7.1.5 Green Campus Initiative

7.1.5 The institutional initiatives for a green campus are as follows:

Automobile Entry restricted	Use of Bicycles/ EV's	Pedestrian Friendly pathways	Plastic banned	Landscaping with Flora
Yes	Yes	Yes	Yes	Yes

As a measure of green campus initiative, ILS Law College has constructed vehicle parking space near the entry gate. The College has strongly objected to constructing a road from Balbharti to Paud Phata, which cuts across the hill complex surrounding the College. Due to the earnest efforts of the College, the Bombay High Court stayed the construction. The abundant flora at the campus is an evidence of its healthy air quality. The Survey of **Agharkar Institute** and **Ecological Society of India** showed a wide variety of flora and fauna including various medicinal plants in the campus. The College engages its staff and students to work towards solving environmental issues. Various seminars, conferences, MUN are organised to give better insights to the student and staff in furtherance of the green campus initiative of the College. No parking fees are collected for parking bicycles as a complimentary measure to ensure a green campus. The College is easily accessible through public transport owing to its central location.
The College campus is accessible to all walkers and joggers of the city.

Pur 11/2/23

TAX INVOICE

Anand Nursery
15, Om Namah Shivay Apartment,
Modi Ganapati, Narayan Peth,
Pune 411030
Contact Number: 7020151163, Email: anandnursery0333@gmail.com
GSTIN:27DPJPR7537J1Z4

Invoice No: AN/22-23/016
Reference: -

Date: 02 February 2023

Bill To: Indian Law Society ILS College
Sarawati Building, ILS Law College Campus,
Chiplunkar Road, Pune 411004

Place of Supply: Maharashtra

GSTIN No : 27AAATI1014L2ZV

Sr No	Particulars	HSN/ SAC	Number of Days	Number of Labour	Rate	Amount (Rs)
	Landscape Care And Maintenance Services	998597				
	Men		18	1	450	8100
	Men		25	1	450	11250
	Men		14	1	450	6300
	Men				450	0
	Women		28	1	350	9800
	Women		28	1	350	9800
	Women		24	1	350	8400
	Women					0
	Commission @15% for Landscape Care And M	998597				8047
	Total					61697
	Less: Discount					0
	Taxable Value					61697
					CGST 9%	5,552.73
					SGST 9%	5,552.73
					IGST 0%	-
					Round off -	0.10
					Total	**72,802.56**

ENTERED
JV/Purchase Voucher No. 411
Payment:.Cash / Bank

Amount in Words: Seventy two thousand eight hundred two Rupees Only

On Account of:
Labour Charges for the month of January 2023

Money Transfer Details
Bank Name: Bank of India
Account Number: 076520110000550
Branch Name & Code: Georai ,000765
IFSC Code: BKID0000765

Receiver Sign

Signature
Anand Nursery &
Horticultural Consultancy Services
Prop.Ajay Rathod Mob.7020151163

Pur 2013123
18.3.23

Tax Invoice

SWaCH PLUS Seva Sahakari Sanstha Maryadit Flat No 1, Building No.1, Jagdishnagar, Behind Kasturba Vasahat, Ganesh- Khind Road, Aundh, Pune, 411007. GSTIN/UIN: 27AAIAS6737P1ZL State Name : Maharashtra, Code : 27 E-Mail : swachplus@gmail.com	Invoice No. **P14C/22-23/287** Dated **1-Mar-2023** Supplier's Ref. Other Reference(s) Buyer's Order No. Dated

Buyer
3592 Indian Law Society
Sarawati Building
Law College
Campus,
Chiplunkar Road Erandwane Pune-411004
GSTIN/UIN : 27AAATI1014L2ZV
PAN/IT No : AAATI1014L
State Name : Maharashtra, Code : 27
Contact person : Priyanka Kusmude Ganesh More
Contact : Cord Name:- Monal Tupe, 9922112445, 9890698929,02025454780
Fax : Cord No:- 9168658357
E-Mail : ilslaw@ilslaw.in

Sl No.	Particulars	HSN/SAC	GST Rate	Rate	per	Amount
1	**Reimbursement Charges - Waste Collection**					**1,500.00**
2	**Administration Charges**	999799	18 %			**150.00**
3	**Output CGST 9%**			9	%	**13.50**
4	**Output SGST 9%**			9	%	**13.50**
	Total					**1,677.00**

ENTERED
JV/Purchase Voucher No. ISD
Payment:.Cash / Bank

Amount Chargeable (in words) E. & O.E
INR One Thousand Six Hundred Seventy Seven Only

HSN/SAC	Taxable Value	Central Tax		State Tax		Total Tax Amount
		Rate	Amount	Rate	Amount	
999799	150.00	9%	13.50	9%	13.50	27.00
Total	**150.00**		**13.50**		**13.50**	**27.00**

Tax Amount (in words) : **INR Twenty Seven Only**

Remarks:
Being bill made for the month of February-2023.
Company's PAN : **AAIAS6737P**

Declaration
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

Company's Bank Details
Bank Name: **State Bank of India C. A/c No 37042351322**
A/c No. : **37042351322**
Branch & IFS Code: **Kothrud & SBIN0030456**

Customer's Seal and Signature

for SWaCH PLUS Seva Sahakari Sanstha Maryadit

Prepared by Verified by Authorised Signatory

SUBJECT TO PUNE JURISDICTION

SWACH PLUS SEVA SAHAKARI SANSTHA MARYADIT Reg. No PNA/DDR(O)/139 YEAR 2012-13 Dt. 18/10/2012

18/3/23

SURVEY OF FLOWERING PLANT DIVERSITY OF ILS LAW COLLEGE HILL AND CAMPUS

By

Dr. Mandar N. Datar

Dr. Ritesh Kumar Choudhary

Agharkar Research Institute

GG Agarkar Road, Pune 04

SURVEY OF FLOWERING PLANT DIVERSITY OF ILS LAW COLLEGE HILL AND CAMPUS

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Biodiversity and Paleobiology

Agharkar Research Institute,

GG Agarkar Road, Pune 04

July 2017

SURVEY OF FLOWERING PLANT DIVERSITY OF ILS LAW COLLEGE HILL AND CAMPUS

INTRODUCTION

Pune is located at 560 m above sea level on the western margin of the Deccan plateau. On the western side of the city, lies the mountain chain of Western Ghats, one of the global 35 biodiversity hot spots. Sinhagad- Katraj- Dive Ghat- Bhuleshwar hill range is western spur of Western Ghats, towards the north of which Pune city is located. There are many hills and hillocks in and around the city. Vetal hill, which is named after a temple of *Vetal* located at the top, includes Chattushringi hill and Fergusson college hill. The highest point within the city limits lies on Vetal hill with an elevation of 790 meter.

Pune has a semi- arid climate with average temperatures ranging between 19 to 33 °C. It has marked three seasons namely summer, winter and rains. The rains are mostly concentrated during June to October. The rest of the year is a dry period with few pre monsoon showers in April and May. The climate of the city is conducive for growth of dry deciduous type. Since the area is located on transition zone between semi evergreen-evergreen forests of Western Ghats and thorny scrub forests of Deccan plateau, the region shows mix of evergreen and thorny species in addition to its original dry deciduous elements. The law college hill which is a part of Vetal hill complex also shelters typical dry deciduous forests, with a few mixed elements. The law college hill and campus was surveyed on request of authorities of Law College with major objective to document present floristic diversity of the area including native and non-native diversity growing in all life forms.

LOCATION

Law college campus is located at the base Vetal Hill. The hill under jurisdiction of ILS law collage (refereed hereafter as Law college hill) and campus together are placed in between 18.514475 and 18.523255 north latitude and 73.817932 and 73.829380 East longitude. A good vegetation patch is located between the hill and the campus which has mainly introduced and planted species with some indigenous elements. The reforestation of Law College was systematically planned and executed under the leadership of JR Gharpure, then Principal, ILS Law college and botanist Haribhau Paranjape six to seven decades back. The plantation program underwent for almost 8 years. The plantation, which was protected from grazing and trace passers, has flourished well in subsequent years. In the present condition, the vegetation is thriving well. Under the program of greening of law college campus, many species of indigenous and exotic trees were introduced.

EARLIER SURVEY BY ARI

Agharkar Research Institute undertook the work on study of vegetation of Law college hill and campus in the year 2000 at the instance of ILS Law college authorities. The report gives list of 399 species belonging to 290 genera and 80 families. That report was based on observations done in February 2000. However, the report also includes species growing in all seasons based on published literature like Joshi et al. (1992) and Joshi & Kumbhojkar (1997).

METHODS FOR THE PRESENT WORK

The present survey was conducted in July 2017. For the sake of convenience, the total area was broadly divided into four zones viz. Eastern slope, western slope, Hill top and base of the hill. The details of each zone are as follows

- **Base of the hill** (referred as **BS** in appendix 1): There is good patch of vegetation located between the hill and law college campus. The northern boundary for this forest patch is Bhandarkar Institute campus and southern boundary is Kanchan lane.
- **Eastern slope (ES)**: Eastern slope has typical dry deciduous vegetation which is characteristic of vegetation of hills around Pune city. Small open patches shelter good monsoon ephemerals and other annual plants.
- **Hill top (HT)**: Hill top has many indigenous deciduous tall growing trees. There are two to three major open areas which shelter growth of grasses and other herbs.
- **Western slope (WS)**: This slope is slightly disturbed as compared to eastern slopes. It is located between ARAI approach road and MIT college campus.

During the survey in each of these zones, efforts were made to cover maximum possible area. A checklist of plants was recorded in field based on observation of plants. Plants were identified in the field following Cooke (1903–1908), Lakshminarasimhan (1996), Singh & Karthikeyan (2000), Singh et al. (2001). Unidentified specimens were collected for identification and were confirmed in the lab by comparison with authentic specimens deposited in Agharkar Research Institute herbarium (AHMA). Comprehensive lists of plants were prepared based on these surveys, which are provided in Appendix 1 (list of plants from the hill) and Appendix 2 (list of plants from the campus). The plant names are as per The plant list (www.theplantlist.org, 2014).

DISCUSSION

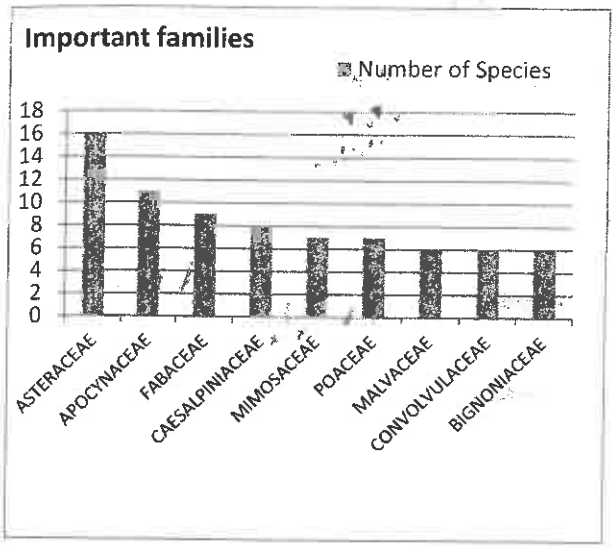
A. Vegetation

The major vegetation on ILS law college hill is dry deciduous type with dominance of *Boswellia serrata, Lannea coromandelica* and *Cochlospermum religiosum,* which are peculiarity of forests in Pune and surroundings. Tree species like *Gliricidia sepium* and *Eucalyptus globulus*

are introduced by forest department for the purpose of greening of hills. Species like *Dalbergia melanoxylon* which were introduced by British people in Pune university campus which was the governor bungalow that time, has ran as escape and now surviving well on law college hill.

