International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

Floristic Study of Surrounding Sakhara Dam Region, Dahanu Taluka of Palghar District, Maharashtra State, India

Dakshata Patil and Jayananda Tosh
Department of Botany
S.D Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar-401404, Maharashtra, India

Abstract

The present work has been carried out to collect information about different plants species surrounding Sakhara dam area of Dahanu Taluka on Palghar District. Sakhara is selected for the floristic studies because it has been given little attention of its vegetation .Over 159 Species plants belonging to more than 45 families were studied. Among 45 families, Leguminosae are the most dominant family.This floristic information of the Sakhara is now available for the first time with this publication.

Keys Words: Dahanu Taluka, Floristic Study, Plant vegetation, Sakhara dam

Introduction

Floristic study refers to the variety of plants species and their variation distributed in the particular area. Vegetation is the most precious gift, plant has provided to us as meeting all kinds of essential requirement of the human beings in the form of food, fodder, fuel, medicine, timber, resin and oil etc. (Tosh. 1996, 2004 & 2012, Patil D.et al. 2017, Gaur R.D.1999). Plant communities play a pivotal role in sustainable management by maintaining biodiversity and conserving the environment (Saxana K.G.1996). The documentation of floristic study is important to understand the present diversity status .Floristic studies acquire increasing important in recent years in response to the need of developing and under developing countries to assess their plant wealth. (Vediya S.D.2011).

Many floristic diversity studies have been conducted in different part of world. (Nipunage D.S. et.al., 2016,Ganorkar R.2013,Vartak V.D.(1984), Nair.N.C.1986, Poojari H.et.al.,2017) The earlier work on floristic part of Dahanu has been carried out (Nath. V.Badari 983) .Later on there was on gap were from 1983 up to 2017 .They were worked in selected different area of Dahanu Forest Division.

The present study area is rich in plant diversity including medicinal plants. Though, Flora of this area has been given little attention. Therefore, this study area is selected for floristic

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

diversity.This floristic information surrounding the Sakhara Dam is now available for the first time with this publication.

Study Area

Sakhara is a village situated at Dahanu taluka. It lies between 19° 58' N Latitude and 72°44' longitudes .The region Sakhara having climatic condition high humidity, oppressive Summer and heavy rainfall. The region having the minimum temperature as low as 20° C to 25° C and maximum temperature as high as 30°C to 37° C.

Material and Method

During the present works we have regularly and also season wise observed plants from Sakhara area during 2016-2017.Floristic Survey of the different season was done and studied FloristicDiversity. Field data has been noted in the field diary. The plants were collected, identified by using flora (Cooke. T, 1901-1908 and Flora of Maharashtra, 1996) and preserved in the form of Herbarium and Photography.

Result and Discussion

The present work has been carried out to collect information about different plants species of Sakhara area of Dahanu Taluka on Palghar District, Maharashtra during 2016-2017. The study revealed that the presence of some important shrub and tree in the area. Over 159 species plants belonging to more than 45 families were studied (Table -1). Among 45 families, Leguminosae are the most dominant family.

Table-1.Flora of Sakhara region, Dahanu (M.S, India)

Sr .No.	Botanical Name	Family	Vernacular name
01	*Uvaria naram,* Blume .	Annonaceae	----------
02	*Anona sqamosa,* Linn.	Annonaceae	*Sitaphal*
03	*Anona reticulata,* Linn.	Annonaceae	*Ramphal*
04	*Tinospora cordiflora, Miers.*	Menispermaceae	*Gulvel*
05	*Cocculus villosus, DC.*	Menispermaceae	*Vasan-vel*

