NMBAQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

Own Sample Module Summary Report

Benthic Invertebrate Component - 2022/23

OS80, 81 and 82

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APEM

MODULE / EXERCISE DETAILS

Module:	Own Sample (OS)
Exercises:	OS80, 81 and 82
Data/Sample Request Circulated:	28 October 2022
Sample Submission Deadline (Batch 2):	28 April 2023
Number of Subscribing Laboratories:	37
Number of Own Samples Received:	108 including 1x OS (BI_2938 OS80) received as an incomplete sample (without sorted residues); sample presented in this report but excluded from summary statistics includes 15x OS from the Black Sea

Contents

Table 1. Summary of the performance of participating laboratories in the Own Sample (OS) exercises with respect to the NMBAQC standards.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Estimation of Taxa							Taxonomic errors			No. Individuals							Estimation of Biomass				Similarity Index			Sample Flag
	OD	AD	Target	Pass / Fail	Missed Taxa	% Missed	Remedial Action	OD	%	Remedial Action	OD	AD	Target	Pass / Fail	Missed Ind.	% Missed	Remedial Action	OD	AD	Target	Pass / Fail	BCSI %	Target	Pass / Fail	NMBAQC Sample Flag
BI_2901 OS80	52	53	47.7 - 58.3	PASS	0	0.00	-	2	3.77	-	201	203	182.7 - 223.3	PASS	2	0.99	-	-	-	-	-	98.28	90	PASS	PASS - GOOD
BI_2901 OS81	35	35	31.5 - 38.5	PASS	0	0.00	-	0	0.00	-	187	189	170.1 - 207.9	PASS	1	0.53	-	-	-	-	-	99.468	90	PASS	PASS - GOOD
BI_2901 OS82	33	33	29.7 - 36.3	PASS	0	0.00	-	0	0.00	-	133	133	119.7 - 146.3	PASS	0	0.00	-	-	-	-	-	99.248	90	PASS	PASS - GOOD
BI_2904 OS80	128	130	117 - 143	PASS	0	0.00	-	1	0.77	-	2933	2934	2640.6 - 3227.4	PASS	17	0.58	-	8.5842	8.5512	6.84096 - 10.26144	PASS	99.25	90	PASS	PASS - GOOD
BI_2904 OS81	19	19	17.1 - 20.9	PASS	0	0.00	-	0	0.00	-	45	46	41.4 - 50.6	PASS	1	2.17	-	0.0531	0.0413	0.03304 - 0.04956	FAIL	98.97	90	PASS	PASS - GOOD
BI_2904 OS82	141	141	126.9 - 155.1	PASS	0	0.00	-	5	3.55	-	2955	2970	2673 - 3267	PASS	23	0.77	-	6.7591	6.4913	5.19304 - 7.78956	PASS	98.28	90	PASS	PASS - GOOD
BI_2905 OS80	20	21	18.9 - 23.1	PASS	0	0.00	-	4	19.05	-	172	184	165.6 - 202.4	PASS	3	1.63	-	-	-	-	-	92.697	90	PASS	PASS - ACCEPTABLE
BI_2905 OS81	9	10	9 - 11	PASS	1	10.00	-	0	0.00	-	59	63	56.7 - 69.3	PASS	4	6.35	-	-	-	-	-	96.721	90	PASS	PASS - GOOD
BI_2905 OS82	10	10	9 - 11	PASS	0	0.00	-	1	10.00	-	52	53	47.7 - 58.3	PASS	1	1.89	-	-	-	-	-	97.143	90	PASS	PASS - GOOD
BI_2906 OS80	1	1	0.9 - 1.1	PASS	0	0.00	-	0	0.00	-	1	1	0.9 - 1.1	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2906 OS81	15	15	13.5 - 16.5	PASS	0	0.00	-	0	0.00	-	51	51	45.9 - 56.1	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2906 OS82	2	2	1.8 - 2.2	PASS	0	0.00	-	0	0.00	-	5	5	4.5 - 5.5	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2907 OS80	11	11	9.9 - 12.1	PASS	0	0.00	-	1	9.09	-	961	978	880.2 - 1075.8	PASS	17	1.74	-	-	-	-	-	96.857	90	PASS	PASS - GOOD
BI_2907 OS81	19	21	18.9 - 23.1	PASS	0	0.00	-	2	9.52	-	280	285	256.5 - 313.5	PASS	7	2.46	-	-	-	-	-	95.07	90	PASS	PASS - GOOD
BI_2907 OS82	17	20	18 - 22	FAIL	1	5.00	-	3	15.00	-	295	315	283.5 - 346.5	PASS	16	5.08	-	-	-	-	-	95.41	90	PASS	PASS - GOOD
BI_2908 OS80	35	37	33.3 - 40.7	PASS	1	2.70	-	2	5.41	-	302	316	284.4 - 347.6	PASS	15	4.75	-	13.2032	8.9634	7.17072 - 10.75608	FAIL	96.764	90	PASS	PASS - GOOD
BI_2908 OS81	10	10	9 - 11	PASS	0	0.00	-	1	10.00	-	23	23	20.7 - 25.3	PASS	0	0.00	-	1.74347	1.3289	1.06312 - 1.59468	FAIL	95.652	90	PASS	PASS - GOOD
BI_2908 OS82	24	25	22.5 - 27.5	PASS	1	4.00	-	0	0.00	-	107	107	96.3 - 117.7	PASS	0	0.00	-	14.0952	11.5737	9.25896 - 13.88844	FAIL	99.539	90	PASS	PASS - GOOD
BI_2916 OS80	15	15	13.5 - 16.5	PASS	0	0.00	-	0	0.00	-	19	19	17.1 - 20.9	PASS	0	0.00	-	0.0177	0.0195	0.0156 - 0.0234	PASS	100	90	PASS	PASS - EXCELLENT
BI_2916 OS81	24	24	21.6 - 26.4	PASS	0	0.00	-	2	8.33	-	116	117	105.3 - 128.7	PASS	1	0.85	-	0.9071	0.84	0.672 - 1.008	PASS	98.333	90	PASS	PASS - GOOD
BI_2916 OS82	49	50	45 - 55	PASS	0	0.00	-	1	2.00	-	316	320	288 - 352	PASS	5	1.56	-	-	-	-	-	98.489	90	PASS	PASS - GOOD
BI_2917 OS80	20	20	18 - 22	PASS	0	0.00	-	0	0.00	-	56	57	51.3 - 62.7	PASS	0	0.00	-	-	-	-	-	99.16	90	PASS	PASS - GOOD
BI_2917 OS81	20	20	18 - 22	PASS	0	0.00	-	0	0.00	-	76	76	68.4 - 83.6	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2917 OS82	17	17	15.3 - 18.7	PASS	0	0.00	-	0	0.00	-	49	49	44.1 - 53.9	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2918 OS80	24	26	23.4 - 28.6	PASS	2	7.69	-	1	3.85	-	42	42	37.8 - 46.2	PASS	1	2.38	-	-	-	-	-	93.023	90	PASS	PASS - ACCEPTABLE
BI_2918 OS81	50	52	46.8 - 57.2	PASS	2	3.85	-	2	3.85	-	181	181	162.9 - 199.1	PASS	3	1.66	-	-	-	-	-	95.317	90	PASS	PASS - GOOD
BI_2918 OS82	43	46	41.4 - 50.6	PASS	3	6.52	-	1	2.17	-	140	136	122.4 - 149.6	PASS	3	2.21	-	-	-	-	-	94.964	90	PASS	PASS - ACCEPTABLE
BI_2926 OS80	15	17	15.3 - 18.7	FAIL	2	11.76	-	0	0.00	-	50	51	45.9 - 56.1	PASS	1	1.96	-	-	-	-	-	98.039	90	PASS	PASS - GOOD
BI_2926 OS81	35	36	32.4 - 39.6	PASS	0	0.00	-	0	0.00	-	93	93	83.7 - 102.3	PASS	0	0.00	-	-	-	-	-	99.465	90	PASS	PASS - GOOD
BI_2926 OS82	24	25	22.5 - 27.5	PASS	1	4.00	-	0	0.00	-	44	45	40.5 - 49.5	PASS	1	2.22	-	-	-	-	-	98.876	90	PASS	PASS - GOOD
BI_2927 OS80	29	31	27.9 - 34.1	PASS	2	6.45	-	0	0.00	-	152	154	138.6 - 169.4	PASS	4	2.60	-	-	-	-	-	98.052	90	PASS	PASS - GOOD
BI_2927 OS81	23	23	20.7 - 25.3	PASS	0	0.00	-	1	4.35	-	308	307	276.3 - 337.7	PASS	1	0.33	-	-	-	-	-	98.869	90	PASS	PASS - GOOD
BI_2927 OS82	44	44	39.6 - 48.4	PASS	0	0.00	-	1	2.27	-	156	155	139.5 - 170.5	PASS	1	0.65	-	-	-	-	-	98.423	90	PASS	PASS - GOOD
BI_2928 OS80	11	11	9.9 - 12.1	PASS	0	0.00	-	0	0.00	-	24	24	21.6 - 26.4	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2928 OS81	39	39	35.1 - 42.9	PASS	0	0.00	-	0	0.00	-	163	164	147.6 - 180.4	PASS	1	0.61	-	-	-	-	-	99.698	90	PASS	PASS - GOOD
BI_2928 OS82	25	25	22.5 - 27.5	PASS	0	0.00	-	0	0.00	-	305	305	274.5 - 335.5	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2929 OS80	64	66	59.4 - 72.6	PASS	1	1.52	-	3	4.55	-	415	415	373.5 - 456.5	PASS	1	0.24	-	-	-	-	-	96.905	90	PASS	PASS - GOOD
BI_2929 OS81	87	88	79.2 - 96.8	PASS	1	1.14	-	4	4.55	-	1012	1016	914.4 - 1117.6	PASS	4	0.39	-	-	-	-	-	99.02	90	PASS	PASS - GOOD
BI_2929 OS82	50	52	46.8 - 57.2	PASS	2	3.85	-	0	0.00	-	272	280	252 - 308	PASS	8	2.86	-	-	-	-	-	98.561	90	PASS	PASS - GOOD
BI_2930 OS80	9	9	8.1 - 9.9	PASS	0	0.00	-	0	0.00	-	33	36	32.4 - 39.6	PASS	3	8.33	-	-	-	-	-	96	90	PASS	PASS - GOOD
BI_2930 OS81	27	29	26.1 - 31.9	PASS	2	6.90	-	0	0.00	-	98	111	99.9 - 122.1	FAIL	13	11.71	-	-	-	-	-	94.118	90	PASS	PASS - ACCEPTABLE
BI_2930 OS82	13	15	13.5 - 16.5	FAIL	1	6.67	-	1	6.67	-	117	126	113.4 - 138.6	PASS	9	7.14	-	-	-	-	-	95.473	90	PASS	PASS - GOOD
BI_2931 OS80	8	10	9 - 11	FAIL	2	20.00	-	0	0.00	-	16	18	16.2 - 19.8	FAIL	2	11.11	-	-	-	-	-	94.444	90	PASS	PASS - ACCEPTABLE
BI_2931 OS81	10	10	9 - 11	PASS	0	0.00	-	0	0.00	-	85	85	76.5 - 93.5	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2931 OS82	24	27	24.3 - 29.7	FAIL	3	11.11	-	0	0.00	-	190	195	175.5 - 214.5	PASS	5	2.56	-	-	-	-	-	98.191	90	PASS	PASS - GOOD
BI_2932 OS80	15	18	16.2 - 19.8	FAIL	2	11.11	Review	2	11.11	Review	179	218	196.2 - 239.8	FAIL	34	15.60	Reprocess	-	-	-	-	44.724	90	FAIL	FAIL - BAD
BI_2932 OS81	28	32	28.8 - 35.2	FAIL	4	12.50	Reprocess	3	9.38	Review	170	178	160.2 - 195.8	PASS	13	7.30	Review	-	-	-	-	81.609	90	FAIL	FAIL - BAD
BI_2932 OS82	11	12	10.8 - 13.2	PASS	1	8.33	-	0	0.00	-	22	26	23.4 - 28.6	FAIL	4	15.38	-	-	-	-	-	91.667	90	PASS	PASS - ACCEPTABLE

