

Sacred Groves and Heritage Trees of Jammu & Kashmir



Kamachnag temple, Kishtwar



Sacred Flame of the Forest Tree



Azure sapphire



Tahli Mata Mandir, Gajansoo, Jammu



Jamun tree with Baya nests



Glory Lily, Vishalya



South Indian Mimosa



Mysore thorn



Pellet bush



Wild turmeric



Black Raspberry



Pohu sacred grove



Whistling Thrush

INDEX

S.NO.	CONTENTS	PAGE NO.
(i)	Preface	<i>(i)</i>
(ii)	Introduction	<i>(ii)</i>
SACRED GROVES AND HERITAGE TREES OF JAMMU & KASHMIR		
1	Jiyopota sacred grove, Gajansoo	1
	a) Sacred Jiyopota tree grove, Gajansoo	1 – 2
2	Maloo creeper sacred grove, Baba Shibo devsthan	2
	a) Goran sacred Grove, Samba	2
	b) Samotha sacred Grove in Samba	3
	c) Maloo creeper Grove, Sumah Devta	3
3	Sacred Krishan Kadamb trees, Jatwal, Thatthar & Maira Mandriyan	3
	a) Sacred grove Jatwal, Samba	3
	b) Baba Kailakh Nath, Thatthar	4
	c) Mitragyna parvifolia sacred trees at Mera Mandriyan, Akhnoor	4
	d) Sacred Kadamb tree, Digiana, Jammu city	5
	e) Dyalachak sacred Kaim tree	5
4	Sacred Banyan Fig trees around temples in Jammu	5
	a) Baba Mei Mall temple Akhnoor	5
	b) Banyan Fig tree, Chuhadi Bua Dati temple	6
	c) Sacred Banyan tree Rehani, Mera Mandriyan	6
5	Bhim di Bani, Sandrani & Ghagga sacred Grove Chadei:	6
	a) Bhim di Bani sacred Grove	6 – 7
	b) Ghagga sacred Grove Chadei	7
6	Ransu Shivkhori sacred Grove	8
7	Heritage Toon trees	8
	a) Largest Toon Tree	8
	b) Sacred Toon tree at Peerbaba Fatehpur, Rajouri	9
8	Baba Dhansar sacred Grove	9
9	Heritage Ber tree at Bala Sundri, Panjbakhtar & Banda Bahadur shrine	10
	a) Bala sundri sacred Ber	10
	b) Panjbakhtar temple sacred Ber	10
	c) Sacred Ber, Baba Banda Bahadur shrine	11

10	Pohu sacred Groves at Chandigam, Botpora & Kangan Kashmir	11
	a) Pohu sacred Groves, Chandigam	11
	b) Pohu sacred Grove, Batpora, Kupwara	11
	c) Kangan Pohu Grove	12
11	Habba Khatoon sacred Grove, Gurez	12
12	Majestic Heritage Chinar Trees of Kashmir	12
	a) Heritage Chinar tree, Chhatrgam, Budgam	13
	b) Bijbihara Chinar Trees	13
	c) Dara Shikoh Garden Chinars	13
	d) Kashmir Mughal garden Chinars	14
	e) Tulla mulla Kheer Bhawani Chinars	14
	f) Zithyar temple Chinar Grove Srinagar	14
	g) Maa Roop Bhawani sacred Grove	14
	h) Prayag Booni at Shadipur, Ganderbal	15
	i) Panderethan temple Chinar	15
13	Preserved Phulahi trees at Peer baba shrines	15
	a) Phulai Peer Baba, Jandrah	15
	b) Largest Phulai tree, Kot Bhalwal, Jammu	16
14	Bhaid Devta sacred grove	16
15	Shahdra shrief sacred grove	16 – 17
16	Preserved old Cherry bark Elm trees	17
	a) Kheer Bhawani Tikkar, Kupwara	17
	b) Pakharpora largest Elm tree	17 – 18
	c) Oldest Elm tree at Patnazi, Bunjwah, Kishtwar	18
	d) Elm trees at Jaan Baz Wali Ziyarat Baramula	18
	e) Heritage Elm Tree at Bagsu Nag temple Sadrota, Billawar	18
	f) Baba Saain ganji ziyarat Elm tree, Rajouri	19
	g) Hathar Nag devta Elm tree, Hanzal, Kishtwar	19
17	Preserved Mulberry trees	19
	a) Preserved Mulberry trees	19
	b) More than 350 years old Mulberry tree	19
	c) Bumhama Peer baba, Kupwara	19
18	Sacred Cotoneaster beside Jyodian temple Bani in Basohli	20
19	Nag devta sacred Grove Sujan dhar	20

20	Community conserved sacred Olive trees	21
	a) Sacred olive, Kahu at Salalkot	21
	b) Sacred olive, Kahu Devta at Khaurgali, Damnot	21
21	Mango Grove, Baba Ballo Mathwar	21
22	Vasuki nag sacred Cedar Grove, Basant garh	22
23	Ghoda gali Pine grove, Gool	22
24	Vasuki nag Sacred Grove Dudu	23
25	Tahli mata mandir & sacred Shisham tree	23
26	Panjbakhtar Mesquite tree	24
27	Mata Katao temple sacred forest, Sunderbani	24 – 25
28	Saruinsar island sacred Grove	25
29	Kapil Muni Ashram, Thubb area, Gajansoo	25
30	Terminalia arjuna sacred trees at Nardibala in Mera Mandriyan	26
31	Sacred Grove Faqirpura Dawar in Gurez	26
32	Panjpeer sacred Grove, Pargwal	27
33	Bhaderkali temple sacred Grove, Handwara	27
34	Bablina Sacred Grove	27 – 28
35	Sacred Banyan, Baba Pargo ji Maharaj, Pargwal, Akhnoor	28
36	Heritage Red wood tree, Yarika, Tangmarg	28 – 29
37	Sacred grove, Bawa Bhoto, Gajansoo	29
38	Sacred trees beside Narsingh Dev ji temple	29 – 30
39	Suchar & Cheu Nag devta Billawar	30
	a) Suchar & Cheu Nag devta Billawar	30
	b) Nag devta Chew, Marhoon, Billawar	30
40	Maa Dati sacred Grove Dbujj Kaka, Vijaypur	30
41	Kapla Peer Siddh Nath sacred grove, Sawankha	31
42	Mata Bholi Devi Pond & sacred tree grove, Gho Brahmna	31
43	Diospyros sacred Grove, Gho Rakwala, Ramgarh	31 – 32
44	Sui simbli old Jiyopota & Pilkhan tree, Kanhachak	32
45	Peer Jalali Sacred fig Peepal & Bargad	33
46	Sacred Grove Babe da Jaad Jhiri	33
47	Sacred conifer Grove, Bootapatthri, Gulmarg	33 – 34
48	Deva mai sacred Figs & Mangoes, Katra	34
49	Baba Chamliyal Sacred Grove	34 – 35

50	Heritage trees at Sankri devta temple, Pancheri	35
	a) Heritage trees at Sankri devta temple, Pancheri	35
	b) Preserved sacred Moru oak near Sankri devta shrine	36
51	Maulsari sacred Grove, Raghunath ji temple	36
52	Shiv Mandir chhapanu sacred Grove	36 – 37
53	Panjpeer sacred Grove in Ramnagar wildlife sanctuary	37
54	Baba Abdunath sacred grove, Samba	37 – 38
55	Baba Barkhandi sacred grove, Kheri, Bhalwal	38
56	Saharan sacred Grove, Gajansoo	38 – 39
57	Budda Kedarnath temple tree Grove	39 – 40
58	Heritage Crateva tree, Siddh Gouria, Jhanda, Bhupnargarh	40
	a) Siddh Gouria, Jhanda, Bhupnargarh	40
	b) Baliyal Rajpura, Pargwal	40 – 41
	c) Baba Bankhandi, Badori	41
59	Sacred Palash tree at Sunjwaan, Jammu	41 – 43
60	Preserved trees of Jhingni at sacred places of worship	43
	a) Jhingni tree at Nud, Samba	43
	b) Jhingni tree at Chowki choura	43 – 44
	c) Jhingni tree at Rajwalta, Ramkot	44
61	Sacred Apple tree among cedars at Shivgali, Basant garh	44
	a) Shivgali apple tree	44
	b) Hariman apple orchard Ranjdi, Raya, Samba	44
62	Preserved Oleander leaf fig at Zamsalan Mahore	45
63	Chilla tree at Daate da Talaah, Birpur, Jammu	45
64	Sacred Bael & Jamun trees	46
	a) Sacred Bael & Jamun trees	46
	b) Oli Mata temple	46
	c) Bael, Jamun & Maulsiri trees	46
65	Heritage Horse chest trees at Peerbaba, Mela ground Bani, Kathua	47
66	Sacred Grove at Baba Bankhandi, Badori, Bari Brahmna, Jammu	47 – 48
67	Peer Baba Chatala, Bari Brahmna, Jammu	48
68	Heritage Himalayan Cedar tree, Devdar	48
	a) Deodar tree used for executions	48 – 49
	b) Sacred Deodar tree Latha Devta, Dewal Kotaal, Doda	49
	c) Yassernag sacred Cedars, Keshwan, Doda	49

	d) Deyari devta cedars, Khaurgali, Damnot, Udhampur	49
	e) Multistemed Cedar, Bhaderwah	50
	f) Tatani Cedar Grove & Bimalnag temple	50
	g) Largest Devdar tree at Chanti, Bhalessa:	50
	h) Sacred cedars, Nag temple, Karlah:	50
	i) Cedar of faith, Baba nagari, Wangat, Kashmir	51
69	Heritage Semal tree, Sunderbani	51
	a) Sacred Semal at Meenka Mahadev, Beri Pattan, Sunderbani	51
70	Sacred Bird cherry tree, Kamachnag temple, Watsar, Kishtwar	51 – 52
	Ginkgo biloba trees in Srinagar	52
71	a) Lal Mandi heritage Ginkgo tree	52
	b) Emporium garden Ginkgo tree	52
	c) Ginkgo in Shalimar & Chashmashahi Botanical garden	52
	d) Ginkgo trees at Sheikh ul Alam airport, Srinagar	53
	e) Ginkgo tree at IIIM, Sanat nagar, Srinagar	53
72	Buaa Kaudi sacred Grove Kathua	53
73	Heritage Sita Ashok tree, Gyankot	53 – 54
74	Heritage Kanakchampa tree	54
	Preserved sacred Celtis trees in shrines & graveyards	55
75	a) Baba Shungli ziyarat	55
	b) Baba Nagari, Wangat	55
	c) Kangan, Ganderbal	55
	d) Darhal, Rajouri	55
	Preservation of several sacred groves	56
	What can be done in future	56
WILD FRUITS IN SACRED GROVES		57 – 65



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Preface

In our country **Sacred Groves** are the finest example of cultural ethos and traditional practices based on religious faith, which contribute significantly to nature conservation. **Sacred Groves** or **Sacred woods** are patches of trees (Forest Fragments) of varying sizes, mostly having native vegetation. Sacred Groves have been in existence like Oasis of biodiversity under various environmental settings both in rural and urban areas across India. These are not only sacred repositories of nature's unique biodiversity, but also play multifunctional roles like source of economic benefits, recreation & environmental conservation.

According to the statistics made available by ENVIS centre, around **14000 Sacred Groves** have been documented across various states/ UTs in India, but their actual number may be much higher.

However, with increasing population, our changing social values & belief system, fast urbanization causing change in the land use pattern and over exploitation of natural resources, Sacred Groves are facing existential threat. The religio – cultural sanctity attached with the protection and preservation of Sacred Groves has been undergoing change and there is growing tendency amongst new generation to consider these beliefs as taboos. It has impacted the conservation status of these Sacred Groves across India.

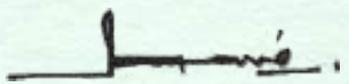
In Jammu and Kashmir we do have Sacred Groves associated with places of religious and cultural significance like Temples, Caves, Ziarats & Graveyards, Monasteries, sites of pilgrimage, water bodies like rivers, springs, ponds etc. However national level inventory prepared by ENVIS centre do not mention presence of Sacred Groves in J&K, probably due to non-documentation of information.

Shri O. P. Sharma, IFS (Retd. PCCF, J&K Forest Department) has done commendable pioneering work in creating a data base of Sacred Groves existing across J&K. He has been able to enlist, from different regions of J&K, around **131 Sacred Groves** with relevant information on location, history, species diversity etc.

There is a need to generate awareness in local communities especially amongst our youth so that Sacred Groves could be brought under effective Community Conservation.

Department of Social Forestry is primarily mandated with the task of increasing Forest and Tree cover on lands available outside recorded forest areas by involving Gram Panchayats and by soliciting cooperation and support of local people. These afforestation efforts are aimed at achieving the goal of having two third geographical area under forest and tree cover as envisaged in National and State Forest Policy to achieve goals of sustainable economic development and environmental security. Therefore, protection and conservation of **Sacred Groves** with community participation can form an important constituent in Department's action plan of enhancing Forest & tree cover outside the natural forests.

We feel grateful to Shri O. P. Sharma to allow his valuable compilation to be published by Department, so that it can be used as a baseline data to formulate future plan and implementation strategy towards the protection and conservation of Sacred Groves in J&K.


ROSHAN JAGGI

Introduction...

Sacred groves are community preserved fragments of forests or tree groves which have some kind of religious sanctity for the protecting community. Apart from ecological significance as life support system for broad spectrum of life on the planet earth, Nature nurtures cultural values and sustains varied lifestyles of ethnic communities who depend on nature for fulfilling day to day needs of fuel, food, fodder, fertilizer, medicine, water, soil. Ethnic communities have age old traditions of worshipping trees, tree groves, sacred groves and sacred waters in the name of God's, Goddesses and clan deities as per age old cultural & religious ethos.



Tree is symbol of life and nurtures cultural traditions in addition to binding of soil and water in its roots, hosting feasts and nesting activities of colourful birds and insects in the web of its crevices and twigs. Oldest tree living on the planet is Living fossil tree of China Ginkgo biloba, Buddhists nurtured its existence by religious plantings around monasteries and contributed in its conservation.

Globally tree diversity is estimated over 73000 species and out of this over 9000 species mostly confined to south America are yet to be discovered. In India we have over 45000 identified plant species, out of this only 3000 are tree species among approximately 18000 total flowering plant species (if algal, fern, gymnosperm species are excluded).

Humans noticed longevity of trees longer than human life span and felt indebted to diverse kinds of life sustaining benefits from the plants. To express gratitude and preserve plant diversity for future needs of coming generations, declared select patches of neighbourhood forest and other heritage tree groves as sacred groves under various names like Banis, Peerbabas, Asthaans etc. Megalithic archeological site Burzhaoma located near Dachigam National Park in Srinagar, Kashmir has connectivity to the Birch tree called Burza in Kashmiri so named after *Betula utilis* as Burzahaoma.

Preservation of trees, tree groves, patches of forest, sacred waters is associated with gods, goddesses, clan deities and conserved out of sacred faith to derive blessings of Devi devtas, sufi saints as per traditions started by forefathers and continued till today. Throughout the landscape of temperate Kashmir and sub-tropical Jammu shivaliks, we come across several sacred trees, tree groves associated with places of worship.

As per Amended Wildlife Protection Act 2002, community reserves stand included under the domain of protected areas and as per guidelines sacred groves fall under the category of community reserves and thus get legal protection for their conservation & preservation.

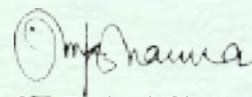
During eleven years long journey of Biodiversity Awareness programme nicknamed, 'Tree Talk' with more than 1225 learning sessions organized during UN declared Biodiversity Decade (2011-2020) and thereafter, many community conserved sacred groves and old heritage trees with religious and cultural sanctity were visited & discussed in the traditional & modern perspective. Community preserved, sacred groves & heritage trees were documented for their unique Biodiversity composition, preservation focus and natural heritage significance.

A compendium on 75 sacred groves & old heritage trees emphasize the role of ethnic communities in preservation of tree groves and solitary heritage trees in the neighbourhood for better quality environment, for sustainable harvest of medicinal plants in the hour of crisis/need, as refuge for wild plants, insects, butterflies, birds, reptiles & mammals and for effective ground water recharge of nearby drinking water resources.

75 years of Azadi ka Amrit mahotsav being celebrated to highlight history & culture of India, contributions of freedom fighters, milestones achieved in the field of science & technology, eco-friendly Indian traditions, community conservation as way of Indian life and need for strengthening bonds of one nation, one history, one culture & one environment.

With the hope that awareness regarding sacred groves and heritage trees seen across the landscape of Jammu & Kashmir will act as source of inspiration for the young enthusiasts & tree conservationists to provide strength & stimulus to the movement of conservation of nature & natural heritage during the month of Van Mahotsava. Preservation of sacred groves sustains biodiversity at various levels, it sustains local needs of medicinal herbs, water recharge and is crucial for the sustainability of food, water, soil quality, human health & maintenance of ecosystem services.

Month of Van-mahotsava
July, 2022



Om Prakash Sharma Vidyarthi
Retd. PCCF, Member JK Biodiversity Council,
JK Wildlife Board.

SACRED GROVES AND HERITAGE TREES OF JAMMU & KASHMIR

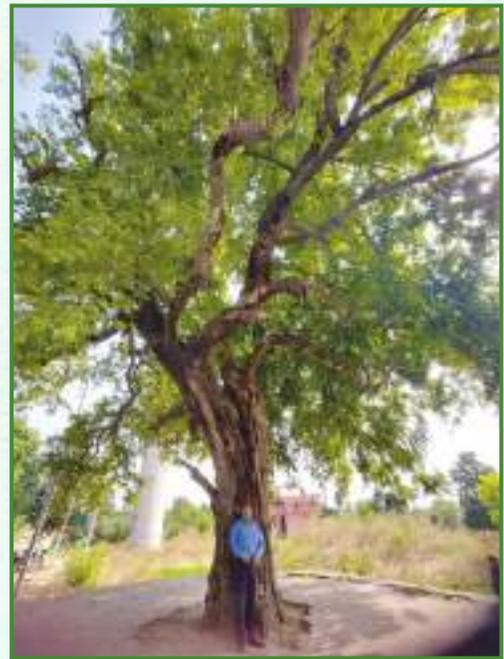
1. Jiyopota sacred grove, Gajansoo:

Putranjiva roxburghii tree from the Amla family named as Jiyopota in Dogri is revered heritage tree in Jammu, it is associated with the naming of Jiyopota ghat at Akhnoor beside river Chenab opposite Forest Guard training school Doomi located about 30 km from Jammu.

An interesting history associated with coronation of Dogra king Maharaja Gulab Singh at the location on 17th June 1822, location name is derived from Jiyopota tree Putranjiva roxburghii named Putrjeevak or Putranjeev in Sanskrit under which Maharaja took oath as Jammu king. Tree fruits borne as amulets to ward off evil spirits, seeds used for well being of unborn child as seed powder helps in maintaining hormonal balance in the expecting mothers. Original tree got damaged but historical context remains etched in the memories. In Dogri Putrjeevak tree is named as Jiyopota which means kind of blessing to the child, tree which ensures well being of unborn child as tree seed is medicinal, its seed powder confers hormonal balancing benefit to the pregnant mother, so tree got name Putrjeevak, translated in English as Child life tree. Other names are Lucky bean tree, Indian amulet tree as it is considered auspicious for kids to bear fruits as amulets, it is considered auspicious tree so it was chosen for coronation of Jammu king Maharaja Gulab Singh at a spot now famous as Jiyopota ghat at the banks of river Chenab in Akhnoor.



**Raj tilak ceremony of Maharaja Gulab Singh
under Jiyopota tree**



**Jiyopota tree planted at Narsingh ji temple,
Sui Simbli, Kanachak**

a) Sacred Jiyopota tree grove, Gajansoo:

Sacred Jiyopota tree grove located near Gajansoo town in Marh tehsil of Jammu district is under community preservation since ages as is supported by presence of over 60 trees of Putanjiva roxburghii 200-

250 years old. One sacred tree of Jiyopota, Child life tree, Indian amulet tree, Lucky bean tree, Putranjiva roxburghii in front of Kailakh devta temple is revered by community whereas another similar tree of Barna Garlic pear tree, *Crateva religiosa* is inside main sanctum sanctorum and worshipped by devotees in the name of Kailakh serpent God. Historic Jiyopota tree at Jiyopota ghat, Akhnoor connected with royal coronation of Maharaja Gulab Singh got washed away in floods but oldest Jiyopota trees seen at Kailakh devsthan are living testimony to the sacred sanctity of Jiyopota tree which is supposed to promote life of the progeny and useful in improvement of sperm count in men and prevent abortions in pregnant ladies.

