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Sacred Groves of Jhalda: A Hidden Paradise in West Bengal

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Abstract

Recognizing the importance of sacred groves in preserving biodiversity and promoting sustainable development, it is essential to identify and document these special forest patches at the community level. By creating an inventory of the existing sacred groves, we can better plan for their conservation and ensure their protection in the future. In order to explore the biodiversity of a hidden paradise of West Bengal, a total of 54 sacred groves were surveyed across four blocks: Baghmundi, Jhalda-1, Jhalda-2, and Joypur, situated in the southern and southwestern regions of the Purulia district. Within these SGs, 74 plant species from 38 plant families were documented and identified. These plant species were found to hold diverse economic values; out of the total species recorded, there were medicinal plants (62%), edible fruit plants (14%), plants used for rituals (10%), timber yielding plants (10%), and non-timber plants (4%).

Key Words: Sacred groves, floral diversity, economic values, Jhalda sub division, Purulia, West Bengal

1. Introduction

Sacred groves (SGs) in West Bengal are deeply intertwined with the cultural and spiritual heritage of the local indigenous communities and ethnic groups. These groves hold significant meaning, as they are linked to traditional beliefs, folklore, and rituals, making them an essential part of local customs and practices. There is an urgent need to protect these indigenous plants which are dwindling due to rapid urbanisation (Mallick et al., 2014).

Recent publications on the sacred groves of the Purulia district include works by Bhakat & Pandit (2004), Basu (2005), Chanda & Mukherjee (2012), Das et al. (2016), and Kumar & Gupta (2021). Their research primarily focused on the flora and fauna diversity within these SGs. Among the studies, Bhakat & Pandit (2004) inventoried medicinal plants from 18 sacred groves in Purulia. Chanda & Mukherjee (2012) explored non-timber forest products (NTFP) used by the Pahariya tribes. Das et al. (2016) conducted an extensive survey of 36 sacred groves in eight blocks of Purulia, identifying 73 species of insects, 35 species of birds, and 47 species of plants. Kumar & Gupta (2021) analyzed the vegetation structure and diversity of various strata (*viz.* tree, shrub, and herb) in the Deulghata sacred forest of Purulia district.

This current report documents a total of 54 SGs across four blocks in the Purulia district. The highest representation is found in Baghmundi with 31 SGs, followed by Joypur with 15 SGs, Jhalda-2 with 5 SGs, and Jhalda-1 with 3 SGs (Table 1). In this communication, we have focused on studying and documenting only dominant species from the selected blocks of Purulia. This is due to the difficulty in identifying the diverse herbs, shrubs, and creepers within these SGs. Altogether 74 plant species from 38 plant families were identified from these sacred groves (Table.2).

2. Materials & Methods:

Study area:

Purulia the western most district of West Bengal geographically under Chota Nagpur plateau, located between 23° 42′ 00″ N to 22° 42′ 35″ N latitude and 86° 54′ 37″ E to 85° 49′ 25″ E longitude. Purulia has its boundaries at the east with the Pascim Midnapur and Bankura district of West Bengal, at the north with the Burdwan district of West Bengal at the northwest and southwest with the Hazaribag, Ranchi and Singhbhum districts of the state of Jharkhand (Fig.1). The Purulia district is divided into four subdivisions: Purulia Sadar, Jhalda, Raghunathpur, and Manbazar. It covers an area of 6,259 square kilometers. According to the forest department's report, the total forest area is 1,15,226 hectares (Das et al, 2016). The study surveyed four CD blocks in the southern and southwestern regions of Jhalda subdivision: Baghmundi, Jhalda-1, Jhalda-2, and Joypur (Fig.2).

Fig.1. Map of Purulia district



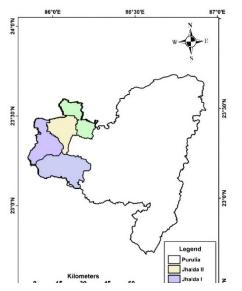


Fig. 2. Map showing the studied blocks

Data collection:

The present study was conducted in the Jhalda subdivision for a year during 2014-2015 through monthly visits to each study area. The study surveyed four CD blocks in the southern and southwestern regions of Jhalda subdivision: Baghmundi, Jhalda-1, Jhalda-2, and Joypur (Fig.2). Plants were identified by the local and forest people. Herbarium sheets of the plants were also made and identified by the scientists of Botanical Survey of India, Kolkata. Information on the area of SGs were collected from the indigenous people (as local measurement unit) which was converted to sq.km. afterwards. Diameter at breast height (DBH) or girth at breast height (GBH) of all the tree species were recorded using a measuring tape by standard method of measurement of GBH (1.37m) followed by FRI, Dehradun. Information on the economic uses of each plant was also obtained through interview from local residents of the villages and referring to related literature. All the captured images of SGs from study areas have been illustrated in photo plate-I as annexure.

