IJSN, VOL 10 (1) 2019: 61-67 ISSN 2229 - 6441

INTERNATIONAL JOURNAL OF SCIENCE AND NATURE

www.scienceandnature.org

SPATIAL DISTRIBUTION OF *ALYSICARPUS MONILIFER* ON DIFFERENT HABITATS IN RELATION TO SOIL, COMMUNITY AND SITE FACTORS IN BUNDELKHAND REGION AT ORAI (JALAUN) U.P.

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ABSTRACT
In natural communities, identification of environmental as well as species intrinsic factors associated with its spatial distribution is crucial one for establishing a more resilient community. Spatial paternities of *Alysicarpus monilifer* were assessed at three different types of habitat, namely older alluvial plain (OAP), younger alluvial plain (YAP) and mounds located (36 sites) within dry sub-humid regions of the Bundelkhand the part of U.P. Distinctive dispersion indices deals with diverse numerical inborn probabilities were quantified. The result revealed a dominant clumped pattern at OAP habitat, while site specific patterns (random, uniform and clumped and uniform and random) recorded at YAP and at Mounds. In totality, community parameters don't demonstrate any noteworthy association with the clumped pattern type of this species at OAP and YAP habitats, further at YAP habitat, site quality elements were additionally non-significant for any example sort. Threshold limits of some exploratory parameters also record that possibly would decide the faith of its distribution type.

KEYWORDS: Alluvial plain, *Alysicarpus monilifer*, Community dynamics, Habitat factors, Mounds.

INTRODUCTION
The horizontal organization of plant communities can be effectively described by explaining their physical arrangement or distribution within the community which in turn can prove to be a utilitarian tool in relation to spatial patterns of a species. The plant spatial pattern development is the after-effect of distinctive procedure and these can be evaluated by utilizing modules like explanatory models (Hille RisLambers *et al.*, 2001), Markov chains (Beyene *et al.*, 2016) and cellular automata (Bak *et al.*, 1988). The processes that govern spatial pattern of a species operate at multiple levels incorporate topography, soil quality, accessibility of water and nutrients. Seed dispersal (Greig-Smith, 1983; Pacala and Silander, 1985; Schurr *et al.*, 2004), interaction among individuals (Alonso *et al.*, 2002), plant-plant interactions (Mathur, 2014b), environmental heterogeneity and disturbance via grazing (Rayburn and Monaco, 2011) are the major governing factors.
The example of three essential sorts of plant spatial have been perceived: (1) regular (or even, uniform, negatively contagious), where individuals within a population are uniformly spaced; (2) random (or chance) pattern in which all individuals have an equal chance of living anywhere within an area; and (3) clumped (or aggregated, patchy, contagious) in which individual has a higher likelihood of being found in some region than someplace else (Condit *et al.*, 2000). The outcomes are then linked to the ecological processes through which the patterns are conjectured to have formed. Sometimes, observed patterns linked to either positive or negative plant interactions that have the potential to structure local plant neighbourhoods (Rayburn and Monaco, 2011). For instance, a regular plant spatial pattern often deciphered as an indication of intense rivalry between individuals for limited resources (Ratan, 2005; Stoll and Bergius, 2005). In contrast, the aggregated pattern (especially inter-specific aggregations) interpreted as evidence of neutral or positive plant interactions (Kefi *et al.*, 2007). Aggregated plant patterns linked to patchy distributions of the soil assets, especially in shrub-dominated communities (Perry *et al.*, 2008).
Alysicarpus monilifer is one of the annual outstanding legumes and has been recommended for improving alkaline soils and reclaiming saline areas (Malik, 1955). It has also been used as green manure. It is commonly called as tribal pulse. It is a common legume of important grass field in India. The plant has much economic value and is used as green fodder, especially for drought cattle and milk cows. The chemical composition and nutritive value of green feed, silage, hay and pods have already been worked out. Ecosystem services of this species is a regulatory function (checks the soil-erosion and nitrogen fixation). Beforehand different ecological aspects of this species have been carried out which are related to germination ecology, allelopathic (Yadav and Yadava, 2014), nitrogen fixation capacity (Mohammed and Fredan, 2011) and association