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Distribution patterns of spawning stock of hake maturity stages in the Benguela ecosystem of Namibia

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ABSTRACT:

Distribution of maturity stages within populations of *M. capensis* and *M. paradoxus* were investigated along the Namibian coast between 17 – 28°S latitudes and within 100 m to 600 m water depths. Sampling was conducted in summer, during the period of January–February 2012 with a bottom trawl on board the MFV Blue Sea research vessel. A total of 217 stations along the coast were sampled targeting the two species of hake. Results indicated significant differences in the distribution of active stage of *M. capensis* and in the ripe and running, ripe and inactive stages for *M. paradoxus* with regard to latitude. Whilst for depths significant differences were only observed in ripe, ripe and running maturity stages for *M. capensis* and the inactive stage for *M. paradoxus*. Maturity stages distribution between the two species differs significantly in the active stage with regard to latitude and in the ripe and inactive stages with regard to depth. There exists fluctuation in maturity stages of the two hake species and this can be due to feeding behavior, spatial distribution and differences in spawning locations.

Keywords:

Benguela ecosystem, maturity distribution, hake species, maturity stages.