



RV Aranda

CRUISE PLAN

ICES-BIAS-2018, 16/2018

29.9. - 6.10.2018

6.10. - 12.10.2018

Description of the cruise

Baltic International Acoustic Survey on herring and sprat in the Northern Baltic Sea, covering ICES Subdivisions 29 (northern part) 30, and 32 (northern part), within the remit of the Natural Resources Institute Finland (Luke). A mandatory part of Data Collection Framework (Council Regulation (EC) No 199/2008; <http://datacollection.jrc.ec.europa.eu/index.htm>).

Scientific staff (29.9. - 6.10.2018):

Chief scientist:	Juha Lilja	LUKE
CTD chief:		SYKE
IT chief:		LUKE
		FMI
		LUKE
		LUKE
		LUKE
		LUKE
		LUKE
		LUKE
		LUKE
		LUKE
		SLU
		LUKE
		LUKE
		LUKE
		LUKE
		LUKE
		FISH
		FISH
		LUKE
		FISH
		LUKE
		LUKE
		SYKE
		SLU

Altogether 24 persons in scientific staff.

Scientific staff (6.10. – 12.10.2018):

Chief scientist: Juha Lilja LUKE
CTD chief: SYKE
IT chief: LUKE
 FMI
 SYKE
 LUKE
 LUKE
 LUKE
 LUKE
 LUKE
 LUKE
 LUKE
 SLU
 LUKE
 LUKE
 LUKE
 LUKE
 FISH
 FISH
 LUKE
 FISH
 LUKE
 SLU
 LUKE
 SYKE
 LUKE

Altogether 25 persons in scientific staff.

Departure from: HELSINKI
Departure time: Saturday 29.09.2018 at 20:00

Cruising speed: 10.0 knots
 Average station time: 2 h 45 min.

Arrival to: HELSINKI
Arrival time: Friday 12.10.2018 at 15:29

Duration of the cruise: 12 days 19 h 29 min
 Length of the cruise: 1609.84 nautical miles
 Number of stations 51. Points with name "P" are just route points without observations.

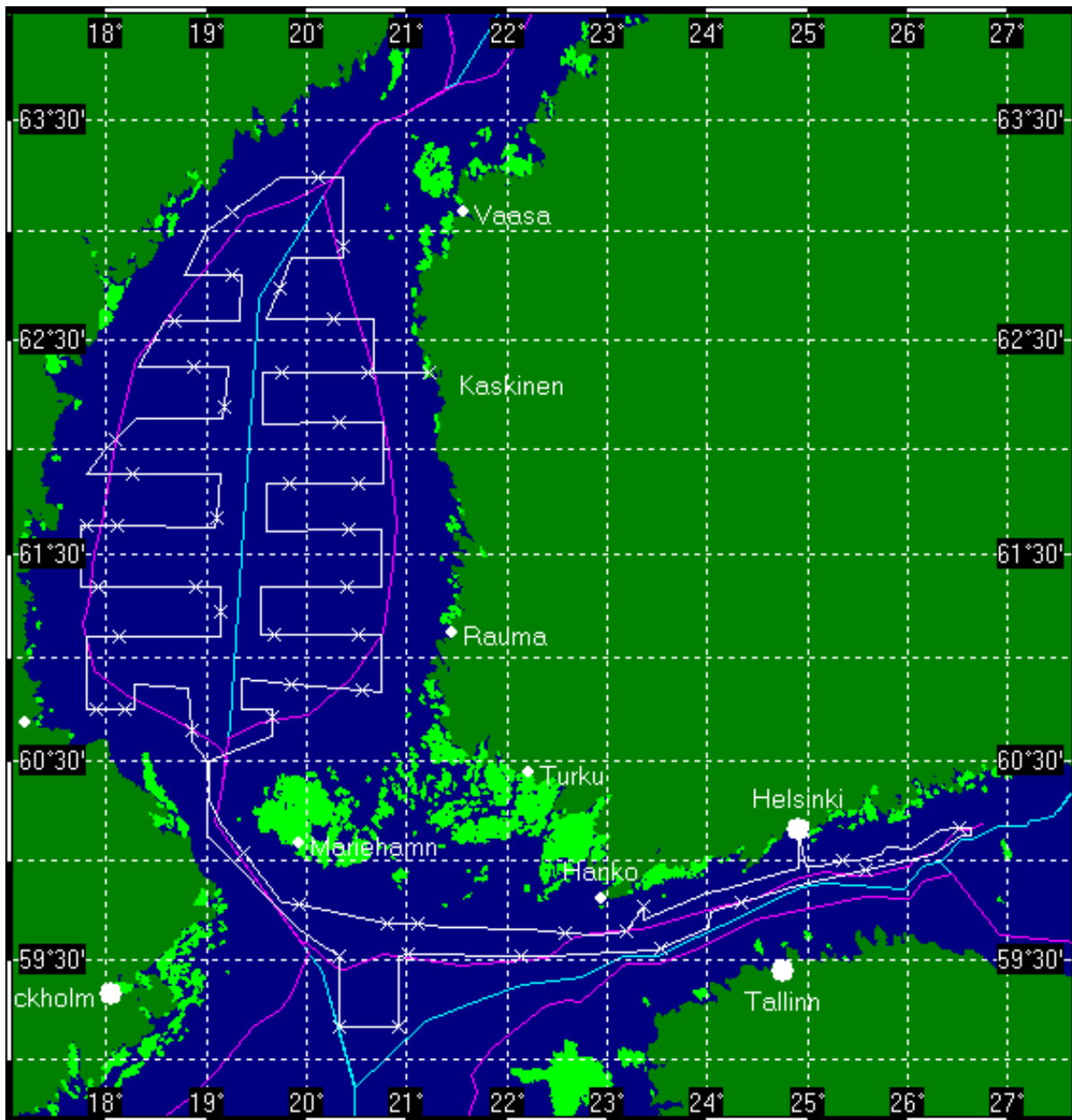
Route:

