



Phytodiversity of Shri R. R. Lahoti Science College Campus, Morshi. dist. Amravati, Maharashtra, India

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Abstract

Morshi tehsil is a small-town of Amravati district situated at the foothill of Satpuda range. The present study was aimed at determining the campus phytodiversity richness of Shri R. R. Lahoti Science College, Morshi. Dist. Amravati (MS) India. The college campus is extended over 1.16 acres of land and exhibited by diversity of species such as trees, herbs, shrubs and climbers. Wide range of ethnomedicinal plants are also available in the Botanical Garden of the college. The species richness data was collected by intensive survey from Jan. 2020 to September, 2022. In the present study, 79 plant species belonging to 39 families have been documented. The plant families like Apocynaceae and Fabaceae were found to be dominant. Considering progressive non-agricultural land use in the city, much attention should be paid towards the conservation of college campus like green spaces, for which such studies provide a baseline data.

Keywords: phytodiversity, lahoti college, morshi, satpuda

Introduction

Biodiversity plays an important role in ecological balance and sustenance of life on the earth (Kaur & Sharma, 2014)^[4]. Various climatic disasters and anthropogenic activities are solely responsible for habitat destructions thus leads to loss of native flora and fauna (Prakash S. and Verma A.K., 2022)^[6]. Therefore, preservation of biological resources is essential for the wellbeing and the long-term survival of mankind. Establishment of Botanical Garden as the state forest fragment and other gardens are the means of conservation of the various plant species which support to the natural wealth of the Globe (Reddy *et al.*, 2014)^[10]. Also, plant harvesting generally is not a practice of the college campus, and thus leads to conservation of phytodiversity. Keeping this perspective in view the present studies were conducted to explore and document the plant species of the college campus.

Material and Methods

Morshi tehsil is located in Amravati district of Maharashtra State, India. It is 58 km away from sub-district headquarter Amravati. Shri R.R. Lahoti Science College Morshi is one of the esteemed colleges in the district. The college is situated at coordinates 21°19'46"N, 78°00'27"E (Fig.1) as measured by Google Earth Software and extended over 1.16 acres of area. The species richness data was collected by intensive survey from Jan. 2020 to September, 2022. The plant species were identified using different flora such as Ugemuge (1986)^[12], Cook (1996)^[1], Naik (1998)^[5], Dhore (2002)^[2], and Yadav and Sardesai (2002)^[14].

Results and Discussions

All total 79 plant species belonging to 39 families were found in the college campus. The plant families like Apocynaceae and Fabaceae were found to be dominant and represented by 8 and 7 species respectively. It is followed by Euphorbiaceae which represents 4 species. The families like Anacardiaceae, Asparagaceae, Lamiaceae, Rubiaceae, Rutaceae, and Verbenaceae are represented by 3 species each. Many families like Amaranthaceae, Annonaceae, Asteraceae, Bignoniaceae, Combretaceae, Commelinaceae, Menispermaceae, Moraceae, Myrtaceae, Oleaceae, Poaceae and Sapotaceae are represented by 2 species each. The remaining 18 families given in the (Table1) represent single species each. In India, different workers such as Jeeshna M.V. (2020)^[3]; Prakash S. and Verma A.K. (2022)^[6]; Pore S.M. *et.al.* (2020)^[7]; Rajendran A. (2014)^[8]; Rao P. S. (2017)^[9]; Reddy B. (2014)^[10]; Sainkhediya Jeetendra (2019)^[11]; Wagay Nasir Aziz (2015) *etc.* also have made the same attempt of documentation of college campus phytodiversity.

Conclusion

The college campus has several plant species some of which are ornamental, aromatic and ethnomedicinal. The Botanical Garden has large numbers of Tree species used as plant-based medicine. Exploration of campus biodiversity and its publication creates awareness among the students and other colleges which may be a mean for conservation and thus support to the natural resources of the Globe.

