

**BIODIVERSITY IN RAMGARH AREA OF GORAKHPUR EASTERN UTTAR PRADESH,
U.P.****Kumari Sunita*¹, Shobhit Srivastava², Nirmal Kumar N.³ and Karuppasamy P.M.⁴**¹Department of Botany, DDU Gorakhpur University, Gorakhpur.²Department of Biotechnology, DDU Gorakhpur University, Gorakhpur.^{3,4}Department of Botany V.H.N. Senthikumara Nadar College (Autonomous) Virudhunagar, Tamilnadu.***Corresponding Author: Kumari Sunita**

Department of Botany Department of Biotechnology Ddu Gorakhpur University Gorakhpur

Article Received on 26/12/2021

Article Revised on 16/01/2022

Article Accepted on 06/02/2022

INTRODUCTION

Biodiversity establishes different assets where upon families, networks, and people in the future depend for meeting their occupations. Individuals are particularly connected with the plant realm for its endurance from the earliest starting point of its appearance on this planet (Elizabeth and Dowdeswell, 1995). India is one of the super biodiversity-rich countries on the planet where the therapeutic plants are essential for our custom that is even regarded today. The principle conventional frameworks of medication in India incorporate Ayurveda, Siddha, Unani, and Homeopathy. 75% of the therapeutically significant plant species in India fills in practically wild condition (Laloo et al., 2006; Kannan and Jeeva, 2008). The WHO characterizes customary medication as approaches, wellbeing practices, information, and fusing plant-based drugs which are applied to treat, analyze, and forestall infections (WHO, 2003). Since days of yore, antiquated individuals for the most part rely upon natural solutions for the treatment of illnesses and issues (Singh et al., 2003).

Flower variety gives food, medication, and grain and has vital monetary and socio-social worth all through the world [Maity D. et al., 2004]. These plants are either wild or developed [Panskus AB, et al., 2013]. Of every one of these plants, consumable and therapeutic plants specifically assume a significant part in human existence [Akpabio UD, et al., 2013]. They give essential food and medication to nearby networks [Dahlberg AC et al., 2009, Kumar S et al., 2013]. Indeed, even in the advanced time, generally rustic and ancestral networks who live near the woodland rely upon plants for their day by day food and medical care needs [Sen S et al., 2011, Sahu CR et al., 2013]. Flower variety is straightforwardly relative to substance variety (bioactive mixtures), as reflected in the customary information on the native people groups and this space of science is known as "ethnobotany," or now and again ethnopharmacology [Catarino L et al., 2016, Sadeghi Z et al., 2014]. The World Health Organization (WHO) has assessed that as much as 80% of the total populace relies upon conventional medication for their essential medical care prerequisites [Singh A., 2013].

Flower variety isn't just rich in or close to the backwoods or country regions, yet it is likewise wealthy in little fixes of metropolitan regions. These regions assume an essential part in adjusting contamination and other ecological variables in metropolitan conditions. Remembering this, an endeavor has hence been made to

archive the helpful greenery in and around the "Ramgarh Taal" space of Gorakhpur in India and its ethnobotanical potential.

MATERIAL AND METHODS**Study area**

Locale Gorakhpur topographically arranged in the north-east "Tarai" area of U.P, India and lies between 26.50-27.90 N and 83.40-84.260 E at a height of 95 meter above ocean level. There are numerous impermanent and private water collections of shifting size around here. The investigation region Ramgarh Taal is an enormous, shallow, enduring eutrophic lake arranged at 26°44'9" N and 83°24'16" E eastern side of the Gorakhpur town. The precipitation shifts extensively from one year to another. The storm downpours begin during June and reach a conclusion in September yet may persevere till October. The base temperature goes down to 6°C in the period of January and greatest up to 43°C in the long stretch of June.

Map of study area (Ramgarh Taal area)**Enumeration of floristic diversity**

In the current examination "Ramgarh Taal" studied double a year, viz., April – June and November-January and plant test have been gathered from more than 20 arbitrarily chosen destinations in various season. During the overview, plants happening in various zones are gathered, Photographed, and recognized. Gathered plants

later related to the assistance of herbarium and meeting with specialists. Every species was classified along with its plant name, nearby/regular name, and sort of the plant species.

RESULT

The consequence of plant variety of "Ramgarh Taal" Shrubs incorporates X types of blossoming plants, X genera having a place with X families. Among the X species, X species has a place with dicotyledons and X species has a place with monocotyledons. The most predominant family in the current investigation region is X with X species (X %). Close to that X (Family name) and X(Family name) involve X species (X%), Amaranthaceae incorporates X species (%), Lamiaceae contains X species (%), and Verbenaceae accepts X species (%). The point by point examination of the greenery of present investigation and their therapeutic qualities in an alternate region is addressed in Table and Figure. All the got data were utilized for treating various diseases.