Sacred Grove is seen as an oasis midst agricultural farmland. In addition to Jiyopota trees, old trees of Cluster fig tree *Ficus racemosa* (Rumbal, Goolar), Toon tree, *Toona ciliata* (Tun, Tuni), Peepal *Ficus religiosa* (Peepal), Shisham *Dalbergia sissoo* (Tahli), Puniya Punna *Ehretia acuminata* (Pauna), Datranga *Ehretia laevis* (Chamrore), Garlic pear, *Crateva religiosa* (Barna), Monkey face tree *Mallotus philippensis*, Java plum, *Syzygium cuminii* (Jamun), Paper mulberry *Brousonettia papyrifera*, Monkey Jack *Artocarpus lakucha* (Dhehoo), Punjab fig, *Ficus palmata* (Phagwara) are seen protected inside sacred Grove. Nowhere else in J&K is seen such a sacred Grove dominated by over 60 Jiyopota and 40 other trees of several species.



Jiyopota Sacred Grove, Gajansoo



Fruiting twig of Jiyopota



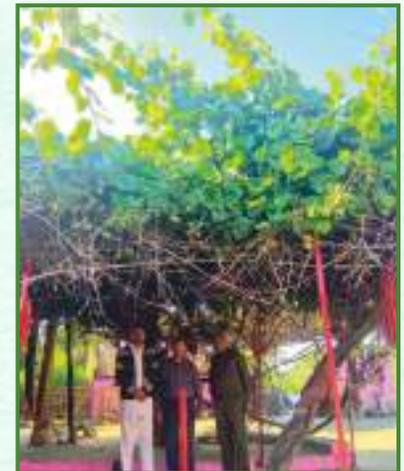
Jiyopota seeds used in rosary making

2. Maloo creeper sacred grove, Baba Shibo devsthan:

a) Goran sacred Grove, Samba:

Historical religious shrine dedicated to visionary saint Baba Shibo at Goran near Sumb in Samba is rich repository of Biodiversity where Baba Shibo's martyrdom is revered by local communities since centuries. Surrounding the temple shrine is a sacred Grove where trees like Indian Laburnum *Cassia fistula*, Kampillak *Mallotus philippensis*, medicinal *Adusa Justicia adhatoda*, extensive liana Maljhan, Maloo creeper *Bauhinia vahlii* locally called Maloongar stand preserved religiously.

Many bird species like treepies, fantails, warblers, drongos, minivets, flycatchers, bush chats, Flycatchers in addition to diverse diurnal nocturnal insects, bees, beetles, butterflies find refuge in the Grove. It is classical example of community conservation. It nurtures ecological as well as cultural traditions.



Preserved Maloo creeper

b) **Samotha sacred Grove in Samba:**

At Baba Goran's ancestral home village Samotha in Samba district is another sacred Grove well preserved by local community in the memory of Baba Shibo. Huge Liana of Maloongar, Maloo creeper *Bauhinia vahlii* aged 100 years is preserved along with several trees of *Mallotus philippensis* and other vegetation. Many medicinal herbs & climbers like *Spermadictyon suaveolens*, *Ichnocarpus frutescens*, *Cissampelos pariera*, *Dioscorea belophylla*, *Pueraria tuberosa*, *Justicia adhatoda*, *Achyranthes aspera* sustain rich entomo-avian fauna in the protected habitat. Location is about 30 km from Samba town.



Bauhinia vahlii under worship at Baba Goran, Samba



Preserved Maloo creeper at Samotha, Samba



Old growth of Bauhinia vahlii, Samotha

c) **Maloo creeper Grove, Sumah Devta:**

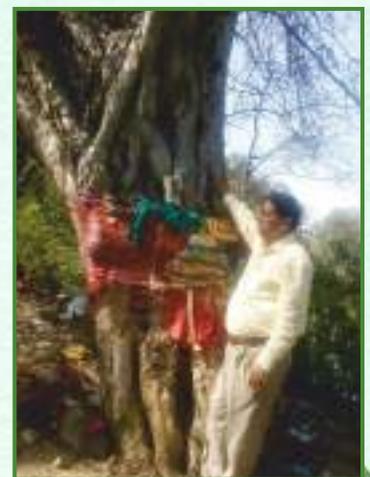
Beside a hill stream, on the rocky outcrops, extensive growth of preserved Maloo creeper *Bauhinia vahlii* syn *Phanera vahlii* locally called Maloongar has not only aesthetic appeal but it caters to local need for making leafy cups & plates for serving marriage meals & community food feasts, ecofriendly ethnic usage has led to clean surroundings, no plastic garbage is generated. Apart from Maloo creeper, other trees preserved in the Sumah sacred Grove are Peepal, Semal, Bael, Tuni, Karkatshringi, Mango and Bargad.

3. **Sacred Krishan Kadamb trees, Jatwal, Thatthar & Maira Mandriyan:**

a) **Sacred grove Jatwal, Samba:**

Birfanath temple at Jatwal in Samba district in Kandi belt has preserved tree growth of sacred Kaim Kadamb *Mitragyna parvifolia*, sacred threads of faith are seen tied around tree trunks. It is true Krishan Kadamb associated with pranks of Gopala. In addition old Banyan tree, sacred Parijat tree, medicinal Amla & Cheela trees stand conserved in the sacred grove. Temple is visited by many pilgrims, tourists and conservationists. Earlier it was located on the holy route to Maa Vaishno Devi and devotees used to stay here before proceeding further.

Sacred grove has sacred Saranda pond where devotees take holy water for worship in the temple.



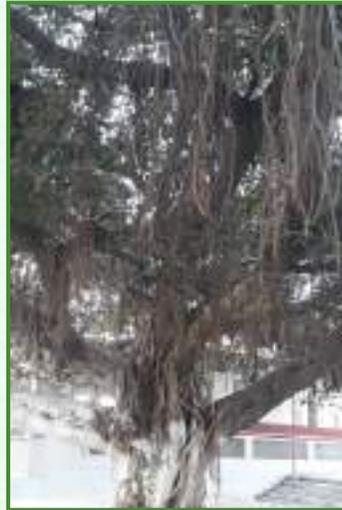
Sacred Kadamb/Kaim tree, Jatwal, Samba

b) Baba Kailakh Nath, Thatthar:

Temple devoted to Baba Kailakhnath at Thatthar near Kot Bhalwal has preserved sacred Peepal tree *Ficus religiosa* and true Krishan Kadamb trees *Mitragyna parvifolia* in the name of serpent God Vasuki nag's son Kailakh Nath, temple is dedicated to Kul devta of Seth biradri, annual congregation is held every year where community feast is distributed using ecofriendly leafy cups & plates, use of non-biodegradable plastic, styrofoam is discouraged. Oldest heritage Kadamb trees exist around temple, sacred threads around trunks bear testimony to the sacred way of tree preservation since ages. Parijat trees identified in Botany as *Nyctanthes arbor tristis* stand planted in the sacred space.



**Sacred Kadamb/Kaim tree,
Kailakh Nath, Thatthar**



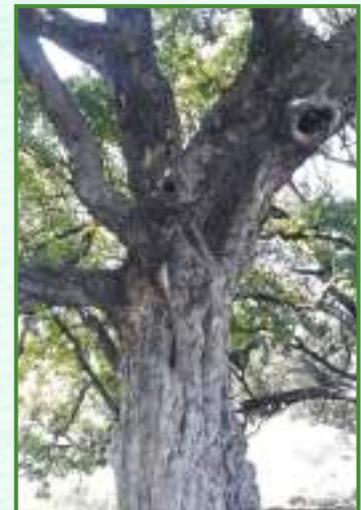
**Sacred Banyan fig tree
Kailakh Nath Temple**



**Sacred fig tree under worship at
Kailakh Nath Temple**

c) *Mitragyna parvifolia* sacred trees at Mera Mandriyan, Akhnoor:

Around the village pond at Mera Mandriyan, huge old trees of Kaim, Vanya kadamb are seen protected along with sacred fig Peepal *Ficus religiosa*, Banyan fig Bargad *Ficus benghalensis*, Madagascar Governor's plum *Kakoha* *Flacourtia indica*, Indian Ash tree, Kaimbal jhingini *Lanea coromandelica* & Conker berry *Garna Karaunda*. Hindu devotees worship Krishna's Kadamb, Peepal & Bargad on special days.



Preserved trees of Peepal, Bargad, Kadamb & Mango at Mera Mandriyan pond

d) Sacred Kadamb tree, Digiana, Jammu city:

One Kaim Kadamb *Mitragyna parvifolia* tree growing at Digiana Park within Jammu Municipal Corporation is under religious worship, ladies visit preserved Krishna's Kadamb during the month of monsoon sawan to take bath and seek divine blessings as per tradition.

Mitragyna parvifolia occurs wild in Shivaliks, tree is deciduous in comparison to evergreen *Neolamarckia kadamba*, leaves are much smaller as compared to *Neolamarckia kadamba*. Tree is worshipped by followers of Lord Krishna who used this tree at Mathura Vrindavan to play melodious tunes of flute and is supposed to have killed Kaliya nag in river Yamuna after a jump from this Kadamb tree.



Mitragyna parvifolia tree under worship

e) Dyalachak sacred Kaim tree:

Located on the Jammu Kathua National Highway beside village pond at Dyalachak there is mighty *Mitragyna parvifolia* tree locally called as Kaim which is Lord Krishna's true Kadamb. Sacred threads of faith are seen circled around tree trunk which signify sacred tree traditions linked to Krishna's Kadamb, ladies in the month of sawan take bath & perform special pooja under the tree. Available space around the pond need to be planted with more Kadamb & Fig trees to create more greenery.



True Krishna's Kadamb at Dyalachak

4. Sacred Banyan Fig trees around temples in Jammu:

a) Baba Mei Mall temple Akhnoor:

Near Akhnoor town at Duggi Dugehr in Kalidhar forest range, there is famous deity Temple dedicated Mei Mall located under huge Banyan tree *Ficus benghalensis*, national tree of India locally called Bauhd, tree is sacred to Krishna as Lord of Banyan leaf, leaf acted as saviour during deluge. Water reservoir and Banyan tree at the site have moderating effect on climate and hot temperature during summer. Many frugivorous birds like Barbets, Green Pigeons, Grey Hornbills visit Banyan fig tree for relishing fig fruits.



Sacred Banyan Fig tree Baba Mei Mall temple

b) Banyan Fig tree, Chuhadi Bua Dati temple:

Situated in Sunjawan area of Jammu ,huge Banyan tree *Ficus benghalensis* locally called Bauhd is sacred to the faith of Mangotra clan who congregate annually to pay obeisance to kuldevi and worship sacred Banyan tree with spiritual devotion. Figs are key stone species, preserved trees nurture bird life of several frugivores especially green pigeons (Preu), hornbills (Doaah) and barbets (Kuddru).



Heritage Banyan Fig tree



Devotees Congregation under Banyan tree



Banyan Fig tree under worship

c) Sacred Banyan tree Rehani, Mera Mandriyan:

Huge *Ficus benghalensis* tree protected in the village Rehani is infact a sacred Grove where not only Banyan fig tree but other trees also stand preserved as respect to sufi saint. Indian Ash tree *Lanea coromandelica*, Monkey face tree *Mallotus philippensis*, Conker berry bush *Carissa opaca* and *Justicia adhatoda* have equal protection in the habitat. Many birds Parakeets, owls, Hornbills and Green pigeons visit Banyan tree to feed on fig fruits.



Banyan Fig tree, Rehani village



Mallotus & Ziziphus trees associated with Banyan

5. Bhim di Bani, Sandrani & Ghagga sacred Grove Chadei:

a) Bhim di Bani sacred Grove is dedicated to the memory of Baba Bhim who migrated from Rajasthan during famine, he sculpted stones during his stay at the location. Around Bhim di Bani, many trees, shrubs,

climbers stand preserved by the community. Unique flora seen preserved include Goolar *Ficus religiosa* (Rumbal), Madhavi lata *Hiptage benghalensis*, Indian Pellet shrub *Pavetta indica* (Guldhar), thorny climber *Caesalpinia decapetala* (Dudreda, Dadoohr), Mock-buckthorn *Sageretia filiformis* (Kanainoo), Spike thorn *Gymnospora royleana* (Lehi, Pataki), Maloo creeper *Bauhinia vahlii* (Maloongar), Baibiding *Embelia tsjeriam* cottam, Kanta karanj *Biancaea decapetala* (Dadoohr, Dudraihda), *Pyrus pashia* (Kainth), *Ficus hispida* (Garumbal, Laana), *Asparagus adscendens*. During monsoon seasonal medicinal plants like *Desmodium gangeticum*, *Gloriosa superba* (Agnishikha, Vishalya, Galohtmama) are also recorded. Good diversity of Birds and butterflies is encountered inside the sacred Grove. Religious congregation takes place twice a year at the time new crop harvest in summer & other during autumn.



Sacred Madhav lata



Sacred grove awareness



Community feast on leafy cups & plates

b) Ghagga sacred Grove Chadei:

Picturesque tourist spot with plenty of perennial fresh water flow, network of bowlies has preserved tree growth around temple. Hill mulberry Karoon Kauin identified as *Morus serrata*, Musla, Neelan identified as *Olea paniculata*, Batta Kataar Kaud kainthal identified as *Xylosma longifolium*, mountain ebony Bistendu Rajaini identified as *Diospyros montana*. Presence of trees and fresh water perennial flow maintain cooler atmosphere even during scorching summer.

As per local legend Tantya Tope once visited the spot and remained here in exile for almost two years to evade arrest at the hands of British army during revolutionary conflict to gain Independence from colonial rule. Ghagga location name is after a local inhabitant who provided shelter to famine stricken group of artisans centuries ago, Bhim developed stone sculpture which is preserved inside the sacred space.



Morus serrata tree



Hill Mulberry fruits



Olea paniculata twig

6. Ransu Shivkhori sacred Grove:

Vegetation around holy Shiv khori shrine stands preserved as sacred Grove, trees, shrubs & lianas preserved are Paras Peepal Rock fig *Ficus arnottiana*, Royle's spurge *Euphorbia royleana* (C4 plant catalyzing shilajit secretion on rocks), Kampillak Kamilla Kumkum tree *Mallotus philippensis* (Earlier day kumkum was used by ladies as sindoor, even Sita maa used fruit powder as sindoor kumkum during exile), Woolly *Litsea Neolitsea cuipala* named as Kaulo (often mistaken for Tejpatta), Semi-cordate fig *Khinna Ficus semicordata* stand preserved in the vegetation. Unique liana *Sulaang Millettia pinnata*, green climber *Mudheyaan Helinus lanceolatus*, *Naabbhre Vitis adnata* and *Hegdi Strobilanthes tomentosa* (syn *Aechmanthera gossypina*), and *Maddareyaan Arachne cordifolia* plant diversity is encountered in the nearby vegetation along the holy route to Shivkhori holy cave.

Avian diversity is quite rich, several kinds of warblers, rock chats, thrushes, treepies, wood peckers, fly catchers, minivets, wagtails, cuckoos are encountered in the dawn and evening time.



Wrightia arborea flowers



Celastrus paniculatus fruits

7. Heritage Toon trees:

a) Largest Toon Tree:

At village Raang in Tehsil Ramnagar near Govt High school, there is India's largest Toon tree called as Indian Mahogany, more than 200 years old tree worshipped by both Hindus & Muslims to foster brotherhood & social harmony. Sacred green flags fluttering in the name of village Peer also see Goddess Chaurtra's saffron flags during annual obeisance to religious yatra held under the Toon tree. Tree is a preserved old heritage tree for the villagers.



Team of IIIM Scientists



Heritage Toon tree

b) Sacred Toon tree at Peerbaba Fatehpur, Rajouri:

Despite location beside highway and no room for further expansion, historic muslim shrine dedicated to the memory of great saint has old protected tree of *Toona ciliata* locally called Tuni or Tunu, a kind of Indian Mahogany with superior timber value but as per faith tree is highly secure and prayers are offered under the tree.



Peer baba Toon tree



Toon tree with fruits

8. Baba Dhansar sacred Grove:

Located near Reasi, sacred shrine devoted to Baba Dhansar has preserved several trees and other plants. Notable plant species seen are *Toona ciliata*, *Terminalia bellirica* at entrance, trees of *Amaltas* *Cassia fistula*, *Chopdu* *Cocculus laurifolius*, climbing fig *Ficus sarmentosa* and three trees of Himalayan Sweetspire *Itea nutans*, extensive climber *Heptapleurum venulosum* (Saud simbli) stand conserved & preserved.

In addition mighty Liana Maloo creeper *Bauhinia vahlii* Maloongar is not only preserved but is revered by devotees, sacred threads are tied to fulfill desires & goals as symbol of community faith, sacred threads tied on the coiled bough bear testimony to Devourer's unwavering faith. Preserved forest has rich biodiversity and perennial water source to sustain avian life. Shrine is visited by thousands of devotees hailing from within as well as outside J&K.

Plenty of fresh water and enchanting water melodies rejuvenate the mind of visitors during scorching summer.



Sacred water body, Dhansar



Rare Himalayan Sweetspire tree



Revered *Bauhinia vahlii*

9. Heritage Ber tree at Bala Sundri, Panjbakhtar & Banda Bahadur shrine:

a) Bala sundri sacred Ber:

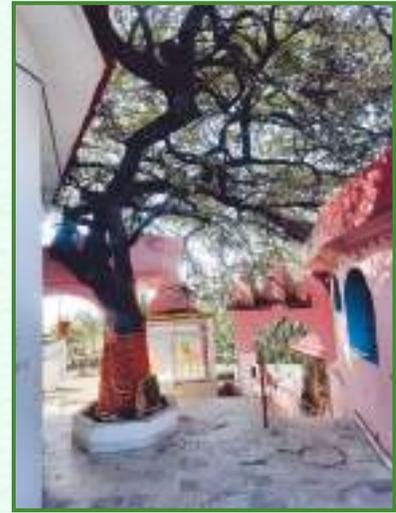
On the hillock bordering Billawar & Kathua forest division, about 9 km from Phinter is located historic Bala Sundri temple, Holy Bargad beside a sacred pond and sacred preserved Jujube Ber tree beside temple is another example of community tree conservation. In addition to Banyan & Ber trees vegetation around has preserved lesser known plants of *Incarvillea emodi* Trumpet bush, Royle's spurge *Euphorbia royleana* (Danda-thor, Sul) and aromatic Himalayan Golden fragrance *Gadseelu Pittosporum floribundum*.



Preserved Ber tree, Bala Sundri



Ber tree under worship



Ber tree at Bala Sundri temple

b) Panjbakhtar temple sacred Ber:

Situated in the heart of Jammu city is ancient Mahadev temple known for its antiquity, silver coins embedded in the courtyard, old historic Ber *Ziziphus jujuba* tree under which Guru Nanak Dev ji delivered sermon in 1514 in presence of then king Raja Khokar Dev. It is said that Guru Nanak Dev stayed here for 3 days. Tree is worshipped by Shiva devotees as mark of respect & reverence to saintly sermon delivered underneath more than 500 years ago. In addition to sacred Ber tree, sacred Grove of *Prosopis juliflora* is also centre of attraction for the visitors, true Shami Jand tree revered in scriptures is however other species named as *Prosopis cineraria* which need to be planted in the temple courtyard.



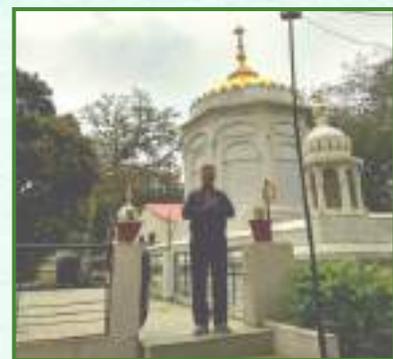
Gandh - Babool tree



Heritage Ber tree under worship at Panjbakhtar temple

c) Sacred Ber, Baba Banda Bahadur shrine:

Preserved protected Ziziphus jujuba Ber tree over holy shrine in Reasi district is dedicated to the memory of supreme sacrifice of Baba Banda Bahadur. The sacred Ber tree is worshipped by the devotees in Sikh shrine, nobody is permitted to cut any branch of the tree.



