

Plants and Fungal Diversity from Pimpri Sandas, Pune District, Maharashtra

Ranadive K.R, Shirurkar D.D and Danai-Tambhale S.

Department of Botany, P.D.E.A.'s Annasaheb Magar Mahavidyalaya, Hadapsar, Pune.

ARTICLE INFO

Article history:

Received: 18 March 2021;

Received in revised form:
12 April 2021;

Accepted: 22 April 2021;

Keywords

Diversity,
Fungi,
Family,
Lichens,
Plants.

ABSTRACT

Pimpri Sandas small village 1560.49 hectares in Haveli Tehsil. The survey of the locality has been done as a part of social activity and making general floristic awareness to the people from conservation point of view. In all total 18 plant species and 10 species of fungi and lichens were reported from which 08 are pure fungi and 02 are lichenised fungi. Basidiomycetous fungi and plants belongs to Fabaceae are found to be dominant in the locality. Some interesting saxicolous species like *Caloplaca* and *Rhizocarpon* are commonly found in this area.

© 2021 Elixir All rights reserved.

Introduction

Pimpri Sandas village is located in Haveli Tehsil of Pune district in Maharashtra, India. It is situated 30km away from sub-district headquarter Pune and 46km away from district headquarter Pune. As per 2009 stats, Pimpri Sandas is the gram panchayat of Pimpri Sandas village. The total geographical area of village is 1560.49 hectares. Pimpri Sandas has a total population of 3,392 peoples. There are about 645 houses in Pimpri Sandas village. Pune is nearest town to Pimpri Sandas which is approximately 30km away.

During the field survey of the plants from village Pimpri Sandas plants of the Family- Fabaceae were found to be dominant. The village is very much developed but the patches of the vegetation are conserved near the houses. Over all the region is dry and the members like *Acacia* are common.

Table No1. List of plants and family

Sr. No.	Name of the plant	Family
1	<i>Pongamia pinnata</i>	Fabaceae
2	<i>Ficus benghalensis</i>	Moraceae
3	<i>Ficus religiosa</i>	Moraceae
4	<i>Acacia chunara</i>	Fabaceae
5	<i>Cassia tora</i>	Fabaceae
6	<i>Zizyphus jujuba</i>	Rhamnaceae
7	<i>Azadirachta indica</i>	Meliaceae
8	<i>Melia azadirach</i>	Meliaceae
9	<i>Alternanthera sessilis</i>	Amaranthaceae
10	<i>Xanthium strumarium</i>	Asteraceae
11	<i>Sida cordifolia</i>	Malvaceae
12	<i>Sapathodia campanulata</i>	Bignoniaceae
13	<i>Combretum sp.</i>	Combretaceae
14	<i>Polygonum glabrum</i>	Polygonaceae
15	<i>Asclepias curasavica</i>	Apocynaceae
16	<i>Mangifera indica</i>	Anacardiaceae
17	<i>Polyalthia longifolia</i>	Annonaceae
18	<i>Albizia lebeck</i>	Fabaceae

Table No 2. Dominant Family of the area

Sr. No.	Name of the Family	No of Individuals
1	Fabaceae	04
2	Moraceae	02
3	Rhamnaceae	01
4	Meliaceae	01
5	Amaranthaceae	01
6	Asteraceae	01
7	Malvaceae	01
8	Bignoniaceae	01
9	Combretaceae	01
10	Polygonaceae	01
11	Apocynaceae	01
12	Anacardiaceae	01
13	Annonaceae	01

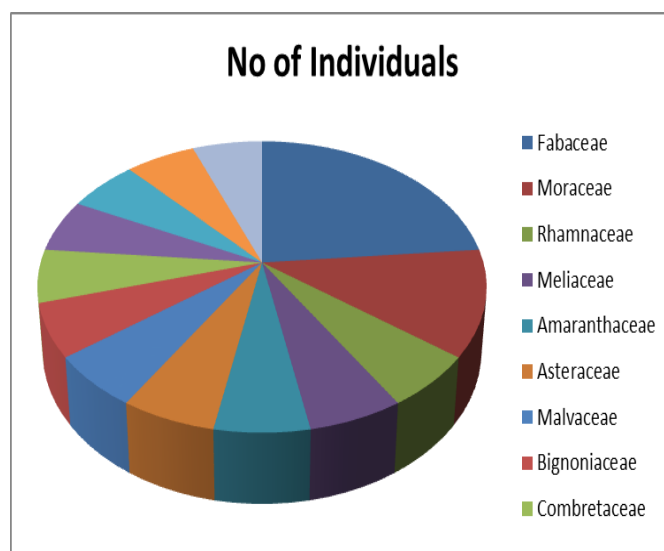


Figure No 1. Dominant Families of plants and their distribution.



Figure No 2. a) *Pongamia glabra* b) *Ficus benghalensis* c) *Ficus religiosa* d) *Cassia* sp. e) *Azadiracta indica* f) *Acacia* sp. g) *Polygonum glabrum* h) *Sida* i) *Alternanthera sessilis* j) *Xanthium strumarium* k) *Asclepias curassavica* l) *Polyalthia longifolia* j) *Albizia lebbek* k) *Spathodia campanulata*.



Figure No 3. A) *Xylaria*, B) *Caloplaca*, C) *Auricularia*, D) *Inonotus*, E) *Daedalea*, F) *Rhizocarpon*, G) *Cercospora*.