Results:

Among the 54 sacred groves scattered across the four blocks in Purulia district, Baghmundi has the most with 31, followed by Joypur with 15 SGs, while Jhalda-2 had 5 and Jhalda-1 had 3 SGs (Table-1). A total of 74 plant species, belonging to 38 plant families, were documented from these SGs (Table.2). These species possessed various economic values, as such as medicinal (62% of the total species), edible fruit plants (14% of the total species),

timber wood (10% of the total species), plants used for rituals (10% of the total species), and non-timber plants (4% of the total species) (Fig. 3). The families Anacardiaceae and Combretaceae had the highest number of plant species, with six species each (Table.2).

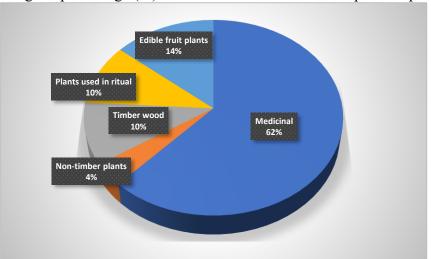


Fig.3. Showing the percentage (%) of the economic values of the plants reported from SGs

Sacred groves of studied blocks:

The Baghmundi CD block is located in the southern part of the Purulia district. The Baghmundi CD block has an area of 427.95 km² (Fig.2). A total of 31 sacred groves (Photo B1- B31) have been surveyed which lies in between 23°12.296′ N to 23°05′502"N and 86°03′482" E to 86°08′466"E, which holds the highest number of plant species (42) among the four blocks of Jhalda subdivision. In Bagmundi, highest number of plant species found from Ushuldungri-1 (13) and maximum number of matured plants from Bagandi gar (100). The oldest Sacred Grove of this block is reported from Chatrajara which is more than 250 years old. (Table 1). SG areas of this block vary from 67 sq.m (Medhupur Jaher Than) to 40,200 sq.m (Bagandigar Jaher Than) and girth of matured plants varied from 0.62m (Jhilingtang-2) to 7.75m (Purna-3) (Table.1).

The second block, Jhalda- 1 is located in the south-western part of the district. The Jhalda- I CD block has an area of 315.09 km². A total of 3 sacred groves of Jhalda- I block (Photo JH1-1 to JH1-3) under Purulia Sadar West have been reported which lies in between 23°20.081′ N to 23°24.480′N longitude and 86°01.040′ E to 86°01.761′E latitude. Among four blocks, this block holds the least number of plant species (15), but two of them are very old (>200 years). In this block highest number of plant species (7) were reported from Noyagarh and maximum number of matured plants reported from Baruakocha-1 (13). SG areas of this block varied from 238.084 sq.m (Baruakocha-2) to 332.27 sq.m (Noyagarh) and girth of matured plants varied from 1.55m (Baruakocha-1) to 4.03m (Baruakocha-2) (Table.1).

The third block is Jhalda 2 CD block situated in the western part of the district. The Jhalda 2 CD block has an area of 256.61 km². 5 sacred groves of Jhalda- 2 block ((Photo JH2-1 to JH2-5) under Purulia Sadar west have been reported lying between 23°19.077′ N to 23°20.759′N longitude and 86°03.360′ E to 86°03.415′E latitude which holds 31 plant species. In this block highest number of plant species (10) found from Murguma/ Begun Kodar Jaher Than and maximum number of matured plants reported from Baruakocha (25). The oldest Sacred grove of this block is reported from Supurdi-2 which is more than 250 years old. (Table 1). SG areas of this block vary from 7.9375 sq m (Laximipur) to 1000 sq m (Supurdi-2) and girth of matured plants varies from 1.24m (Murgama) to 3.41m (Supurdi-1 & Supurdi-2)(Table.1).

