Supplement of Ocean Sci., 11, 83–91, 2015
http://www.ocean-sci.net/11/83/2015/
doi:10.5194/os-11-83-2015-supplement

Ocean Science
Open Access

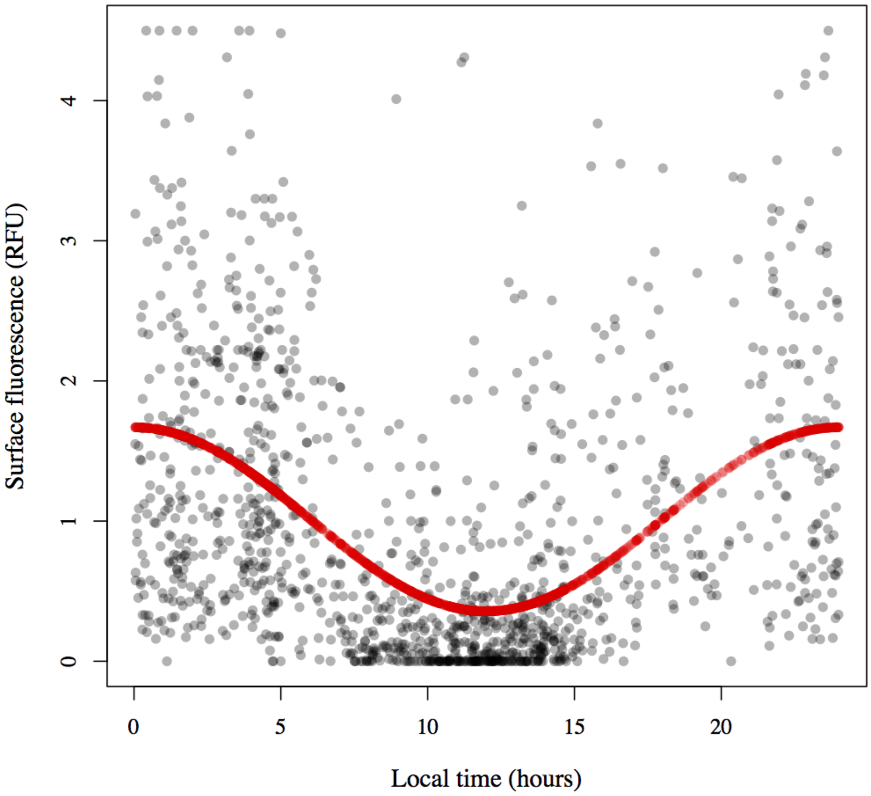
Supplement of

An alternative method for correcting fluorescence quenching

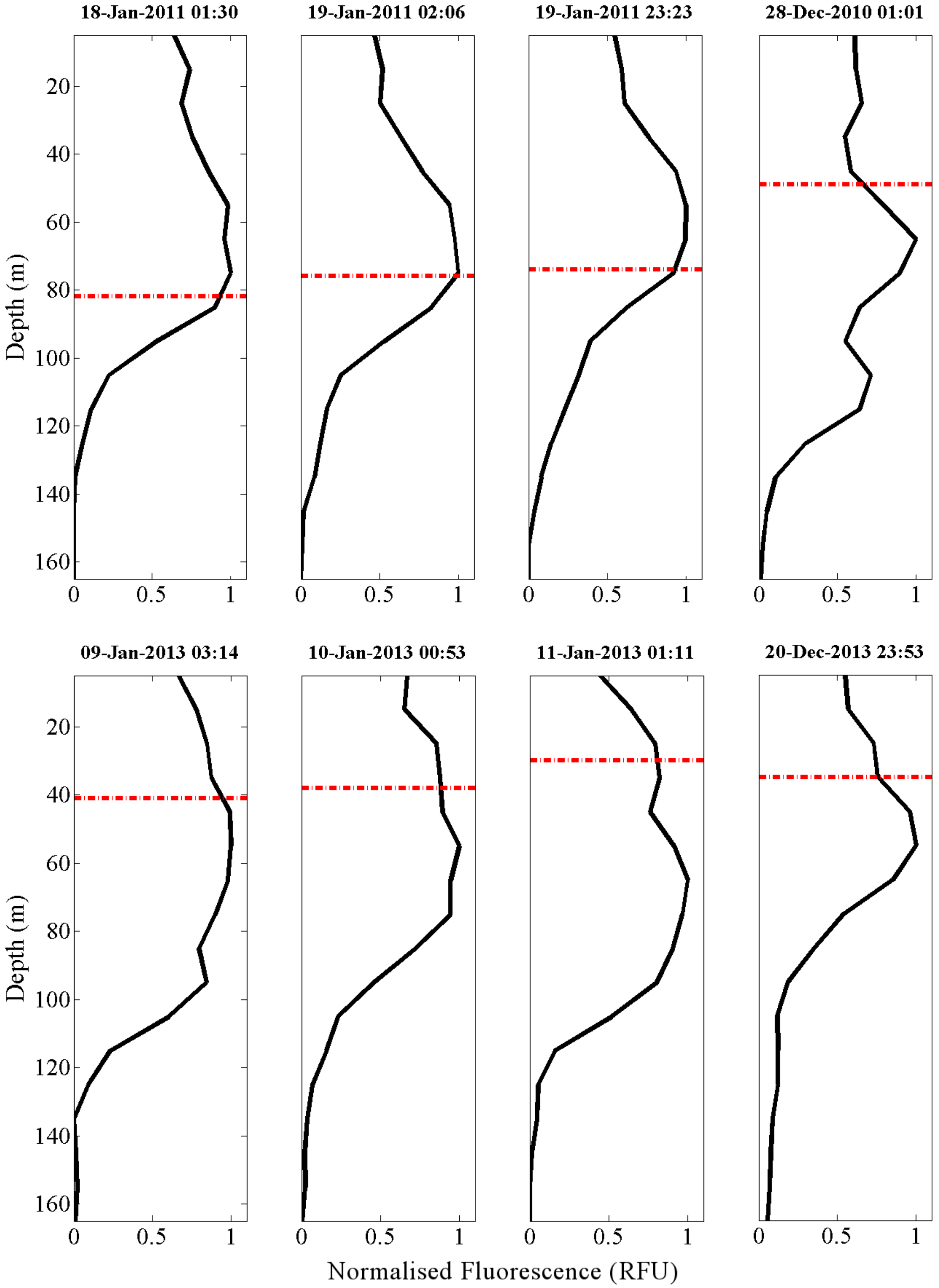
L. Biermann et al.