NB. This table details the findings of the audit only. For details of Own Sample remedial action please refer to NMBAQCS Year 29 Annual report, section 2.4.

Table 1. Summary of the performance of participating laboratories in the Own Sample (OS) exercises with respect to the NMBAQC standards.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Estimation of Taxa							Taxonomic errors			No. Individuals							Estimation of Biomass				Similarity Index			Sample Flag
	OD	AD	Target	Pass / Fail	Missed Taxa	% Missed	Remedial Action	OD	%	Remedial Action	OD	AD	Target	Pass / Fail	Missed Ind.	% Missed	Remedial Action	OD	AD	Target	Pass / Fail	BCSI %	Target	Pass / Fail	NMBAQC Sample Flag
BI_2934 OS80	32	32	28.8 - 35.2	PASS	1	3.13	-	1	3.13	-	252	250	225 - 275	PASS	2	0.80	-	-	-	-	-	98.833	90	PASS	PASS - GOOD
BI_2934 OS81	22	22	19.8 - 24.2	PASS	0	0.00	-	0	0.00	-	178	179	161.1 - 196.9	PASS	1	0.56	-	-	-	-	-	99.72	90	PASS	PASS - GOOD
BI_2934 OS82	17	18	16.2 - 19.8	PASS	0	0.00	-	0	0.00	-	45	45	40.5 - 49.5	PASS	0	0.00	-	-	-	-	-	98.969	90	PASS	PASS - GOOD
BI_2935 OS80	9	9	8.1 - 9.9	PASS	0	0.00	-	0	0.00	-	23	25	22.5 - 27.5	PASS	2	8.00	-	-	-	-	-	95.833	90	PASS	PASS - GOOD
BI_2935 OS81	13	14	12.6 - 15.4	PASS	0	0.00	-	0	0.00	-	233	236	212.4 - 259.6	PASS	0	0.00	-	-	-	-	-	98.943	90	PASS	PASS - GOOD
BI_2935 OS82	4	4	3.6 - 4.4	PASS	0	0.00	-	0	0.00	-	5	5	4.5 - 5.5	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2936 OS80	16	17	15.3 - 18.7	PASS	1	5.88	-	1	5.88	-	71	73	65.7 - 80.3	PASS	2	2.74	-	-	-	-	-	96.552	90	PASS	PASS - GOOD
BI_2936 OS81	9	13	11.7 - 14.3	FAIL	3	23.08	Reprocess	0	0.00	-	19	25	22.5 - 27.5	FAIL	4	16.00	Reprocess	0.0328	0.028	0.0224 - 0.0336	PASS	87.5	90	FAIL	FAIL - POOR
BI_2936 OS82	6	6	5.4 - 6.6	PASS	0	0.00	-	0	0.00	-	51	51	45.9 - 56.1	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2937 OS80	10	10	9 - 11	PASS	0	0.00	-	0	0.00	-	145	145	130.5 - 159.5	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2937 OS81	18	22	19.8 - 24.2	FAIL	3	13.64	-	1	4.55	-	1429	1497	1347.3 - 1646.7	PASS	67	4.48	-	-	-	-	-	97.541	90	PASS	PASS - GOOD
BI_2937 OS82	7	7	6.3 - 7.7	PASS	0	0.00	-	0	0.00	-	11	11	9.9 - 12.1	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2938 OS80	28	28	25.2 - 30.8	PASS	n/a	n/a	Reprocess	0	0.00	-	106	106	95.4 - 116.6	PASS	n/a	n/a	Reprocess	-	-	-	-	0	90	FAIL	FAIL - BAD
BI_2938 OS81	16	16	14.4 - 17.6	PASS	0	0.00	-	0	0.00	-	38	38	34.2 - 41.8	PASS	0	0.00	-	-	-	-	-	100	90	PASS	PASS - EXCELLENT
BI_2938 OS82	57	56	50.4 - 61.6	PASS	0	0.00	-	2	3.57	-	158	158	142.2 - 173.8	PASS	0	0.00	-	-	-	-	-	98.824	90	PASS	PASS - GOOD
BI_2939 OS80	24	24	21.6 - 26.4	PASS	0	0.00	-	0	0.00	-	670	677	609.3 - 744.7	PASS	7	1.03	-	-	-	-	-	99.481	90	PASS	PASS - GOOD
BI_2939 OS81	13	15	13.5 - 16.5	FAIL	1	6.67	-	3	20.00	-	603	601	540.9 - 661.1	PASS	1	0.17	-	-	-	-	-	98.592	90	PASS	PASS - GOOD
BI_2939 OS82	5	5	4.5 - 5.5	PASS	0	0.00	-	0	0.00	-	124	122	109.8 - 134.2	PASS	0	0.00	-	-	-	-	-	99.187	90	PASS	PASS - GOOD
BI_2940 OS80	12	12	10.8 - 13.2	PASS	0	0.00	-	0	0.00	-	118	118	106.2 - 129.8	PASS	0	0.00	-	2.7536	2.9762	2.38096 - 3.57144	PASS	100	90	PASS	PASS - EXCELLENT
BI_2940 OS81	55	55	49.5 - 60.5	PASS	0	0.00	-	2	3.64	-	140	143	128.7 - 157.3	PASS	1	0.70	-	0.4611	0.485	0.388 - 0.582	PASS	97.749	90	PASS	PASS - GOOD
BI_2940 OS82	10	10	9 - 11	PASS	0	0.00	-	0	0.00	-	16	16	14.4 - 17.6	PASS	0	0.00	-	0.1055	0.1091	0.08728 - 0.13092	PASS	100	90	PASS	PASS - EXCELLENT
BI_2941 OS80	7	7	6.3 - 7.7	PASS	0	0.00	-	0	0.00	-	32	32	28.8 - 35.2	PASS	0	0.00	-	0.0072	0.0057	0.00456 - 0.00684	FAIL	100	90	PASS	PASS - EXCELLENT
