

BP4.**COMPOSITION AND COMMUNITY STRUCTURE OF AQUATIC
INVERTEBRATES IN AN IRRIGATED PADDY FIELD ECOSYSTEM**

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Random sampling of paddy field water and soil was carried out at fortnightly intervals during five paddy cycles in a paddy field ecosystem at Bathalagoda. The aquatic invertebrate communities examined included neuston, zooplankton, nekton, periphyton and benthos. Zooplankton were extracted from water samples using a plankton net. Neustonic, nektonic and periphytic organisms were collected by using a standard dipper and subsequent sieving. Periphytic and benthic molluscs were studied by quadrat sampling. Benthos were extracted from wet soil core samples.

Hemipteran insects formed the major neustonic group (87%, 4 spp.), followed by collembolans (13%, 2 spp.). The zooplankton were dominated by crustaceans (17 spp.), followed by rotifers (15 spp.). The nektonic and periphytic community were also dominated by adult and larval insects (96%, 45 spp.) while the balance consisted of crustaceans (1 spp.), turbellarians (1 spp.), hydracarina (03 spp.) and leeches (2 spp.). Majority of the aquatic molluscs were benthic forms (74%, 7 spp.) followed by periphytic forms (26%, 3 spp.). The benthic organisms were dominated by nematodes (74%, 7 spp.), followed by arthropods (9%, insects: 7 spp, crustaceans: 5 spp.), earthworms (9%, 20 spp.), turbellarians (8%, 8 spp.) and rotifers (1%, 3 spp.). Other aquatic micro-organisms recorded included Protozoa (15 genera), Cnidaria (1 genus) and Gastrotricha (1 genus). Agronomic practices resulted in differential fluctuations of the aquatic invertebrate groups.

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