

Were the Survey Observations of Anchovy during 2011 Outside the Range Simulated During OMP-08 Development?

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Introduction

At the Small Pelagic Scientific Working Group Meeting on 29th February 2012, some queried whether the below average survey observations of anchovy during 2011 warranted a change to the TAC constraints used in OMP-08. This was considered under the general protocol for OMPs for South African fisheries which cater for unanticipated events and can lead to the initiation of a review of an OMP ahead of the schedule (see Appendix 2 of Rademeyer *et al.* 2008). In this document, a simple check is performed to evaluate whether the 2011 survey estimates of anchovy abundance were outside the major part of the range (typically to 90% or 95% PI would be the norm) simulated during the testing of OMP-08.

Below average observation

The hydroacoustic survey in May 2011 estimated anchovy recruitment at 104.167 billion, below the long term average of 232 billion (Twatwa *et al.* 2011, de Moor and Butterworth 2011). The hydroacoustic survey in November 2011 estimated anchovy biomass at 754 125t, below the long term average of 2.2 million tonnes (Shabangu *et al.* 2011).

Abundance range simulated during OMP-08 testing

Figure 1 shows the distribution of observed biomasses from future November surveys simulated during the testing of OMP-08. Figure 2 shows the distribution of observed recruitments from the May surveys simulated during the testing of OMP-08. Both the May 2011 and November 2011 survey observations fall well within the limits of the distributions simulated, and are not in the lower 5 percent tail. The May 2011 observation is at about the 38th percentile and the November 2011 observation is at about the 22nd percentile.

Summary

In summary, there is no reason for concern that the below average recruitment and biomass for anchovy observed during the two surveys in 2011 is outside the the major part of the range considered when simulation testing OMP-08. Thus there is no need to initiate a review of the OMP ahead of schedule under the general protocol for OMPs within South African fisheries, which caters for unanticipated events.

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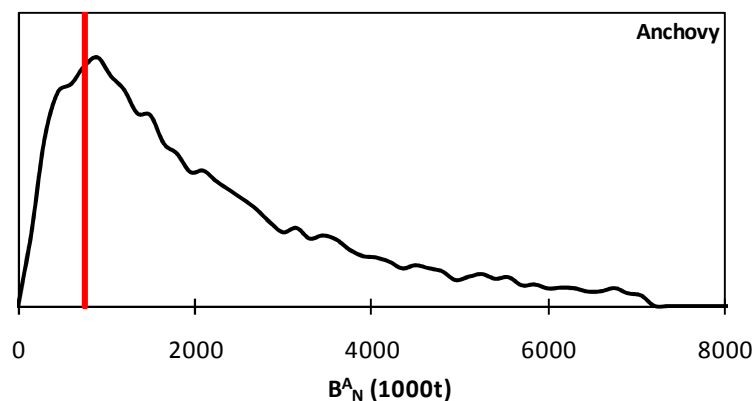


Figure 1. The distribution of observed biomass from the November survey simulated during the testing of OMP-08. The red line indicates the observation in November 2011 of 754 124t.

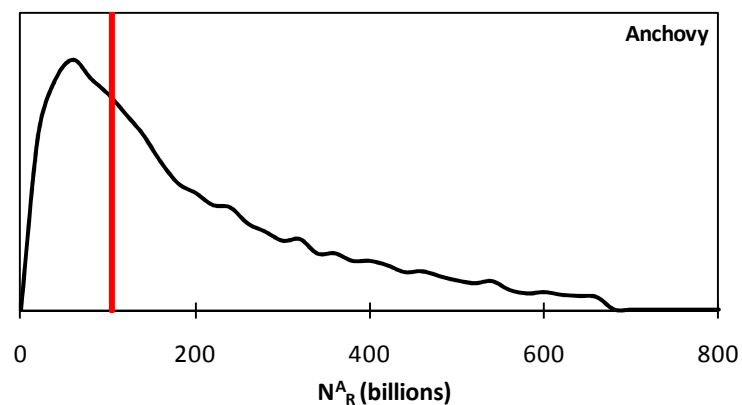


Figure 2. The distribution of observed recruitment from the May survey simulated during the testing of OMP-08. The red line indicates the observation in May 2011 of 104.2 billion.