

Addendum - Updated parameter estimates for the hake species split model

Introduction

This addendum gives updated parameter estimates for the hake species split GLM model, based on recommendations made at the Scientific Working group held on 27 February 2013. Methods follow those given in FISHERIES/2013/FEB/SWG-DEM/12 and represent;

- 1) Old model parameters (given in FISHERIES/2013/FEB/SWG-DEM/12)
- 2) New model parameters (includes the correct stepped West – South Coast split)
- 3) The new model including block-year factors in 5 year blocks.

Results & Discussion

The results of the three models described above are given in Table 1.

Table 1 – Model parameter estimates for the hake species split model. The variance of residual proportions is also given.

	West Coast			South Coast		
	Old	New	Block year effect	Old	New	Block year effect
μ	-12.851	-12.978	-12.846	-23.183	-22.674	-23.43
λ_{small}	5.788	5.928	6.209	10.997	8.8	8.888
λ_{medium}	2.049	2.137	2.329	7.391	5.733	5.776
λ_{large}	0	0	0	0	0	0
Υ	0.037	0.037	0.039	0.073	0.084	0.085
1983-1988			-1.352			-0.089
1989-1993			-0.936			0.127
1994-1998			-0.179			0.899
1999-2003			-0.594			0.725
2004-2008			-0.673			0.323
2009 +			0			0
variance of residual proportions	0.047	0.05	0.048	0.02	0.018	0.017

Based on these results the block year effect does not contribute anything to explaining variance in the model, and the new model estimates are thus suggested for use in splitting the catch in the two species. However, it was recommended by the scientific working group that a variant with the block-year factors be produced.