

**Supplementary Table S7** Recruitment of metagenomic reads by the genomes of *Polaribacter* sp. Hel1\_33\_4 and s. Hel1\_85.

site	date	time	plankton size fraction	platform	reads	reads with	reads with	percentage	percentage	study	
						quality filtered reads for mapping	≥95% matches to Hel1_33_49	≥95% matches to Hel1_85	of reads mapping to Hel1_33_49		of reads mapping to Hel1_85
English Channel	2008/01/28	day	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	616,793	340,714	7	8	0.002	0.002	WCO Microbial Metagenomics
English Channel	2008/01/28	night	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	784,823	513,848	12	15	0.002	0.003	WCO Microbial Metagenomics
English Channel	2008/04/22	day	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	637,801	415,898	29	22	0.007	0.005	WCO Microbial Metagenomics
English Channel	2008/04/22	night	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	493,003	315,231	74	58	0.023	0.018	WCO Microbial Metagenomics
English Channel	2008/04/27	4 pm	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	620,759	409,917	22	14	0.005	0.003	WCO Microbial Metagenomics
English Channel	2008/04/27	10 pm	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	524,953	346,364	47	32	0.014	0.009	WCO Microbial Metagenomics
English Channel	2008/08/28	4 am	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	500,117	333,78	58	38	0.017	0.011	WCO Microbial Metagenomics
English Channel	2008/08/28	10 am	0.2 - 1.6 µm	454 FLX Ti (1 PTP)	326,475	215,474	69	57	0.032	0.027	WCO Microbial Metagenomics
North Sea	2008/08/21	day	0.2 - 3 µm	454 FLX Ti (0.5 PTP)	671,375	495,568	8	5	0.002	0.001	MIMAS
North Sea	2009/02/11	day	0.2 - 3 µm	454 FLX Ti (2.5 PTP)	2,203,446	1,604,288	110	47	0.007	0.003	MIMAS
North Sea	2009/03/31	day	0.2 - 3 µm	454 FLX Ti (2.5 PTP)	1,666,535	1,140,320	126	41	0.011	0.004	MIMAS
North Sea	2009/04/07	day	0.2 - 3 µm	454 FLX Ti (2 PTP)	2,109,239	1,537,921	1,470	372	0.096	0.024	MIMAS
North Sea	2009/04/14	day	0.2 - 3 µm	454 FLX Ti (4 PTP)	4,588,441	3,236,386	3,353	1,006	0.104	0.031	MIMAS
North Sea	2009/04/14	day	3 - 10 µm	454 FLX Ti (2 PTP)	2,114,794	867,462	789	150	0.091	0.017	MIMAS
North Sea	2009/06/16	day	0.2 - 3 µm	454 FLX Ti (1 PTP)	1,120,072	817,516	84	57	0.010	0.007	MIMAS
North Sea	2009/09/01	day	0.2 - 3 µm	454 FLX Ti (2 PTP)	2,714,430	1,728,646	38	26	0.002	0.002	MIMAS
North Sea	2010/03/03	day	0.2 - 3 µm	Hiseq2000 (1 lane)	280,055,355	231,569,084	9,106	7,439	0.004	0.003	COGITO
North Sea	2010/04/08	day	0.2 - 3 µm	Hiseq2000 (1 lane)	325,087,882	262,136,222	523,874	100,967	0.200	0.039	COGITO
North Sea	2010/05/04	day	0.2 - 3 µm	Hiseq2000 (1 lane)	269,599,216	235,206,610	1,211,331	140,059	0.515	0.060	COGITO
North Sea	2010/05/18	day	0.2 - 3 µm	Hiseq2000 (1 lane)	305,056,659	234,645,008	185,754	62,082	0.079	0.026	COGITO
North Sea	2011/03/24	day	0.2 - 3 µm	Hiseq2000 (1 lane)	300,905,947	257,717,888	11,861	8,941	0.005	0.003	COGITO
North Sea	2011/04/28	day	0.2 - 3 µm	Hiseq2000 (1 lane)	291,006,941	248,287,506	43,142	29,863	0.017	0.012	COGITO
North Sea	2011/05/26	day	0.2 - 3 µm	Hiseq2000 (1 lane)	320,064,355	271,662,818	54,761	29,967	0.020	0.011	COGITO
North Sea	2012/03/08	day	0.2 - 3 µm	Hiseq2000 (1 lane)	307,144,972	240,234,458	8,892	8,666	0.004	0.004	COGITO
North Sea	2012/04/16	day	0.2 - 3 µm	Hiseq2000 (1 lane)	255,075,719	220,440,100	9,693	8,373	0.004	0.004	COGITO
North Sea	2012/05/10	day	0.2 - 3 µm	Hiseq2000 (1 lane)	267,926,290	233,580,192	34,217	19,815	0.015	0.008	COGITO

Samples for the WCO (Western Channel Observatory) Microbial Metagenomics Study (Gilbert *et al.*, 2010) were obtained from the long-term research site L4 in the English Channel, and those for the MIMAS (Microbial Interactions in Marine Systems; Teeling *et al.*, 2012) and COGITO (Coastal Microbe Genomic & Taxonomic Observatory; DOE-JGI Community Sequencing Project 998) studies at the long-term research site "Kabeltonne" near the North Sea Island Helgoland, from where also *Polaribacter* sp. Hel1\_33\_49 and Hel1\_85 were isolated. Metagenomes around the isolation date of the *Polaribacter* strains (2010/04/20) are highlighted in red. See supplementary text for details.