

24 September 2021

Results for Picoplankton by flow cytometry in 18 samples from the Cleanseas project collected in Sept 2021.

Picophytoplankton samples were thawed at 37°C, 1 µm beads (Polysciences) added as an internal reference and analysed using a FACSVerser (Becton Dickenson) flow cytometer fitted with a 488 nm laser. Acquisition was run for 3 minutes on a medium flow rate (~53 µl min⁻¹). Data were analysed with FlowJo software (Tree Star®). Picophytoplankton groups were differentiated based on their scattering and fluorescence signals (Marie et al. 1999).

Three groups of picoplankton were evident, these were Prochlorococcus, Synechococcus and Picoeukaryotes and abundances are provided here (in cells ml⁻¹).

References

Brussaard CPD (2004) Optimization of procedures for counting viruses by flow cytometry. *Applied and Environmental Microbiology*, 70:1506-1513

Marie D, Partensky F, Vaulot D, Brussaard C (1999) Enumeration of phytoplankton, bacteria, and viruses in marine samples. In: Robinson JPEA (ed) Current protocols in cytometry, suppl 10. John Wiley & Sons, Inc, New York

Results

Picoplankton counts

Sample	Prochlorococcus x cells ml ⁻¹	Synechococcus x cells ml ⁻¹	Picoeukaryotes x cells ml ⁻¹
Douglas Point R1	760	37,031	14,096
Douglas Point R2	778	37,506	13,591
Douglas Point R3	832	36,287	13,437
Germein R1	854	42,706	14,922
Germein R2	713	41,561	14,105
Germein R3	720	41,872	14,829
Mount Gullett R1	623	38,892	17,065
Mount Gullett R2	654	37,955	17,680
Mount Gullett R3	602	39,257	16,984
Eight Mile R1	765	39,719	12,529
Eight Mile R2	775	39,772	12,013
Eight Mile R3	723	39,054	12,749
Fasle Bay R1	612	56,172	12,262
Fasle Bay R2	705	56,268	12,554
Fasle Bay R3	630	56,569	12,888
Fitzgerald Bay R1	851	61,268	16,190
Fitzgerald Bay R2	911	59,838	16,068
Fitzgerald Bay R3	792	60,765	16,440

End of results