

# ANT XXV-3 Data report 7

04.03. – 11.03.2009

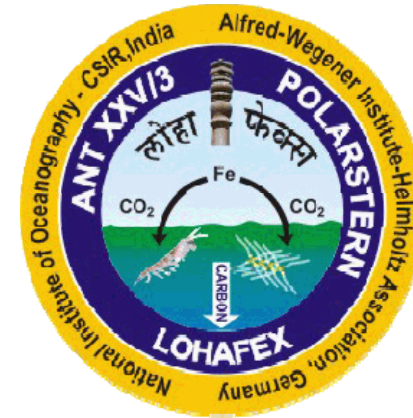


Figure 1 shows the tracks of the 5 drifters (buoys) deployed during LOHAFEX until the end of the experiment. Drifters 1 and 2 were deployed in the beginning in the centre of our eddy and 3 was deployed in the centre of the adjacent warm eddy. Drifter 1 was redeployed as 1A and 4 and 5 were used to mark the patch during its movement through the eddy core. Drifter 3 was lost after 2 weeks and 1A and 4 left the eddy and encircled the warm eddy while drifters 2 and 5 stayed at the southern exit of the eddy.

Fig. 2 shows the movement of the patch during the experiment on the basis of high FRRF values superimposed on the buoy tracks.

Figs. 3. Profiles of nitrous oxide and oxygen at beginning (station 114) and end of the experiment (204) demonstrating no change in the surface layer.

Figs.4 and 5 show profiles of bacteria and ultra-small phytoplankton and bacterial numbers over the course of the experiment, respectively, inside and outside the patch measured with a flow cytometer. Notice absence of a significant difference between inside and outside.

These are preliminary data.

