

DCM DYNAMICS IN CANARIES WATERS

Oral

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The deep chlorophyll maximum (DCM) is commonly observed to lie at the top of the nitrocline and is hypothesised to result from phytoplankton in steady state growth at irradiances just above the compensation level. However, this hypothesis has rarely tested with precision. To do so requires estimates not only of photosynthesis at low illuminations but also of losses due to grazing by protozoan as well as metazoan zooplankton and to sinking and small-scale eddy diffusion. Furthermore, in coastal transition zones such as that around the Canary Islands and between the islands and the upwelling zone of the African coast, DCM dynamics are likely to be affected by upwelling, thermocline uplift, and enhanced vertical mixing (Barton et al., 1998). We will report studies during recent cruises which allow DCM dynamics to be quantified in these waters.