

**Detailed morphology, with reference to abundance, of
Acartia species in Malala lagoon in Bundala National Park
(Ramsar site-Sri Lanka)**

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Freshwater Calanoid copepods are a group of free-living fresh water crustaceans. They are planktonic and limnetic and they occur in habitats varying from freshwater to seawater. We investigated detailed morphology of *Acartia* species and some abundance details, possibly the first recording in Malala lagoon, Bundala National Park. Attention was focused on population dynamics of *Acartia* species with water quality variations. When several other Calanoid copepods were abundant *Acartia* species was reduced to undetectable levels. Basic body measurements (mm) of *Acartia* species were observed as total body length 1.36 ± 0.07 , width 0.19 ± 0.07 , prosome length 0.73 ± 0.1 and antennae length 1.16 ± 0.11 . The species has a characteristic male 5th leg but we could not finalize the species name due to some variations in narrow and longer furcal ramus. There was a slight change in body measurements (mm) [total length up to caudal setae changed from 1.36 ± 0.07 to 1.47 ± 0.08] with changes in water quality, specially with a slight increase in salinity (from 0.78 ± 0.15 to 6.59 ± 0.92 g/l) and slight decrease in Nitrate (from 247 ± 6.54 to 167 ± 5.47 mg/l). However, no correlation was found with respect to body measurements of *Acartia* species and water quality parameters in Malala lagoon during our visits. Body measurements of *Acartia* species and relationships to habitat-ecosystem functions have been emphasized elsewhere. Therefore, further investigations of morphological variations of this species along with habitat quality changes are being studied. We believe these ecological relationships are important in habitat management practices of the Malala ecosystem.

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