



## Spring monitoring

23/038

### Description of the Research Project

COMBINE spring monitoring of physical (e.g. vertical profiles of salinity and temperature) chemical (e.g. inorganic nutrients), and biological (e.g. phytoplankton community) properties of the Baltic Sea. We will also service and deploy several buoys providing information of wave height, temperature and salinity. There will also be calibration of different scientific instruments.

Separate research projects will in addition be carried out for the purpose of

1. Surveying a ship wreck outside Porkkala (Gordyj wreck)
2. Determine flux of organic matter from surface to the sea floor.
3. Detect plankton distribution with a novel 3D imaging device
4. Study the role of heterotrophic nanoflagellates in the pelagic foodweb.
5. Investigate the recent salt water inflow

**Departure: 13.04.2024 at 12.00**

**Arrival: 26.04.2024 at 16.00**

Cruise Speed: 10

Duration of the Cruise: 13Days 4h 0min

Number of observation stations 77. Route points named as "P" are transit points only.

Nro	Name	Lat.	Long.	Depth		Arrival		Duration		Speed	
		[WGS-84]	[m]	hh:mm	pv	pp.kk.vvvv	hh	mm	knots		
1	Waypoint - 21	60° 03.40' N	024° 53.55' E			12.00	lauantai	13.04.2024		10	
2	FMI deployment	60° 03.40' N	024° 43.40' E	10		12.30	lauantai	13.04.2024	2	0	10
3	Gordyi wreck	59° 47.75' N	024° 21.28' E	51		16.25	lauantai	13.04.2024	3	0	10
4	Waypoint - 22	60° 03.13' N	024° 53.57' E			21.39	lauantai	13.04.2024			10
5	Tammasaarenlaituri	60° 09.69' N	024° 54.12' E			22.19	lauantai	13.04.2024	1	0	
6	39A	60° 04.01' N	024° 58.81' E	43		23.55	lauantai	13.04.2024	2	0	10
7	LL7D	59° 50.79' N	024° 50.27' E	103		03.19	sunnuntai	14.04.2024	6	0	10
8	GF2	59° 50.31' N	025° 51.41' E	84		12.23	sunnuntai	14.04.2024	2	0	10
9	XIV3	60° 12.19' N	026° 11.57' E	77		16.48	sunnuntai	14.04.2024	2	0	10
10	XV1/KYVY11	60° 15.00' N	027° 14.82' E	64		21.57	sunnuntai	14.04.2024	2	0	10
11	LL3A	60° 04.03' N	026° 20.80' E	68		02.52	maanantai	15.04.2024	2	0	10
12	LL5	59° 55.01' N	025° 35.82' E	70		07.17	maanantai	15.04.2024	2	0	10
13	Ville mooring	59° 53.05' N	024° 46.72' E	34		11.45	maanantai	15.04.2024	2	0	10
14	Tammasaarenlaituri	60° 09.69' N	024° 54.12' E			15.28	maanantai	15.04.2024	20	0	
15	Waypoint - 20	60° 04.35' N	024° 54.27' E			12.00	tiistai	16.04.2024			10
16	AALTO_HKI	59° 57.90' N	025° 14.10' E	54		13.11	tiistai	16.04.2024	1	0	10
17	GF1	59° 42.30' N	024° 40.93' E	84		16.28	tiistai	16.04.2024	2	0	10
18	LL9	59° 42.01' N	024° 01.81' E	69		20.26	tiistai	16.04.2024	2	0	10
19	JML	59° 34.91' N	023° 37.61' E	80		23.51	tiistai	16.04.2024	2	0	10
20	F62	59° 20.01' N	023° 15.81' E	95		03.43	keskiviikko	17.04.2024	2	0	10
21	Mooring benthic lander	59° 46.28' N	021° 25.25' E	63		11.54	keskiviikko	17.04.2024	4	0	10