BI_2941 OS81	5	5	4.5 - 5.5	PASS	0	0.00	-	0	0.00	-	17	17	15.3 - 18.7	PASS	0	0.00	-	0.0104	0.0091	0.00728 - 0.01092	PASS	100	90	PASS	PASS - EXCELLENT
BI_2941 OS82	11	11	9.9 - 12.1	PASS	0	0.00	-	1	9.09	-	144	144	129.6 - 158.4	PASS	0	0.00	-	2.1399	2.0812	1.66496 - 2.49744	PASS	99.31	90	PASS	PASS - GOOD
BI_2942 OS80	12	12	10.8 - 13.2	PASS	0	0.00	-	1	8.33	-	61	62	55.8 - 68.2	PASS	1	1.61	-	0.1755	0.1738	0.13904 - 0.20856	PASS	97.6	90	PASS	PASS - GOOD
BI_2942 OS81	12	12	10.8 - 13.2	PASS	0	0.00	-	0	0.00	-	15	15	13.5 - 16.5	PASS	0	0.00	-	11.7492	11.7298	9.38384 - 14.07576	PASS	100	90	PASS	PASS - EXCELLENT
BI_2942 OS82	19	19	17.1 - 20.9	PASS	0	0.00	-	0	0.00	-	59	60	54 - 66	PASS	1	1.67	-	0.4369	0.4079	0.32632 - 0.48948	PASS	99.174	90	PASS	PASS - GOOD
BI_2943 OS80	46	46	41.4 - 50.6	PASS	0	0.00	-	1	2.17	-	148	148	133.2 - 162.8	PASS	0	0.00	-	0.3681	0.251	0.2008 - 0.3012	FAIL	99.338	90	PASS	PASS - GOOD
BI_2943 OS81	39	39	35.1 - 42.9	PASS	0	0.00	-	0	0.00	-	198	197	177.3 - 216.7	PASS	0	0.00	-	3.9161	3.7161	2.97288 - 4.45932	PASS	99.752	90	PASS	PASS - GOOD
BI_2943 OS82	51	50	45 - 55	PASS	0	0.00	-	1	2.00	-	462	463	416.7 - 509.3	PASS	0	0.00	-	6.0835	3.9193	3.13544 - 4.70316	FAIL	99.461	90	PASS	PASS - GOOD
BI_2944 OS80	17	22	19.8 - 24.2	FAIL	5	22.73	-	1	4.55	-	34	38	34.2 - 41.8	FAIL	4	10.53	-	0.0099	0.0109	0.00872 - 0.01308	PASS	90.11	90	PASS	PASS - ACCEPTABLE
BI_2944 OS81	35	35	31.5 - 38.5	PASS	0	0.00	-	1	2.86	-	147	148	133.2 - 162.8	PASS	1	0.68	-	2.3765	2.0715	1.6572 - 2.4858	PASS	98.983	90	PASS	PASS - GOOD
BI_2944 OS82	29	32	28.8 - 35.2	PASS	1	3.13	-	1	3.13	-	259	282	253.8 - 310.2	PASS	5	1.77	-	47.375	44.3433	35.47464 - 53.21196	PASS	94.312	90	PASS	PASS - ACCEPTABLE
BI_2945 OS80	70	70	63 - 77	PASS	1	1.43	-	5	7.14	-	194	194	174.6 - 213.4	PASS	3	1.55	-	3.6573	3.4298	2.74384 - 4.11576	PASS	91.686	90	PASS	PASS - ACCEPTABLE
BI_2945 OS81	55	58	52.2 - 63.8	PASS	4	6.90	Review	6	10.34	Reprocess	419	475	427.5 - 522.5	FAIL	60	12.63	Reprocess	3.3925	3.1236	2.49888 - 3.74832	PASS	86.947	90	FAIL	FAIL - POOR
BI_2945 OS82	36	40	36 - 44	PASS	2	5.00	-	2	5.00	-	172	175	157.5 - 192.5	PASS	2	1.14	-	0.1547	0.0938	0.07504 - 0.11256	FAIL	97.994	90	PASS	PASS - GOOD
BI_2946 OS80	28	29	26.1 - 31.9	PASS	1	3.45	-	2	6.90	-	1288	1336	1202.4 - 1469.6	PASS	19	1.42	-	13.9885	12.5637	10.05096 - 15.07644	PASS	94.59	90	PASS	PASS - ACCEPTABLE
BI_2946 OS81	43	45	40.5 - 49.5	PASS	2	4.44	-	0	0.00	-	471	497	447.3 - 546.7	PASS	22	4.43	-	3.2046	3.379	2.7032 - 4.0548	PASS	96.42	90	PASS	PASS - GOOD
BI_2946 OS82	9	9	8.1 - 9.9	PASS	0	0.00	-	0	0.00	-	696	701	630.9 - 771.1	PASS	5	0.71	-	7.1243	6.0198	4.81584 - 7.22376	PASS	99.21	90	PASS	PASS - GOOD
BI_2947 OS80	23	23	20.7 - 25.3	PASS	0	0.00	-	0	0.00	-	313	316	284.4 - 347.6	PASS	5	1.58	-	0.2614	0.296	0.2368 - 0.3552	PASS	97.95	90	PASS	PASS - GOOD
BI_2947 OS81	67	68	61.2 - 74.8	PASS	1	1.47	-	3	4.41	-	448	457	411.3 - 502.7	PASS	8	1.75	-	7.7763	6.7219	5.37752 - 8.06628	PASS	93.538	90	PASS	PASS - ACCEPTABLE
BI_2947 OS82	80	83	74.7 - 91.3	PASS	2	2.41	-	6	7.23	-	948	962	865.8 - 1058.2	PASS	15	1.56	-	129.079	107.168	85.73416 - 128.60124	FAIL	95.208	90	PASS	PASS - GOOD
BI_2948 OS80	34	34	30.6 - 37.4	PASS	0	0.00	-	0	0.00	-	108	109	98.1 - 119.9	PASS	0	0.00	-	0.2169	0.2071	0.16568 - 0.24852	PASS	99.563	90	PASS	PASS - GOOD
BI_2948 OS81	52	52	46.8 - 57.2	PASS	0	0.00	-	1	1.92	-	267	269	242.1 - 295.9	PASS	2	0.74	-	2.1728	2.7688	2.21504 - 3.32256	FAIL	94.815	90	PASS	PASS - ACCEPTABLE
BI_2948 OS82	42	42	37.8 - 46.2	PASS	1	2.38	-	4	9.52	-	545	557	501.3 - 612.7	PASS	15	2.69	-	14.1861	11.9223	9.53784 - 14.30676	PASS	97.101	90	PASS	PASS - GOOD

