2023 TPJ | VOLUME 1, ISSUE 1
January - March | ISSN – 2584- 0517

Preliminary Studies of Aquatic and Wetland Plants from Vena River in Hinganghat Area Dist. Wardha (M.S.)

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Abstract:

The present investigation was conducted to study aquatic and wetland plants of Vena River in Hinganghat area. Approximate 29 species (taxa) of 15 families, and 23 genera was identified. The preliminary survey was conducted to study the flora throughout the year 2020. The floral morphology was studied to confirm the taxa. As Vena River is the major river of the Wardha district. It is now facing anthropogenic activities like pollution due to industrial discharge and land filling. So to monitor the flora the above preliminary work of Vena River was conducted.

Keywords: ***Wetland, River, Taxa, Anthropogenic activities***

Introduction

Study area located geographically 20o 35’31”N, 78o 52’40”E., elevated 228M (705 Ft) and lies 3 Km Northeast to Hinganghat, Dist. Wardha; In British India Hinganghat was said to be the Center of Country. At vena river pump house on an historical old stone it was written that “Hinganghat the center of India”. The study site was primary source for drinking water supply to Hinganghat, irrigation purpose and industries. This region provides rich flora, The maximum Summer Temperature reaches to 48o C while it falls to 9 o C in the Months of Winter. The annual rainfall measures around 1200 mm.

Methodology:

The preliminary studies on aquatic and wetland plants adequate field visits were conducted as per methodology suggested by Schultes and Lipp were undertaken to record precisely and to study the floral morphology of the plant species. The photographs at study sites were taken and collected specimens were pressed, dried and mounted on herbarium boards and deposited in herbarium of R. S. Bidkar College, Hinganghat. The collected plants were identified from flora of aquatic and wetland plants of India by Cook, flora of Nagpur district (Ugemuge, 1986), flora of Maharashtra (Almeda, 1996) and were identified by consulting experts of universities of Vidarbha region of Maharashtra State. After identification,

2023 TPJ | VOLUME 1, ISSUE 1
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samples are properly processed after proper chemical treatment.

Observations and Result:

Identified families are Asteraceae (4), Cyperaceae (5), Poaceae (4), Amaranthaceae (2), Convolvulaceae (4), Asclepiadaceae (1), Acanthaceae (1), Hydrophyllaceae (1), Hydrocharitaceae (1), Amaryllidaceae (1), Verbaenaceae (2), Boraginaceae (1), Commelinaceae (1), Campanulaceae (1), and Typhaceae (1).

Identified genera, species and families are given in the table below:

Sr. No	Botanical Name of Plants	Name of Family
1	Alternanthera parychinoides	Amaranthaceae
2	Alternanthera sessilis	Amaranthaceae
3.	Brachiaria eruciformis	Poaceae
4.	Caesuaria axillaris	Asteraceae
5.	Coir aqatica	Poaceae
6	Commelina benghalensis	Commelinaceae
7	Crinum viviparum	Amaryllidaceae
8	Cyperus articulatus	Cyperaceae
9	Cyperus difformis	Cyperaceae
10	Cyperus involucratus	Cypreracae
11	Cyperus iria	Cyperaceae
12	Cyperus pangorei	Cyperaceae
13	Eclipta alba	Asteraceae
14	Grangea medaraspatana	Asteraceae
15	Heliotroium ovalifolium	Boraginaceae
16	Hydrilla verticillata	Hydrocharitacea e
17	Hygrophilla Schilli (Asteracantha longifolia)	Acanthaceae
18	Ipomoea aquatica	Convolvilcaeae
19	Ipomoea fistulosa	Convolvulaceae
20	Lobelia alsinoides	Companulaceae
21	Meremia gangentica	Convolvulaceae
22	Murdania spicata	Convolvulaceae
23	Oxystelma esculantum	Asclepiadaceae
24	Paspalum conjugatum	Poaceae
25	Phyla nodiflora	Verbaenaceae
26	Saccharum spontanum	Poaceae
27	Spilanthus paniculata	Asteraceae
28	Typha domingensis	Typhaceae
29	Vallisneria spiralis	Hydrophyllaceae

Discussion:

During this study, it has been found that most of the inhabitants living the surrounding area of study site are economically poor. Tribes of Hinganghat Tahsil use these medicinal plants in different diseases as discussed may not be a mere coincidence but may be an indication of some useful properties of these wetland plants. There may be a direct relationship between these aquatic plants, medicine and diseases. There is a need for investigations on these plants. Efforts for their conservation and their cultivation should be encouraged through which their extinction can be prevented and people may also get an inexpensive remedy.

Due to high plant resources in the wetland, people of its vicinity often visited to collect their traditional medicinal plants. The present study reveals that the tribal people were using 29 plants species Alternanthera parychinoides, Alternanthera sessilis, Brachiaria eruciformis, Caesuaria axillaris, Coir aqatica, Commelina benghalensis, Crinum viviparum, Cyperus articulatus, Cyperus difformis, Cyperus involucratus, Cyperus iria, Cyperus pangorei, Eclipta alba, Grangea medaraspatana, Heliotroium ovalifolium, Hydrilla verticillata, Hygrophilla Schilli (Asteracantha longifolia), Ipomoea aquatica, Ipomoea fistulosa, Lobelia alsinoides, Meremia gangentica, Murdania spicata, Oxystelma esculantum, Paspalum conjugatum, Phyla nodiflora, Saccharum spontanum, Spilanthus paniculata, Typha domingensis and Vallisneria spiralis.These observations are coinciding with the enumeration of earlier ethnobotanists. viz. Noumi (2010), Khan and Singh (2010), Ahirrao and Patil

2023 TPJ | VOLUME 1, ISSUE 1
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(2010), Anjaneyulu and Sudarsanam (2013), Deka and Nath (2014), Salem et al. (2016), Shende and Dalal (2019).

Conclusion:

Useful information of 29 important species is collected from Vena River in Hinganghat area of Wardha District. There is need for further investigations of floristic study of these plants. These plants should be screened scientifically and verified to determine the biosystematic properties. It can be further utilized in health care as well as economical improvement.

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