

Stable isotope composition and turnover of nitrate in the German Bight

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Table S1: Overview of stations that were sampled on the cruises WH 296, AL 292 and AL 296 from January to March 2007.

Cruise	Station	Longitude (°E)	Latitude (°N)	Depth (m)	Salinity (psu)	O ₂ (ml l ⁻¹)	Temp (°C)	Nitrate (μmol l ⁻¹)	δ ¹⁵ N (‰)	δ ¹⁸ O (‰)
AL 292	306433	8.38	54.22	13	29.02	6.858	6.091	45.1	8.7	n.a.
	306435	8.38	54.22	5	28.80	6.832	6.316	46.2	8.7	3.8
	306436	8.09	54.25	16	29.62	6.678	6.711	44.5	8.9	3.1
	306438	8.09	54.25	5	29.61	6.676	6.700	44.6	8.8	4.8
	306439	8.17	54.49	14	29.20	6.759	6.417	45.0	8.7	4.5
	306441	8.17	54.49	4	29.19	6.761	6.392	39.0	8.8	4.5
	306442	8.11	54.76	10	30.57	6.722	6.400	29.0	9.9	n.a.
	306443	8.11	54.76	5	30.58	6.724	6.394	31.4	9.7	4.2
	306444	8.25	54.99	12	30.70	6.767	6.143	30.6	9.5	3.7
	306445	8.25	54.99	5	30.46	6.810	5.935	31.7	9.4	2.9
	306446	7.99	55.00	15	33.01	6.492	7.116	17.9	9.8	2.4
	306448	7.99	55.00	3	31.72	6.667	6.161	26.5	9.7	2.2
	306449	7.50	55.00	25	33.75	6.404	7.525	13.2	9.6	3.8
	306459	7.50	55.00	10	33.50	6.435	7.399	15.9	9.8	4.4
	306461	7.83	54.67	15	32.27	6.537	6.871	19.8	10.5	3.7
	306463	7.83	54.67	5	32.27	6.540	6.867	20.0	10.3	3.8
	306464	7.49	54.67	23	33.49	6.432	7.406	15.9	9.8	3.2
	306466	7.49	54.67	6	33.49	6.445	7.395	15.6	9.6	3.3
	306467	7.58	55.42	27	32.74	6.447	7.510	20.2	9.3	2.8
	306469	7.58	55.42	4	32.04	6.544	7.057	27.6	8.9	n.a.
	306470	7.43	55.17	37	34.15	6.245	8.373	12.5	8.9	3.6
	306472	7.43	55.17	5	32.08	6.559	7.002	24.8	9.4	n.a.
	306473	7.39	54.77	24	33.01	6.429	7.546	24.7	8.7	3.3
	306475	7.39	54.77	5	32.80	6.451	7.392	26.0	8.8	n.a.
	306476	6.78	54.33	35	35.18	6.146	8.921	8.2	7.1	5.1
	306478	6.78	54.33	5	34.45	6.351	7.815	12.9	8.3	n.a.
	306479	6.34	55.17	33	35.03	6.235	8.445	8.4	7.6	n.a.
	306481	6.34	55.17	5	35.04	6.231	8.437	8.2	7.6	4.9
	306482	6.19	53.94	29	35.23	6.209	8.552	7.2	6.8	5.4
	306484	6.19	53.94	5	35.23	6.216	8.531	5.7	6.9	6.1

306485	6.41	53.67	25	33.10	6.377	7.781	22.4	8.3	n.a.
306490	6.41	53.67	3	31.39	6.615	6.772	35.6	8.4	n.a.
306491	6.77	53.94	27	34.77	6.298	8.042	10.4	7.8	n.a.
306493	6.77	53.94	5	34.76	6.305	8.020	10.4	8.1	5.2
306494	7.34	53.80	20	32.77	6.493	7.194	24.5	8.0	n.a.
306496	7.34	53.80	5	32.61	6.506	7.082	25.0	8.0	n.a.
306497	7.19	53.84	16	31.29	6.519	6.692	25.5	9.0	n.a.
306499	7.19	53.84	5	31.26	6.537	6.645	34.7	8.6	n.a.
306500	8.79	53.88	1	11.63	n.a.	n.a.	185.0	10.8	2.9
307546	8.10	54.00	24	30.74	6.584	6.347	39.2	8.8	3.1
307548	8.10	54.00	5	27.76	7.242	5.205	55.9	8.9	3.2
307549	7.97	54.05	32	31.10	6.265	6.892	35.4	9.1	n.a.
307551	7.97	54.05	5	28.46	7.105	5.372	52.6	8.8	n.a.
307552	7.83	54.08	42	31.63	6.425	9.652	26.8	9.6	3.1
307554	7.83	54.08	6	30.36	6.751	6.329	40.6	9.1	n.a.