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

06	*Aegemone mexicana , Linn.*	Papaveraceae	*Pivala-dhotara*
07	*Cleome rutidosperma, DC.*	Capparidaceae	------
08	*Cleome viscosa, Linn.*	Capperdiaceae	*Pivali-tilvan*
09	*Cadaba fruticosa*, (L.)D ruce	Capperdiaceae	--------
10	*Capparis sepiaria,* Linn.	Capperdiaceae	*Kanthar*
11	*Sida acuta,* Burm.	Malvaceae	*Lahan-chikna*
12	*Sida rhombifolia ,var.retusa Masters*	Malvaceae	*Ati-bala*
13	*Urena lobata,* Linn.	Malvaceae	*Van-bhendi*
14	*Abutilon indicum,* Sweet.	Malvaceae	*Petari*
15	*Malachara capitata,* Linn.	Malvaceae	*Ran-bhendi*
16	*Hibiscus sabdariffa ,* Linn.	Malvaceae	*Tambadi-ambadi*
17	*Hibiscus hirtus ,* Linn.	Malvaceae	*Dupari*
18	*Hibiscus vitifolius ,* Linn.	Malvaceae	*Van-kapas*
19	*Hibiscus cannabenis,* Linn.	Malvaceae	*Ambadi*
20	*Thespecia populnea,* Sonand.	Malvaceae	*Bhendi*
21	*Melochia corchorifolia,* Linn.	Steculiaceae	------
22	*Grewia tiliaefolia,* Vahl.	Tiliaceae	*Dhaman*
23	*Grewia asiatica,*Linn.	Tiliaceae	*Phalsa*
24	*Corchorus capsularis ,* Linn.	Tiliaceae	---------
25	*Corchorus olitorius ,* Linn.	Tiliaceae	*Banpat*
26	*Corchorus acutangulus ,*Lam.	Tiliaceae	--------
27	*Triumfetta rhomboidea,* Jac.	Tiliaceae	---------
28	*Biophytum sensitivum,* DC.	Geraniaceae	--------
29	*Impatiens balsamina*, Linn.	Geraniaceae	*Terada*
30	*Celastrus paniculata,* Willd.	Celastraceae	*Mal-kangoni*
31	*Gymnosporia montana,* Benth.	Celatraceae	*Hekel*
32	*Zizyphus oenoplia,* Mill.	Rhmnaceae	*Chanbor*
33	*Zizyphus rugosa,* Lamk.	Rhmnaceae	*Toran*
34	*Leea macrophylla,* Roxb.	Vitaceae	*Dinda*
35	*Cardiospermum halicacabum ,* Linn.	Sapindaceae	*Kapal-phodi*
36	*Crotolaria albida,* Heyne	Leguminosae	---
37	*Crotolaria fillips,* Benth.	Leguminosae	------
38	*Crotolaria retusa,* Linn.	Leguminosae	*Dingala*
39	*Indigofera linifolia,* Retz.	Leguminosae	*Pandarphalli*

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

40	*Indigofera cordifolia,* Heyne	Leguminosae	*Bechka*
41	*Indigofera hirsuta,* Linn.	Leguminosae	----------
42	*Indigofera tintoria,* Linn.	Leguminosae	*Nil*
43	*Psoralea corylifolia,* Linn.	Leguminosae	*Bavchi*
44	*Geissaspis cristata,* Wight & Arn.	Leguminosae	*Barki*
45	*Smithia salsuginea,* Hance	Leguminosae	-------
46	*Aeschynomene americana,* Linn.	Leguminosae	--------
47	*Alysicarpous rugosus,* DC.	Leguminosae	-----
48	*Alysicarpous longifolius,*Wight & Arn.	Leguminosae	*Sevara*
49	*Alysicarpous homosus,* Edgew.	Leguminosae	----
50	*Alysicarpus bupleurifolius* , DC.	Leguminosae	-----
51	*Desmodium triflorum,* DC.	Leguminosae	*Ran-methi*
52	*Desmodium gangeticum,* DC.	Leguminosae	*Salvan*
53	*Desmodium dichotomum,* (Willd)DC.	Leguminosae	------
54	*Abrus precatorius,* Linn.	Leguminosae	*Gunj*
55	*Mucuna pruriens,* DC.	Leguminosae	*Khag-kuiri*
56	*Butea monosperma, (*Lamk.)Taub.	Leguminosae	*Palas*
57	*Vigna radiata* (L.) R. Wilczek	Leguminosae	-------
58	*Clitoria ternatea,* Linn.	Leguminosae	*Gokarn*
59	*Clitoria biflora, Dalz.*	Leguminosae	-----
60	*Rhychosia minima,* DC.	Leguminosae	----
61	*Flemingia tuberosa,* Dalz.	Leguminosae	*Halude*
62	*Dalbergia sisso* , Roxb.	Leguminosae	*Sisvi*
63	*Caesalpinnia bonducella.,* Fleming	Leguminosae	*Sagar-goda*
64	*Cassia tora,* Linn.	Leguminosae	*Takla*
65	*Bauhinia racemosa,* Lamk.	Leguminosae	*Apta*
66	*Prosopis spicigera,* Linn.	Leguminosae	*Shemi*
67	*Mimosa pudica,* Linn.	Leguminosae	*Lajalu*
68	*Acacia catechu,* Willd.	Leguminosae	*Khaie –babhal*
69	*Rhyncosia hirta,* (Anders.) Meikle & Verdc.	Leguminosae	-
70	*Terminalia bellerica,* Roxb.	Combretaceae	*Behada*
71	*Terminalia chebula* , Retz.	Combretaceae	*Hirda*
72	*Terminalia tomentosa,* Wight & Arn.	Combretaceae	*Ain*
73	*Calycopetris floribunda,* Linn.	Combretaceae	*Ukshi*

