Identification of Factors affecting to the Blue Swimming Crab *(Portunus pelagicus)* Harvest in Eastern Province, Sri Lanka

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The blue swimming crab; *Portunus pelagicus* is a tropical marine crustacean species, having higher demands in local and global crab market during last few decades. But, there are limited studies on present harvest of blue swimming crab industry in Sri Lanka. Hence this study was conducted to investigate the current status of Blue swimming crab fishery and factors affecting on the daily harvest of Blue swimming crab in the Eastern Province, Sri Lanka. Stratified and Random Sampling techniques were used to select the target and by catch fisheries from Ampara, Batticaloa and Trincomalee districts. Data associated with harvesting methods and practices of Blue swimming crabs were collected from 372 fishermen and 23 sellers using pre tested structured questionnaire. Collected data were statistically analyzed using Minitab 17 software and MS Excel. Multiple Linear Regression model was fitted to determine the main factors affected on the daily Blue swimming crab harvest. Descriptive statistical analysis suggested that majority of the fishermen in the Eastern Province used Gill net (94.7%), while less percentage of fishermen used Cast net (2.9%) and Trap net (2.4%). It was found that, in average 4.5 kg of daily harvest was obtained and average price of blue Swimming crab was Rs 271.69 per kg. Furthermore, results of Regression analysis revealed that there is a significant relationship in daily Blue swimming crab harvest with mesh size, length of net, depth of net and number of net pieces ($p<0.001$). Study concluded that improving these factors would increase the Blue swimming crab harvest in. Eastern Province of Sri Lanka and necessary attention needs to be given at policy making in future.

Keywords: Blue swimming crab, Harvest, Eastern province, Regression