NB. This table details the findings of the audit only. For details of Own Sample remedial action please refer to NMBAQCS Year 29 Annual report, section 2.4.

Table 1. Summary of the performance of participating laboratories in the Own Sample (OS) exercises with respect to the NMBAQC standards.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Estimation of Taxa							Taxonomic errors			No. Individuals							Estimation of Biomass				Similarity Index			Sample Flag
	OD	AD	Target	Pass / Fail	Missed Taxa	% Missed	Remedial Action	OD	%	Remedial Action	OD	AD	Target	Pass / Fail	Missed Ind.	% Missed	Remedial Action	OD	AD	Target	Pass / Fail	BCSI %	Target	Pass / Fail	NMBAQC Sample Flag
BI_2949 OS80	48	50	45 - 55	PASS	1	2.00	-	6	12.00	-	856	863	776.7 - 949.3	PASS	4	0.46	-	68.0721	65.0366	52.02928 - 78.04392	PASS	97.499	90	PASS	PASS - GOOD
BI_2949 OS81	30	33	29.7 - 36.3	PASS	3	9.09	-	1	3.03	-	195	209	188.1 - 229.9	PASS	15	7.18	-	4.19557	3.6676	2.93408 - 4.40112	PASS	94.581	90	PASS	PASS - ACCEPTABLE
BI_2949 OS82	32	35	31.5 - 38.5	PASS	1	2.86	-	3	8.57	-	1288	1290	1161 - 1419	PASS	5	0.39	-	28.4226	26.934	21.5472 - 32.3208	PASS	98.682	90	PASS	PASS - GOOD
BI_2950 OS80	24	27	24.3 - 29.7	FAIL	3	11.11	Reprocess	7	25.93	Reprocess	804	820	738 - 902	PASS	17	2.07	-	10.9556	11.7682	9.41456 - 14.12184	PASS	61.207	90	FAIL	FAIL - BAD
BI_2950 OS81	38	41	36.9 - 45.1	PASS	4	9.76	Review	14	34.15	Reprocess	411	434	390.6 - 477.4	PASS	24	5.53	Review	8.3471	8.0134	6.41072 - 9.61608	PASS	56.568	90	FAIL	FAIL - BAD
BI_2950 OS82	24	25	22.5 - 27.5	PASS	4	16.00	Reprocess	7	28.00	Reprocess	281	290	261 - 319	PASS	20	6.90	Review	2.6438	2.5694	2.05552 - 3.08328	PASS	61.996	90	FAIL	FAIL - BAD
BI_2951 OS80	16	23	20.7 - 25.3	FAIL	7	30.43	Reprocess	2	8.70	Review	198	222	199.8 - 244.2	FAIL	27	12.16	Reprocess	5.8647	4.1522	3.32176 - 4.98264	FAIL	74.584	90	FAIL	FAIL - BAD
BI_2951 OS81	28	31	27.9 - 34.1	PASS	3	9.68	Review	2	6.45	Review	474	481	432.9 - 529.1	PASS	8	1.66	-	0.885	0.5674	0.45392 - 0.68088	FAIL	79.581	90	FAIL	FAIL - BAD
BI_2951 OS82	13	18	16.2 - 19.8	FAIL	5	27.78	Reprocess	2	11.11	Review	169	214	192.6 - 235.4	FAIL	45	21.03	Reprocess	2.3415	1.7459	1.39672 - 2.09508	FAIL	82.813	90	FAIL	FAIL - BAD
BI_2952 OS80	43	48	43.2 - 52.8	FAIL	2	4.17	-	12	25.00	Reprocess	486	515	463.5 - 566.5	PASS	37	7.18	Review	2.8516	2.4698	1.97584 - 2.96376	PASS	82.517	90	FAIL	FAIL - BAD
BI_2952 OS81	17	17	15.3 - 18.7	PASS	0	0.00	-	4	23.53	Reprocess	121	114	102.6 - 125.4	PASS	2	1.75	-	1.124	1	0.8 - 1.2	PASS	87.66	90	FAIL	FAIL - POOR
BI_2952 OS82	20	23	20.7 - 25.3	FAIL	2	8.70	Review	5	21.74	Reprocess	216	221	198.9 - 243.1	PASS	8	3.62	-	2.3667	2.0758	1.66064 - 2.49096	PASS	74.6	90	FAIL	FAIL - BAD
BI_2953 OS80	33	37	33.3 - 40.7	FAIL	3	8.11	Review	7	18.92	Reprocess	843	963	866.7 - 1059.3	FAIL	163	16.93	Reprocess	13.2664	12.8349	10.26792 - 15.40188	PASS	87.259	90	FAIL	FAIL - POOR
BI_2953 OS81	32	39	35.1 - 42.9	FAIL	1	2.56	-	9	23.08	Reprocess	655	734	660.6 - 807.4	FAIL	26	3.54	-	16.3968	18.0898	14.47184 - 21.70776	PASS	88.046	90	FAIL	FAIL - POOR
BI_2953 OS82	19	23	20.7 - 25.3	FAIL	2	8.70	Review	5	21.74	Reprocess	307	361	324.9 - 397.1	FAIL	56	15.51	Reprocess	2.6688	1.9182	1.53456 - 2.30184	FAIL	27.761	90	FAIL	FAIL - BAD

Key:

OD = Original Data (participant), AD = Auditor Data, Target for Estimation of Taxa and No. Individuals is +/- 10% AD, Target for Estimation of Biomass is +/- 20% AD, BCSI = Bray Curtis Similarity Index.

NB. This table details the findings of the audit only. For details of Own Sample remedial action please refer to NMBAQCS Year 29 Annual report, section 2.4.

