IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

Floristic Diversity of Plants in Shyama Prasad Mukharjee Garden of Jalgaon City from Maharashtra

Pandey, P. O., Deshattiwar, M. K. and Tambat, R. K.
Department of Botany
M.J College Jalgaon, Maharashtra, India

Abstract: *Public gardens are places and recreation in the cities. These are the green patches which gives pleasure as well as pure oxygen to breathe. Jalgaon is located in the North Maharashtra region. It is thickly populated city and population is about 7 million. There are 4 major gardens in the city out of which Shyama Prasad Mukharjee Garden is located near railway station. It is comparatively older garden. Extensive visits are made to this garden for plant diversity studies.The study in this garden shows more number of trees than herbs and shrubs. In total there are 2151 plants belonging to 40 genera of 24 families are present in this garden. Total 306 trees of 25 species of 23 genera, 319 herbs belonging to 2 genera and 2 species, 8 climbers belonging to 3 genera and 3 species. Total 42 species of 40 genera belonging to 24 families of herbs shrubs and trees are present in this garden.*

Keywords: public garden, plant diversity, Shyama Prasad Mukherjee, Flora, species

I. INTRODUCTION

Garden can be defined as, such an area of land that is open to the public sometimes part of a park .At the global scale many types of gardens exists, such as home gardens ,public gardens etc.Distribution of plant species in a garden is very specific, its component species are selected by us according to their uses. Like ornamental plant of any garden to use ever now day edible and medicinal plants are also grown with them.On the basis of layout and structural components there are several types of gardens. These are1.Formal Gardens, 2.Informal gardens, 3.Botanical gardens, 4.Terrace gardens, 5.Parks .Garden has importance because it conserves the plants .India is rich in plant resources, many of which are of ornamental value.Garden has great the aesthetic value. They are the place of recreation

II. MATERIALS AND METHODS

The present work is aimed to do floristic survey of botanically a fairly rich area, domestic garden called Shyama Prasad Mookharjee Udyan. Frequent visit to the garden are made and plants are counted manually. They are observed, recorded and identified using various floras. Different floras such as Flora of Nagpur(1986), Flora of Jalgaon district (2008), Flora of Marathwada (1998) are referred. Filed notebook is kept which act as record book or data of all observed plants. Number of genera, species, and families are recorded in the table. Plants are also made in different groups such as herbs, shrubs and trees.Photographs of different species of plants are taken using digital camera.

STUDY AREA

The study area is a garden called “Shyama Prasad Mookharjee”. It is located at the Northern side of the city close to JilhaParishad at C. T. S. No. 2121/A-1 having 15,386 Sq M area. This garden is near to Jalgaon Railway Station. It is a renowned garden of the city, having variety of plants, playing objects and a temple of goddess. There is a “Martyrdom Memorial” in the garden which is a memorial dedicated to those who died in the freedom fight of our country. Garden is having several pavement as well as benches, playing objects likes see-saw, swings, slides etc.

DOI: 10.48175/IJARSCT-28170

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

III. RESULTS AND DISCUSSION

The garden represents more number of trees as compared to herbs and shrubs. 42species of 40 genera belonging to 24 families are present in the garden. Trees species with huge foliage are maximum (like C*aesalpinapulcherima, Leucanaleucocephala, Azadirechtaindica, Ficusreligiosa* etc.). These form habitat of several birds which are noticeable in the morning and evening. Families of Dicotyledons are comparatively more and are represented by Caesalpinaceae, Myrtaceae, Meliaceae, Combretaceae and Rutaceae of Polypetalae group and Apocynaceae, Verbenaceae and Rubiaceae of gamopetalae. While Monocotyledon members are few like Arecaceae, Amaryllidaceae and Poacaeae. Inspite of plant diversity, hedge plant *Durantarepens* represents the maximum number in the garden. Next to this member of Amaryllidaceae is also cultivated in large area with 318 numbers. The ornamental tree of *Polyalthealongifolia* is present in good number however tree of *Pithecolobiumdulce*, *Annona*squamosa and *Bambusa vulgaris* are also recorded. Religious plants like, *Musa paradisiaca*, *Cocos nucifera*, *Ficusreligiosa* are noticable in the garden.The present study of Shyama Prasad Mookharjee garden shows good number of ornamental plants in the garden. In all, garden flora consist of 306 trees belonging to 23 genera and 25 species, 319 herbs belonging to 2 genera and 2 species, 8 climbers belonging to 3 genera and 3 species.Various plant families mark their presence of which dicotyledons are dominant with few monocotyledonous families. Study reveals that garden is having 2151 plants belonging to 40 genera of 24 families. *Duranta repens* dominates the vegetation of garden with 1331individuals. Next to this, Spider lily stands with 318 plants. 35 dicotyledonous plant species are present in the garden while monocots are represented by only 7 species. A popular ornamental plant of gymnosperm *Thujaoccidentalis*is also cultivated in the garden. Plant with medicinal value are also present there, these are *Azadirechtaindica, Emblica officinalis, Pongamiapinnata,* etc.Considerable no. of fruit trees are grown in garden, these not only enhance the beauty of garden but also makes dwelling for various bird which feeds on those fruits. Hence, Shyama Prasad Mookharjee garden is crowded with several birds like sparrows, parrots etc. every time. Apart from ornamental avenue trees, medicinal, fruit plants are also present in these gardens.

