



RV Aranda

CRUISE PLAN

ICES_BIAS 2015, 0/2015

24.9. - 5.10.2015

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 Finnish Game and Fisheries Research Institute (FGFRI). A mandatory part of Data Collection Framework (Council Regulation (EC) No 199/2008; <http://datacollection.jrc.ec.europa.eu/index.htm>).

Scientific staff:

Chief scientist:	Juha Lilja	LUKE	
CTD chief:		LUKE	
IT chief:		LUKE	
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
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		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		KALASTAJA	24.09.2015 - 05.10.2015
		KALASTAJA	24.09.2015 - 05.10.2015
		SLU	24.09.2015 - 05.10.2015
		SLU	24.09.2015 - 05.10.2015
		KALASTAJA	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		TY	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015
		LUKE	24.09.2015 - 05.10.2015

Altogether 22 persons in scientific staff.

Departure from: HELSINKI
Departure time: Thursday 24.09.2015 at 15:00

Cruising speed: 10.0 knots
Average station time: 2 h 0 min.

Arrival to: HELSINKI
Arrival time: Monday 05.10.2015 at 15:00

Duration of the cruise: 11 days 0 h 0 min
Length of the cruise: 1570.14 nautical miles
Number of stations 48. Points with name "P" are just route points without observations.

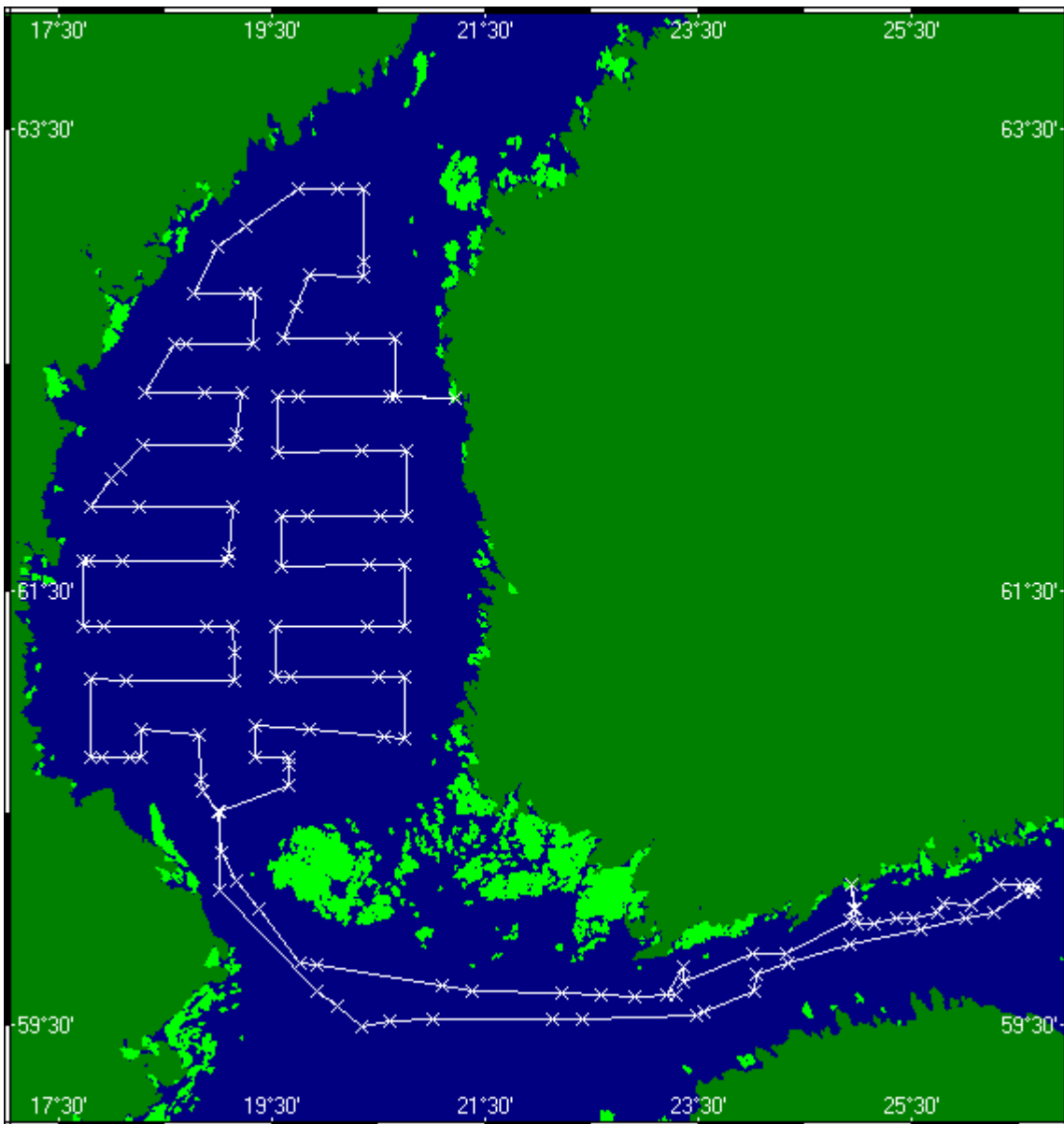
Route:

Nro	Station	Lat.	Long.	Depth [m]	Arrival		Durat. hh:mm	Speed knots	
					hh:mm	dy dd.mm.yyyy			
0	HELSINKI	60°09.55'	24°55.37'	0	15:00	Th	24.09.2015	0:00	S 10.0
1	P	60°02.98'	24°56.63'	-	15:39	Th	24.09.2015	0:00	S 10.0
2	P	59°59.45'	24°55.08'	-	16:01	Th	24.09.2015	0:00	S 10.0
3	P	59°50.22'	24°19.00'	-	18:03	Th	24.09.2015	0:00	S 10.0
4	P	59°50.34'	24°00.00'	-	19:00	Th	24.09.2015	0:00	S 10.0
5	P	59°42.43'	23°21.62'	-	21:05	Th	24.09.2015	0:00	S 10.0
6	Calibration	59°46.51'	23°21.34'	?	21:30	Th	24.09.2015	8:00	S 10.0
7	48H3-1	59°38.69'	23°11.92'	?	06:25	Fr	25.09.2015	3:00	S 10.0
8	P	59°38.47'	23°16.79'	-	09:39	Fr	25.09.2015	0:00	S 10.0
9	P	59°38.01'	22°54.32'	-	10:48	Fr	25.09.2015	0:00	S 10.0
10	48H2-1	59°38.61'	22°35.31'	?	11:45	Fr	25.09.2015	2:00	S 10.0
11	P	59°39.28'	22°12.66'	-	14:54	Fr	25.09.2015	0:00	S 10.0
12	P	59°39.83'	21°22.93'	-	17:25	Fr	25.09.2015	0:00	S 10.0
13	48H1-1	59°41.18'	21°06.13'	?	18:16	Fr	25.09.2015	2:00	S 10.0
14	48G9-1	59°47.10'	19°55.00'	?	23:54	Fr	25.09.2015	2:00	S 10.0
15	P	59°47.85'	19°45.70'	-	02:23	Sa	26.09.2015	0:00	S 10.0
16	49G9-1	60°02.77'	19°22.41'	?	04:17	Sa	26.09.2015	2:00	S 10.0
17	P	60°10.71'	19°09.99'	-	07:17	Sa	26.09.2015	0:00	S 10.0
18	P	60°18.35'	19°01.39'	-	08:09	Sa	26.09.2015	0:00	S 10.0
19	P	60°30.09'	19°00.27'	-	09:20	Sa	26.09.2015	0:00	S 10.0
20	P	60°35.39'	18°51.20'	-	10:02	Sa	26.09.2015	0:00	S 10.0
21	50G8-1	60°38.72'	18°50.71'	?	10:22	Sa	26.09.2015	2:00	S 10.0
22	P	60°51.24'	18°49.06'	-	13:37	Sa	26.09.2015	0:00	S 10.0
23	P	60°52.32'	18°16.85'	-	15:11	Sa	26.09.2015	0:00	S 10.0
24	P	60°44.78'	18°16.51'	-	15:56	Sa	26.09.2015	0:00	S 10.0
25	50G8-2	60°44.78'	18°10.88'	?	16:13	Sa	26.09.2015	2:00	S 10.0
26	50G7-1	60°44.78'	17°54.27'	?	19:02	Sa	26.09.2015	2:00	S 10.0
27	P	60°44.78'	17°48.42'	-	21:19	Sa	26.09.2015	0:00	S 10.0
28	P	61°06.08'	17°48.42'	-	23:27	Sa	26.09.2015	0:00	S 10.0
29	51G8-1	61°06.06'	18°08.06'	?	00:24	Su	27.09.2015	2:00	S 10.0
30	P	61°06.02'	19°09.02'	-	05:20	Su	27.09.2015	0:00	S 10.0
31	51G9-1	61°13.23'	19°08.81'	?	06:04	Su	27.09.2015	2:00	S 10.0
32	P	61°20.47'	19°08.66'	-	08:47	Su	27.09.2015	0:00	S 10.0
33	51G8-2	61°20.51'	18°53.77'	?	09:30	Su	27.09.2015	2:00	S 10.0
34	51G7-1	61°20.45'	17°55.59'	?	14:17	Su	27.09.2015	2:00	S 10.0
35	P	61°20.45'	17°44.63'	-	16:49	Su	27.09.2015	0:00	S 10.0
36	P	61°38.28'	17°44.63'	-	18:36	Su	27.09.2015	0:00	S 10.0
37	52G7-1	61°38.28'	17°47.67'	?	18:44	Su	27.09.2015	2:00	S 10.0
38	52G8-1	61°38.17'	18°06.12'	?	21:37	Su	27.09.2015	2:00	S 10.0
39	P	61°37.81'	19°05.48'	-	02:26	Mo	28.09.2015	0:00	S 10.0
40	52G9-1	61°40.22'	19°05.92'	?	02:41	Mo	28.09.2015	2:00	S 10.0
41	P	61°52.67'	19°08.53'	-	05:56	Mo	28.09.2015	0:00	S 10.0