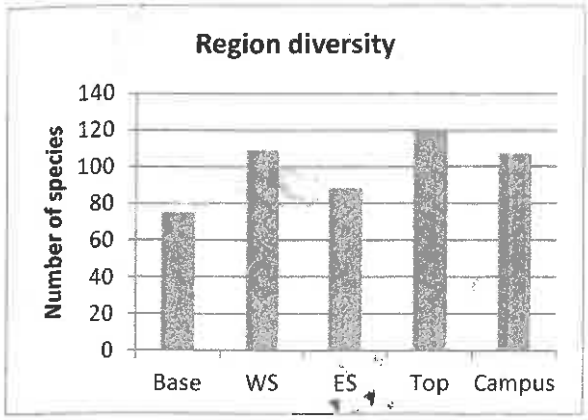
B. Floristic analysis

Since the present survey was conducted in early monsoon, **only trees, shrubs and some early flowering herbs were only documented**. The late monsoon flowering species including grasses and sedges are missing from the list.

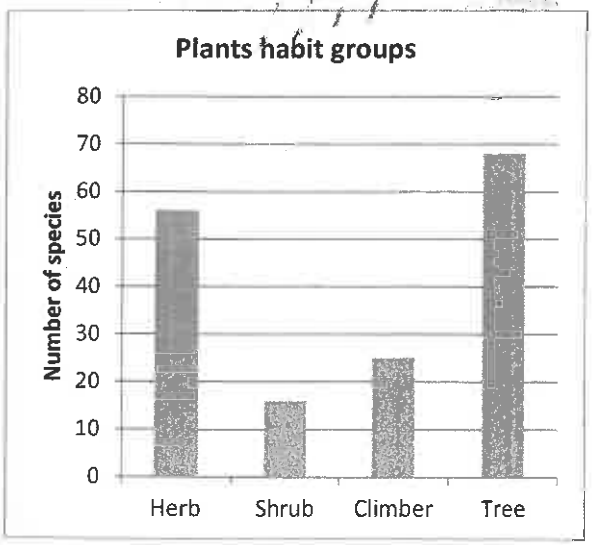


Graph 1: Dominant plant families in ILS Law college hill

The present survey documents 165 species of flowering plants. Asteraceae is dominant family followed by Apocyanceae and Fabaceae (Graph 1). Since the plants were documented in early monsoon, the trees dominate the list followed by herbs, climbers and shrubs (Graph 3). Tree blooming is characteristic of summer hence many trees recorded durcing the surveys were based on vegetative identification. However late blooming species like *Dolichandrone falcate* (Medshingi) was in bloom and monsoon blooming *Tectona grandis* was also seen in flowering condition. All the herbs documented during the survey were wither early blooming annual herbs or monsoon ephemerals.



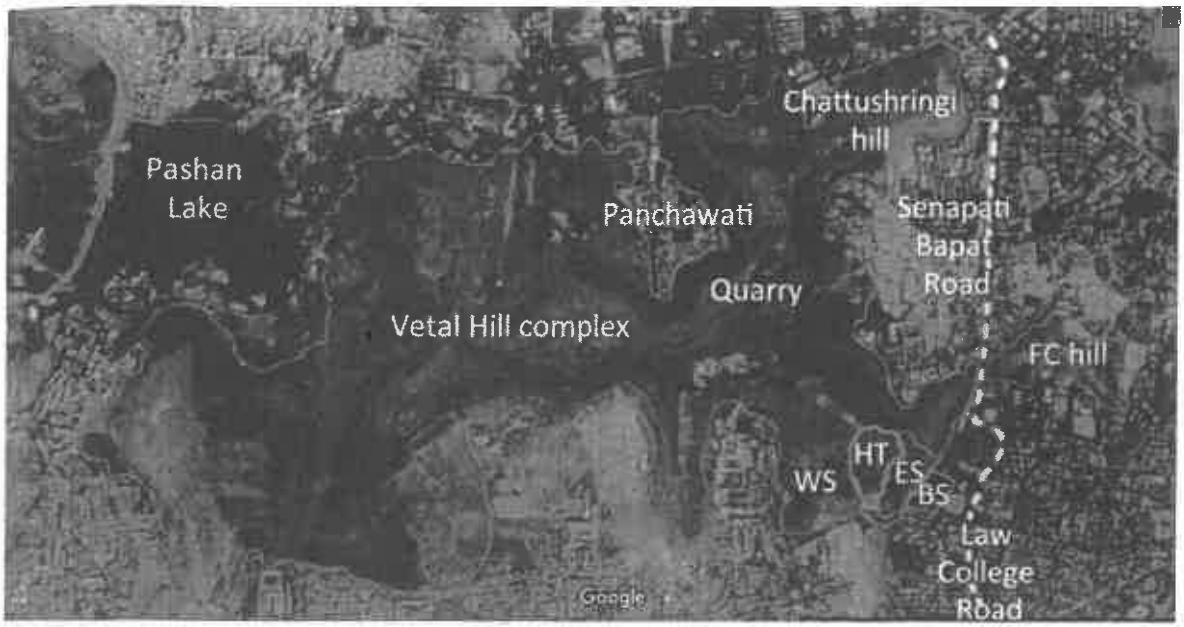
Graph 2: Plant species distribution in various zones in ILS law college campus and law college hill.



Graph 3: Plants as per various habit groups on law college hill.

Hill top region has more species comparted to western and eastern slopes and base (Graph 2). Species recorded in the campus are trees in majority and includes many introduced exotic elements. A tree named *Schleichera oleosa* is uniqueness of the campus. This tree species though common in and around Pune, not frequently seen in city area.

C. Importance of the area



Map 1: Vetal hill complex and area under survey. WS, HT, ES and BS refer to western slope, Hill top, Eastern slope and base of the hill respectively.

The presently surveyed Law college hill is one of the fragment of vegetation that exists in and around Pune. Region surrounding Pune shelters dry deciduous type of vegetation. The city area is surrounded by many hills like Parvati, Vetal-Hanuman hill chain, Pachgaon- Parvati, Range hills, NDA hills which act as the green corridors of the city (Joshi *et al.*, 1994). They contain variety of habitats like open scrublands, rocky, marshy, aquatic supporting various species. Floristic explorations on Vetal hill by Joshi & Kumbhijkar (1997), Joshi *et al.* (1992) have reported occurrence of 416 species belonging to 101 families. Species like *Anogeissus latifolia, Gliricidia sepium, Dalbergia lanceolaria, Dolichandrone falcata* are common there with many ephemeral plants occurring during the monsoon. Four hundred nine species of plants have been reported from Pachgaon- Parvati hills along with many animal species. On the southern boundary lies the Katraj Ghat which is floristically well studied by earlier (Datar & Ghate, 2006). Around 645 plant species have been reported from this area. The dominant tree community is *Boswellia- Sterculia- Lannea- Cochlospermum* (Datar & Ghate, 2006). There are many forts around the city, Sinhagad being the nearest one. The valleys of the forts contains a typical moist deciduous type of vegetation with species like *Tectona grandis, Anogeissus latifolia, Kydia calycina, Terminalia chebula* etc. with some evergreen elements. The western boundary of the city (Taluka- Mulshi) is a newly declared sanctuary containing moist deciduous forests with some evergreen elements. All these forest patches are presently disconnected with each other and there is no corridor

existing between them for migration of animals. Amongst all these only vetal hill complex is one such area which is spread widely and various hills in this complex are connected to each other. There is proposed road which will pass between hill and ILS Law college campus. Fragmentation of such area by activities like road constriction will not only hamper the vegetation form the region where the road is proposed but also affect the overall ecosystem of the entire hill complex. Disturbance of the flora will ultimately affect the fauna of the area. The road will also affect the corridor for species migration.

D. **Rare and threatened elements of the area**

The Law college hill has one rare and endangered species named ***Jatropha nana* Dalzell & A. Gibson** . The species is named as nana due to its stunted habit. The species is rare and threatened and only known from India. The species is included in International Union of Conservation of Nature's (IUCN) list of threatened plants across the globe. (http://www.iucnredlist.org/details/88425992/0)

Endemic and threatened *Jatropha nana* Dalzell & A. Gibson from Law College hill.

This species was assessed regionally as Near Threatened (Tetali *et al.* 1998) and later as Endangered (Mishra and Singh 2001) when it was considered endemic to Maharashtra state. In Maharashtra the species is only restricted to hills around Pune city. The known locations of the species are Bowdhan, Chatushringi hill, Ghodnadi, Katraj, Parvati and Pethghat. Recently the species has been collected from West Bengal, Bihar and Jharkhand extending its range of distribution. However the species population are still under threat and IUCN recommends its conservation. In Pune and surroundings the distribution of the species is sporadic and is under severe threat. **A population of few individuals of this species was found on the top plateau of Law college hill**. Even IUCN threat assessment page of the species mentions its occurrence from Law college hill. This is based on studied done by Nerlerkar (2015).

IUCN's comments on the species are as below

"*Jatropha nana* is threatened primarily due to plantation/afforestation activities at the largest subpopulation (around Pune), invasive species and habitat degradation due to various factors. The inability of the citizens, planters and managers to view plantation and allied activities as a threat is itself the greatest challenge for conservation of this species. Thus, *J. nana* is assessed as Vulnerable at present because of its limited area of occupancy (AOO) of 96 km^2, occurrence at eight locations, and the continuing declines in the area, extent and quality of habitat and number of mature individuals"

As per IUCN the total estimated population within Pune city is 650-700 mature individuals which is the largest subpopulation recorded to date for this species. Estimates of other localities apart from the ones provided above, are not available but are speculated to be smaller than the Pune subpopulation. Thus it is unknown if the population is severely fragmented or not.

It can be summarized that conservation of this species is highly essential in light of increased human interference on hill around Pune. Strict protection of the hill will conserve the species.

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APPENDIX 1: LIST OF SPECIES

Sr. No	Family	Species Name	Local Name	Habit	Distribution in various zone #
1	ANNONACEAE	**Annona squamosa** L.	सीताफळ	Tree	BS, WS
2		**Miliusa tomentosa** (Roxb.) J.Sinclair		Tree	BS
3		**Polyalthia longifolia** (Sonn.) Thwaites	खोटा अशोक	Tree	WS, HT
4	MENISPERMACEAE	**Cocculus hirsutus** (L.) Diels	वासन वेल	Climber	WS, ES, HT
5		**Tinospora cordifoia** (Willd.) Hook.*f.* & Thoms.	गुळवेल	Climber	BS, WS, ES, HT
6	CLEOMACEAE	**Cleome simplicifolia** Hook.*f.* & Thoms.	गुलाबी तीळवण	Herb	ES
7	CAPPARACEAE	**Capparis grandis** L.f.	पाचुंदा	Tree	WS, ES, HT
8	COCHLOSPERMACEAE	**Cochlospermum religiosum** (L.) Alst.	गणेर	Tree	ES, HT
9	FLACOURTIACEAE	**Flacourtia indica** (Burm.*f.*) Merr.		Tree	WS, ES, HT
10	POLYGALACEAE	**Polygala arvensis** Willd.		Herb	ES
11	PORTULACACEAE	**Portulaca oleracea** L.		Herb	BS, HT
12	MALVACEAE	**Bombax ceiba** L.	काटे सावर	Tree	BS, HT
13		**Grewia tiliifolia** Vahl	धामण	Tree	WS, ES, HT
14		**Grewia flavescens** Juss.	खटखटी	Shrub	BS, WS, ES, HT
15		**Sida acuta** Burm.*f.*		Herb	WS, ES, HT
16		**Thespesia populnea** (L.) Soland	भेंड	Tree	BS
17		**Triumfetta rotundifolia** Lamk.		Herb	BS, WS, ES, HT
18	ELAEOCARPACEAE	**Muntingia calabura** L.	सिंगापूर चेरी	Tree	ES
19	OXALIDACEAE	**Oxalis corniculata** L.	अंबूशी	Herb	BS, ES
20	BALSAMINACEAE	**Impatiens balsamina** L.	तेरडा	Herb	HT
21	RUTACEAE	**Aegle marmelos** (L.) Corr.	बेल	Tree	HT

