



RV Aranda

CRUISE PLAN

COMBINE 2/2020, 2/2020

1. - 12.6.2020

Description of the cruise

The COMBINE 2 cruise contributes to the HELCOM Baltic Sea integrated physical, chemical and biological monitoring programme, focusing especially on long-term macrozoobenthos monitoring and near-bottom water oxygen levels in the open sea area. It also contributes to the long-term monitoring of zooplankton communities and microlitter monitoring. Water and sediment samples are taken for the monitoring of radioactive substances (HELCOM MORS programme). In addition a wave buoy and drifting floats will be deployed. The monitoring activities are part of the Finnish marine management plan.

Scientific staff:

Chief scientist:	Henrik Nygård	SYKE
		SYKE
		SYKE
		SYKE
		SYKE
		FMI
		SYKE
		SYKE
		SYKE
		SYKE
		SYKE
		FMI
		SYKE
		STUK

Altogether 14 persons in scientific staff.

Departure from: HELSINKI
Departure time: Monday 01.06.2020 at 10.00

Cruising speed: 10,0 knots
Average station time: 1 h 30 min.

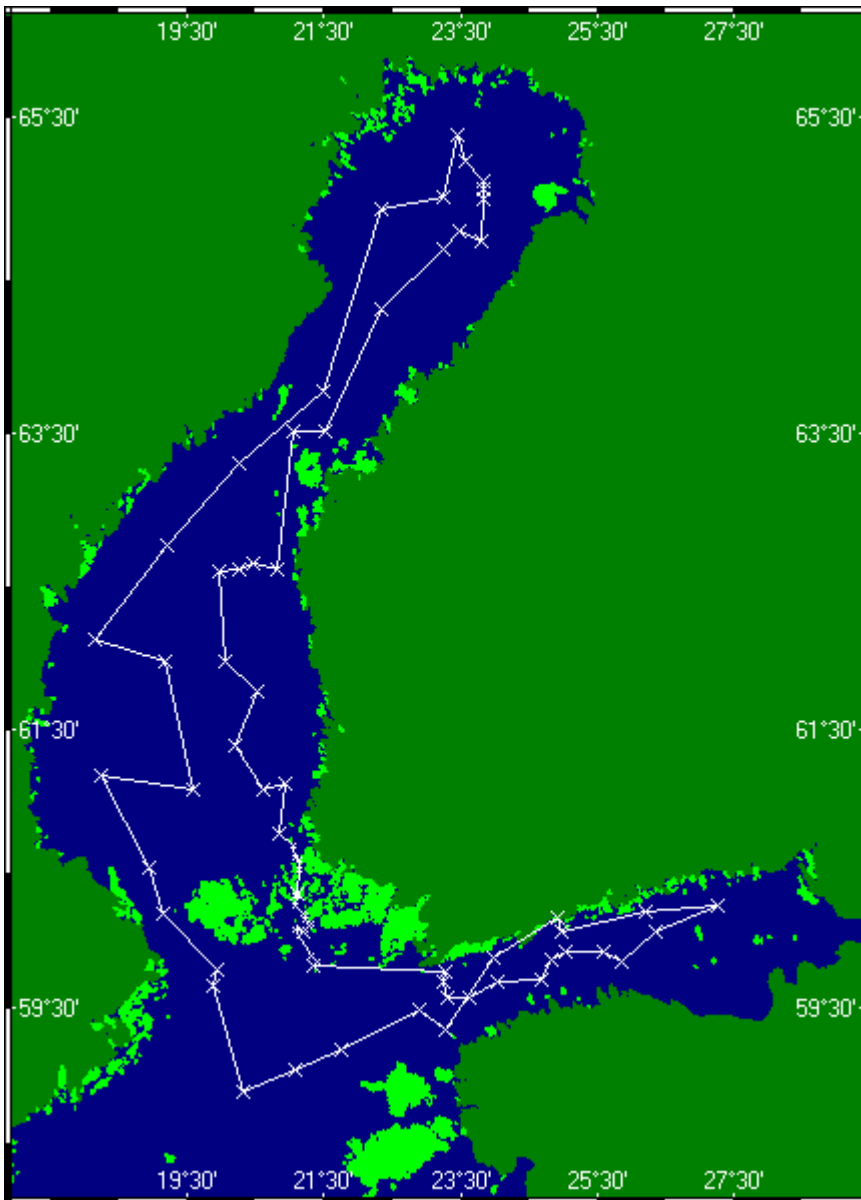
Arrival to: HELSINKI
Arrival time: Friday 12.06.2020 at 02.50

