

(150)

**Catch Diversity of Small Scale Lobster Fishery in Southern Coast of Sri Lanka**

**Hewapathirana S.K.<sup>1\*</sup>, Ekanayake K.B.S.S.J.<sup>2</sup>, Liyanage U.<sup>2</sup>, De Silva D.A.M.<sup>1</sup>**

<sup>1</sup>*Department of Agribusiness Management, Sabaragamuwa University, Belihuloya, Sri Lanka*

<sup>2</sup>*Marine Biological Resources Division, National Aquatic Resources Research and Development Agency, Colombo, Sri Lanka*

*\*hewapathiranask@gmail.com*

**Abstract**

The lobster fishery is one of the well-established, highly valued commercial fisheries on the Southern coast of Sri Lanka. There are five spiny lobster species, *Panulirus homarus*, *P. longipes*, *P. ornatus*, *P. versicolor* and *P. penicillatus* are recorded in the Southern coast of Sri Lanka. However, the heavy fishing pressure and other anthropogenic interventions have caused a significant depletion of some of these species. Therefore, in order to identify the vulnerability of the lobster species, we studied the species, gender and sexual maturity compositions of the lobster catch with the data collected from nine different lobster landing sites along the southern coast of Sri Lanka during 2019 and 2020. Minitab and MS Excel software were used for the descriptive statistical analysis. According to the results, the dominant species in the sampled landings was *P. homarus*, with the average percentage of 73.16% in 2019 and 84.65% in 2020. However, least abundant *P. ornatus* species' average percentages were 0.74% in 2019 and 0.27% in 2020. Moreover the results reveals the male:female 1:1 sex ratio of the lobster catches as 1:0.9 in 2019 and 1:0.89 in 2020. Most importantly, among all females, there were 43.01% in 2019 and 37.31% in 2020 percentages borne eggs while 48.53% in 2019 and 47.03% in 2020 percentage of females were identified with tar spots. Therefore, considerable caught of tar spotted and egg bearing female lobsters might be a major cause of lobster stock depletion in Southern coast of Sri Lanka. Thus present study would be a preliminary guide for the future studies on sustainable lobster fishery management approach.

**Keywords:** Lobsters fishery, Southern coast, *Panulirus homarus*, Tar spots, Sri Lanka