Correspondence to: L. Biermann (lb66@st-andrews.ac.uk)

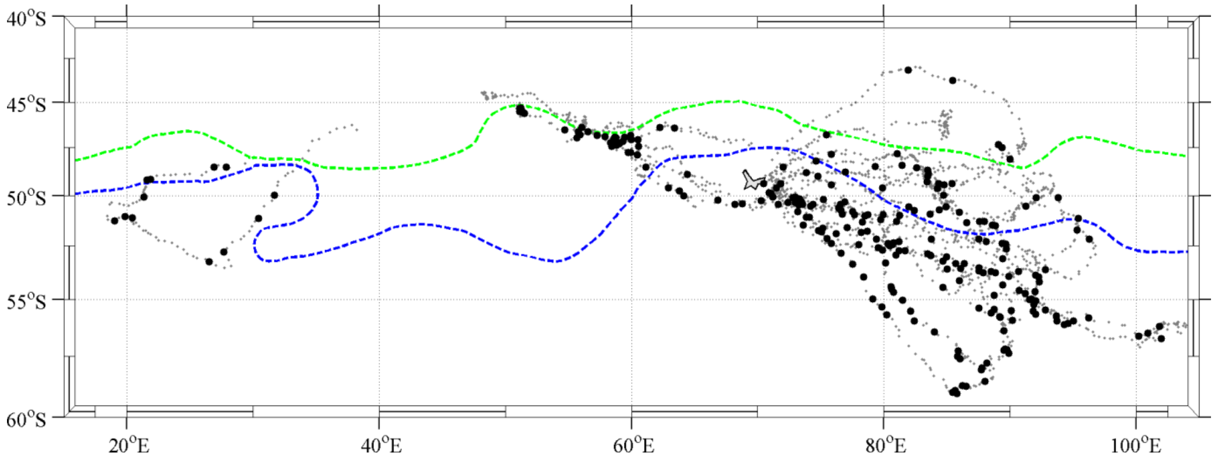
Supplementary Figures



Supplementary Figure 1: Uncorrected surface fluorescence data (top 10m) collected by 19 animal-borne fluorometers over successive austral summers. Fitted sin wave in red illustrates how yield is significantly suppressed around midday. (n = 1267, R^2 = 0.26, P < 0.001).



Supplementary Figure 2: Examples of discreet vertical profiles of night (unquenched) fluorescence (solid black line) collected by instrumented elephant seals in the Southern Ocean. The depth of the density-derived mixed layer is shown by the dashed red line.



Supplementary Figure 3: Positions of the night (unquenched) deep fluorescence maxima along the tracks of southern elephant seals tagged with FCTD-SRDLs over the austral summers spanning 2009 to 2013. These 'true' deep maxima compose approximately 30% of all night data collected by these animal-borne fluorometers. The general positions of the Sub Antarctic Front and the Polar front are shown in green and blue, respectively (Orsi and Harris, 2014).