RV BELGICA CRUISE 2012/22ab – CRUISE REPORT

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Fishery: 27/08/2012 – 7/09/2012

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1. CRUISE DETAILS

1.	Cruise number	2012/22ab
2.	Date/time	Zeebrugge TD: 27/08/2012 at 13h00 Ipswich TA: 31/08/2012 at 14h30 Ipswich TD: 3/09/2012 at 14h00 Zeebrugge TA: 7/09/2012 at 9h00
3.	Chief Scientist Participating institutes	MSc. Kelle Moreau ILVO
4.	Area of interest	Southern North Sea (Belgian, French and English Continental Shelves)

2. LIST OF PARTICIPANTS

INSTITUTE	NAME	27/08 - 01/09/12	02-07/09/12
ILVO	Kelle Moreau	X	X
ILVO	Patrick Calebout	X	X
MUMM	Georges Pichot		X
ILVO	Jurgen Bossaert	X	X
ILVO	Glenn Kyndt	X	X
ILVO	Benny Deputter	X	X
ILVO	Coenraad Deputter	X	X
ILVO	David Vuylsteke	X	X
ILVO	Ilse Maertens	X	X
ILVO	Bart Vanelslander	X	
ILVO	Wim Allegaert		X
Total number of participants:		9	10

3. SCIENTIFIC OBJECTIVES

a) Indices of abundance and biomass of adult flatfishes (mainly plaice and sole) will be calculated by means of stratified tows in the southern and central North Sea. The results will be incorporated in the DATRAS-database of the "International Council for the Exploration of the Sea (ICES)" and will be used in analytical population studies of these species/stocks.
Additionally, several other investigations are planned, such as (a) the construction of "age-length-keys" for a number of commercially important flatfish species and cod, (b) documenting distribution and abundance of all commercial and non-commercial bycatch species, (c) collecting an array of organisms that will be used as training material for biology students at several Belgian universities, (d) documenting the amount and types of litter at sea.
b) Research concerning authenticity, geografic labelling and stock discrimination using “finclips” (tissue samples from tail- or dorsal fins) for sole, turbot, brill and sea trout (caught in the above mentioned tows).

4. OPERATIONAL COURSE

Monday 27/08/2012

08h00-10h30	Embarkation of instruments and personnel
10h30-13h00	Waiting for problems with the vessel to be solved
13h00	Departure at Zeebrugge
13h00-15h15	Transit to station 40a
15h15-20h30	Fishing & sampling stations 40a, 86, 39 and 37 + transits between stations
20h30	Start transit to station 8

Tuesday 28/08/2012

06h30 – 21h Fishing & sampling stations 8, 9, 116, 113, 11, 112, 16 and 17 + transits between stations

Wednesday 29/08/2012

07h30 – 21h Fishing & sampling stations 20, 19, 18, 114, 22bis, 72, 111bis, 60 and 110b + transits between stations

Thursday 30/08/2012

06h30 – 19h Fishing & sampling stations 63, 29, 107bis, 90, 102b, 64, 82, 92bis and 33 + transits between stations

Friday 31/08/2012

06h30 – 9h30	Fishing & sampling stations 91a, 83 and 98b + transits between stations
9h30 – 14h30	Transit to Ipswich
14h30	Arrival to Ipswich

Monday 3/09/2012

14h	Departure at Ipswich + start transit to station 82bis
18h15-20u50	Fishing & sampling stations 82bis and 93bis + transits between stations

Tuesday 4/09/2012

06h30-21h Fishing & sampling stations 34, 32, 3, 4, 30, 5, 6, 28 and 73bis + transits between stations

Wednesday 5/09/2012

06h30-21h Fishing & sampling stations 34, 32, 3, 4, 30, 5, 6, 28 and 73bis + transits between stations

Thursday 6/09/2012

06h30-19h30	Fishing & sampling stations 2bis, 1, 36, 85, 94bis, 81b1, 84 and 38 + transits between stations
19h30	Start transit to Zeebrugge

Friday 7/09/2012

09h00	Arrival to Zeebrugge
09h00-12h00	Disembarkation of instruments and personnel

