

Study on Illegal Fishing Practices Used for Exploitation of Fishery Resources in the Koggala Lagoon, Sri Lanka

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Koggala lagoon is located in Galle district with a significant contribution to the fishery sector of Sri Lanka. The inevitability of illegal fishing practices causing a threat to the commercially important fish populations due to strengthened demand, higher prices, and emerging competition in the market, had also been a serious issue in the fishery of Koggala lagoon. The objectives of the present study were to, identify the illegal fishing methods practiced in the lagoon and quantify the approximate illegal production. A self-administrated questionnaire survey was designed and pre-tested to collect socio-demographic details of the sixty fishermen and also average production data using illegal fishing gears over three months from October to December 2019. Catch data were collected to calculate the Catch per Unit Effort (CPUE) in common fishing gears. The Garret ranking technique was applied to assess the degree of severity of the fishing gears according to the lagoon fishermen's perception. Results of the questionnaire survey indicated that gillnets (97%) with less than 3 ½" mesh size and monofilament nets (48%) were the most common illegal fishing gears used among the lagoon fishermen. Among the wide range of mesh sizes of the gillnets, 57.15 mm (2 ¼") size was frequently (23.3%) used for fishing in the lagoon. According to the fishermen's perception on the weight of the harvest and the size of the juveniles, the fixed purse net was found to be the most detrimental gear used in the lagoon (1.79 kg hour⁻¹). However, considering the average catch data, the fixed purse net (7.64 kg) was also the most efficient gear used in the Koggala lagoon. The current study revealed that illegal fishing is very common in the lagoon violating government rules and regulations. Therefore, active legal enforcements and monitoring on illegal fishing practices such as usage of over-small mesh nets and monofilament nets are extremely important in preventing overexploitation of fish populations.

Keywords: Koggala lagoon, Illegal fishing, Sustainable utilization, Garret's ranking technique, Socio-demography