The fourth and last block is Joypur block. A total of 15 sacred groves of Joypur block ((Photo JO-1 to JO-15) have been reported which lies in between 23°22.773′ N to 23°32.484′N longitude and 86°05.976′ E to 86°09.190′E and 86°03.360′ E to 86°03.415′E latitude which holds 39 plant species. In this block highest number of plant species (13) found from Deulghata and maximum number of matured plants reported from Nutandi (27). The oldest Sacred grove of this block is reported from Deulghata which is more than 1200 years old. (Table 1) SG areas of this block vary from 67 sq. m (Gorjoypur-3) to 33,550 sq. m (Simultnar) and girth of matured plants varied from 0.93m (Gorjoypur-1) to 6.20m (Deulghata, Gorjoypur-3 & Gorjoypur-8) (Table.1).

3. Discussion

Human activities have significantly depleted Purulia's forest resources, severely impacting the region's ecology, environment, and overall sustainability. This degradation also affects the socio-cultural and economic lives of the tribal communities and forest-fringe dwellers (Roy and Mukherjee, 2018). In this context, the creation of sacred groves by the local people, driven by their religious beliefs, represents the promising step of forest resource conservation. Beyond their religious significance, sacred groves play crucial roles as carbon sinks, aid in cloud formation, influence the local microclimate, and serve as biodiversity hotspots.

Considering the current situation, it is vital to evaluate the biodiversity and create comprehensive inventories of the sacred groves. The study of sacred groves in the Jhalda subdivision holds significant importance due to its strategic position. All the blocks studied are located on the border of West Bengal and Jharkhand, areas known for their extensive forest cover and large tribal populations. Furthermore, the local communities have preserved ancient sacred groves that are between 200 to 1200 years old (Table.1).

In this study, 54 sacred groves across four blocks in the Purulia district were studied. Out of the four blocks, the Baghmundi block stands out with the highest number of Sacred Groves, totalling 31 (Table-1). This highlights Baghmundi's unique role in preserving these ecologically and culturally significant areas. Baghmundi block stands out not only for having the highest number of Sacred Groves but also for housing the largest ones. This emphasizes the block's pivotal role in conserving these vital ecological and cultural sanctuaries. In the sacred groves of these blocks, Sal trees are the most prevalent, along with other species like Asan, Kend, and Bhella. These groves are home to a diverse array of 74 plant species, many of which hold significant economic value. Approximately 62% of these species are medicinal plants, 14% are edible fruit plants, 10% are timber wood, 10% are used in rituals, and 4% are non-timber plants. This diversity enriches both the ecological balance and the cultural heritage of the sacred groves.

By documenting and studying these groves, we gain insights that can inform conservation strategies and policies. The data collected can guide sustainable management practices, ensuring that these vital ecosystems continue to thrive. Such efforts can also inspire global conservation initiatives, emphasizing the need to protect and restore sacred natural sites worldwide. Ultimately, the preservation of sacred groves is a testament to our commitment to safeguarding both biodiversity and cultural heritage. It is a reminder of the profound connections between humans and nature and the shared responsibility to protect the natural world for future generations.

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Table 1: Details of studied sacred groves in selected blocks of Jhalda subdivision, Purulia

Sl	Name of	Name of	Area	Age	Plant deity	No. of	No. of	Girth at	Photo
no	Sacred Grove	Village	(m2)	of SG	-	Tree	mature	breast	no
				(Year		specie	d plants	height	
				s)		S		(1.37m	
)	
Bloc	Block Bagmundi								
1	Ayodhya JT	Ranga	23350	>50	Sal	3	15	3.1	B-1
2	Bagandi Gar JT	Bagandi Gar	40200	>100	Sal	2	100	7.44	B-2
3	Bandudih JT	Bandudih	1340	>100	Sal	4	12	5.58	B-3
4	Banghutu JT	Banghutu	2010	>100	Sal	5	11	1.86	B-4
5	Baruajara JT	Ranga	2010	>50	Sal	8	31	1.55	B-5
6	Bhuigora JT	Bhuigora	2680	>100	Sal	7	30	3.1	B-6
7	Chatrajara JT	Chatrajara	1600	>250	Sal	9	41	2.48	B-7
8	Chotka Dungri	Chotka	670	>100	Sal	6	8	2.17	B-8
	JT	Dungri							
9	Dabha JT	Matha	670	>100	Sal	6	2	3.72	B-9
10	Darubdi JT	Ranga	2680	>100	Sal	2	27	3.41	B-10
11	Dhaska JT	Dhaska	335	>100	Sal	4	7	4.34	B-11