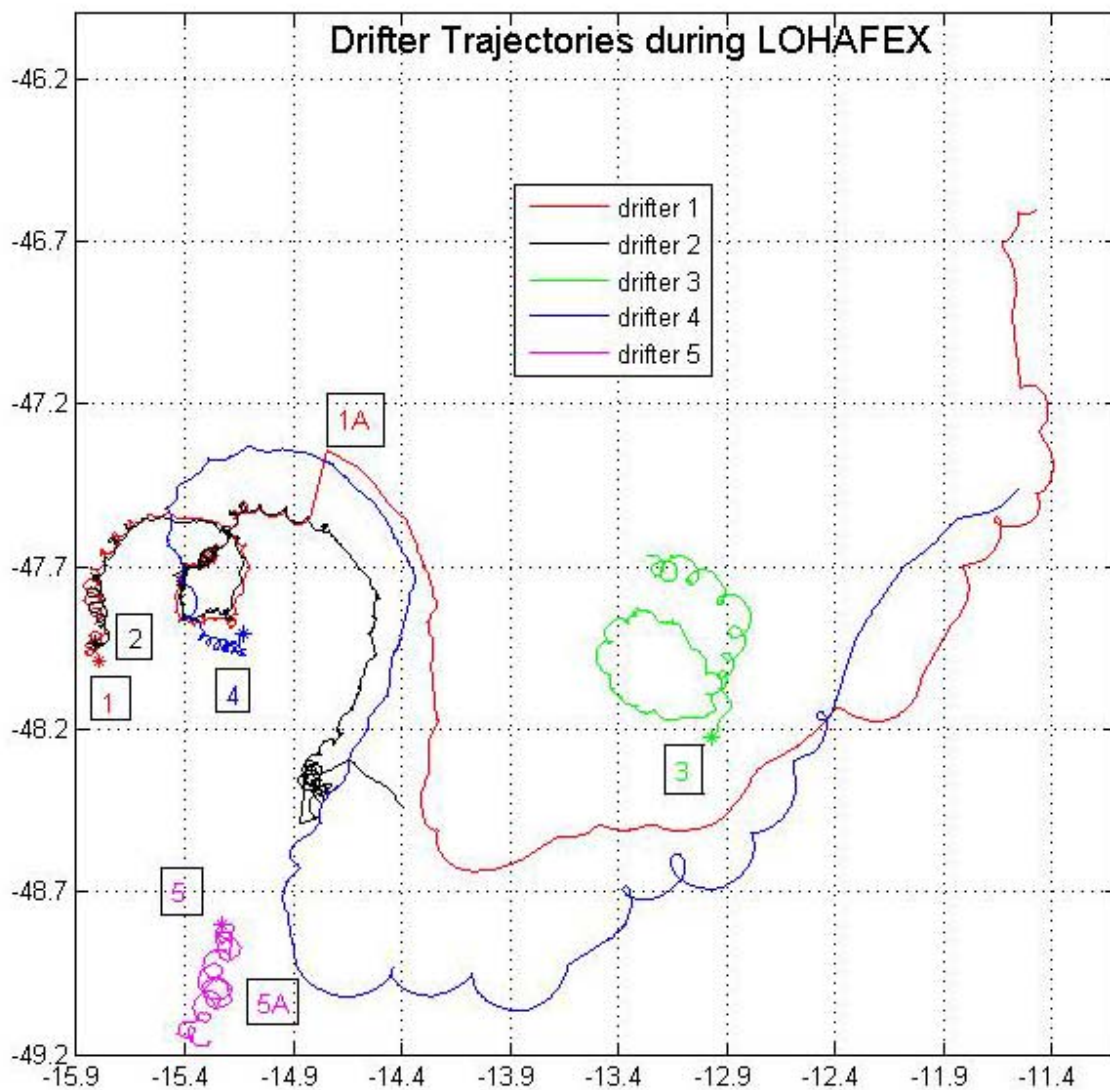


Fig. 1. Tracks of drifters deployed during the experiment in the LOHAFEX eddy and the adjacent warm one (buoy 3 which was lost 2 weeks after deployment).

