

A Review on Ornamental Shrimp Industry in Sri Lanka

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Ornamental shrimp industry in Sri Lanka is developing rapidly within last few years. However, Sri Lanka is still in a developing stage of ornamental shrimp industry and needs to fulfil some gaps in the sector. Species identification is one of the major challenges in exportation as well as conservation viewpoint to reduce the biopiracy. Therefore, this study was aimed to identify the status of ornamental shrimp export industry, develop a user-friendly identification guide for exporting and protected shrimp species, and develop a database on ornamental shrimp industry. Available digitized export data were obtained from Sri Lankan customs and, reliable secondary data such as legal framework, morphological features, taxonomic levels, water quality requirements, lifespan, disease were collected. However, only 2017 and 2018 export details were available in digital format. Published research articles and taxonomic identification guides were studied and body type, body color, color of the maxillipeds, telson, chelae, abdomen, carapace, nature of the pleopods, significant body color spots and strips were identified as key characteristics and easy identification guide was developed using these morphological features. Percentage of export quantities were calculated using export data for each species and family. Nineteen species belong to eight families were identified as commonly exporting species. Family *Hippolytidae* had the highest export demand. 88.05% and 89.50% were represented by this family in total export quantities in 2017 and 2018, respectively. *Hymenoceridae* had the lowest demand of 0.01% in 2017 and no export in 2018. Percentage of *Lysmata amboinensis* is 66.83% in 2017 and 57.88% in 2018 and *Lysmata debilius* 22.11% in 2017 and is 29.14% in 2018. These species were the two major exported shrimp species out of all 19 species of family *Hippolytidae*. Bright colors and tank cleaning ability are major reasons for this high demand. Moreover, selected secondary data and results obtained were compiled into a database in MS Excel format and willing to be published as online database including identification guide, to improve the awareness of the common public in Sri Lanka. Further, easy identification guide will make identification of prohibited shrimps easy, and it will support to reduce biopiracy.

Keywords: Shrimp Export; Dichotomous key; Protected shrimp species; *Hippolytidae*