Duration of the cruise: 10 days 16 h 50 min
Length of the cruise: 1433,39 nautical miles
Number of stations 56.

Route:

Nro	Station	Lat.	Long.	Depth [m]	Arrival		Durat. hh:mm	Speed knots	
					hh:mm	dy dd.mm.yyy y			
0	HELSINKI	60°09.55'	24°55.37'	0	10.00	Mo	01.06.2020	0:00	S 10,0
1	39A	60°04.01'	24°58.81'	41	10.34	Mo	01.06.2020	1:30	S 10,0
2	XIV3	60°12.19'	26°11.57'	77	15.47	Mo	01.06.2020	2:00	S 10,0
3	XV1	60°15.00'	27°14.82'	64	20.56	Mo	01.06.2020	2:30	S 10,0
4	LL3A	60°04.03'	26°20.80'	68	02.21	Tu	02.06.2020	4:00	S 10,0
5	GF2	59°50.31'	25°51.41'	84	08.21	Tu	02.06.2020	1:30	S 10,0
6	LL5	59°55.01'	25°35.82'	70	10.46	Tu	02.06.2020	1:30	S 10,0
7	LL6A	59°55.01'	25°01.81'	75	13.58	Tu	02.06.2020	1:30	S 10,0
8	LL7S	59°51.51'	24°50.30'	78	16.09	Tu	02.06.2020	2:00	S 10,0
9	GF1	59°42.30'	24°40.93'	84	19.11	Tu	02.06.2020	2:00	S 10,0
10	LL9	59°42.01'	24°01.81'	69	23.09	Tu	02.06.2020	2:00	S 10,0
11	JML	59°34.91'	23°37.61'	80	02.34	We	03.06.2020	2:30	S 10,0
12	LL11	59°35.01'	23°17.81'	68	06.04	We	03.06.2020	1:30	S 10,0
13	AMN	59°41.43'	23°15.43'	56	08.14	We	03.06.2020	1:30	S 10,0
14	LANGDEN	59°46.61'	23°15.77'	57	10.15	We	03.06.2020	2:30	S 10,0
15	IU7	59°48.91'	21°20.20'	92	18.34	We	03.06.2020	1:30	S 10,0
16	IU5	60°03.49'	21°11.90'	89	22.27	We	03.06.2020	2:00	S 10,0
17	IU3	60°20.00'	21°06.80'	48	02.37	Th	04.06.2020	2:00	S 10,0
18	IU1	60°46.01'	20°50.80'	33	07.33	Th	04.06.2020	1:30	S 10,0
19	SR8	61°07.59'	20°55.80'	46	11.13	Th	04.06.2020	1:30	S 10,0
20	SR7	61°05.01'	20°35.79'	78	13.43	Th	04.06.2020	1:30	S 10,0
21	ARVORC_SM_2020	61°24.08'	20°11.33'	0	17.28	Th	04.06.2020	0:30	S 10,0
22	MS9	61°46.01'	20°31.83'	101	20.22	Th	04.06.2020	2:00	S 10,0
23	F26	61°59.01'	20°03.78'	140	00.13	Fr	05.06.2020	2:00	S 10,0
24	US5B	62°35.17'	19°58.13'	214	05.51	Fr	05.06.2020	6:00	S 10,0
25	US6B	62°36.01'	20°15.78'	83	12.40	Fr	05.06.2020	1:30	S 10,0
26	FM12A_8	62°38.59'	20°28.35'	40	14.48	Fr	05.06.2020	1:30	S 10,0
27	US7	62°36.01'	20°49.78'	23	17.19	Fr	05.06.2020	1:30	S 10,0