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS80-82).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2901	OS80	AD count	2	46	-	-	33	62	42	18	203
		Missed	0	1	-	-	0	0	0	1	2
		%missed	0.0	2.2	-	-	0.0	0.0	0.0	5.6	1.0
	OS81	AD count	1	38	-	-	21	124	2	3	189
		Missed	0	0	-	-	0	1	0	0	1
		%missed	0.0	0.0	-	-	0.0	0.8	0.0	0.0	0.5
	OS82	AD count	1	19	-	-	20	91	1	1	133
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
BI_2904	OS80	AD count	30	940	1	-	309	1491	80	83	2934
		Missed	0	5	0	-	0	10	0	2	17
		%missed	0.0	0.5	0.0	-	0.0	0.7	0.0	2.4	0.6
	OS81	AD count	12	16	-	-	8	3	5	2	46
		Missed	1	0	-	-	0	0	0	0	1
		%missed	8.3	0.0	-	-	0.0	0.0	0.0	0.0	2.2
	OS82	AD count	2	898	21	1	1077	598	31	342	2970
		Missed	0	6	1	0	6	3	1	6	23
		%missed	0.0	0.7	4.8	0.0	0.6	0.5	3.2	1.8	0.8
BI_2905	OS80	AD count	-	107	-	-	8	66	3	-	184
		Missed	-	2	-	-	0	1	0	-	3
		%missed	-	1.9	-	-	0.0	1.5	0.0	-	1.6
	OS81	AD count	-	1	-	-	21	36	5	-	63
		Missed	-	1	-	-	0	3	0	-	4
		%missed	-	100.0	-	-	0.0	8.3	0.0	-	6.3
	OS82	AD count	-	-	-	-	6	36	11	-	53
		Missed	-	-	-	-	0	1	0	-	1
		%missed	-	-	-	-	0.0	2.8	0.0	-	1.9
BI_2906	OS80	AD count	-	1	-	-	-	-	-	-	1
		Missed	-	0	-	-	-	-	-	-	0
		%missed	-	0.0	-	-	-	-	-	-	0.0
	OS81	AD count	-	14	-	-	-	3	-	34	51
		Missed	-	0	-	-	-	0	-	0	0
		%missed	-	0.0	-	-	-	0.0	-	0.0	0.0
	OS82	AD count	-	-	-	-	-	5	-	-	5
		Missed	-	-	-	-	-	0	-	-	0
		%missed	-	-	-	-	-	0.0	-	-	0.0
BI_2907	OS80	AD count	-	976	-	-	-	2	-	-	978
		Missed	-	17	-	-	-	0	-	-	17
		%missed	-	1.7	-	-	-	0.0	-	-	1.7
	OS81	AD count	1	271	-	-	-	6	4	3	285
		Missed	0	7	-	-	-	0	0	0	7
		%missed	0.0	2.6	-	-	-	0.0	0.0	0.0	2.5
	OS82	AD count	2	130	1	-	-	180	1	1	315
		Missed	0	0	1	-	-	15	0	0	16
		%missed	0.0	0.0	100.0	-	-	8.3	0.0	0.0	5.1
BI_2908	OS80	AD count	-	144	40	-	10	119	3	-	316
		Missed	-	2	0	-	0	13	0	-	15
		%missed	-	1.4	0.0	-	0.0	10.9	0.0	-	4.7
	OS81	AD count	-	14	-	-	6	3	-	-	23
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
	OS82	AD count	-	55	-	-	20	29	3	-	107
		Missed	-	0	-	-	0	0	0	-	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	-	0.0
BI_2916	OS80	AD count	1	2	-	-	13	1	-	2	19
		Missed	0	0	-	-	0	0	-	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0
	OS81	AD count	-	58	1	-	14	43	-	1	117
		Missed	-	0	0	-	0	1	-	0	1
		%missed	-	0.0	0.0	-	0.0	2.3	-	0.0	0.9
	OS82	AD count	-	197	2	-	2	69	-	50	320
		Missed	-	3	0	-	0	2	-	0	5
		%missed	-	1.5	0.0	-	0.0	2.9	-	0.0	1.6
BI_2917	OS80	AD count	1	25	-	-	11	18	2	-	57
		Missed	0	0	-	-	0	0	0	-	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0
	OS81	AD count	-	55	-	-	15	3	3	-	76
		Missed	-	0	-	-	0	0	0	-	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	-	0.0
	OS82	AD count	-	18	-	-	15	9	6	1	49
		Missed	-	0	-	-	0	0	0	0	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS80-82).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2918	OS80	AD count	2	21	-	-	1	9	4	5	42
		Missed	0	0	-	-	0	0	1	0	1
		%missed	0.0	0.0	-	-	0.0	0.0	25.0	0.0	2.4
	OS81	AD count	-	76	1	-	30	44	16	14	181
		Missed	-	0	0	-	0	1	0	2	3
		%missed	-	0.0	0.0	-	0.0	2.3	0.0	14.3	1.7
	OS82	AD count	-	67	-	-	7	35	19	8	136
		Missed	-	0	-	-	0	1	0	2	3
		%missed	-	0.0	-	-	0.0	2.9	0.0	25.0	2.2
BI_2926	OS80	AD count	-	12	-	-	2	5	31	1	51
		Missed	-	0	-	-	0	1	0	0	1
		%missed	-	0.0	-	-	0.0	20.0	0.0	0.0	2.0
	OS81	AD count	1	24	-	-	15	49	2	2	93
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
	OS82	AD count	-	13	-	-	7	24	1	-	45
		Missed	-	1	-	-	0	0	0	-	1
		%missed	-	7.7	-	-	0.0	0.0	0.0	-	2.2
BI_2927	OS80	AD count	2	47	-	-	94	4	2	5	154
		Missed	0	3	-	-	1	0	0	0	4
		%missed	0.0	6.4	-	-	1.1	0.0	0.0	0.0	2.6
	OS81	AD count	-	126	152	-	14	2	-	13	307
		Missed	-	1	0	-	0	0	-	0	1
		%missed	-	0.8	0.0	-	0.0	0.0	-	0.0	0.3
	OS82	AD count	4	103	1	-	34	10	2	1	155
		Missed	0	1	0	-	0	0	0	0	1
		%missed	0.0	1.0	0.0	-	0.0	0.0	0.0	0.0	0.6
BI_2928	OS80	AD count	-	13	-	-	1	9	-	1	24
		Missed	-	0	-	-	0	0	-	0	0
		%missed	-	0.0	-	-	0.0	0.0	-	0.0	0.0
	OS81	AD count	1	36	-	-	14	105	6	2	164
		Missed	0	0	-	-	0	1	0	0	1
		%missed	0.0	0.0	-	-	0.0	1.0	0.0	0.0	0.6
	OS82	AD count	1	252	1	-	19	28	3	1	305
		Missed	0	0	0	-	0	0	0	0	0
		%missed	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
BI_2929	OS80	AD count	13	240	-	-	30	109	18	5	415
		Missed	0	0	-	-	0	0	1	0	1
		%missed	0.0	0.0	-	-	0.0	0.0	5.6	0.0	0.2
	OS81	AD count	6	670	-	-	33	255	50	2	1016
		Missed	0	3	-	-	0	1	0	0	4
		%missed	0.0	0.4	-	-	0.0	0.4	0.0	0.0	0.4
	OS82	AD count	2	95	-	-	20	157	5	1	280
		Missed	0	1	-	-	2	5	0	0	8
		%missed	0.0	1.1	-	-	10.0	3.2	0.0	0.0	2.9
BI_2930	OS80	AD count	7	3	6	-	15	4	-	1	36
		Missed	0	0	0	-	0	3	-	0	3
		%missed	0.0	0.0	0.0	-	0.0	75.0	-	0.0	8.3
	OS81	AD count	-	59	26	-	15	7	-	4	111
		Missed	-	4	3	-	0	5	-	1	13
		%missed	-	6.8	11.5	-	0.0	71.4	-	25.0	11.7
	OS82	AD count	-	80	22	-	17	7	-	-	126
		Missed	-	2	6	-	1	0	-	-	9
		%missed	-	2.5	27.3	-	5.9	0.0	-	-	7.1
BI_2931	OS80	AD count	-	6	1	-	9	2	-	-	18
		Missed	-	0	0	-	0	2	-	-	2
		%missed	-	0.0	0.0	-	0.0	100.0	-	-	11.1
	OS81	AD count	-	78	1	-	3	3	-	-	85
		Missed	-	0	0	-	0	0	-	-	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	-	0.0
	OS82	AD count	-	109	1	-	73	11	-	1	195
		Missed	-	2	0	-	2	0	-	1	5
		%missed	-	1.8	0.0	-	2.7	0.0	-	100.0	2.6
BI_2932	OS80	AD count	-	114	7	-	16	81	-	-	218
		Missed	-	3	1	-	0	30	-	-	34
		%missed	-	2.6	14.3	-	0.0	37.0	-	-	15.6
	OS81	AD count	-	37	-	-	23	110	8	-	178
		Missed	-	2	-	-	0	11	0	-	13
		%missed	-	5.4	-	-	0.0	10.0	0.0	-	7.3
	OS82	AD count	-	4	-	-	4	2	10	6	26
		Missed	-	1	-	-	0	0	3	0	4
		%missed	-	25.0	-	-	0.0	0.0	30.0	0.0	15.4