42	52G8-2	61°52.65'	18°15.63'	?	08:25	Mo	28.09.2015	2:00	S	10.0
43	P	61°52.65'	17°48.65'	-	11:42	Mo	28.09.2015	0:00	S	10.0
44	P	62°00.00'	18°00.00'	-	12:36	Mo	28.09.2015	0:00	S	10.0
45	53G8-1	62°02.56'	18°05.21'	?	12:57	Mo	28.09.2015	2:00	S	10.0
46	P	62°08.50'	18°17.64'	-	15:47	Mo	28.09.2015	0:00	S	10.0
47	P	62°08.51'	19°09.48'	-	18:13	Mo	28.09.2015	0:00	S	10.0
48	53G9-1	62°11.56'	19°10.30'	?	18:31	Mo	28.09.2015	2:00	S	10.0
49	P	62°22.60'	19°13.59'	-	21:38	Mo	28.09.2015	0:00	S	10.0
50	53G8-2	62°22.62'	18°52.38'	?	22:37	Mo	28.09.2015	2:00	S	10.0
51	P	62°22.58'	18°18.81'	-	02:10	Tu	29.09.2015	0:00	S	10.0
52	P	62°35.26'	18°35.21'	-	03:39	Tu	29.09.2015	0:00	S	10.0
53	54G8-1	62°35.26'	18°41.39'	?	03:56	Tu	29.09.2015	2:00	S	10.0
54	P	62°35.26'	19°19.78'	-	07:42	Tu	29.09.2015	0:00	S	10.0
55	P	62°48.14'	19°20.76'	-	08:59	Tu	29.09.2015	0:00	S	10.0
56	54G9-1	62°48.15'	19°15.85'	?	09:13	Tu	29.09.2015	2:00	S	10.0
57	P	62°48.14'	18°46.53'	-	12:33	Tu	29.09.2015	0:00	S	10.0
58	P	63°00.00'	19°00.00'	-	13:53	Tu	29.09.2015	0:00	S	10.0
59	55G9-1	63°05.25'	19°15.57'	?	14:46	Tu	29.09.2015	2:00	S	10.0
60	P	63°14.90'	19°44.52'	-	18:24	Tu	29.09.2015	0:00	S	10.0
61	55H0-1	63°14.90'	20°07.05'	?	19:25	Tu	29.09.2015	2:00	S	10.0
62	P	63°14.90'	20°21.86'	-	22:05	Tu	29.09.2015	0:00	S	10.0
63	54H0-1	62°56.12'	20°21.86'	?	23:57	Tu	29.09.2015	2:00	S	10.0
64	P	62°52.59'	20°21.86'	-	02:18	We	30.09.2015	0:00	S	10.0
65	P	62°52.61'	19°50.83'	-	03:43	We	30.09.2015	0:00	S	10.0
66	54G9-2	62°44.55'	19°43.65'	?	04:36	We	30.09.2015	2:00	S	10.0
67	P	62°36.26'	19°36.37'	-	07:29	We	30.09.2015	0:00	S	10.0
68	54H0-2	62°36.26'	20°15.79'	?	09:18	We	30.09.2015	2:00	S	10.0
69	P	62°36.26'	20°39.65'	-	12:24	We	30.09.2015	0:00	S	10.0
70	P	62°21.40'	20°39.65'	-	13:53	We	30.09.2015	0:00	S	10.0
71	KASKINEN-1	62°16.34'	21°07.83'	?	15:17	We	30.09.2015	6:00	S	10.0
