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Grewia flavescens Juss. and Its Associated Plant Species: A Case Study in Ramgarh Vishdhari Wildlife Sanctuary, Rajasthan

Dr. O. P. SHARMA

Associate Professor

Department of Botany

Government College Bundi, Rajasthan, India - 323001

Email: opsharmabundi68@gmail.com

ABSTRACT: This observation was undertaken as a case study in Ramgarh Vishdhari Wildlife Sanctuary, Rajasthan to get knowledge about the association of *Grewia flavescens* Juss. with other plant species of angiosperm and pteridophytic flora. The area is rich in flora shows more diverse plant species of ecological importance.

KEYWORDS: *Anogeissus pendula*, Deciduous, Ecosystem, *Grewia flavescens* Juss., Tiliaceae

I. INTRODUCTION

Grewia flavescens Juss. belongs to family Tiliaceae. This species is most common in scrub and dry deciduous forests. It is densely found on the slopes of forests. This shrub is observed with various plant species as closely associated forms in Ramgarh Vishdhari Wildlife sanctuary. The distribution of *Grewia flavescens* Juss. is not uniform throughout the sanctuary area. Different physical regions are present in the sanctuary. The terrain, topography, soil, moisture availability and geology of the area influences the vegetation and distribution pattern of different species.

Ramgarh Vishdhari Wildlife sanctuary is located in Bundi district of Rajasthan state and 45 Km. away from it. The sanctuary lies in the south-eastern part of Rajasthan between 24º 59' 11'' to 25º 53' 11" North latitude and 75º 19' 30'' to 76º 49' 30'' East longitudes. It is a single compact and large forest ecosystem in Haroti region. The hill range is generally wooded and contains root stocks of *Anogeissus pendula.* The main trees and shrubs of the sanctuary area *are Acacia nilotica, Acacia catechu, Anogeissus pendula, Acacia leucophloea, Butea monosperma, Lannea coromandelica, Mitragyna parvifolia, Maytenus emarginatus, Balanites aegyptiaca, Capparis decidua, Grewia flavescens, Salvadora oleoides, Dichrostachys cinerea, Zizyphus mauritiana* and *Zizyphus nummularia*. *Grewia flavescens* Juss. and its associated plant species of the area are considered in this communication.

II. RELATED WORKS

The notable contribution from ecological studies particularly on floristics includes Mathur, 1960; Agarwal, 1971; Yadav and Yadav, 2008; Kumar, 2012; Meena, 2012; Chaturvedi, Khinchi, and Dadhich 2013; Sharma, 2013, 2022 & 2022 and Jadhav, 2016. In this context associated plant species of *Grewia flavescens* Juss. in the area of Ramgarh Vishdhari Wildlife Sanctuary, Rajasthan have been observed.

III. METHODOLOGY

The present study is based on field observations and collection tours. To record the distribution and association of *Grewia flavescens* Juss., an eco-physiographical and taxonomical survey of the area was carried out during January 2020 to June 2022. Climatic, edaphic and biotic factors disturbed the habitat of many plant species. The paper is based on two years taxonomical exploration of the area.

IV. EXPERIMENTAL RESULTS

Four species of *Grewia* commonly occurs in Ramgarh Vishdhari Wildlife sanctuary, Bundi district are:

1. *Grewia abutilifolia* Vent. ex Juss.

2. *Grewia flavescens* Juss.

3. *Grewia hirsuta* Vahl.

4. *Grewia tenax* (Forssk.) Fiori.

The systematic enumeration including morphological characters, local name, occurrence and flowering and fruiting time of *Grewia flavescens* Juss. are as follows:

Botanical name: *Grewia flavescens* Juss.

Family: Tiliaceae

Local name: Siali, Damari

Morphological description: A common shrub, statellate pubescent, densely branched, leaves ovate-lanceolate, hairy and toothed. Flowers yellow, star like, fruits drupes, globose, orange, hairy, eaten by birds.

Fls. and Frs: July to November.

Locality and ecological status: Most common in scrub and dry deciduous forests. Densely found on the slopes of forests. It is observed with various angiosperms plants as closely associated forms.

The plant species associated with *Grewia flavescens* Juss., which are observed during the field visit are de (L.) Willd. ex Delile scribed in present communication. These plant species are arranged alphabetically.

1. *Acacia nilotica* (L.) Willd. ex Delile

Family: Mimosaceae

2. *Adiantum capillus-veneris* Linn.

Family: Pteridaceae

3. *Adiantum incisum* Forssk.

Family: Pteridaceae

4. *Anogeissus pendula* Edgew.

Family: Combretaceae

5. *Balanites aegyptiaca* (L.) Delile

Family: Balanitaceae (Zygophyllaceae)

6. *Capparis decidua* (Forssk.) Edgew.

Family: Capparaceae

7. *Dichrostachys cinerea* (L.) Wight & Arn.

Family: Mimosaceae

8. *Justicia adhatoda* L.

Family: Acanthaceae

9. *Maytenus emarginata* (Willd.) Ding Hou

Family: Celastraceae

10. *Phoenix sylvestris* (L.) Roxb.

Family: Arecaceae

11. *Salvadora oleoides* Decne.

Family: Salvadoraceae

12. *Ziziphus mauritiana* Lam.

Family: Rhamnaceae

13. *Ziziphus nummularia* (Burm.f.) Wight & Arn.

Family: Rhamnaceae

V. CONCLUSION

Tiliaceae family is the worldwide in distribution and shows many variations and interesting features. Rich species diversity is found in south-east Rajasthan. The present work deals with systematic enumeration and associated plant species of *Grewia flavescens* Juss. in Ramgarh Vishdhari Wildlife sanctuary of Haroti Plateau, a part of south-east Rajasthan.

Grewia flavescens Juss. is the most common species of dry deciduous forests. From the present study it is concluded that this shrub found in association forms with many other plant species, hence it is the key stone species of this ecosystem.

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