RESEARCH ARTICLE

Some woody dicot plant diversity of Wardha, Karanja and Seloo Talukas

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ABSTRACT

In the recent years, there is a great interest in plant diversity studies in general and floristic studies in particular and regional floristic studies got much importance. Wardha is one of the districts in the Vidarbha of Maharashtra with great biodiversity of plants. Field visits were made to different areas during 2013- 2015 especially naturalized plants of Wardha, Karanja and Seloo, Wardha district, Maharashtra, India. Continuous botanical explorations to various localities of Wardha, Karanja and Seloo talukas, there are 87 species belonging to 25 families which are listed in this paper. Dominant families are Caesalpiniaceae (9 species), Mimosaceae and Rutaceae (7 species), Moraceae (7 species), followed by Bignoniaceae (5 species).

Key Words: Woody dicots, medicinal plants/trees, Wardha, Karanja, Seloo.

INTRODUCTION

Wardha, Karanja, and Sellu are the talukas of Wardha district. Wardha district is located on the North eastern side of Maharashtra state. Wardha district lies between the $20^0$18' and $21^0$21' North latitudes and longitudes $78^0$4' East to $79^0$15' East longitudes. It is bound on the West and North by Amravati district on the South by Yavatmal district, on the South East by Chandrapur district and on the East by Nagpur district. The boundaries with the Amravati and Yavatmal districts are identified by the river Wardha. Wardha district is a part of Nagpur revenue division. The district covers an area of 6309 sq km, which is 2% area of the Maharashtra state. For administrative convenience Wardha district has been subdivided into three subdivisions Wardha, Hinganghat and Arvi which are further divided into Wardha, Seloo, Deoli, Hinganghat, Samudrapur, Arvi, Ashti, Karanja tahsils, respectively.

MATERIAL AND METHODS

For the present study, Seloo, Wardha, Karanja (urban and rural) talukas were visited regularly in all seasons. The vacant spaces, near railway tracks, roadsides, wet lands, botanical gardens, near dams, other sites, etc. were explored for woody plants and collected the digital photos of dicots in their natural habitat and plant specimens for observation, identification and data

preparation in the laboratory during the study period. Plant specimens identified with Flora of Maharashtra State: Dicotyledons (Singh *et al*, 2000, 2001); Flora of Marathwada (Naik, 1998); The Flora of the Presidency of Bombay (Cooke, 1958) and Flora of Maharashtra (Almeida, 1996, 1998, 2001, 2003), Flora of Nagpur District (Ugemuge, 1986**);** Digital Database of Trees of Nagpur district (Thakre and Srinivasu, 2012).

RESULT AND DISCUSSION

There are about 87 woody tree species belonging to 25 families were observed in the study. Some additional information such as distribution, flowering and fruiting period, status of the plant in the nature, common and vernacular names, socio-economic values of plants etc. were noted. Some of them are:
Annona reticulata L., *A. Squamosa* L. (Annonaceae); *Murraya koenigii* (L.) Spr., *M. paniculata* (L.) Jack., (Rutaceae); *Bauhinia racemosa* Lam. (Caesalpiniaceae); *Acacia farnesiana* (L.) Willd., *Acacia leucophloea* (Roxb.) Willd. (Mimosaceae); *Terminalia chebula* Retz. Combretaceae); *Wrightia tinctoria* R. Br. ssp. *tinctoria* (Apocynaceae); *Dolichandrone falcate (Wall. ex DC.) Seem.* (Bignoniaceae); *Vitex negundo* L., *Vitex trifolia* L. (Verbenaceae); *Ficus hispida* L., *Ficus religiosa* L. (Moraceae); are medicinally important trees. *Bixa orellana* L. (Bixaceae); is dye yielding and medicinally important plant. *Bombax ceiba* L. (Bombacaceae) is gum yielding and medicinally important plant.

