

Catch and Effort at Inaccessible Island: differences between logsheets and James Glass' records

S.J. Johnston and C.T.T. Edwards

MARAM
Department of Mathematics and Applied Mathematics
University of Cape Town
Rondebosch, 7700

Logsheets Data

- Catch is summed over each Fishing year, beginning in August each year, i.e. catch for 2000 refers to catches made from August 2000 – July 2001. Note that the logsheet 1996 is not a full-year, but has data only from Jan and Feb 1997.
- Catch and effort data include both the longline and powerboat data
- The logsheets for 1996 and 1997 have catch recorded in a column headed “# baskets”. When effecting a basket to kilogram conversion (using the conversion factor advised by Clarence via Dorrien) we find these values to be ridiculously high and thus we assume that they are in fact recorded as kilograms.
- The logsheets record both the *retained* catch and the *discarded* catch. The retained catch is what has been used in the GLM analyses to date, although it has since been agreed that the total (i.e. retained plus discarded) catch should be used. The total catch should presumably be what is closest to James Glass' record of the “catch” for each year.

Figure 1 compares the logsheet total catch and retained catch with the catch record supplied by James Glass.

Question: How does James Glass get his value of catch. Is it from the weekly vessel production reports or the logsheet entries?

Question: What does James Glass' “catch” measure?: Retained catch or total catch.

Question: What does the logsheet “catch” measure?: Actual measured values or approximations based on the number of baskets landed.

Figure 2 compares James Glass' record of effort with the logsheets records of total effort.

Question: Where does James get his records of effort?

Figure 3 compares the nominal (i.e. raw value of catch divided by effort) values of CPUE for

- a) James Glass' catch and effort records
- b) Logsheet catch and effort records

There appear to be large differences in these two series for some years but not others. This is prior to any GLM analyses being conducted on the logsheet data. The cause for this difference needs to be addressed before any further analysis can be carried out. If future CPUE trends are to be calculated using GLM analyses of logsheet data, and the logsheet data themselves are different from James Glass' catch and effort records, this will create much confusion.

Figure 1: Catch series for Inaccessible.

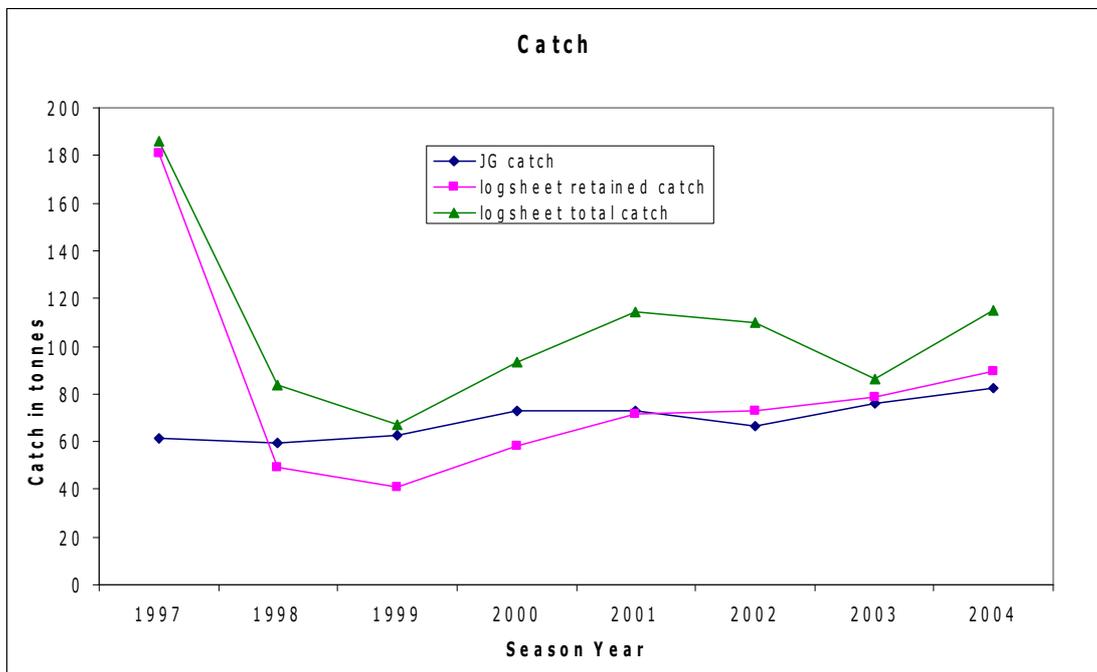


Figure 2: Effort records for Inaccessible.

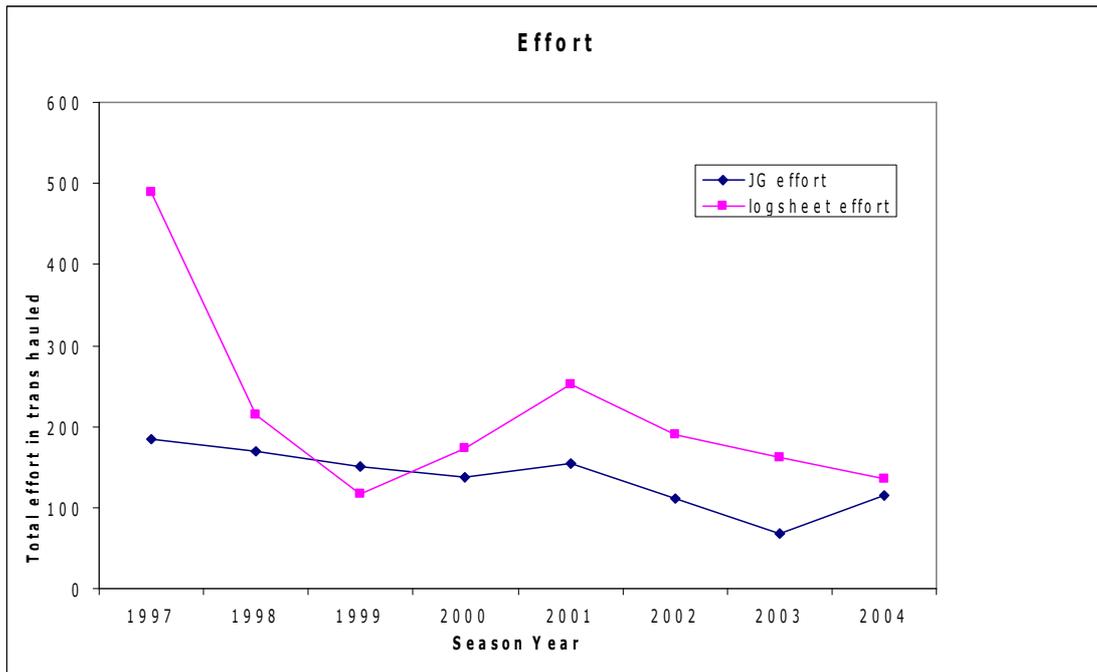


Figure 3: Nominal CPUE trends at Inaccessible.