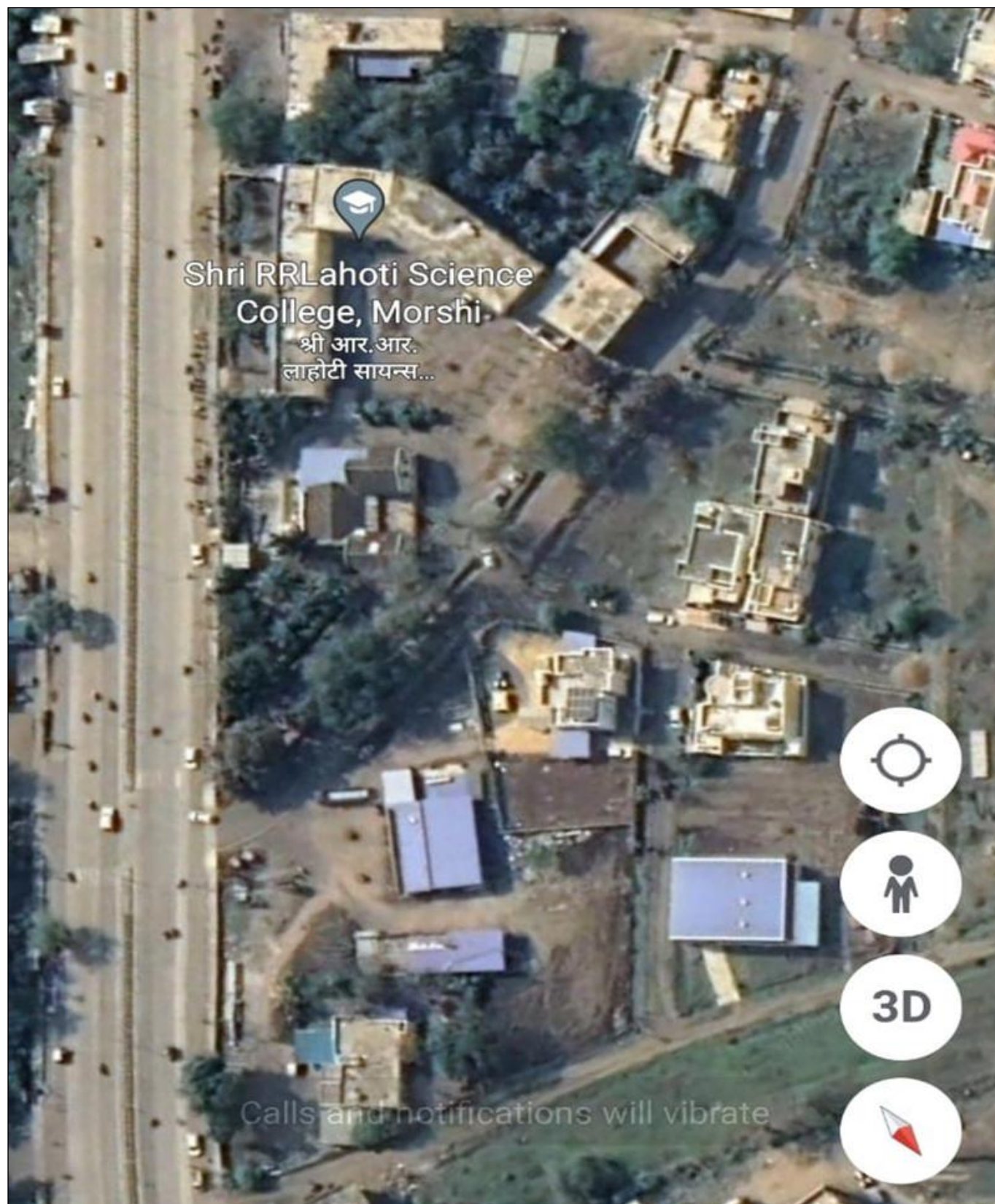


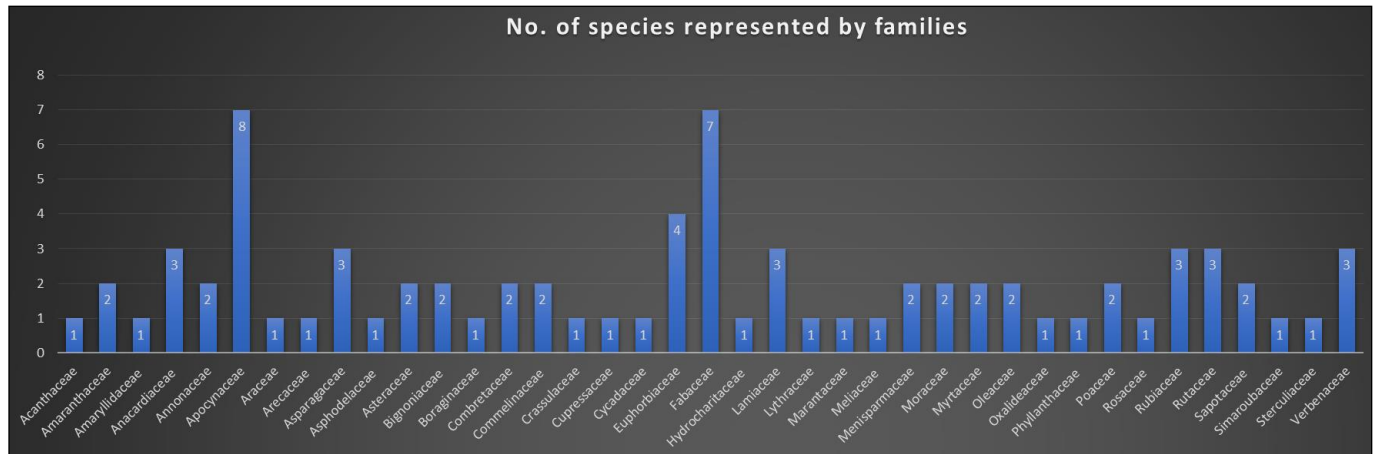
Fig 1: Geographic location of R.R. Lahoti College, Morshi ($21^{\circ}19'46''N$, $78^{\circ}00'27''E$)

Table 1: List of college campus plants

Sr. No.	Botanical name	Family
1	<i>Andrographis paniculata</i> (Burm.f.) Wall ex Ness	Acanthaceae
2	<i>Aerva Lanata</i> (L.) Juss.	Amaranthaceae
3	<i>Achyranthus aspera</i> L.	Amaranthaceae
4	<i>Hymenocallis littoralis</i> (Jacq.) Salisb.	Amaryllidaceae
5	<i>Semecarpus anacardium</i> L.f	Anacardiaceae
6	<i>Mangifera indica</i> L.	Anacardiaceae