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

74	*Ammannia bacifera* , Linn.	Lythraceae	*Bhar-jambhal*
75	*Woodfordia floribunda,* Salisb.	Lythraceae	*Dhayati*
76	*Lawsonia inermis,*Linn.	Lythraceae	*Menhadi*
77	*Jussiaea suffruticosa,* Linn.	Onagraceae	*Panlavang*
78	*Momordica dioica,* Roxb.	Cucurbitaceae	*Kartoli*
79	*Melothria maderaspantana,* Cogn.	Cucurbitaceae	*Chirati*
80	*Mitragyna parviflora,* Korth.	Rubiaceae	*Kalam*
81	*Oldenlandia corymbosa,* Linn.	Rubiaceae	*Pitpapda*
82	*Ixora parviflora,* Vahl.	Rubiaceae	*Rai-kuda*
83	*Ixora coccinea,* Linn.	Rubiaceae	*Bakora*
84	*Morianda citrifolia*, Linn.	Rubiaceae	*Bartodi*
85	*Vernonia cineria,* Less.	Compositae	*Sahadevi*
86	*Ageratum conyzoides,* Linn.	Compositae	*Osadi*
87	*Blumea lacera,* DC.	Compositae	*Burando*
88	*Sphaeranthus indicus,* Linn.	Compositae	*Gorakh-mundi*
89	*Caesulia axillarius,* Roxb.	Compositae	*Maka*
90	*Eclipta erecta,*Linn.	Compositae	*Bhangra*
91	*Tridax procumbeans,* Linn.	Compositae	*Ek-dandi*
92	*Plumabago zeylanica,* Linn.	Plumbaginaceae	*Chitrak*
93	*Diospros melanoxylon,* Roxb.	Ebenaceae	*Temrun*
94	*Holorrhena antidysentrica,* Wall.	Apocynaceae	*Pandharakuda*
95	*Wrightia tintoria,* R.Br.	Apocynaceae	*Kala-kuda*
96	*Hemidesmus indicus,* R.Br.	Asclepiadaceae	*Anantvel*
97	*Cryptolepis buchanani*, Roem.	Asclepiadaceae	*Setakavali*
98	*Calotropis gigantea* ,R.Br.	Asclepiadaceae	*Rui*
99	*Calotropis procera,* R.Br.	Asclepidaceae	*Rui*
100	*Oxystelma esculantum,* R.Br.	Asclepiadaceae	*Dudhani*
101	*Marsdenia volubilis* , T.Cooke.	Asclepidaceae	*Hirandodi*
102	*Exacum bicolor,* Roxb.	Gentianaceae	*Udichirayat*
103	*Canscora dffiusa .R.Br.*	Gentianaceae	
104	*Heliotropium indicum,*Linn.	Boraginaceae	*Bhurundi*
105	*Trichodesma indicum,*R.Br.	Boraginaceae	*Chota-kalpa*
106	*Cuscuta reflexa* ,Roxb.	Convolvulaceae	*Amarvel*
107	*Merremia emarginata,* Hallier	Convolvulaceae	*Undirkani*
108	*Ipomea triloba*,Linn.	Convolvlulaceae	----------

