

Title of presentation:

Environmental effects on hake catchability in the South African West Coast Survey

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Abstract:

Stock assessments use typically two types of input data: fishery dependent (e.g. landings, effort) and fishery independent (scientific surveys) information. Routine monitoring surveys are usually designed to provide consistent time series of estimates (indices) of abundance or biomass for a given target species. However, catchability may vary between years and even with a survey due technical reason affecting the efficiency of the survey (modification of sampling gear and survey design) or environmental factors affecting the availability of the target species to the survey (horizontal migration out of the survey domain or vertical migration out of the range fished by the sampling gear). The present study addresses some of these issues related to hake in the South African West Coast Survey in the years 2002 to 2012. The factors considered in detail are effects of wind induced bottom currents, time of day, 'green water', oxygen content in the bottom layer together with the impact of the change of the survey gear, and temperature in the bottom layer and its effect on the proportion of the population occurring inside the area covered by the survey.