

Considerations for effort restriction in 2007 in the South African jig fishery

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Summary

It is proposed that effort in the jig fishery be curbed, and that the reduction in effort be effected by restricting each vessel to a vessel-dependent number of days at sea each year. The vessel-dependent numbers may be based upon the relative numbers of days-at-sea achieved by each vessel in 2005, for example, or alternatively on average over a few recent years.

Effort in the fishery

The target effort level in the jig fishery is 3030 thousand man-hours, and the mechanism of effort control is to limit the number of vessels (and crew) participating in the fishery. It is clear from Figure 1 that the target effort level has been exceeded in recent years, suggesting that the current restrictions on effort are not adequate.

A recent squid working group document, WG/08/06/SQ4, detailed the conversion of effort from man-hour units to one of man-days. This was achieved by calculating a ratio of man-hours to man-days for the period 1985-2005. This yielded an average ratio of 9.9 over the period considered. The current level of effort of 3030 thousand man-hours was thus converted to man-days by dividing by 9.9. to yield an equivalent target effort level of effort of 306 000 man-days.

Sea-day limitations

Given that appeals have now been dealt with in this fishery, the number of men allocated to the squid fishery amounts to 2425. If it is assumed that there is an effective fishing crew of 20 men for vessels that carry more than 20 men, then the crew complement for the fishery amounts to 2340. This implies that sea days should be capped at an average of 131 days.

It is suggested that the way to effect the reduction in sea days is to do so on a proportional basis whereby each vessel is restricted to a certain number of days per annum. The vessel-dependent days would be based on the relative numbers of days-at-sea achieved by each vessel in 2005, for example, or alternatively on average over a few recent years.

Figures 2-4 indicate the distribution of days fished for the periods 2003-2005 for all vessels targeting squid over that period. The average number of days fished was 117, 138 and 121 respectively in each of those years.

Reference

Glazer, J.P. and D.S. Butterworth. 2006. A conversion of Squid Effort from Hours per Man to Man-Days and some Related Considerations. Unpublished MCM WG document. 5pp.

Figure 1: Effort expended in the South African jig fishery. The dashed line indicates the target effort level of 3030 thousand man-hours.

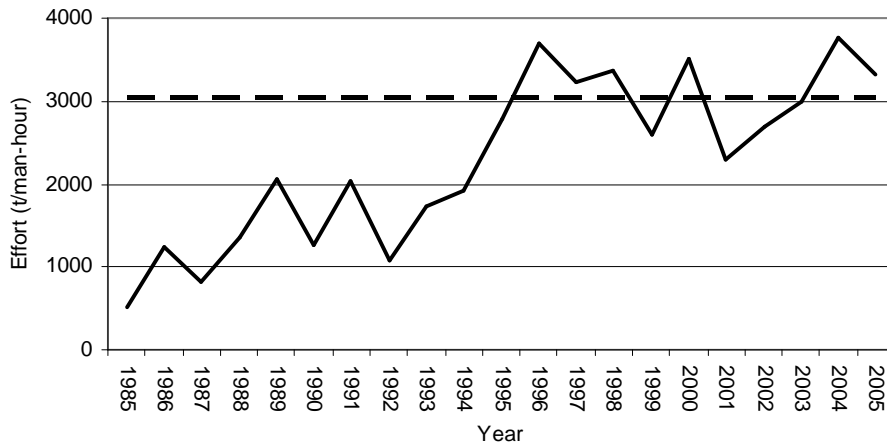


Figure 2: Distribution of days fished in 2003 for all vessels that target squid (as captured in the National Marine Linefish System).

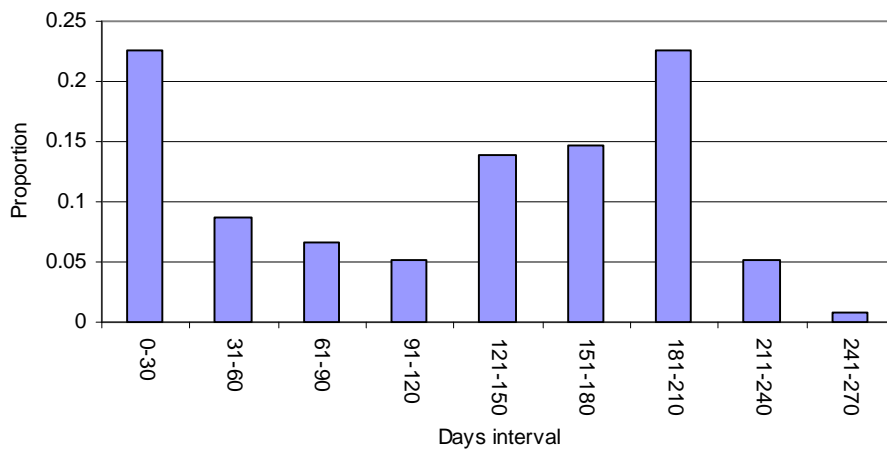


Figure 3: Distribution of days fished in 2004 for all vessels that target squid (as captured in the National Marine Linefish System).

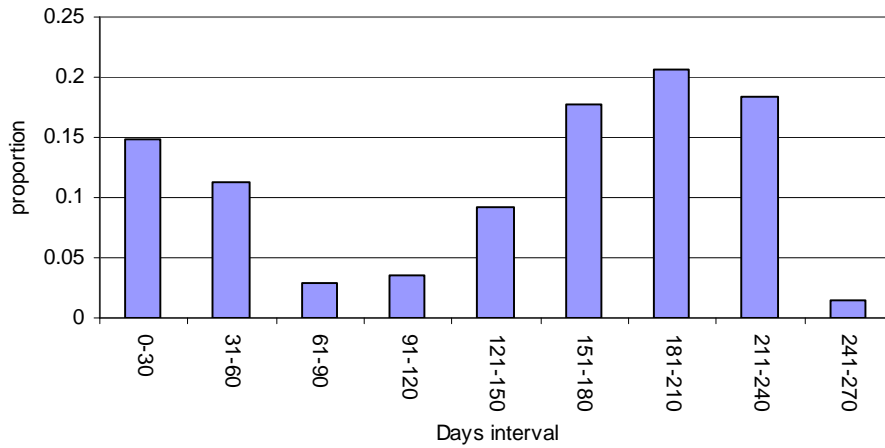


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