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Diversity of Zooplanktons in Betna Wetland, Belbari, Morang

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Zooplanktons are free swimming microscopic animals found almost in the mercy of tides, currents and waves. They feed on bacteria and phytoplankton and in turn are eaten by fish and crustaceans. Extensive work on zooplankton of Nepal has been done except Mahato (1980), Rai (1983), Upadhaya (1991), Jha (1994), Thapa (1994) and Surana (1995). Thus, little information is available regarding their taxomany and diversty in Nepal. The present work is based on limnological study made in Betna wetland (26º20′ to 26º53′N & 87º16′ to 87º41′E, alt 115 msl) which lies 2 km east from Belbari bazar along the east-west highway, Morang district. The wetland is divided into two parts by a check dam erected for diversion of water for irrigation.

Samples were collected regularly once in a month, between 9 to 11 am with the help of plankton silk net (mesh size 8 μm) and fixed in 4% formalin solution on the spot. Microscopic observation, camera-lucida drawing and microphotography were done in the Ecology Laboratory, Department of Zoology, P.G. Campus, Biratnagar. Zooplanktons were identified following Needham and Needham (1962), Tonapi (1980), Adoni (1985) and APHA (1998). All the studied samples were deposited in the repository of the same Department.

In the present study 17 zooplankton genera belonging to 14 families and 9 orders were recorded (Table 1). They were represented by different taxonomic groups namely Copepoda, Rotifera, Cladocera, Ostracoda, Protozoa, Nematoda, and Diptera. Among the recorded genera Copepods were found dominant over other genera. They were observed in all the months throughout the study period.

Betna wetland is still very rich in biodiversity but due to pressure from local inhabitants the wetland needs rehabilitation strategy. Attempt has been made to highlight the zooplankton diversity and to aware local people to conserve the aquatic biodiversity of Betna wetland.

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Table 1. Zooplanktons of Betana wetland.

SN	Genus	Family	Order
1	Arcella spp.	Arcellidae	Rhizopoda
2	Paramecium spp.	Paramecidae	Holotrichida
3	Voticella spp.	Vorticellidae	Peritrichida
4	Keratella spp.	Brachionidae	Rotifera
5	Brachionus spp.	Brachionidae	Rotifera
6	Philodina spp.	Philodinidae	Rotifera
7	Filinia spp.	Testudinellidae	Rotifera
8	Daphnia spp.	Daphnidae	Cladocera
9	Moina spp.	Daphnidae	Cladocera
10	Diaphansoma spp.	Sididae	Cladocera
11	Macrothrix spp.	Macrothyricidae	Cladocera
12	Nauplius larva of Apus.	Cyclopidae	Cladocera
13	Cyclops spp.	Cyclopidae	Cladocera
14	Diaptomus spp.	Diaptomidae	Cladocera
15	Cypris spp.	Cypridae	Ostracoda
16	Monohystera sp.	Monohysteridae	Monohysteridea
17	Mosquito larva.	Anophelidae	Diptera

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Bioremedial Treatment of Industrial Waste Water Using *Rhodobacter sphaeroides*

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Mathura, the birth place of Lord Krishna, is a rapidly growing city in the Uttar Pradesh province of India. A large number of industries are being operated here, including textile printing units, silver vibrators etc. The effluents from these industries contain