

**SPECIES COMPOSITION AND CATCH PER UNIT EFFORT (CPUE)
OF THE OFFSHORE FISHERY, OPERATED FROM
THE GALLE FISHERY HARBOUR,
SRI LANKA**

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Fisheries is one of the major income sources for Sri Lankan coastal inhabitants. Of the 15 fisheries administrative districts in Sri Lanka, the Galle district which contributed nearly 55,200 Mt of production in 2015 is the second largest fisheries administrative district. The present study focused on the offshore fishery, operated from the Galle fishery harbour, and ascertained fishing methods, species composition and Catch per Unit Effort (CPUE) for each species. Data was collected from 98 randomly selected multiday boats, which landed between 31st August and 11th November 2017. The data on fishing methods, species composition and the biomass of each species was gathered as primary data at the fish landing centre. The data on cost revenues and new technological approaches were collected as secondary data through a questionnaire and interviews from fishery inspectors and fishers engaged in offshore fisheries. Ring net, gill net and long line were the major fishing methods used. There were 19 fish species, belonging to 10 families encountered during the study. There were significant differences ($p < 0.05$) in fish landings among the three fishing methods. From the total offshore fish landings in the Galle fishery harbour, 68%, 23% and 5% were from the ring net, gill net and long line, respectively. The highest species composition was recorded from ring nets (16 species) followed by the gill nets (9 species) and longlines (4 species). *Decapterus russelli* (Indian Scad), *Katsuwonus pelamis* (Skipjack tuna), *Auxist hazard* (Frigate tuna), *Elagatis bipinnulata* (Rainbow runner/ "lennaw") and *C. maculatus* (Rough tiger fish/ "pothubari") were the dominant species in ring nets, of which *D. russelli* accounted for the highest biomass (CPUE, 200.57 ± 3.10 kg per day). *Katsuwonus pelamis* was the dominant species recorded from gill net catches (CPUE, 188.02 ± 5.27 kg per day), while *Thunnus albacares* (Yellow fin tuna) was dominant in the longline catches (CPUE, 93.77 ± 4.52 kg per day). The study revealed that gill net and longline catches consisted of economically valuable, mature species and the quality of the harvest was increased, reducing post-harvest losses, when compared to the ring nets. *K. pelamis*, *T. albacares* and *T. obesus* (Big eye tuna) were the main species targeted by longline and gill net fishers. Ring net fishery is more profitable than the other two methods because the operational cost for gill net (130,000 LKR per boat trip) and longline (135,000 LKR per boat trip) are higher than the ring net (99,500 LKR per boat trip). From the data obtained from fishers, the secondary variability of species is an important factor to be considered when comparing

fisheries statistics and suitable management strategies should be adopted to minimize the juvenile in the harvest especially in ring net fishery.

Keywords: Ring net, Long line, Gill net, Multiday boats, Dominant species

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