

Flora of petarwar district with special emphasis on *shorea robusta* and *anthocephalus cheninsis*

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Abstract

Petarwar Block is located at 23 degree 37'17"N a 85 degree 51'30"E. It has area of 307.31 km² and has 23 gram panchayats and 65 villages. As per the 2011 census of India Petarwar CD Bock had a total population 132,150. It is a community development block that forms an administrative division in Bermo subdivision of Bokaro district, Jharkhand state, india. Many variety of tree are found in Petarwar district such as *Polyalthia longifolia*, *Murraya koenigii* (*kadipatta*), *Azadirachia indica*, *Melia azadiracta*, *Toona ciliate*, *Zizyphus xylopyra*, *Mangifera indica*, *Semicarpus anacardium*, *Moringa olerifera*, *Dalbergia sissoo*, *Dalbergia latifolia*, *Derris indica*, *Bauhinia purpurea*, *Cassia fistula*, *Saraca asoka*, *Tamarindus indica*, *Syzygium cumini*, *Zizyphus cumini*, *Eugenia jambolana*, *Madhuca longifolia*, *Psidium guajava*, *Delonix regia*, *Lagerstromia speciosa*, *Anthocephalus cheninsis* etc. *Shorea robusta* are the dominant tree of this area.

INTRODUCTION

Species content of lands in an area is known as Flora or All the plant life in a particular region or period is called flora. Flora of an area or of time period, refers to all plant life occurring in an area or time period, especially the natural occurring or indigenous plant life. India is very rich in flora. Jharkhand state being very rich in flora and its one of the district namely Bokaro(Petarwar bock) is also rich in this respect. Petarwar CD Bock have an area of 307.31 km² is bounded by Bermo CD Bock on the east, Goa CD Bocks, in Ramgarh district, on the south and Gomia CD Bock on the west. The vegetation of Jharkhand is tropical moist deciduous forest having many plants of economic importance. *Shorea robusta* Garetn. f (Sal, Sakhua) being the state tree of Jharkhand and is a dominant species at Petarwar Block. The first collection and studies of plants of Jharkhand can be traced back to the year 1848-1851 when J.D. Hooker and T. Thomson collected a large number of plants from different

parts of India. Thompson(1951), Bressers (1955), Sanyal (1957), Ara (1960), Jha (1965), Paul (1967), Ghosh (1971), Majumdar and Biswas (1971), Mehr Homji (1971), Mishra (1972), Jain(1973), Verma (1988), Das (1996), Srivastava (2002), Ray (2007) have also contributed towards different aspects of flora of Jharkhand.

MATERIALS AND METHODS

Various excursion trip were arranged during first three years and camping were arranged in every months. In course of the field trip, on-the-spot notes were entered in the field note books as suggested by Davis and Hey wood(1963). The data recorded include field number, locality, habitats, seasons, previous collections, phytogeographical importance, richness of the flora, associations and frequency (By visual estimation) as well as colour of flowers and fruits, scent, local name and uses, character of bark and other features which could not be studied from the preserved specimens.

In two year of survey I have identified following trees species which includes

1	Annonaceae	<i>Polyalthia longifolia</i>	Ashok[Mast tree]	Bats feed on ripening fruits at night. The wood is used for drums. It is a popular avenue tree because of its graceful appearance and dense shade. The Mast tree is also held sacred and is planted near temples.
2	Rutaceae	<i>Murraya koenigii</i>	Kadipatta	Leaves are used as anti-diabetic.
3	Meliaceae	<i>Azadirachia indica</i>	Neem	Leaves are used to keep insects out of clothes, books etc. A gum which exudes from bark is used medicinally as a stimulant. The seeds give an oil used by the poorer classes for burning and as antiseptic dressing for ulcers and in skin diseases. The residue of oil are used as manure and useful in keeping white ants away from plants in the ground.
4	Meliaceae	<i>Melia azadiracta</i>	Bakain	Mainly used as ornamental plant. The fruit is said to be poisonous and is used to some extent medicinally as is also the inner bark.
5	Meliaceae	<i>Toona ciliate</i>	Toona	Timber yielding tree. It is used for furniture, cigar boxes, tea-chests etc.
7	Rhamnaceae	<i>Zizyphus xylopyra</i>	Ber	The bark also produces an edible gum. The fruit rind yields oil that is popular as a fragrance for hair; it also produces a dye used to colour silks and calico.
8	Anacardiaceae	<i>Mangifera indica</i>	Aam	The fruits are delicious. Timber is soft, rough- grained and not durable. Making natural hair dye. Pickles and morabba are made from green fruits.
10	Anacardiaceae	<i>Semicarpus anacardium</i>	Bhelwa	The ripe fruits are used internally and are considered digestive, nervine and useful in skin diseases and nervous debility.
12	Moringanaceae	<i>Moringa olerifera</i>	Munga	The leaves, flowers and young fruits are eaten as a vegetable. The product of an African species of <i>Moringa</i> . The wood is spongy, perishable and useless.
13	Fabaceae	<i>Dalbergia sissoo</i>	Shisham	It is timber valuable timber tree after teak. It is also used for spokes of wheels, carts, boats. Prevent skin diseases. It help in kidney disorder. It help in increases blood.
14	Caesalpiniaceae	<i>Tamarindus indica</i>	Imli	The pulp from the pods is used for seasonal curries, chutneys and ice –cream. Pulp is pressed, preserved and sold by weight in markets. Leaves and flowers are also edible. It is valuable timber and fuel.