Table No. 01 Dicotyledonous plants of Shyama Prasad Mookharjee Garden

Sr.No.	Botanical Name	Common Name	Family	Uses	No. Of Plants
1	*Polyalthealongifolia*B(Sonnar) Thw	Ashok	Caesalpinaceae	Ornamental	136
.2	*Alstoniascholaris*L.R.Br	Saptparni	Apocynaceae	Ornamental	1
3	*Ficusreligiosa*L.	Pimpal	Moraceae	Religious	12
4	*Durantarepens*L.	Mehandi	Verbenaceae	Ornamental	1331
5	*Lucanaluecocephala*Lamk	Subabhul	Mimosaceae	Ornamental	68
6	*Azadirechtaindica*A.	Kadunimb	Meliaceae	Medicinal	3
7	*Tamarandusindica*L.	Chinch	Caesalpinaceae	Edible	1
8	*Eugenia jambolana*Lamk.	Jamun	Myrtaceae	Edible	6
9	*Emblica officinalis* L.	Awala	Rubiaceae	Medicinal	1
10	*Annona squamosa*L.	Sitaphal	Anonaceae	Edible	18
11	*Clitoriaternatea*L.	Gokarn	Papillionaceae	Ornamental	3
12	*Ficusglomerata*L.Roxb.	Umbar	Moraceae	Religious	2
13	*Thevetiaperuviana*L.	Kanher	Apocynaceae	Ornamental	1
14	*Casurinaequsetifolia*L.	Suru	Casurianeceae	Ornamental	7
15	*Jasminiumroxberghianum*L.	Jui	Oleaceae	Ornamental	2
16	*Psidiumgujava*L.	Peru	Myrtaceae	Edible	1
17	*Tabernemontanadivericata*(L.)R.Br.	Chandani	Apocynaceae	Ornamental	4
18	*Ficusbengalensis*L.	Wad	Moraceae	Religious	3

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 8, June 2025 Impact Factor: 7.67

Sr.No.	Botanical Name	Common Name	Family	Uses	No. Of Plants
19	*Citrus medica*L.	Limbu	Rutaceae	Edible	2
20	*Lantena camera* L.	Tantani	Verbenaceae	Ornamental	9
21	*Carthemustinctorius*L.	Kali maina	Apocynaceae	Edible	1
22	*Quisqualisindica*L.	Madhumalti	Combretaceae	Ornamental	3
23	*Hibiscus rosasinensis*L.	Jaswand	Malvaceae	Ornamental	4
24	*Artabotrysodorattisimus*L.	Chafa	Anonaceae	Ornamental	1
25	*Cesalpinapulcherima*L.	Shankasur	Ceasalpinaceae	Ornamental	2
26	*Pithocoelobiumdulce*Benth.	Eng. Chinch	Ceasalpinaceae	Edible	3
27	*Acalyphaindica*L.	Khalifa	Euphorbiaceae	Ornamental	33
28	*Thujaoccidentalis*L.	Vidya	Coniferaceae	Ornamental	1
29	*Ixoracoccinea*L.	Ixora	Rubiaceae	Ornamental	33
30	*Erenthemum bicolor* Andr	False erenthemumbicolor	Acanthaceae	Ornamental	29
31	*Terminalliacatapa*L.	Badam	Combretaceae	Edible	3
32	*Cassia Fistula* L.	Bahava	Caesalpinaceae	Ornamental	1
33	*Tecomastans*(L.)H.B & K	Yellow bells	Bignoniaceae	Ornamental	15
34	*Securenegiass*exJussnom.cons	Barsit	Euphorbiaceae	Weed	5
35	*Galphimiagracilis*L.	Gold shower	Malpighiaceae	Ornamental	1
36	*Croton bonplandianum*L	Croton	Euphorbiaceae	Ornamental	19
37	*Pongamiapinnata*L.	Karanj	Papilionaeae	Medicinal	14
Total					**1779**