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

109	*Ipomea longiflora*, R.Br.	Convolvulaceae	------
110	*Ipomea sepiaria,* Koenig	Convolvulaceae	*Amti-vel*
111	*Ipomea palmata,* Forsk	Convlvulaceae	---------
112	*Ipomea pes-tigridis,* Linn.	Convolvulaceae	-------
113	*Physalis minima,*Linn.	Solanaceae	*Ranpopati*
114	*Stemodia viscosa* ,Roxb.	Scrophulariaceae	----------
115	*Sopubia delphinifolia*, G.Don.	Scrophulariaceae	*Dudhali*
116	*Sopubia trifida,Buch.*	Scrophulariaceae	------
117	*Lindenbergia urticaefolia,*Link	Scrophulariaceae	*Dhol*
118	*Aegnetia india,* Linn.	Orobanchaceae	*Gulabdani*
119	*Sesamum indicum,* Linn.	Pedaliaceae	*Til*
120	*Thumbergia fragans* ,Roxb.	Acanthaceae	*Chimine*
121	*Hygrophila serphyllum*, T.Anders.	Acanthaceae	*Ran-tewan*
122	*Ruellia prostrata,*Poir.	Acanthaceae	------
123	*Strobilanthus callosus,* Nees	Acanthaceae	*Carvi*
124	*Andrographis paniculata,* Nees	Acanthaceae	*Kala-meti*
125	*Haplanthus verticillaris,*Nees	Acanthaceae	*Jakara*
126	*Barleria prionitis,* Linn.	Acanthaceae	*Pivala-koranta*
127	*Barleria cristata,* Linn.	Acanthaceae	*Gokran*
128	*Neuracanthus sphaerostachys,* Dalz.	Acanthaceae	---------
129	*Justicia simplex* var. *serpyllifolia* Clarke	Acanthaceae	---------
130	*Lantana camera,* Linn.	Verbanaceae	*Ghaneri*
131	*Tectona grandis,* Linn.	Verbanaceae	*Sag*
132	*Vitex negundo*, Linn.	Verbanaceae	*Nirgundi*
133	*Ocimum gratissimum,* Linn.	Labiatae	*Ran-tulshi*
134	Boerhaavia diffusa , Linn.	Nyctaginaceae	*Ghetuli*
135	Celosia argentea , Linn.	Amaranthaceae	*Kurdu*
136	Achyranthus aspera, Linn.	Amaranthaceae	*Aghada*
137	Alternanthera triandra, Lam.	Amaranthaceae	*Kanchri*
138	Chenopodium album, Linn.	Chenopodiaceae	*Chakvat*
139	Polygonum glabrum, Willd.	Polygoniaceae	*Sheral*
140	Euphorbia hirta, Linn.	Euphorbiaceae	----------
141	Euphorbia thymifolia, Linn.	Euphorbiaceae	*Dhakti –dudhi*
142	Bridelia retusa , Spreng	Euphorbiaceae	*Asan*

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

143	Phylanthus retuculatus,Poir.	Euphorbiaceae	*Pavan*
144	Phylanthus niruli , Linn.	Euphorbiaceae	*Bhuiavali*
145	Chorozophora plicata, A.Juss.	Euphorbiaceae	*Suryavarti*
146	Acalypha indica, Linn.	Euphorbiaceae	*Kupi*
147	Mallotus philippinensis, Muell.	Euphorbiaceae	*Shendri*
148	Streblus asper, Lour.	Urticaecae	*Kharoti*
149	Ficus religiosa, Linn.	Moraceae	*Papal*
150	Ficus hispida , Linn.	Moraceae	*Kala-umbar*
151	Habenaria marginata, Coleb.	Orchidaceae	-------
152	Curcurma pseudomontana , Grah.	Scitamineae	*Sindarbar*
153	Costus speciosus, Smith.	Scitamineae	*Kosht*
154	Diocsora bulbifera, Linn.	Dioscoraceae	*Kudu-karanda*
155	Dioscora alata, Linn.	Dioscoraceae	----------
156	Gloriosa superba, Linn.	Liliaceae	*Bachnag*
157	Commelina nudiflora, Linn.	Commelinaecae	*Gandolgi*
158	Commelina benghalensis, Linn	Commelinaceae	----------
159	Cyanotis axillaris, Schult.	Commelinaceae	-----

Out of 159 species plants, genera like *Indigofera, Alysicarpous, Barleria*, *Ipomea* and *Hibiscus* are dominant. From the above observation, it can be concluded that Leguminosae is the dominant and leading family species wise as well as genera wise followed by Acanthaceae, Malvaceae, Tiliaceae, Rubiaceae, Compositae and Euphorbiaceae . Some of the rare plants in the Sakhara area observed during the survey*, Rhyncosia hirta*, *Exacum bicolor* and *Habenaria* margina*ta* And parasitic plant like *Agenetia indica* were found in this area.

Conclusion

Present study revealed that, Over 159 species of plants belonging to more than 45 families were studied. Floristic vegetation is very much affected by human activities like construction of new roads through forest areas, indiscriminate cutting forest, population explosion, unplanned industrialization etc. This has definitely affected flora. Therefore, there is urgent need to protect and conserve this species for the future generation.