22		**Murraya koenigii** (L.) Spreng.	कढीपता	Shrub	BS
23	BURSERACEAE	**Boswellia serrata** Roxb. *ex* Colebr.	सालई	Tree	WS, ES, HT
24	MELIACEAE	**Aphanamixis polystachya** (Wall .) R.Parker		Tree	BS
25		**Azadirachta indica** A. Juss.	कडूनिंब	Tree	WS, ES, HT
26		**Gymnosporia senegalensis** (Lam.) Loes.	हिंकळ	Shrub	WS,ES, HT
27	RHAMNACEAE	**Zizyphus mauritiana** Lamk.	बोर	Tree	BS, WS, ES, HT
28		**Zizyphus oenoplia** (L.) Mill.		Shrub	ES, HT
29		**Zizyphus xylopyrus** (Retz.) Willd.	घाटबोर	Tree	BS, WS
30	VITACEAE	**Ampelocissus latifolia** (Roxb.) Planch.		Climber	WS HT
31		**Cayratia trifolia** (L.) Domin.		Climber	ES,
32		**Cissus woodrowii** (Stapf. *ex* Cooke) Sant.	गिरनुल	Shrub	WS, ES, HT
33	ANACARDIACEAE	**Schleichera oleosa** (Lour.) Merr.	कोशिंब	Tree	BS,
34		**Lannea coromandellica** (Houtt.) Merr.	मोई	Tree	BS, WS, ES, HT
35		**Mangifera indica** L.	आंबा	Tree	BS
36	FABACEAE	**Butea monosperma** (Lamk.) Taub.	पळस	Tree	WS, ES, HT
37		**Dalbergia lanceolaria** L.*f.*	फणशी	Tree	BS, WS, HT
38		**Dalbergia melanoxylon** Guill. & Perr.	पतंगी	Tree	BS, WS, ES, HT
39		**Dalbergia sissoo** DC.	शिसव	Tree	HT
40		**Desmodium laxiflorum** DC.		Herb	WS, ES, HT
41		**Erythrina suberosa** Roxb.	पांगारा	Tree	ES
42		**Gliricidia sepium** (Jacq.) Kunth. *ex* Steud.	उंदीरमारी	Tree	BS, WS, ES, HT
43		**Pongamia pinnata** (L.) Pierre	करंज	Tree	WS, HT
44		**Vigna radiata** (L.) Wilczeck	जंगली मूग	Climber	WS, ES

45	CAESALPINIACEAE	**Bauhinia racemosa** Lamk.	आपटा	Tree	WS, ES, HT
46		**Bauhinia variegata** L.	कांचन	Tree	WS, ES, HT
47		**Cassia fistula** L.	बहावा	Tree	BS, WS, ES, HT
48		**Delonix regia** (Boj *ex* Hook.) Raf.	गुलमोहोर	Tree	BS, WS, HT
49		**Peltophorum pterocarpum** (DC.) K.Heyne	सोनमोहोर	Tree	BS, WS, ES, HT
50		**Senna tora** (L.) Roxb.	टाकळा	Herb	WS
51		**Senna uniflora** (Mill.) H.S.Irwin & Barneby	विलायती टाकळा	Herb	BS, WS, ES, HT
52		**Tamarindus indicus** L.	चिंच	Tree	BS, WS, HT
53	MIMOSACEAE	**Acacia chundra** (Rottler) Willd.	खैर	Tree	BS, WS, ES, HT
54		**Acacia leucophloea** (Roxb.) Willd.	हिवर	Tree	BS, WS, ES, HT
55		**Acacia nilotica** (L.) Willd.	बाभूळ	Tree	BS
56		**Albizia lebbeck** (L.) Willd.	शिरीष	Tree	BS, HT
57		**Dichrostachys cinerea** (L.) Wt. & Arn.	दुरंगी बाभूळ	Shrub	BS, WS
58		**Leucaena leucocephala** (Lamk.) de Wit.	सुबाभूळ	Tree	BS, WS, ES, HT
59		**Samanea saman** (Jacq.) Merr.	रेन ट्री	Tree	HT
60	COMBRETACEAE	**Anogeissus latifolia** (Roxb. *ex* DC.) Wall.	धावडा	Tree	WS, ES, HT
61		**Combretum ovalifolium** Roxb.		Climber	ES, HT
62	MYRTACEAE	**Eucalyptus globulus** Labill.	निलगिरी	Tree	WS
63		**Psidium guajava** L.	पेरु	Tree	WS, HT
64		**Syzygium cumini** (L.) Skeels	जांभूळ	Tree	HT
65	LYTHRACEAE	**Lagerstroemia parviflora** Roxb.		Tree	WS, HT
66	PASSIFLORACEAE	**Passiflora foetida** L.		Climber	BS, ES
67	CUCURBITACEAE	**Mukia maderaspatana** (L.) Roem.		Climber	WS

68		**Solena amlexicaulis** (Lamk.) Gandhi	गोमती	Climber	ES
69	RUBIACEAE	**Ceriscoides turgida** (Roxb.) Tirveng.	फेंदरी	Tree	HT
70		**Morinda pubescens** J. E. Smith	बारतोंडी	Tree	BS, WS, ES, HT
71		**Neolamarckia cadamba** (Roxb.) Boisser	कदंब	Tree	HT
72	ASTERACEAE	**Acanthospermum hispidum** DC.		Herb	BS, HT
73		**Ageratum conyzoides** L.	सहदेवी	Herb	BS
74		**Bidens biternata** Lour.		Herb	BS, ES
75		**Blanvillea acmella** L.		Herb	BS, WS, ES, HT
76		**Blumea lacera** (Burm.f.) DC.	बुरांडी	Herb	ES, HT
77		**Cosmos bipinnatus** Cav.	कॉसमॉस	Herb	BS, WS, ES, HT
78		**Eclipta prostrata** (L.) L.	माका	Herb	WS, HT
79		**Launaea intybacea** (Jacq.) Beauverd	पाथरी	Herb	HT
80		**Lagascea mollis** Cav.	झारवड	Herb	HT
81		**Parthenium hysterophorus** L.	गाजरगावत	Herb	BS, WS, HT
82		**Sonchus oleraceus** L.		Herb	HT
83		**Synedrella vialis** (Less.) A. Gray		Herb	BS, WS, ES, HT
84		**Tridax procumbens** L.	एकदांडी	Herb	BS, WS, ES, HT
85		**Xanthium indicum** Koen.	लांडगा	Herb	HT
86	EBENACEAE	**Diospyros malabarica** (Desr.) Kostel.	गोविंदा	Tree	ES, HT
87		**Diospyros melanoxylon** Roxb.	टेम्भुर्णी	Tree	WS, ES, HT
88	OLEACEAE	**Jasminum malabaricum** Wt.	कुसर	Shrub	ES, HT
89		**Nyctanthes arbor-tristis** L.	पारिजातक	Tree	BS, WS, ES, HT
90	APOCYNACEAE	**Alstonia scholaris** (L.) R. Br.	सातविण	Tree	ES, HT

91		**Calotropis gigantea** (L.) R. Br.	रुई	Shrub	HT
92		**Carissa congesta** Vahl var.	करवंद	Shrub	WS HT
93		**Cascabela thevetia** (L.) Lippold	बिट्टी	Tree	WS HT
94		**Ceropegia bulbosa** Roxb. var. **bulbosa**		Climber	ES
95		**Ceropegia hirsuta** Wt. & Arn.	हमाण	Climber	ES
96		**Cryptolepis dubia** (Burm.f.) M.R.Almeida	कावळी	Climber	WS, ES, HT
97		**Dregea volubilis** (L.f.) Benth. ex Hook.f.	हरणडोडी	Climber	BS, WS, ES, HT
98		**Hemidesmus indicus** (L.) Schult. var. **indicus**	अनंतमुळ	Climber	BS, WS, ES, HT
99		**Tylophora dalzellii** Hook.*f.*		Climber	BS, HT
100		**Wrightia tinctoria** R.Br.	कुडा	Tree	ES
101	BORAGINACEAE	**Cordia dichotoma** Forst.	भोकर	Tree	HT
102		**Ehretia laevis** Roxb.	धतरंग	Tree	BS, WS, ES, HT
103		**Trichodesma indicum** (L.) Lehm.	छोटा कल्प	Herb	BS, WS, ES, HT
104	CONVOLVULACEAE	**Argyreia cuneata** (Willd.) Ker-Gwal.	महाळूंगी	Climber	WS, HT
105		**Evolvulus alsinoides** L.	विष्णुक्रांत	Herb	WS, HT
106		**Ipomoea eriocarpa** R. Br.		Climber	BS, WS, ES, HT
107		**Ipomoea nil** (L.) Roth.		Climber	BS
108		**Ipomoea muricata** (L.) Jacq.		Climber	BS, WS, ES, HT
109		**Rivea hypocrateriformis** Choisy	खासवेल	Climber	WS
110	BIGNONIACEAE	**Dolichandrone falcata** (Wall *ex* DC.) Seem	मेडशिंगी	Tree	WS, ES, HT
111		**Heterophragma quadriloculare** (Roxb.) K. Schum.	वारस	Tree	ES
112		**Jacaranda acutifolia** Humb. & Bontl.	नीलमोहोर	Tree	HT

113		**Tecoma stans** (L.) Kunth.	फुटाणी	Shrub	WS, HT
114	ACANTHACEAE	**Dipteracanthus patulus** (Jacq.) Nees.		Herb	WS
115		**Rostellularia diffusa** (Willd.) Nees		Herb	ES, HT
116	VERBENACEAE	**Duranta erecta** L.		Shrub	HT
117	LAMIACEAE	**Gmelina arborea** Roxb.	शिवण	Tree	BS, WS, HT
118		**Hyptis suaveolens** Poit.		Herb	WS, ES, HT
119		**Lantana camara** L. var. **aculeata** (L.) Mold.	घाणेरी	Shrub	BS, WS, ES, HT
120		**Lavandula bipinnata** (Roth.) O. Ktze.	घोडेगुंज	Herb	WS, ES, HT
121		**Tectona grandis** L.	साग	Tree	BS, WS, ES, HT
122	NYCTAGINACEAE	**Boerhavia diffusa** L.	पुनर्नर्वा	Herb	BS, WS, ES, HT
123		**Bougainvillaea spectabilis** Willd.	बोगनवेल	Shrub	WS, HT
124	AMARANTHACEAE	**Achyranthes aspera** L.	आघाडा	Herb	BS, WS, ES, HT
125		**Alternanthera sessilis** (L.) R. Br.		Herb	BS, WS, ES, HT
126		**Chenopodium album** L.		Herb	WS, HT
127	LORANTHACEAE	**Dendrophthoe falcata** (L.f.) Ettingsh.	बांडगुळ	Parasite	HT
128	SANTALACEAE	**Osyris quadripartita** Salz. *ex* Decre.	चंदनी	Shrub	WS, HT
129		**Santalum album** L.	चन्दन	Tree	BS, WS, HT
130	PUTRANJIVACEAE	**Putranjiva roxburghii** Wall.	पुत्रंजीवा	Tree	HT
131	EUPHORBIACEAE	**Acalypha ciliata** Forssk.		Herb	BS, WS, ES, HT
132		**Euphorbia geniculata** Orteg.	दुधाणी	Herb	BS, WS, ES, HT
133		**Euphorbia hirta** L.		Herb	BS, WS, ES, HT
134		**Jatropha curcas** L.	मोगली एरंड	Tree	WS
135		**Jatropha nana** Dalz.		Shrub	HT