Nro	Station	Lat.	Long.	Depth		Arrival		Durat.	Speed
				[m]	hh:mm	dy	dd.mm.yyyy		
0	HELSINKI	60°09.55'	24°55.37'	0	20:00	Sa	29.09.2018	0:00	S 10.0
1	P	59°58.16'	24°55.21'	-	21:08	Sa	29.09.2018	0:00	S 10.0
2	P	59°55.16'	24°34.13'	-	22:14	Sa	29.09.2018	0:00	S 10.0
3	P	59°51.82'	24°11.74'	-	23:24	Sa	29.09.2018	0:00	S 10.0
4	P	59°50.34'	24°00.00'	-	00:00	Su	30.09.2018	0:00	S 10.0
5	P	59°42.43'	23°21.62'	-	02:06	Su	30.09.2018	0:00	S 10.0
6	Calibration	59°46.51'	23°21.34'	?	02:30	Su	30.09.2018	2:45	S 10.0
7	48H3-1	59°38.69'	23°11.92'	?	06:10	Su	30.09.2018	2:45	S 10.0
8	P	59°38.01'	22°54.32'	-	09:49	Su	30.09.2018	0:00	S 10.0
9	48H2-1	59°38.61'	22°35.31'	?	10:46	Su	30.09.2018	2:45	S 10.0
10	P	59°39.28'	22°12.66'	-	14:40	Su	30.09.2018	0:00	S 10.0
11	P	59°39.83'	21°22.93'	-	17:11	Su	30.09.2018	0:00	S 10.0

