## Short Communication

# Buxus wallichiana L., a multipurpose Himalayan tree in peril

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The family Buxaceae, best represented by the species *Buxus wallichiana*, is known worldwide for its manifold uses. Therefore, an attempt has been made to assess the current status and utilization pattern in Jammu and Kashmir region. Generally, *Buxus* is used for making wood craft, fuel, and fodder and for other purposes. Due to over exploitation of this species, the natural populations of this species are depleting fast. Present communication highlights the critical situation of *Buxus wallichiana* in Jammu and Kashmir region.

Key words: Chikarri, Buxus, Rajouri - Poonch, Jammu and Kashmir.

#### INTRODUCTION

Buxus belongs to family Buxaceae also called Box family. Genus Buxus comprises about 70 species, which are widely or sparsely distributed in Asia, Europe, Africa, North and Central America. In India, only two species has been reported, that is, Buxus wallichiana (Himalayan Box Tree) and B. papillosa.

Buxus wallichiana commonly known as Papri (Hindi), Sansad, Shamshad in the Himachal Pradesh and Chikarri in Jammu and Kashmir. It is an evergreen, shade loving tree upto 15 m high and 2.1 m grith with a clean bole up to 7.5 m found unevenly distributed in some parts of North-Western Himalayan region of India (Jammu and Kashmir, Himachal Pradesh and Uttarakhand), Nepal and Bhutan. Generally, it is found at an altitude varies from 1,200 to 3,000 m amsl. This species prefers shady habitat, and avoids hot aspect that is, exposed slopes, direct sunlight, etc. Some time in unfavorable conditions that is, dense forest, it becomes shrubby in nature. Normally, it found in pure patches but some times associated with the other Himalayan species that is, Quercus leucotrichophora, Rhododendron arboreum, Aesculus indica, Taxus baccata sub sp. wallichiana (Himalayan Yew), *Ilex* spp., *Picea smithiana*, etc. Leaves are lanceolate or more rarely narrowly elliptic-oblong, flowers unisexual, yellow and green fascicled racemes (Figure 1). The flower appears during March to May and fruits ripen from July to August. The bark of the tree is

soft yellowish grey in colour. Buxus trees regenerate freely and they prefer shade or moist habitat for regeneration. It can be propagated either naturally through seed or artificially by stem cuttings. Stem cuttings can be extensively used for raising hedges due to its evergreen nature. The annual growth rate of the tree is very slow, the annual rate of grith - increment beings 0.1 to 1.1 cm (Anonymous, 1997; Polunin and Stainton, 2010). Structurally, the wood is uniform, whitish yellow to brownish yellow, durable hard, heavy (wt. 833 to 960 kg/m<sup>3</sup>), extremely fine and even textured, and straight in nature (Anonymous, 1997). It is easy to turn and saw which makes it the choice wood for fine carving and engraving. Due to this particular nature of the wood, it is generally used for making various articles in different parts of Indian Himalayan Region (IHR). In Jammu and Kashmir, the Buxus wood sustains a whole cottage industry especially in Rajouri - Poonch belt. The artisans have been involved in this craft are mainly located in Shahdra Sharief, Thannamandi and Budhal areas of famous twin district, that is, Rajouri - Poonch. Variety of articles comprising baby walkers, toys, decoration pieces, photo frames, hangers, snuff boxes, combs (comb filled with hair oil and then used and it ensure uniform oiling of the scalp), forks, spoons etc., have extensively been manufactured from this species (Figures 2 and 3). Because the wood of the tree is light and has lustrous



Figure 1. Sapling of Buxus wallichiana in Dehra-Ki-Gali (Rajouri district).



Figure 2. Process of making traditional comb from Chikarri wood.



**Figure 3.** Different articles made from Chikarri wood (*Buxus wallichiana*) for sale at Shahdra Sharief.

nature, the finished products do not require any paint or polish (Jawaid and Ateetpal, 2007).

Besides good wood quality, other parts of plant have manifold uses also as its leaves are bitter, possess purgative and diaphoretic property and reported to used in rheumatism and syphilis, leaves and barks are used as major constituents of tea in the Garhwal Himalaya (Uttarakhand) (Anonymous, 1997). Chikarri wood has high calorific value which makes it a good fuel for heating and cooking purposes. Charcoal is made from chikarri wood is used in fire post during winter. During days of scarcity when green fodder is scarce chikarri leaves are fed to goats. For rest of the cattle the foliage is highly fatal. Keeping in view its multiple uses the population of Buxus wallichiana facing severe threats in many parts of the Himalayan region. According to a recent survey conducted by the author itself, only a few pockets of the beautiful tree remain in (J&K) State especially in the Rajouri - Poonch belt. Further, to know the current status and utilization pattern including traditional/indigenous uses of the species old knowledgeable persons were interviewed with the help of semi-structured open ended questioner. According to the local inhabitants locals used to visit potential sites almost round the year for the collection of logs of Buxus species and they fetch only 200 to 300 rupee per log. As a result so many areas are there where once Buxus was present in abundance, but now a few or in many areas there is totally/ partially absence of the species was recorded. Further, the presence of less number of Buxus species indicates that the species has been brink of extinction in this area in particular and in general. The information presented in the paper is first hand information of this area and also for species to announce the bottlenecks of species.

Therefore, it is necessary to develop alternative methods for propagating such high value multipurpose tree species and create awareness about various conservation methods (that is, conventional nursery raising and *in-vitro* methods) among the common populace and ensure people participation to conserve the long tradition of wood work of Rajouri- Poonch region, sustainable use/ utilization and better management of the species so that the beautiful tree would remain beautiful in nature otherwise, it will becomes extinct shortly.

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