Table No 3. List of Fungi/Lichens and Group.

Sr. No.	Name of the Fungus/Lichen	Group
1	<i>Xylaria</i> sp.	Ascomycetes
2	<i>Coprinus</i> sp.	Basidiomycetes
3	<i>Agaricus</i> sp.	Basidiomycetes
4	<i>Inonotus</i> sp.	Basidiomycetes
5	<i>Auricularia</i> sp.	Basidiomycetes
6	<i>Daedalea</i> sp.	Basidiomycetes
7	<i>Puccinia</i> sp.	Basidiomycetes
8	<i>Cercospora</i> sp.	Deuteromycetes
9	<i>Rhizocarpon</i> sp.	Ascomycetes
10	<i>Caloplaca</i> sp.	Ascomycetes

Table No 4. Dominant fungal Groups of the area.

Name of the Fungus	Group	No. of individuals per group
<i>Xylaria</i> sp.	Ascomycetes	03
<i>Rhizocarpon</i> sp (Lichen).		
<i>Caloplaca</i> sp.(Lichen)		
<i>Coprinus</i> sp.	Basidiomycetes	06
<i>Agaricus</i> sp.		
<i>Inonotus</i> sp.		
<i>Auricularia</i> sp.		
<i>Daedalea</i> sp.		
<i>Puccinia</i> sp.		
<i>Cercospora</i> sp.	Deuteromycetes	01

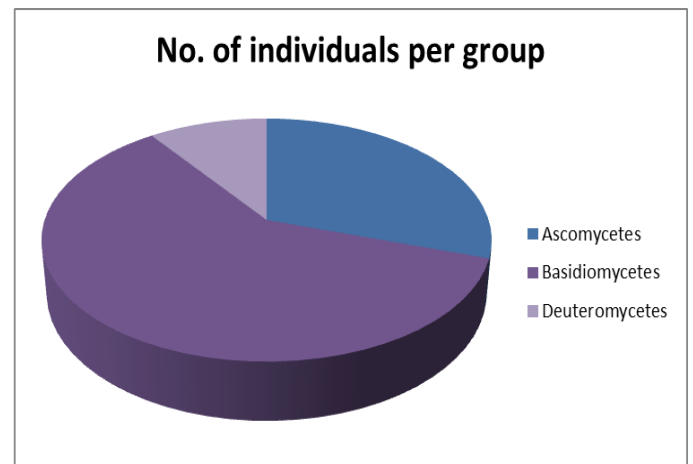


Figure No 4. Comparative data of the groups of fungi.

Acknowledgement

We are very much thankful to Principal Dr. Shelke P.N. and Dr. Bendre, Vice Principal of Annasaheb Magar Mahavidyalaya for their constant support. I would like to extend my sincere thanks to NSS Coordinator Dr. Savita Kulkarni, Program officer Prof. Nitin Lagad, Prof. Sagar Kamble and all team members for their help during this survey.

Bibliography

Ainsworth GC, Bisby GR. 1945 - Dictionary of Fungi (second edition), C. M. I. Kew. pp. 547.
Ainsworth GC, Sparrow FK, Sussaman AS. 1973 -The Fungi Vol. IVB. Academic Press N. York and London. pp. 504.

List of Fungi survey during NSS Camp to Pimpri-Sandas

During this survey some of the lichen species are found on rocks. The trees were not showing the lichens at all which shows the region is equally polluted as that of the city. The wooden logs shows common members of the fungal community from Ascomycetes and Basidiomycetes. Fungi from Basidiomycetes are found to be dominant in the given locality.

- Alexopoulos CJ, Mims CW, Blackwell M. 2002 - Introductory Mycology. John Wiley and Sons, Inc., New York. pp. 869.
- Awasthi D.D. 2007- A Compendium of the Macrolichens from India Nepal and Sri Lanka. M/s Bishen Singh Mahendra Pal Singh; First Edition (1 January 2007)
- Bakshi BK. 1971 - Indian Polyporaceae (On trees and timber). ICAR Publication, New Delhi. pp. 246.
- Champion HG, Seth SK. 1968 - Revised survey of the forest types of India.
- Corner EJH. 1933 - The construction of Polypores. Phytomorphology. 3, 152-169.
- Gilbertson RL. 1977-78 - Synopsis of wood rotting fungi on spruce in North America I and II. Mycotaxon 6, 43-77 and 7, 337- 356.
- Hakimi MH, Vaidya JG, Ranadive KR, Jamaluddin, Jite PK. 2013 - Resupinate Aphyllophorales of India. Scientific Publishers (India).pp. 280 + 12 plates.
- Pegler DN. 1966- The Polyporaceae Part I. with a key to the British genera. News Bulletin of the British Mycological Society, 26, 15-27.
- Ranadive et al, 2011 -Checklist of Aphyllophorales from the Western Ghats of Maharashtra State,India. Mycosphere 2 (2), 91-114.
- Roy A, De A. 1996 - Polyporaceae of India International book distributor, Dehra Dun-248001, India. pp. 309.
- Ryvarden L. 1976 a - Polyporaceae of North Europe.Vol. I. Fungiflora, Oslo. pp. 218.
- Sharma JR. 2000 - Genera of Indian Polypores. Botanical Survey of India, Calcutta 700001. pp.188.