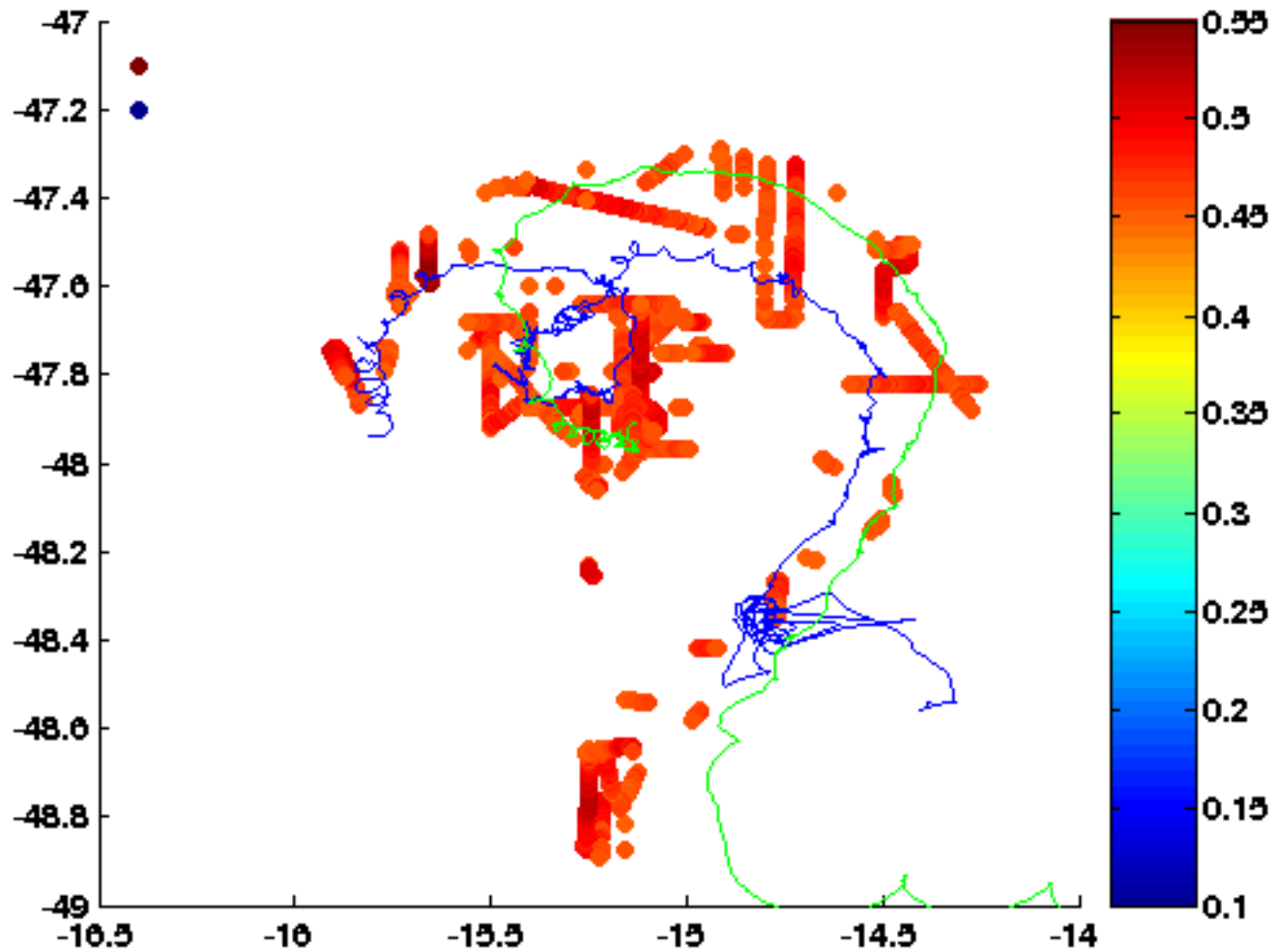


Fig. 2. Location of high values of photosynthetic efficiency measured with an FRRF denoting movement of the patch during the experiment. The patch had reached the southern exit of the eddy when the experiment was ended.