Banda Bahadur sacred shrine, Reasi

10. Pohu sacred Groves at Chandigam, Botpora & Kangan Kashmir:

a) Pohu sacred Groves, Chandigam:

As per age old sufi cult of ethnic communities, there is dense False witch hazel Grove popularly called Pohu Asthan at Chandigam in Lolab valley. More than 108 Parrotiopsis jacquemontiana clumps (no exact count available) bear testimony to the strong man nature association strengthened over many generations as a way of reverence towards mother nature and Biodiversity conservation at the community level.



Parrotiopsis jacquemontiana clump



Visit to Chandigam Pohu sacred grove

b) Pohu sacred Grove, Batpora, Kupwara:

On way to Kumkadi in Kupwara Pohu tree Grove comprising of dense growth of Parrotiopsis jacquemontiana is dedicated to saint woman, rags of faith tied around boughs & twigs is helping in tree conservation over the centuries. Large trees of Parrotiopsis jacquemontiana called Pohu display threads & rags of faith fastened to branches of all trees.



Pohu sacred grove, Batpora, Kupwara



Sacred tree traditions

c) Kangan Pohu Grove:

On way to Gagangir just after Kangan town on left side is huge Elm tree *Ulmus villosa*, Pohu Hattab tree *Parrotiopsis jacquemontiana* (False witch hazel) & Hamilton's spindle *Euonymus hamiltonianus* tree (Chhalchhattar, Sakki), *Berberis lycium* (Kaodachh, Simblu) stand preserved and no harvest of any twig, bush, grass is tolerated as per community faith. Rags of faith hung on branches bear testimony to age old reverence and tree preservation.



Revered *Parrotiopsis jacquemontiana*



Heritage Elm tree, Kangan, Kashmir

11. Habba Khatoon sacred Grove, Gurez:

In Gurez at Chorvan Achhura in Dawar, there is majestic Habba Khatoon mountain, beside river Kishanganga is famous Habba Khatoon spring surrounded by sacred Grove vegetation dominated by fragrant lilac bushes *Syringa emodi*, *Abelia triflora*, Oriental Currant *Ribes orientale*, Sea-buckthorn *Hippophae rhamnoides*, Oleaster *Elaeagnus*, several important medicinal plants like Black cumin *Kala zeera* *Bunium persicum*, Monk's hood *Aconitum heterophyllum*, wild flowers like Geraniums, Primroses, Campions, Columbines, Buttercups, Windflowers and Golden rods.



Habba Khatoon Mountain, Gurez



Habba Khatoon water spring



Himalayan Lilac, *Syringa emodi*

12. Majestic Heritage Chinar Trees of Kashmir:

Chinar commonly known as Oriental Plane tree is known as Booni or Bouin in Kashmiri language. It is often confused with Maple but Plane tree has alternate leaves, Maple has opposite leaves, fruit in chinar is round spiny cluster of achenes whereas fruits in Maples are winged samaras, however both Chinars & Maples have brilliant fall foliage.

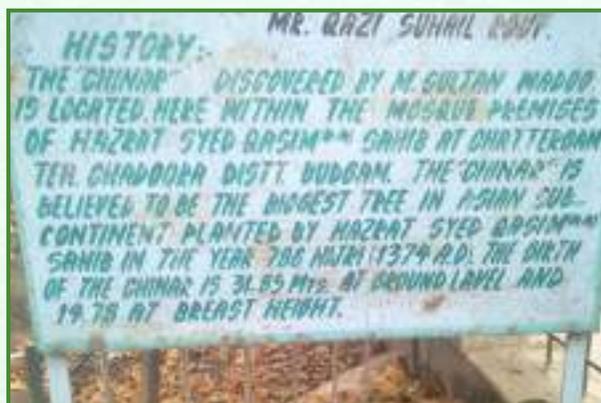
a) Heritage Chinar tree, Chhatrgam, Budgam:

Largest Chinar protected & preserved by locals inside holy mosque premises in the shrine dedicated to Hazrat Syed Qasim sahib at Chhatrgam in Chadoora, Budgam district Kashmir. Chinar tree was measured by veteran forest officer Mohmmad Shafi Wadoo as having girth of 31.85 metres at ground level and 14.78 metres at Breast height. Chinar is named as Booni in Kashmiri language, word Booni or Bouin is derived from Goddess Bhawani, as tree is considered holy and sacred to Maa Bhawani by Kashmiri Pandits.

Kashmir valley is known for the mighty majestic shade of Chinar trees, mystic poetess Lall Daed too adored chinar in her religious vaakhs under the name Booni derived from the word Bhawani goddess, tree seen associated with sacred spaces of worship, masjid, mandir or Gurudwara at various locations in the Kashmir valley.



Heritage Chinar tree, Budgam



Heritage Chinar tree history

b) Bijbihara Chinar Trees:

Bijbihara popularly known as 'Town of Chinars' has held historic distinction for holding Oldest Chinar in the Padshahi Park which as per elderly wisdom is supposed to have been visited by Guru Nanak Dev ji during his visit to the Mattan pilgrimage centre during 16th century, age of the tree is not less than 700 years, girth at breast height is 40 feet and at ground level it measures 70 feet. Tree trunk has hollowed out due to old age but top of the hollow trunk bears lush green branches. Name chinar is derived from Persian word which means What a fire, it has reference to fiery red glow of autumnal foliage. Kashmiri name Booni or Bouin is derived from Maa Bhawani, revered goddess of Kashmir.

c) Dara Shikoh Garden Chinars:

Just across river Jhelum there is historic Dara Shikoh garden with mighty Chinar trees aged more than 500 years. Dara Shikoh elder brother of Aurangzeb was an intellectual mughal prince, he got translated many Sanskrit books into Persian language, he visited Basohli to have a look on Basohli paintings as he appreciated fine arts & was himself a poet & painter. Floriculture Garden stand dedicated to Dara Shikoh who was known for his sufi outlook & thinking.



Chinar tree edibility

d) Kashmir Mughal garden Chinars:

Mughal gardens under the management of Floriculture department have age old Chinar trees which turn fiery red during autumn to add colour & charm to season of leaf fall.

Shalimar, Nishat & Harwan gardens have multiple tall chinar trees having age more than 400 years and girth measuring more than 30 feet. Majestic Chinars at Achhabal & Kokernag with cool shade beside crystal clear water channels & streams attract tourists during summer season, families sit under chinars and relish home made meals, noon-chai & bakery items. Floriculture department celebrates 15th March as Chinar day in Kashmir. Chinar leaf used as motif in weaving, painting, papermachie, craft, embroidery, carpentry, art & craft work throughout Kashmir.



Chinar tree in autumn

e) Tulla mulla Kheer Bhawani Chinars:

Group of old Oriental plane trees *Platanus orientalis* commonly called Booni or Bouin in Kashmiri, Chinar in Urdu, associated with temple dedicated to Kheer Bhawani at Ganderbal. In fact Kashmiri name for Chinar is Booni or Bouin and same derived from word Bhawani so tree chinar has spiritual significance to Goddess Kheer Bhawani in Kashmir.



Sacred Chinar trees at Tulla mulla



Tulla mulla Kheer Bhawani temple

f) Zithyar temple Chinar Grove Srinagar:

Under the canopy of majestic Chinar trees is ancient Zithiyar temple located next to Rajbhawan in Zabarwan hills of Srinagar where devotees visit deity to seek blessings and spiritual solace.

g) Maa Roop Bhawani sacred Grove:

In Chashma shahi area, location of temple dedicated to spiritual lady saint named Maa Roop Bhawani, there is preserved Chinar Grove which bear testimony to the faith of Kashmiri Pandita, name Bouin or Booni has historical connection to Goddess Durga, Roop Bhawani has Durga like courage & wisdom, her scholarly pursuits made her famous among devotees. Word Bhawani as Booni finds mention in the Vaakhs of Lal Daed and Shrukhs of Sheikh ul Alam.

h) Prayag Booni at Shadipur, Ganderbal:

At the holy confluence of river Sind & river Jhelum in Ganderbal near Sumbal, preserved Chinar, *Platanus orientalis* is revered as Prayag Booni (Prayag chinar). Under the tree, Shivilangam is worshipped by Kashmiri Pandits, Tarpan ritual is held in the memory of departed souls. As tree is growing at the confluence of two rivers, it is surrounded by waters so access to sacred Prayag booni is by boat only. As per belief of devotees, tree has divine existence and even at the time of worst floods, it has remained intact at its original position.

i) Panderethan temple Chinar:

Located in front of 8th century Shiva temple at Panderethan in Badami bagh cantonment Srinagar, sacred Chinar tree is under reverence by Shiva devotees. Chinar tree trunk is hollow and in the hollowed space, there is Goddess Bhawani where devotees visiting Shiva temple pay obeisance.

Chinar corps of Indian Army has preserved excavated sculpture as Darohar. Monolithic shivilangam is unique to the temple surrounded by water from all sides. Panderathan was the old capital city of Kashmir founded by King Ashoka which later got devastated in the massive fire as recorded in the history of Kashmir.

13. Preserved Phulahi trees at Peer baba shrines:

a) Phulai Peer Baba, Jandrah:

Located at a roadside hillock short of Jindrah town is a Peerbaba shrine under the canopy of *Senegalia modesta* with a small water pond in front. Muslim devotees visit the shrine on each Thursday and offer prayers. Phulahi tree known for toothbrushes is a source of bee forage and useful for bee keeping activity.

Senegalia modesta trees are useful in apiary as bee forage, twigs are used by locals as tooth brushes, leaves are fed to goats as fodder, firewood has high calorific value, so trees have been exploited heavily outside sacred groves but they are religiously protected inside sacred shrines like Peer Baba at Jandrah, Jammu.



Revered Chinar tree at Shadipur, Ganderbal



Chinar tree temple worship, Panderathan



Sacred *Senegalia modesta* tree

b) Largest Phulai tree, Kot Bhalwal, Jammu:

Huge tree of Phulahi (*Senegalia modesta*), I think largest specimen in India, identified presently as *Senegalia modesta* but previously named as *Acacia modesta* is preserved by Muslim family out of ancestral faith, a kind of peer meditated under the tree. Girth of tree is over 3 metres at the base, it has multiple trunks at breast height.

Such preserved trees with detailed information on girth, height, canopy spread & age estimation need to be documented in the Heritage tree register by the JK Biodiversity Council.



Preserved old Phulai tree

14. Bhaid Devta sacred grove:

In Jammu near Kattal battaal Nagrota, there is sacred Bhaid devta temple situated beside river Tawi, here endangered fish Golden Mahseer is preserved as symbol of ethnic deity as incarnation of Baba Bhaid son of serpent God Vasuki naag. Surrounding vegetation is a kind of sacred grove where deforestation is prohibited. We come across Christmas time flowering of the climber *Poranopsis paniculata*, snow white flowering enchants devotees during early winter season. As spring arrives, landscape gets altogether golden look due to profuse flowering of Winter flax *Reinwardtia indica* wild crop relative of cultivated Flax *Linum usitatissimum*.



Bhaid Devta temple beside river Tawi

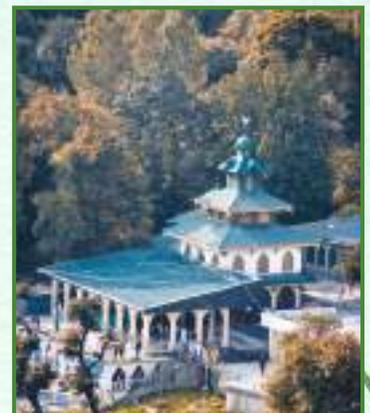


Divine serpent worship, Bhaid Devta

15. Shahdra shrief sacred grove:

Sacred Muslim shrine at Shahdra shrief near Thannamandi in Rajouri district is visited by devotees of all faiths to seek divine blessings and motherhood for the childless mother. Sacred space has preserved evergreen fruit bearing Citrus plant which bears fruits year the round in all the seasons. Childless mother is offered citrus fruit as divine blessing as per traditional faith. In addition several trees of Banj oak *Quercus oblongata* syn *Q leucotrichophora*, barberry bushes *Berberis lycium* and *Pteracanthus glutinosus* stand well preserved near the shrine.

Shahdra shrief is famous for carpentry wood items like combs, ladles, spoons



Chinars, Oaks & Citrus

deti ved from Boxwood tree *Buxus wallichiana* locally called Chikhri. Due to ovet-exploitation of mature trees in the forests, poor or insignificant sapling recruitment and no large scale planting of important tomer tree, livelihoods of locals associated with woodwork of Chikhri are on the decline. Forest department need to establish Chikhri nursery at Thannamandi or Darhal for large scale Chikhri planting in the field.

16. Preserved old Cherry bark Elm trees:

a) **Kheer Bhawani Tikkar, Kupwara:**

At holy shrine dedicated to Goddess Bhawani at Tikkar Kupwara, there are sacred Elm trees of *Ulmus villosa* treated sacred to Goddess stand preserved. It is replica of Tulla mulla Kheer Bhawani temple in Ganderbal district where mighty Chinar trees are seen preserved. Infact word Booni in Kashmiri stands derived from word Bhawani revered Goddess of native Kashmiri Hindus.



Kheer Bhawani Temple inside tree grove, Kupwara

b) **Pakharpora largest Elm tree:**

One of the largest old Elm tree *Ulmus villosa* stand preserved at Pakharpora in Budgam district of Kashmir. Sacred *Ulmus villosa* locally named as Brenn is held sacred and is protected in reverence to great sufi saint Hazrat Syed Ali Aali Balkhi (RA) whose holy shrine is just 100 meters away from 595 years old preserved Elm tree having girth over 26 feet at breast height, though trunk has turned hollow with age. As per locals belief, soil beneath the tree and sapling of Elm Brenn is thought to have been transported by Hazrat Syed Ali Aali Balkhi himself from Balkh in Afghanistan. As per elders story goes as below :



Heritage Elm tree, Pakharpora, Kashmir

'Hazrat Sultan Sayyed Muhammad 'Ali' Ala Balkhi was the ruler of the town of Millah in Balkh, in present-day Afghanistan. He is said to have ascended the throne of this principality in 1417 C.E. at the age of nineteen on his father's death, and went on to rule for thirteen years. Sultan Sayyed Muhammad returned to Balkh and appointed his elder son as the ruler of Millah in his own place. To his younger son he gave his prayer-mat (jai namaz) and entrusted him with the responsibility of 'delivering sermons and propagating religion' (va'az-o-tabligh). That over, he left the same day for Kashmir. After a journey of more than seven months, walking through towering ice-clad mountains, he arrived at the borders of Kashmir. Passing through Thana Bhavan in Rajouri he arrived at the village of Pakharpora (in the present-day district of Budgam). Just then, it

is said, Hazrat Nuruddin Nurani, who was then at Chrar-e-Sharif, received a premonition about Hazrat Sultan Sayyed Muhammad's arrival. He, along with his khalifa, Hazrat Baba Nasruddin Rishi, then set off to Pakharpora to receive him. This is said to have taken place in the winter of 1430 C.E. It is strongly believed that this ulmus tree is planted by the Hazrat Sultan Sayyed Muhammad 'Ali' Ala Balkhi by his pious hands in the year 1430 C.E and is about 595 years old'.

c) Oldest Elm tree at Patnazi, Bunjwah, Kishtwar:

Very old Cherry bark Elm tree is seen beside road in Patnazi panchayat, tehsil Bunjwah of Kishtwar district, tree trunk circumference measures over 32 feet, height is over 75 feet, approximate age of tree is 250-300 years. Tree is locally called as Bren in Kashmiri language, Dogri name is Maraadu, Pahadi name is Mannu.



Heritage Elm tree, Patnazi, Bunjwah, Kishtwar

d) Elm trees at Jaan Baz Wali Ziyarat Baramula:

About 2 km from Baramulla town on Uri road there is famous Jaan Baz Wali Ziyarat shrine with preserved Cherry bark elm trees, *Ulmus villosa* locally named as Bren.



Heritage Mulberry & Elm tree, Baramulla

e) Heritage Elm Tree at Bagsu Nag temple Sadrota, Billawar:

An old sacred heritage grove of Mrandoo (Maraal) trees identified Botanically as *Ulmus villosa*, Cherry Bark elm tree growing in the sacred space of Bagsu Nath/Charg Nag temple is centre of religious faith, devotees offer prayers to seek blessings of the serpent god deity established under the Elm trees.



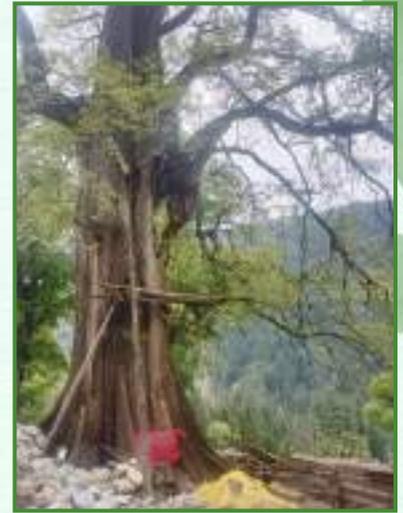
***Ulmus villosa* tree foliage**

f) Baba Saain ganji zyarat Elm tree, Rajouri:

On way to Darhal from Rajouri at Baba Saain Ganji shrine is located famous muslim shrine dedicated to the memory of Fateh Mohammad popularly named Saain Ganji, shrine has preserved two old Mannu trees in addition to Premna tree & Hackberry Khirak tree.

g) Hathar Nag devta Elm tree, Hanzal, Kishtwar:

In the mountainous terrain of Marwah valley at village Hanzal ,there is sacred Cherry Bark Elm tree under which is village deity and annual offering of animal sacrifice is practised. Religious procession called Yatra is taken out in the auspicious month of Shrawan (Mid July) Sankranti. Nagpanchmi day is also dedicated to the deity Hathar Nag Devta. As per locals, Jhanki Yatra is also displayed on the occasion of Krishna Janamashtmi.



Hathar Nag devta Elm tree

17. Preserved Mulberry trees:

a) One of the oldest mulberry tree, Tulkul Morus nigra stands preserved beside fresh water spring inside holy Shrine of Baba Hazrat Zati Shah Wali (RA) in Kupwara outskirts. Mulberry Tree is held sacred by the locals following sufi cult, dense mossy growth on age old tree indicates tree's antiquity. Locals fetch drinking water from the spring located under the sacred mulberry tree.



Heritage Mulberry tree, Kupwara

b) More than 350 years old Mulberry tree (main trunk partially rotten) planted during Mughal period in the Shalimar Garden, Srinagar, Kashmir is preserved as heritage tree. Flowers & fruits attract many birds.



Heritage Mulberry tree, Srinagar

c) Bumhama Peer baba, Kupwara:

Oldest preserved Mulberry tree is seen at Bumhama Peer baba shrine, Kupwara.



Preserved Mulberry tree, Sufi traditions, Bumhama Peer baba, Kupwara

18. Sacred Cotoneaster beside Jyodian temple Bani in Basohli:

Located at a height of 9000 ft, sacred tree of *Cotoneaster affinis* syn *C bacillaris* popularly called Reu or Reunsar or Leon is associated with Goddess Jiyodiyana mata, iron chains, sacred threads of faith & devotion are placed on the holy tree to seek blessings of Goddess. Significance of *Cotoneaster* is unique to Jyodiyana temple, no other temple in J&K has association with *Cotoneaster affinis* tree and sacred faith has preserved the species at alpine meadow grassland. Each year during the month of October, annual pilgrimage is organized and devotees pay obeisance in thousands.



Jyodian temple, Bani



Cotoneaster bacillaris tree preserved beside temple

19. Nag devta sacred Grove Sujan dhar :

In Bhamag block of Reasi district, Nag temple has dense sacred Grove comprising of old *Quercus oblongata* syn *Q leucotrichophora* (Banj oak), *Toona chinensis* syn *T serrata* (Doriya, Darilli), Himalayan bird cherry *Prunus cerasoides* (Battaran, Pajja), Dog wood tree *Cornus macrophylla* (Adehoo, Kandar), Punjab fig tree *Ficus palmata* (Phagwara). Preserved sacred Grove has perennial fresh water spring which has sanctity with serpent god as per community faith. Annual congregation attracts devotees from far & wide locations.



