

Phytoplankton pigment concentration data series for cruise Challenger CH140

Principal Investigator and Data Originator

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Content of data series

Parameter	Unit	Parameter code	Number of samples	Number of stations	Comments
Chlorophyll <i>a</i> (total)	$\mu\text{g l}^{-1}$	CPHLHPP1	76	17 CTD + 9 NT	none
Chl. <i>a</i> (sum of size-fractions >0.2 μm)	$\mu\text{g l}^{-1}$	CPHLHPP4	6	1 CTD	none
Chl. <i>a</i> (0.2-2 μm)	$\mu\text{g l}^{-1}$	SCHLHPPF	6	1 CTD	none
Chl. <i>a</i> (2-20 μm)	$\mu\text{g l}^{-1}$	SCHLHPPG	6	1 CTD	none
Chl. <i>a</i> (>20 μm)	$\mu\text{g l}^{-1}$	SCHLHPPQ	6	1 CTD	none

CTD= CTD-Rosette water column sampling station.

NT= surface underway sampling from ship's non-toxic supply (ca. 4 m).

Originator's protocol

Water samples were collected mainly from the near surface, bottom mixed layers and in the vicinity of the thermocline using the CTD-rosette water sampler. Full vertical profiles of phytopigment distribution were determined from 4 CTD casts. Occasional samples were also taken from the ship's non-toxic water supply for calibration of the underway fluorometer. Water (200 ml) was filtered through 2.5 cm GF/F filters and the filters were stored frozen for later analysis at Dunstaffnage Marine Laboratory. At one CTD station water samples were size-fractionated by passage through a filter stack consisting of polycarbonate filters of 18, 2 and 0.2 μm pore size. Filters were stored as described above.

Chlorophyll *a* was extracted into 8 ml of 90% acetone and analysed by isocratic HPLC analysis.

BODC processing

The data were loaded into a database under the ORACLE Relational Database Management System without modification.

Comments on data quality

None to report.