		ı		1	1													
12	Hatinada JT	Hatinada	4020	>100	Sal	7	15	5.58	B-12									
13	Jhilingtang	Jhilingtang	1340	>100	Kend	4	6	0.62	B-13									
	New JT																	
14	Jhilingtang Old	Jhilingtang	2680	>100	Sal	7	17	4.65	B-14									
	JT	old																
15	Medhupur JT	Medhu pur	67	>100	Kend	3,	6	1.24	B-15									
16	Muribera JT	Muribera	1005	>100	Sal	5	12	2.48	B-16									
17	Puniashasan JT	Puniashasan	1340	>100	Sal	5	12	3.72	B-17									
18	Punra-1 JT	Punra-1	1340	>100	Karam	77	17	3.72	B-18									
19	Punra-2 GT	Punra -2	67	>100	Sal	1	1	4.65	B-19									
20	Punra-3 JT	Punra-3	2010	>100	Karam	1	1	7.75	B-20									
21	Ranga JT	Ranga	1340	>100	Sal	5	32	2.48	B-21									
22	Rangati JT	Rangati	1340	>100	Bhella &	4	22	2.48	B-22									
	Rangati 3 i	Rungan	1540	7 100	Lohajangi	7		2.40	D 22									
23	Saharjuri JT	Saharjuri	670	>50	Sal	7	22	3.72	B-23									
24	Sahebdi JT	Ranga	3350	>100	Sal	9	29	4.65	B-24									
25	Saparambera	Ranga	2010	>100	Sal	12	35	2.48	B-24 B-25									
26	Sonahara -1 JT	Sonahara-1	1340	>100	Sal	7	15	2.48	B-25 B-26									
						7												
27	Sonahara-2 JT	Sonahara-2	1340	>100	Sal	9	27	2.79	B-27									
28	Sonahara-3 JT	Sonahara-3	2010	>20	Sal		37	1.24	B-28									
29	Tarpania JT	Tarpania	4020	>100	Sal	5	35	2.79	B-29									
30	Usuldungri-1	Ushuldungri-	2575.2	>200	Sal	13	62	1.55	B-30									
	JT	1			- 1													
31	Usuldungri-2	Ushuldungri-	193.51	>200	Sal	8	11	3.1	B-31									
	JT	2																
	k Jhalda-1		T	T	T		1											
32	Baruakocha-1	Baruakocha-	254.74	<200	Karaya,	6	13		JH1-1									
	JT	1						1.55										
33	Baruakocha-2	Baruakocha-	238.08	>200	Kusum	2	5	4.03	JH1-2									
	JT	2	4															
34			2222	>200	T	7	26	2 40	JH1-3									
	Noyagarh JT	Noyagarh	332.27	>200	Jam	7	26	2.48	Block- Jhalda-2									
		Noyagarh	332.27	/200		/	26	2.40										
		Noyagarh Baruakocha	125.79	>150	Lohajangi	5	25	1.55	JH2-1									
Bloc	k- Jhalda-2 Baruakocha-1 JT	Baruakocha				5	25		JH2-1									
Bloc	k- Jhalda-2 Baruakocha-1				Lohajangi Bel		1		JH2-1 JH2-2									
Bloc 35	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT	Baruakocha	125.79	>150	Lohajangi	5	25	1.55										
35 36	k- Jhalda-2 Baruakocha-1 JT Bhansing Than	Baruakocha Laxmipur	125.79 7.9375	>150 >200	Lohajangi Bel	5	25 5	1.55	JH2-2									
35 36 37	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT	Baruakocha Laxmipur Murguma	125.79 7.9375 300	>150 >200 >100	Lohajangi Bel Sal (Dead)	5 5 10 4	25 5 22	1.55 1.86 1.24	JH2-2 JH2-3									
35 36 37	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali	Baruakocha Laxmipur Murguma	125.79 7.9375 300	>150 >200 >100	Lohajangi Bel Sal (Dead)	5 5 10	25 5 22	1.55 1.86 1.24	JH2-2 JH2-3									
35 36 37 38	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple	Baruakocha Laxmipur Murguma Supurdi-1	7.9375 300 25.634	>150 >200 >100 >150	Lohajangi Bel Sal (Dead) Bot	5 5 10 4	25 5 22 4	1.55 1.86 1.24 3.41	JH2-2 JH2-3 JH2-4									
35 36 37 38	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra	Baruakocha Laxmipur Murguma Supurdi-1	7.9375 300 25.634	>150 >200 >100 >150	Lohajangi Bel Sal (Dead) Bot	5 5 10 4	25 5 22 4	1.55 1.86 1.24 3.41	JH2-2 JH2-3 JH2-4									
35 36 37 38 39 Bloc	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2	125.79 7.9375 300 25.634 1000	>150 >200 >100 >150 >250	Lohajangi Bel Sal (Dead) Bot Neem	5 5 10 4 7	25 5 22 4 11	1.55 1.86 1.24 3.41 3.41	JH2-2 JH2-3 JH2-4 JH2-5									
35 36 37 38 39 Bloc	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata	125.79 7.9375 300 25.634 1000	>150 >200 >100 >150 >250	Lohajangi Bel Sal (Dead) Bot Neem	5 5 10 4 7	25 5 22 4 11	1.55 1.86 1.24 3.41 3.41	JH2-2 JH2-3 JH2-4 JH2-5									