136		**Ricinus communis** L.	एरंड	Shrub	WS, HT
137	PHYLLANTHACEAE	**Phyllanthus emblica L.**	आवळा	Tree	WS, HT
138		**Flueggea leucopyrus** Willd.	पांढरफळी	Shrub	BS, WS, ES, HT
139		**Phyllanthus maderaspatensis** L.		Herb	BS, WS, ES
140	ULMACEAE	**Holoptelea integrifolia** Planch.	वावळ	Tree	WS, HT
141		**Trema orientalis** Blume	घोळ	Tree	BS, WS
142	MORACEAE	**Ficus bengalensis** L	वड	Tree	WS, HT
143		**Ficus racemosa** L.	उंबर	Tree	BS, WS
144		**Ficus religiosa** L.	पिंपळ	Tree	WS, HT
145	HYPOXIDACEAE	**Curculigo orchioides** Gaertn.	काळी मुसळी	Herb	HT
146	AGAVACEAE	**Agave americana** L. var.	घायपात	Shrub	WS, HT
147	DIOSCORIACEAE	**Dioscorea bulbifera** L.	कारंदा	Climber	BS, WS, ES, HT
148		**Dioscorea oppositifolia** L.		Climber	WS
149		**Dioscorea pentaphylla** L.		Climber	WS
150	COLCHICACEAE	**Iphigenia indica** A. Gray		Herb	ES
151	ASPARAGACEAE	**Asparagus racemosus** Willd.	शतावरी	Climber	BS, WS, ES, HT
152		**Chlorophytum laxum** R. Br.		Herb	BS, WS, ES
153		**Drimia indica** Jessop.	रानकांदा	Herb	BS, ES
154		**Ledebouria revoluta (L.f.) Jessop**	खाजकांदा	Herb	BS, WS, ES, HT
155	COMMELINACEAE	**Commelina benghalensis** L.	केंनी	Herb	BS, WS, ES, HT
156		**Cyanotis cristata** (L.) D.Don		Herb	BS, WS, ES, HT
157		**Cyanotis tuberosa** (Roxb.) Schult. & Schult.f.		Herb	BS, WS
158	CYPERACEAE	**Kyllinga brevifolia** Rottb.		Herb	BS, WS, ES, HT
159	POACEAE	**Apluda mutica** L.	पोनई	Herb	WS, HT
160		**Chloris barbata** Swartz	गोंडवेल	Herb	BS, WS, ES,

161		**Cymbopogon martinii** Wats.	तिकाडी	Herb	WS, HT
162		**Cynodon dactylon** Pers.	दूर्वा	Herb	BS, WS, ES, HT
163		**Dactyloctenium aegyptium** Willd.	लहान मोरवेल	Herb	BS, WS
164		**Echinochloa colona** (L.) Link		Herb	WS
165		**Heterpogon contortus** (L.) P. Beauv.	कुसळी	Herb	WS, ES, HT

Details of the zones: WS: western slopes; ES: Eastern slopes; BS: Base of the hill; HT: Hill top.

APPENDIX 2: LIST OF PLANT SPECIES FROM ILS LAW COLLEGE CAMPUS.

Sr.no	Family	Species Name	Local Name	Habit
1	ANNONACEAE	**Annona squamosa** L.	सीताफळ	Tree
2		**Annona reticulata** L.	रामफळ	Tree
3		**Polyalthia longifolia** (Sonn.) Thwaites	खोटा अशोक	Tree
4	MENISPERMACEAE	**Cocculus hirsutus** (L.) Diels	वासन वेल	Climber
5		**Tinospora cordifoia** (Willd.) Hook.*f.* & Thoms.	गुळवेल	Climber
6	PORTULACACEAE	**Portulaca oleracea** L.		Herb
7	MALVACEAE	**Bombax ceiba** L.	काटे सावर	Tree
8		**Ceiba pentandra** (L.) Gaertn.	पांढरी सावर	Tree
9		**Hibiscus rosa-sinensis** L.	जास्वंद	Shrub
10		**Thespesia populnea** (L.) Soland	भेंड	Tree
11	OXALIDACEAE	**Oxalis corniculata** L.	अंबूशी	Herb
12	RUTACEAE	**Aegle marmelos** (L.) Corr.	बेल	Tree
13		**Limonia acidissima** L.	कवठ	Tree

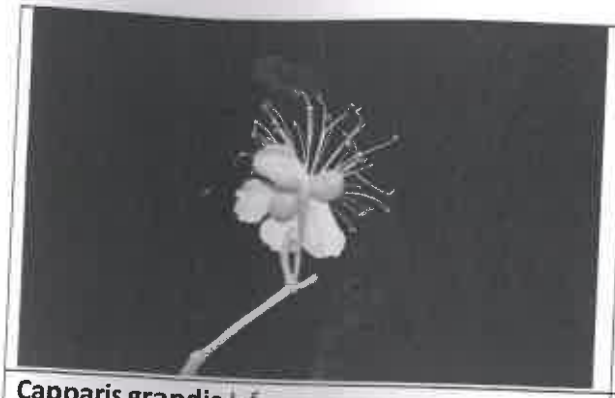
14		**Murraya koenigii** (L.) Spreng.	कढीपत्ता	Shrub
15	SIMAROUBACEAE	**Ailanthus exelsa** Roxb.	माहरुख	Tree
16	MELIACEAE	**Aphanamixis polystachya** (Wall.) R.Parker		Tree
17		**Azadirachta indica** A. Juss.	कडूनिंब	Tree
18		**Swietenia mahagoni** (L.) Jacq.	महोगनी	Tree
19	CELASTRACEAE	**Cassine glauca** (Rottb.) Kuntze	भुत्या	Tree
20	RHAMNACEAE	**Zizyphus mauritiana** Lamk.	बोर	Tree
21	SAPINDACEAE	**Sapindus laurifolius** Vahl	रिठा	Tree
22	ANACARDIACEAE	**Schleichera oleosa** (Lour.) Merr.	कोशिंब	Tree
23		**Lannea coromandellica** (Houtt.) Merr.	मोई	Tree
24		**Mangifera indica** L.	आंबा	Tree
25	MORINGACEAE	**Moringa oleifera** Lamk.	शेवगा	Tree
26	FABACEAE	**Butea monosperma** (Lamk.) Taub.	पळस	Tree
27		**Dalbergia lanceolaria** L.*f.*	फणशी	Tree
28		**Dalbergia melanoxylon** Guill. & Perr.	पतंगी	Tree
29		**Dalbergia sissoo** DC.	शिसव	Tree
30		**Gliricidia sepium** (Jacq.) Kunth. *ex* Steud.	गिरीपुष्प	Tree
31		**Pongamia pinnata** (L.) Pierre	करंज	Tree
32	CAESALPINIACEAE	**Bauhinia racemosa** Lamk.	आपटा	Tree
33		**Bauhinia variegata** L.	कांचन	Tree
34		**Cassia fistula** L.	बहावा	Tree
35		**Cassia renigera** Benth.	गुलाबी बहावा	Tree
36		**Delonix regia** (Boj *ex* Hook.) Raf.	गुलमोहोर	Tree
37		**Peltophorum pterocarpum** (DC.) K.Heyne	सोनमोहोर	Tree
38		**Senna tora** (L.) Roxb.	टाकळा	Herb
39		**Senna uniflora** (Mill.) H.S.Irwin & Barneby	विलायती टाकळा	Herb
40		**Tamarindus indicus** L.	चिंच	Tree

41	MIMOSACEAE	**Acacia leucophloea** (Roxb.) Willd.	हिवर	Tree
42		**Albizia lebbeck** (L.) Willd.	शिरीष	Tree
43		**Albizia procera** (Roxb.) Benth.	किन्हई	Tree
44		**Leucaena leucocephala** (Lamk.) de Wit.	सुबाभुल	Tree
45		**Samanea saman** (Jacq.) Merr.	पर्जन्य वृक्ष	Tree
46	COMBRETACEAE	**Quisqualis indica** L.	मधुमालती	Climber
47	MYRTACEAE	**Eucalyptus globulus** Labill.	निलगिरी	Tree
48		**Psidium guajava** L.	पेरु	Tree
49		**Syzygium cumini** (L.) Skeels	जांभूळ	Tree
50	CACTACEAE	**Opuntia stricta** (Haw.) Haw.	फडया निवडुंग	Shrub
51	RUBIACEAE	**Morinda pubescens** J. E. Smith	बारतोंडी	Tree
52	ASTERACEAE	**Blanvillea acmella** L.		Herb
53		**Cosmos bipinnatus** Cav.	कॉसमॉस	Herb
54		**Parthenium hysterophorus** L.	गाजरगावत	Herb
55		**Sphagneticola trilobata** (L.) Pruski		Herb
56		**Synedrella vialis** (Less.) A. Gray		Herb
57		**Tridax procumbens** L.	एकदांडी	Herb
58	PLUMBAGINACEAE	**Plumbago zeylanica** L.	चित्रक	Herb
59	SAPOTACEAE	**Madhuca longifolia** (Koen.) McBride var. **longifolia**	मोह	Tree
60		**Manilkara hexandra** (Roxb.) Dubard	खिरणी	Tree
61		**Manilkara zapota** (L.) Van Royen	चिक्कू	Tree
62	EBENACEAE	**Diospyros cordifolia** Roxb. (Different than D. montana Roxb.		Tree
63		**Diospyros malabarica** (Desr.) Kostel.	तेंभुरणी	Tree
64	OLEACEAE	**Jasminum officinale** L	जाई	Climber
65		**Nyctanthes arbor-tristis** L.	पारिजातक	Tree
66	APOCYNACEAE	**Alstonia scholaris** (L.) R. Br.	सातविण	Tree
67		**Cascabela thevetia** (L.) Lippold	बिट्टी	Tree
68		**Catharanthus roseus** (L.) G. Don.	सदाफुली	Herb

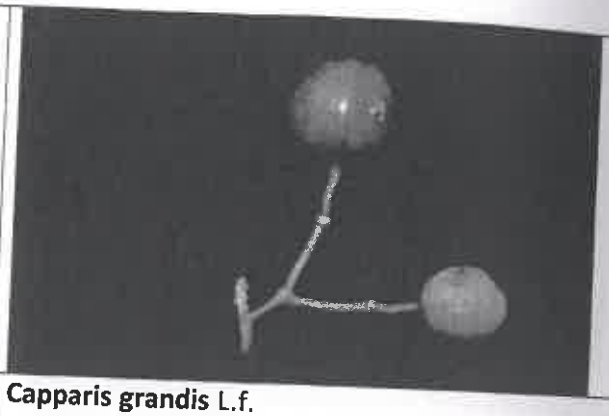
69		Dregea volubilis (L.f.) Benth. ex Hook.f.	हरण डोडी	Climber
70		Plumeria alba L.	चाफा	Tree
71	BORAGINACEAE	Cordia myxa L.	भोकर	Tree
72		Ehretia laevis Roxb.	धत्रंग	Tree
73	CONVOLVULACEAE	Ipomoea muricata (L.) Jacq.		Climber
74	BIGNONIACEAE	Millingtonia hortensis L.	बुच	Tree
75	BIGNONIACEAE	Tecoma stans (L.) Kunth.	फुटाणी	Shrub
76	ACANTHACEAE	Barleria prionitis L.		Shrub
77	VERBENACEAE	Duranta erecta L.		Shrub
78	LAMIACEAE	Gmelina arborea Roxb.	शिवण	Tree
79		Holmskioldia sanguinea Retz.		Shrub
80		Lantana camara L. var. aculeata (L.) Mold.	घाणेरी	Shrub
81	NYCTAGINACEAE	Bougainvillaea spectabilis Willd.	बोगनवेल	Shrub
82	AMARANTHACEAE	Achyranthes aspera L.	आघाडा	Herb
83		Alternanthera sessilis (L.) R. Br.		Herb
84	LORANTHACEAE	Dendrophthoe falcata (L.f.) Ettingsh.	बांडगुळ	Parasite
85	SANTALACEAE	Santalum album L.	चंदन	Tree
86	PUTRANJIVACEAE	Putranjiva roxburghii Wall.	पुत्रंजीवा	Tree
87	EUPHORBIACEAE	Euphorbia geniculata Orteg.	दुधाणी	Herb
88		Euphorbia hirta L.	दुधाणी	Herb
89	PHYLLANTHACEAE	Phyllanthus emblica L.	आवळा	Tree
90	ULMACEAE	Holoptelea integrifolia Planch.	वावळ	Tree
91	MORACEAE	Artocarpus heterophyllus Lamk.	फणस	Tree
92		Ficus bengalensis L	वड	Tree
93		Ficus hispida L.f.	काळा उंबर	Tree
94		Ficus racemosa L.	उंबर	Tree
95		Ficus religiosa L.	पिंपळ	Tree
96	CASUARINACEAE	Casuarina equisetifolia L. Amoen.	सुरू	Tree
97	AGAVACEAE	Cordyline fruticosa (L.) A.Chev.		Shrub
98	COMMELINACEAE	Commelina benghalensis L.	केणी	Herb
99		Tradescantia sp.		Herb

