



RV Aranda

Cruise plan ***Combine 4*** **24. - 29.4.2019**

Description of the cruise:

Baltic Sea monitoring

Chief scientist: Raateoja Mika, -

Staff: Jan-Erik Bruun, SYKE, 29.04. - 29.04.
 Jalli Heini, FMI, 29.04. - 29.04.
 Susanna Hyvärinen, SYKE, 29.04. - 29.04.
 Panu Hänninen, SYKE, 29.04. - 29.04.
 Pekka Kosloff, FMI, 29.04. - 29.04.
 Ilkka Lastumäki, SYKE, 29.04. - 29.04.
 Jere Riikonen, SYKE, 29.04. - 29.04.
 Pia Varmanen, SYKE, 29.04. - 29.04.

Altogether 9 scientists.

Departure: HELSINKI Wednesday 24.04.2019 at 10:00**Arrival: HELSINKI Monday 29.04.2019 at 22:43**

Cruising speed: 10.0 knots.

Duration of the cruise: 5 days 12 h 43 min

Length of the cruise: 937.49 nautical miles.

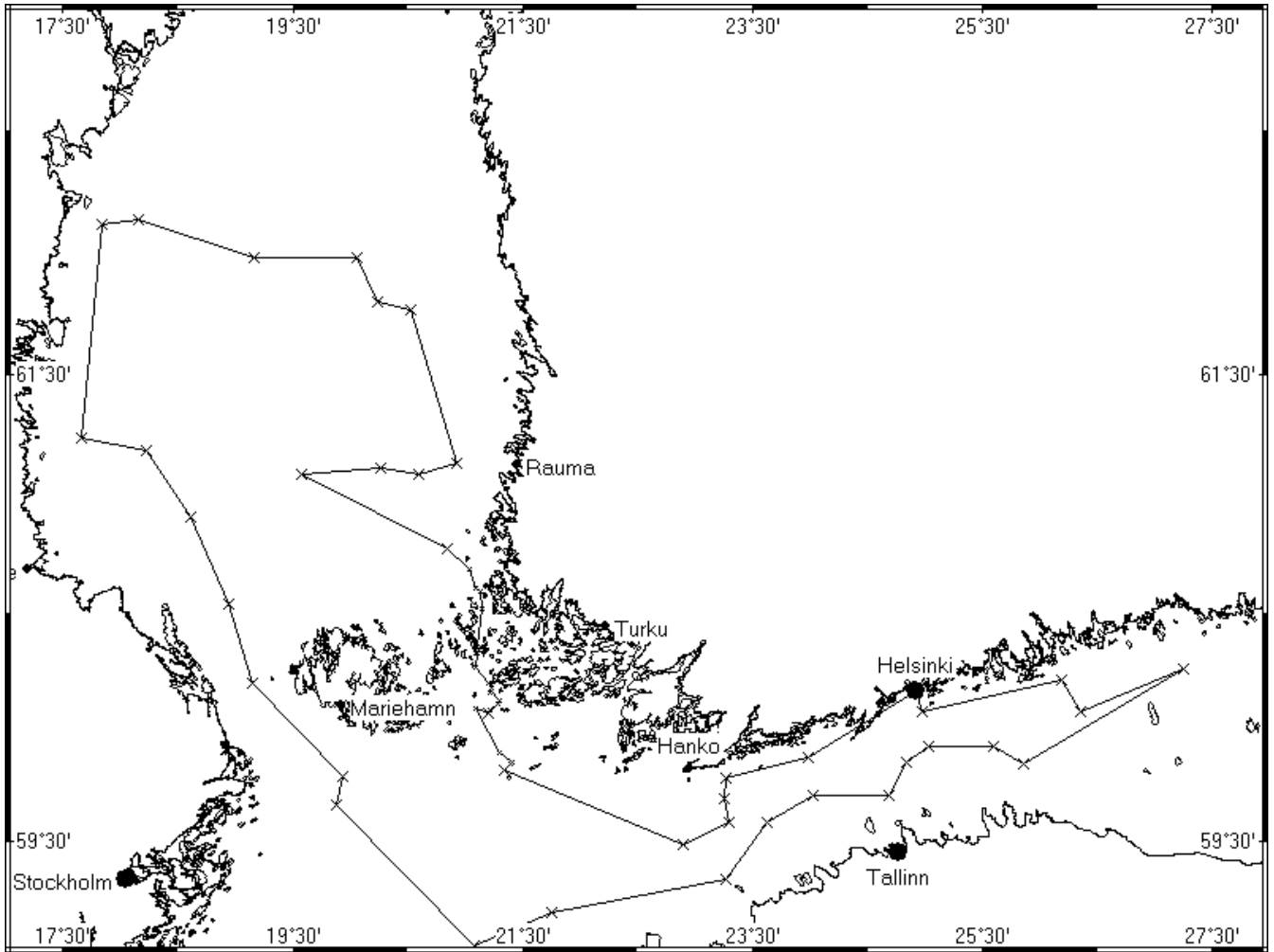
Number of observation stations 40 . Route points named as "P" are transit points only.