Preserved Oak tree, Sujan dhar



Preserved Padmaka tree, Nag devta temple

20. Community conserved sacred Olive trees :

a) Sacred olive, Kahu at Salalkot:

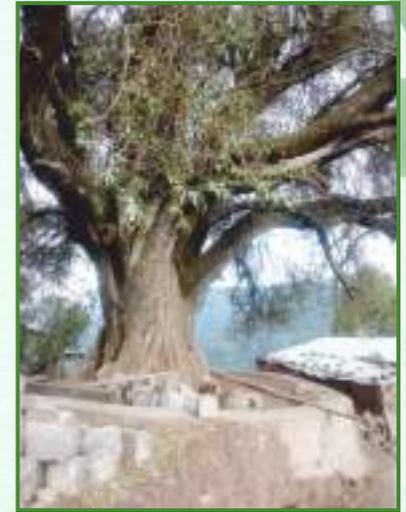
Near to temple beside community kuldevi samadhi at village Salakot on way to Kanthan Arnas, one comes across preserved wild olive trees identified Botanically as *Olea ferruginea* syn *Olea cuspidata* known to locals as Kauha or Kau. In addition to 4 olive trees, one can notice preserved medicinal East Indian Mastiche tree named *Pistacia chinensis* var *interigema* known to locals as Kakkadsingi after curious looking horn like insect galls used as drug under Ayurveda & Unani system of medicine.

b) Sacred olive, Kahu Devta at Khaurgali, Damnot:

Old heritage tree of *Olea ferruginea* (Wild olive) locally named Kauha or Kaahu with village deity established beneath stands preserved at Khaurgali in village Panchayat Damnot of Udhampur district where devotees present offerings and worship village deity established under Olive tree to seek divine blessings & overall happiness of the family.

Tree girth measures over 15 feet.

Wild olive tree
with flowers



Preserved wild olive tree, Damnot

21. Mango Grove, Baba Ballo Mathwar:

Sacred mango trees preserved by community at Baba Ballo shrine has interesting legend regarding spiritual prowess of Baba who used to graze cattle at this location. Once quarrel erupted between Rajputs and Karkiyal community over mango trees, a close friend entrusted the job of looking after mangoes to Baba Ballo, one morning when Baba had gone for a bath, Karkiyal plucked the mangoes, Baba felt angry told Karkiyals to put plucked mangoes back on the trees, it was impossible to do so. In a taunt, karkiyals challenged Baba to attach mangoes on the twigs if he has that power, Baba mediated and performed miracle of putting mangoes back on the trees. Before attaining salvation, Baba advised people not to sell these mangoes and use only for spiritual religious purpose. Community faith has preserved trees of *Mangifera indica*, annual religious celebration is organized on each Basant Panchami at the location.



Mathwar Mela on Basant Panchami



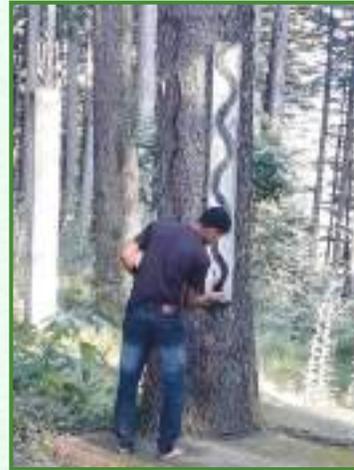
Sacred Mango tree, Mathwar, Jammu

22. Vasuki nag sacred Cedar Grove, Basant garh:

At picturesque spot under dense canopy of Himalayan Cedar *Cedrus deodara* locally called Deyaar is serpent god Vasuki nag temple where devotees pay respects and offer new maize cobs, semolina porridge to serpent deity. Prasad is offered to Jungle crows *Corvus macrorhynchos* on a specified rock. Twigs of several plants like *Parthenocissus himalayana* along with threads of faith are seen hanging on the ceiling of temple. One Cedar tree has even impression of Vasuki nag depicted as snake on the tree trunk. Nobody ever dares to lop or damage even twig of holy cedars around. In addition few Sumac trees of *Rhus punjabensis*, one Arkhol tree identified as *Toxicodendron succedanea* and *Wikstroemia canescens* bushes stand preserved in the sacred Grove.



Vasuki Nag temple & Cedars



Sacred Cedar under worship

23. Ghoda gali Pine grove, Gool:

Under Blue pine trees of *Pinus wallichiana* adjoining to Gool town lies historical spot known for ancient equine stone sculpture with horsemen as warriors in the cavalry unit of army. Sculpture depicting finer details of horses and horsemen is a treasure trove for historians and heritage conservationists but due to neglect during disturbed days of militancy, sculpture need better upkeep and promotion under ecotourism. In addition to pine trees, Oleaster silver berry bushes growing in the location is fascinating forest fruit rich in antioxidants, minerals & vitamins. Rhea bushes *Dabregeasia hypolecua* known for fibre & fruit too find shelter in the sacred grove. Water cress *Nasturtium officinale* growing along water channels is another prominent edible herb. *Pilea umbrosa* locally called Phander is another edible herb seen growing beside water bowlies. Most of water bowlies stand dried up, some have accumulation of mud silt debris, few bowlies still provide drinking water to the locals & visitors.



Ghoda gali rock sculpture



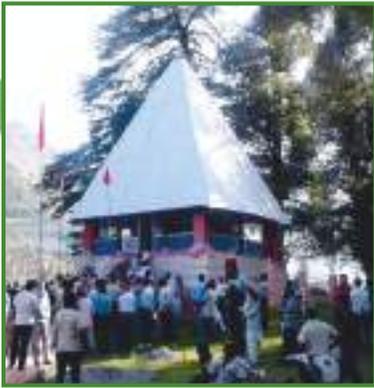
Horse sculpture



Water spring, Ghoda gali, Gool

24. Vasuki nag Sacred Grove Dudu:

Sacred space around famous Vasuki nag temple at Dudu is a kind of sacred tree Grove with over 30 trees of Moru *Quercus floribunda* syn *Q dialata*, 5 trees of *Sinnu Fraxinus hookeri*, few trees of *Banj Quercus oblongata* and *Cherry bark elm Mannu* trees of *Ulmus villosa*, no tree is allowed to cut for any purpose, dry twigs however can be used for religious temple activities carried out to seek blessings of serpent God Vasuki nag ji maharaj. Many Moru oak trees are however heavily infested with two epiphytes one is *Taxillus vestitus* epiphytic mistletoe known to locals as Rinn, other is leafless epiphytic mistletoe *Viscum articulatum* known as Jinji in Dogri.



Vasuki Nag temple Yatra, Dudu



Heritage trees, Vasuki Nag, Dudu



Old Moru oak tree, *Quercus floribunda*



Preserved Ash tree, Vasuki Nag

25. Tahli mata mandir & sacred Shisham tree:

Near International Border adjoining to Gajansoo is a historic Tahli mata mandir under a sacred *Shisham Dalbergia sissoo* locally called Tahli in Dogri. Huge tree trunk and Goddess Kali are revered by devotees to seek divine blessings, management is looked after by Chinore Agricultural authorities. In addition to 250 year old *Shisham*, other trees growing in the vicinity are *Terminalia bellirica* (Bahera), *T chebula* (Harad), *Aegle marmelos* (Bael), *Phyllanthus emblica* (Amla), *Psidium guajava* (Amrood), *Millettia pinnata* (Sukhchain), *Hibiscus rosa-sinensis*, *Lagerstroemia indica* (Panjtara), *Cassia glauca*, *Tecoma stans* (Yellow bells) & *Ocimum tenuiflorum* (Holy basil). Outside the gate and in front of temple is 250 year old sacred fig tree *Ficus religiosa*. During nine nights of *Maa Durga*, devotees visit the Tahli Mata Mandir in thousands.



Heritage *Shisham* tree, Tahli mata mandir, Gajansoo, Jammu



Devotees at Tahli mata mandir

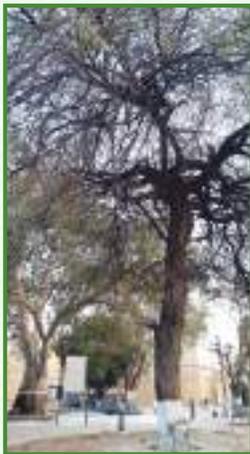


Shisham tree trunk under religious worship

26. Panjbakhtar Mesquite tree:

Old sacred trees growing in the premises of Panjbakhtar temple are a symbol of religious faith and worshipped with reverence, temple is located in the heart of old city adjoining to Residency road. Sacred mesquite trees seen planted belong to plant genus *Prosopis*, trees are revered & preserved by devotees who use its wood for religious ceremonies.

However it is not true Shami *Prosopis cineraria*, Jand tree seen in the Panjbakhtar temple complex is identified as *Prosopis juliflora* which is not native to India, true Shami *P cineraria* is native tree of India and declared by Rajasthan (Khejdi tree) and Telangana as State Tree (Jammi). True Mesquite tree named Khejdi is tree which witnessed supreme sacrifice of villagers of village Khejdli near Jodhpur in Rajasthan who laid down their lives to protect *Prosopis cineraria* trees in the year 1730.



Preserved Mesquite tree



Night flowering Jasmine, Parijat at Panjbakhtar temple

27. Mata Katao temple sacred forest, Sunderbani:

Religious spot with amazing foot impressions of Goddess Kataao on the rock, formation of two never drying water tanks at top of a hill forest is a location with rich diversity of plants like Elephant rope tree *Sterculia villosa*, Velvety melon counterfoil tree *Phyllanthus velutinus*, Ceylon tea tree *Cassine glauca*, Ujjain *Desmodium Ougeinia oojenensis*, Khinna tree *Ficus semicordata*, Roxburgh's fig *Ficus auriculata*, Dhamman *Grewia tiliifolia*, Pansar *Wendlandia heynei*. Lesser known Sanjeevni herb *Polygala arvensis* near the old temple is amazing as hairy seeds make miraculous movements on uttering sound of Govind go or Go binjo, seeds move like Cows of Lord Krishna. Another unique legume seen in the area is *Rhynchosia pseudocajan* (Dapakkhru) which looks like Arhar but has climbing habit, flowers are dark yellow. Devotees visit temple during auspicious occasion of Navratri nine nights dedicated to seek blessings for the health, security & prosperity. Maa Katao is considered as form of Goddess Maa Vaishno devi who helped exhausted soldiers to quench thirst, feel motivated and win the battle with valour during 1965.



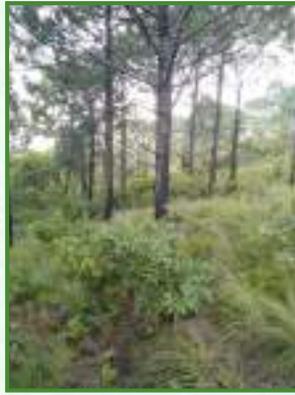
Mata Katao temple, Sunderbani



Divine water reservoir, Mata Katao temple



Pine tree beside Mata Katao temple



Pine forest at Mata Katao, Sunderbani



Rhynchosia pseudo-cajan, rare taxa, wild arhar



Phyllanthus velutinus, Velvety melon featherfoil

28. Saruinsar island sacred Grove:

Within Saruinsar Ramsar site, an island in the middle of lake waters is a secure secluded sacred Grove dominated by wild date palm trees usual shelter and roosting location for cormorants, egrets, herons and other water fowl. Medicinal marsh herb *Acorus calamus* grows in abundance along the peripheral waters. Trees of Jamun *Syzygium cumini*, Wild date Palm *Phoenix sylvestris*, Indian Mahogany *Toona ciliata*, Mango *Mangifera indica*, Soapnut tree *Sapindus mukorosii*, Kumkum tree *Mallotus philippensis* are encountered. Butterflies seen visiting side vegetation include several whites, yellows, nymphalids, pansies & swallow tails.



Wild Date palm trees with Cormorants, Saruinsar



Aromatic marsh herb, *Acorus calamus*, medicinal Vacha

29. Kapil Muni Ashram, Thubb area, Gajansoo:

Old historic location, Kapil Muni Ashram has rich diversity of trees namely *Mitragyna parvifolia* (Krishan Kadamb, Kaim), *Millettia pinnata* (Sukhchain, Karanj), *Aegle marmelos* (Bilva, Bael), *Ficus elastica* (Rubber fig), *Roystonea regia* (Royal Palm), *Bauhinia purpurea* (Gulabi Kariyal, Kachnar), *Grevillea robusta* (Silver oak), *Platanus orientalis* (Oriental plane), *Cestrum nocturnum* (Raat ki raani), *Tectona grandis* (Sagwaan), *Achras zapota* (Chiku), *Malus domestica* (Seb) etc.



Preserved *Dalbergia sissoo* stem under worship

30. Terminalia arjuna sacred trees at Nardibala in Mera Mandriyan:

Nine exceptionally large old trees of Terminalia arjuna with trunk girth over 15- 20 feet stand preserved as heritage trees. Though trees as per local faith are supposed to have antiquity related to Mahabharata times, when Pandav visited sacred location, it seems trees are at least 300 years old and largest among all Arjun trees seen growing in Jammu province. In addition to Arjun trees, one finds trees of Mallotus philippensis (Kampillak), Aegle marmelos (Bael) and huge older Liana of Phanera vahlii syn Bauhinia vahlii (Maloo creeper, Maloongar, Maljhan) with tree like growth climbing on one of Terminalia arjuna tree beside water channel which is connected to Padava's stay at the site as per folklore.



Preserved Heritage trees of Terminalia arjuna at Nardiwala, Akhnoor



Flowering Arjun tree

31. Sacred Grove Faqirpura Dawar in Gurez:

Sacred traditions nurture tree growth around sufi-saint shrines across valley of Kashmir, one such shrine at Faqirpura village Dawar in Kishanganga valley has preserved Hamilton's spindle Euonymus hamiltonianus tree growth in addition to Walnut trees. When autumn approaches, both Hamilton's spindle & walnut trees loose foliage but Euonymus hamiltonianus get decorated with pink red capsular fruits, attractive food feast for many passerine birds. Bark of Hamilton's spindle tree is fissured and present a crocodilian decorative look.



Preserved Hamilton's spindle tree, Euonymus hamiltonianus



Hamilton's spindle tree with fruits

32. Panjpeer sacred Grove, Pargwal:

Land of Sohni Mahiwal, an island of Pargwal is known for sufi traditions, community preservation & tree worship. At Rajpura Pargwal the sacred Grove of trees over a Peer Baba Panjpeer shrine has preserved growth of trees like Sacred Fig tree Peepal, sacred Java Plum Jamun, Sacred Madagascar Governor's plum Flacourtia indica, Monk's pepper Chaste tree Vitex negundo, sacred Tilki Pansar Wendlandia heyneii and Shisham Dalbergia sissoo. Both Hindus & Muslim devotees offer prayers to seek blessings of Peerbaba especially on Thursdays & other pious occasions.



Panjpeer sacred grove, Pargwal



Sacred trees of Flacourtia indica



Sacred tree of Dalbergia sissoo

33. Bhaderkali temple sacred Grove, Handwara:

Despite disturbed conditions and mass exodus of Kashmiri Pandits, religious places maintained their sanctity even during turmoil. Bhaderkali temple idol of Goddess Kali though stolen in 1983 later recovered in 1996 was reinstated in the temple with the help of army. Temple having burnt tree trunk of Cedrus deodara Himalayan cedar Devdar attract devotees from far & wide especially during Navratri on navmi & Dussehra days. Sacred space around temple has rich diversity of cedar, pine and chinar trees, it is connected by road from Handwara town followed by stair steps to the temple. Few Tree Talk sessions were organized here to spread Biodiversity awareness during UN declared International year of forests 2011.



Heritage Chinar Tree



Blue Pines and Bhaderkali Temple

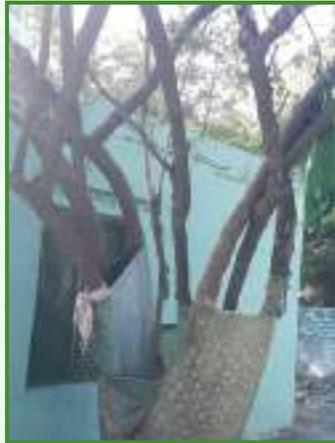


Bhaderkali temple Tree Talk

34. Babliana Sacred Grove:

In the village Rohi Babliana adjoining to Satwari is a sacred Grove around Peerbaba shrine with three Ziziphus jujuba trees, one Murraya koenigii, one Bombax ceiba, reputed medicinal climber Tinospora cordifolia, bushea of Justicia adhatoda & Capparis sepiaria, it is kind of green lung in the vast expanse of city

concrete, day temperature during summer few degrees less than outside sacred Grove, devotees visit the shrine on Sundays & Thursdays and light mustard oil lamp to seek divine blessings.



Babliana sacred grove



Sacred Ber tree

35. Sacred Banyan, Baba Pargo ji Maharaj, Pargwal, Akhnoor:

Near to historic Mahiwal village Hamirpur, sacred devsthan dedicated to the memory of Pargo ji Maharaj has preserved huge Banyan Bargad tree over the temple, devotees tie threads of faith on the bough of Banyan and seek divine blessings.



Baba Pargo ji Maharaj Devsthan, Pargwal



Sacred Banyan fig tree at Devsthan

36. Heritage Red wood tree, Yarika, Tangmarg:

Among three long lived global Redwood taxa namely *Sequoiadendron giganteum* (Giant Redwood), *Sequoia sempervirens* (Coastal Redwood) and *Metasequoia glyptostroboides* (Dawn Redwood), only Redwood tree taxa growing at Yarika, Tangmarg in Kashmir is a rare tree of Jammu & Kashmir visited by nature lovers, students & conservationists to adore antiquity of the Giant *Sequiodendron arboreum* which grows wild in Sierra Nevada mountain range, Californian forests United state of America. Named variously as Giant Redwood, Sierra Redwood, Wellington tree or simply Big tree, its specimens in the natural habitat are world's massive tree specimens on the earth known to mankind. Several attempts to propagate its seedlings in Kashmir has not yielded success so far, strategy need to be developed to bring rare tree taxa to light of tourists by inclusion in the tourism map, location is under supervision of Indian Institute of Integrative Medicine

J&K. Scientists under the supervision of Prof. A.K. Kaul working with Baba Ghulam Shah Badshah University, Rajouri initiated the research work on its seed germination & multiplication of seedlings but success has eluded so far.



Endangered Giant redwood tree



Sequoiadendron giganteum



Foliage of Giant redwood tree, Tangmarg, Kashmir

37. Sacred grove, Bawa Bhoto, Gajansoo:

Another sacred Grove dedicated to clan deity Bawa Bhoto has unique tree diversity, oldest Dalbergia sissoo (Shisham, Tahli), Tiger claw tree Erythrina variegata (Thubb), Oriental Plane Platanus orientalis (Chinar), Banyan fig Ficus benghalensis (Bargad), Panjtara Lagerstroemia indica, Ber Ziziphus jujuba (Ber), Stone apple Aegle marmelos (Bel), Indian Gooseberry Phyllanthus embelica (Amla), Shami Prosopis cineraria (Jand), Kamini Murraya paniculata, Flame of the forest Butea monosperma, Magnolia champaca (Champa), Pilkhan Ficus virens (Palakhi) stand protected. Tree Grove is an abode of several birds like Eurasian Hoopoe Upupa epops, Scaly breasted Munia Lonchura punctulata, Baya Ploceus manyar, Bulbul Pycnonotus cafer, Golden oriole Oriolus kundoo, Indian Grey Hornbill Ocyrceros birostris.



Sacred White fig tree, Ficus virens



Sacred Shami, Prosopis cineraria



Magnolia champaca tree

38. Sacred trees beside Narsingh Dev ji temple:

Narsingh Dev temple at Ghagwal is visited by many devotees, in front temple old protected trees of Peepal Ficus religiosa, Mulberry Morus indica & Margosa Azadirachta indica are equally worshipped by visitors as trees have rich mythology & folk lore, Neem wood used in the making of Jagannath, Balabhadra & Subhadra at Puri, Peepal trees worshipped as incarnation of Lord Vishnu and Mulberry has religious sanctity.

Nearby pond developed by shepherds / graziers in the hoary past named after shepherds as Gwaale da Talab, old fig trees of Peepal & Bargad stand preserved around the periphery. Nakshatra Garden stand designed in the vicinity of Narsingh Dev ji temple, Ghagwal.