22	Utö_V_bouy	59° 44.30' N 021° 22.18' E	65	16.09	keskiviikko 17.04.2024	1	0	10
23	Waypoint - 7	59° 45.75' N 021° 20.87' E		17.19	keskiviikko 17.04.2024			10
24	IU7/ UTO	59° 48.91' N 021° 20.20' E	92	17.38	keskiviikko 17.04.2024	2	0	10
25	Waypoint - 18	59° 54.58' N 021° 17.37' E		20.13	keskiviikko 17.04.2024			10
26	Waypoint - 17	59° 58.02' N 021° 06.47' E		20.52	keskiviikko 17.04.2024			10
27	Waypoint - 16	60° 02.90' N 021° 04.59' E		21.22	keskiviikko 17.04.2024			10
28	IU5	60° 03.49' N 021° 11.90' E	89	21.44	keskiviikko 17.04.2024	2	0	10
29	Waypoint - 15	60° 07.24' N 021° 17.92' E		00.13	torstai 18.04.2024			10
30	Waypoint - 14	60° 09.32' N 021° 21.72' E		00.30	torstai 18.04.2024			10
31	Waypoint - 13	60° 10.82' N 021° 18.11' E		00.44	torstai 18.04.2024			10
32	Waypoint - 12	60° 11.18' N 021° 12.33' E		01.01	torstai 18.04.2024			10
33	Waypoint - 11	60° 12.88' N 021° 05.52' E		01.24	torstai 18.04.2024			10
34	IU3	60° 20.00' N 021° 06.80' E	48	02.07	torstai 18.04.2024	2	0	10
35	Waypoint - 8	60° 26.03' N 021° 07.06' E		04.43	torstai 18.04.2024			10
36	Waypoint - 9	60° 34.18' N 021° 08.11' E		05.32	torstai 18.04.2024			10
37	IU2_ADCP	60° 34.88' N 021° 08.03' E	53	05.36	torstai 18.04.2024	2	0	10
38	Waypoint - 10	60° 38.03' N 021° 04.22' E		07.58	torstai 18.04.2024			10
39	IU1	60° 46.01' N 020° 50.80' E	33	09.00	torstai 18.04.2024	2	0	10
40	SR7	61° 05.01' N 020° 35.79' E	78	13.02	torstai 18.04.2024	2	0	10
41	SR8	61° 07.59' N 020° 55.80' E	46	16.02	torstai 18.04.2024	2	0	10
42	MS9	61° 46.01' N 020° 31.83' E	101	22.03	torstai 18.04.2024	2	0	10
43	AALTO_SM	61° 48.00' N 020° 14.00' E	107	00.55	perjantai 19.04.2024	0	30	10
44	F26	61° 59.01' N 020° 03.78' E	140	02.37	perjantai 19.04.2024	2	0	10
45	US7	62° 36.01' N 020° 49.78' E	23	08.54	perjantai 19.04.2024	2	0	10
46	US6B	62° 36.01' N 020° 15.78' E	83	12.28	perjantai 19.04.2024	2	0	10
47	US5B	62° 35.17' N 019° 58.13' E	222	15.17	perjantai 19.04.2024	2	0	10
48	Waypoint - 19	63° 24.44' N 020° 41.84' E		22.36	perjantai 19.04.2024			10
49	F15	63° 31.00' N 021° 30.78' E	24	00.53	lauantai 20.04.2024	2	0	10
50	B03	64° 18.12' N 022° 20.59' E	93	08.05	lauantai 20.04.2024	2	0	10
51	F13	63° 47.01' N 021° 28.77' E	37	13.56	lauantai 20.04.2024	2	0	10
52	F16	63° 31.01' N 021° 03.77' E	19	17.53	lauantai 20.04.2024	2	0	10
53	F18	63° 18.86' N 020° 16.36' E	84	22.20	lauantai 20.04.2024	2	0	10

54	US3	62° 45.53' N 019° 11.74' E	180	04.46	sunnuntai 21.04.2024	2	0	10
55	MS3	62° 08.07' N 018° 09.78' E	84	11.29	sunnuntai 21.04.2024	2	0	10
56	MS6	61° 59.02' N 019° 09.81' E	68	16.27	sunnuntai 21.04.2024	2	0	10
57	SR3	61° 11.00' N 018° 13.80' E	70	23.56	sunnuntai 21.04.2024	2	0	10
58	SR5	61° 05.00' N 019° 34.78' E	126	05.54	maanantai 22.04.2024	2	0	10
59	F33	60° 31.99' N 018° 56.26' E	136	11.42	maanantai 22.04.2024	2	0	10
60	F64	60° 11.34' N 019° 08.55' E	285	15.51	maanantai 22.04.2024	2	0	10
61	Waypoint	60° 03.44' N 019° 43.58' E		19.46	maanantai 22.04.2024			10
62	Waypoint - 2	60° 04.01' N 019° 52.45' E		20.13	maanantai 22.04.2024			10
63	Waypoint - 3	60° 04.13' N 019° 55.54' E		20.22	maanantai 22.04.2024			10
64	Maarianhamina	60° 06.05' N 019° 55.67' E		20.34	maanantai 22.04.2024	1	0	
65	Waypoint - 4	60° 03.97' N 019° 55.67' E		21.46	maanantai 22.04.2024			10
66	Waypoint - 5	60° 03.90' N 019° 52.46' E		21.56	maanantai 22.04.2024			10
67	Waypoint - 6	60° 02.22' N 019° 48.89' E		22.11	maanantai 22.04.2024			10
68	F69	59° 47.00' N 019° 55.80' E	189	23.44	maanantai 22.04.2024	2	0	10
69	LL19	58° 52.84' N 020° 18.65' E	178	07.17	tiistai 23.04.2024	3	0	10
70	BY15	57° 19.20' N 020° 03.00' E	245	19.41	tiistai 23.04.2024	2	0	10
71	LL17	59° 02.00' N 021° 04.77' E	171	08.29	keskiviikko 24.04.2024	2	0	10
72	AALTO_PI	59° 14.89' N 020° 59.90' E	106	11.48	keskiviikko 24.04.2024	1	0	10
73	TPDEEP1	59° 22.70' N 021° 26.47' E	216	14.22	keskiviikko 24.04.2024	12	0	10
74	LL15	59° 11.00' N 021° 44.81' E	126	03.52	torstai 25.04.2024	12	0	10
75	LL12	59° 29.01' N 022° 53.81' E	82	19.49	torstai 25.04.2024	2	0	10
76	LL11	59° 35.01' N 023° 17.81' E	68	23.10	torstai 25.04.2024	2	0	10
77	AMN	59° 41.43' N 023° 15.43' E	56	01.50	perjantai 26.04.2024	2	0	10
78	LANGDEN	59° 46.61' N 023° 15.77' E	57	04.21	perjantai 26.04.2024	2	0	10
79	XII3	59° 52.01' N 023° 58.81' E	37	08.35	perjantai 26.04.2024	2	0	10
80	LL6A	59° 55.01' N 025° 01.81' E	75	13.45	perjantai 26.04.2024	2	0	10