100	ARACACEAE	**Dypsis lutescens** (H.Wendl.) Beentje & J.Dransf.		Tree
101		**Phoenix sylvestris** (L.) Roxb.	शिंदी	Tree
102		**Roystonea regia** (Kunth) O.F.Cook	बॉटल पाम	Tree
103	CYPERACEAE	**Kyllinga brevifolia** Rottb.		Herb
104	POACEAE	**Bambusa arundinacea** Willd.		Herb
105	POACEAE	**Chloris barbata** Swartz	गोंड वेळ	Herb
106	POACEAE	**Cynodon dactylon** Pers.	दूर्वा	Herb
107	POACEAE	**Dactyloctenium aegyptium** Willd.	लहान मारवेल	Herb
109	CUPRESSACEAE	**Thuja Sp.**	मोरपंखी	Tree

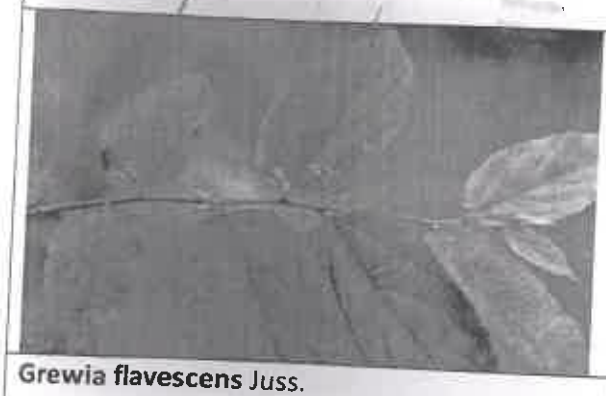
PLATE 1



Capparis grandis L.f.
Flowers

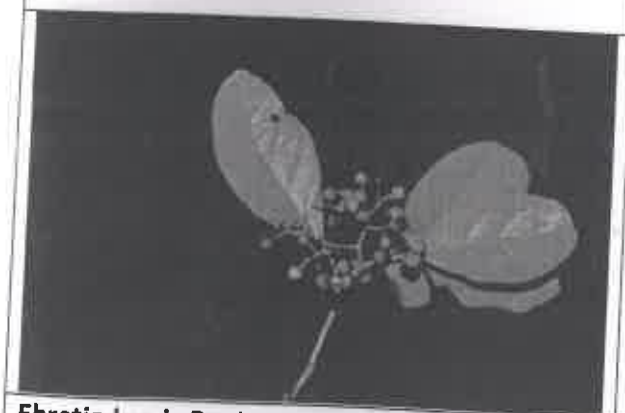


Capparis grandis L.f.
Fruits

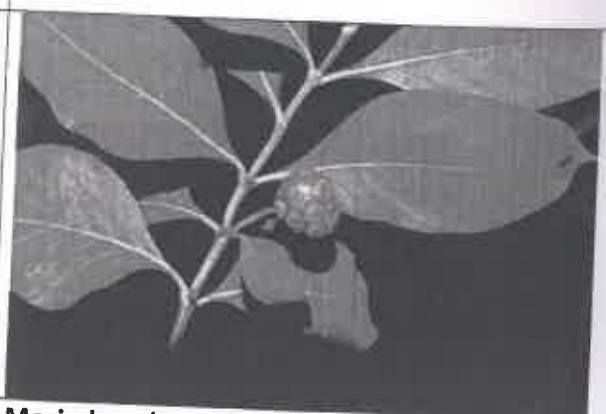


Grewia flavescens Juss.
A common climbing shrub on Eastern slopes

Dregea volubilis (L.f.) Benth. ex Hook.f.



Ehretia laevis Roxb.

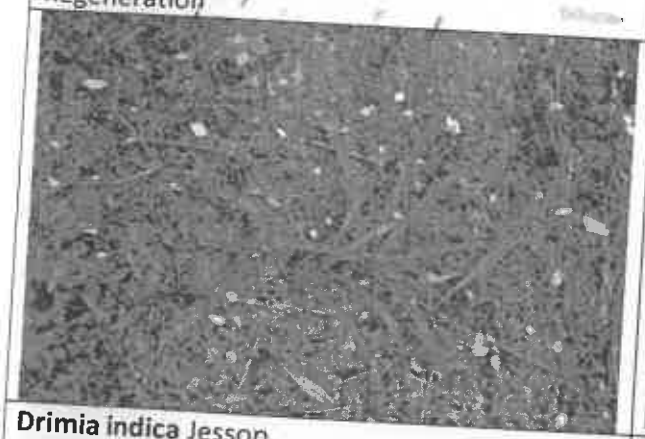


Morinda pubescens J. E. Smith
Common tree

PLATE 2

Ipomoea muricata (L.) Jacq.
Regeneration

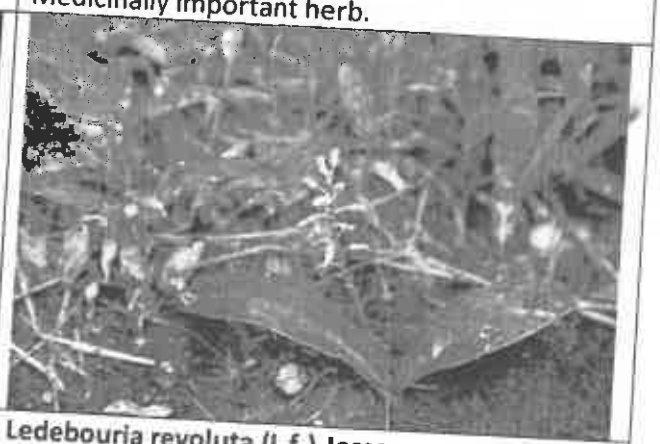
Cleome simplicifolia Hook.*f.* & Thoms.
Early flowering monsoon herb.



Drimia indica Jessop.

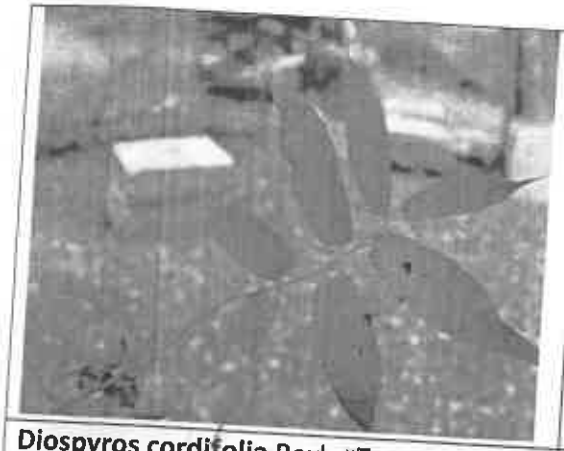
Curculigo orchioides Gaertn.
Medicinally important herb.

Asparagus racemosus Willd.



Ledebouria revoluta (L.f.) Jessop

PLATE 3

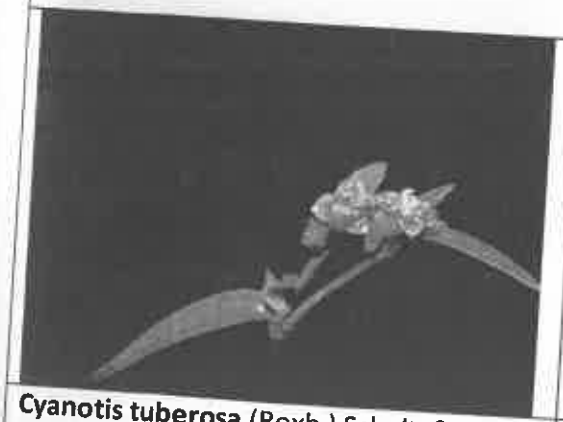


Diospyros cordifolia Roxb. Tree rare in Pune growing in ILS Law college campus

Cissus woodrowii (Stapf. *ex* Cooke) Sant.

Grewia tiliifolia Vahl

Boswellia serrata Roxb. *ex* Colebr
A common tree on hills around Pune



Cyanotis tuberosa (Roxb.) Schult. & Schult.f.

Cassia renigera Benth.
Tree planted in Law college campus

A RAPID IMPACT ASSESSMENT OF THE PROPOSED ROAD ON THE AVIFAUNA OF THE LAW COLLEGE HILL COMPLEX, PUNE

KAUSTUBH MOGHE
SANJAY THAKUR

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ECOLOGICAL SOCIETY
PUNE 8

A RAPID ASSESSMENT OF THE IMPACT OF THE PROPOSED ROAD ON THE AVIFAUNA OF THE LAW COLLEGE HILL COMPLEX, PUNE CITY.

Introduction

Pune or Poona is one of the major cities in India, with an area of about 700 sq. km. It is located on the Deccan Plateau at a height of 560 m above mean sea level. The city of Pune has spread in the flood plains of rivers the Mula and the Mutha. These flood plains also known as Pune Plains are surrounded by low hill ranges in all directions except the eastern side which is comparatively flat and open. During the British colonial rule Pune rose to importance as an important military and administrative station thanks to its pleasant climate. The moderate yearly rainfall of 700mm made the city monsoon capital of the then Bombay Presidency.

The city still appears green when seen from an elevation but its green surroundings are no longer there. Now there are very few green patches left outside and within the city limits. Noteworthy of these are Katraj valley and Sinhgad Valley on its outskirts and Pachgaon Parvati, Law College Hill complex and *Khandoba hill* within city limits.

These patches are threatened due to growing population and development pressures. These hill tops and hill slopes are important because they provide necessary habitats for the remaining flora and fauna in and around the city of Pune. Some of these hills are also declared as Forest Parks (*Van Vihar*) viz. Pachgaon Parvati *Van Vihar and* Bhambhurda *Van Vihar* (Part of Law College Hill and Vetal Hill). Many citizens of Pune from all age groups use these hills for exercise and for morning and evening walks. Moreover, the Law College hill complex is extensively used by bird watchers and students of Ecological Society for their field practicals. These open spaces are very important for they are the sources of clean and fresh air and can be called lungs of the city.

The forests on Pachgaon Parvati and Law College hill complex are man-made but in the last few years natural regeneration of indigenous plants has taken place on a good scale. Now one could see mixed forest patches on these hill tops and hill slopes. *Khandoba hill* near Chandani Chowk on the way to National Defence Academy still has better forest cover than all the existing forest patches within the city limits and it harbours a great deal of plant diversity and biodiversity in general.

The Law College Hill Complex

Among the green areas of Pune the Law College hill and surrounds are prominent as a large green belt. This green belt extends to the Vetal hill to its North-west and Maharashtra Institute of Technology (MIT) and Automobile Research Institute of India (ARAI) to its west. This hill complex with a general North - South direction is clothed with dry deciduous vegetation in various stages of use and protection.

The history of afforestation programmes of this area goes to back to 1930s. Afforestation programme on the Vetal and Law College hill was undertaken by many workers. The most prominent amongst them were Late Prin. J.R. Gharpure of Law College and well known botanist Shri. H.P. Paranjapye. Due to their untiring efforts this hill complex today remains substantially green. This work was carried out in the 1930s and 1940s of the last century. Land development, soil cover development, watering of trees, selection of suitable species and their cultivation etc. were meticulously undertaken. Most importantly the entire landscape was protected from cattle, trespassers etc. Subsequently in the 1980s and 90s the Maharashtra State Forest Department's Social Forestry wing carried out plantation programmes for some years. In this manner a large part of the hills was planted with various trees. As a result today one can see extensive green tree cover on the hill top and hill slopes. This green cover prevents soil erosion and helps soil to absorb more water. It maintains the balance of the ecosystem and forms very good refuge for birds and small wildlife. This area is significant as it is one of the important constituents of Bhambhurda *Van Vihar*.

