

Diversity of Macro-benthic invertebrate in Mulchera lake, Tehsil Mulchera, Dist. Gadchiroli, (M.S.)India.

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Abstract :

The Diversity of Benthic macroinvertebrates are the bottom organisms found in all the aquatic ecosystems of the world which different from every ecosystem to ecosystem. The aquatic insects also reside in surface, column and bottom zone of fresh water lakes. In this context the benthic macro-invertebrates and aquatic insects of Mulchera lake of Mulchera tehasil in Gadchiroli district are qualitatively studied. The benthic macroinvertebrates were studied keeping in view their potential in indicating degree of pollution. Total 24 benthic fauna observed during study period 2019-2020.

Keywords: Macro-benthic, Invertebrates, Mulchera, aquatic insect, Diversity.

Introduction:

The macro-benthic invertebrates are important groups in water quality monitoring as these organisms are static and integrate the effect of pollution. The abundance and distribution of benthic fauna depends on physical and chemical conditions of the bottom of a water body. Invertebrate communities respond to changes in water and habitat quality and integrate impacts over a period of time because of their extended residency period in specific habitats and the presence or absence of specific species can be indicative of specific environment and habitat conditions. Benthic macro invertebrates are abundant in most of the aquatic ecosystems of the world. They are immobile and reflect the quality of overlying water and sediment quality. The benthic organisms serve as bioindicator of environmental pollution as they are constantly exposed to different kinds of pollutants in lakes and streams.

Literature Survey reveals that several studies were reported with respect to aquatic benthic diversity and water, sediment with physico-chemical status of the aquatic ecosystem (Wang et al. 2010, Jana and Manna 1995, Quasin et al. 2009, Garg et al. 2009).

Material and Methods:

The benthic fauna sample were collected for qualitative estimation from both the lakes. The collection of mud sample was done with the help of scoop. The collected sample was further sieved with the help of copper sieve having mesh. Macro benthic invertebrates obtained after sieving were preserved in 4% formalin for further

laboratory studies and identification. Benthic forms were observed under the dissecting microscope and classified into different species.

Result and Discussion:

During investigation period total 24 species of macro benthic invertebrates were observed belonging to four different phylum like annelida, arthropoda, Mollusca and nematoda were recorded. 3 species of Nematoda, 6 speceis of annelida, 10 species of arthropoda and 05 species of Mollusca.

Pimpalshende and sitre,(2018) observed Satara Bhosale and Satara Tukum lake of Pombhurna tehsil in Chandrapur district(M.S.) to analyze the benthic fauna present in it. 25 different benthic macrovertebrate forms belonging to Annelida, Nematoda, Arthropoda and Mollusca were found in lakes. 17 species observed in Satara Tukum lake and 24 species observed in Satara Bhosale lake

Sr. No	Particulars	Species
1	Nematoda	<i>Diplogaster sp.</i>
2		<i>Rhabditis sp.</i>
3		<i>Paradoxorhabitis sp.</i>
4	Annelida	<i>Pheretima sp</i>
5	Annelida	<i>Hirudinaria granulose</i>
6	Oligocheta/ Annelida	<i>Aeolosoma sp.</i>
7	Oligocheta/Annelida	<i>Tubifex sp.</i>
8	Oligocheta/Annelida	<i>Pterobdella sp.</i>
9	Oligocheta/Annelida	<i>Chaetogaster</i>
10	Celeoptera / Arthropoda	<i>Dinecutus sp.</i>
11	Crustacea/Arthropoda	<i>Cancer</i>
12	Diptera/Arthropoda	<i>Mosquito larva</i>
13	Odonata/Arthropoda	<i>Dragon-fly</i>
14	Hydrachnidia/Arthropoda	<i>Water mite</i>
15	Hydrophilidae/Arthropoda	<i>Cybister sp.</i>
16	Diptera/Arthropoda	<i>Chironomous larva</i>
17	Hemiptera/Arthropoda	<i>Belostoma sp.</i>
18	Hemiptera/Arthropoda	<i>Nepa sp.</i>
19	Hemiptera/Arthropoda	<i>Ranatra sp</i>
20	Gastropda/Mollusca	<i>Lymnaea sp.</i>
21	Gastropda/Mollusca	<i>Pila globosa</i>
22	Mollusca	<i>Planorbis exustus</i>
23	Mollusca	<i>Vivipera bengalensis</i>
24	Mollusca	<i>Indonia coerulea</i>

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