A TAXONOMIC SURVEY OF CLADOCERA IN NINE SELECTED RESERVOIRS IN THE NORTH CENTRAL PROVINCE OF SRI LANKA

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Cladocera, commonly called water fleas, are a small group of crustaceans found in various types of aquatic environments. They are widely distributed in freshwater bodies worldwide, where they are abundant and diverse in many different aquatic habitats. Most importantly from an environmental perspective, Cladocera show distinct distribution patterns with respect to important limnological variables such as nutrients, salinity, pH and predation. This specificity makes them important environmental indicators as changes in population of this group of aquatic organisms reflect certain environmental conditions. To use Cladocera as a successful biological indicators it is necessary to have a clear understanding of their taxonomy and morphology in a particular part of the world. To fulfill this requirement a survey was carried out to explore the diversity and taxonomy of Cladocera in nine selected reservoirs of Sri Lanka.

The samples were collected during a period of about six months (July 2005- January 2006), from littoral and limnetic regions of the study reservoirs using both plankton and dip nets (pore size 64 μm) and subsequently preserved in 95% formalin. Specimens were melted on melted glycerin jelly and observed under the microscope (10x40) and identified using standard taxonomic keys. Morphological characteristics of each taxon identified were compared with reference specimens. Sixteen species belonging to four families (Daphnidae, Bosminidae, Macrothricidae and Chydoridae) were identified. Family Chydoridae was the most diverse group recorded, which represented 81.25% of the total Cladocera found in the study sites. The other families (Daphnidae, Bosminidae and Macrothricidae) were represented by one species each. The most abundant limnetic species was represented by *Ceriodaphnia* sp. and was recorded from 4 reservoirs (Nuwara Wewa, Nachchaduwa Wewa, Madaperumagama Wewa and Tissa Wewa) consisting of larger surface areas. The most commonly found Chydorid species was *Alona* aff *verrucosa*. Species such as *Bosminopsis* sp. *Chydorus* cf. *ceylanicus, Kurzia longirostris, Dunhevedia serrata, Dadaya macrops* and *Camptocercus* sp. were found in low abundance and only in certain reservoirs.