72	53H0-1	62°21.40'	20°36.46'	?	22:50	We	30.09.2015	2:00	S	10.0
73	53G9-2	62°21.40'	19°44.90'	?	03:13	Th	01.10.2015	2:00	S	10.0
74	P	62°21.40'	19°33.32'	-	05:46	Th	01.10.2015	0:00	S	10.0
75	P	62°06.99'	19°33.32'	-	07:12	Th	01.10.2015	0:00	S	10.0
76	53H0-2	62°07.04'	20°20.12'	?	09:23	Th	01.10.2015	2:00	S	10.0
77	P	62°07.05'	20°45.99'	-	12:36	Th	01.10.2015	0:00	S	10.0
78	P	61°50.13'	20°46.08'	-	14:17	Th	01.10.2015	0:00	S	10.0
79	52H0-1	61°50.13'	20°31.39'	?	14:59	Th	01.10.2015	2:00	S	10.0
80	52G9-2	61°50.13'	19°50.13'	?	18:56	Th	01.10.2015	2:00	S	10.0
81	P	61°50.13'	19°35.50'	-	21:37	Th	01.10.2015	0:00	S	10.0
82	P	61°36.74'	19°35.50'	-	22:58	Th	01.10.2015	0:00	S	10.0
83	52H0-2	61°36.84'	20°25.36'	?	01:20	Fr	02.10.2015	2:00	S	10.0
84	P	61°36.84'	20°45.07'	-	04:16	Fr	02.10.2015	0:00	S	10.0
85	P	61°20.50'	20°45.14'	-	05:54	Fr	02.10.2015	0:00	S	10.0
86	51H0-1	61°20.50'	20°24.19'	?	06:54	Fr	02.10.2015	2:00	S	10.0
87	P	61°20.50'	19°32.52'	-	11:23	Fr	02.10.2015	0:00	S	10.0
88	P	61°06.59'	19°32.52'	-	12:47	Fr	02.10.2015	0:00	S	10.0
89	51G9-2	61°06.61'	19°40.87'	?	13:11	Fr	02.10.2015	2:00	S	10.0
90	51H0-2	61°06.61'	20°30.58'	?	17:35	Fr	02.10.2015	2:00	S	10.0
91	P	61°06.61'	20°44.72'	-	20:16	Fr	02.10.2015	0:00	S	10.0
92	P	60°50.00'	20°44.66'	-	21:56	Fr	02.10.2015	0:00	S	10.0
93	50H0-1	60°50.50'	20°33.61'	?	22:28	Fr	02.10.2015	2:00	S	10.0
94	50G9-1	60°52.39'	19°50.77'	?	02:34	Sa	03.10.2015	2:00	S	10.0
95	P	60°53.73'	19°21.21'	-	06:00	Sa	03.10.2015	0:00	S	10.0
96	P	60°44.81'	19°21.21'	-	06:54	Sa	03.10.2015	0:00	S	10.0
97	P	60°44.81'	19°39.51'	-	07:48	Sa	03.10.2015	0:00	S	10.0
98	50G9-2	60°43.01'	19°39.51'	?	07:58	Sa	03.10.2015	2:00	S	10.0
99	P	60°37.26'	19°39.51'	-	10:33	Sa	03.10.2015	0:00	S	10.0
100	P	60°30.00'	19°01.28'	-	12:34	Sa	03.10.2015	0:00	S	10.0
101	P	60°07.84'	19°00.42'	-	14:47	Sa	03.10.2015	0:00	S	10.0

