

Artisanal longline fishing for high value fishes off Mumbai, Maharashtra

Albert Idu, Anulekshmi Chellappan*, K.V. Akhilesh and V. V. Singh

Mumbai Research Centre of ICAR-Central Marine Fisheries Research Institute, Mumbai

e-mail: anulekshmic@gmail.com

Sassoon Dock is one of oldest and a major landing center located in Mumbai from where several multiday and single day fishing vessels including trawlers, dolnetters, gillnetters and hook and line units operate. Marine fisheries of Maharashtra is mostly dominated by trawlers and dolnetters while line fishing is done by only a few fishers. The artisanal fishers in Juhu, Colaba and nearby areas of Mumbai are operating a few long line units in small wooden boats (6 - 7 m OAL) or fibre boats fitted with engines of 16 - 24 hp from Sassoon Dock landing centre. Single day short duration fishing trips

of about 5 hours with 4-5 crew, are done in the nearshore waters at 10-25 m depths. Targetted species includes cat fishes, groupers, rays, croakers etc.

To reduce investment cost, the fishers are using cheap and locally available materials for the fishing gear. The main line is made of synthetic rope (Polypropylene) of 3 mm thickness with an approximate length of 210 m. The mainline contains 60 numbers of 40-60 cm long vertical branch lines at approximately every 3.5 m each with “J” shaped

hooks (Hook nos. 5- 6). Sinkers of about 15 to 20 g are placed between every 10 hooks and floats made up of empty plastic bottles, colored with black paint (for easy identification), is tied at the starting of main line. This also connects the anchor line. The length of anchor line is 8 to 15 fathom (according to the depth of operation) and it is tied with the brick. The distant end of the main line is connected to the starting of another line with float and anchor line. This process continues to a total of 20 main lines which in total contain 100 sinkers, 21 floats and anchors (Fig.1). During each fishing trip, fishers carry 3-4 boxes containing five lines each containing 60 numbers of hooks (300 hooks per box and 900-1200 hooks per fishing trip).

The boats venture for fishing at around 8.00am and reaches the fishing ground within one and half hour. The process of shooting of line in the selected fishing area requires minimum of 1 hour. Hauling in of the long line starts after a 30-minute interval and around two hours are required to complete the task. The baits used are small croakers, bombay duck, clupeids (*Thryssa* spp., *Ilisha* spp.) etc. The fishers get good catch of high value fish during the

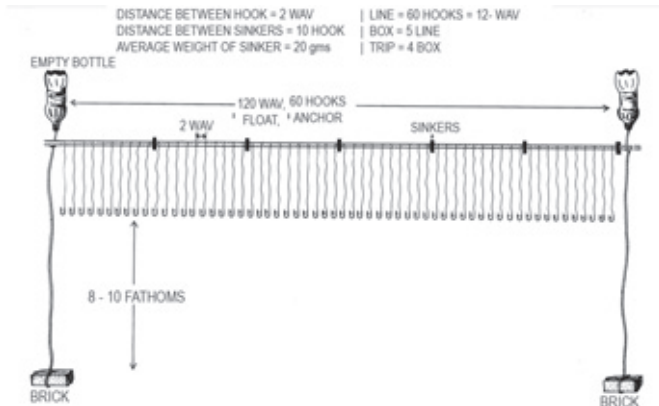


Fig.1. General configuration of longlines used in Mumbai.

monsoon period. Since mechanised fishing is banned in coastal waters during this period, and fish supply in general is low these fishers get good returns for their catch. The major high value fishes in the catch are groupers (*Epinephelus malabaricus*, *E. diacanthus*), snappers (*Lutjanus johnii*, *L. argentimaculatus*), seabass *Lates calcarifer*, catfishes (*Nemapteryx caelata*, *Arius maculatus*), sciaenids (*Otolithoides biauritus*) and elasmobranchs (*Himantura uarnak*, *Himantura* spp., *Scoliodon laticaudus*, *Carcharhinus* spp.).