AL 296	309001	8.79	53.88	1	15.42	n.a.	n.a.	181.0	9.4	3.0
	309002	6.87	55.28	28	34.87	6.508	6.906	8.3	7.8	5.5
	309004	6.87	55.28	5	34.84	6.514	6.918	8.1	8.0	5.9
	309005	6.25	55.38	50	34.66	6.492	6.743	5.3	7.2	5.6
	309007	6.25	55.38	5	34.65	6.525	6.795	4.6	7.4	8.0
	309008	5.50	55.25	43	34.85	6.502	6.818	4.3	6.9	8.2
	309010	5.50	55.25	5	34.82	6.524	6.857	3.4	6.7	7.6
	309011	5.50	55.00	39	34.69	6.469	7.088	4.7	7.2	8.3
	309013	5.50	55.00	5	34.69	6.520	7.296	3.2	7.3	7.8
	309014	5.50	54.67	42	34.66	6.502	6.725	7.5	7.2	4.9
	309016	5.50	54.67	5	34.66	6.541	6.896	7.1	7.2	4.8
	309017	6.42	53.72	22	31.54	6.603	7.146	29.3	9.1	4.8
	309019	6.42	53.72	5	31.32	6.625	7.133	16.1	8.6	4.6
	309020	6.79	53.98	28	32.89	6.606	7.131	20.2	8.6	5.0
	309022	6.79	53.98	4	32.32	6.682	7.018	28.6	8.4	4.8
	309023	7.17	53.80	21	31.43	6.705	6.552	36.7	9.4	4.4
	309025	7.17	53.80	4	30.38	6.726	6.656	46.6	8.7	4.2
	309026	7.40	53.98	26	32.75	6.696	6.716	25.4	8.5	4.6
	309028	7.40	53.98	5	32.69	6.709	6.723	25.6	8.2	4.2
	309029	7.83	54.08	43	33.67	6.568	6.701	34.7	8.3	4.7
	309031	7.83	54.08	5	33.67	6.572	6.715	15.8	8.5	5.1
	309032	8.05	54.13	31	33.18	6.639	6.118	20.7	8.5	4.6
	309034	8.05	54.13	5	33.10	6.649	6.088	24.3	8.4	4.5
	309035	8.01	53.93	17	31.66	6.706	6.144	40.0	9.9	5.2
	309037	8.01	53.93	5	31.57	6.702	6.212	41.5	8.4	4.4
	309038	8.15	54.01	24	32.69	6.673	6.146	28.1	8.7	4.6