15	Myrtaceae	<i>Syzygium cumini</i>	Jamun	It is used for shade- tree in parks. The wood is hard and durable and used as fuel and for making agricultural implements. The bark is astringent and is used in the form of decoction for mouth wash and gargle. Fresh bark juice mixed with goat's milk is used to cure the diarrhoea of children. Leaves are used as fodder. Its fruit is also used in the preparation of wine and vinegar.
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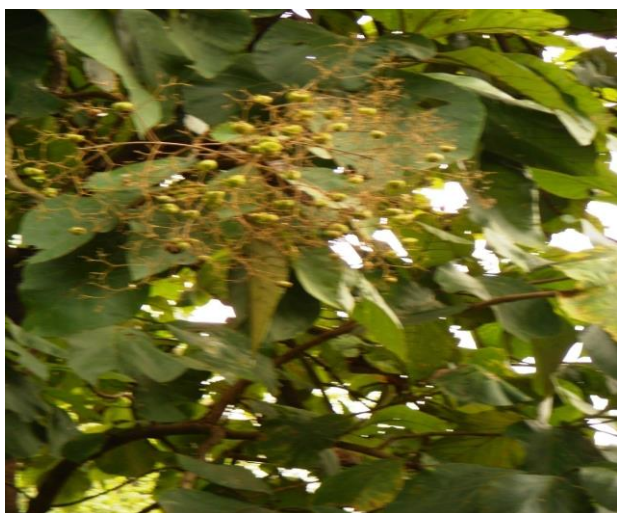


Fig. 1 A: *Shorea robusta*

Shorea robusta

A large, semi-deciduous, gregarious tree of monsoon forests, with shining foliage. Bark dark brown, with longitudinal fissures. Leaves ovate-oblong, leathery. Flowers in panicles, pale yellow in colour, fragrant, softy hair, stalked. Fruit indehiscent and leathery.

Field notes : It is resitent to termites and very great demand as railway sleepers and telephone poles. Wood is used for furniture. The leaves are used as home made cigars. The eaves are used in Aexiteric and Anthemintic. The resin is used for treating Menorrhagia enargement of spen and for relieving eye irritations.

***Anthocephalus chinensis*:**

A large trees with rugged cylindrical trunk and horizontal branches. Bark dark grey. Leaves simple ,acute. Flowers fragrant in showy large globular orange heads, with white stigmas.Pseudocarp large,fleshy, orange.

Field notes: It is very common plant ,found in road side and garden.

Local name: Kadam

Flowers: May- August Fruits : Aug.- Dec.

The first collection and studies of plants of Jharkhand can be traced back to the year 1848-1851 when J.D. Hooker and T. Thomson collected a large



Fig. 1 B: *Anthocephalus chinensis*

number of plants from different parts of India. Thompson(1951), Bressers (1955), Sanyal (1957), Ara (1960), Jha (1965), Paul (1967), Ghosh (1971), Majumdar and Biswas (1971), Mehr Homji (1971), Mishra (1972) ,Jain(1973), Verma (1988), Das (1996), Srivastava (2002), Ray (2007) have also contributed towards different aspects of flora of Jharkhand.

RESULTS AND DISCUSSION

Collection of specimens i.e. flower from large trees is a different work. *Shorea robusta* Garetn. f (Sal, Sakhua) being the state tree of Jharkhand and is a dominant species at Petarwar Block. Large number of trees are found in Forest department of Petarwar Block. Dr. Vaidh use variety of medicinal trees for treatment of diseases.

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