28	F16	63°31.01'	21°03.77'	45	00.21	Sa	06.06.2020	1:30	S 10,0
29	F15	63°31.01'	21°30.78'	49	03.03	Sa	06.06.2020	1:30	S 10,0
30	BO3	64°18.12'	22°20.59'	109	09.45	Sa	06.06.2020	3:30	S 10,0
31	AALTO_PM	64°41.00'	23°14.00'	80	16.30	Sa	06.06.2020	1:00	S 10,0
32	RR6	64°48.02'	23°28.77'	86	18.26	Sa	06.06.2020	1:30	S 10,0
33	RR7	64°44.02'	23°48.77'	39	20.53	Sa	06.06.2020	1:30	S 10,0
34	HIEKKA1	65°00.00'	23°50.00'	23	23.59	Sa	06.06.2020	1:30	S 10,0
35	HIEKKA2	65°03.00'	23°50.00'	20	01.47	Su	07.06.2020	1:30	S 10,0
36	HIEKKA3	65°06.00'	23°50.00'	29	03.35	Su	07.06.2020	1:30	S 10,0
37	CVI	65°14.02'	23°33.77'	71	06.08	Su	07.06.2020	2:00	S 10,0
38	F2	65°23.02'	23°27.76'	91	09.04	Su	07.06.2020	2:00	S 10,0
39	CV	65°00.02'	23°14.77'	89	13.26	Su	07.06.2020	1:30	S 10,0
40	RR3	64°56.02'	22°20.76'	96	17.15	Su	07.06.2020	1:30	S 10,0
41	F13	63°47.01'	21°28.77'	65	02.00	Mo	08.06.2020	1:30	S 10,0
42	F18	63°18.86'	20°16.36'	105	07.47	Mo	08.06.2020	2:30	S 10,0
43	US3	62°45.53'	19°11.74'	182	14.43	Mo	08.06.2020	2:00	S 10,0
44	MS3	62°08.07'	18°09.78'	84	21.26	Mo	08.06.2020	2:00	S 10,0
45	MS6	61°59.02'	19°09.81'	72	02.24	Tu	09.06.2020	1:30	S 10,0
46	SR5	61°05.00'	19°34.78'	126	09.26	Tu	09.06.2020	4:30	S 10,0
47	SR3	61°11.00'	18°13.80'	72	17.53	Tu	09.06.2020	1:30	S 10,0
48	F33	60°31.99'	18°56.26'	135	23.48	Tu	09.06.2020	1:30	S 10,0
49	F64	60°11.34'	19°08.55'	285	03.27	We	10.06.2020	4:30	S 10,0
50	F69	59°47.00'	19°55.80'	189	11.21	We	10.06.2020	2:30	S 10,0
51	TROSKAH	59°39.60'	19°53.00'	40	14.36	We	10.06.2020	1:00	S 10,0
52	LL19	58°52.84'	20°18.65'	169	20.27	We	10.06.2020	2:30	S 10,0
53	LL17	59°02.00'	21°04.77'	171	01.30	Th	11.06.2020	3:30	S 10,0
54	LL15	59°11.00'	21°44.81'	126	07.15	Th	11.06.2020	1:30	S 10,0
55	LL12	59°29.01'	22°53.81'	82	12.42	Th	11.06.2020	2:30	S 10,0
56	F62	59°20.01'	23°15.81'	95	16.38	Th	11.06.2020	1:30	S 10,0
57	XII3	59°52.01'	23°58.81'	38	22.00	Th	11.06.2020	1:30	S 10,0
58	HELSINKI	60°09.55'	24°55.37'	0	02.50	Fr	12.06.2020	0:00	S 10,0

Route map:



Cruise plan is printed at 27.05.2020 ai 04.16.