- End of campaign 2012/22ab

5. TRACK PLOT

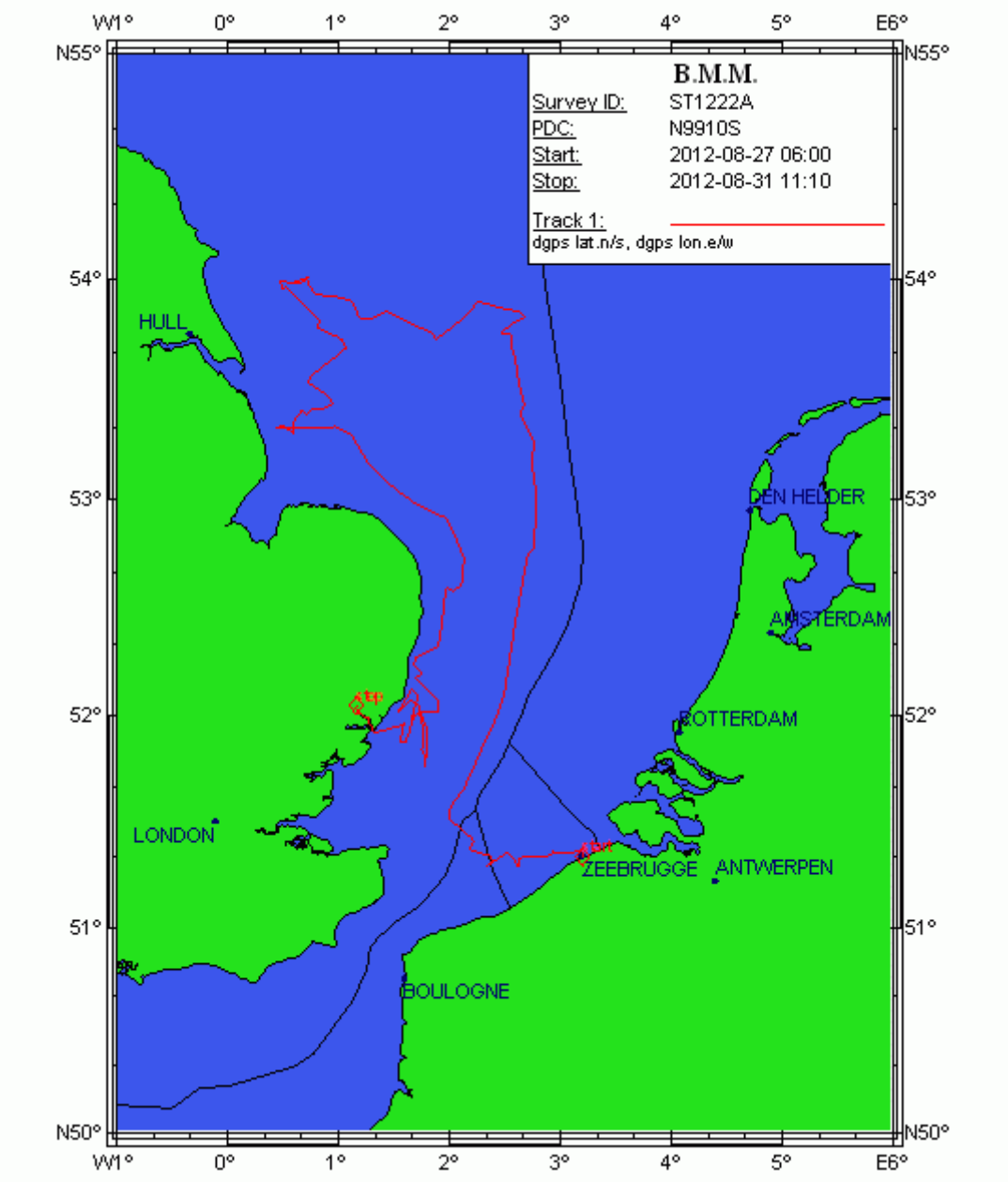

Figure 1: Track plot of campaign 2012/22a

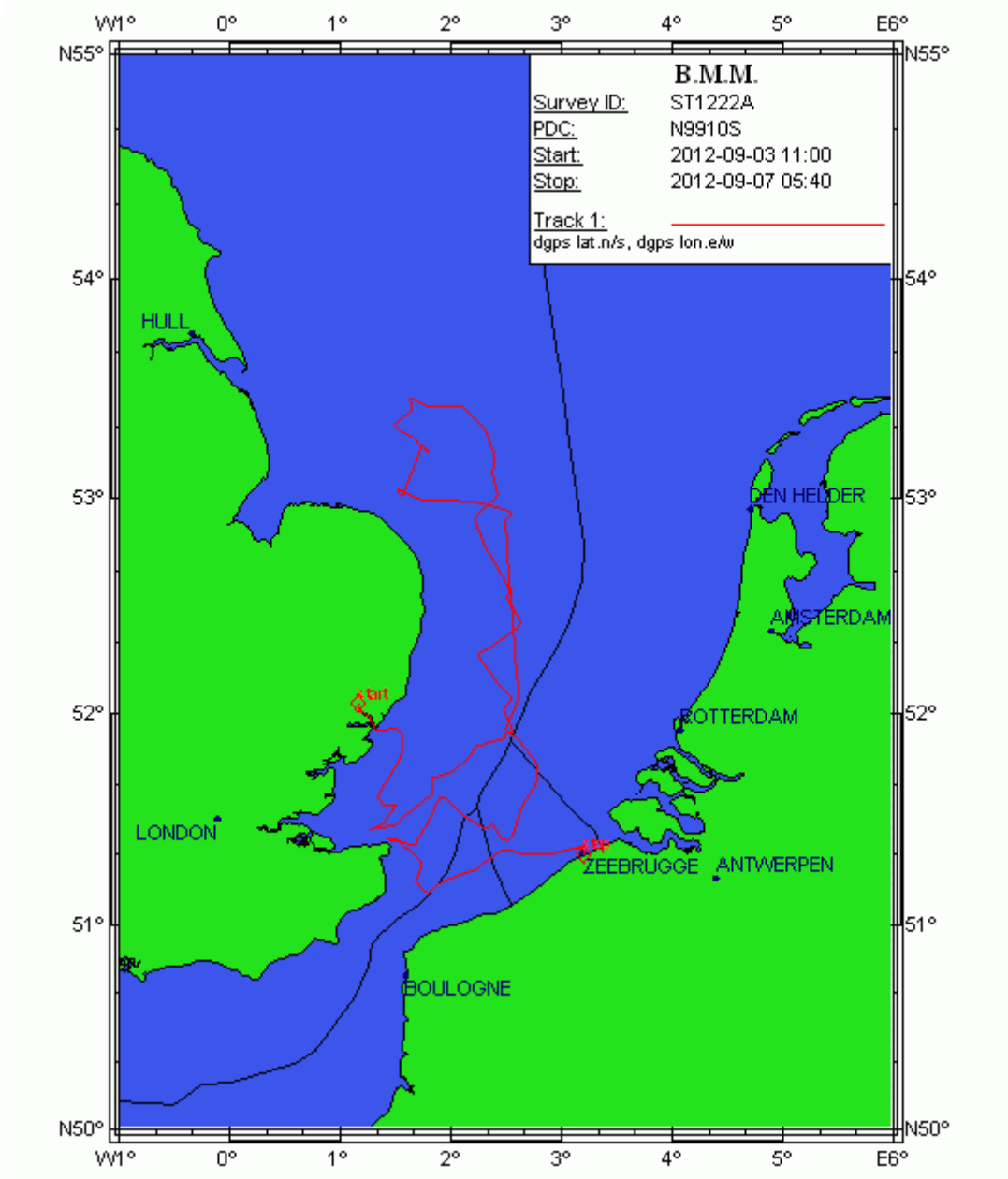

Figure 2: Track plot of campaign 2012/22b

6. MEASUREMENTS AND SAMPLING

Table 1: List of fishing stations (tracks) of campaign 2012/22ab

Stations North Sea Beam Trawl Survey (NSBTS)				
Station	Positie begin		Positie einde	
1	N 51° 24 ' 07	E 2° 31' 37	N 51° 25 ' 47	E 2° 33' 11
2bis	N 51° 37 ' 21	E 2° 43' 03	N 51° 39 ' 40	E 2° 45' 33
3	N 51° 53 ' 75	E 2° 31' 21	N 51° 54 ' 95	E 2° 34' 52
4	N 52° 03 ' 03	E 2° 30' 92	N 52° 01 ' 27	E 2° 28' 36
5	N 52° 24 ' 82	E 2° 37' 34	N 52° 27 ' 03	E 2° 37' 42
6	N 52° 32 ' 66	E 2° 30' 37	N 52° 34 ' 59	E 2° 31' 84
7	N 52° 54 ' 40	E 2° 30' 07	N 52° 55 ' 74	E 2° 32' 89