12	48H1-1	59°41.18'	21°06.13'	?	18:03	Su	30.09.2018	2:45	S	10.0
13	48H0-1	59°41.18'	20°48.00'	?	21:42	Su	30.09.2018	2:45	S	10.0
14	48G9-1	59°47.10'	19°55.00'	?	03:12	Mo	01.10.2018	2:45	S	10.0
15	P	59°47.85'	19°45.70'	-	06:25	Mo	01.10.2018	0:00	S	10.0
16	49G9-1	60°02.77'	19°22.41'	?	08:19	Mo	01.10.2018	2:45	S	10.0
17	P	60°10.71'	19°09.99'	-	12:04	Mo	01.10.2018	0:00	S	10.0
18	P	60°18.35'	19°01.39'	-	12:57	Mo	01.10.2018	0:00	S	10.0
19	P	60°30.09'	19°00.27'	-	14:07	Mo	01.10.2018	0:00	S	10.0
20	P	60°35.39'	18°51.20'	-	14:49	Mo	01.10.2018	0:00	S	10.0
21	50G8-1	60°38.72'	18°50.71'	?	15:09	Mo	01.10.2018	2:45	S	10.0
22	P	60°51.24'	18°49.06'	-	19:09	Mo	01.10.2018	0:00	S	10.0
23	P	60°52.32'	18°16.85'	-	20:43	Mo	01.10.2018	0:00	S	10.0
24	P	60°44.78'	18°16.51'	-	21:29	Mo	01.10.2018	0:00	S	10.0
25	50G8-2	60°44.78'	18°10.88'	?	21:45	Mo	01.10.2018	2:45	S	10.0
26	50G7-1	60°44.78'	17°54.27'	?	01:19	Tu	02.10.2018	2:45	S	10.0
27	P	60°44.78'	17°48.42'	-	04:21	Tu	02.10.2018	0:00	S	10.0
28	P	61°06.08'	17°48.42'	-	06:29	Tu	02.10.2018	0:00	S	10.0
29	51G8-1	61°06.06'	18°08.06'	?	07:26	Tu	02.10.2018	2:45	S	10.0
30	P	61°06.02'	19°09.02'	-	13:07	Tu	02.10.2018	0:00	S	10.0
31	51G9-1	61°13.23'	19°08.81'	?	13:51	Tu	02.10.2018	2:45	S	10.0
32	P	61°20.47'	19°08.66'	-	17:19	Tu	02.10.2018	0:00	S	10.0
33	51G8-2	61°20.51'	18°53.77'	?	18:02	Tu	02.10.2018	2:45	S	10.0
34	51G7-1	61°20.45'	17°55.59'	?	23:34	Tu	02.10.2018	2:45	S	10.0
35	P	61°20.45'	17°44.63'	-	02:51	We	03.10.2018	0:00	S	10.0
36	P	61°38.28'	17°44.63'	-	04:38	We	03.10.2018	0:00	S	10.0
37	52G7-1	61°38.28'	17°47.67'	?	04:47	We	03.10.2018	2:45	S	10.0
38	52G8-1	61°38.17'	18°06.12'	?	08:24	We	03.10.2018	2:45	S	10.0
39	P	61°37.81'	19°05.48'	-	13:58	We	03.10.2018	0:00	S	10.0
40	52G9-1	61°40.22'	19°05.92'	?	14:13	We	03.10.2018	2:45	S	10.0
41	P	61°52.67'	19°08.53'	-	18:13	We	03.10.2018	0:00	S	10.0
42	52G8-2	61°52.65'	18°15.63'	?	20:43	We	03.10.2018	2:45	S	10.0
43	P	61°52.65'	17°48.65'	-	00:44	Th	04.10.2018	0:00	S	10.0
44	P	62°00.00'	18°00.00'	-	01:38	Th	04.10.2018	0:00	S	10.0
45	53G8-1	62°02.56'	18°05.21'	?	02:00	Th	04.10.2018	2:45	S	10.0
46	P	62°08.50'	18°17.64'	-	05:35	Th	04.10.2018	0:00	S	10.0
47	P	62°08.51'	19°09.48'	-	08:00	Th	04.10.2018	0:00	S	10.0
48	53G9-1	62°11.56'	19°10.30'	?	08:18	Th	04.10.2018	2:45	S	10.0
49	P	62°22.60'	19°13.59'	-	12:10	Th	04.10.2018	0:00	S	10.0
50	53G8-2	62°22.62'	18°52.38'	?	13:09	Th	04.10.2018	2:45	S	10.0
51	P	62°22.58'	18°18.81'	-	17:28	Th	04.10.2018	0:00	S	10.0
52	P	62°35.26'	18°35.21'	-	18:56	Th	04.10.2018	0:00	S	10.0
53	54G8-1	62°35.26'	18°41.39'	?	19:13	Th	04.10.2018	2:45	S	10.0
54	P	62°35.26'	19°19.78'	-	23:44	Th	04.10.2018	0:00	S	10.0
55	P	62°48.14'	19°20.76'	-	01:02	Fr	05.10.2018	0:00	S	10.0
56	54G9-1	62°48.15'	19°15.85'	?	01:15	Fr	05.10.2018	2:45	S	10.0
57	P	62°48.14'	18°46.53'	-	05:21	Fr	05.10.2018	0:00	S	10.0
58	P	63°00.00'	19°00.00'	-	06:41	Fr	05.10.2018	0:00	S	10.0
59	55G9-1	63°05.25'	19°15.57'	?	07:33	Fr	05.10.2018	2:45	S	10.0
60	P	63°14.90'	19°44.52'	-	11:56	Fr	05.10.2018	0:00	S	10.0
61	55H0-1	63°14.90'	20°07.05'	?	12:57	Fr	05.10.2018	2:45	S	10.0
62	P	63°14.90'	20°21.86'	-	16:22	Fr	05.10.2018	0:00	S	10.0
63	54H0-1	62°56.12'	20°21.86'	?	18:14	Fr	05.10.2018	2:45	S	10.0
64	P	62°52.59'	20°21.86'	-	21:21	Fr	05.10.2018	0:00	S	10.0
65	P	62°52.61'	19°50.83'	-	22:45	Fr	05.10.2018	0:00	S	10.0
66	54G9-2	62°44.55'	19°43.65'	?	23:38	Fr	05.10.2018	2:45	S	10.0
67	P	62°36.26'	19°36.37'	-	03:16	Sa	06.10.2018	0:00	S	10.0
68	54H0-2	62°36.26'	20°15.79'	?	05:05	Sa	06.10.2018	2:45	S	10.0
69	P	62°36.26'	20°39.65'	-	08:56	Sa	06.10.2018	0:00	S	10.0
70	P	62°21.40'	20°39.65'	-	10:25	Sa	06.10.2018	0:00	S	10.0
71	KASKINEN-1	62°21.04'	21°12.89'	?	11:58	Sa	06.10.2018	9:00	S	10.0
72	53H0-1	62°21.40'	20°36.46'	?	22:39	Sa	06.10.2018	2:45	S	10.0