PHOTO PLATE.01

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

A. Sakhara Dam **B.** Vegetation of Sakhara **C.** *Exacum bicolor,* Roxb.

D. *Oxystelma esculantum,* R. Br. ***E*** **.***Barleria cristata,* Linn. **F.** *Aegnetia india ,* Linn.

G. *Cryptolepis buchanani,* Roem. **H.** *Hibiscus sabdariffa ,* Linn. **I.** *Crotolaria albida,* Heyne

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

References:

1. **Almeida, M.R**. (1996) Flora of Maharashtra (Vol I –Vol 5 B) Orient Press Mumbai.
2. **Chaudhari, Shivangi ,Patil, Dakshata A. and Tosh J.(**2017).Traditional Ethnobotanical Plants Used by the Tribal in Coastal Area of Dahanu Taluka, Palghar District ,Maharashtra State ,India .International Journal of Scientific Research .Vol 6:42-44 ISSN NO.2277-8179.
3. **Cook, T.** (1901-1908). Flora of the Presidency of Bombay (Vol. I, II& III) Calcutta. Botanical Survey of India, (Reprient. edn. 1958).
4. **Ganorkar, Ravindra and Kshirsagar, A**. (2013) "Floristic study of Shirur region Pune, Maharashtra, India, *Int. Res. J. Biological. Sci.,* ISSN 2278-3202.
5. **Gaur, R.D**.(1999).Flora of the district Garhwal northwest Himalaya (with ethnobotanical notes).
   Trasmedia Publication, Srinagar (Garhwaal) India.
6. **Nair, N.C. and Daniel, P.,** (1986).The floristic diversity of the Western Ghats and its conservation, a review, *Proc. Indian Acad. Sci*. (Animal Sc./Pl. Sci.)Suppl.127-163.
7. **Nath,V.Badari** (1983) Floristic and Ethnobotany of Dahanu Forest Division in Maharashtra State.(Ph.D. Thesis) Shodhganga@INFLIBNET.
8. **Nipunage, D.S. & et.al.,** (2016)- Natural heritage of Biodiversity Conservation in Palghar District, MS, India .Indian Journal of fundamental and Applied Life Sciences ISSN :2331-6345.
9. **Patil, Dakshata A., Chaudhari, Shivangi R. and Tosh J**.(2017) Wild Edible Plants Used By the Tribal in Area of DahanuTaluka, Palghar District, Maharashtra State, India .International Journal of Scientific Research.Vol6:77-78 ISSN NO.2277-8179.
10. **Poojari, Harshal and Tosh, J**. (2017) Enumeration of Chasmophytic Vegetation of Shirgoan Fort of Palghar taluka, Palghar District, Maharashtra State, India.
11. **Saxana, K.G. Farooquee N.A**., Conversation and utilization of medicinal plants in high hill of the central Himalayas, Environ. Conserv. 23, 75-80(1996).
12. **Tosh, J.** (1996). 'Ethnobotanical Studies of western Maharashtra.' J. Econ, Tax .Bot. 12 (Addl. Ser.): 169-174.
13. **Tosh, J.** (2004) : Ethnobotany, Green Gold Branch of Botanical (Science. Ethnomedicinal Plants, Pointer Publishers, Jaipur, India : 177-191
14. **Tosh, J.** (2012) : Ethnobotanical study from Taluka Palghar of Dist Thane, Maharashtra State. Journal of Economic Taxonomy Botany. Vol. 36(4) : 693-701 ISSN 2050-9768.
15. **Vartak, V.D. and Kumbhojkar** MS (1984) Notes on the lianas of some sacred groove in Western Maharashtra, Bioviggaram 11., 214-215.

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal

International journal of basic and applied research
www.pragatipublication.com
ISSN 2249-3352 (P) 2278-0505 (E)
Cosmos Impact Factor-5.86

16. **Vediya, S.D.and Khradi H.S.,(2011)**Floristic diversity of Isari zone, Meghraj range forest District Sabarkantha ,Gujarat ,India, *Int. J. of Pharm. & Life Sci*.(IJPLS).,2(9),1033-1034.

Acknowledgement

Authors are thankful to the Principle and Management of the S.D.Arts, V.S.Apte Commerce and M.H. Science College for providing facilities to carry out the entire work.

Corresponding author: dakshatapatil.844@gmail.com
jayanandatosh@yahoo.in

Received: 5 June Revised: 13 June Accepted: 22 June
Index in Cosmos
July 2018 Volume 8 Number 7
UGC approved journal