Route:

Nro	Name	Lat.	Long.	Depth	Arrival	Duration	Speed
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	[WGS-84]	[m]	hh:mm	pv	pp.kk.vvvv	hh mm	knots
0	HELSINKI	60°09.55' 24°55.37'	0	10:00	ke	24.04.2019	0 0 S 10.50
1	39A	60°04.01' 24°58.81'	41	10:33	ke	24.04.2019	0 45 S 10.50
2	XIV3	60°12.19' 26°11.57'	77	14:50	ke	24.04.2019	0 45 S 10.50
3	LL3A	60°04.03' 26°20.80'	68	16:28	ke	24.04.2019	1 30 S 10.50
4	XV1	60°15.00' 27°14.82'	64	20:44	ke	24.04.2019	1 30 S 10.50
5	GF2	59°50.31' 25°51.41'	84	02:51	to	25.04.2019	0 45 S 10.50
6	LL5	59°55.01' 25°35.82'	70	04:28	to	25.04.2019	0 45 S 10.50
7	LL6A	59°55.01' 25°01.81'	75	06:51	to	25.04.2019	0 45 S 10.50
8	LL7	59°50.79' 24°50.27'	100	08:16	to	25.04.2019	1 30 S 10.50
9	GF1	59°42.30' 24°40.93'	84	10:42	to	25.04.2019	1 30 S 10.50
10	LL9	59°42.01' 24°01.81'	69	14:05	to	25.04.2019	1 30 S 10.50
11	JML	59°34.91' 23°37.61'	80	16:56	to	25.04.2019	0 45 S 10.50
12	F62	59°20.01' 23°15.81'	95	19:27	to	25.04.2019	0 45 S 10.50
13	LL15	59°11.00' 21°44.81'	126	00:42	pe	26.04.2019	0 45 S 10.50
14	LL17	59°02.00' 21°04.77'	171	03:36	pe	26.04.2019	2 0 S 10.50
15	TROSKAH	59°39.60' 19°53.00'	-9	10:35	pe	26.04.2019	0 45 S 10.50
16	F69	59°47.00' 19°55.80'	189	12:03	pe	26.04.2019	1 15 S 10.50
17	F64	60°11.34' 19°08.55'	285	16:32	pe	26.04.2019	2 0 S 10.50
18	F33	60°31.99' 18°56.26'	135	20:35	pe	26.04.2019	0 45 S 10.50
19	FINNGRUNDET	60°54.00' 18°36.56'	-9	23:38	pe	26.04.2019	2 0 S 10.50
20	SR3	61°11.00' 18°13.80'	72	03:33	la	27.04.2019	0 45 S 10.50
21	SR1A	61°14.00' 17°39.79'	61	05:54	la	27.04.2019	0 45 S 10.50
22	MS2	62°07.00' 17°50.78'	72	11:43	la	27.04.2019	0 45 S 10.50
23	MS3	62°08.07' 18°09.78'	84	13:19	la	27.04.2019	0 45 S 10.50
24	MS6	61°59.02' 19°09.81'	72	16:53	la	27.04.2019	0 45 S 10.50
25	F26	61°59.01' 20°03.78'	140	20:03	la	27.04.2019	0 45 S 10.50
26	AALTO_SM	61°48.09' 20°14.11'	-9	21:56	la	27.04.2019	2 0 S 10.50
27	MS9	61°46.01' 20°31.83'	101	00:45	su	28.04.2019	0 45 S 10.50
28	SR8	61°07.59' 20°55.80'	46	05:19	su	28.04.2019	0 45 S 10.50
29	SR7	61°05.01' 20°35.79'	78	07:02	su	28.04.2019	0 45 S 10.50
30	SS29	61°06.50' 20°16.00'	-9	08:42	su	28.04.2019	0 45 S 10.50
31	SR5	61°05.00' 19°34.78'	126	11:21	su	28.04.2019	1 30 S 10.50
32	IU1	60°46.01' 20°50.80'	33	16:48	su	28.04.2019	0 45 S 9.00
33	P	60°41.00' 21°02.25'	-9	18:24	su	28.04.2019	0 0 S 9.00
34	P	60°35.90' 21°05.60'	-9	18:59	su	28.04.2019	0 0 S 9.00
35	P	60°35.01' 21°07.80'	-9	19:09	su	28.04.2019	0 0 S 9.00
36	P	60°30.80' 21°08.60'	-9	19:37	su	28.04.2019	0 0 S 9.00
37	P	60°20.80' 21°06.50'	-9	20:44	su	28.04.2019	0 0 S 9.00
38	IU3	60°20.00' 21°06.80'	48	20:49	su	28.04.2019	0 45 S 9.00
39	P	60°19.40' 21°05.50'	-9	21:40	su	28.04.2019	0 0 S 9.00
40	P	60°19.20' 21°06.25'	-9	21:43	su	28.04.2019	0 0 S 9.00
41	P	60°15.60' 21°05.50'	-9	22:07	su	28.04.2019	0 0 S 9.00
42	P	60°11.30' 21°12.40'	-9	22:44	su	28.04.2019	0 0 S 9.00
43	P	60°11.10' 21°13.80'	-9	22:49	su	28.04.2019	0 0 S 9.00

