Distribution Patterns of Freshwater Prawn, Macrobrachium spp. Following Stock Enhancement Programme in Sabah, Malaysia

ABSTRACT

The decline of the freshwater prawn, Macrobrachium spp. in rivers can be attributed to overfishing, habitat loss and pollution. In order to offset the pressure, a community-based stock enhancement project was initiated by Borneo Marine Research Institute (BMRI), University Malaysia Sabah, to increase the number of Macrobrachium spp. in Petagas River, Putatan, Sabah. This study was conducted to determine the distribution and abundance of different life stages of the freshwater prawn, Macrobrachium spp. following stocking programme. The different life stages of the freshwater prawns were caught using hand net and modified prawn trap. A total of 539 specimens were caught and separated into postlarvae (PL), juvenile and adult. Abundance of PL (53.47%) was found at the downstream region of Petagas River, juvenile (18.06%) was found at the midstream region while adult prawn (81.63%) was found at the upstream region. The distribution of PL prawn was found to be increased with increasing salinities (R2=0.95) while for juvenile (R2= 0.98) and adult prawns (R2=0.921) were inversely correlated. The CPUE of PL, juvenile and adult were positively correlated with the increase of stocking juvenile following stocking programme with R 2=0.89, R2=0.73 and R2=0.87 accordingly. The stock enhancement programme is suggested to be implemented continuously to improve the population of Macrobrachium spp. in the Petagas River. This study will provide baseline information on the effectiveness of stock enhancement programme of freshwater prawn especially in Malaysia.