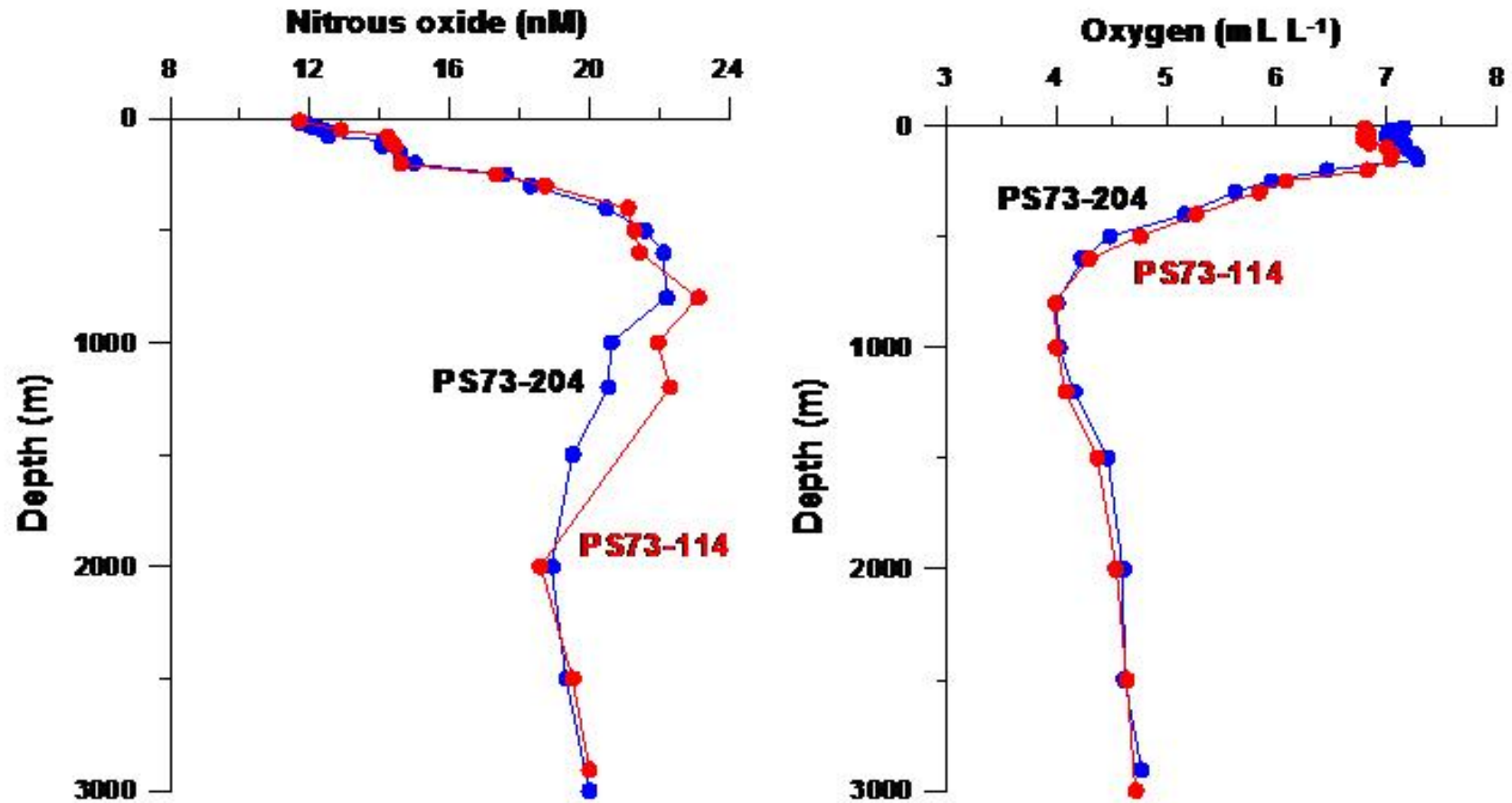


Fig. 3. Profiles of nitrous oxide and oxygen at beginning (114) and end (204) of experiment. Notice no difference in the upper 700 m, the offset lower down is probably due to presence of another water mass. Oxygen profiles show slightly higher values at the surface at the end, but no difference further below.

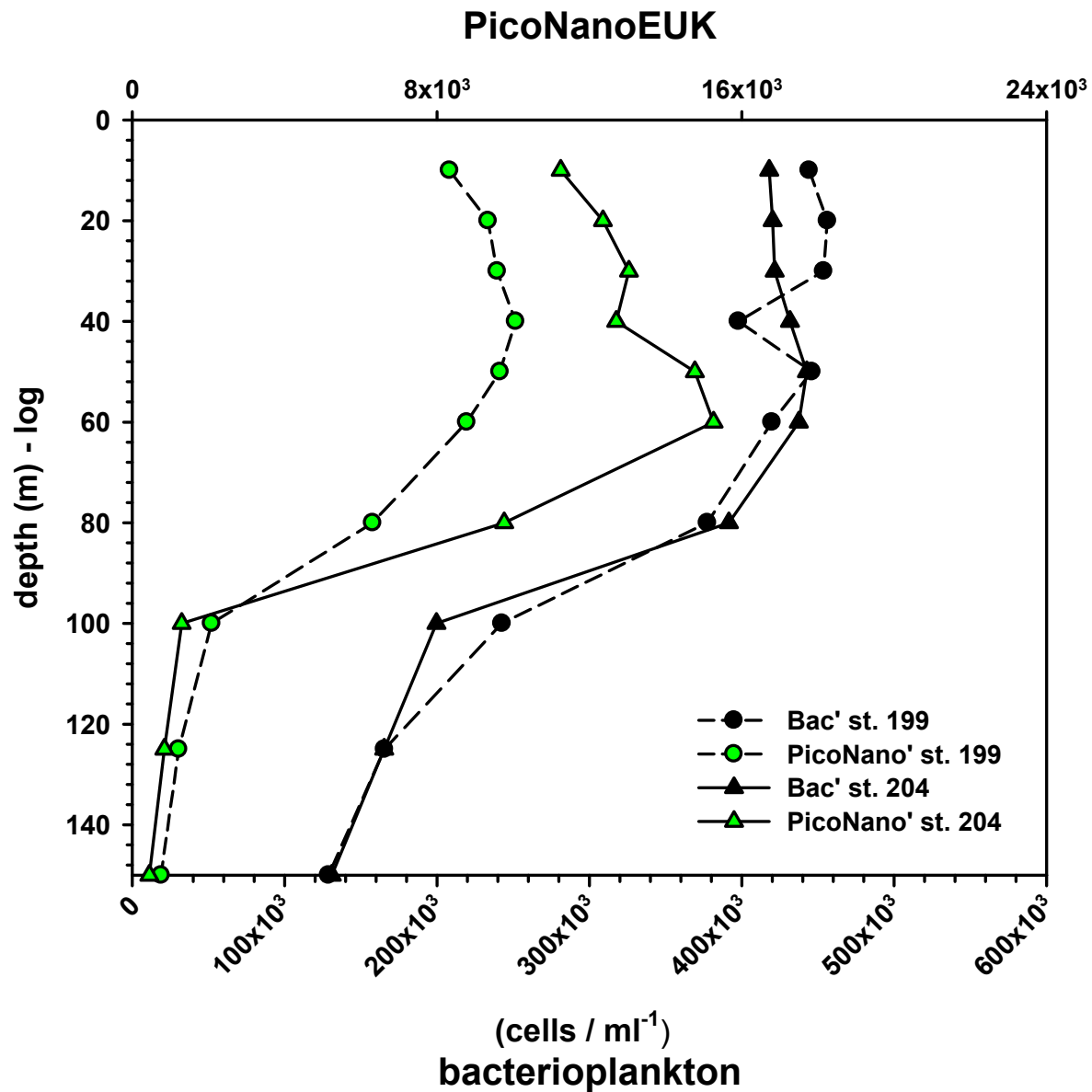


Fig. 4. Profiles of ultra-small phytoplankton (pico and nanoeucaryotes) and bacteria outside (199) and inside (204) the fertilised patch at the end of the experiment. Notice the difference only in phytoplankton.