309040	8.15	54.01	5	32.64	6.694	6.205	29.2	8.5	4.4
309041	8.39	54.27	13	30.04	6.761	6.121	51.5	8.5	3.9
309042	8.39	54.27	5	28.73	6.896	6.215	59.4	8.2	3.6
409043	8.17	54.58	12	28.17	7.036	5.740	55.2	8.6	4.4
309045	8.17	54.58	6	28.12	7.051	5.709	59.3	8.5	4.4
409046	7.83	54.67	13	31.80	6.782	6.245	29.4	8.6	4.3
309048	7.83	54.67	5	31.80	6.777	6.245	33.7	8.6	4.4
309049	8.12	54.77	12	28.65	6.962	5.944	59.2	8.5	3.9
309052	8.25	55.08	13	29.20	7.026	5.703	53.5	8.6	4.0
309054	8.25	55.08	5	29.21	7.021	5.718	48.9	8.5	3.1
309055	8.00	55.00	15	31.71	6.801	6.172	33.4	8.8	4.3
309056	8.00	55.00	4	31.01	6.855	6.233	36.9	8.5	3.7
309057	7.50	55.00	26	34.19	6.686	6.589	13.1	8.8	5.8
309059	7.50	55.00	5	34.19	6.691	6.588	13.8	8.5	5.3
309060	7.51	54.67	22	33.66	6.737	6.445	16.9	9.0	5.3
309062	7.51	54.67	5	33.66	6.748	6.466	15.9	8.9	4.7
309063	7.59	54.42	25	33.51	6.715	6.347	20.0	8.7	5.1
309065	7.59	54.42	3	33.51	6.739	6.441	19.7	8.5	4.6
309066	7.44	54.23	38	33.88	6.627	6.921	13.7	8.5	5.5
309068	7.44	54.23	5	33.72	6.748	7.258	17.0	8.2	4.8
309069	3.35	55.92	68	35.08	6.457	7.559	6.3	5.8	6.6
309071	3.35	55.92	5	35.08	6.462	7.551	5.8	5.9	5.7
309072	4.00	55.50	32	35.04	6.826	6.903	3.3	9.0	11.3
309074	4.00	55.50	5	35.04	6.870	6.923	3.1	9.5	10.1
309075	4.25	55.85	37	34.99	6.648	6.888	5.4	6.8	8.8
309077	4.25	55.85	5	34.99	6.694	6.966	5.2	7.0	5.3
309078	4.75	55.48	46	35.00	6.870	6.608	3.2	11.4	14.1
309080	4.75	55.48	4	34.96	7.121	6.667	1.9	11.7	16.0
309081	5.67	54.33	40	34.78	6.391	7.493	9.2	8.3	4.8
309083	5.67	54.33	5	34.66	6.520	7.438	9.3	8.4	4.7
309084	6.20	53.98	29	34.77	6.542	7.830	8.6	9.1	6.7
309086	6.20	53.98	5	34.40	6.722	7.851	11.4	9.4	6.1
309087	6.38	54.17	34	35.02	6.428	7.652	9.0	8.4	5.8
309089	6.38	54.17	5	35.01	6.467	7.710	8.6	8.5	5.6
309090	6.78	54.42	37	34.51	6.330	7.543	12.0	8.4	6.0
309093	6.25	54.67	40	34.86	6.491	7.118	6.8	7.9	6.5
309095	6.25	54.67	5	34.74	6.626	7.038	7.5	8.2	7.0
309096	6.37	55.00	44	34.69	6.514	6.789	6.1	7.1	4.0
309098	6.37	55.00	5	34.68	6.604	6.917	5.8	7.6	n.a.
309280	6.78	55.00	35	34.54	6.618	7.191	10.8	8.4	5.6
309282	6.78	55.00	5	34.46	6.589	7.221	12.2	8.3	5.2
309283	6.85	54.68	37	34.87	6.427	7.227	8.8	7.8	5.5
309285	6.85	54.68	4	34.63	6.531	7.447	9.9	8.0	5.3
309286	8.10	54.33	15	32.58	6.746	6.658	29.7	8.6	4.9
309288	8.10	54.33	4	32.55	6.742	6.691	29.6	8.4	4.2

WH 296	1	6.52	55.18	5	35.18	n.a.	9.156	6.3	7.1	n.a.
	2	6.52	55.18	23	35.18	n.a.	9.159	7.0	7.0	6.4
	3	4.94	55.73	5	35.01	n.a.	7.471	6.1	5.9	n.a.
	4	4.94	55.73	33	35.01	n.a.	7.473	5.8	5.9	n.a.
	5	2.66	56.06	5	35.13	n.a.	8.253	6.3	5.6	n.a.
	6	2.66	56.06	50	35.13	n.a.	8.256	6.3	5.6	6.0
	7	1.67	55.37	5	35.08	n.a.	8.349	5.6	5.6	4.8
	8	1.67	55.37	25	35.08	n.a.	8.353	5.5	5.5	4.2
	9	0.49	56.15	5	34.82	n.a.	8.212	5.8	5.9	7.8
	10	0.49	56.15	83	34.82	n.a.	8.225	6.1	5.8	4.4
	11	1.22	57.23	5	35.07	n.a.	8.430	6.0	6.1	n.a.
	12	1.22	57.23	50	35.07	n.a.	8.441	6.0	5.8	6.2
	13	1.24	58.22	5	35.13	n.a.	8.551	7.0	5.6	4.6
	15	1.24	58.22	100	35.16	n.a.	8.620	7.8	5.5	4.9
	18	1.24	58.32	78	35.15	n.a.	8.659	7.1	5.5	4.6
	19	0.08	59.04	5	35.22	n.a.	8.291	8.1	5.6	n.a.
	22	4.39	58.22	5	33.91	n.a.	7.422	6.2	7.6	n.a.
	24	4.39	58.22	100	35.12	n.a.	8.695	8.0	5.3	n.a.
	25	2.53	59.26	5	35.26	n.a.	8.067	8.4	5.2	5.3
	26	2.53	59.26	50	35.26	n.a.	8.080	9.2	5.3	n.a.
	28	3.08	60.24	5	34.79	n.a.	7.422	6.1	5.7	n.a.
	31	1.43	60.23	5	35.31	n.a.	8.438	7.6	5.3	5.3
	34	-0.50	60.06	5	35.35	n.a.	8.524	8.0	5.5	n.a.
	37	-2.18	59.05	5	34.87	n.a.	7.762	5.8	6.2	n.a.
	40	7.60	54.80	5	30.55	n.a.	5.184	40.5	9.1	4.2
	41	7.60	54.80	19	31.83	n.a.	5.693	28.8	9.4	4.3