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INDEX

No.	Title of the Paper	Author's Name	Page No.
01	Effect of Some Organic Solvent on Pollen Grain Germination, Pollen Viability and Pollen Tube Length of <i>Manilkara Zapota</i> (L.) Van Royen.	Bhagwan Jaiswal	08
02	Study of Fish Market for Waste Management	A. M. Rana, R. S. Saba	13
03	Callus Induction From Seed Explant of Medicinal Plant <i>Andrographis Paniculata</i> - A Valuable	Ansari Heena, Nirmalkar Vaishali*	15
04	Cyclone Nisarga: Damages and Loss in Biodiversity	Archana Gupte	19
05	Impact of Deforestation on Medicinal Plants in India	Asmita Raut	24
06	Sacred Groove in Dahanutaluka, Palghar District, Maharashtra.	Prof. Dakshata Manish Patil	27
07	Study and Application of Activity of Vesicular Arbuscular Mycorrhizae (Vam) on Sugarcane Plant Roots <i>Saccharum of ficinarum</i> A/P Girzani (Akluj) Tal: Malshiras, Dist.Solapur, Maharashtra, India.	Dhainje P. M., Savalajkar R. L, Kumbhar R. C.	32
08	Dye Decolorization Using Laccase from <i>Pleurotus Sajor-Caju</i>	Deepawali Kale, Nisha Muni, Anil Avhad, Singh Dan Bahadur	38
09	Bamboo Plantation for Enhancing Ecosystem Services from Degraded Land	Dr Ritu Jain	47
10	To Study The Antibacterial Activities Of Different Parts Of <i>Solanum Xanthocarpum</i>	Dr. (Mrs.) Shilpa M. Gharat , Mrs. Ishwari N. Mehta	50
11	Agricultural Practices: An Approach towards Environmental Sustainability	Dr. Abhijit Sahasrabudhe	56
12	Environmental Concerns in Amitav Ghosh's 'The Hungry Tide'	Dr. Arundhati Barde	61
13	Allelopathic Effect of <i>Eucalyptus Globules</i> (Labill) Leaf Leachates on Germination and Growth of <i>Trigonella-Foenum Garecum</i> L.C.V.Lam Selection-1	Dr. Vikram. P. Masal	65
14	Diversity in Mangroves and Their Associates	Dr. Sonali Kadam	69
15	Ecotourism: An Farmhouse Assessment	Dr. Yogesh Kulkarni	77
16	Ethnobotanical Study of Jawhar Taluka, Palghar District, Maharashtra State, India.	Dushyant Dhangade , Onkar Kotiwar	80
17	GC-MS Analysis of <i>Calotropis Procera</i> L. and <i>Tribulus Terrestris</i> L.: A Medicinal Plants	Ghule, A. H., M. N. Jagtap	86
18	Green Habits of Clean Energy Technology: Policy Framework	Kalyani K Joshi, Nikhil S Dhage	90
19	Ecotourism-The Ecological Boon	Kavita Rambal	98
20	Efficacy of <i>Blumea Malcolmii</i> Leaf Extracts as A Safe Fungicide Against Phytopathogenic Fungi	Momin Naziya, Nirmalkar Vaishali	101
21	Comparative Study of Physico-Chemical Aspects of Ponds in Palghar Taluka, Palghar District, Maharashtra State, India	Mr. Harshal Chaudhari , Dr.Pankaj Gogari	106
22	Environmental Audit of Kokuyo Camlin Ltd, Mide Boisar, Maharashtra	Pratiksha Borse, Rudrakshi Raut	111
23	Investigation of Qualitative Phytochemical Analysis And antioxidant Activity of <i>Tamarindus Indica</i> L.	Prerana Jadhav, Sharad Dandekar, Sudhir Bale	116



24	Study of Aquatic and Semi Aquatic Plant Diversity of Kurze Dam in Talasari, Palghar	Raut Sachin, Mali Kamlesh, Raut Asmita	122
25	Heavy Metals Analysis in Avicennia Marina (Forsk.) (Vierh.) Fromsaravali region, Palghar district, Maharashtra, India	Rudrakshi Raut	126
26	Estimation of Phenols as Indicators to Stress from Pollution among Plants Sampled Along Mithi River, Mumbai	Rushikesh S. More, Sakshi S. Chaubal	133
27	Weed Biomass – A Source of Energy	Sangita Ghadge	140
28	Isolation and Screening of Amylolytic Fungi from Textile Sizing Site	Shaikh Asfiya, Nirmalkar Vaishali	148
29	Emergence of Antibiotic Resistant Bacteria in Coastal Waters of India - A Looming Threat	Shailaja.P.Palan, Sphurti Tare	153
30	Conservation Practice for the Sustainable Utilization of Plant Biodiversity in Saphale Ghat in Palghar Taluka From Palghar District, Maharashtra.	Shivangi Chaudhari	163
31	Role of Ficus Benjamina L. Var. Nuda (Miq.) M. F. Barrett in Greenbelt Development in Mumbai	Dr. Alkama G. Faqih and Dr. Nitesh C. Joshi	166

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- Chief & Executive Editor

RESEARCH JOURNEY

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

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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, Virol, 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.