73	53G9-2	62°21.40'	19°44.90'	?	03:48	Su	07.10.2018	2:45	S	10.0
74	P	62°21.40'	19°33.32'	-	07:05	Su	07.10.2018	0:00	S	10.0
75	P	62°06.99'	19°33.32'	-	08:31	Su	07.10.2018	0:00	S	10.0
76	53H0-2	62°07.04'	20°20.12'	?	10:43	Su	07.10.2018	2:45	S	10.0
77	P	62°07.05'	20°45.99'	-	14:40	Su	07.10.2018	0:00	S	10.0
78	P	61°50.13'	20°46.08'	-	16:22	Su	07.10.2018	0:00	S	10.0
79	52H0-1	61°50.13'	20°31.39'	?	17:03	Su	07.10.2018	2:45	S	10.0
80	52G9-2	61°50.13'	19°50.13'	?	21:45	Su	07.10.2018	2:45	S	10.0
81	P	61°50.13'	19°35.50'	-	01:12	Mo	08.10.2018	0:00	S	10.0
82	P	61°36.74'	19°35.50'	-	02:32	Mo	08.10.2018	0:00	S	10.0
83	52H0-2	61°36.84'	20°25.36'	?	04:54	Mo	08.10.2018	2:45	S	10.0
84	P	61°36.84'	20°45.07'	-	08:36	Mo	08.10.2018	0:00	S	10.0
85	P	61°20.50'	20°45.14'	-	10:14	Mo	08.10.2018	0:00	S	10.0
86	51H0-1	61°20.50'	20°24.19'	?	11:14	Mo	08.10.2018	2:45	S	10.0
87	P	61°20.50'	19°32.52'	-	16:28	Mo	08.10.2018	0:00	S	10.0
88	P	61°06.59'	19°32.52'	-	17:51	Mo	08.10.2018	0:00	S	10.0
89	51G9-2	61°06.61'	19°40.87'	?	18:15	Mo	08.10.2018	2:45	S	10.0
90	51H0-2	61°06.61'	20°30.58'	?	23:24	Mo	08.10.2018	2:45	S	10.0
91	P	61°06.61'	20°44.72'	-	02:50	Tu	09.10.2018	0:00	S	10.0
92	P	60°50.00'	20°44.66'	-	04:30	Tu	09.10.2018	0:00	S	10.0
93	50H0-1	60°50.50'	20°33.61'	?	05:02	Tu	09.10.2018	2:45	S	10.0
94	50G9-1	60°52.39'	19°50.77'	?	09:53	Tu	09.10.2018	2:45	S	10.0
95	P	60°53.73'	19°21.21'	-	14:05	Tu	09.10.2018	0:00	S	10.0
96	P	60°44.81'	19°21.21'	-	14:58	Tu	09.10.2018	0:00	S	10.0
97	P	60°44.81'	19°39.51'	-	15:52	Tu	09.10.2018	0:00	S	10.0
98	50G9-2	60°43.01'	19°39.51'	?	16:03	Tu	09.10.2018	2:45	S	10.0
99	P	60°37.26'	19°39.51'	-	19:22	Tu	09.10.2018	0:00	S	10.0
100	P	60°30.00'	19°01.28'	-	21:23	Tu	09.10.2018	0:00	S	10.0
101	P	60°07.84'	19°00.42'	-	23:36	Tu	09.10.2018	0:00	S	10.0
102	P	59°39.43'	19°54.91'	-	03:33	We	10.10.2018	0:00	S	10.0
103	P	59°35.30'	20°07.16'	-	04:17	We	10.10.2018	0:00	S	10.0