Sacred Neem tree under worship



Sacred Mulberry tree



Layout of Nakshatra Garden

39. Suchar & Cheu Nag devta Billawar:

a) Located inside dense oak forest near Nangla on Machhedi road in Billawar hills is much revered Suchar nag devta temple where devotees seek blessings of serpent god, annual congregation is organized at the location .

b) Nag devta Chew, Marhoon, Billawar:

Under the mighty cedar trees Cedrus deodara, serpent god Vasukinag temple attracts devotees in large numbers, kind of protected sacred Grove, nobody harms vegetation around.

Common English name as well as Botanical name is derived from the Sanskrit word Devadaru which means “Wood of the Gods”, a compound word of deva means God and daru means wood or tree. In the Himalayas local temples and village deities are located under Cedar trees.



Nag devta under Cedars

40. Maa Dati sacred Grove Dbujj Kaka, Vijaypur:

Sacred water body under the temple and presence of old trees, mighty Banyan with a prop trunk, three old Peepal trees, Bael trees, Jamun in addition to good growth of medicinal shrubs like Rehaad Capparis sepiaria, Adusa Justicia adhatoda, Kundru Coccinia grandis is sort of sacred Grove cum germplasm conservatory, many parakeets, hornbills, green pigeons, barbets, bees, butterflies enjoy secluded shelter.



Peepal tree under worship



Bargad tree with a prop root



Preserved tree growth, Dbujj Kaka

41. Kapla Peer Siddh Nath sacred grove, Sawankha:

Near to Swankha in Ramgarh sector, religious sacred space abode of saints abounds in tree diversity, trees of Jamun (*Syzygium cumini*), Bael Bilva (*Aegle marmelos*), Peepal (*Ficus religiosa*), Krishan's Kadamb (*Mitragyna parvifolia*), Parijat (*Nyctanthes arbor tristis*), Rudraksh (*Elaeocarpus ganitrus*), Lamarck's Kadamb (*Neolamarckia cadamba*), Amla *Phyllanthus emblica*, Reehad *Capparis sepiaria*, Giloe *Tinospora cordifolia*, Milkweed *Calotropis procera*, Kala Dhatura *Datura metel*, Kamini *Murraya paniculata*, Sacred basil *Ocimum tenuiflorum* are seen preserved in the surrounding space. Kapla Peer used to take rigorous test of Siddh Nath.



Kapla Peer Siddh Nath Ashram



Sacred fig leaves



Medicinal Giloy



Sacred Wood-apple tree

42. Mata Bholi Devi Pond & sacred tree grove, Gho Brahmna:

On way to Swankha, Mata Bholi Devi temple is under the mighty Banyan *Ficus benghalensis* abode of mynas, parakeets & barbets. Beside the sacred pond lies mighty Sacred fig tree *Ficus religiosa* with Shanidev & Hanuman statues underneath. Many religiously significant trees planted in the sacred space are Flame of the forest *Dhak*, *Butea monosperma*, White Fig tree *Ficus virens*, Night flowering Jasmine *Nyctanthes arbor tristis*, Sorrowless tree *Saraca asoca*, Indian Gooseberry *Phyllanthus emblica*, Fearless Belleric *Myrobalan Terminalia bellerica*, Arjunic *Myrobalan Terminalia arjuna*, Kachnar *Bauhinia variegata* etc.



Banyan tree & temple



Preserved Peepal tree



Sacred Sita Ashok tree

43. Diospyros sacred Grove, Gho Rakwala, Ramgarh:

Beside a pond the abode of several water birds mallard, teal, white breasted hen, kingfishers is a dense

sacred Grove dominated by old trees of Bombay Ebony, Rajain Diospyros cordifolia. Infront of Shaheed Samadhi of Baba old Diospyros cordifolia tree is preserved since centuries. In addition to Diospyros trees, one finds medicinal plants like Justicia adhatoda (Adusa), Capparis sepiaria (Kanthari). Introduction of Eucalyptus trees however recent and not native to the sacred Grove.



Bombay Ebony tree



Sacred grove pond, Gho Rakwala

44. Sui simbli old Jiyopota & Pilkhan tree, Kanhachak:

Historic old Jiyopota tree *Putranjiva roxburghii* supposed to be planted by Maharaja after his coronation as King of Jammu in 1822 is in front of historic Shri Raghunath Temple at Sui Simbli where Maharaja used to visit Mahant Guru Prem Das who prophecied that he will be coronated as Raja of Jammu, prophecy came true so temple was constructed and Jiyopota tree planted at the site. Inside the temple space is old Cypress tree, outside old Peepal tree and few trees of Bael Aegle marmelos tree sacred to Lord Shiva. Just adjoining to temple is historic Peerbaba ziyarat where exceptionally large and one of the oldest Pilkhan tree stands preserved by devotees & natives both Hindus & Muslims. Rags & threads of faith are seen tied on the side branches of *Ficus virens* locally called Plakhi, its tender foliage developed into nutritious cuisines during springtime as told by natives.



Heritage Jiyopota tree



Heritage White fig tree



Heritage Cypress tree

45. Peer Jalali Sacred fig Peepal & Bargad:

Just short of Bachial beside a water channel is preserved twin figs, old lady Pasho Devi regular visitor to Peerbaba each Thursday revealed that to begin with at the site existed an old mulberry tree which however got replaced by mighty Bargad Banyan tree, presently even sacred Peepal has established itself so twin figs *Ficus benghalensis* (Baud), *F religiosa* (Peepal) growing together as one. Many birds like Green pigeons (Preu, Preva), Barbets (Kudroo, Basanta), Grey hornbills (Doaa) visit the tree for fig forage. Blue rock pigeons *Columba livia* has taken refuge in the matted prop root growth.



Heritage fig tree



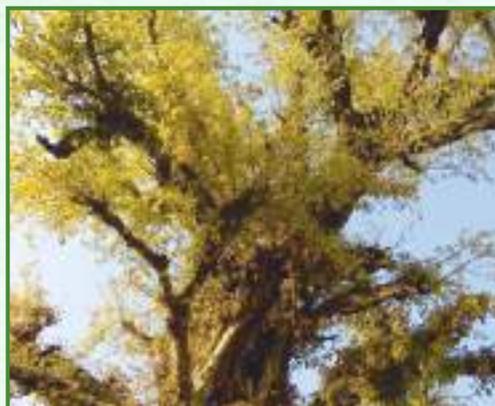
Peepal & Bargad together

46. Sacred Grove Babe da Jaad Jhiri:

Sacred Grove of Baba Jitto at Jhidi has many aged old trees of *Butea monosperma* (Dhak), *Ficus virens* (Palakshi), *Ficus benghalensis* (Bargad), *F hispida* (Udumber), *F religiosa* (Peepal), *Flacourtia indica* (Vikankat), *Senegalia catechu* (Khair), *Ficus racemosa* (Goolar), *Diospyros cordifolia* (Rajain), *Mitragyna parvifolia* (Kaim Kadamb) and mango trees which need to be protected & managed as Baba Jitto sacred Grove at village Panchayat level by the designated Biodiversity Management Committee Jhidi.



Sacred trees of *Butea monosperma*



Spring foliage of *Ficus virens*



Colourful leaves of Palakshi tree

47. Sacred conifer Grove, Bootapathri, Gulmarg:

Under the mighty Himalayan Fir trees, *Abies pindrow*, sacred muslim shrine practising sufi faith is

located at Bootapathri in Gulmarg Biosphere reserve, Kashmir. Sacred rags of faith, green sheets with quotes from Holy Quran and bangles seen fastened to tree trunks as way of expressing gratitude to God after wishes of devotees are fulfilled by the almighty.



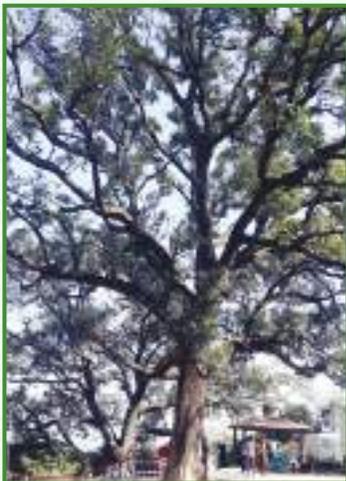
Peer Baba shrine under Fir trees



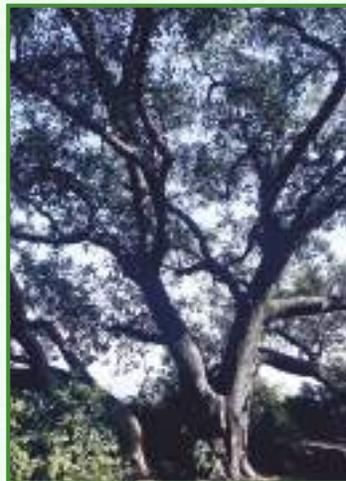
Anti-diabetic Fir bark tea

48. Deva mai sacred Figs & Mangoes, Katra:

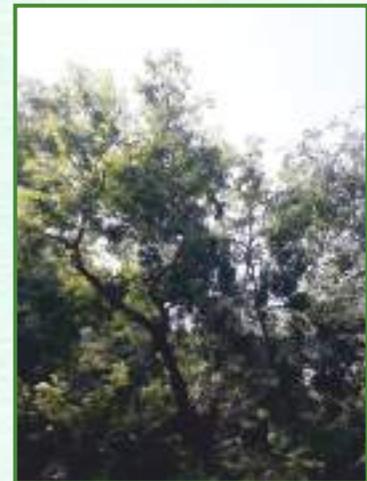
Deva mai supposed to be 2nd incarnation of Goddess Vaishno Devi is visited by devotees in search of mental solace and seek Goddess blessings for fulfilling unfulfilled wishes in life. In the sacred space around temple Deva mai one finds protected trees of Ashvattha *Ficus religiosa*, Aam *Mangifera indica* in addition to preserved growth of Parijat *Nyctanthes arbor tristis*, Palakshi *Ficus virens*, Banyan Fig tree *Ficus benghalensis*, Tallow tree *Charbi Triadaca sebifera*, Kumkum tree *Mallotus philippensis*, Hackberry tree *Celtis tetrandra*, White pearl bush *Securinega virosa*, Conker berry *Carissa opaca* and Squirrel tail bush *Colebrookia oppositifolia*.



***Mangifera indica* tree**



***Ficus religiosa* tree**



***Triadaca sebifera* tree**

49. Baba Chamliyal Sacred Grove:

Near to line of control in Ramgarh sector famous shrine known for miraculous soil called shakkar effective against various skin disorders has 7 trees of Varuna Barna, Sacred garlic pear tree *Crateva religiosa* in

addition to four five Shisham trees *Dalbergia sissoo*, few Jamun trees *Syzygium cumini*, Curry leaf tree *Murraya koenigii*, Bael tree *Aegle marmelos* & two large sized Peepal *Ficus religiosa* trees which are revered by devotees and have religious sanctity for locals. In June annual congregation of devotees from far off places takes place, sacred earth called shakkar is taken to homes for seeking divine blessings not only by Indian side pilgrims but also by Pakistan side of devotees, a symbol of harmony among Hindus & Muslims.



Baba Chamliyal shrine



Sacred Peepal tree under worship



Sacred Clay of faith as Prashad

50. Heritage trees at Sankri devta temple, Pancheri:

a) Kainth tree also named as Batangi is wild pear of Jammu hills, fruits on ripening turn black, eaten by humans & wildlife.

Aged more than 100 years, *Pyrus pashia* tree locally called Kainth is preserved out of religious sanctity and faith dedicated to village deity Baba Sankri Devta ji maharaj, multi-coloured rags of faith are seen fastened to the twigs of this tree. Due to old aged trunk, some mushrooms have taken foothold near the ground and calls for immediate silvicultural care & treatment. On the trunk, holy iron chains are kept perched to show reverence to the tree. Side facing metallic galvanized iron roofing, tree canopy has dried up recently, removal of metallic roofing sheets may be one option to lessen solar glare & heat effect on the otherwise healthy canopy of the sacred tree. Beside old Kainth tree one Oriental Plane tree *Platanus orientalis* stands planted by the devotees. Little away on the side front, very old Himalayan Butterfly bush *Buddleja crispa* adds floral charm to the premises during spring & summer. Cedar planting in the vicinity is future hope for adding more trees to the treeless expanse.



Sacred Kainth tree, Sankri devta



Heritage Chinar tree



Preserved Butterfly bush

b) Preserved sacred Moru oak near Sankri devta shrine:

Large evergreen Moru oak tree *Quercus floribunda* syn *Q dilatata* stand preserved by locals, under the tree Kalka mata is worshipped by devotees to seek divine blessings. It is heritage tree near to newly constructed forest inspection hut, *Rhododendron arboreum* trees can be introduced in the blank spaces available.



Sacred Moru oak, *Quercus floribunda*



Kalka Mata village deity under Moru oak

51. Maulsari sacred Grove, Raghunath ji temple:

Famous religious place, Raghunath ji temple in the heart of Jammu city, well preserved Maulsari Grove has over 20 trees, Botanically identified as *Mimusops elengii*, Vakula in Sanskrit, evergreen trees bear orange red edible cherry like fruits so called Spanish cherry, wood is quite strong, fit for cabinet work, another name given to Malusari is Bullet wood tree. In addition to Maulsari trees, one finds two old trees of Krishan Kadamb *Mitragyna parvifolia* (not to be confused with *Neolamarckia cadamba*), one old tree of Arjun *Terminalia arjuna*, 4 trees of sacred peepal *Ficus religiosa*, one tree of Banyan fig *Ficus benghalensis*, 5 trees of Wood apple *Bilva Bael pattar* *Aegle marmelos*, two treelets of Kamini *Murraya koenigii*, two trees of Litchi *chinensis*, few pomegranate and Chandni *Tabernmontana divaricata* shrubs to add charm & aesthetic look to surroundings.



Mimusops elengii flower



Maulsari twig with fruits



Maulsari fruits

52. Shiv Mandir chhapanu sacred Grove:

Located beside rivulet Oli in the vicinity of village Bamiyal is historic Shiv temple having ruins of old sarai for the pilgrims of Goddess Vaishno Devi and stepped water well for the supply of potable water for the devotees. Old Peepal tree with vegetation comprising of medicinal plants like *Mallotus philippensis*

(Kamilla), *Litsea glutinosa* (Raihn, Meddasakk), *Casearia tomentosa* (Cheela), *Ficus racemosa* (Rumbal, Goolar), *Pyrus pashia* (Kainth), *Woodfordia fruticosa* (Dhaai, Dhatri) stands preserved. It is desirable to add religious trees inside the sacred space available, planting of Sita Ashok *Saraca asoca*, Bael *Aegle marmelos*, Palash *Butea monosperma*, Kachnar *Bauhinia variegata*, Thubb *Erythrina variegata*, Barna *Crateva religiosa* is recommended during ongoing celebrations of Azadi ka Amrit Mahotsav.

53. Panjpeer sacred Grove in Ramnagar wildlife sanctuary:

On old Jammu Nagrota road, just one kilometer from Amara Mahal is historic Panjpeer shrine with preserved tree growth comprising of two Banyan trees, one sacred Ber tree, one Kaim tree *Mitragyna parvifolia* two *Eucalyptus* trees, one mango and few *Vachelia nilotica* trees.

Adjoining to the main shrine is very old revered tree of Rajain *Diospyros cordifolia* (Bombay Ebony) which is religiously protected and preserved as mark of respect towards departed noble soul of saint named Panjpeer. In addition few exotic garden plants also stand introduced for beauty of the surroundings but conservation of native trees is age old and quite sacred as per sufi traditions.



Panjpeer sacred grove, Ramnagar forest



Preserved Diospyros cordifolia

54. Baba Abdunath sacred grove, Samba:

At a distance of 7 km from Samba near village Mananu, perched on a hillock is sacred shrine of Baba Abdunath, revered by devotees, milch cattle milk is first offered here before consumption, Baba shrine has unique tree diversity, uniqueness lies in having preserved half a dozen trees of *Kakoha* *Flacourtia indica* Madagascar Governor's plum, Vikankat, 4 mighty Banyan trees *Ficus benghalensis*, mighty Maloongar Maloo creeper a liana *Bauhinia vahlii*, old bushes of Conker berry *Carissa opaca* Garna, solitary sacred Raathal Rathei *Securinega virosa*, three trees of True Krishan Kadamb *Mitragyna parvifolia*, two trees of Bael *Aegle marmelos*, One tree of White siris *Albizia procera*, tall tree of Garlic pear tree *Varuna* *Baarna* *Crateva adansonii* var odora (syn *C religiosa*) and Arjun tree *Terminalia arjuna* in addition to bushes of Malabar nut *Justicia adhatoda*, Curry leaf bushes *Murraya koenigii*, Karangal tree *Cassia fistula* & Flame of the forest *Butea monosperma*. Newly planted trees of *Alstonia scholaris* Saptarni Satpattiya are also growing in the shrine. On each Sunday milk pudding Kheer is prepared and distributed as Baba's prashad among visitors.

Birds visiting sacred grove include Hornbills, Drongos, Rufous Treepie, Long tailed Minivet, Paradise fly catcher, Golden Oriole, Magpie Robin, Tailor bird and Crows.



Securinega virosa bush under worship



Flowering Garlic pear tree, Crateva religiosa



Sacred Banyan fig tree grove, Baba Abdunath, Mananu, Samba

55. Baba Barkhandi sacred grove, Kheri, Bhalwal:

Situated on the outskirts of Jammu is lesser known Baba Barkhandi Peerbaba shrine under old Banyan & Peepal tree, nearby trees in addition to fig trees are Madagascar Governor's plum *Flacourtia indica*, Indian Ash tree *Lannea coromandelica*, Kumkum tree *Mallotus philippensis*, Dudhi tree *Wrightia arborea* beside shrubs like *Adusa Justicia zeylanica*, Raathal *Securinega virosa*. Shrine is perched on a hillock beside a village road connecting Kheri village to Kangar rural hamlet in Bhalwal block. Nearby pond need planting of medicinal trees like Gamhari *Gmelina arborea*, Padal *Stereospermum chelonoides*, Harad *Terminalia chebula*, Amla *Phyllanthus emblica*, Baheda *Terminalia bellirica*, Kutaj *Holarhena pubescens*, Parijat *Nyctanthes arbor tristis*, Dhak *Butea monosperma*, Sahjan *Moringa oleifera*, Kachnar *Bauhinia variegata*.



Heritage Banyan fig tree, Ficus benghalensis



Preserved sacred fig, Peepal

56. Saharan sacred Grove, Gajansoo:

Few kilometers ahead of Gajansoo township one comes across dense stretch of preserved old tree growth

with predominance of Jamun (*Syzygium cuminii*), Jiyopota (*Putranjiva roxburghii*) & Rumbal (*Ficus racemosa*). Saharan Vansthali with preserved growth of trees namely *Putranjiva roxburghii*, *Syzygium cuminii*, *Diospyros montana*, *Mangifera indica*, *Ficus racemosa*, *Mallotus philippensis*, *Neolamarckia cadamba*, *Brussonetia papyrifera* and shrubbery comprising of *Murraya koenigii*, *Justicia adhatoda*, *Ficus palmata*, *Achyranthes aspera*, *Dioscorea belophylla*, *Anisomeles indica* has revered Nag temple in addition to Devsthan of different clans like Bajpuri, Sodhi & Rajput biradri.

Many birds including *Eudynamus scolopaceus* (Koel), *Oriolus kundoo* (Peelkad), *Drongo macrocercus* (Kali laant), *Pericrocotus ethologus* (Surkholi), *Copsychus saularis* (Guaal piddi), *Ploceus benghalensis* (Bregdu), *Ocyrceros birostris* (Doaa), *Rhipidura albicollis* (Surmyi chidi), *Zosterops palpebrosus* (Chitti akkh), *Spilopelia senegalensis* (Todru ghuggi), *Treron phoenicopterus* (Preu) are usually encountered in the sacred grove.

Most fascinating is serpent deity impression on the Mango tree trunk close to Nag devta mandir where devotees offer prayers to bestow longevity and keep serpents away. Nearby termatarium is worshipped especially on Nagpanchmi day. Two community congregations are held in a year, one in the month of June & other in October coinciding with full moon of Ashad & Kartik months, devotees from far away places of Punjab, Hariyana seek blessings of deities established in the dense sacred Grove popularly called Saharan Vansthali .