### bactrioplankton abundance at 20 m depth

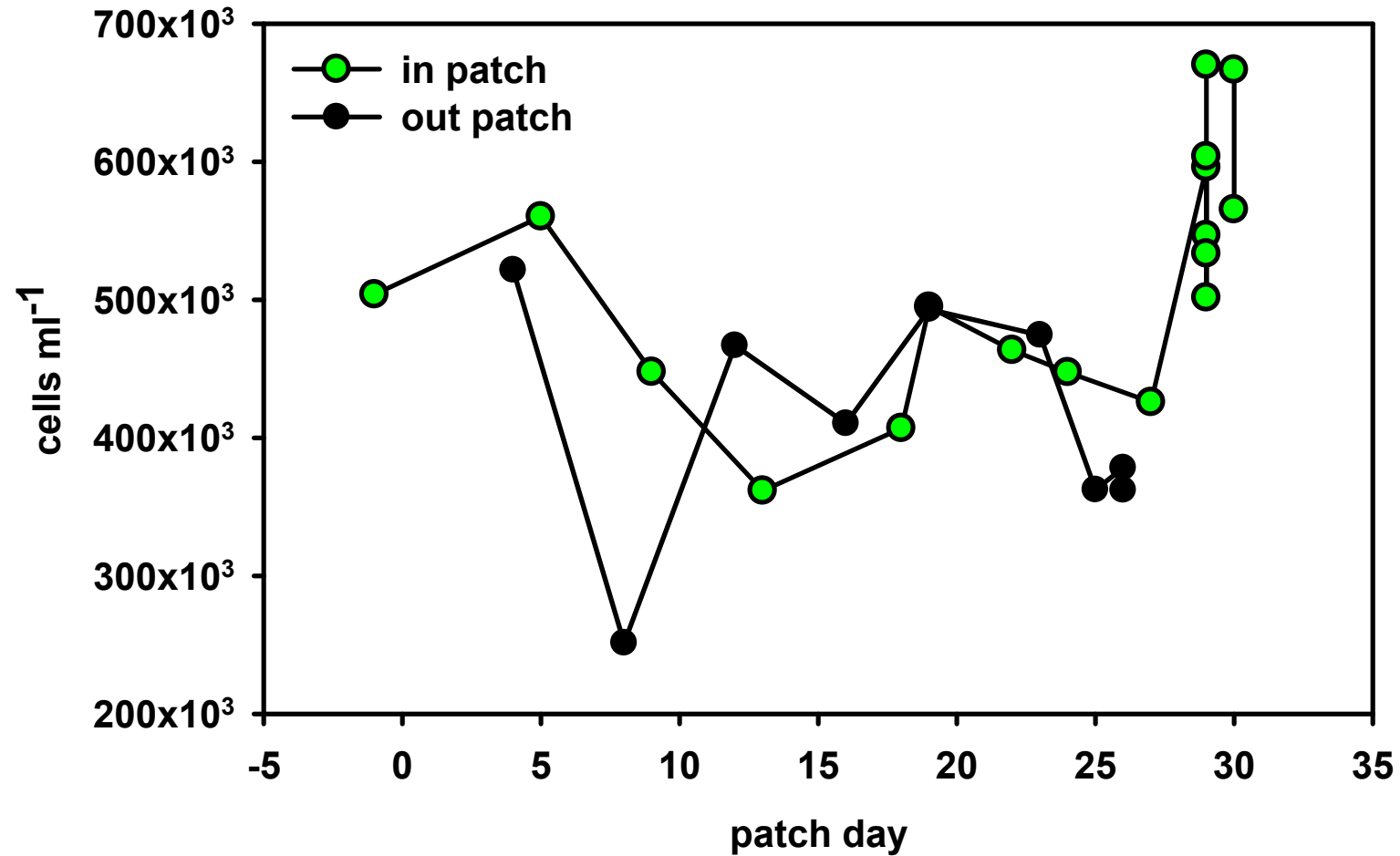


Fig. 5. Bacterial numbers inside and outside the patch during the experiment. There was no significant difference.