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Analysis of woody vegetation of Corbett National Park, India

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Abstract

The paper presents a detailed analysis of woody forest vegetation of Corbett National Park, at the foothills of Garhwal and Kumaun Himalaya. Twenty nine stands of tropical forest vegetation were studied. The vegetation consists of nine community types. Tree density was higher in *Shorea robusta* dominated communities and lowest in the *Anogeissus latifolia-Acacia catechu* community. Total tree basal cover was maximum in *Shorea robusta* dominated communities. Sapling and seedling regeneration was poor in *Shorea robusta* communities. *Mallotus philippensis*, *Syzygium cumini* and *Diospyros tomentosa* showed good regeneration both in sapling and seedling layers across the communities. Sapling and seedling species diversities showed negative relation with total tree basal cover. Most of the dominant tree species exhibited significant positive relationship between tree height and circumference at breast height in all the communities.

Introduction

Corbett National Park is among the best potential habitats for tiger in the Himalayan region. This park has also the unique distinction of being the first and the foremost wildlife conservation centre in India and the first national park of the country created in 1936 during the British regime of the United Provinces. After independence its name changed to Ramganga National Park and ultimately, after the death of Edward James Corbett in 1955, it was renamed as Corbett National Park to perpetuate the memory of the famous wild life conservationist popularly known as Jim Corbett. This park was chosen during 1973 as the venue for the inauguration of the launching of the famous project called the 'Operation Tiger' or 'Project Tiger'.

Dedicated to the cause of wild life, the National Park initially covered only an area of 323.75 km^2, which was later considered to be too small for species like tiger and elephants. Later in 1966, the adjoining areas were added and the park now has an area of 520.8 km^2.

The park has a rich variety of fauna. Grazing and lopping were quite extensive in the park at the time it came under the Project Tiger. At present, grazing and lopping have been totally stopped throughout the park and are restricted to a very narrow strip along the outer periphery due to presence of villages. Commercial exploitation of forests for timber, firewood, bamboo and other major and minor forest products has been stopped as well. The park is free from permanent human settlements and poaching. So far, the vegetation of the Corbett National Park has not been studied in quantitative terms. The present study deals with the structure, composition and diversity of different strata in the forests of Corbett National Park.

Study area

The study area lies between latitudes 29° 25′ N to 29° 40′ N and longitudes 78° 45′ E to 79° 50′ E and is located in the foothills of Central Himalaya (Fig. 1). Twenty nine forest stands were selected in order to cover the entire vegetation of the Park. The distribution of these forest stands is shown in Fig. 2. The study area, comprising 520.8 km^2, is included in two districts i.e. Pauri Garhwal (312.7 km^2) and Nainital (208.1 km^2) in the Garhwal and Kumaun regions of north Uttar Pradesh. Altitude varies from 250 to 1100 m. The geology of the