8	N 53° 09 ' 63	E 2° 44' 35	N 53° 11 ' 69	E 2° 44' 54
9	N 53° 24 ' 45	E 2° 39' 10	N 53° 26 ' 94	E 2° 41' 37
11	N 53° 51 ' 66	E 2° 12' 19	N 53° 53 ' 62	E 2° 14' 24
16	N 53° 50 ' 62	E 1° 22' 57	N 53° 51 ' 32	E 1° 26' 35
17	N 53° 49 ' 27	E 1° 17' 55	N 53° 49 ' 25	E 1° 13' 24
18	N 53° 45 ' 46	E 0° 48' 92	N 53° 48 ' 67	E 0° 49' 64
19	N 53° 52 ' 61	E 0° 32' 92	N 53° 56 ' 40	E 0° 32' 33
20	N 53° 59 ' 43	E 0° 39’ 38	N 54° 00 ' 51	E 0° 42' 09
22bis	N 53° 34 ' 16	E 0° 45’ 85	N 53° 32 ' 41	E 0° 43' 50
24	N 53° 13 ' 32	E 1° 47' 80	N 53° 14 ' 88	E 1° 44' 88
25	N 53° 27 ' 20	E 1° 37' 71	N 53° 25 ' 24	E 1° 38' 99
26	N 53° 23 ' 40	E 2° 09' 59	N 53° 25 ' 80	E 2° 05' 50
28	N 52° 48 ' 26	E 2° 17' 18	N 52° 50 ' 48	E 2° 16' 22
29	N 52° 35 ' 91	E 2° 04' 80	N 52° 34 ' 92	E 2° 01' 63
30	N 52° 18 ' 04	E 2° 19' 83	N 52° 17 ' 22	E 2° 15' 49
32	N 51° 50 ' 37	E 2° 12' 46	N 51° 48 ' 20	E 2° 10' 83
33	N 51° 48 ' 66	E 1° 46' 58	N 51° 46 ' 56	E 1° 46' 86
34	N 51° 41 ' 74	E 1° 50' 19	N 51° 39 ' 58	E 1° 48' 78
36	N 51° 27 ' 80	E 2° 20' 67	N 51° 29 ' 93	E 2° 22' 37
37	N 51° 22 ' 74	E 2° 11' 02	N 51° 24 ' 69	E 2° 13' 54
38	N 51° 11 ' 02	E 1° 51' 75	N 51° 12 ' 15	E 1° 54' 76
39	N 51° 17 ' 80	E 2° 20' 50	N 51° 19 ' 41	E 2° 23' 39
40a	N 51° 21 ' 30	E 2° 55' 82	N 51° 19 ' 94	E 2° 52' 84
60	N 53° 21 ' 39	E 0° 35' 58	N 53° 19 ' 16	E 0° 34' 91
61	N 53° 02 ' 67	E 1° 30' 67	N 53° 00 ' 78	E 1° 33' 54
62bis	N 53° 01 ' 56	E 1° 40' 99	N 53° 00 ' 64	E 1° 44' 45
63	N 52° 37 ' 49	E 2° 07' 38	N 52° 39 ' 83	E 2° 07' 27
64	N 52° 09 ' 73	E 1° 41' 46	N 52° 11 ' 71	E 1° 43' 79
72	N 53° 26 ' 52	E 0° 56' 87	N 53° 28 ' 43	E 0° 54' 56
73bis	N 52° 54 ' 00	E 2° 13' 50	N 52° 51 ' 92	E 2° 14' 43
81	N 53° 21 ' 08	E 1° 10' 38	N 53° 19 ' 64	E 1° 11' 85
81b1	N 51° 24 ‘ 56	E 1° 26‘ 22	N 51° 24 ‘ 63	E 1° 29‘ 61
82	N 52° 03 ' 36	E 1° 54' 37	N 52° 01 ' 03	E 1° 53' 47
82 bis	N 51° 41 ' 00	E 1° 24' 86	N 51° 39 ' 50	E 1° 23' 37
83	N 51° 55 ' 04	E 1° 34' 32	N 51° 56 ' 98	E 1° 35' 04
84	N 51° 17 ' 20	E 1° 44' 20	N 51° 14 ' 33	E 1° 42' 25
85	N 51° 36 ' 50	E 1° 54' 17	N 51° 33 ' 80	E 1° 51' 40
86	N 51° 20 ' 41	E 2° 38' 37	N 51° 18 ' 07	E 2° 37' 85
90	N 52° 21 ' 79	E 1° 54' 79	N 52° 19 ' 71	E 1° 54' 01
91a	N 51° 55 ' 69	E 1° 39' 16	N 51° 54 ' 02	E 1° 36' 74
92bis	N 51° 59 ' 48	E 1° 43' 14	N 51° 01 ' 04	E 1° 73' 20
93bis	N 51° 34 ' 00	E 1° 30' 26	N 51° 32 ' 39	E 1° 27’ 74
94bis	N 51° 25’ 00	E 001°42’31	N 51° 23’ 04	E 1° 41’ 24
96	N 51° 29 ' 93	E 1° 52' 10	N 51° 27 ' 27	E 1° 50' 66
96b	N 51° 28 ' 10	E 1° 21' 66	N 51° 27 ' 10	E 1° 16' 21
98b	N 51° 57 ' 47	E 1° 35' 28	N 51° 55 ' 39	E 1° 34' 49
102b	N 52° 16 ' 30	E 1° 41' 79	N 52° 14 ' 10	E 1° 40' 50
107bis	N 52° 35 ' 36	E 1° 57' 97	N 52° 32 ' 91	E 1° 57' 56