Table No. 02 Total no of Monocotyledonous plants in Shyama Prasad Mookharjee Garden

Sr.No.	Botanical Name	Common Name	Family	Uses	No. Of Plants
1	*Arum maculatum*L	Arum	Araceae	Ornamental	15
2	*Phoenix sp.*L.	Shindi	Araceae	Ornamental	1
3	*Bambusa vulgare*Schard.	Bambu	Poaceae	Ornamental	27
4	*Phoenix dactylifera*L.	Khajur	Araceae	Edible	4
5	*Cocos nucifera*L.	Naral	Araceae	Medicinal	6
6	*Musa paradisiacal* L.	Keli	Musaceae	Edible	1
7	*Hymenocalliscasibaea* L.	Spider lily	Amaryllidaceae	Ornamental	318
Total					**372**

DOI: 10.48175/IJARSCT-28170

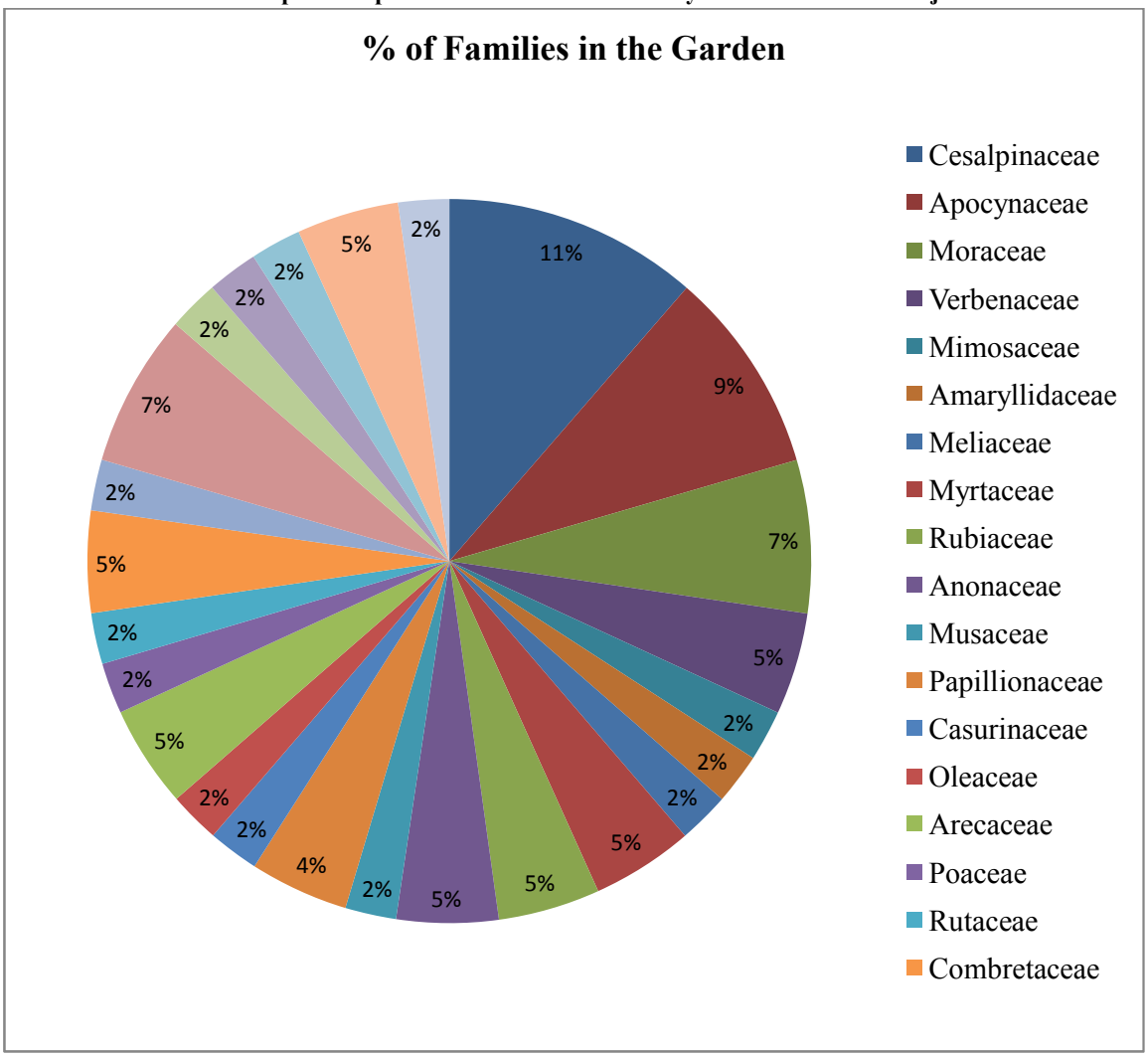
IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

