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**Analysis of relative growth patterns and intraspecific morphological variation
between two *Macrobrachium rosenbergii* (De Man, 1879) populations
(Class: Crustacea, Family: palaemonidae) in Sri Lanka**

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Freshwater prawn *Macrobrachium rosenbergii* (De Man, 1879) is one of the most economically important crustacean species all over the world. In Sri Lanka *M. rosenbergii* fishery industry is based on wild populations. Therefore, it is important to gather information of wild populations of *M. rosenbergii* to identify their population variations. The objective of this study was to compare two wild populations of *M. rosenbergii* in Sri Lanka using morphological parameters. Sixty three individuals were collected from two wild populations: Negombo lagoon (31) and Walawe River estuary (32). Fifteen morphometric and two meristic parameters were selected for analysis. Using carapace length as the reference parameter (X), analysis was conducted based on the log transformed equation of $Y = bX^a$ which was predicted for the relative growth pattern for crustaceans. According to the derived slopes for each morphometric parameter, males of both populations indicated similar growth patterns for all parameters except one (Diagonal carapace length). For females, growth patterns of four parameters differ among two populations (Carapace width, first abdominal segment length, Ischium length, carpus length). These relationships were confirmed by F statistics and Pearson's correlation coefficient (r). Estimated t values to justify significant differences between relative growth coefficients of each morphometric characters indicated that growth patterns of five morphometric characters were significantly different between two male populations while it was significantly different for four characters between the two female populations. Significant differences between two male and two female populations for morphometric parameters were justified using two sample t test. Results revealed that thirteen morphometric characters were significantly different between the two male populations. However, no significant differences were reported between two female populations. Chi square test indicated that meristic characters did not support to distinguish two populations. These basic population data are important for selecting brood stocks for aquaculture programs and constructing management plans to protect wild populations.

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