102	P	59°39.43'	19°54.91'	-	18:43	Sa	03.10.2015	0:00	S	10.0
103	P	59°35.30'	20°07.16'	-	19:28	Sa	03.10.2015	0:00	S	10.0
104	P	59°29.54'	20°20.38'	-	20:21	Sa	03.10.2015	0:00	S	10.0
105	P	59°31.23'	20°36.69'	-	21:12	Sa	03.10.2015	0:00	S	10.0
106	48H0-2	59°31.24'	20°36.87'	?	21:12	Sa	03.10.2015	2:00	S	10.0
107	48H1-2	59°31.86'	21°00.49'	?	00:24	Su	04.10.2015	2:00	S	10.0
108	48H2-2	59°31.65'	22°08.12'	?	05:50	Su	04.10.2015	2:00	S	10.0
109	P	59°31.59'	22°24.73'	-	08:40	Su	04.10.2015	0:00	S	10.0
110	P	59°32.94'	23°28.77'	-	11:55	Su	04.10.2015	0:00	S	10.0
111	48H3-2	59°33.81'	23°32.65'	?	12:08	Su	04.10.2015	2:00	S	10.0
112	P	59°39.84'	24°00.72'	-	15:41	Su	04.10.2015	0:00	S	10.0
113	P	59°44.56'	24°01.90'	-	16:09	Su	04.10.2015	0:00	S	10.0
114	48H4-1	59°47.36'	24°20.33'	?	17:08	Su	04.10.2015	2:00	S	10.0
115	P	59°52.61'	24°55.17'	-	20:57	Su	04.10.2015	0:00	S	10.0
116	48H5-1	59°57.19'	25°35.06'	?	23:00	Su	04.10.2015	2:00	S	10.0
117	P	60°00.00'	26°00.00'	-	02:17	Mo	05.10.2015	0:00	S	10.0
118	P	60°01.83'	26°15.33'	-	03:04	Mo	05.10.2015	0:00	S	10.0
119	P	60°07.48'	26°32.29'	-	04:05	Mo	05.10.2015	0:00	S	10.0
120	P	60°07.57'	26°38.03'	-	04:23	Mo	05.10.2015	0:00	S	10.0
121	P	60°09.75'	26°38.44'	-	04:36	Mo	05.10.2015	0:00	S	10.0
122	49H6-1	60°09.73'	26°30.94'	?	04:58	Mo	05.10.2015	2:00	S	10.0
123	P	60°09.66'	26°19.21'	-	07:33	Mo	05.10.2015	0:00	S	10.0
124	P	60°03.91'	26°02.85'	-	08:33	Mo	05.10.2015	0:00	S	10.0
125	P	60°04.19'	25°47.26'	-	09:20	Mo	05.10.2015	0:00	S	10.0
126	P	60°02.02'	25°43.66'	-	09:37	Mo	05.10.2015	0:00	S	10.0
127	P	60°00.43'	25°30.02'	-	10:19	Mo	05.10.2015	0:00	S	10.0
128	49H5-1	60°00.46'	25°21.44'	?	10:44	Mo	05.10.2015	2:00	S	10.0
129	P	59°58.53'	25°08.45'	-	13:25	Mo	05.10.2015	0:00	S	10.0
130	P	59°58.47'	24°59.13'	-	13:53	Mo	05.10.2015	0:00	S	10.0
131	P	60°02.96'	24°57.49'	-	14:20	Mo	05.10.2015	0:00	S	10.0
132	HELSINKI	60°09.55'	24°55.37'	0	15:00	Mo	05.10.2015	2:00	S	10.0

Route map:



Cruise plan is printed at 16.06.2015 a 09:03.