INTERNATIONAL RESEARCH FELLOWS ASSOCIATION

Impact Factor : 6.625 (SJIF) E-ISSN : 2348-7143

International Research Fellows Association's

RESEARCH JOURNEY

International E-Research Journal

Peer Reviewed, Referred & Indexed Journal

Special Issue - 286, February 2022

Environment & Biodiversity
Present Status & Future Challenges

BALANCE THE EARTH

Executive Editor :
Dr. Kiran Save
Principal,
Sonopant Dandekar Arts, V.S. Apte Commerce and
M.H. Mehta Science College, Palghar

Co-Editor :
B. N. Jaiswal (Asso. Prof. & Head, Dept. of Botany)
Asmita Raut (Asst. Prof., Dept. of Botany)
Sonopant Dandekar Arts, V.S. Apte Commerce and
M.H. Mehta Science College, Palghar

Chief Editor : Dr. Dhanraj T. Dhangar

For Details Visit To : www.researchjourney.net

SWATIDHAN PUBLICATIONS

INDEX

Our Editors have reviewed papers with experts' committee, and they have checked the papers on their level best to stop furtive literature. Except it, the respective authors of the papers are responsible for originality of the papers and intensive thoughts in the papers. Nobody can republish these papers without pre-permission of the publisher.

- Chief & Executive Editor

'RESEARCH JOURNEY' International E- Research Journal
Issue – 286 : Multidisciplinary Issue
Impact Factor : 6.625 (SJIF) Peer Reviewed Journal
E-ISSN : 2348-7143
February-2022

Study of Aquatic and Semi Aquatic Plant Diversity of Kurze Dam in Talasari, Palghar

Raut Sachin*, Mali Kamlesh, RautAsmita
Com. Godavari Shamrao Parulaker college of arts, commerce and science, Talasari
E mail- green.sachinraut80@gmail.com

Abstract-

Talasari Altitude is 58.00m/190.29 ft. and 17 10' and 20.12 north latitude and 72.92 east longitude, has an area of total 4 km2 (2 sq. mi). In 2021 it had a population of 61,015 or 15,000/km2 (40,000/sq. mi) to the sq. mile. The climate of Talasari is Hot and Humid (40.6 Celsius max. and 8.3 min.) and annual average Rainfall is about 2293 mm .The Kurze dam situated in Talasari taluka of Palghar district in Maharashtra. It is an earth-fill dam constructed on Viroliriver. The dam height is about 22.96 m (75.3 ft.) and their length is 2,507.76 m (8,227.6 ft.) It is famous for enormous diversity of plants according to geographical location. Very little work has been done so far on the flora of the water bodies of Talasari district. Therefore, a study has carried out to understand the aquatic plants diversity of Kurze dam. some of the aquatic and semi aquatic of the flora identified on the basis on habitat and by using taxonomic tools. The status of plants of kurze dam ecosystem has been discuss in the paper.

Keywords: Kurze dam, Viroli, Diversity, Aquatic plants.

1. Introduction:

Fresh waters and especially rivers, Dam and wetlands, are amongst the worlds most impacted and have received many of the direct effects of human activities. Aquatic ecosystems are important one which provide livelihoods for the millions of people who live around them specially the tribal people's .The human civilization need water resources for fishing, agriculture, irrigation, and other domestic purposes. Construction of dams are playing a very vital role in rain harvesting, storage of water, regulation of ground water and hydropower generation. The study of biodiversity and their conservation is very important specially near the forest area.

Aquatic weeds referred to as Macrophytes constitute an important component of aquatic ecosystem. Their diversity and biomass influence primary productivity and complexities of tropic states (Kumar and Singh, 1987). The climate of Talasari is Hot and Humid (40.6 Celsius max. and 8.3 min.) and average Rainfall is about 2293 mmThe dam height is about 22.96 m (75.3 ft.) and their length is 2,507.76 m (8,227.6 ft.). This dams disconnect viroli river from their floodplains and wetlands and impact on the water quality and tribal community of Talasari taluka. The biodiversity of dam area is example best conservation strategies in Talasari area according to geographical location.The present study was focused on the study the species composition of aquatic macrophytes in kurze dam, Talasari.