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS80-82).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2934	OS80	AD count	-	186	32	-	8	20	-	4	250
		Missed	-	1	0	-	1	0	-	0	2
		%missed	-	0.5	0.0	-	12.5	0.0	-	0.0	0.8
	OS81	AD count	-	89	4	2	27	8	-	49	179
		Missed	-	0	0	0	0	0	-	1	1
		%missed	-	0.0	0.0	0.0	0.0	0.0	-	2.0	0.6
	OS82	AD count	-	16	-	-	8	14	-	7	45
		Missed	-	0	-	-	0	0	-	0	0
		%missed	-	0.0	-	-	0.0	0.0	-	0.0	0.0
BI_2935	OS80	AD count	-	10	-	-	14	1	-	-	25
		Missed	-	1	-	-	1	0	-	-	2
		%missed	-	10.0	-	-	7.1	0.0	-	-	8.0
	OS81	AD count	-	164	43	-	29	-	-	-	236
		Missed	-	0	0	-	0	-	-	-	0
		%missed	-	0.0	0.0	-	0.0	-	-	-	0.0
	OS82	AD count	-	4	-	-	1	-	-	-	5
		Missed	-	0	-	-	0	-	-	-	0
		%missed	-	0.0	-	-	0.0	-	-	-	0.0
BI_2936	OS80	AD count	-	21	-	-	4	46	-	2	73
		Missed	-	1	-	-	0	1	-	0	2
		%missed	-	4.8	-	-	0.0	2.2	-	0.0	2.7
	OS81	AD count	1	4	1	-	11	1	-	7	25
		Missed	0	0	1	-	0	1	-	2	4
		%missed	0.0	0.0	100.0	-	0.0	100.0	-	28.6	16.0
	OS82	AD count	-	38	3	-	-	6	-	4	51
		Missed	-	0	0	-	-	0	-	0	0
		%missed	-	0.0	0.0	-	-	0.0	-	0.0	0.0
BI_2937	OS80	AD count	1	135	-	-	1	8	-	-	145
		Missed	0	0	-	-	0	0	-	-	0
		%missed	0.0	0.0	-	-	0.0	0.0	-	-	0.0
	OS81	AD count	-	727	759	-	4	6	-	1	1497
		Missed	-	34	29	-	1	3	-	0	67
		%missed	-	4.7	3.8	-	25.0	50.0	-	0.0	4.5
	OS82	AD count	-	3	-	-	2	5	-	1	11
		Missed	-	0	-	-	0	0	-	0	0
		%missed	-	0.0	-	-	0.0	0.0	-	0.0	0.0
BI_2938	OS80	AD count	-	-	-	-	-	-	-	-	-
		Missed	RESIDUE DISCARDED PRIOR TO AUDIT - EXCLUDED FROM SUMMARY ANALYSIS								-
		%missed	-	-	-	-	-	-	-	-	-
	OS81	AD count	-	12	-	-	25	1	-	-	38
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
	OS82	AD count	3	95	1	5	35	17	2	-	158
		Missed	0	0	0	0	0	0	0	-	0
		%missed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
BI_2939	OS80	AD count	-	494	1	-	-	166	-	16	677
		Missed	-	6	0	-	-	0	-	1	7
		%missed	-	1.2	0.0	-	-	0.0	-	6.3	1.0
	OS81	AD count	-	13	41	-	-	491	-	56	601
		Missed	-	1	0	-	-	0	-	0	1
		%missed	-	7.7	0.0	-	-	0.0	-	0.0	0.2
	OS82	AD count	-	21	12	-	-	79	-	10	122
		Missed	-	0	0	-	-	0	-	0	0
		%missed	-	0.0	0.0	-	-	0.0	-	0.0	0.0
BI_2940	OS80	AD count	-	71	1	-	16	30	-	-	118
		Missed	-	0	0	-	0	0	-	-	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	-	0.0
	OS81	AD count	-	104	7	-	11	5	-	16	143
		Missed	-	1	0	-	0	0	-	0	1
		%missed	-	1.0	0.0	-	0.0	0.0	-	0.0	0.7
	OS82	AD count	-	10	-	-	4	2	-	-	16
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
BI_2941	OS80	AD count	-	3	5	-	19	3	-	2	32
		Missed	-	0	0	-	0	0	-	0	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
	OS81	AD count	-	8	-	-	7	2	-	-	17
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
	OS82	AD count	-	46	44	-	51	3	-	-	144
		Missed	-	0	0	-	0	0	-	-	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	-	0.0