Polyalthia longifolia (Sonn.) Thw. Enum. (Annonaceae); *Ceiba pentandra* (L.) Gaertn. (Bombacaceae); *Cassia siamea* Lam. (Caesalpiniaceae); *Callistemon citrinus* (Curtis) Skeels (Myrtaceae) are the avenue trees. *Sterculia urens* Roxb. (Sterculiaceae) is gum yielding tree found in dense forest. *Flacourtia indica* (Burm. f.) Merr. (Flacourtiaceae); *Citrus aurantifolia* (Christm. & Panz.) Swingle, *C. aurantium* L., *C. limon* (L.) Burm., *C. sinensis* (L.) Osb., *Limonia acidissima* L. (Rutaceae); *Psidium guajava* L., *Syzygium cumini* (L.) *Skeels* (Myrtaceae)*; Manilkara zapota* (L.) van (Sapotaceae); *Cordia dichotoma* Forst., (Boraginaceae); *Emblica officinalis* Gaertn. (Euphorbiaceae); *Morus alba* L. (Moraceae); are fruit yielding and medicinally important plants. *Ailanthus excels* Roxb. (Simaroubaceae)-timber yielding tree. *Azadirachta indica* A. Juss. is medicinally important, wormicide, gum yielding, timber yielding plant. *Melia azedarach* L. (Meliaceae); *Dalbergia sissoo* Roxb. (Fabaceae), *Delonix elata* (L.) Gamble (Caesalpiniaceae); *Terminalia cuneata* Roth (Combretaceae) *Manilkara hexandra* (Roxb.) Dub. (Sapotaceae) are medicinally important and timber yielding plants. *Ziziphus mauritiana* Lam., *Z. oenoplia* (L.) Mill. (Rhamnaceae) are edible fruit shrubs. *Sapindus emarginatus* Vahl., Symb. (Sapindaceae) is medicinally important and economically important (shampoo) plant. *Mangifera indica* L. (Anacardiaceae) is a edible fruit, for making pickles, timber yielding, medicinally important plant. *Moringa oleifera* Lam. (Moringaceae) fruits are used as vegetables; *Butea monosperma* (Lam.) Taub. (Fabaceae) is a dye yielding, gum and resin yielding and medicinally important plant. *Pongamia pinnata* (L.) Pierre is ornamental, avenue tree, timber and seed oil is used to prepare bio-diesel and medicinally important tree. *Sesbania grandiflora* (L.) Poir. (Fabaceae) a medicinally important, leaves, pods and flowers are used as vegetable. *Bauhinia racemosa* Lam., *Cassia fistula* L., *Delonix regia* (Boj. ex Hook.) Raf. (Caesalpiniaceae); *Samanea saman (Jacq.) Merr.* (Mimosaceae); *Kigelia Africana* (Lam.) Bth., *Millingtonia hortensis* L., *Spathodea campanulata* P. Beauv., (Bignoniaceae) are medicinally important and grown as ornamental avenue trees; *Parkinsonia aculeate* L. (Caesalpiniaceae) ornamental plant. *Peltophorum pterocarpum* (DC.) Baker ex K medicinally important, avenue, timber and tannin yielding plant; *Tamarindus indica* L. (Caesalpiniaceae) a medicinally important, fruits are edible and leaves used in the cooking of vegetables.

Acacia auriculiformis A. Cunn. (Mimosaceae) is an avenue, garden and tannin yielding tree. *Acacia Catechu* (L. f.) Willd. is a medicinally important, gum and timber yielding plant. *Acacia nilotica* (L.) Del. ssp. *indica* (Benth.) Brenana medicinally important, gum and resin yielding tree. *Albizia lebbeck* (L.) Bth. and *A .procera* (Roxb.) Bth. are the avenue and medicinally important large size trees. *Leucaena latisiliqua* (L.) Gillis (Mimosaceae) is fodder plant, avenue and medicinally important tree. *Parkia biglandulosa* Wight & Arn. is medicinally important, tannin yielding and ornamental tree. *Pithecellobium dulce* (Roxb.) Bth. (Mimosaceae) is a medicinally important and fruits are edible; *Terminalia bellirica* (Gartn.) Roxb. (Combretaceae) medicinally important, timber yielding plant; *Terminalia elliptica* Willd. medicinally important, timber and tannin yielding plant; *Terminalia catappa* L. (Combretaceae) is ornamental

avenue tree and its dried seeds are edible, medicinally important tree. *Eucalyptus citriodora* Hook. (Myrtaceae) medicinally important and also grown as ornamental avenue plant; *Woodfordia fruticosa* (L.) Kurz., *Lawsonia inermis* L. (Lythraceae) are medicinally important and dye yielding large woody shrubs; *Gardenia resinifera* Roth. (Rubiaceae) is resin yielding and medicinally important tree; *Mitragyna parvifolia* (Roxb.) Korth. (Rubiaceae) is an avenue and timber yielding tree. *Madhuca longifolia* (Koen.) Mac Bride var. *latifolia* (Roxb.) Chev. (Sapotaceae) is a medicinally important and flowers are used to make liquor. *Nyctanthes arbor-tristis* L. (Oleaceae) is a medicinally important, grown for flowers; *Alstonia scholaris* (L.) R. Br. a medicinally important, also grown as avenue and ornamental tree; *Nerium indicum* Mill., *Plumeria rubra* L. (Apocynaceae) are medicinally important and grown as ornamental for its beautiful flowers; *Tecoma stans* (Linn.) H. B. & K. Nov. (Bignoniaceae); is an ornamental plant cultivated in gardens. *Gmelina arborea* Roxb. and *Tectona grandis* L. (Verbenaceae) are timber yielding and medicinally important trees. *Santalum album* L. (Santalaceae) is medicinally important and fragrant wood is used for various cosmetics and perfumes; *Bridelia retusa* (L.) Spreng. (Euphorbiaceae) is a medicinally important, tannin yielding, fodder plant; *Artocarpus heterophyllus* Lam. (Moraceae) fruits and seeds are used as vegetable and medicinally important tree. *Ficus bengalensis* L. (Moraceae) is medicinally important large tree. *Ficus carica* L., *F. racemosa* L. (Moraceae) receptacles are edible and medicinally important trees (Ambasta, 1999; Joshi, 2000; Kirtikar & Basu, 1975).

CONCLUSION

During the study, as many as 87 species belonging to 25 families were recorded. Most of the woody plants are medicinally important and some of them are economically important species diversity. Out of them 75 species are medicinally important plants, 22 species are avenue trees, 13 plant species are timber yielding trees, 6 species are gum yielding, 5 species are tannin yielding plants, 4 species are dye yielding trees and 3 species are resin yielding plant also 3 species are used as vegetables. Only one plant is fodder plant.

Some tree species of the three talukas of Wardha district are very vital for day to day life of the tribal communities. Many plants listed here are used by local tribes for different purposes including medicinal uses.

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