First report on combination set gillnet from Puthuvype, Kerala

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Sharks and rays are mostly caught as bycatch in gillnets. However, gillnets targeting sharks (Akhilesh et al., 2011) and rays (Sherief et al., 2015) are operated in certain areas. Gillnet trammel combination net has been earlier reported by Flewwelling et al. (2003). But for the first time, a shark/ray combination gillnet having two distinct portions/sections viz., the upper panel targeted for sharks and the lower panel for rays is reported from Puthuvype, Kerala. Puthuvype is a small fishing village in Ernakulam

district of Kerala. During a study of gillnet and trammel nets in February-March 2015, it was noted that fishermen from this area were using a combination net for catching shark as well as rays.

Design of a typical combination gillnet is depicted in Fig. 1. This net had two panels, upper and lower. Though both the panels were made of polyamide, the type of material, its thickness and mesh size varied between the panels. The upper and lower panels were joined by tying knots at

Combination Gillnet Shark / Ray Puthuvype, Ernakualm

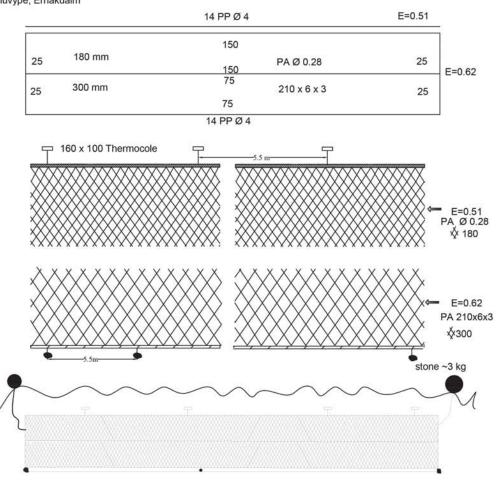


Fig. 1. Design of a typical combination gillnet

1.0 m interval throughout the length of the net. The gear had 27 m length and 9.7 m depth (25 mesh each in the upper and lower panel).

The main webbing of the upper panel was made up of polyamide monofilament of 0.28 mm diameter and 180 mm mesh size with a hanging coefficient of 0.51. The main webbing of the lower panel was made up of polyamide multifilament twine of 210 X 6 X 3 having mesh size of 300 mm with a hanging coefficient of 0.62. PP rope of 4 mm was used as head rope and foot rope in this gear. Thermocole of 160 x 100 mm approximately was used as floats at a distance of 5.5 m. Granite stone sinkers of approximately 3 kg weight were attached on foot rope at a distance of 5.5 m. There was no selvedge in top and bottom.

The net is operated as bottom set, during August - November months at a depth of 5 to 15 m depth from a craft of around 7.6 m to 9 m $\rm L_{OA}$ manned by two persons. This combination net is

a resource specific gear targeted specifically for sharks and rays.

References

Akhilesh, K.V., Ganga, U., Pillai, N.G.K., Vivekanandan, E., Bineesh, K.K., Rajool Shanis, C.P. and Manjebrayakath, H. (2011) - Deep sea fishing for Chondrichthian resources and sustainability concerns - A case study from Southwest coast of India. *Indian J. Geo-Marine Sci.*, **40(3)**: 347-355.

Flewwelling, P., Cullinan, C., Balton, D., Sautter, R.P. and Reynolds, J. E. (2003) - Recent trends in monitoring control and surveillance systems for capture fisheries. FAO, Rome, 200p.

Sherief, P.S.M., Joseph, R., Saly N. Thomas and Leela Edwin (2015) - Design and general features of Ray gillnets used in Kanyakumari coast. *Intl J. Eng. Trends Technol.*, **25(3):** 150-155.