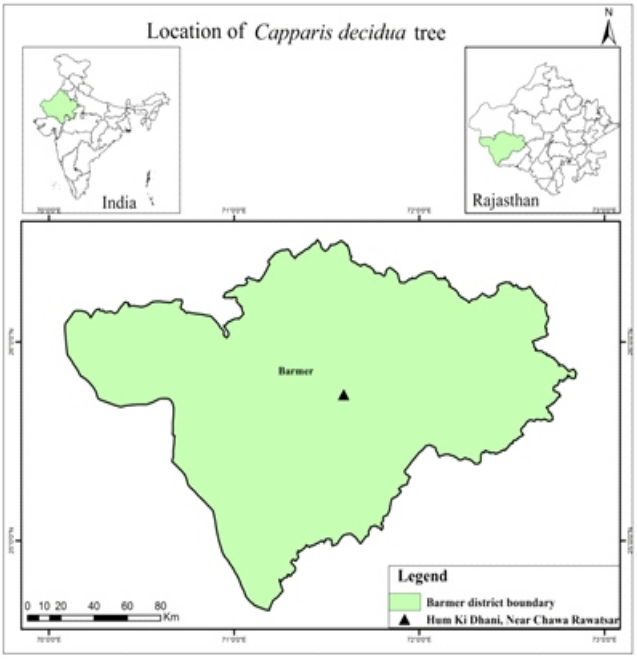

Fig.1 Location map of Largest diameter (DBH) tree of *Capparis decidua*

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Fig. 2: Capparis decidua: A-Single tree; B- Measurement of stem circumference; C- Close up of trunk.

234.2 cm (unpublished data). Though the values of earlier reported stem circumferences (204, 210.9 and 234.2 cm) are higher, but trunks were hollow. Such hollow trunks are prone to break during dust storms which are frequent in desert. Even such hollow trunks are not considered for biomass estimation. Such a forest genetic tree (*Capparis decidua*) with solid trunk (circumference 196 cm) can be considered as plus tree for raising seedling through seeds, tissue culture. This tree is in open land which is highly prone to uproot or break during dust storms. Some conservation plants should be implemented to protect such important livelihood supporting forest genetic resource species from Indian desert.

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