Sacred Devsthan at Saharan, Gajansoo near Jammu



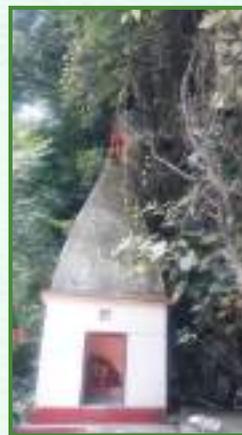
Sacred tree growth inside Devsthan at Saharan, Gajansoo



Sacrosanct Mango tree with Nagdev impression

57. Budda Kedarnath temple tree Grove:

Historic cave temple dedicated to Lord Shiva is popular as Budda Kedarnath, location is beside a rivulet inside dense forest at village Dhanas. Old heritage tree *Ulmus villosa* locally called Maradu is inside riverine tract, old rotten trunk has swept away leaving younger trunk intact. *Alangium chinense* treelet locally named as Mandari is growing in the shrubbery comprising of plants like *Cornus macrophylla* (Aduaa), *Rubus paniculatus* (Ainsloo), *Rhus chinensis* (Titri), *Viburnum mullaha* (Malechaa), *Quercus glauca* (Banji), *Drepanostachyum falcatum* (Narkali, Ringaal), *Pilea scripta*, *Pilea umbrosa*,



Temple inside forest



Himalayan Weeping bamboo

Wikstroemia canescens (Tartaang, Chamlaakh), *Indigofera heterantha* (Katthi), *Leptodermis lanceolata* (Guhaada) etc. Birds seen in the vicinity include Monal Pheasant, Himalayan Whistling thrush, Lineated laughing thrush, Rufous Sibia, Nut cracker, White capped redstart, Plumbeous water redstart. Annual mela is organised on the occasion of Ashadh Purnima.



Lesser known *Viburnum mullaha* twig used as Hukka pipe



Similar looking *Quercus oblongata* and *Q glauca*

58. Heritage *Crateva* tree, Siddh Gouria, Jhanda, Bhupnargarh:

a) Siddh Gouria, Jhanda, Bhupnargarh:

Crateva religiosa (*Crateva adansonii*, Garlic pear tree, Three leaved caper) is revered tree among various ethnic groups in Jammu, locally called Baarna, Dogri name derived from Sanskrit name Varuna God of sea. More than 250 years old Varuna tree is seen preserved with holy flag Jhanda fluttering at the summit in the canopy, tree is located at village Jhanda in Bhupnargarh hill in Samba district and under reverence by devotees of Baba Siddh Gouria devsthan. In addition to vary large *Crateva religiosa* tree (Baarna), old Banyan fig tree (*Ficus benghalensis*), Ber tree (*Ziziphus jujuba*) & Saprtparni tree stand preserved inside the temple complex.



Sacred Varuna tree, Siddh Gouria, Jhanda



Preserved Heritage tree, *Crateva religiosa*



Sacred Bargad tree

b) Baliyal Rajpura, Pargwal:

Located opposite Govt. Girls High School, Baliyal Rajpura, Pargwal, sacred *Crateva religiosa* tree over

the Peerbaba shrine is preserved and is under reverence, tree is reputed medicinal tree, bark, fruit, leaves used in the treatment of urinary & kidney troubles by the Ayurvedic practitioners. Department of posts, Government of India has issued commemorative postal stamp to highlight its cultural, medicinal & religious significance. Varuna tree is larval host plant for the butterfly Great orange tip, *Hebomoia glaucippe*.



Sacred Varuna tree, Peer Baba, Baliyal Rajpura, Pargwal



Varuna tree with rags of faith

c) **Baba Bankhandi, Badori:**

Old Varuna tree stand preserved inside sacred grove at Baba Bankhandi in Badori village.



Preserved Varuna tree



Decorative flowers of Varuna



Inside Van Khandi sacred grove, Badori

59. **Sacred Palash tree at Sunjwaan, Jammu:**

Sacred Flame of the forest tree is associated with Battle of Plassey and therefore named as Battle of Plassey tree. Locally called Palaah, derived from Hindi name Palash is seen at Kuldevi clan deity of ethnic Charak community at village Sunjwaan in Jammu outskirts, area around stand encroached and modified into a concrete area recently. Tree is known for orange red fire flame like blossoms botanically named as *Butea monosperma* (named to honour MP & PM John Stuart 3rd Earl of Bute, genus name erected by Father of Indian Botany Dr William Roxburgh in 1795 but due to name as nomen invalidum was validated later by Carl Ludwig Willdenow in 1802).

Known to Sanskrit scholars as Kinshuka किंशुका, it stands mentioned in vedas especially Yajurved, word Kinshuk means parrot like so another of tree is Parrot tree. In Hindu scriptures, it is used in Agnihotri fire sacrificial rituals since ancient times, its wood used as Samidha to pour ghee in the sacred fire rituals. In Kerala, its name Chhamita is derived from Samidha, Nambudari Brahmins plant tree in their houses to seek blessings of Gods.

Tree with 3 leaflets infact symbolize Trinity, Brahma, Vishnu & Mahesh, leaves used in performing religious rituals. Twig of Butea is supposed to have been used to drive away calves from mothers whose milk was to be used in religious ceremony by Gods. Leaflets being leathery find use in Plate & Dona making, infact cups plates were used for serving meals in Uttar Pradesh before arrival of plastic cups & plates. Presently it is state flower of Uttar Pradesh and Jharkhand.



Sacred Palash tree, Sunjwan



Flower and foliage



Flame of the forest, Sunjwan, Jammu

Wood is soft white useful in wells as it is resistant to insect fungus damage under water, a trait it shares with Jamun. Traditionally roots were source of fibre for rope making in villages of Bihar & UP. Once in abundance in the Do-aab area between Ganga & Yamuna, large tracts were cleared for expanding agriculture during colonial British Era.

Beauty of blossoms was adored by Sanskrit & Hindi poets as well as thinkers like Kalidasa, Rabindra Nath Tagore. Jaidev in Geet Govind has mentioned Dhak Palash flowers as Nails of God of Love Kamdev, flowers are often associated with passionate love. Historical place Plassey where famous Battle of Plassey was fought is supposed to have been named after this tree called Palassi in Bengali language. Its other regional names are Kesudo in Gujarat, Kanker in Chhatisgarh, Modugu in Telugu, Parasu Parasam in Tamil, Dhak & Palash in Hindi, Kesu in Punjabi and Palaah in Dogri. Tree is known by many english names as Flame of the forest, Parrot tree, Bastard teak.

Butea monosperma was named as Butea frondosa by Roxburgh, it was once named as Erythrina monosperma by French Biologist Lamarck and even as Plaso by German Botanist Kuntze. Under the Genus Butea, 3 species are named as Butea monosperma (Tree with orange red blossoms), B parviflora (white flowers) & B superba (Liana with red flowers).

Butea monosperma is known for its resinous gum called Kamarakas or Bengal kino having aphrodisiac applications, flowers are source of dye and Holi gulal, infact Mathura Vrindavan, Shanti nikanan Holi festivity revolves around its blossoms only. Even pods are used for making Abeer. In Theravada Buddhism, tree is considered as tree of enlightenment.

Lac insect *Kerria lacca* uses its foliage as food and thus tree is linked to lac production, source of shellac with many cosmetic & medicinal usages since early days.

Butea monosperma after shedding its leaves in early spring gets decorated with bright red flowers in late spring to put wilderness to blaze so named Flame of the forest. In Telangana on the occasion of Shivratri, Palash flowers under the name Modugu are offered to Lord Shiva. It is said that God of love Kamdeva took climb of this tree to disturb Shiva's meditation, Lord Shiva opened his 3rd eye to put Tree on fire so it is considered sacred to Shiva and offered to seek blessings.

Viscid secretion inside parrot like blossoms has insect feedant qualities, mosquitoes laying eggs fail to develop, larvae gets killed in the secretion. Powdered flowers can be taken as herbal decoction, applied on face for skin glow and removal of face acne blemishes so its use as Holi colour is quite healthy practice with cosmetic health benefits.

Butea monosperma, named as Kinshuka, Dhak, Kesuda, Palash, Tesu in various Indian languages is a sacred tree associated not only with Indian culture, religion, Holi celebrations but has reputed medicinal uses, it serves not only as host plant of lac insect but it is larval host tree for several Indian butterflies.

Tree when laden with blossoms during scorching summer is a treat to eyes, it adds charm to the forest where it grows in wilderness, it needs to be included in city landscape as roadside avenue tree which attracts not only Parakeets, Mynas, Tits, Sunbirds but also Rosy Starlings *Sturnus roseus* which stand named after Tesu flower as Tesuari.

60. Preserved trees of Jhingni at sacred places of worship:

Jhingni is sanskrit name of *Lannea coromandelica* which in Dogri named as Kaimbel or Gadambal, Botanically identified as *Lannea coromandelica* under the Mango family Anacardiaceae.

a) Jhingni tree at Nud, Samba:

Roadside solitary *Lannea coromandelica* tree beside village clan deity kuldevi is seen protected by locals at village Nud on way to Mansar in Samba.

One of the most familiar forest tree known in HP as Salambda, in Hindi as Moi or Mohin & in Sanskrit as Jhingni, it is deciduous tree with alternate pinnate leaves, leaflets ovate acuminate, flowers greenish yellow, fruits oblong.

During autumn, foliage turns golden yellow, stem cuts exudate transparent gum which finds use in calico printing, also used in white wash. Tender leaves cooked as vegetable. Fruits are eaten by birds. Blaze is pink red, heartwood useful as household timber used in oil pressers. It is commonest tree of dry deciduous forests throughout India, rarely this tree is seen under community conservation in shivalik.

b) Jhingni tree at Chowki choura:

Similarly one *Lannea coromandelica* is seen protected at Peerbaba shrine at Chowki chaura in Kalidhar forests of



Sacred *Lannea coromandelica* tree



Autumnal foliage of Jhingni tree

Jammu. Fruits are eaten by many birds like parakeets. Gum is used in calico printing, tender leaves cooked as vegetable in Bihar.

c) Jhingni tree at Rajwalta, Ramkot:

Among several trees protected at Taida, Rajwalta in Ramkot forest range, medium sized tree of Jhingini *Lannea coromandelica* beside water bodies is centre of religious faith & devotion, devotees worship tree, red cloth is rolled on the trunk to exhibit religious connectivity.

Rose ringed Parakeets *Psittacula krameri* are fond of foraging on flowers and fruits of *Lannea coromandelica*.



Jhingni tree under worship, Rajwalta

61. Sacred Apple tree among cedars at Shivgali, Basant garh:

Apple *Malus domestica* is familiar temperate fruit of J&K, Ambri apple variety is unique to Kashmir, old saying - 'One apple a day, keeps doctor away' reflects apple's health promoting nutritional qualities.

a) Shivgali apple tree:

Located at height of over 6000 elevation at Siyogli (Shivgali) in Basantgarh forest range, there is Chamunda goddess temple beside Devdar tree Grove. In the premises in addition to sacred cedars is single Apple tree *Malus domestica*, trunk wrapped by holy cloth band and is preserved out of reverence.



Apple tree under worship, Shivgali



Apple tree surrounded by Cedars

b) Hariman apple orchard Ranjdi, Raya, Samba:

Low chilling sub-tropical HRMN99 variety is recent innovation, variety named after a Progressive farmer Hariman Sharma from village Paniaala in Bilaspur, HP stands introduced in Sahib Bandgi Ashram at Ranjdi, more than 2000 apple trees bear abundant fruit in mid summer May-June when temperature rises up to 42° in Kandi belt of Jammu. Orchard raised in the year 2016 has emerged as Heritage apple orchard for the followers of Sahib Bandgi Ashram. Hariman apple stands planted in various religious places, temples, Gurdawaras, colleges, universities as well.



Hariman apple, HRMN99

62. Preserved Oleander leaf fig at Zamsalan Mahore:

Ficus neriifolia is lesser known Fig tree of Jammu hills, tree is seen growing at Chormotu, Ramkot, Darhal, Rajouri forests, spring foliage is fascinating pink, tender leaves cooked as vegetable by locals, popularly named as Dudhilo, Dodhla, Dudhlo.

One solitary *Ficus neriifolia* is seen protected in Mahore forest Division, tree with multiple stems arising at ground level has interesting story, it came in the alignment of road and was to be removed. Wailing cries were heard by the engineers, a Muslim mother who had lost her son namely Shafi wanted to preserve that tree as she connected fig tree to the childhood memories of her lost son, story changed heart of surveyers and changed the road alignment to save the tree in the rural hamlet Baaggaan Jamsalaan, so it is a kind of tree kept preserved in the memory of departed soul.

Oleander leaved Fig Tree need introduction in Floriculture parks & gardens, fig is suitable even for bonsai making and tender leaves make a delicious cuisine.



Ficus neriifolia tree



Oleander leaf fig tree



Preserved Ficus neriifolia tree at Zamsalan

63. Chilla tree at Daate da Talaah, Birpur, Jammu:

Jammu kandi belt known for scarcity of water during summer months has good network of village ponds with Peepal, bargad, Jamun & Krishan Kadamb trees planted for shade around the embankment.

Alongwith these trees many ponds have preserved even Chilla trees beside waterbodies. Daate da Talaah at Birpur has preserved solitary Chilla tree growing amid concrete stairs, name Chilla is derived from Sanskrit word Chillhak, Botanically identified as *Casearia tomentosa* under the family Flacourtiaceae or Salicaceae as per new systematics. Fruits on maturity get dehisced to expose seeds wrapped in bright red pulp which is sometimes employed as fish poison.



Preserved Casearia Tomentosa

64. Sacred Bael & Jamun trees:

Bael, *Aegle marmelos* is known as wood apple or stone apple due to its hard fruit shell, fruit & leaves offered to Lord Shiva especially on Shivratri day. Likewise Jamun, *Syzygium cumini* is seen planted in various temples inside Jammu city.

a) On way to Oli mata in the centre of macadmized road is holy Peerbaba shrine with preserved old Bael tree now dried up and a green Jamun tree *Syzygium cumini*, shrine is located on a raised platform with iron fencing & a gate. Bael tree *Aegle marmelos* is sacred to Lord Shiva, often seen preserved around holy Shiva temples. Jamun tree is planted around temples & as roadside avenue tree as well, once row of Jamun trees existed along both sides of Talab Tillo road.



Peer Baba shrine, Bamiyal



Dried up Bael & green Jamun tree, Bamiyal

b) Oli Mata temple located at Bamiyal on traditional route to Mata Vaishnodevi has preserved grove of Mangoes, Mulberries, water reservoir and sacred Fig tree for the comfort of devotees.



Oli Mata mandir



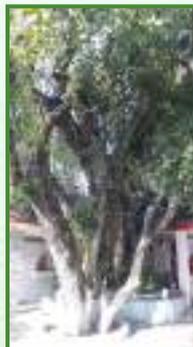
Heritage Peepal tree



Harvested mulberry fruits, Bamiyal

c) Bael, Jamun & Maulsiri trees are seen preserved inside Raghunath ji temple, Panjbakhtar temple, Peerkho garden and historic Gauri Shankar Shiva temple Akhnoor.

**Sacred Bael tree,
Gauri Shankar
Shiv temple, Akhnoor**



**Jamun tree with
nests of Weaver bird,
Jammu**



65. Heritage Horse chest trees at Peerbaba, Mela ground Bani, Kathua:

In the mela ground of Bani, there are three preserved Horse chestnut trees botanically named as *Aesculus indica* associated with religious shrine dedicated to Peer Shah Muraad Lakhdata sahib. Trees are characterized by palmately divided compound leaves borne in opposite fashion look elegant when laden with erect flowering branches. Locally named as Gugg or Guggu or Goon or Bankhodi, trees look majestic during flowering time in mid-summer. No damage to preserved heritage trees is tolerated out of religious sanctity but elsewhere trees are lopped for fodder, wood is used for making utensils, fruits are processed to remove bitter saponins before making porridge by the locals.



Preserved Horse chestnut trees, Bani



Bani Mela in front of Peer Baba



Flowers of Horse chestnut

66. Sacred Grove at Baba Bankhandi, Badori, Bari Brahmna, Jammu:

Located beside road linking Smailpur village to Badori, opposite to old village pond, there is famous Baba Bankhandi Peerbaba shrine with old preserved growth of trees & shrubs. 250 years old Garlic pear tree locally called Barna (Varuna in Sanskrit), botanically named as *Crateva adansonii* var *odora* syn *Crateva religiosa* is preserved inside the shrine. Four five trees of Krishan Kadamb, *Mitragyna parvifolia* locally called Kaim stand preserved nearby but huge *Mitragyna parvifolia* tree is preserved little farther from the Peerbaba where ladies come to take bath during the month of sawan and worship the tree as part of cultural tradition and religious ceremony. In addition to *Crateva religiosa* and *Mitragyna parvifolia* trees, sacred Grove has rich growth of Shisham, *Dalbergia sissoo*, *Jiyopota Putranjiva roxburghii* (Childlife tree, Indian amulet tree, Lucky bean tree) trees beside bushes of *Justicia adhatoda* (Brhainkad-Dogri, Adusa-Hindi), *Murraya koenigii* (Draunkal- Dogri, Meethi neem- Hindi), *Capparis sepiaria* (Rihaar-Dogri, Kanthari-Hindi) & *Gymnosporia royleana* (Pataki-Dogri). Many bird species take refuge in the sacred grove where introduced *Alstonia scholaris* (Indian scholar, Sattpattra-Dogri), *Senna glauca* & *Leucaena leucocephala* trees are also present.



Bankhandi sacred grove, Badori



Reverence inside sacred grove



Sacred tree traditions

Butterflies seen in the vegetation around include lemon Pansy, chocolate Pansy, blue Pansy, lime Butterfly, great orange tip, peacock Pansy & common Jezebel.



Lemon Pansy



Lime Butterfly



Peacock Pansy



Common Jezebel

67. Peer Baba Chatala, Bari Brahmana, Jammu:

Located inside congested Industrial estate, Bari Brahmana in outskirts of Jammu is famous Peerbaba shrine known for preserved one Italian Cypress (Saru), one Mango tree (Amb), one Cuban palm (Roystonea regia), two Devdaru Polyalthia (Ram Ashok) and two Sukhchain Millettia pinnata trees (Karanj). In addition, ornamental Panjtara, Lagerstroemia indica shrub is also growing. Many decorative garden plants stand introduced for positive ambience around the sanctum sanctorum of shrine.

Each year in the month of June, community congregation takes place when devotees are served holy prasad on the occasion and message of brotherhood disseminated far & wide .



Cypress and Mango tree



Sacred tree traditions

68. Heritage Himalayan Cedar tree, Devdar:

a) Deodar tree used for executions:

Cedrus deodara is revered tree, name deodara derived from Sanskrit word Devdaru means tree of God, dev means God, daru means wood, its wood is highly aromatic and prized timber used in temples, mosques and house construction. Several Nag temples dedicated to serpent deity exist under Cedar trees in Doda district.

500 years old Cedrus deodara tree located in Co.10/P Gulabgarh, Padder in Kishtwar district is recorded in history for the fact that tree located on a slope overlooking Chanderbhaga at Gulabgarh was used by then Maharaja Gulab Singh



Devdar tree, Gulabgarh

for executions of criminals and offenders in mid 19th century. Cedar tree has a height over 150 ft and girth about 26 ft.

b) Sacred Deodar tree Latha Devta, Dewal Kotaal, Doda:

Located at a height of over 2337 metres inside forest compartment 33 in the block Kotaal, Thakarai forest range in Doda forest Division there is largest & oldest sacred Cedrus deodara tree having girth over 34 feet at breast height, trunk more than 150 feet tall beside a famous Nag devta temple dedicated to Latha devta & built inside Cedar tree grove, annual religious congregation of devotees takes place on auspicious 3rd day after Raksha bandhan, followers in the religious procession from nearby villages collect aromatic leaves of Shingli Dhoof sangli Skimmia laureola, weave a large leafy garland for the Nag devta. Head priest performs religious ritual around lit fires to please the deity and seek divine blessings on the occasion. Sacred Himalayan cherry tree Prunus cerasoides locally called Pajja and Horse chestnut tree Aesculus indica can be planted in the available vacant space around the sacred shrine to add charm & beauty to the surroundings.