DISCUSSION

India is blessed with a rich natural variety with about 12% of the worldwide plant abundance. Nonetheless, almost 33% of the complete plant types of India are endemic. In the current examination, among the different groups of blooming plants in India, the prevailing ones are Orchidaceae, Leguminaceae, Gramineae, Rubiaceae, Euphorbiaceae, Acanthaceae, Compositae, Cyperaceae, Labiatae, and Urticaceae. Besides, we can likewise recognize potential destinations where such uncommon and important therapeutic plants were found and still accessible as local area rationed zones or all the more explicitly restorative plant protection zones (Kala, 2005; and Singh *et al.*, 2012). There is a pressing requirement for preservation of these plant species as a significant number of them can obscure remedies for current sicknesses. Thus, the aftereffects of the current investigation cleared a pathway for the botanist and other scientist for the maintainable usage of the normal assets. This examination gives the further extent of exploration on the organic properties of the restorative plants and augmentation exercises needed to foster the use of ethnomedicinal plants for the general public.

REFERENCES

1. Akpabio UD, Ikpe EE. Proximate composition and nutrient analysis of *Aneilema aequinoctiale* leaves. *Asian J Plant Sci Res.*, 2013; 3: 55-61.
2. Catarino L, Havik PJ, Romeiras MM. Medicinal plants of Guinea-Bissau: therapeutic applications, ethnic diversity and knowledge transfer. *Ethnopharmacol*, 2016; 183: 71-94.
3. Dahlberg AC, Trygger SB. Indigenous medicine and primary health care: The importance of lay knowledge and use of medicinal plants in rural South Africa. *Hum Ecol*, 2009; 37: 79-94.
4. Elizabeth M, Dowdeswell D. In: *Global Biodiversity Assessment*. UK: UNEP, CUP, 1995; 80-9.
5. Kumar S, Dash D. Flora of Nandan Kanan Sanctuary: medicinal plants with their role in health care. *Int J Pharm Life Sci.*, 2013; 3: 1631-1642.
6. Kannan D, Jeeva S. Use of ethnoveterinary plants by indigenous rangeland community of Kanyakumari District, Tamil Nadu, India. In: *Proceedings of the International Grassland Congress and 8th International Rangeland Congress*, June 29-July 5, Hohhot, China, 2008; 22.
7. Kala CP. Indigenous uses, Population density and conservation of threatened medicinal plants in protected areas of Indian Himalayas. *Conserv Biol.*, 2005; 19: 368-78.
8. Laloo RC, Kharlukhi L, Jeeva S, Mishra BP. Status of medicinal plants in the disturbed and the undisturbed sacred forests of Meghalaya, northeast India: Population structure and regeneration efficacy of some important tree species. *Curr Sci.*, 2006; 90: 225-32.
9. Maity D, Pardhan N, Chauhan AS. Folk uses of some medicinal plants from North Sikkim. *Ind J Trad Know*, 2004; 3: 66-71.
10. Pankus AB, Breckling B, Hamberger S. Cultivation-independent establishment of genetically engineered plants in natural populations: current evidence and implications for EU regulation. *Environ Sci. Europ*, 2013; 25: 34-35.
11. Sen S, Chakraborty R, De B, Devanna N. An ethanobotanical survey of medicinal plants used by ethnic people in west and south district of Tripura, India. *J Forest Res.*, 2011; 22: 417-426.
12. Sahu CR, Nayak RK, Dhal NK. The plant wealth of Boudh district of Odisha, India with reference to ethanobotany. *Int J Curr Biot*, 2013; 1: 4-10.
13. Sadeghi Z, Mahmood A. Ethno-gynecological knowledge of medicinal plants used by Baluch tribes, southeast of Baluchistan, Iran. *Revi Brasilei de Farmacogno*, 2014; 24(6): 706-715.
14. Singh A. Vascular floristic wealth of Banaras Hindu University main campus, India. *Int J Plant Sci.*, 2013; 2: 124-149.
15. Singh U, Singh S, Kochar A. Therapeutic potentials of antidiabetic nutraceuticals. *Phytopharmacology*, 2012; 2: 144-69.
16. Singh A, Mehta S, Singh HB, Nautiyal CS. Biocontrol of collar rot disease of betelvine (Pipe betle L.) caused by *Sclerotium rolfsii* by using rhizosphere-competent *Pseudomonas fluorescens* NBRI-N6 and *P. fluorescens* NBRI-N. *Curr Microbiol*, 2003; 47: 153-8.
17. World Health Organization, Traditional medicine. Fact sheet, 2003; 134.