

ECOLOGICAL ATTRIBUTES OF SOME INVASIVE PLANT SPECIES OF JHIRNA RANGE IN CORBETT NATIONAL PARK RAMNAGAR, UTTARAKHAND

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Abstract: Invasive species are those that occur outside their natural range, spread rapidly and cause harm to other species, communities or entire ecosystem and to human well-being. Invasive plant species alter native community composition depletes species diversity, affect ecosystem process and thus cause huge economic and ecological imbalance. These plants possess a set of remarkable traits that allow them to colonize huge areas upon invasion. In India invasive species are present for over a century and some of them are world's worst invasive species. The invasive species are aggressive invaders outside their natural range and have been recognized as the second largest threat to biological diversity and other natural resources after habitat destruction. Present work was carried out to find the intensity of invasion (dominance, density, abundance, frequency and importance value index) of some invasive species distributed in Jhirna range of Corbett National Park, Ramnagar Uttarakhand and to understand the impact of invasive plants on the structure and composition of other species. The information and data were collected with the help of random sampling by placing quadrats of 1x1 m for herbs and 5x5 m for shrubs or 10x10 m for tree. Density, abundance, frequency, basal area and their relative measures for each species have been calculated. A total of five invasive species viz. *Parthenium hysterophorus*, *Cyperus rotundes*, *Eupatorium perfoliferum*, *Ageratum conyzoides* and *Lantana camara* were distributed in the study area. Of these, the maximum density was recorded for *Lantana camara* (2820 individual ha⁻¹) followed by *Parthenium hysterophorus* (270 individual ha⁻¹), and *Eupatorium perfoliferum* (240 individual ha⁻¹). The *Lantana camara* was the dominant shrub species with 100% frequency.

Key words: Density, ecosystem, frequency, Importance value index, invasive

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