Methods and Material:

The study area of kurze dam in Talasari is situated in the western part of Maharashtra between Altitude is 58.00m/190.29 ft. and 17 10' and 20.12 north latitude and 72.92 east longitude, has an area of total 4 km2 (2 sq. mi). Study of aquatic flora is very important to conserved biodiversity and help to maintain ecosystem of particular area (Billore and vyas, 1981, Biswas and Calder, 1984). In the present study survey was done by collecting submerged aquatic macrophytes on seasonal basis from the period of 2019 to 2021. The plants and their photographs

were collected from different area from dam site and identified with the help of local Taxonomist and using Flora of Maharashtra (Singh 2000) and Flora of Bombay presidency (cook, 1958).

Observation and result:

The present study reveals a total 46 species belonging to 31 families from the wetlands of the Kurze region of Maharashtra represented in Observation table I and Photoplates

Photoplates: Some Plant species identified from kurze dam site.

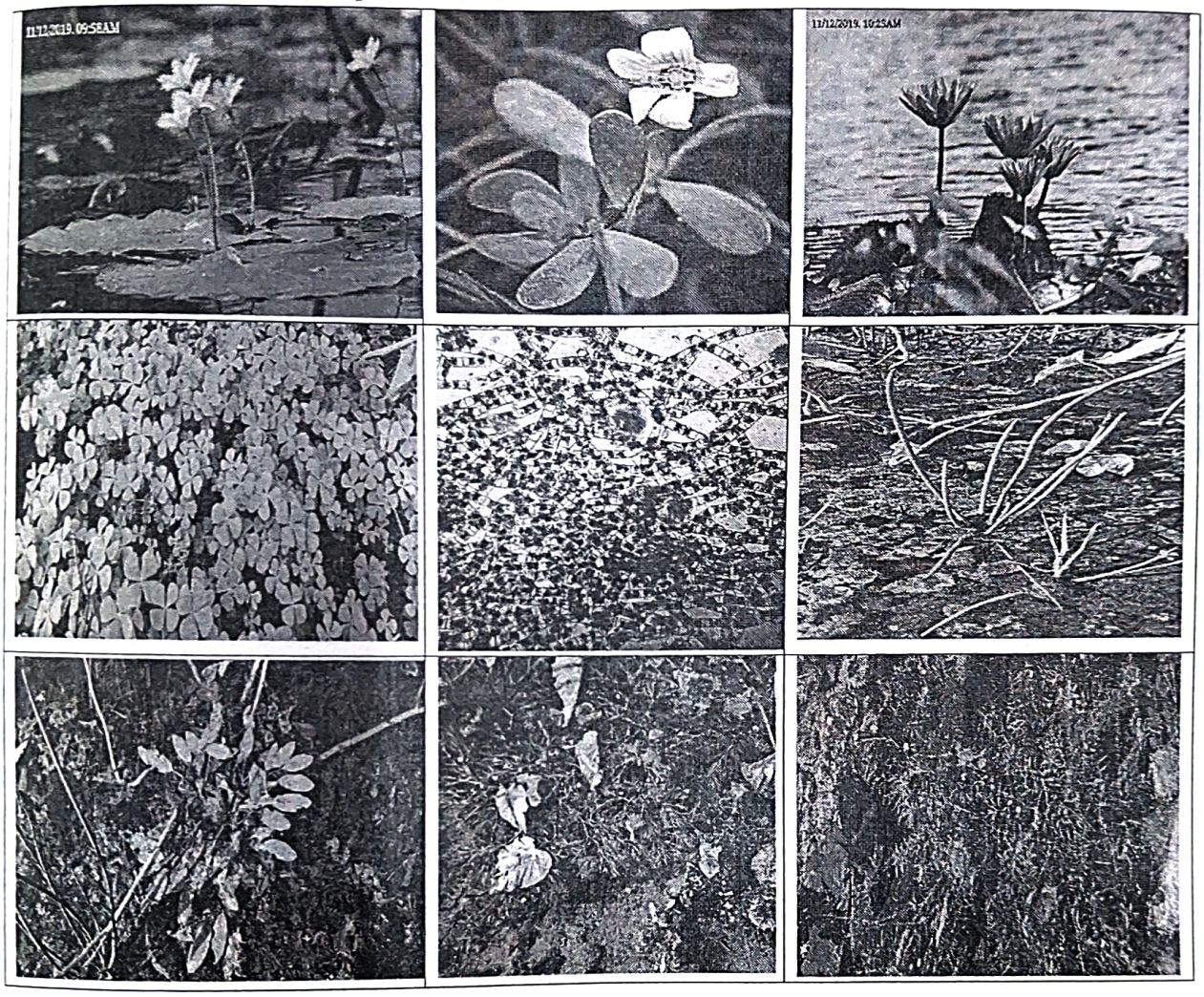

Table: 1 Some Plant species identified from kurze dam site.