In the past the vegetation of this hill complex appears to consist of shrubs, such as *Fluggea, Carissa, Lantana, ziziphus* etc. The tree cover consists of species of *Accacia, Annogeissus, Dalbergia, Butea, Cochlospermun, Boswellia, Madhuca indica,* etc. The Forest Department had carried out an extensive plantation of *Glirisidia sepium*.

There are mainly seven different habitats that cover the Law College hill complex. These are as follows:

1. Open woodland - Eastern slopes of the hill
2. Closed woodland - Eastern slope of the hill.
3. Scrub Plateau between MIT side and North of Maruti temple and Vetal temple.
4. Plantation - Slopes behind the Law College and between two Maruti Temples
5. Moist Deciduous Forest - behind Patrakar Nagar side and the Sheep farm.
6. Dry grass land - Plateau on North side and
7. Quarry -to the north-west of Law College hill.

Therefore, based on the existing habitat pattern the hill complex was divided into five parts for observation purposes. Following are the parts in which observations were carried out:

a. The undulating land behind Law College through which the proposed road will pass.
b. The steeper hill slope above the alignment of the proposed road.
c. Plateau between two Maruti temples - one towards the south and another towards the north.
d. Slopes overlooking the MIT campus.
e. Slopes behind Patrakarnagar and the Sheep farm.

Detailed Description of various Habitats Types of the Law College Hill Complex

1. Open Woodland

Eastern slopes of the Law College Hill are covered by open woodland. Glirisidia, *Lannea coromandelica* (Moi), *Morinda tomentosa* (Bartondi), *Azadirachta indica, Gmelina arborea* and *Santalum album* (Sandalwood tree) trees are some of the characteristic species of this habitat. This vegetation is a mixture of original floristic elements such as *A. catechu* (Khair), *A. leucophloea* (Hivar), *A. nilotica* (Babhul), *Azadirachta indica* (Neem), *Morinda tomentosa* (Bartondi), etc. and introduced species such as *Glirisidia sepium* and *Leucaena leucophloea* (Subabhul).

2. Closed Woodland

Adjacent to open woodland area is the closed woodland. Commonly recorded tree species are *A. catechu* (Khair), *A. leucophloea* (Hivar), *Santalum album* (Sandalwood tree), *Tecoma undulata*, *Azadirachta indica* (Neem), *Boswellia serrata* etc. along with the introduced *Glirisidia Sepium* and *L. leucophloea* (Subabhul). *Acacia spp.* and *Ziziphus spp.*, *Lantana* etc. are the shrubs found in this habitat. This area also has good natural regeneration.

The proposed road which passes through the Law College campus cuts through these two habitats. As such the proposed road will affect these habitats the most.

3. Dry Deciduous Forest

The slopes overlooking MIT campus and ARAI building has dry deciduous forest. At places this forest is interspersed with plantations. *A. catachu*, *A. leucophloea*, *A. nilotica, Dolchandrone falcata* (Medshingi), *Grewia tiliifolia*

(Dhaman), *Ziziphus* spp., *Albezia procera* etc. are the common trees in this habitat. *Asparagus spp., Lantana, Fluggia*, and at places saplings of *Accacia spp.* form the ground cover in this habitat.

Most of the area except the plantation area has good natural regeneration. In plantation area there is occasional presence of *M. tomentosa* (Bartondi), *A. catechu* (Khair), *A. leucophloea* (Hivar) *Dolchandrone falcata* (Medshingi) etc.

4. Scrub

A major part of the Law College Hill complex is constituted by the huge plateau that extends from Maruti temple on the southern side of the hill to Maruti temple on the northern side. This plateau is an important habitat type as it has seasonal grassland and scrub kind of vegetation. This area has mainly thorny bushes such as *Ziziphus spp., Carissa, Fluggia, Accacia spp.* etc. *Butea monosperma*, *Dolchandrone falcata* (Medshingi), *A. leucophloea* etc. are also present occasionally. Some of the part of the plateau is also covered with plantations of *G. sepium*.

5. Moist Deciduous Forest

The slopes behind Patrakar Nagar and the Sheep Farm side of the Law College hill complex are covered with a moist deciduous forest. The assemblage of tree species here is therefore, different from that of the other habitats. Trees such as *Tectona grandis, Anogeissus latifolia, T. tomentosa, Bombax ceiba, Madhuca indica* represent the moist elements. Apart from these trees there is presence of *D. melanoxylon, G. sepium* etc. which are introduced species.

6. Plantations

Afforestation and plantation programmes on the Law College hill complex were conducted by many government, non government organisations and individuals for the last 20 years. In 1980s and 90s the Social Forestry wing of the Maharashtra State Forest Department undertook plantation programme in which they planted *G. sepium, L. leucophloea, Eucalyptus spp.* etc. The recent plantation programme includes indigenous species such as *T. grandis, Shivan, P. pinnata, D. sisoo, C. fistula, Bauhunia spp., Phylanthus emblica* etc. These plantations give the Law College hill a green appearance. In this hill complex plantations form a part of each of these habitats.
In some areas even in plantations the natural regeneration has been noteworthy. Such areas has a good vegetation diversity.

7. Quarry

Northernmost of the hill complex has a stone quarry. Because of quarrying activity there are lot of uneven places. These places has given rise to lot of puddles and ponds by collection of rainwater. These ponds and puddles attract lot of aquatic birds.

The quarry is devoid of any woody plants but has lot of herbaceous cover. This entire quarried area is in early stage of succession. There is occasional presence of ground orchids such as *Habenarium spp.* in this area. In the surrounding area of the quarry there is plantation of *G. sepium* and at places *L. leucophloea.*

The Impacts of the Proposed Road on the Law College Hill Complex

The road construction projects have many impacts in a number of areas, the most noteworthy of which are aesthetic, air quality, circulation, traffic patterns, noise, socio-economics and wildlife to name a few. The road construction may stimulate or induce other actions (secondary impacts, such as more rapid land development or changed land-use pattern or changed pattern of social and economic activities. The impacts associated with secondary actions and due to these secondary actions are more substantial than the primary impacts, e.g. the impacts of road construction may be less than that of the impacts due to infrastructure created for the road construction.

Air quality impacts. Air quality impacts include 1. Dust or particulate matter on vegetation and on the structures around the construction site. 2. Vehicular exhaust coating vegetation and other structures and pollution of air in an unpolluted area due to increased exhaust emissions, fumes etc.

Noise Impact. Noise impact generally involves the area within sound of traffic. It affects most when places are sensitive to any noise. Such places include educational or cultural institutions. In this case the proposed road site is very close to the teaching area and hostels of the Law College.

Socio-economic Impacts. Socio-economic impacts include removal of residential areas, loss of unique sites of cultural and social importance and loss of recreational lands.

Impact on Biodiversity. The impact of road construction on biodiversity is of great concern. Such projects always come up at the cost of biodiversity. The impacts generally include loss of unique green areas, loss of wildlife habitat or division of wildlife habitat/ range. Many times roads through wilderness areas affect migration patterns of animals, both small and big. The roadkills of smaller

animals mainly snakes, frogs etc. is also another issue associated with the roads in wilderness areas.

Aesthetic Impacts. Impact on aesthetics include, (i) blocking of landmarks from community areas; (ii) blocking of viewline, visual distraction in recreational and residential areas and (iii) unattractive contrast between existing vegetation, natural landscape and engineering features of the road.

The Law College hill complex is a unique area in many ways. It is one of the last remaining green belts in the city of Pune. Moreover, citizens of all age groups use this area for exercise, morning walk, and other recreational activities. This is their only escape from stressed city life. So the Law College hill complex is not only important from the conservation point of view but also it is a social need of the citizens of Pune city. Therefore, in this urban context conserving such areas is of utmost importance. The proposed road will disturb the present flora and fauna of the hill complex. Joshi, et. al. (1992) has reported loss of over 30 plant species from this area in the last 70 years. The rate of loss of species may accelerate due to the proposed road as there will be increased biotic interference in this area.

THE IMPACT OF THE PROPOSED ROAD ON BIRDLIFE

As mentioned earlier, there are seven different habitat types present on Law College Hill Complex. Based on existing habitat pattern the hill complex was divided into five different parts. The following table shows the various parts of the hill covering different habitats and number of species present in each part.

No.	Description of various Parts of the hill complex.	Habitats covered	No. of Bird species
1.	Undulating land behind law Coll. (Proposed road site)	Open woodland and Closed woodland	39
2.	Steeper slopes above the site of proposed road.	Plantation, Closed wood land.	34
3.	The plateau	Scrub, Plantation	36
4.	Slopes overlooking MIT/ ARAI	Dry deciduous forest, Plantation	25
5.	Slopes behind Patrakar Nagar and Sheep Farm	Moist deciduous Forest	32

A survey was conducted to record the diversity of the avifauna in different parts of the hill complex covering various habitats. The results are discussed below. It gives an idea of the birdlife and the species diversity recorded in each part.

Part 1. Part 1 of the Law College Hill complex covers two habitats viz. Open woodland and Closed woodland and some part of plantations. The typical birds of these habitats are Coppersmith Barbet, Greater Coucal, Spotted Owlet, Jungle Crow, Great Tit, Common Iora, Plain Prinia and Common Tailor Bird. 39 bird species were recorded in these habitats.

Part 2. Part 2 of the Law College Hill complex covers plantation and dry deciduous vegetation on the slopes. 34 different species of birds were recorded here. Common Hawk Cuckoo, Shikra, Tickel's Blue Flycatcher, Dusky Crag Martin, Red-vented Bulbul, Plain Prinia, Thick-billed Flower-pecker, Purple Sunbird, Common Wood Shrike are some of the birds that represent this habitat.

Part 3. Part 3 is the plateau which covers an area between two Maruti Temples, one on the Southern side and one on the Northern side. It covers scrub - thorny, bushy vegetation and plantation on one side. The second largest diversity of the bird species was recorded in this area. Painted Francolin, Grey Francolin, House swift, Laughing Dove, Indian Robin, Common Myna, Large Grey Babbler, Ashy Crowned Sparrow Lark, Streak-throated Swallow were recorded in this part.

Part 4. Part 4 of the Law College hill complex covers the slopes overlooking the MIT and ARAI campuses. It is largely dry deciduous forest and plantation on one side. The number of birds recorded here are 25. The important species among these are Indian Pea Fowl, Black Kite, Grey Breasted Prinia, Green Bee eater. Some common species are House Sparrow, House Crow, Purple-rumped Sunbird, Red vented Bulbul etc.

Part 5. Part 5 is the area covering slopes behind Patrakar Nagar and Sheep Farm. This area has moist deciduous forest. 32 different bird species were recorded in this habitat. Some of the important birds found here are Indian Pea Fowl, Common Hawk Cuckoo, Rose ringed Parakeet, Jungle Prinia, Pale- billed Flower pecker, Oriental White-eye.

Also see annex for the complete checklist and partwise birdlist.

The number of recorded birds show that the part through which the road will pass harbours the highest number of species. Most of them will disappear if the road becomes a reality. The next highest diversity was recorded on the hill slopes adjacent to the part through which the road will pass. The road construction involving excavation, removal of rocks and soil from the hill slope will result in great disturbance to the existing forest on these slopes. The consequence will be disappearance of most of the species of the birds including India's national bird, Peacock or Pea Fowl.

The proposed road will therefore, involve a substantial removal of a vital green part of the city, destruction of biodiversity and reduction in public amenities that help to improve the quality of our urban life.