44	P	60°09.20'	21°12.75'	-9	23:02	su	28.04.2019	0	0	S	9.00
45	P	60°09.40'	21°13.75'	-9	23:05	su	28.04.2019	0	0	S	9.00
46	P	60°07.00'	21°18.00'	-9	23:27	su	28.04.2019	0	0	S	9.00
47	P	60°06.25'	21°17.20'	-9	23:32	su	28.04.2019	0	0	S	9.00
48	P	60°04.55'	21°12.80'	-9	23:51	su	28.04.2019	0	0	S	9.00
49	IU5	60°03.49'	21°11.90'	89	23:58	su	28.04.2019	0	45	S	9.00
50	P	60°05.00'	21°05.10'	-9	01:08	ma	29.04.2019	0	0	S	9.00
51	P	59°53.50'	21°18.00'	-9	02:36	ma	29.04.2019	0	0	S	9.00
52	P	59°51.00'	21°24.20'	-9	03:03	ma	29.04.2019	0	0	S	9.00
53	P	59°50.50'	21°24.00'	-9	03:06	ma	29.04.2019	0	0	S	9.00
54	IU7	59°48.91'	21°20.20'	92	03:23	ma	29.04.2019	1	30	S	10.50
55	LL12	59°29.01'	22°53.81'	82	09:46	ma	29.04.2019	1	30	S	10.50
56	LL11	59°35.01'	23°17.81'	68	12:33	ma	29.04.2019	0	45	S	10.50
57	AMN	59°41.43'	23°15.43'	70	13:56	ma	29.04.2019	0	45	S	10.50
58	LANGDEN	59°46.61'	23°15.77'	60	15:10	ma	29.04.2019	1	30	S	10.50
59	XII3	59°52.01'	23°58.81'	38	18:48	ma	29.04.2019	0	45	S	10.50
60	HELSINKI	60°09.55'	24°55.37'	0	22:43	ma	29.04.2019	0	45	S	10.50



Route of the cruise Combine 4.