35 36 37 38 39 Bloc 40	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1	125.79 7.9375 300 25.634 1000	>150 >200 >100 >150 >250 >1200	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple	5 5 10 4 7	25 5 22 4 11	1.55 1.86 1.24 3.41 3.41 6.2	JH2-2 JH2-3 JH2-4 JH2-5 JO-1									
36 37 38 39 Bloc 40 41 42	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2	7.9375 300 25.634 1000 3687.5 670 3350	>150 >200 >100 >150 >250 >250 >400 >400	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki	5 5 10 4 7 13 3 8	25 5 22 4 11 22 8 17	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3									
35 36 37 38 39 Bloc 40 41 42 43	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3	125.79 7.9375 300 25.634 1000 3687.5 670 3350 67	>150 >200 >100 >150 >250 >1200 >400 >400 >50	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot	5 5 10 4 7 13 3 8 5	25 5 22 4 11 22 8 17 30	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4									
35 36 37 38 39 Bloc 40 41 42 43 44	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than Sasthi Tala	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3 Gorjopur-4	125.79 7.9375 300 25.634 1000 3687.5 670 3350 67 469	>150 >200 >100 >150 >250 >1200 >400 >400 >50 >50	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot Haritaki	5 5 10 4 7 13 3 8 5 4	25 5 22 4 11 22 8 17 30 23	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2 1.55	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4 JO-5									
35 36 37 38 39 Bloc 40 41 42 43 44 45	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than Sasthi Tala Bot Than	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3 Gorjopur-4 Gorjopur-5	7.9375 300 25.634 1000 3687.5 670 3350 67 469 670	>150 >200 >100 >150 >250 >250 >1200 >400 >400 >50 >50 >50	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot Haritaki Bot	5 5 10 4 7 13 3 8 5 4 2	25 5 22 4 11 22 8 17 30 23 2	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2 1.55 3.72	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4 JO-5 JO-6									
35 36 37 38 39 Bloc 40 41 42 43 44	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than Sasthi Tala Bot Than Kali matar	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3 Gorjopur-4	125.79 7.9375 300 25.634 1000 3687.5 670 3350 67 469	>150 >200 >100 >150 >250 >1200 >400 >400 >50 >50	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot Haritaki Bot Inside	5 5 10 4 7 13 3 8 5 4	25 5 22 4 11 22 8 17 30 23	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2 1.55	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4 JO-5									
36 37 38 39 Bloc 40 41 42 43 44 45 46	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than Sasthi Tala Bot Than Kali matar mandir	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3 Gorjopur-4 Gorjopur-5 Gorjopur-6	7.9375 300 25.634 1000 3687.5 670 3350 67 469 670	>150 >200 >100 >150 >250 >1200 >400 >400 >50 >50 >50 >200	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot Haritaki Bot Inside Temple	5 5 10 4 7 13 3 8 5 4 2 11	25 5 22 4 11 22 8 17 30 23 2 33	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2 1.55 3.72 1.24	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4 JO-5 JO-6 JO-7									
35 36 37 38 39 Bloc 40 41 42 43 44 45	k- Jhalda-2 Baruakocha-1 JT Bhansing Than Murguma JT Bajrangbali Temple Darikudra k- Joypur Shiv Mandir Ma Duarbasini Khamar Mura Bot Than Sasthi Tala Bot Than Kali matar	Baruakocha Laxmipur Murguma Supurdi-1 Supurdi-2 Deulghata Gorjoypur-1 Gorjopur-2 Gorjopur-3 Gorjopur-4 Gorjopur-5	7.9375 300 25.634 1000 3687.5 670 3350 67 469 670	>150 >200 >100 >150 >250 >250 >1200 >400 >400 >50 >50 >50	Lohajangi Bel Sal (Dead) Bot Neem Inside Temple Neem Haritaki Bot Haritaki Bot Inside	5 5 10 4 7 13 3 8 5 4 2	25 5 22 4 11 22 8 17 30 23 2	1.55 1.86 1.24 3.41 3.41 6.2 0.93 1.86 6.2 1.55 3.72	JH2-2 JH2-3 JH2-4 JH2-5 JO-1 JO-2 JO-3 JO-4 JO-5 JO-6									