110b	N 53° 19 ' 96	E 0° 25' 64	N 53° 19 ' 90	E 0° 29' 36
111bis	N 53° 23 ' 81	E 0° 41' 79	N 53° 25 ' 35	E 0° 38' 39
112	N 53° 43 ' 77	E 1° 52' 29	N 53° 46 ' 45	E 1° 49' 79
113	N 53° 50 ' 46	E 2° 40' 79	N 53° 51 ' 58	E 2° 36' 67
114	N 53° 43 ' 22	E 1° 02' 50	N 53° 40 ' 99	E 1° 04' 38
115	N 53° 20 ' 00	E 1° 29' 95	N 53° 18 ' 47	E 1° 32' 95
116	N 53° 45 ' 00	E 2° 25' 60	N 53° 45 ' 63	E 2° 32' 33

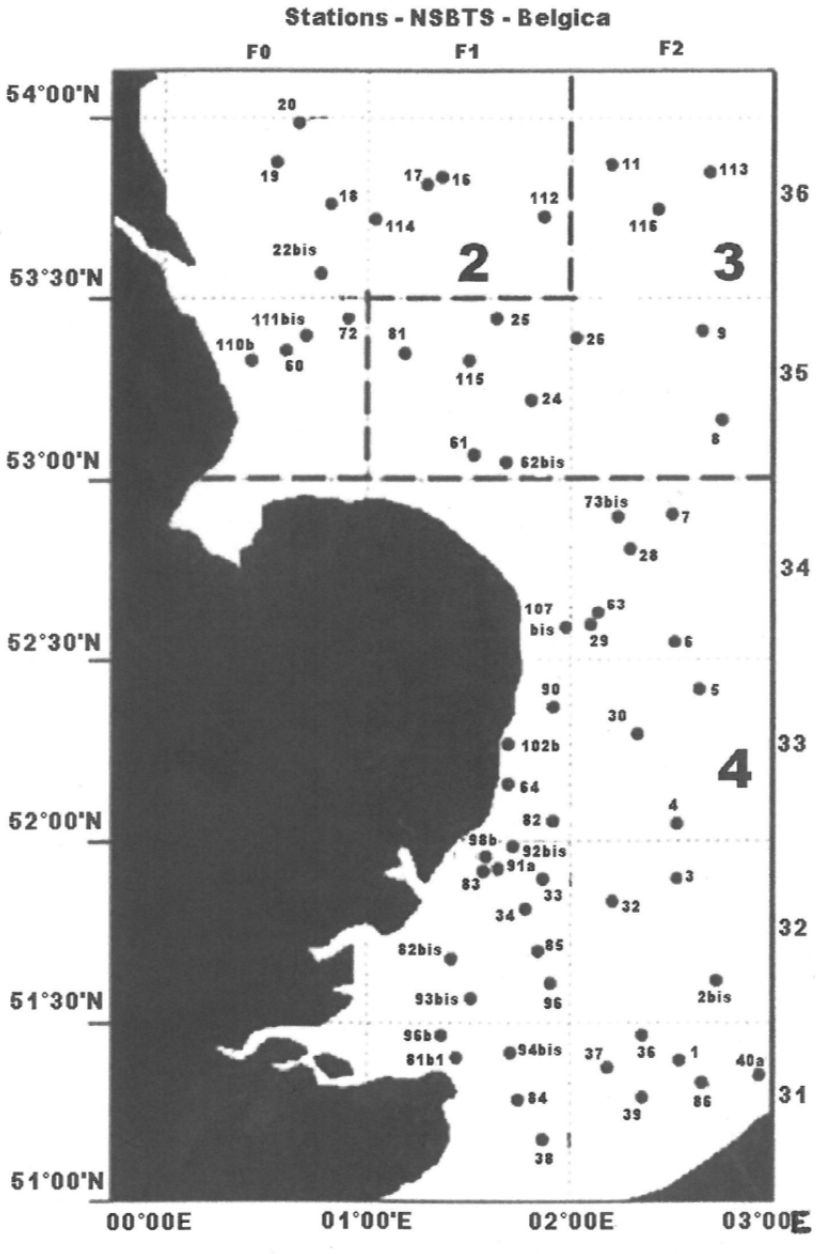

Figure 3: Map of fishing stations of campaign 2012/22ab

7. REMARKS

- In 2012, the weather did not interfere with the fishing activities.
- During campaign 2012/22ab, we encountered some technical issues that have affected the cruise plan and/or scientific operations:
    - Monday 27/08/2012: problems with the hydraulics and the fishery winch caused a delay of ca 2,5h for our departure. Unfortunately, new problems arose after sailing (no electricity in fish lab, problems with the vessel's engines, OURS-link got temporarily lost) causing another delay of ca 1h.
    - Wednesday 28 – Thursday 29/08/2012: on 28/08 it became clear that there was a difference in the registered depths between the depth meters in the main bridge and the fish corner bridge. The one in the fish corner bridge seemed to display false values (making it appear more shallow than it actually was), creating a situation in which the ILVO-skipper didn't give enough fishing cable so that we were probably fishing above the ground at some stations. This made us lose some time as one station had to be fished a second time to ensure the collection of valid data. Also on the 29th, one station had to be fished a second time due to this problem, creating some additional delay.
    - Monday 3/09/2012: a navigation error made us lose one additional station.