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS80-82).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2942	OS80	AD count	10	9	-	-	35	-	-	8	62
		Missed	0	0	-	-	0	-	-	1	1
		%missed	0.0	0.0	-	-	0.0	-	-	12.5	1.6
	OS81	AD count	-	4	-	-	4	-	-	7	15
		Missed	-	0	-	-	0	-	-	0	0
		%missed	-	0.0	-	-	0.0	-	-	0.0	0.0
	OS82	AD count	3	37	2	-	15	2	1	-	60
		Missed	0	0	0	-	0	1	0	-	1
		%missed	0.0	0.0	0.0	-	0.0	50.0	0.0	-	1.7
BI_2943	OS80	AD count	1	52	-	-	46	41	2	6	148
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
	OS81	AD count	1	72	-	3	32	89	-	-	197
		Missed	0	0	-	0	0	0	-	-	0
		%missed	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0
	OS82	AD count	38	329	6	-	6	63	7	14	463
		Missed	0	0	0	-	0	0	0	0	0
		%missed	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
BI_2944	OS80	AD count	1	2	-	4	15	12	2	2	38
		Missed	0	0	-	0	1	1	0	2	4
		%missed	0.0	0.0	-	0.0	6.7	8.3	0.0	100.0	10.5
	OS81	AD count	1	96	-	-	8	33	3	7	148
		Missed	0	0	-	-	0	1	0	0	1
		%missed	0.0	0.0	-	-	0.0	3.0	0.0	0.0	0.7
	OS82	AD count	8	155	-	-	36	80	2	1	282
		Missed	0	0	-	-	1	4	0	0	5
		%missed	0.0	0.0	-	-	2.8	5.0	0.0	0.0	1.8
BI_2945	OS80	AD count	2	69	14	-	34	39	34	2	194
		Missed	0	0	0	-	0	3	0	0	3
		%missed	0.0	0.0	0.0	-	0.0	7.7	0.0	0.0	1.5
	OS81	AD count	6	185	17	-	53	184	27	3	475
		Missed	0	4	2	-	1	50	3	0	60
		%missed	0.0	2.2	11.8	-	1.9	27.2	11.1	0.0	12.6
	OS82	AD count	5	108	5	-	14	38	1	4	175
		Missed	0	1	0	-	0	1	0	0	2
		%missed	0.0	0.9	0.0	-	0.0	2.6	0.0	0.0	1.1
BI_2946	OS80	AD count	-	261	5	-	26	1032	-	12	1336
		Missed	-	9	0	-	1	8	-	1	19
		%missed	-	3.4	0.0	-	3.8	0.8	-	8.3	1.4
	OS81	AD count	-	392	1	2	55	44	2	1	497
		Missed	-	13	0	0	1	6	1	1	22
		%missed	-	3.3	0.0	0.0	1.8	13.6	50.0	100.0	4.4
	OS82	AD count	-	534	44	-	28	95	-	-	701
		Missed	-	1	1	-	1	2	-	-	5
		%missed	-	0.2	2.3	-	3.6	2.1	-	-	0.7
BI_2947	OS80	AD count	1	95	112	-	6	80	-	22	316
		Missed	0	1	1	-	1	2	-	0	5
		%missed	0.0	1.1	0.9	-	16.7	2.5	-	0.0	1.6
	OS81	AD count	10	243	35	1	26	58	38	46	457
		Missed	0	3	3	0	0	0	0	2	8
		%missed	0.0	1.2	8.6	0.0	0.0	0.0	0.0	4.3	1.8
	OS82	AD count	12	448	54	-	50	172	91	135	962
		Missed	0	2	1	-	0	7	2	3	15
		%missed	0.0	0.4	1.9	-	0.0	4.1	2.2	2.2	1.6
BI_2948	OS80	AD count	-	33	2	-	17	55	-	2	109
		Missed	-	0	0	-	0	0	-	0	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
	OS81	AD count	-	114	3	-	66	77	6	3	269
		Missed	-	0	0	-	1	1	0	0	2
		%missed	-	0.0	0.0	-	1.5	1.3	0.0	0.0	0.7
	OS82	AD count	14	209	30	-	16	176	74	38	557
		Missed	0	12	0	-	3	0	0	0	15
		%missed	0.0	5.7	0.0	-	18.8	0.0	0.0	0.0	2.7
BI_2949	OS80	AD count	18	230	169	-	33	380	-	33	863
		Missed	0	2	0	-	0	2	-	0	4
		%missed	0.0	0.9	0.0	-	0.0	0.5	-	0.0	0.5
	OS81	AD count	17	89	5	2	15	71	3	7	209
		Missed	0	4	0	1	2	4	0	4	15
		%missed	0.0	4.5	0.0	50.0	13.3	5.6	0.0	57.1	7.2
	OS82	AD count	1	693	51	-	87	454	-	4	1290
		Missed	0	3	1	-	0	0	-	1	5
		%missed	0.0	0.4	2.0	-	0.0	0.0	-	25.0	0.4

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS80-82).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2950	OS80	AD count	2	543	10	-	41	220	-	4	820
		Missed	0	9	0	-	3	2	-	3	17
		%missed	0.0	1.7	0.0	-	7.3	0.9	-	75.0	2.1
	OS81	AD count	30	201	16	-	51	44	69	23	434
		Missed	1	1	1	-	0	16	5	0	24
		%missed	3.3	0.5	6.3	-	0.0	36.4	7.2	0.0	5.5
	OS82	AD count	6	70	96	-	27	88	-	3	290
		Missed	0	3	1	-	1	15	-	0	20
		%missed	0.0	4.3	1.0	-	3.7	17.0	-	0.0	6.9
BI_2951	OS80	AD count	-	178	1	-	15	25	-	3	222
		Missed	-	3	1	-	5	18	-	0	27
		%missed	-	1.7	100.0	-	33.3	72.0	-	0.0	12.2
	OS81	AD count	6	380	65	-	7	22	-	1	481
		Missed	0	0	0	-	0	8	-	0	8
		%missed	0.0	0.0	0.0	-	0.0	36.4	-	0.0	1.7
	OS82	AD count	1	139	58	-	4	11	-	1	214
		Missed	0	15	23	-	1	6	-	0	45
		%missed	0.0	10.8	39.7	-	25.0	54.5	-	0.0	21.0
BI_2952	OS80	AD count	14	337	57	1	47	55	-	4	515
		Missed	3	18	0	0	0	16	-	0	37
		%missed	21.4	5.3	0.0	0.0	0.0	29.1	-	0.0	7.2
	OS81	AD count	1	54	18	-	18	23	-	-	114
		Missed	0	1	0	-	1	0	-	-	2
		%missed	0.0	1.9	0.0	-	5.6	0.0	-	-	1.8
	OS82	AD count	2	146	13	-	4	37	-	19	221
		Missed	0	4	0	-	2	2	-	0	8
		%missed	0.0	2.7	0.0	-	50.0	5.4	-	0.0	3.6
BI_2953	OS80	AD count	2	9	-	-	25	918	-	9	963
		Missed	0	0	-	-	2	160	-	1	163
		%missed	0.0	0.0	-	-	8.0	17.4	-	11.1	16.9
	OS81	AD count	3	23	-	-	15	684	-	9	734
		Missed	1	1	-	-	0	24	-	0	26
		%missed	33.3	4.3	-	-	0.0	3.5	-	0.0	3.5
	OS82	AD count	12	225	5	-	7	112	-	-	361
		Missed	1	18	2	-	0	35	-	-	56
		%missed	8.3	8.0	40.0	-	0.0	31.3	-	-	15.5

Key: AD = Audit Data
Missed = numbers of individuals missed in residue sorting
% Missed = Percentage missed in residue sorting

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS80 - 82) (erroneous identifications in brackets).

