Hake catch and abundance estimates by latitudinal stratum on the west coast, South Africa

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The commercial catch discussed in the results below are based on drag (trawl) level data as reported in logbooks and captured into the demersal trawl database. Only 21% of the hake TAC for 2012 (144 671 tons) and 27% of the TAC for 2013 (156 075 tons) are not considered in the results, and likely reflects the longline allocation (±10%) in addition to the hake trawl landings which lacked spatial information. The catches made during the abundance estimate surveys follow and include data for 2014.

Table 1a: West Coast species proportions 2012 and 2013 - new WC/SC split applied (Jean Glazer *pers comm.*)

Obs	Year	Latitude	proportion of capensis caught	proportion of paradoxus caught
1	2012	3000-3100	0.14087	0.85913
2	2012	3100-3200	0.02226	0.97774
3	2012	3200-3300	0.00738	0.99262
4	2012	3300-3400	0.01972	0.98028
5	2012	3400-3500	0.07131	0.92869
6	2012	3500-3600	0.15455	0.84545
7	2012	3600-3700	0.31288	0.68712
8	2013	2900-3000	0.12469	0.87531
9	2013	3000-3100	0.13215	0.86785
0	2013	3100-3200	0.00538	0.99462
1	2013	3200-3300	0.00459	0.99541
2	2013	3300-3400	0.01	0.99
3	2013	3400-3500	0.05324	0.94676
4	2013	3500-3600	0.1234	0.8766
5	2013	3600-3700	0.30221	0.69779

Table 1b: Proportion of annual commercial catch per one degree latitudinal band taken on the west coast (see Fig 1) per hake species

Species	*M. paradoxus*		*M. capensis*	
Latitude	**2012**	**2013**	**2012**	**2013**
2900<lat<= 3000	0	0.00002	0	0.00003
3000<lat<= 3100	0.012	0.019	0.014	0.028
3100<lat<= 3200	0.058	0.033	0.010	0.002
3200<lat<= 3300	0.059	0.153	0.003	0.007
3300<lat<= 3400	0.206	0.195	0.030	0.019
3400<lat<= 3500	0.301	0.237	0.167	0.130
3500<lat<= 3600	0.211	0.252	0.278	0.346
3600<lat<= 3700	0.152	0.111	0.498	0.468

Table 1c: Total catch (tons) of hake per one degree latitudinal band (*de facto* by offshore fleet) on the west coast (see Figure 1), totalled and compared to the total catch (by all fleets) for the entire coast (i.e. west and south coasts).

	2012	prop WC+SC	**2013**	prop WC+SC
2900<lat<= 3000			2	0%
3000<lat<= 3100	1 114	1%	1 588	1%
3100<lat<= 3200	4 772	4%	2 432	2%
3200<lat<= 3300	4 763	4%	11 213	10%
3300<lat<= 3400	16 775	15%	14 448	13%
3400<lat<= 3500	25 858	23%	18 322	16%
3500<lat<= 3600	19 924	17%	21 060	19%
3600<lat<= 3700	17 631	15%	11 621	10%
WC total	90 837		80 686	
WC + SC total	114 798		113 472	
WC/(WC+SC)	**79%**		**71%**	

Figure 1: Composite of bar graphs representing the commercial west coast catch proportion by one degree latitudinal band for *Merluccius paradoxus* on the left, and *M. capensis* on the right, of a map indicating the assignment of commercial grid blocks to latitudinal bands for derivation of total catch.
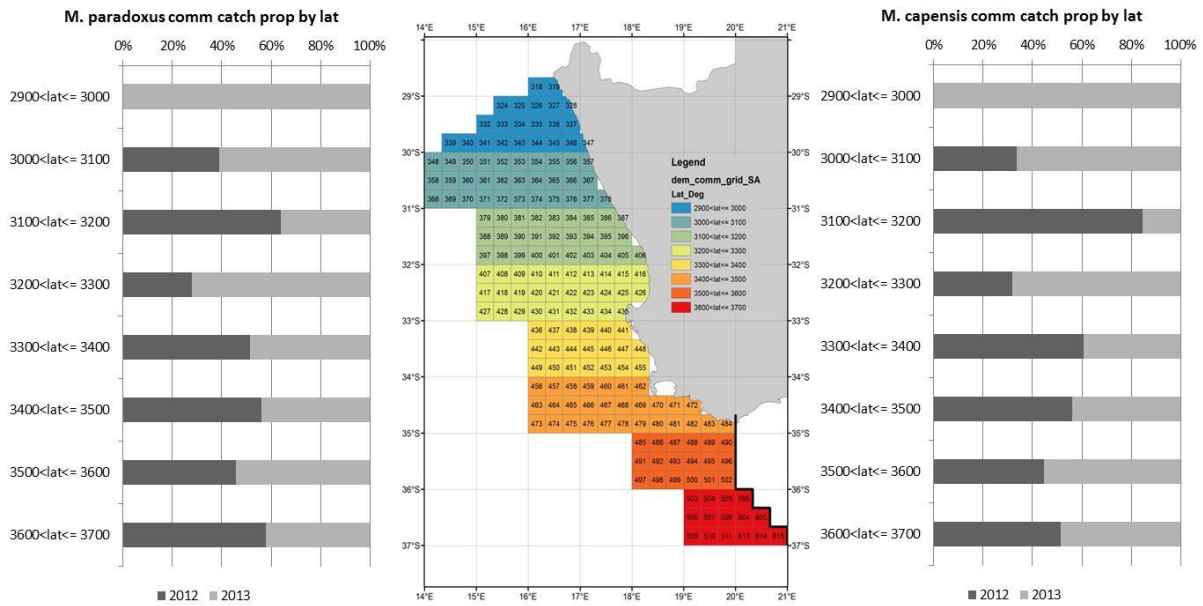

Table 2: Proportion of annual survey catch taken per one degree latitudinal band on the west coast (as defined by Figure 2) per hake species; note bands 28-29°S and 29-30°S are reported as <30.

species	M.paradoxus			M.capensis		
latitude	2012	2013	2014	2012	2013	2014
<30	0.042	0.092	0.051	0.255	0.407	0.432
30-31	0.102	0.139	0.249	0.179	0.254	0.134
31-32	0.143	0.100	0.142	0.144	0.039	0.206
32-33	0.224	0.194	0.118	0.133	0.055	0.119
33-34	0.160	0.103	0.144	0.016	0.038	0.024
34-35	0.156	0.065	0.154	0.117	0.094	0.048
35-36	0.119	0.089	0.079	0.135	0.105	0.038
36-37	0.053	0.217	0.063	0.020	0.007	0

Figure 2: Composite of bar graphs representing the survey west coast catch proportion by one degree latitudinal band for *Merluccius paradoxus* on the left, and *M. capensis* on the right, of a map indicating the assignment of survey grid blocks to latitudinal bands for derivation of total catch.