49	Hanuman	Nutandi	335	>20	Inside	3	27	1.24	JO-10
	Mandir				Temple				
50	Shiva Mandir	Shyampur	2010	>50	Aswattha	1	3	4.65	JO-11
51	Morai Than	Sidhi -1	1340	>100	Tetul	3	3	4.65	JO-12
52	Lugua Than	Sidhi-2	134	>100	Bot	2	3	1.55	JO-13
53	Baba Bara	Sidhi-3	670	>20	Sal (Dead)	3	3	3.1	JO-14
	Sahib Than								
54	Khelai Chandi	Simultnar	33550	>100	Kusum	5	5	3.41	JO-15
	Than								

Abbr. Used: JT: Jaher Than, GT: Gram Than Table.2. Plant species reported from different Sacred groves of Jhalda subdivision, Purulia

No	Local name	Botanical name	Family	
1.	Akanda	Calotropis gigantea (Linn.)	Asclepiadaceae	M
2	Akra	Salvadora persica L.	Salvadoraceae	NT, RC
3.	Akura /Ankura/ Dela	Alangium salvifolium L.	Alangiaceae	M
4	Am	Mangifera indica L.	Anacardiaceae	EF
5	Amaltas	Cassia fistula L.	Caesalpiniaceae	M
6	Amra	Spondias pinnata (Linn. F) Kurz	Anacardiaceae	EF
7	Arjun	Terminalia arjuna (Roxb.) Wight &Arn	Combretaceae	M
8	Asan	Terminalia tomentosa Wight &Arn.	Combretaceae	M,T
9	Aswattha	Ficus religiosa L.	Moraceae	M, RC
10	Ata	Annona squamosa L.	Annonaceae	M,EF
11	Babla	Acacia nilotica (L.)	Mimosaceae	T
12	Bahera	Terminalia bellirica (Gaertn.) Roxb.	Combretaceae	W,M
13	Bantulshi	Ocimum basilicum L.	Lamiaceae	M
14	Bans	Bambusa arundinaceae (Retz.) Willd.	Gramineae	NT
15	Bel	Aegle marmelos (L.) Corrêa	Rutaceae	M
16	Bhant/ Ghetu	Clerodendrum viscosum Vent.	Verbenaceae	RC
17	Bhella	Semecarpus anacardium Linn.f.Suppl.	Anacardiaceae	M
18	Bot	Ficus benghalensis L.	Moraceae	M
19	Burilata	Derris scandens (Roxb)	Moringaceae	M `
20	Chiralata	Bauhinia vahlii Wight & Arn	Caesalpiniaceae	M
21	Churchu	Casearia elliptica Willd.	Flacortiaceae	M
22	Dhaw	Anogeissus latifolia (DC.) Wall	Combretaceae	M
23	Dhaman	Grewia tillifolia Vahl, Symb	Tillaceae	M
24	Dhak/ Palas	Butea monosperma (Lamk.)	Papilionaceae	M
25	Doka	Lannea coromandelia (Houtt.)	Anacardiaceae	M
26	Dudhia	Euphorbia hitra Linn.	Euphorbiaceae	M
27	Dumur	Ficus hispida Linn.	Moraceae	EF
28	Golak Champa	Plumeria rubra L.	Apocynaceae	M
29	Gulancha	<i>Tinospora cordifolia</i> (Willd.)Hook.f & Thoms.	Menispermaceae	M
30	Haritaki	Terminalia chebula Retz.	Combretaceae	M
31	Harjora	Cissus quadrangular Linn. Mant	Vitaceae	M
32	Jaba	Hibiscus rosa sinensis L.	Malvaceae	M, RC
33	Jam/ Kalo jam	Syzygium cumini (L.) Skeels	Combretaceae	M
34	Kadam	Anthocephalus cadamba (Roxb.)	Rubiaceae	M
35	Kaju	Anacardium occidentale L.	Anacardiaceae	EF