ACKNOWLEDGEMENT

We wish to express our gratitude to the management of the ILS Law College for sponsoring this investigation and for giving us all the facilities in their campus for carrying it out. Thanks are also due to Kalpavriksha for their advice.

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APPENDIX I

LISTS OF BIRDS OBSERVED IN DIFFERENT PARTS OF THE HILLCOMPLEX

Part I : Part through which the proposed road will pass

Painted francolin(Francolinus pictus) Rock bush quail(Perdicula argoondah)
Coppersmith barbet(Megalaima haemacephala)
Indian grey hornbill(Ocyceros birostris)
White-throated kingfisher(Halcyon smyrnensis) Green bee-eater(Merops orientalis)
Asian koel(eudynamys scolopacea) Greater coucal(Centropus sinensis)
Rose-ringed parakeet(Psittacula krameri) Spotted owlet(Athene brama)
Rock pigeon(Columba livia) Laughing dove(Streptopelia senegalensis)
Black kite(Milvus migrans) Shikra(Accipiter badius)
Long-tailed shrike(Lanius schach) House crow(Corvus splendens)
Large-billed crow(Corvus macrorhynchos) Small minivet(Pericrocotus cinnamomeus)
White-throated fantail(Rhipidura albicollis) Common iora(Aegithina tiphia)
Oriental magpie robin(Copsychus saularis) Indian robin(Saxicoloides fulicata)
Brahminy starling(Sturnus pagodarum) Common Myna(Acridotheres tristis)
Great tit(Parus major) Red-vented bulbul(Pycnonotus cafer)
Plain prinia(Prinia inornata) Ashy prinia(Prinia socialis)
Common tailor bird(Orthotmus sutorius) Yellow-eyed babbler(Chrysomma sinense)
Large grey babbler(Turdoides malcolmi)
Pale-billed flowerpecker(dicaeum erythrorhynchos)
Purple-rumped sunbird(Nectarinia zeylonica) Purple sunbird(Nectarinia asiatica)
House sparrow(Passer domesticus) Scaly-breasted munia(Lonchura punctulata)
Oriental white-eye(Zosterops palpebrosa) Black drongo(Dicrurus macrocercus)
Grey-breasted prinia(Prinia hodgsonii)
Greenish warbler(Phylloscopus trochiloides)
Common chiffchaff(Phylloscopus collybita)

Part II : Hill Slope behind Law College

Painted francolin(Francolinus pictus) Rock bush quail(Perdicula argoondah)
Coppersmith barbet(Megalaima haemacephala)
Green bee-eater(Merops orientalis) Common hawk-cuckoo(Heirococcyx varius)
Plaintive cuckoo(Cacomantis merulinus) Asian koel(Eudynamys scolopacea)
Greater coucal(Centropus sinensis) House swift(Apus affinis)
Laughing dove(Streptopelia senegalensis) Spotted dove(Streptopelia chinensis)
Shikra(Accipiter badius) Large-billed crow(Corvus macrorhynchos)
Small minivet(Pericrocotus cinnamomeus)
Tickell's blue flycatcher(Cyornis tickelliae) Indian robin(Saxicoloides fulicata)
Brahminy starling(Sturnus pagodarum) Common myna(acridotheres tristis)
Jungle myna(Acridotheres fuscus) Great tit(Parus major)
Dusky crag martin(Hirundo concolor) Red-vented bulbul(Pycnonotus cafer)
Grey-breasted prinia(Prinia hodgsonii) Jungle prinia(Prinia sylvatica)
Ashy prinia(Prinia socialis) Plain prinia(Prinia inornata)

Common tailor bird(Orthotomus sutorius) Large grey babbler(Turdoides malcolmi)
Thick-billed flowerpecker(Dicaeum agile)
Pale-billed flowerpecker(Dicaeum erythrorhynchos)
Plain flowerpecker(dicaeum concolor) Purple sunbird(Nectarinia asiatica)
Oriental white-eye(Zosterops palpebrosa)
Common wood shrike(Tephrodornis pondicerianus)
Asian Paradise Flycatcher(Terpsiphone paradisi)

Part III : Hill Top between two Maruti Temples including the quarry

Painted francolin(Francolinus pictus) Grey francolin(Francolinus pondicerianus)
Yellow-crowned woodpecker(Dendrocopos mahrattensis)
White-throated kingfisher(Halcyon smyrnensis)
Asian koel(Eydynamys scolopacea) House swift(Apus affinis)
Rock pigeon(Columba livia) Laughing dove(Streptopelia senegalensis)
Spot-billed duck(Anas pocilorhyncha) Indian peafowl(Pavo cristatus)
Common hawk-cuckoo(Heirococcyx varius)
Common sandpiper(Tringa hypoleucos) Red-wattled lapwing(Vanellus indicus)
River tern(Sterna aurantia) Black kite(Milvus migrans)
Shikra(Accipiter badius) Large-billed crow(Corvus macrorhynchos)
Small minivet(Pericrocotus cinnamomeus) Indian robin(Saxicoloides fulicata)
Common myna(Acridotheres tristis) Great tit(Parus major)
Dusky crag martin(Hirundo concolor) Red-vented bulbul(Pycnonotus cafer)
Plain prinia(Prinia inornata) Ashy prinia(Prinia socialis)
Large grey babbler(Turdoides malcolmi) Indian bush lark(Mirafra erythroptera)
Ashy-crowned sparrow lark(Eremopterix grisea)
Thick-billed flowerpecker(Dicaeum agile)
Purple-rumped sunbird(Nectarinia zeylonica) Purple sunbird(Nectarinia asiatica)
House sparrow(Passer domesticus)
White-browed wagtail(Motacilla maderaspatensis)
Oriental white-eye(Zosterops palpebrosa) Red-rumped swallow(Hirundo daurica)
Black drongo(Dicrurus macrocercus)

Part IV : Hill-slope towards MIT

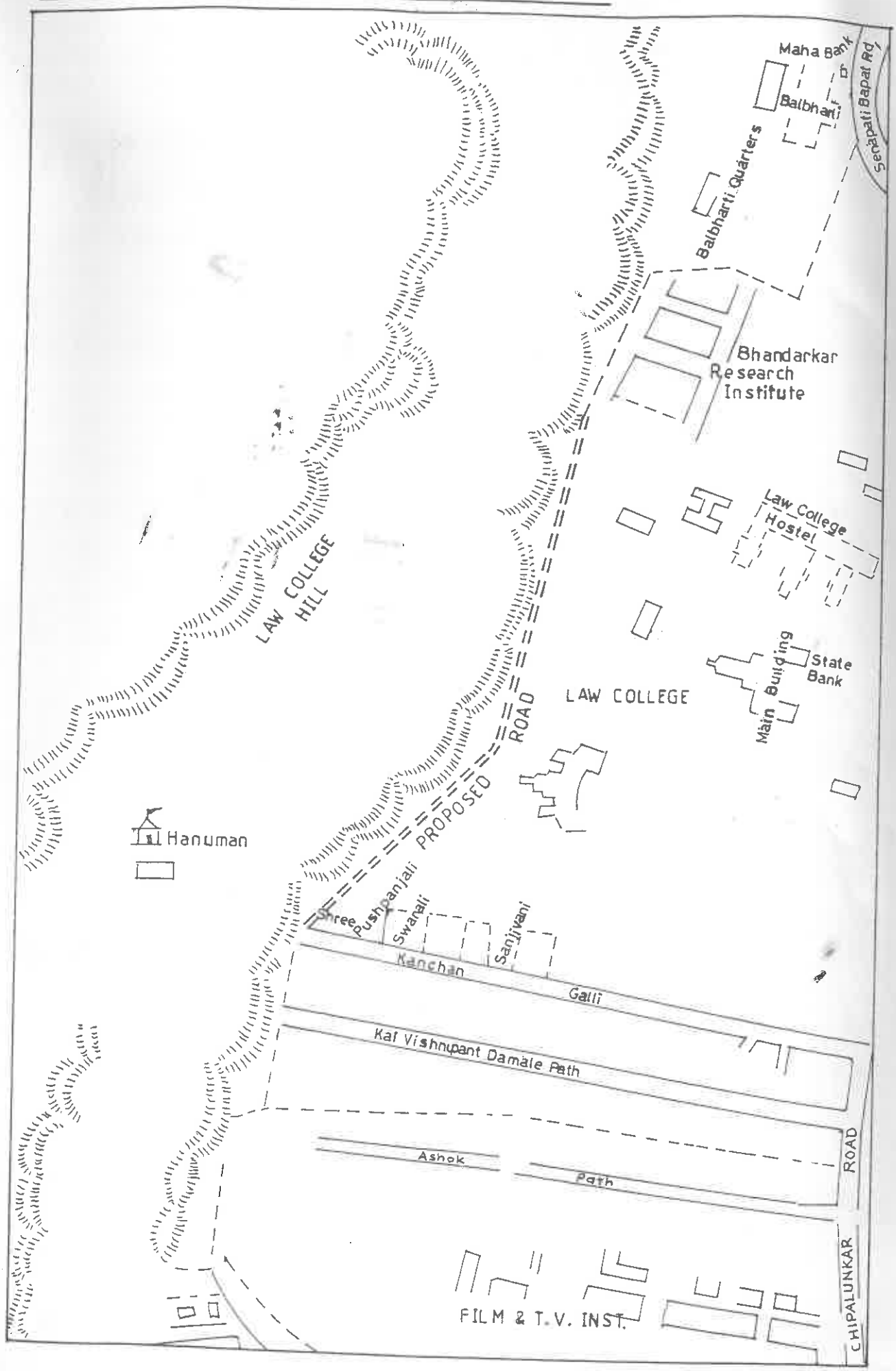
Painted francolin(Francolinus pictus) Grey francolin(Francolinus pondicerianus)
Indian peafowl(Pavo cristatus) Green bee-eater(Merops orientalis)
Common hawk-cuckoo(Heirococcyx varius)
Plaintive cuckoo(Cacomantis merulinus) House swift(Apus affinis)
Rock pigeon(Columba livia) Laughing dove(Streptopelia senegalensis)
Black kite(Milvus migrans) Long-tailed shrike(Lanius schach)
House crow(Corvus splendens) Long-billed crow(Corvus macrorhynchos)
Indian robin(Saxicoloides fulicata) Common myna(Acridotheres tristis)
Great tit(Parus major) Dusky crag martin(Hirundo concolor)
Red-vented bulbul(Pycnonotus cafer) Grey-breasted prinia(Prinia hodgsonii)
Ashy prinia(Prinia socialis) Large grey babbler(Turdoides malcolmii)
Thick-billed flowerpecker(Dicaeum agile)

Plain flowerpecker(Dicaeum concolor)
Purple-rumped sunbird(Nectarinia zeylonica)
House sparrow(Passer domesticus)
Common kestrel(Falco tinnunculus)
Green sandpipier(Tringa ochropus)
Common sandpiper(Actitis hypoleucos)
Little grebe(Tachybaptus ruficollis) Indian pond heron(Ardeola grayii)
Blue rock thrush(Monticola solitarius)

Part V : Hill-slopes behind Patrakar Bhavan

Painted francolin(Francolinus pictus) Grey francolin(Francolinus pondicerianus)
Indian peafowl(Pavo cristatus) Coppersmith barbet(Megalaima haemacephala)
Common hawk-cuckoo(Heirococcyx varias) Asian koel(Eudynamys scolopacea)
Greater coucal(Centropus sinensis) Rose-ringed parakeet(Psittacula krameri)
Rock pigeon(Columba livia) Laughing dove(Streptopelia senegalensis)
Black kite(Milvus migrans) Long-tailed shrike(Lanius schach)
Large-billed crow(Corvus macrorhynchos)
Small minivet(Pericrocotus cinnamomeus) Indian robin(Saxicoloides fulicata)
Common myna(Acridotheres tristis) Jungle myna(Acridotheres fuscus)
Great tit(Parus major) Dusky crag martin(Hirundo concolor)
Red-vented bulbul(Pycnonotus cafer) Grey-breasted prinia(Prinia hodgsonii)
Jungle prinia(Prinia sylvatica) Plain prinia(Prinia inornata)
Ashy prinia(Prinia socialis) Common tailor bird(Orthotomus sutorius)
Large grye babbler(Turdoides malcolmii)
Pale-billed flowerpecker(Dicaeum erythrorhynchos)
Purple-rumped sunbird(Nectarinia zeylonica)
Purple sunbird(Nectarinia asiatica) House sparrow(Passer domesticus)
Oriental white-eye(Zosterops palpebrosa)

Sketch Map of the Location of Proposed Road



diversity perspective through the lens of the students while Dr. Shirwadkar shed more light on diversity with the help of her own field experience and case studies.