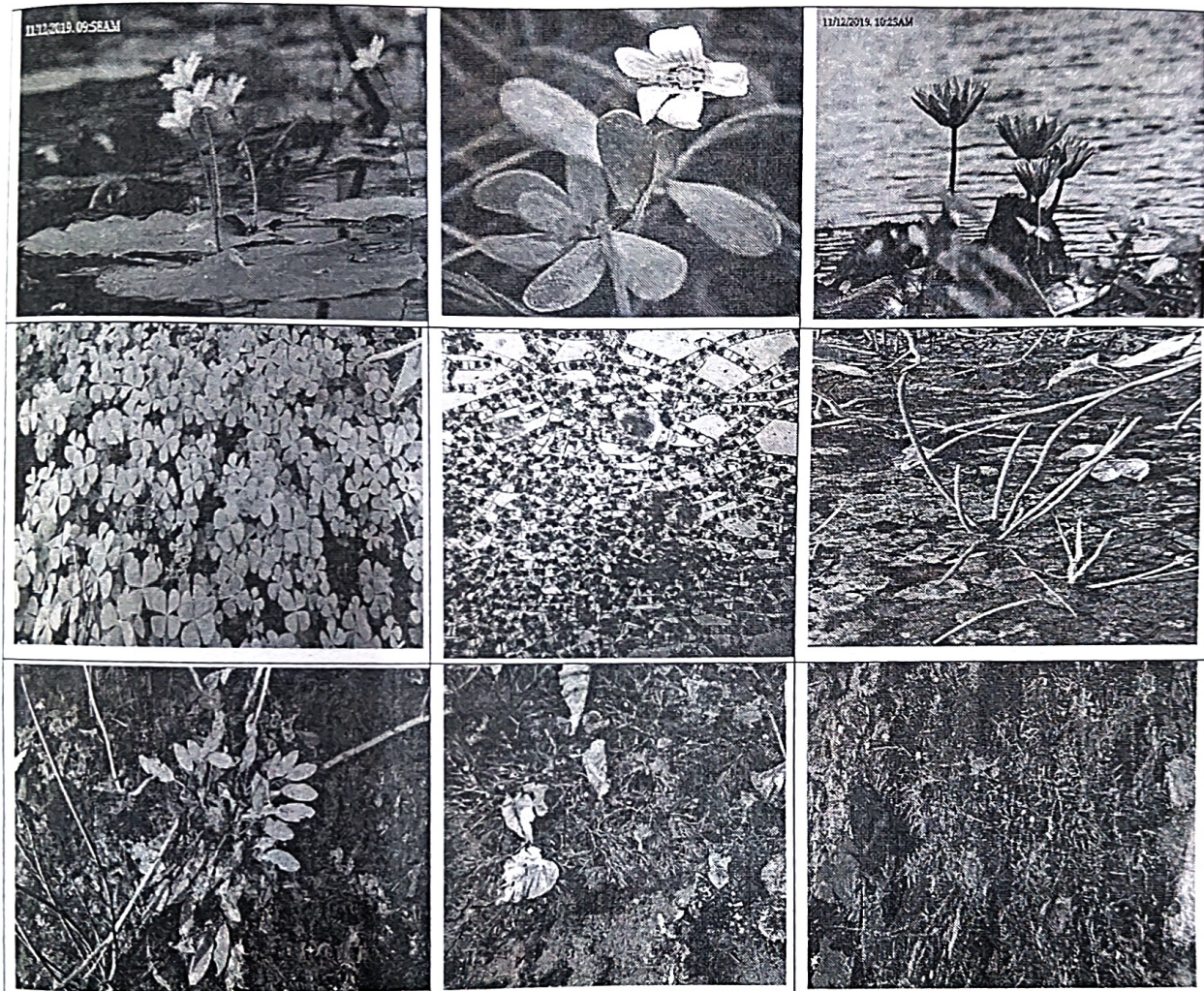


Table: 1 Some Plant species identified from kurze dam site.

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



42.	<i>Solanum xanthocarpus</i>	Solanaceae
43.	<i>Ceratophyllum demersum</i> L	Ceratophyllaceae
44.	<i>Cynodon dactylon</i> (L.)	Poaceae
45.	<i>Phyla nodiflora</i> (L.)	Verbinaceae
46.	<i>Lactuca virosa</i> (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.

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