No	Local name	Botanical name	Family	Economic Value
36	Kansira	Commelina benghalensis Linn.	Commelinaceae	M
37	Karam /Chaklta	Adina cordifolia (Roxb.) Hook.	Rubiaceae	RC, M
38	Karaya	raya Sterculia urens Roxb.		M
39			Rutaceae	M
40	Kathgolap	Plumeria obtusa L.	Apocynaceae	M
41	Keli Kadam	Mitragyna parviflora (Roxb.) Korth	Rubiaceae	M
42	Kend	Diospyros melanoxylon Roxb	Ebenaceae	M
43	Khejur	Phoenix sylvestris (L.) Roxb	Arecaceae	EF
44	Kolke	Thevetia peruviana (Pers.) K.	Apocynaceae	M, RC
45	Kona	Eragrostis uniolides (Retz.)	Gramineae	NT
46	Kuchila	Strychnos nux-vomica L.	Loganiaceae	M
47	Kul	Ziziphus mauritiana Lam.	Rhamnaceae	EF
48	Kurchi	Holarrhena antidysenterica (Heyne ex Roth)	Apocynaceae	M
49	Kusum	Schleichera oleosa (Lour.) Oken	Sapindaceae	T
50	Lata Palas	Butea superba Roxb.	Papilionaceae	M
51	Lohajangi	Ixora arborea Roxb,ex Smith	Rubiaceae	Т
52	Mahua	Madhuca indica J.F.Gmel	Sapotaceae	EF
53	Neem	Azadirachta indica A.Juss	Meliaceae	M
	/Garneem			
54	Nishinda	Vitex negundo L.	Verbenaceae	M
55	Panjan	Ougeinia oojeinensis (Roxb) Hoch.	Moringaceae	M
56	Parul	Sterospermum suaveolens (Roxb.)DC.	Bignoniaceae	M
57	Peyara	Psidium guajava L.	Myrtaceae	M, EF
58	Pial	Buchanania lanzan Spreng	Anacardiaceae	EF
59	Putus Lantana camera L.		Verbenaceae	NT, M
60	Rerhi Ricinus communis L.		Euphorbiaceae	M
61	Sajna	Moringa oleifera Lam.	Moringaceae	M
62	Sal	Shorea robusta Gaertn	Dipterocarpaceae	T
63	Satamuli	Asparagus racemosus Wild.	Liliaceae	M
64	Segun	Tectona grandis L.f.	Verbenaceae	T
65	Sheora/ Ash Glycomis arborea (Roxb.) Sheora		Rutaceae	M
66	Sidha	Lagerstroemia parviflora Roxb	Lythraceae	NT
67	Simul	Bombax ceiba L.	Bombacaceae	M, NT
68	Siris	Albizia lebbeck (L.) Benth	Mimosaceae	T
69	Sisso Dalbergia sissoo Roxb		Papilionaceae	Т
70	Sonajhuri Acacia auriculiformis A. Cunn.		Mimosaceae	Т
71	Tagar	Tabernaemontana divaricate(Linn.)	Apocynaceae	RC
72	Tal	Borassus flasbellifer L.	Arecaceae	EF
73	Tetul	Tamarindus indica L.	Caesalpiniaceae	EF, T, M
74	Tulsi	Ocimum sanctum Linn. Mant.	Lamiaceae	M, RC

Abbr. Used: M- Medicinal, EF- Edible Fruit, RC- Ritual culture, NT- Non-timber product, T-Timber product