Day 2

Session 6: Treasure Hunt

Treasure Hunt was independently organized for both the batches on the second day. It was organized in such a way that all the clues leading to the treasure were located at different locations all over the campus. The students were running all over the campus and getting to know the campus better at the same time by exploring all the corners.

Session 7: Career Options in Law

All the law students have an important question right from the start of their law program that what job opportunities they will get after graduating? To get an answer to this question the session on Career Options in Law was organized with ILS alumni Mr. Chinmay Bilgi and Mr. Ziauddin Shekar; Faculty members Ms. Divya Mittal and Ms. Vindhya Gupta.

Mr. Ziauddin was awarded the best student award for 2019 and in his interaction, he shared his experiences of how he exactly managed academics, extracurriculars, and research activities.

Session 8: Conclusion

The final session concluded with a vote of thanks given by Mr. Akshay Ugale. There was a review of all the activities conducted over the past two days and a vote of thanks to all the persons in this program.

ILS ENVIRONMENTAL LAW CELL (ILS HARIYALI)

Introduction: ILS Hariyali is the Environmental Law Cell of the College, and it educates students about the opportunities in Environmental Law as well as spreading awareness through various on-field initiatives.

Faculty Coordinators: Ms. Varsha Khandagale, Ms. Vindhya Gupta and Ms. Bhumika Rathod

Student Coordinators – Snehil Priyadarshi, Megha Phadkay (both IV BA LLB) and Bushra Tupke (II BALLB).

- **Details of the activities conducted:**
- **Student Seminar I**

Title of Session: Relation Between Climate Change and Human Rights

Date: April 23, 2023

Mode: Online

Resource Person: Janhavi Agarwal (IV BA LLB) and Shivangi Desai (III BA LLB)

No. of Participants: 11

Report: The session was conducted at 11 am on April 32, 2023, to inform the students regarding the inter relation between climate change and human relations, which has developed in recent times. The students were first explained the role of various treaties, Conventions and Organizations in bringing Human Rights forward as an important aspect of Climate Change. After setting the premise a few case laws were discussed with the participants explaining how the Human Rights based arguments are now starting to be in the forefront of climate litigation and how various judgements have solidified their position as such.

- **Student Seminar II**

Title of Activity: Seminar on Climate Change Action: Conservation of Energy Resources and Eco-Friendly Lifestyle

Topic: Sustainable Development Goal No.13,14,15

Date: May 17, 2023

Mode: Offline

Resource Person: Ms. Sneha Sabale, Faculty, ILS Law College

No. of participants: 67, students of I BA LLB (Div. A)

Report: ILS Hariyali – Environment Law Cell conducted a student-teacher seminar with Faculty Ms. Sneha Sabale in B.A.LLB I, Div. A on the topic 'Sustainable Development Goal No.13,14,15'. The purpose of Conducting the activity of Student-Teacher interactive session was to spread awareness among the students regarding sustainable development goals. The seminar aimed to raise awareness about the urgent need for climate change action, life below water and life on Land.

- **Student Seminar III**

Title of Activity: Seminar on Climate Change Action: Conservation of Energy Resources and Eco-Friendly Lifestyle

Topic: Sustainable Development Goal No.1,2,3.

Date: May 17, 2023

Mode: Offline

Resource Person: Mr. Akshay Ugale, Faculty, ILS Law College

No. of participants: 67 students of I BA LLB (Div. B)

Report: ILS Hariyali – Environment Law Cell conducted a student-teacher seminar with faculty Mr. Akshay Ugale in B.A.LLB I, Div. B on topic Sustainable Development Goal No.1,2,3. The

purpose of Conducting the activity of Student-Teacher interactive session was to spread awareness among the students regarding sustainable development goal 1,2,3. The seminar aimed to raise awareness about the urgent need for zero poverty, no hunger, good health and well being.

- **Student Seminar IV**

Title of Activity: Seminar on Climate Change Action: Conservation of Energy Resources and Eco-Friendly Lifestyle

Topic: Climate Change and Sustainable Development

Date: May 17, 2023

Mode: Offline

Resource Person: Ms. Mugdha Hedau, Faculty, ILS Law College

No. of participants: 67, students of I BA LLB (Div. C)

Report: ILS Hariyali – Environment Law Cell conducted a student-teacher seminar for all students of BA LLB I, Div. C Student-teacher seminar with Faculty Ms. Mugdha Hedau on the topic Climate change and Sustainable Development. The purpose of Conducting the activity of Student-Teacher interactive session was to spread awareness among the students of the rapidly changing environment condition and make them contribute to the conservation of the same. The seminar aimed to raise awareness about the urgent need for climate change action, promote the conservation of energy resources, and encourage the adoption of eco-friendly lifestyles.

- **Student Seminar V**

Title of Activity: Seminar on Climate Change Action: Conservation of Energy Resources and Eco-Friendly Lifestyle

Topic: Sustainable Development Goal No.13,14,15

Date: May 17, 2023

Mode: Offline

Resource Person: Ms. Ninawari Ware, Faculty, ILS Law College

No. of participants: 67, students of I BA LLB (Div. D)

Report: ILS Hariyali – Environment Law Cell conducted a student-teacher seminar with Faculty Ms. Ninawari Ware in BA LLB, I Div. D on the topic of Sustainable Development Goal No.13,14,15. The purpose of Conducting the activity of Student-Teacher interactive session was to spread awareness among the students regarding Sustainable development goal 13,14,15 and challenges in fulfilling these sustainable development goals. The seminar aimed to raise awareness about the urgent need for climate change action, life below water and life on Land.

The student-Teacher Seminar on Climate Change Action, Conservation of Energy Resources, and Eco-Friendly Lifestyle was a significant event that fostered awareness, knowledge-sharing, and collaboration among students and teachers. The seminar emphasized the importance of addressing climate change, conserving energy resources, and adopting eco-friendly practices to build a sustainable future.

- **Competitions Conducted:**
- **Title of the Competition:** Blog Writing Competition

Date: October 7, 2022

Judge: Adv. Kritika Choudhary

No. of Participants: 8

Prize details - Winners were provided certificates and their blogs were published on the hariyali cell's website.

Resource Person: Snehil Priyadarshi and Megha Phadkay (IV BA LLB)

Report: An intra college blog writing competition was organized by our cell to give an opportunity to the students to exhibit their writing skills and knowledge about the environmental laws. The participants were asked to write a blog on any of the four topics provided by the cell and submissions were to be made before October 7, 2022.

The topics are Environmental Auditing (Ecolabelling); Digital Carbon Footprint; Effects of Covid-19 on the Environment; Greenwashing.

Around 8 students participated in this competition, and it was judged by Ms. Kritika Choudhary and the winners were provided with certificates and their blogs were published on the Hariyali cell's website.

Winners:

Insha Khan (Digital Carbon Footprint)

Tanvi Srivastava (Effects of Covid-19 on Environment)

Rushika Bakshi (Green Washing)

The competition was a success as all the blogs exhibited great writing skills and creativity and portrayed vast knowledge on environment and environmental laws.

- **Title of the Competition:** Design Junk Competition (Best out of waste Competition)

Date: March 28, 2023

Resource Person: Rudrani Warad (IV BA LLB)

No. of Participants: 11

Report: Design Junk, a best out of waste competition, was held on Day 2 of the Legalease Festival at ILS Law College. The event aimed to promote creativity, innovation, and sustainable practices by encouraging participants to repurpose waste materials into functional and artistic creations. The competition provided a platform for students to showcase their skills in upcycling and raise awareness about environmental conservation.

Event Details:

Participants were given 15 minutes to collect waste materials from within the college premises. This encouraged them to explore their surroundings and utilize readily available resources creatively. Subsequently, participants were provided with one hour to complete their projects. Basic stationery, such as scissors, glue, tape, and markers, was provided by the Hariyali Cell and Legalease Committee. However, participants were required to bring their own additional materials for their projects, emphasizing the concept of using waste materials creatively.

The projects were judged based on criteria such as creativity, resourcefulness, functionality, and adherence to the theme of repurposing waste. A panel of two judges, consisting of faculty members Dr. Shaila Daware and Ms. Swati Kulkarni, assessed the entries.

Winners:

1st Place – Soniya Kamble (II BA LLB)

2nd Place – Bushra Tupke (II BA LLB)

After the competition, all the projects were displayed in an exhibition at Laxmi Building on 29th March for students, faculty, and visitors to admire and appreciate. This provided a platform for the participants to showcase their creativity and inspire others to adopt sustainable practices.

- **Title of the competition**: Pawtography Competition (Photography Competition)

Date: March 26-29, 2023

No. of participants: 30

Resource Person: Bushra Tupke (II BA LLB)

Report: ILS Hariyali organized a Photography Competition during the Legalease 2023. The cell wanted to keep its focused field as the central theme of the event, which made the competition completely based on animal photography.

The event aimed at bringing into notice the diverse fauna and encouraged students and faculty to take some time out exploring the environment around the ILS campus.

There was an online link forwarded on various social media platforms that consisted of a rulebook and other details for the competition. The participants were expected to submit their photo entries (on or before March 26) through the said link with a small paragraph that gave context to their photo. To qualify, the participants were expected to submit pictures of any bird, animal, insect, rodent, or

reptile they came across within the ILS Campus. The competition was open to all ILS students, faculty, and non-teaching staff.

After receiving a very positive response of 30 entries, the final display consisted of 25 shortlisted pictures out of which the winners were ranked based on the judge's view.

The competition was judged by one of the ILS Law college faculty members, Mr. Ashish Pawar.

On March 29, 2023, the third day of Legalease. All the eligible entries were displayed in an exhibition organized in the Laxmi Building where the winners were badged by the judge with a winners' badge. The winners were also felicitated with digital certificates awarded by the Hariyali Cell.

Winners:

1st Place - Swaraj Gawande (II LLB)

Runner up (tie) - Pritesh Shende (III BA LLB)

Runner up (tie) - Midhushi Shukla (II LLB)

- **Title of the Competition:** Blog writing competition

Date: April 29, 2023

Level: Intra-Collegiate

Judge - Megha Phadkay (IV BA LLB)

No. of Participants: 31

Resource Persons: Aditya Jaybhay, Hifza Shaikh and Arslan Jafar (all II BA LLB).

Report: An intra college blog writing competition was organized by our cell to give an opportunity to the students to exhibit their writing skills and knowledge about the environmental laws. The participants were asked to write a blog on any of the four topics provided by the cell and submissions were to be made before April 29, 2023.

The topics were: Negative impact of electric vehicles on the environment; Planting one billion trees, what is the impact; What to expect when the world is completely carbon neutral? Black markets of animal body parts and poaching of tigers in Asia; Recommend the ways to strengthen national and transnational environmental laws to curb this vicious circle.

31 students participated in this competition, and it was judged by the core committee member of the cell, Ms. Megha Phadkay and the winners, Dakshayani Donthu (III BA LLB) and Anna Rose (II BA LLB) were provided with certificates and their blogs were published on the hariyali cell's website. The competition was a success as all the blogs exhibited great writing skills and creativity and portrayed vast knowledge on environment and environmental laws.

Prize details - Winners were provided certificates and their blogs were published on the hariyali cell's webpage.