Feeding habits of the Spangled emperor, *Lethrinus nebulosus* (Forsskål, 1775) in the Sri Lankan waters

U.P.V.O. Urapola[1], K.R. Dalpathadu[2]*, S.S.K. Haputhantri[2] and C. Devadason[1]

[1]*Department of Zoology, Eastern University of, Sri Lanka*

[2]*National Aquatic Resources Research and Development Agency (NARA), Crow Island, Colombo15, Sri Lanka*

Species belonging to the family Lethrinidae are the most targeted fish in the demersal fishery in Sri Lanka. Among them, *Lethrinus nebulosus* is one of the key species in the commercial catch. Despite the importance of *L. nebulosus*, limited information is available on their ecological aspects such as feeding strategies. This study was conducted to understand the food and feeding habits of *L. nebulosus* in the Sri Lankan waters using 41 gut samples collected from a fishery-independent survey conducted by the research vessel R/V Dr Fridtjof Nansen, from 24th June to 16th July 2018. As most of the food items had been digested to some extent, they were grouped into Fish sp. 1, 2, 3, 4 and 5, based on some biometric parameters such as snout length, head length relative to the body length, and the relative origin of the fins. Whenever possible, the food items were identified up to the lowest possible taxonomic level with the aid of identification guides. The result of the gut content analysis showed that the majority of the mature *L. nebulosus* in the Sri Lankan waters preyed on 'Fish sp. 2' while the immature ones prayed mostly on 'Fish sp. 1'. In addition, the diet of *L. nebulosus* was composed of *Loligo* sp., *Lagocephalus* sp., *Selaroides leptolepis* and partially digested invertebrate parts. The Schoener's index (S) for mature and immature fish was estimated at 0.19 which is less than the biologically meaningful diet overlap value of 0.60. The Amundsen graphical analysis suggests that *L. nebulosus* in the Sri Lankan waters are specialist consumers with fish being the more dominant food items in their diet than the invertebrates.

Keywords: diet overlap, gut content analysis, *Lethrinus nebulosus*, specialist consumers, Schoener's index

** Corresponding author – email: kasun.randika@yahoo.com*