

ARTISANAL FISHING GEARS EFFICIENCY ON KINGFISH SPECIES *Scomberomorous commerson*.**Isaac Wafula Barasa.**Division of Marine and Coastal Fisheries
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Abstract:

A survey was conducted along the Kenyan marine Coastline to ascertain the most effective fishing gear applied to catch kingfish *Scomberomorous commerson*). The survey involved administration of structured questionnaires that were administered to fishers by trained fisheries personnel (Enumerators). Four gears that are predominantly used to catch Kingfish (*Scomberomorous commerson*) were selected from among other gears viz. Gillnet, handlines, trolling lines and long lines. The survey compared the frequency counts of Kingfish caught per each fishing gear recorded in the questionnaire. The main objective of this study was to identify the most effective gear used to catch Kingfish, identify which landing sites have the highest frequency of the gear with the aim of recommending appropriate management measures for the fishing gear and the species caught.

Materials; Publicity Posters for the survey, Structured Questionnaires, Species identification charts, Personnel, Tablets or Android phones and Laptops.

Methodology; Enumerators were trained on interviewing techniques to be applied during the survey and species identification to ensure they recorded responses in relation to Kingfish versus other species caught. Survey Area; The survey covered all 214 landing sites for 3 days. This involved administering Questions to respondents (Fishermen) on the gears used to target kingfish.

Results; The results were analyzed using excel pivot tables. During the survey a total of 494 trolling lines were recorded. The survey showed Gillnets had 38 counts, handlines had 47 counts, trolling lines had 71 counts and long lines had 20 counts. Trolling lines are predominantly used by sport fishers. The highest concentration of trolling lines was recorded in Kilifi County.

Introduction;

A survey was undertaken to ascertain the most efficient fishing gear used to catch Kingfish (*Scomberomorous commerson*) along the Kenyan Coastline. This survey was also to identify and establish landing sites most predominantly used for landing kingfish.

Planning for the exercise.

Prior to implementing the survey, a general framework of conducting the fisheries Survey including publicity, data collection and analysis was set out in a planning meeting with key timelines. Planning meeting was held from 8th to 9th September 2022. All the activities to be undertaken were outlined.

Publicity of the Survey exercise.

It is vital to create awareness among all stakeholders before the survey starts. Publicity posters were printed and distributed adequately to all landing sites and shopping centers near the landing sites. A radio advert was produced and aired in three local Swahili language stations a week before the survey. Beach Management Units (BMU) officials from all over the coastline were also invited for a briefing meeting at selected locations.



Training of enumerators.

It is important to ensure that the supervisors and enumerators undertake the exercise properly and deliver tangible results. Enumerators were trained on the use of the mobile phone application (ODK Collect) to collect the data. One of the advantages of using the application was to enable real time collection and submission.



Training of enumerators.

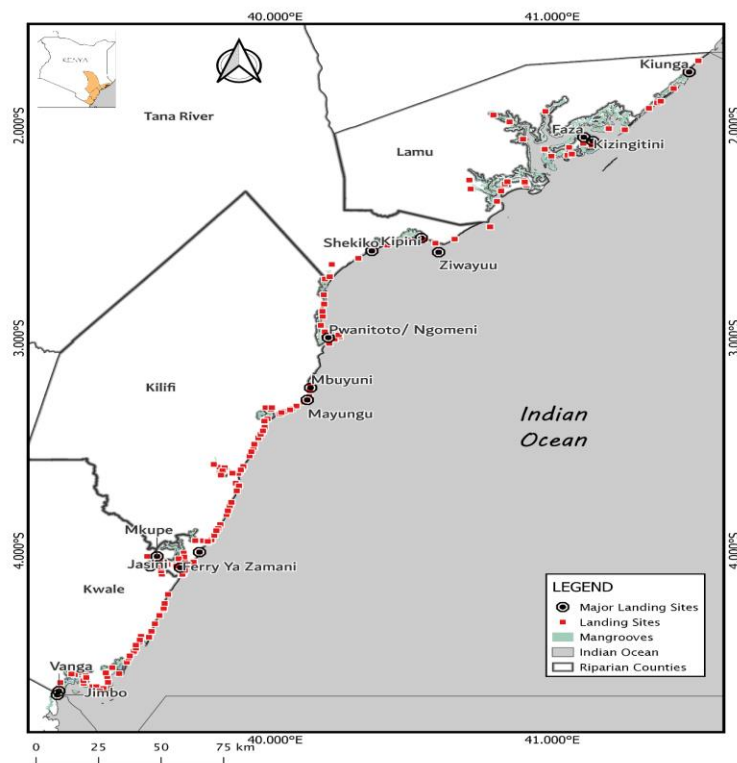
Data Collection.

Actual data collection was done by field enumerators by means of observation and interview of respondents and filling the data in the

coded four-part standardized questionnaire and on the mobile application ODK Collect.



Data captured by mobile application was submitted to the server.



The Survey covered 214 sites

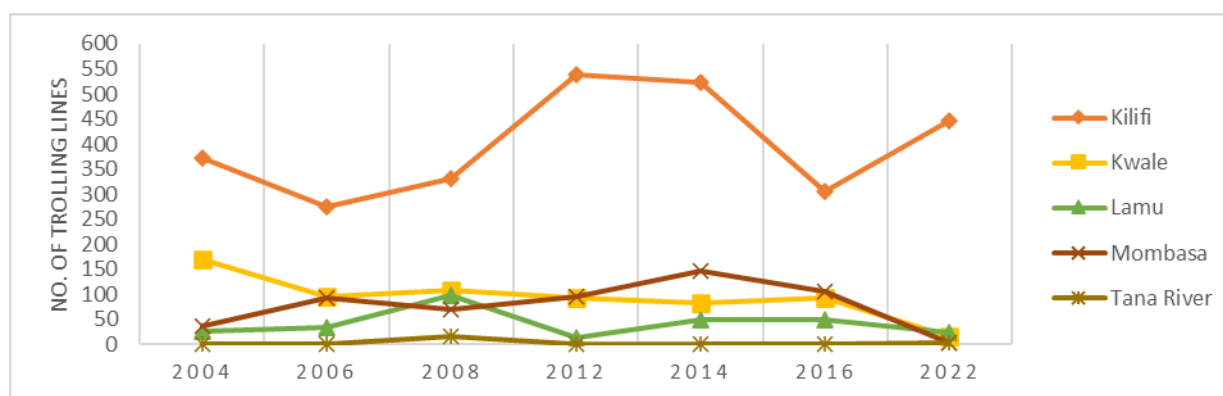
Data Entry, Analysis and Reporting.

Data entry involved digitization of hard copy questionnaire forms and submission to the database.

Data was later exported from the database to MS Excel for cleaning and validation. In cases of disparity of reported data, clarification was done through phone calls and physical visit where necessary to ensure the authenticity of the reported data.

Results and Conclusion.

The results were analyzed using excel pivot tables. During the survey a total of 494 trolling lines were recorded. The survey showed Gillnets had 38 counts, handlines had 47 counts, trolling lines had 71 counts and long lines had 20 counts. Trolling lines are predominantly used by sport fishers. The highest concentration of trolling lines was recorded in Kilifi County. There is need to development a management Plan for the trolling lines since this gear has significant impact on the Kingfish population.



Trends in trolling lines since 2004 to 2022. Graph courtesy FS 2022.

Reference;

Unpublished Frame Survey report 2022.

Annexed is Sample Questionnaire