Lath Devta, Dewal Kotaal, Doda



Sacred Himalayan Cedars



Sacred Cedar grove

c) Yassernag sacred Cedars, Keshwan, Doda:

Located near village Ohli at a height of over 6000 ft in Kotal, Thakarai forest range Doda, there is sacred Grove of cedars, blue pines & firs encircling Yassernag Nagdevta temple, devotees from nearby villages namely Hadar, Hidool, Batkoot & Ohli, visit deity to offer regular prayers to seek blessings from the deity revered under conifers.

d) Deyari devta cedars, Khaurgali, Damnot, Udhampur:

Located inside Cedars & pines is revered shrine dedicated to Deyari devta, on the raised platform is displayed sacred stone sculpture, devotees offer their prayers and seek divine blessings in the sacred Grove composed of trees of Cedrus deodara (Deyaar), pinus roxburghii (Cheer) and Quercus oblongata (Banj). Stone sculpture has much similarity to sculpture seen at Sandrani Bhim di Bani, Chadhei.



Deyari devta cedars, Khaurgali



Deyari devta rock sculpture

e) Multistemed Cedar, Bharderwah:

Large sized multistemed deodar tree is growing in forest compartment Co.31/Neeru range, Bhardwaj Forest Division, tree has girth 20'-9" at breast height and is about 180 years old. Tourists get attracted and love to take selfie with this magnificent tree of Devdar.

f) Tatani Cedar Grove & Bimalnag temple:

Located about 37 km from Drabshalla at Tatani village in Kishtwar district, there are several 100-120 feet tall, 120 to 180 years old Cedrus deodara trees having girth 20 to 25 feet, inside sacred cedars is village nag deity named as Bimalnag, centre of religious devotion and serpent god worship by the locals of nearby villages.



Serpent deity, Bimalnag, Kishtwar



Sacred cedar, Bimalnag, Kishtwar

g) Largest Devdar tree at Chanti, Bhalessa:

As per recent field survey undertaken by DFO Bharderwah, massive Cedrus deodara tree aged over 500 years, tree girth measuring 10.5 metres stand documented in compartment 57, Neeli block in Bhalessa forest range in Bhardwaj Forest Division. It is recorded as biggest landmark Cedar of Jammu & Kashmir, Giant Cedar tree of Kanasar measures only 6.35 metres in comparison. Local communities have religious link to this landmark tree, no tree twig is ever lopped or damaged out of religious sanctity attached to this tree. At a distance of about 150 metres there is Devsthan with preserved vegetation around.



Largest Devdar tree, Chanti, Bhalessa

h) Sacred cedars, Nag temple, Karlah:

Near to Patnitop tourist spot, towards Kud there is 700 year old Nag temple nestled in the sacred cedars. Eight trees of Cedrus deodara in front of temple entrance are revered by devotees, holy tridents stand presented to Nag deity as a mark of devotion & divine blessings. Few large Cedars on other side are equally revered by devotees. Near to temple there are 4 large Ash Fraxinus floribunda trees & equal number of small sized ash plants locally known as Sinnu.



Sacred cedars, Nag temple, Karlah

i) Cedar of faith, Baba nagari, Wangat, Kashmir:

Baba nagari Ziyarat in Wangat, Ganderbal has preserved sacred cedar tree where devotees tie threads, rags and bangles to seek divine blessings.



Sacred cedar, Baba nagari, Wangat



Devotees tying threads of faith



Cedrus deodara tree beside Ziyarat

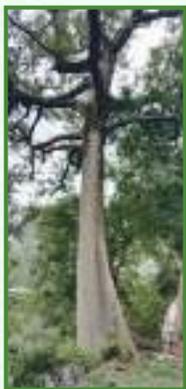
69. Heritage Semal tree, Sunderbani:

Semal tree *Bombax ceiba* was previously named as *Salmalia malabaricum* after its Sanskrit name Shalmali and Malabar region where it grows as prominent tree. Tree is revered by ethnic tribal communities and used during Holika Dahan celebrations especially in Rajasthan & Madhya Pradesh. Urban as well as rural landscape across shivalik provides breathtaking view when leafless Semal trees get laden with red flowers.

a) Sacred Semal at Meenka Mahadev, Beri Pattan, Sunderbani:

One of the largest *Bombax ceiba* tree about 200 yr old tree is growing at Meenka Mahadev temple, Meenka village of Beri Pattan Tehsil district Rajouri in Jammu region.

Trunk circumference at breast height is over 28 feet, height of bole is more than 100 feet. As tree is growing beside religious place of worship, tree is considered sacred, it looks elegant when laden with blood red blossoms, diverse kind of birds visit flowers in the search of nectar, pollen & juicy petals.



Heritage Semal tree



Edible flowers of *Bombax ceiba*



Semal fruits used as vegetable

70. Sacred Bird cherry tree, Kamachnag temple, Watsar, Kishtwar:

Located at a distance of 3 km from national highway at Watsar in Chingam, Kishtwar, magnificent Nag devta shrine named Kamachnag is located under a multistemmed Bird cherry tree, *Prunus cornuta* locally named as Zumm or Zumb in Pahadi Gojri, Hindi name Jamnoi stands derived after Jamun fruit as its small sized fruits contrary to true cherry fruit turn purplish black on maturity and relished by locals. Many fruit

eating birds eat Bird cherry fruits so named Bird cherry in contrast to sour Himalayan cherry *Prunus cerasoides* having scarlet pink fruits.



Kamachnag temple, Watsar, Kishtwar



Preserved Bird cherry tree, *Prunus cornuta*



Bird cherry fruits

71. **Ginkgo biloba trees in Srinagar:**

Ginkgo biloba with 270 million old evolutionary antiquity is National tree of China, it is revered by Buddhists and it is due religious sanctity, tree has survived to present times despite long evolutionary origin on this Earth, tree therefore is levelled as Living fossil tree. Tree is medicinal tree, leaf extract, decoction is recommended as anti-aging herbal remedy. As tree is Gymnosperm, no fruit formation takes place, instead naked seeds with fleshy sarcotesta give a false silvery look of apricots.

a) **Lal Mandi heritage Ginkgo tree:**

More than 200 years old Maiden hair *Ginkgo biloba* tree which existed at Lal Mandi, Srinagar got perished during devastating deluge of September 2014 floods, trunk got toppled down and tree of antiquity vanished.

b) **Emporium garden Ginkgo tree:**

More than 120 years old *Ginkgo biloba* tree is seen growing in the Emporium garden of Floriculture department in Srinagar city, tree is quite healthy with magnificent multistemmed branching from the base, fan shaped broad leaves that turn fabulously brilliant yellow during autumn season to provide a festive look to the onlookers in the season of leaf fall.

Fleshy seeds on ripening emit foul smell resembling butyric acid, so gardeners prefer male trees for planting in the gardens. *Ginkgo* leaf extracts have been used in clinical trials for cognitive and cardiovascular disorders. *Ginkgo* should be used with caution during pregnancy and lactation.



Living fossil tree, *Ginkgo*

c) **Ginkgo in Shalimar & Chashmashahi Botanical garden:**

Over 60 year old tree of *Ginkgo biloba* is seen growing in Shalimar Mughal garden whereas twin trees one male & other female are under cultivation in JNM Botanical garden Srinagar which attract tourists during autumn for their elegant fall foliage.



Golden Ginkgo leaves



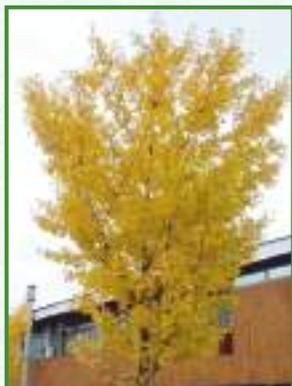
Female *Ginkgo biloba* tree with fleshy seeds

d) Ginkgo trees at Sheikh ul Alam airport, Srinagar:

Two newly planted Ginkgo trees one male other female stand planted at the front lawn of Srinagar airport, still young but once mature they will add to beauty of the autumn for the tourists & travellers.

e) Ginkgo tree at IIIM, Sanat nagar, Srinagar:

Medium sized Ginkgo biloba tree looks golden yellow during autumn season, it attracts attention of visitors, leaves are innovated as herbal tea.



Ginkgo biloba tree



Ginkgo biloba herbal tea



Ginkgo biloba seeds

72. Buaa Kaudi sacred Grove Kathua:

At a distance of 15 km from Kathua in the Chann village there is historic temple dedicated to Buaa Kaudi daughter of revolutionary valiant farmer Bawa Jitto. As area was visited by both while returning from Haridwar and non- availability of water at the location prompted Buaa Kaudi to get divine power invoked for the appearance of water bodies, so bowlies got name after Buaa Kaudi as Buaa di Baain. Devotees visit the temple, take holy bath in the holy water bodies for the blessings.

In the area surrounding temple, there are preserved old trees like Pilkhan Ficus virens, Khajur Phoenix sylvestris, Baheda Terminalia bellirica, Mango Mangifera indica & tree like herbaceous banana Musa paradisiaca.



Preserved Mango trees



Heritage Pilkhan tree



Sacred tree traditions

73. Heritage Sita Ashok tree, Gyankot:

Located near to Ghagga Chadei tourist spot, on the side cliff is located a Gyankot temple where once Guru of Maharaja Pratap Singh meditated. On the way one comes across sacred Sita Ashok tree, Saraca

indica popularly named as Sorowless tree in contrast to Tree of sadness or sorrow *Nyctanthes arbor tristis* (*Parijat* of scriptures, grows wild in shivaliks & seen planted in temples & gardens). *Saraca indica* belongs to Amaltas family but in contrast to Amaltas, Sita ashok bears scarlet to orange red petal-less flowers directly from woody boughs & branches whereas *Cassia fistula* (*Amaltas*) bears golden yellow flowers with 5 free petals hanging in elegant racemes during summer.

Sita Ashok tree seen planted at Gyankot is oldest *Saraca indica* in J&K and is heritage tree associated with worship & religious festivity. Bark, flowers, seeds are medicinal and used in the treatment of various gynecological ailments in Ayurved system of Indian medicine. Sita ashok trees planted in Bagh-Bahu are hardly 60 years of age but tree seen at Gyankot is more than 100 years old with 4 feet girth at breast height.



Sacred Sita Ashok tree



Drooping spring foliage



Petal-less flowers of Sita Ashok

74. Heritage Kanakchampa tree:

Indian tree popularly named as Kanakchampa is mentioned as Karnikara in religious books. In Dogri named as Lalaar Chamba, its binomial name is *Pterospermum acerifolium*. It bears fragrant fleshy flowers with snow white petals surrounded by finger like fleshy sepals having golden brown pubescence so named as Kanakchampa, Kanak means golden brown, champa due to highly fragrant blossoms. Leaves are quite large leathery and used as leafy dinner plates so another name for the tree is Dinner plate tree.

100 years old Kanakchampa tree is seen growing at Peerbaba shrine dedicated to the memory of Hazrat Sain Lal Din sahib at Rakkh Bandhu on Kunjwani Bishnah road near Sahib Bandagi Ashram in Jammu outskirts. In addition to Kanakchampa, one sacred fig tree Peepal and 9 Amrood trees are seen preserved around the main peerbaba shrine.



Heritage Kanakchampa tree



Kanakchampa flowers



Planted Guava trees

75. Preserved sacred Celtis trees in shrines & graveyards:

Hackberry tree, *Celtis australis* locally called Brimij in Kashmir & Kharak or Khidak in Dogri is seen preserved in sufi saint shrines and graveyards.

a) Baba Shungli ziyarat:

Baba Shungli ziyarat near Parihaspora, Baramulla has 3 *Celtis australis* trees and nobody is permitted to damage even a branch.

b) Baba Nagari, Wangat:

Another heritage tree of faith, Brimij Hackberry *Celtis australis* alongwith Bren Indian Elm *Ulmus villosa* & Booni Oriental Plane *Platanus orientalis* is seen preserved at holy shrine of Baba Ghulam ud Din disciple of Sheikh ul Alam Nund Rishi at Brein near Nishat Srinagar Kashmir.



Sacred *Celtis australis* trees



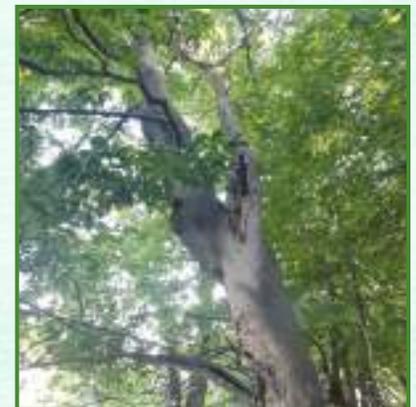
Tortoise-shell Butterfly



Heritage *Celtis australis* tree

c) Kangan, Ganderbal:

Large sized 100 year old *Celtis australis*, Brimij tree is seen protected at Baba Nagri, Wangat, Naranag in Ganderbal district. Girth at breast height is more than 1.5 meters (6 feet). Near to shrine there is sacred Cedar tree which has many threads, cloth pieces & bangles tied to twigs out of sufi faith, devotees visiting shrine also pay their respects to holy cedar Devdar tree.



Celtis australis at Kangan

d) Darhal, Rajouri:

Darhal valley in Rajouri district has famous Peer Baba shrine at Saai Ganji with preserved Elm (Mannu) and Hackberry (Khirak) trees around the shrine. *Celtis australis* trees are lopped for fodder but inside Peer Baba shrines no exploitation for fodder is permitted.



Heritage *Celtis* tree,
Darhal valley, Rajouri

Preservation of several sacred groves and heritage trees outside the demarcated forests reflect harmony with nature & co-existence of ethnic communities for quality ecosystem services in the neighbourhood. Age old traditions of tree & Biodiversity preservation across J&K are best examples of community conservation of trees & tree groves for deriving divine solace in the tranquil preserved surroundings nurturing age old beliefs, strengthening bonds of Man & mother nature and Conserving biodiversity by way of sacred groves around places of worship.

Realizing need to provide support and strengthening the role of community tree conservation, Govt of India has included such areas of Community conservation under Wildlife Protection funding scheme, projects can be submitted for funding to maintain upkeep of sacred places of rich Biodiversity significance.

Under Indian Biodiversity Act 2002, Biodiversity Management Committees at each Gram Panchayat, Block & district level and each Urban local body, Municipality, Municipal corporation has to include data of such sacred trees, tree groves, sacred groves, sacred deities with detail of trees, plants conserved as way of community biodiversity conservation.

During ongoing International Decade of Ecosystem Restoration 2021-2030, community participation in realizing the goals of Biodiversity conservation, sustainable utilization and regulating Access benefit sharing need to be further strengthened. Large scale greening of select 75 religious locations including sacred groves can add to ecosystem resilience for the welfare & prosperity of local communities.

What can be done in future:

1. Detailed list of all Biodiversity components need to be compiled in collaboration of subject matter specialists.
2. Compendium on all sacred groves, heritage trees with Geo-coordinates, Panchayat & villages and cultural linkages be made available online.
3. What kind of management is practised by local communities at present and how to strengthen community conservation in future be spelled out by each Panchayat.
4. During Vanmahotsava celebration, need to undertake Nature education tours for students to appreciate community conservation.
5. Plantating of native medicinal plants & local endemic plants in the available blank spaces.
6. Weeding out of Invasive Alien Species like Lantana camara, Parthenium hysterophorus, Azeratum conyzoides, Xanthium strumarium, X spinosum, Anthemis cotula if growing in vicinity need careful eradication.
7. Nearby water resources like ponds, bowlies, streams, wells need cleanliness drive to remove plastic wrappers, water bottles, wrappers if any.
8. Heritage Tree register with details like species, location, age, height, medicinal uses, edibility & religious link need to be issued by JK Biodiversity council.
9. Sacred groves with detail of ferns, lichens, plants, butterflies, snakes, lizards, birds & mammals need to be included in People's Biodiversity Register.
10. Sacred Grove Atlas need to be generated after thorough survey of all sacred groves & heritage trees conserved by ethnic communities as part of their culture, faith & religion.

WILD FRUITS IN SACRED GROVES

Sacred groves are rich repositories of medicinal, edible, decorative rare, endemic, threatened taxa and stand revered by the ethnic communities across the landscape. Locals are well versed with their local names and traditional uses, though the harvest is sustainable and products are used only at the time of annual congregation.

Wild Fruits of diverse kinds have remained popular among ethnic communities, edible use of lesser known fruits now on wane due to urbanization and commercial cultivation of more familiar fruits like apples, cherries, peaches, guavas, bananas, pomegranates, chikus, melons, watermelons, litchis, mangoes etc. Jammu shivaliks and temperate hills have diverse wild fruits known for their nutraceutical and medicinal value and as per traditional knowledge considered not only delicious but are health tonics.

1. Wild Silver Berry, Oleaster, Wheat berry:

Locally called Ban Kanak or Kankoli in Dogri, wild oleaster identified as *Elaeagnus umbellata* (Seabuckthorn Family *Elaeagnaceae*) seen growing in Poonch Rajouri Katra, Billawar, Dudu, Sudhmahandev, Batote, wheat grain sized and outer look, fruits are rich in antioxidants and minerals and eaten during monsoon season. IIIM Jammu has initiated research for further improvement in its qualities to market it in near future. *Elaeagnus hortensis* grows in Ladakh alongwith *Lehberry Hippophae rhamnoides* and both are well known wild fruits of great medicinal value.



Elaeagnus umbellata fruits

2. Wild Pear:

Locally called Kainth or Batangi, *Pyrus pashia* (*Rosaceae*) is wild fruit fondly eaten by wildlife and also by natives. Ripened fruits are dark in complexion and pulp is gritty but nutritious. Fruits ripen during October November and are a feast to langurs and macaques in the hills.

Kainth trees look quite decorative when they bloom in spring, many birds and bees visit its flowers. Wood is exploited for making agricultural implements. Tree stock is used for grafting superior quality pear varieties.



Pyrus pashia fruits

3. Yellow and Black Raspberry:

Aakhre or Aakhe as they are called in Dogri or Peela Hinsalu or Gauri Phal in Hindi identified as *Rubus ellipticus* (*Rosaceae*) is a wild fruit of great prominence during April may, looking like strawberry, fruit is basically an etario of achenes. Local legend associated with the wild fruit has given name to a bird Short winged Himalayan Cuckoo *Cuculus micropterus* as Piyoke bhejo means send to mom's house, tale tells that a girl fond of eating yellow raspberries yearned to eat but could not find time after marriage in punjab plains where it does not grow. After death, poor woman in the disguise of cuckoo sings sad notes which sound as- Aakhe paake mei neyi chakhe, Piyoke



Rubus ellipticus fruits

bhejo Piyoke bhejo. Rich folklore reflects Yellow raspberry's age old usage as delectable seasonal fruit and still offered to visitors, pilgrims by natives at places like Kali dhar, Sunderbani, Sudhmahandev, Mansar, Kalounta, Maungri Basnot etc. Value addition has not been reported so far but it has a rich potential for developing it as a health drink. Black Raspberry *Rubus fruticosus* or *R. niveus* growing in temperate mountains of J&K also yields edible fruits of good taste and can be added to ice creams during marriage parties and get-togethers.



Rubus niveus fruits

4. Wild Grape:

Vitis repanda, *Vitis adnata*, *Vitis lanata* locally called Naahbrey or Nirbhain is wild grape climber seen growing in Jammu hills, fruits bit acidic are sought after by cowboys and with modern horticultural improvement techniques, fruit can be further improved and popularised among ecotourists and pilgrims visiting Shri Mata Devi Shrine or Sudh Mahandev temple.



Vitis lanata foliage

5. Wild Mock Buckthorn:

Locally called Kanhainu, fruits of a woody Liana *Sageretia theezans* or *filiformis* (Family Rhamnaceae) are in traditional use at places like Billawar Ramnagar Katra, Rajouri. Liana is seen conserved and preserved in sacred groves at places like Baba Bheem di Bani Chadayi near Tikri.

6. Wild Debregeasia:

Yellowish brown fruit of *Debregeasia salicifolia* syn *D. hypoleuca* (Nettle Family Urticaceae) locally called Sansaaru is a fibre yielding mountain shrub with lesser known edibility. Stem extract has exhibited anticancer activity in ongoing scientific research, may be juice can be prepared and popularised at hill stations like Dera ki Gali and Patnitop under ecotourism.

7. Wild Mulberry:

Locally called Karoon or Kurman, *Morus serrata* growing wild in temperate places like Bani, Dudu, Lati Dhoona, Pancheri has very delectable fruit having unique flavour and taste.