Sr.no	Plant name	Family
1.	*Nostoc sp.*	Nostocaceae
2.	*Volvoxsp*	Volvocaceae
3.	*Zygnema sp.*	Zygnemataceae
4.	*Spirogyra*	Zygnemataceae
5.	*Anthoceros*	Anthocerotaceae
6.	*Marchantia*	Marchantiaceae
7.	*Funaria*	Funariaceae
8.	*Riccia sp.*	Ricciaceae
9.	*Adiantum deflectens M.*	Pteridaceae
10.	*Nephrolepis brownii*	Nephrolepidaceae
11.	*Marsilea quadrafolia L.*	Marsileaceae
12.	*Potamogeton alpinus L.*	Potamogetonaceae
13.	*Potamogeton amplifolius L.*	Potamogetonaceae
14.	*Potamogeton distinctus L.*	Potamogetonaceae
15.	*Potamogeton perfoliatus L.*	Potamogetonaceae
16.	*Elaeocharis capitata R. Br.*	Cyperaceae
17.	*Eleocharis palustris L*	Cyperaceae
18.	*Schoenoplectie llamucronata*	Cyperaceae
19.	*Cyperus rotundus L.*	Cyperaceae
20.	*Ipomoea aquatica Forssk*	Convolvulaceae
21.	*Ipomoea carnea*	Convolvulaceae
22.	*Ottellia alismoides (L.) Pers.*	Hydrocharitaceae
23.	*Hydrilla verticillata*	Hydrocharitaceae
24.	*Najas minor L.*	Hydrocharitaceae
25.	*Vallisneria spiralis L.*	Hydrocharitaceae
26.	*Polygonum glabrumWilld.*	Polygonaceae
27.	*Persicaria amphibia*	Polygonaceae
28.	*Verbascum chinense (L.)*	Scrophulariaceae
29.	*Sopubiadel phinifolia (L.)*	Scrophulariaceae
30.	*Bacopa monnieri (L.)*	Scrophulariaceae
31.	*Cassia tora*	Fabaceae
32.	*Sesbania bispinosa*	Fabaceae
33.	*Oxalis corniculata L.*	Oxalidaceae
34.	*Nymphoides indica L.*	Menyanthaceae
35.	*Heliotropinum supinum L.*	Boraginaceae
36.	*Phyla nodiflora (L.)*	Verbinaceae
37.	*Rotala serpillifolia (Roth.)*	Lythraceae
38.	*Sphaeranthus indicus L.*	Asteraceae
39.	*Typha anguistata*	Typhaceae
40.	*Apono getonnatans L.*	Aponogetonaceae
41.	*Alternanthera sessilis (L.)*	Amaranthaceae

42.	*Solanum xanthocarpus*	Solanaceae
43.	*Ceratophyllum demersum* L	Ceratophyllaceae
44.	*Cynodon dactylon* (L.)	Poaceae
45.	*Phyla nodiflora* (L.)	Verbinaceae
46.	*Lactuca virosa* (L.)	Asteraceae

The present study concludes that further studies may be done to develop biodiversity of Aquatic plants are essential components of healthy aquatic systems.

References:

1. Biswas, K. and Cadler, C.C. 1984. Handbook of Common Water and Marsh Plants in India and Burma, Bishen Singh Mahendrapal Singh, Dehra Dun, India.
2. Cooks T. The flora of the Presideny of Bombay. 2, 1901- 1908.
3. Cook,C.D.K.(1996). Aquatic and Wetland Plants in India,Oxford university Press,London.
4. Dhore MA. The flora of Amravati district with special references to tree species. 2001.
5. Kumar, M. and Singh, J. Environmental impacts of Aquatic Weeds and their classification. Proceedings of the workshop on management of Aquatic Weeds, Amritsar, Punjab, India,1987.
6. Singh N.P.,Karthikeyen S. Flora of Maharashtra,2000.