

A PROJECT REPORT
ON
"TIMBER YIELDING PLANTS OF PATTAMUNDAI COLLEGE
CAMPUS"

Submitted By:
Department of Botany
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REPORT

A project was undertaken for the session 2019-20 by Department of Botany, Pattamundai College, Pattamundai on the topic "TIMBER YIELDING PLANTS OF PATTAMUNDAI COLLEGE CAMPUS". Four students have participated in this project. They have visited to different parts of Pattamundai college campus.

They have collected data of different timber yielding plants and made their classification. They have made a report on their timber quality and use.

Abstract

The project paper presents the timber yielding plants found in Pattamundai College campus. 12 no. of common timber yielding plants were found from different parts of the study area. The climatic conditions of the area of study was suitable for the vegetation wealth due to alluvial soil. Present study is based on the preliminary survey on timber yielding plant resources. The study reports on 12 timber yielding plants belonging to 9 families, along with their utility. Among plant families Fabaceae is dominant with 4 species. The campus is rich in greenery where environment and education combine to promote sustainable and eco-friendly practices in the campus. Natural calamities i.e frequently occurring cyclones are big threat to these plant species.

Introduction

At present time timber yielding plants ruined next to food and fibres as the most widely used plant product. The exploration of timber species was largely influenced by the accessibility; however, the demand of the prevalent economic activities often proved to be the ascendant force. The studies on the timber plants have been made by many workers in different parts of the world as well as India.

The study area is located near the Pattamundai town. Pattamundai is located at 20.57°N 86.57°E & 22 km from the Bay of Bengal in the Utkal Plains, at an elevation of 6 m from sea level. Pattamundai is a

flat, low-lying delta region in the Lower Mahanadi River basin. The Brahmani river divides it from the Aul block. The soil with high organic matter 5-15 % formed in temperate and cool humid region and low (1-3 %) in soil arid and semi-arid zones. The average rain-fall in the year was recorded 100-170 cm.

The college was established in the year 1970 at Pattamundai, Kendrapara, Odisha with a campus having 15.38 acres of land. The college is a green campus consisting of plantation, fisheries pond, agricultural land and gardens.

The studies on the timber plants have been made by many workers in different parts of the world as well as India. Some important contribution were made by Singh and Singh (1987), Dhaulakhandi (1996), and Dobhal (2003).

Plants are useful to man in many ways. All the parts of the plant are useful to mankind. Plants provide us food, wood for furniture, raw materials for clothing and housing. The wood obtained from plants is used mainly for the construction of houses and making furniture.

Materials and Methods

Such studies on timber yielding plants was conducted on different parts of Pattamundai College campus. Frequent field study (January to March 2020) was made to various parts of the study area to collect the specimens of timber yielding plants and maintained in herbarium sheets. The standard methods of specimen collection,

preservation and maintenance in the herbarium were followed (Jain and Rao 1977). Timber yielding plants collected were identified with the help of recent and relevant regional floras and comparing these specimens with authentically identified specimens preserved in herbaria of Botany department, Pattamundai College. Their economic uses will be known by interviewing the natives and by consulting literature. Plant specimens with their botanical names with their families are depicted in Result and discussion.

Result and discussion

Following are list of 13 no. of timber yielding plants. They are arranged according to their scientific names, families in parenthesis, vernacular names in odia, herbarium and collector's initial, voucher number of specimens, habitats of plants and uses. Specimens of all species described here are preserved in the Herbarium of the Department of Botany, Pattamundai College.

Table1- List of timber yielding plants studied

No.	Odia Name	Botanical Name	Quantity
1	Eucalyptus	Eucalyptus mannifera	1497
2	Sisoo	Dalbergia sisoo	36
3	Simrouba	Simarouba glauca	70
4	Chakunda	Samanea saman	08

5	Saguan	Tectona grandis	40
6	Karanja	Millettia pinnata	103
7	Sal	Shorea robusta	80
8	Amba	Mangifera indica	15
9	Arjun	Terminalia arjuna	125
10	Gambhari	Gmelina arborea	19
11	Mehogany	Swietenia macrophylla	40
12	Akashi	Acacia auriculiformis	56

1. *Eucalyptus mannifera*
 Family-Myrtaceae
 Common Name-Eucalyptus

Eucalypts have been grown in plantations in many other countries because they are fast growing and have valuable timber, or can be used for pulpwood, for honey production or essential oils. In some countries, however, they have been removed because they are highly flammable. Eucalypts vary in size and habit from shrubs to tall trees. Trees usually have a single main stem or trunk but many eucalyptus are multi stemmed from ground level and rarely taller than 10 metres (33 ft). 1497 number of plants are present in college campus.