Morus serrata fruits

8. Wild Hawthorn or Thorn apple:

Crataegus songarica syn *C. oxycantha* (Rosaceae) is a rosaceous tree with lobed leaves on spiny twigs and orange red edible fruits of great therapeutic value recommended to heart patients. Locally fruits named as Paindak in Dogri and Kishtwari and Ringa in Kashmiri Gojri, fruits are rich in tannins and flavonoids with ripe apple like flavour, pome fruits are fondly eaten by birds and wildlife. Fruits can be used for preparation of jams, jellies and wines.



Crataegus songarica

9. Korean cherry:

Prunus tomentosa locally called Vishkand in Kashmiri and seen growing wild in Dachigam National Park and Seer forests of Kashmir is another lesser known wild fruit which looks like red cherry and fondly eaten by natives and wildlife like civets, Pine Martens, Langurs and Monkeys. Fruit grows in Korea as well and is reputed for its healing properties. Indian Institute of Integrative Medicine or University of Kashmir or Central Institute of Temperate Horticulture Rangreth Kashmir has included it under fruit improvement programme and has a promising potential to develop it as refreshing beverage for tourists of the valley.



Prunus tomentosa fruits

10. Blue and Red barberry:

Blue Barberry *Berberis lycium* locally called as Kaimblu or Simblu is reputed medicinal spiny shrub known for unique wound healing and hepatoprotective alkaloids in yellow roots, drug known by the name rasaunt. Blue fruits with a white waxy bloom mature during monsoon months and have been in edible use among mountain people since ages. Likewise Red Barberry *Berberis pachycantha* with blood red or bright pink fruits seen growing in Gulmarg and Gurez is another wild fruit fondly eaten by shepherds and nomadic graziers.



Berberis lycium fruits

11. May apple:

Podophyllum hexandrum is known for anticancerous phytochemicals but its pink red fruit called Denmokushu in Ladakhi, Van Wangun in Kashmiri and Ban Kakdi in Dogri is sweet and delicious to eat. Apart from humans, May apples are fondly eaten by Black bears, Markhor, Lanurs and monkeys.



Podophyllum hexandrum fruit

12. Sheep berry:

Viburnum grandiflorum locally called Kulmansh in Kashmiri, Teond in Bhaderwahi, Teldi in Dogri, Guchh in Gojri and Telam or Timoi in Pahadi is another familiar wild fruit eaten fondly by natives and wild animals like Black bears. Flowers are quite fragrant and honey bees find its flowers as great source of pollen and nectar for honey so Kashmiri name Kulmansh means bush with honey. Another lesser known wild fruit is *Viburnum mullaha* locally called Sallaalan in Bani and Malecha in Chenani. Plants grow in places like Bani Bhaderwah, Dudu Basantgarh, Pancheri, Rajouri. Fruits are scarlet red and delicious to eat. Wild birds are fondly attracted due to its bright pink red fruits, less so towards fruits of *Viburnum grandiflorum* in contrast.



Viburnum grandiflorum fruits

13. Balsam fruits & seeds:

Impatiens glandulifera or *Impatiens thomsonii* with beaked pink red blooms and translucent stems locally called Teera or Trul have turgid capsules which break open and explode with a slight touch and therefore called Touch me not. While on a pilgrimage to Machail temple in Paddar area of Kishtwar, I noticed ponywalas plucking Balsam fruits for quite nutritive small seeds to get instant energy and get rid of fatigue while traversing mountain paths. Plants are also used as Heena or Mahendi by rural womenfolk.

14. Governor's Plum:

Subtropical Kandi belt of Jammu is known for heavily armed *Flacourtia indica* named after Governor of Madagascar Flacourt as Governor's Plum locally named as Kakoha in Dogri and Vikankat in Sanskrit. Its wood employed as wild tea substitute in places like Sangaldan, Katra Tikri, Billawar Ramnagar, Samba Heeranagar, Akhnoor Sunderbani. Yellowish red fruits under the name Kakohey once sold in old Jammu city and suburban area during summers are being forgotten and use is on the decline. More delicious Lovilovi fruit can be grafted on wild Kakoha trees or seedless varieties of wild Kakoha developed under National Horticultural Mission to popularise it among Mata Vaishno Devi pilgrims.



Flacourtia indica



Fruit harvest



Fruit sauce

15. Box Myrtle Fruit:

Myrica esculenta syn *Myrica nagi* locally called Kapphal or Kupphal is another lesser known wild tree with edible stony fruits usually seen on sale in many Himalayan hill stations like Dalhousiae, Shimla, Nainital. In Jammu Kaphal tree is seen in wild at few locations like Kardoh nala on way to Bani in Billawar forests, Sangar forest Reasi, Chor Motu in Ramkot and Samnabanj in Ramnagar forests.

Myrica esculenta tree growing at Chor Motu, Ramkot forest range



Myrica esculenta fruits



16. Punjab Fig and Eve's Fig:

Wild Punjab Fig, *Ficus palmata* locally called Phakada or Phagoda is delicious and nutritively rich wild fruit like edible fig of commerce. Allied Eve's Fig *Ficus auriculata* called Trimbal or Timal is large sized wild fig with more attractive bright pink fruits which are fondly collected by natives and eaten as such or made into jams and jellies. Unripe figs are cooked as vegetable as well.



Ficus palmata figs



Ficus auriculata figs

17. Mussorie berry:

Mussorie berry named after hill station Mussorie locally called Massuriya is *Coriaria nepalensis* locally called Sarol in Dogri, it is nitrogen fixing shrub with opposite phyllotaxy and 4 angled twigs seen growing in forests of Bhaderwah, Billawar, Ramnagar, Sunderbani, Badgam, Shopian and Basohli. Fruits are not so delicious but are eaten by hill people, if taken in excess, fruits leads to stomach upsets as per inputs of villagers.



Coriaria nepalensis



Mussorie berry fruits

18. Conker berry:

Conker berry locally named as Garna once sold in old Jammu suburbs is wild edible cum medicinal fruit of *Carissa opaca*, a spiny shrub with white fragrant blooms and ripe pink purple fruits fondly eaten by natives. Fruit called Jungli Karaunda in Hindi is allied to cultivated Karaunda *Carissa congesta* or *Carissa carandus* with comparatively larger fruits fit for pickle making. Garna juice has not been attempted but IIIM Jammu with required technological expertise can initiate a project of Conker berry quite common in Shivaliks especially Kandi belt of Jammu.



Carissa opaca fruits

19. Phalsa fruit:

Grewia trees are well known for yielding winter fodder, strong bast fibre and edible fruits. Locally called Dhamman, *Grewia optiva* is an important agroforestry tree with low quality Phalsa like edible fruits eaten by villagers. In contrast wild Phalsa locally called Phroh, Phreyi is *Grewia sapida* which is fire resistant and seen growing in Pine forests of Jammu. Most familiar Phalsa is *Grewia asiatica* which is under cultivation and IIIM Jammu in collaboration with Paryavaran Sanstha headed by Maj Gen G S Jamwal and SMVDU has innovated tetrapacks of Phalsa juice for pilgrims to Vaishno devi cave. Grafting of superior quality Phalsa on wild Grewias need to be attempted so that wild Grewias can also be improved for higher edibility.



Grewia asiatica

20. Wild Jujube, Ber:

Zizyphus with wild as well as cultivated species is a well known Badri or Ber fruit having medicinal importance. *Zizyphus nummularia*, *Z. sativa*, *Z. jujuba* bear edible fruits and wild animals like monkeys, langurs subsist on this as food source. Decline in wild fig and wild ber trees has made monkeys to roam outside forests towards cities and towns causing man animal conflict in places like Akhnoor, Samba, Kathua, Reasi.



Wild Jujube fruits

21. Wild Creeping Cucumber:

Solena heterophylla or *Solena amplexicaulis* locally called as Ban Kakdu is a wild climber with edible cucumber like fruits seen growing during monsoon time at hill stations like Kud, Batote, Sudh Mahandev, Mansar, Katra, Shivkhodi, Patnitop, Sukrala, Shahdra Shrief, Dera ki Gali and Bhaderwah.



Solena amplexicaulis fruits

22. Wild rose hips:

J&K has richer diversity of wild roses, apart from fragrant Musk Rose *Rosa brunonii* locally called Kareer, elegant *Rosa webbiana* seen plenty in Ladakh Kargil and Kishtwar Kashmir wilderness is a rose with quite medicinal hips used in stomach troubles and also serve as food for wildlife.



Rosa webbiana

23. Wild Pomegranate:

Wild Pomegranate *Punica granatum* locally called Dadunni or Darunni is familiar with Jammuities as source of Anardana or Dadu used in spicy chutney at places like Peeda Batote, Ramgarh Baggar, Kud, Chenaini, Ramnagar, Billawar and Rajouri. Wild Pomegranate seeds are antibacterial and juice is administered to patients.



Punica granatum

24. Date Plum & Persimmon:

Date plum called Amlook is *Diospyros lotus*, trees seen under cultivation in Chenab valley, dried fruits offered as Prashad at Shri Mata Vaishno Devi temple and are eaten by natives. It is allied to more delicious and quite familiar Perssimmon *Diospyros kaki* seen growing in Kashmir.

Diospyros kaki flowers



Diospyros kaki fruits



25. Wild Date fruit:

Wild Date *Phoenix sylvestris* locally called as Khajoor bears edible trunk pith as well as edible fruits called Khajoorey in Dogri. Trees are seen growing in hotter places like Ramkot, Billawar, Dheeyadi Ramnagar, Udhampur and Sunderbani. Wild dates are quite juicy and full of micronutrients and vitamins like Shuharas of commerce which are fruits of *Phoenix dactylifera*.

Phoenix sylvestris fruits



Wild date palm harvest



26. Hackberry:

Locally called as Khidak in Dogri and Brimij in Kashmiri, Hackberry is identified Botanically as *Celtis australis* and is familiar fodder tree in the hills. Hackberry fruits when ripe are eaten by humans as well as wildlife and birds.

27. Wild Hazelnut:

Wild fruit locally familiar as Thangi or Urmuni in Chenab valley or Virin or Shahthor in Kashmir Gurez valley is a dry fruit of commerce traded in local markets. Hazelnut trees *Corylus jacquemontii* is found growing wild in temperate forests at places like Doda, Kishtwar, Pogal Paristan, Aru Pahalgam, Poonch, Shopian and Gurez. Forest department need to include wild fruit trees like Hazelnuts in its plantation programmes under CAMPA.



Corylus jacquemontii kernels

28. Chilgoza Seed:

Neoza or Neza is a dry seed of high altitude endemic pine tree *Pinus gerardiana* seen in Padder Machail forests of Kishtwar Forest Division. Chilgoza pine multiplication and plantation if attempted on a large scale can generate livelihoods for local communities.



Pinus gerardiana nuts

29. Wild Plum:

Prunus cerasifera locally called Gardalu seen growing wild in places like Dachigam National Park Kashmir is fondly sought by wild animals as food. Fruit is edible for humans too.



Prunus cerasifera fruits

30. Horse chestnut fruits:

Aesculus indica locally called Guggu or Goon in Dogri and Handun in Kashmiri is wild walnut of Hangul so named Handun as Dun in Kashmiri means walnut. Fruits during earlier famine days have been collected, grinded and processed to get flour for rotis. Fruit is quite medicinal and used to cure stomach upsets in cattle and horses.



Aesculus indica fruits

31. Wild strawberry:

Apart from cultivated strawberry *Fragaria vesca*, hill forests of J&K support growth of wild strawberries *Fragaria nubicola*, roots used as wild tea substitute and fruits are eaten by natives with promising potential to boost wild strawberry fruit production under ecotourism projects.



Wild strawberry

32. Wild apricot:

Wild apricots have quite diverse germplasm and Kargil Ladakh is famous for wild apricots. Chenab valley with good climate and soils for apricot cultivation can be developed as apricot centre with processing food units at Kud, Batote, Ramban or Banihal. Apricot oil processing and proper value addition to apricot products can be a promising venture for local unemployed youth at ecotourist destinations like Shahdra Shrief in Rajouri.



Apricot harvest

33. Himalayan Birdcherry:

Rosaceous wild tree *Prunus cornuta* locally called Bharth in Gojri and Jambu, Zumb or Jamnoi in Pahadi with white flowers is found in mountains, its fruits are eaten by natives in places like Naranag, Langate, Gulmarg, Pahalgam, Bharderwah, Bani, Sannasar and Kishtwar.



Prunus cornuta

34. Himalayan Yew:

Dioecious conifer with traditional usage of bark as Barmi cha in J&K since centuries, is now known for anticancerous drug Paclitaxel obtained from foliage and bark. Scarlet red fleshy aril of seeds is safe to consume and is eaten by humans and birdlife. Trees dwindling in wild are being put to vegetative multiplication but large scale *Taxus wallichiana* plantations are still awaited in our state.



Taxus wallichiana

35. Himalayan sour cherry:

Himalayan sour cherry tree locally named Pajja, Battaran or Payiaan is known for its sacred aromatic wood used in religious rituals, trunk with horizontally ringed bark and autumn flowering makes it a prominent tree with usefulness in bee keeping. Bird cherry trees seen growing in places like Darhal Rajouri, Lohai Malhar Bani and Pounta Latti, Sangar Reasi is known as Ban Rawadi in Pahadi, Pajja in Dogri & Payiaan in Garhwali. Tree bears edible fruits and seeds are made into rosaries in the hills.



Prunus cerasoides flowers



Prunus cerasoides fruits

Wild fruit diversity encountered in wilderness supports wildlife, wild fruits apart from wild fruit relatives of fruits under cultivation have remained important source of food and medicine for humans. Wild fruits are proven storehouse of diverse tannins, flavonoids, minerals and vitamins have promising potential to have innovations and popularise wild fruits as health drinks, herbal juices, energy boosting beverages and herbal teas.

Traditional knowledge accumulated by earlier ethnic communities need to be improved upon and added more value with modern scientific agrotechniques and innovative biotechnology to generate small scale wild fruit processing units at select tourist places frequently visited by visitors, pilgrims, eco-trekkers and eco-tourists.



Livelihood generation Contributions of J&K Social Forestry



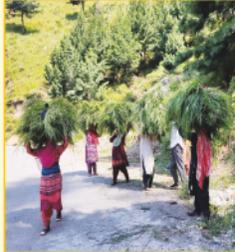
सत्यमेव जयते

Assets Created



Village Wood Lots
(Assets in
Gram Panchayats)
(4120 Units)
Strips
(Road Side Planations)
(850 Strips)
RDF Units
(Fringe Forests)
(2550 Units)

Interim Benefits (Grasses)



50000 Qtls
Grass & leaf
fodder
shared
with locals
through
VPPCs
annually
free of cost

Interim Benefits (Fodder)



20000 Qtls
Fuelwood
shared
with locals
through
VPPCs
annually
free of cost

Raw Material for Wood Based Industries



About 3.00 lakhs cft
Timber
provided
annually to
Wood Based Industries
(**Poplar, Euclyptus,**
Bamboo
and Other species)

Major Harvest



Rs. 200 lakh
given to
VPPCs as
75% Share
of major
harvest of
plantations

Mandays Generation



About 6.00 lakhs
Mandays
generated
annually from
plantation
and
allied works



Livelihood Generation through Social Forestry Key Initiatives (2022-23)



सत्यमेव जयते

Fodder Banks in Gram Panchayats

Plantation of
10 lakh
Local Fodder Trees

Plantation of
3 lakh
Browsing Plant Species
(Sheep & Goat Fodder)

Plantation of
10 lakh
Low-cost greening
(Grasses/Shrubs)

Raw Material for Wood Based Industries

Plantation of
16 lakh plants
8 lakh distribution
to farmers under
Farm Forestry

NTFP Production through VPPCs

Plantation of
3 Lakh
NTFP plants

Key Species

- Dhaman
- Bahunia
- Khirk (Celtis)
- Robinea
- Ulmus
- Morus
- Siris
- Bahera
- Others

Key Species

- Ber (Syzygium)
- Phalai / Kiker
- Khair (Acacia Katechu)
- Berberis
- Moringa (Suhajna)
- Flacaurtia
- Others

Key Species

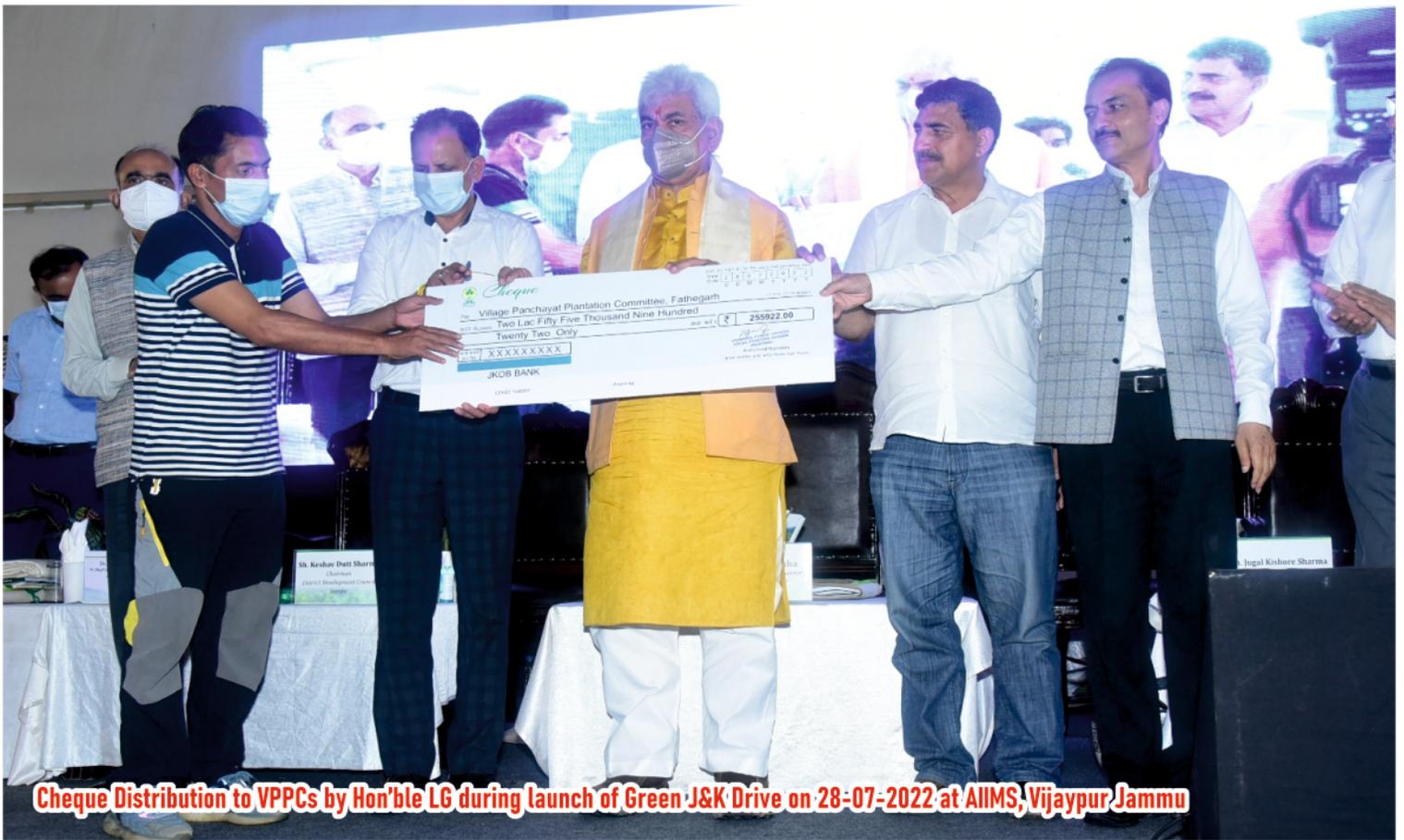
- Leucaena
- Cowpea
- Clovers (Trifolium)
- Sainfoin (Temprete)
- Phalaris
- Others

Key Species

- Poplar
- Eucalyptus
- Bamboo
- Willow
- Mulberry
- Others

Key Species

- Lavender
- Dioscorea
- Nagchattri
- Kutki (Picrorhiza)
- Banafsha
- Ashwagandha
- Lemongrass
- Podophyllum
- Aconitum
- Others



Cheque Distribution to VPPCs by Hon'ble LG during launch of Green J&K Drive on 28-07-2022 at AIIMS, Vijaypur Jammu



Preserved trees of Peepal, Bargad, Kadamb & Mango at Mera Mandriyan pond



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