

Journal of Chemical, Biological and Physical Sciences



An International Peer Review E-3 Journal of Sciences

Available online at www.jcbpsc.org

Section B: Biological Sciences

CODEN (USA): JCBPAT

Research Notes

Status and Distribution of *Anogeissus sericea* var. *nummularia* in Udaipur District, Rajasthan (India)

Gazala Aftab*

Pacific Academy of Higher Education & Research University, Udaipur, Rajasthan (India)

Received: 6 August 2014; **Revised:** 22 August 2014; **Accepted:** 31 August 2014

Abstract: The present distribution of *Anogeissus sericea* var. *nummularia* has been assessed in this study in Udaipur district of Rajasthan. *Anogeissus sericea* var. *nummularia* locally called *Indrokh*, is moderate sized multipurpose hard wood tree of dry deciduous forests. *Anogeissus sericea* var. *nummularia* is threatened due to unsustainable harvesting by local community. Habitats of *Anogeissus* were degraded by cutting of mature trees, soil erosion, encroachment, developmental activities and human inhabitation that lead to viability reduction. A probable list of location of the species in the study area was prepared, based on the literature, reports, thesis and informal interviews with the local people. Using the above information, random transects were located and surveyed. Present study reveals that *Anogeissus sericea* var. *nummularia* is dotted in eastern part of Udaipur district.

Key Words: Threatened, Rare, Habitat degradation, Endemic, arid and semiarid areas

INTRODUCTION

Udaipur district have been facing various levels of pressure for the past few decades and as a result, habitat degradation & habitat fragmentation have constantly been increased. Numerous plant species facing direct & indirect threat and their number reduces naturally. One of the plant is *Anogeissus sericea* var. *nummularia*, belong to genus *Anogeissus*. This plant is a rare species of arid and semi-arid areas yielding timber, fuelwood and fodder. *Anogeissus sericea* var. *nummularia* is an endemic and rare species. The reason behind the rareness of this tree is due to the hefty exploitation for commercial purposes (for making agricultural implements and furniture) and it has been categorized as 'Rare (R)' by Nayar and Sastri¹; WCMC²; IUCN³; GEC⁴, MSU⁵ and GUIDE⁶.

Study Area: The study area includes Udaipur district of Rajasthan. It lies between 27°42'N and 75°33'E. This district comprises of 7 sub divisions which are further sub divided in to 11 Tehsils namely Girwa, Gogunda, Kherwada, Rishabdev, Mavli, Vallabhnagar, Kotra, Jhadol, Lasadia, Salumber and Sarada. Udaipur district includes protected areas viz. Kumbhalgarh, Sitamata Wildlife Sanctuary, Phulvari ki Naal and Sajjangarh Wildlife Sanctuary. Temperature in Udaipur district ranges from 39°C to 11°C. Annual rainfall varies from 50-95 cm.

Methodology: To study distribution and status of *Anogeissus sericea* var. *nummularia*, the entire study area was subdivided into two strands - protected and unprotected. A probable list of location of the species in the study area was prepared, based on the literature, reports, thesis and informal interviews with the local people. Survey of sacred grooves are also done. Surveys are done especially in rainy and winter season because during these seasons, plant show flowering, fruiting and new recruitments. The vegetation was analyzed by means of random samples. Tribals and forest department were also contacted to get information about plant ⁷⁻¹².

RESULT AND DISCUSSION

Present study reveals that *Anogeissus sericea* var. *nummularia* is dotted in eastern part of Udaipur district. The present study also reveals that if the current rate of exploitation continues, this species may be replaced by other species and drastic changes may occur in species composition. The inevitable pressure on *Anogeissus sericea* var. *nummularia* is leading to its severe destruction and may create its scarcity in the near future.

Table -1: Records and Status of *Anogeissus sericea* var. *nummularia* in Udaipur, Rajasthan (INDIA)

| District | Locality | Status | GPS | Habitat |
|----------|-----------------------------|--------|--------------------------------|----------------------|
| Udaipur | Salumbar - Sarvani | + | 24°08'13''N 74°02'41''E | Roadside |
| Udaipur | Dabok Cement Factory | + | 24°37'38''N 73°51'50''E | Roadside |
| Udaipur | Dawana Naka (Jaisamand WLS) | + | 24°14'22.1''N 73°57'16.9''E | Foothill and valleys |
| Udaipur | Chatpur RF (Jaisamand WLS) | + | 24°14'11.3''N 73°57'31.2''E | Foothill and valleys |
| Udaipur | Ret Guriya (Jaisamand WLS) | + | 24°14'13.8''N 73°57'36.6''E | Foothill and valleys |
| Udaipur | Vallabhnagar – Bheruji S.G. | ++ | 24°40'26''N 74°0'11''E | Stoney plates |
| Udaipur | UmardaGhati | + | 24°58'13''N 76°23'33''E | Foot hills |

ACKNOWLEDGEMENT

We are very grateful to the Forest Department and Tribals of Udaipur district of Rajasthan for helping us in present study. Financial assistance provided by UGC is gratefully acknowledged.

REFERENCES

1. M.P.Nayar, A.R.R.Shastri. Red data book of Indian Plants. (Eds.) Botanical Survey of India. Calcutta; 1998, 1&2,133.
2. WCMC, Status Report of 24 November1994. Gujarat-Printout plant database. BG-BASE.World conservation monitoring center; 1994.

3. GEC, MSU and GUIDE, conservation of rare and endangered Biodiversity of Gujarat. Final report submitted to Gujarat Ecology commission, Gujarat; 2002, 428pp.
4. IUCN Red of threatened species. Species survival commission (SSC). IUCN, Gland, Switzerland; 2002.
5. K.L.Meena, B.L.Yadav, Some traditional ethnomedicinal plants of southern Rajasthan, *Indian J. of traditional knowledge*; 2009(3), 471-474.
6. S.D.Jagtap, S.S Deokule, P.K.Panwar *et al.*, Traditional ethnomedicinal knowledge confined to Pawara Tribes of Satpura Hills, Maharashtra, India, *Ethnobotanical leaflets*; 2009, 13, 98-115.
7. A.P. Hulikere, S. Khan, R. Karam Koda *et al.*, *Pharmacognosy magazine*; 2009, 5, 11 –14.
8. Sharma and Sharma, The Plant Community of *Commiphora wightii* indigenous medicinal resource in a semi-arid ecosystem in Pushkar (Rajasthan). *Filoterapia*; 1997, 68, 501-509.
9. S.D.Sabins, K.S.S.Rao, Rare and endangered endemics of south eastern Kachch, In: Assessment of Threatened plant of India edited by S.K.Jain and R.R.Rao (Botanical Survey of India. Howrah, India); 1983.
10. Kumar Mahesh, M. A. sheikh, G.S .Rajwar, conservation strategies for *Anogeissus latifolia* in the Srinagar valley of Uttarakhand, India, *International journal of conservation Science*; 2010, 1(4), 191-198.
11. K.L.Meena, B.L.Yadav, Studies on ethomedicinal plants conserved by Garasia Tribes of Sirohi distict, Rajasthan, India, *Indian Journal of National products Resources* (NPR), 2010, 1(4), 500–506.
12. B.V. Shetty, V. Singh, Flora of Rajasthan, Botanical Survey of India; 1987, Vol.I.

Corresponding author: Gazala Aftab*

Pacific Academy of Higher Education & Research University, Udaipur,
Rajasthan (India)