104	48H0-2	59°31.24'	20°20.00'	?	05:03	We	10.10.2018	2:45	S	10.0
105	47H0-1	59°10.00'	20°20.00'	?	09:56	We	10.10.2018	2:45	S	10.0
106	47H0-2	59°10.00'	20°55.00'	?	14:28	We	10.10.2018	2:45	S	10.0
107	P	59°31.43'	20°55.50'	-	19:22	We	10.10.2018	0:00	S	10.0
108	48H1-2	59°31.86'	21°00.49'	?	19:37	We	10.10.2018	2:45	S	10.0
109	48H2-2	59°31.65'	22°08.12'	?	01:48	Th	11.10.2018	2:45	S	10.0
110	P	59°31.59'	22°24.73'	-	05:24	Th	11.10.2018	0:00	S	10.0
111	P	59°32.94'	23°28.77'	-	08:39	Th	11.10.2018	0:00	S	10.0
112	48H3-2	59°33.81'	23°32.65'	?	08:52	Th	11.10.2018	2:45	S	10.0
113	P	59°39.84'	24°00.72'	-	13:09	Th	11.10.2018	0:00	S	10.0
114	P	59°44.56'	24°01.90'	-	13:38	Th	11.10.2018	0:00	S	10.0
115	48H4-1	59°47.36'	24°20.33'	?	14:36	Th	11.10.2018	2:45	S	10.0
116	P	59°52.61'	24°55.17'	-	19:10	Th	11.10.2018	0:00	S	10.0
117	48H5-1	59°57.19'	25°35.06'	?	21:14	Th	11.10.2018	2:45	S	10.0
118	P	60°00.00'	26°00.00'	-	01:15	Fr	12.10.2018	0:00	S	10.0
119	P	60°01.83'	26°15.33'	-	02:03	Fr	12.10.2018	0:00	S	10.0
120	P	60°07.48'	26°32.29'	-	03:04	Fr	12.10.2018	0:00	S	10.0
121	P	60°07.57'	26°38.03'	-	03:21	Fr	12.10.2018	0:00	S	10.0
122	P	60°09.75'	26°38.44'	-	03:34	Fr	12.10.2018	0:00	S	10.0
123	49H6-1	60°09.73'	26°30.94'	?	03:56	Fr	12.10.2018	2:45	S	10.0
124	P	60°09.66'	26°19.21'	-	07:16	Fr	12.10.2018	0:00	S	10.0
125	P	60°03.91'	26°02.85'	-	08:16	Fr	12.10.2018	0:00	S	10.0
126	P	60°04.19'	25°47.26'	-	09:03	Fr	12.10.2018	0:00	S	10.0
127	P	60°02.02'	25°43.66'	-	09:20	Fr	12.10.2018	0:00	S	10.0
128	P	60°00.43'	25°30.02'	-	10:02	Fr	12.10.2018	0:00	S	10.0
129	49H5-1	60°00.46'	25°21.44'	?	10:27	Fr	12.10.2018	2:45	S	10.0
130	P	59°58.53'	25°08.45'	-	13:53	Fr	12.10.2018	0:00	S	10.0
131	P	59°58.47'	24°59.13'	-	14:21	Fr	12.10.2018	0:00	S	10.0
132	P	60°02.96'	24°57.49'	-	14:49	Fr	12.10.2018	0:00	S	10.0
133	HELSINKI	60°09.55'	24°55.37'	0	15:29	Fr	12.10.2018	2:45	S	10.0

Route map:



Cruise plan is printed at 21.09.2018 a 10:02.