7	<i>Buchanania lanzan</i> Spreng.	Anacardiaceae
8	<i>Polyalthia longifolia</i> (Sonn.) Thwaites	Annonaceae
9	<i>Annona squamosa</i> L.	Annonaceae
10	<i>Alstonia scholaris</i> (L.) R. Br.	Apocynaceae
11	<i>Nerium oleander</i> L.	Apocynaceae
12	<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae
13	<i>Calotropis procera</i> (Aiton) W.T. Aiton	Apocynaceae
14	<i>Calotropis gigantea</i> (L.) Dryand.	Apocynaceae
15	<i>Plumeria obtusa</i> L.	Apocynaceae
16	<i>Hemidesmus indicus</i> (L.) R. Br.	Apocynaceae
17	<i>Tabernaemontana divaricata</i> R. Br. ex Roem & Schult	Apocynaceae
18	<i>Caladium bicolor</i> (Aiton) Vent.	Araceae
19	<i>Roystonea regia</i> (Kunth) O.F. Cook	Arecaceae
20	<i>Dracaena trifasciata</i> (Prain) Mabb.	Asparagaceae
21	<i>Asparagus racemosus</i> Willd.	Asparagaceae
22	<i>Beaucarnea recurvata</i> Lam.	Asparagaceae
23	<i>Aloe vera</i> (L.) Burm. f.	Asphodelaceae
24	<i>Tridax procumbens</i> L.	Asteraceae
25	<i>Launaea procumbens</i> (Roxb.)	Asteraceae
26	<i>Oroxylum indicum</i> (L.) Benth ex. Kurz	Bignoniaceae
27	<i>Spathodea campanulata</i> P. Beauv	Bignoniaceae
28	<i>Ehretia laevis</i> Roxb.	Boraginaceae
29	<i>Terminalia arjuna</i> (Roxb.) Wight and Arn.	Combretaceae
30	<i>Terminalia catappa</i> L.	Combretaceae
31	<i>Tradescantia spathacea</i> Sw.	Commelinaceae
32	<i>Commelina benghalensis</i> L.	Commelinaceae
33	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Crassulaceae
34	<i>Thuja occidentalis</i> L.	Cupressaceae
35	<i>Cycas circinalis</i> L.	Cycadaceae
36	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae
37	<i>Ricinus communis</i> L.	Euphorbiaceae
38	<i>Euphorbia hirta</i> L.	Euphorbiaceae
39	<i>Euphorbia prostrata</i> Aiton	Euphorbiaceae
40	<i>Albizia lebbek</i> (L.) Benth	Fabaceae
41	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Fabaceae
42	<i>Bauhinia purpurea</i> L.	Fabaceae
43	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae
44	<i>Senna tora</i> (L.) Roxb.	Fabaceae
45	<i>Pterocarpus marsupium</i> Roxburgh	Fabaceae
46	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae
47	<i>Hydrilla verticillata</i> (L.f) Royle	Hydrocharitaceae
48	<i>Tectona grandis</i> L.f	Lamiaceae
49	<i>Ocimum basilicum</i> L.	Lamiaceae
50	<i>Ocimum sanctum</i> L.	Lamiaceae
51	<i>Lagerstroemia speciosa</i> (L.) Pers	Lythraceae
52	<i>Maranta arundinacea</i> L.	Marantaceae
53	<i>Azadirachta indica</i> A. Juss.	Meliaceae
54	<i>Cocculus hirsutus</i> (L.) Diels	Menispermaceae
55	<i>Tinospora cordifolia</i> auct. non (DC). Miers	Menispermaceae
56	<i>Ficus hispida</i> var. <i>viridis</i> Kuntze	Moraceae
57	<i>Ficus benamina</i> L.	Moraceae
58	<i>Psidium guajava</i> L.	Myrtaceae
59	<i>Syzygium cumini</i> (L) Skeels	Myrtaceae
60	<i>Jasminum sambac</i> (L.) Aiton	Oleaceae
61	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae
62	<i>Oxalis corniculata</i> L.	Oxalideaceae
63	<i>Phyllanthus niruri</i> L.	Phyllanthaceae
64	<i>Cymbopogon schoenanthus</i> (L.) Spreng.	Poaceae
65	<i>Cynodon dactylon</i> (L.) Pers	Poaceae
66	<i>Rosa rubiginosa</i> L.	Rosaceae
67	<i>Ixora coccinea</i> L.	Rubiaceae
68	<i>Neolamarckia cadamba</i> (Roxb.) Bosser	Rubiaceae
69	<i>Gardenia gummifera</i> L.f	Rubiaceae
70	<i>Aegle marmelos</i> (L.) Correa	Rutaceae
71	<i>Murraya koenigii</i> (L.) Sprengel	Rutaceae
72	<i>Murraya paniculata</i> (L.) Jack	Rutaceae
73	<i>Manilkara hexandra</i> (Roxb.) Dubard	Sapotaceae
74	<i>Mimusops elengi</i> L.	Sapotaceae

75	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae
76	<i>Pterospermum acerifolium</i> (L.) Willd.	Sterculiaceae
77	<i>Lantana camara</i> L. var. <i>aculeata</i> (L.) Mold	Verbenaceae
78	<i>Duranta erecta</i> L.	Verbenaceae
79	<i>Lantana camara</i> L.	Verbenaceae



Graph 1: Graphical representation of number of species represented by Families

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