2. *Tectona grandis*
Family-Verbenaceae
Common Name-Teak, Saguan

Teak wood has a leather-like smell when it is freshly milled and is particularly valued for its durability and water resistance. The wood is used for boat building, exterior construction, veneer, furniture, carving, turnings, and other small wood projects. 36 number of plants are present in college campus.



3. *Simarouba glauca*
Family- Simaroubaceae
Common Name- Simraouba

70 species of Simarouba have been reported in college campus. It is harvested for timber with its bright and lightweight timber being highly sought after in markets to use in making fine furniture and veneer and also known as Lakshmi Taru in India.



4. *Samanea saman*

Family-Fabaceae

Common Name-Chakunda

The wood is light in weight but highly durable. It is used for carvings, furniture, panelling, boat building, interior trim, crafts, boxes, veneers, and general construction. 08 species have been reported from college campus.



5. *Dalbergia sissoo*

Family-Fabaceae

Common Name-Sisoo

Sisoo is a fast-growing nitrogen-fixing tree which can easily be propagated and will grow on any well-drained soil, even on pure sand. It is mainly grown for its durable heartwood, being among the finest general-use timbers in South Asia and is commonly used for high class furniture and marine-grade plywood. 36 numbers have been reported from college campus.



6. *Millettia pinnata*

Family- Fabaceae

Common Name- Karanja, Indian beech

Karanja (*Millettia pinnata*) is a fast-growing, multipurpose tree of the humid tropic. It is one of the few N-fixing trees that produce oilseeds. With the increasing production of oil for biofuel, Karanja is increasingly used for oil production due to its use in biodiesel. The oil

was formerly used for lighting, as a raw material for soaps. Karanja wood can be used for fuel, and the resulting ashes as a dyeing agent. Roots yield pinnatin, a dyeing pigment. The bark is fibrous and can be turned into rope. The leaves are potential sources of fodder. The fragrant flowers are a source of pollen and nectar from which bees produce dark honey. Many parts of the tree are used in ethnomedicine.. The karanja tree is an important species for afforestation. 103 numbers have been reported from college campus.



7. *Shorea robusta*

Family- Dipteraceae

Common Name- Sal

Shorea robusta is an evergreen tree growing up to 50 m in height. The wood is used in hydraulic engineering, ships and railway cars, poles, railway ties and posts, interior finishing, agricultural

implements, and many other uses. It is also an important local source of fuel. 40 numbers have been reported from college campus.



8. *Mangifera Indica*

Family-Anacardiaceae

Common Name-Mango, Amba

The mango tree grows in tropical climates. Mango wood is a low quality timber and the bark of the tree is an important source of tannins for curing leather. The wood has a wavy grain is hard, fairly heavy, strong and had prominent pores. It has been much used in construction, even though it is not especially durable. 15 numbers have been reported from college campus.



9. *Terminalia arjuna*

Family- Combretaceae

Common Name- Arjun

Arjun tree is an evergreen, deciduous tree that grows about 20–25 meters tall. Timber is locally used for carts, agricultural implements, water troughs, traps, boat building, house building, electric poles, tool-handles, jetty-piles and plywood.



10. *Gmelina arborea*

Family- Lamiaceae

Common Name- Gambhari

Gamhar is a beautiful fast growing deciduous tree occurring naturally throughout greater part of India up to 1500m. The timber of this tree is strong and hence used in constructions, furniture and carriages. It is also used in making musical instruments and artificial limbs. The timber is also used in paper-making and matchwood industry. 19 species have been reported from college campus.



11. *Swietenia macrophylla*

Family- Sapindales

Common Name- Mahogany

Swietenia species are classified as "genuine mahogany". Mahogany is a commercially important lumber prized for its beauty, durability, and colour and used for paneling and to make furniture, boats, musical instruments and other items. Mahogany is the most prized timber tree of India. Mahogany is a commercially important

lumber prized for its beauty, durability, colour and used for paneling and to make furniture, boats, musical instruments and other items.



12. *Acacia auriculiformis*

Family- Fabaceae

Common Name- Akashi

Acacia auriculiformis grows up to 30m tall. This plant is raised as an ornamental plant, as a shade tree and it is also raised on plantations for fuel wood throughout southeast Asia. Its wood is good for making paper, furniture and tools. It contains tannin useful in animal hide tanning. In India, its wood and charcoal are widely used for fuel. Gum from the tree is sold commercially.



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Students Attendance Sheet

Sl No	Roll No	Signature of the students
1	BS17-009	Krushna chandra Rout
2	BS17-021	Preebi Prigadarshini Kar
3	BS17-038	Saroj Kumar Sethi
4	BS17-053	Sushree karisma Samal
5	BS17-055	Bhagyashree sahee
6	BS17-056	Puja Behera
7	BS17-078	Jayashree parida
8	BS17-102	Prasanna Kumar Nayak
9	BS17-122	Tanmaya Parida
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