The different delays affected the cruise plan in such a way that the planning for the following days had to be changed several times during the cruise in an attempt to try to make up for the losses. To achieve that, we also had to start fishing earlier in the morning and continue doing so until later in the evening than is normally allowed under the North Sea Beam Trawl Survey Manual. This way we were technically successful in bringing the cruise to a good end : only three stations were missed (81, 96 and 96b; within the 10% limit applied by the European Commission) and these were also geographically well spread so the spatial resolution in the results was not compromised. Unfortunately, two successfully fished stations had to be cancelled afterwards: one because the catch was so big that it could not be transferred to deck (60), the other one because there was hardly anything in the codend whereas the station-history learns us that it is usually one with the bigger catches (111bis). It is a coincidence that both these stations are situated in the same ICES Statistical Rectangle, where we have only realized two valid tows (we try to stick to a minimum of three stations per rectangle). This means that we remain with 57 valid stations, still within the legal margin.

8. DATA STORAGE

- All biological data on fish (numbers, lengths, weights and ages) and invertebrates (numbers for all species, measurements for commercially important species), and the accompanying ODAS-parameters are being stored.
- Currently, all data are only stored at ILVO, where a new database is currently under development for this purpose. The data on fish are being prepared to be uploaded to DATRAS, the survey-database hosted by ICES. By April 2013, the data for at least the three most recent years will be available in this database for anyone who wants to use them (www.datras.ices.dk). Later on we will be working our way back through the time series and keep uploading additional years to DATRAS.
- No data have been specifically submitted to MUMM-BMM.