Table no. 03Diversity of plant families of Shyama Prasad Mookharjee Garden.

Sr no.	Name of family	Genera	Species	Total no. of Plant
1	Coniferaceae	1	1	1
2	Annonaceae	2	2	19
3	Malvaceae	1	1	4
4	Meliaceae	1	1	3
5	Papilionaceae	2	2	17
6	Caesalpinaceae	5	5	143
7	Mimosaceae	1	1	168
8	Myrtaceae	2	2	7
9	Rutaceae	1	1	2
10	Combretaceae	1	1	3
11	Malpighiaceae	1	1	1
12	Moraceae	1	3	17
13	Bignoniaceae	1	1	15
14	Verbenaceae	2	2	1340
15	Apocynaceae	4	4	7
16	Acantheaceae	1	1	29
17	Rubiaceae	2	2	34
18	Oleaceae	1	1	2
19	Euphorbiaceae	2	2	38
20	Casurianeceae	1	1	7
21	Amaryllidaceae	1	1	318
22	Araceae	4	4	26
23	Musaceae	1	1	1
24	Poaceae	1	1	27
Total	**40**	**42**	**2151**	

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

Table No. 04 Graphical representation of families in Shyama Prasad Mookharjee Garden



IV. CONCLUSION

On the basis of above study it can be stated that though the garden has quiet good number of plants in it , however taking the area of garden into consideration the number of plants present in it are not as enough to serve the function of a good garden. Hence it is proposed that there is a need of conservation of the plants and more number of plants with different species should be cultivated in the garden. As the garden is situated in the heart of city interference of local people is obvious hence for the sustainance of plants their conservation and maintenance is essential and present days need.

REFERENCES

[1]. Cook T. (1901-1908). The Flora of Presidency of Bombay Vol-1 & 2London. (B.S.I. reprinted 1958, Vol-1& 3, Calcutta).

[2]. Kshirsagar S.R. &Patil D.A. (2008), Flora of Jalgaon District, Maharshtra, Bishen Singh Mahendra Pal Singh pp. 408.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

[3]. Lakshminarasimhan, P. and Sharma, B.D. (1991) Flora of Nashik District, Botanical Survey of India, Calcutta, India.
[4]. Naik V. N. (1998), Flora of Marathwada, Amrut Publication, Vol-1, pp.601, AmrutPrakashan, Station Road, Aurangabad
[5]. Randhawa, M.S. 1965, Flowering Trees, National Book trust of India, New Delhi
[6]. Singh N. P. &Kartikeyan S. (1996), Flora of Maharashtra State Dicotyledons, vol-I, pp.893.
[7]. Singh, N.P., Karthikeyan, S., Lakshminarasimhan P. and P.V. Prasanna (2000-2001) Flora of Maharashtra State, Botanical Survey of India, Calcutta.
[8]. Sutaria R. N. (1958). A Book of Systematic Botany, Khadayata Book Dept, Ahmedabad
[9]. Ugemuge, N.R. (1986) Flora of Nagpur District, Maharashtra, India, Shree Prakashan, Nagpur, India.
[10]. Google earth: www.jalgaon.gov.in
[11]. www.jalgaon.district.com