LabCode / Smp.		Taxonomic Errors	Major Taxonomic Group					
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2901	OS80	2	-	-	-	*Lutraria* juv. (*Mya* juv.)	-	Filifera (Loxosomatidae)
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2904	OS80	1	-	-	-	-	*Amphiura filiformis* (*Amphipholis squamata*)	-
	OS81	0	-	-	-	-	-	-
	OS82	4	*Exogone verugera* (*Sphaerosyllis cf. taylori*)	-	*Eudorella truncatula* (*Pseudocuma longicorne*)	*Ondina divisa* (*Brachystomia eulimoides*)	-	-
			Praxillella affinis (*Leiochone*)	-	-	-	-	-
			Leiochone (*Praxillella affinis*)	-	-	-	-	-
BI_2905	OS80	4	*Lumbrineris cingulata* agg. (*Hilbigneris gracilis*)	-	*Diastylis bradyi* (male) (*Diastylis rathkei*)	*Abra alba* (*Abra prismatica*)	-	-
			Chaetozone christiei (*Chaetozone setosa*)	-	-	-		-
	OS81	0	-	-	-	-	-	-
	OS82	1	-	-	*Diastylis bradyi* (male) (*Diastylis rathkei*)	-	-	-
BI_2906	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2907	OS80	1	*Caulleriella* species C *(Caulleriella alata)*	-	-	-	-	-
	OS81	2	*Caulleriella* species C *(Chaetozone christiei)*	-	-	-	-	*Ciona intestinalis (Ascidiella)*
	OS82	3	*Cirriformia* juv *(Caulleriella alata)*	-	-	-	-	-
			Capitella (Mediomastus fragilis)	-	-	-	-	-
			Fabulina fabula (Moerella pygmaea)	-	-	-	-	-
BI_2908	OS80	2	*Phyllodoce mucosa (Eteone)*	-	-	-	-	-
			Pholoe baltica (Sthenelais boa)	-	-	-	-	-
	OS81	1	-	-	*Caprella mutica (Caprella linearis)*	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2916	OS80	0	-	-	-	-	-	-
	OS81	2	-	*Limnodriloides* (*Tubificoides pseudogaster* _Aggregate)	-	-	-	Rhodothamniella (Cladophora)
	OS82	1	*Pseudopolydora nordica (Pseudopolydora paucibranchiata)*	-	-	-	-	-
BI_2917	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2918	OS80	1	-	-	-	*Tellimya tenella (Tellimya ferruginosa)*	-	-
	OS81	2	-	-	-	*Kurtiella bidentata (Kurtiella tumidula)*	-	-
			-	-	-	*Tellimya tenella (Tellimya ferruginosa)*	-	-
	OS82	1	*Abyssoninoe hibernica (Abyssoninoe abyssorum cf)*	-	-	-	-	-
BI_2926	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2927	OS80	0	-	-	-	-	-	-
	OS81	1	*Spio malmgreni (Spio arndti)*	-	-	-	-	-
	OS82	1	*Spio symphyta (Spio armata)*	-	-	-	-	-
BI_2928	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2929	OS80	3	*Paradoneis eliasoni (Paradoneis lyra)*	-	*Nephrops norvegicus* juv. (AXIIDEA Juvenile)	*Abra alba (Abra nitida)*	-	-
	OS81	4	*Paradoneis eliasoni (Paradoneis lyra)*	-	Aoridae female (Photidae)	*Adontorhina similis (Abra nitida)*	-	Edwardsiidae (SIPUNCULA)
	OS82	0	-	-	-	-	-	-
BI_2930	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	1	-	-	*Pseudocuma longicorne (Monopseudocuma gilsoni)*	-	-	-
BI_2931	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2932	OS80	2	*Prionospio pulchra (Prionospio cirrifera)*	-	-	-	-	-
			Podarkeopsis (Psamathe fusca)	-	-	-	-	-
	OS81	3	-	-	*Urothoe pulchella (Urothoe brevicornis)*	*Abra alba (Abra prismatica)*	-	-
			-	-	-	*Chamelea gallina* juv. *(Venus casina)*	-	-
	OS82	0	-	-	-	-	-	-
BI_2934	OS80	1	-	*Tubificoides galiciensis (Arenicolidae* Juvenile*)*	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2935	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2936	OS80	1	-	-	-	-	-	*Eugyra arenosa (Molgula)*
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2937	OS80	0	-	-	-	-	-	-
	OS81	1	-	-	-	*Scrobicularia plana* juv. *(Abra* Juvenile*)*	-	-
	OS82	0	-	-	-	-	-	-
BI_2938	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	2	*Spio decorata (Spio symphyta)*	-	-	-	-	*Audouinella* (*Ectocarpus* aggregate)
BI_2939	OS80	0	-	-	-	-	-	-
	OS81	3	*Manayunkia aestuarina (Rubifabriciola berkeleyi)*	Enchytraeidae (Naididae)	-	-	-	Dalyelliidae (*Limapontia*)
	OS82	0	-	-	-	-	-	-

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS80 - 82) (erroneous identifications in brackets).

LabCode / Smp.		Taxonomic Errors	Major Taxonomic Group					
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2940	OS80	0	-	-	-	-	-	-
	OS81	2	*Ampharete lindstroemi* (*Ampharete* cf. *acutifrons*)	-	-	-	-	*Audouinella* (*Sphacelaria*)
	OS82	0	-	-	-	-	-	-
BI_2941	OS80	0	-	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	1	-	-	-	*Cerastoderma edule* (*Cerastoderma glaucum*)	-	-
BI_2942	OS80	1	*Streptosyllis bidentata (Streptosyllis campoyi)*	-	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2943	OS80	1	-	-	-	*Euspira catena* juv. (*Euspira nitida*)	-	-
	OS81	0	-	-	-	-	-	-
	OS82	1	-	-	-	*Tellimya ferruginosa (Mendicula ferruginosa)*	-	-
BI_2944	OS80	1	-	-	-	-	-	*Alcyonidium mamillatum* (*Alcyonidium parasiticum*)
	OS81	1	-	-	-	*Abra alba* (*Kurtiella bidentata*)	-	-
	OS82	1	-	-	-	*Turbonilla acuta* (*Parthenina decussata*)	-	-
BI_2945	OS80	5	*Aphelochaeta* species A (*Aphelochaeta marioni*)	-	*Eurydice truncata* (*Eurydice inermis*)	-	-	-
			Chaetozone zetlandica (*Chaetozone gibber*)	-	-	-	-	-
			Praxillella affinis (*Euclymene oerstedii* _Aggregate)	-	-	-	-	-
			Tharyx killariensis (*Tharyx maryae*)	-	-	-	-	-
	OS81	6	*Aphelochaeta* species A (*Aphelochaeta marioni*)	-	*Harpinia crenulata* (*Harpinia antennaria*)	*Moerella donacina* (Tellininae_Juvenile)	-	-
			Praxillella affinis (*Euclymene oerstedii* _Aggregate)	-	-	-	-	-
			Magelona minuta (*Magelona alleni*)	-	-	-	-	-
			Tharyx killariensis & Chaetozone gibber (*Tharyx maryae*)	-	-	-	-	-
	OS82	2	-	*Tubificoides amplivasatus* (*Tubificoides pseudogaster* _aggregate)	*Bathyporeia elegans* (*Bathyporeia tenuipes*)	-	-	-
BI_2946	OS80	2	*Chaetozone gibber* (*Chaetozone zetlandica*)	*Tubificoides amplivasatus* agg. (*Tubificoides diazi* _aggregate)	-	-	-	-
	OS81	0	-	-	-	-	-	-
	OS82	0	-	-	-	-	-	-
BI_2947	OS80	0	-	-	-	-	-	-
	OS81	3	*Pholoe baltica* (*Pholoe inornata*)	-	*Pontocrates moorei* (*Pontocrates arenarius*)	*Philinissima denticulata* (*Diaphana minuta*)	-	-
	OS82	6	*Pholoe baltica* (*Pholoe inornata*)	-	*Bodotria* (*Cumella pygmaea*)	*Philinissima denticulata* (*Diaphana minuta*)	-	*Golfingia vulgaris* (*Golfingia* (*Golfingia*) *elongata*)
			-	-	-	*Mytilus edulis* juv. (*Modiolus modiolus* _juvenile)	-	-
			-	-	-	*Mya truncata* juv. & *Phaxas pellucidus* (*Mya arenaria* _juvenile)	-	-
BI_2948	OS80	0	-	-	-	-	-	-
	OS81	1	*Spio decorata* (*Spio symphyta*)	-	-	-	-	-
	OS82	4	*Spio decorata* (*Prionospio multibranchiata*)	-	-	Nuculidae juv. (*Kurtiella bidentata*)	-	-
			Tharyx killariensis (*Aphelochaeta* sp. A)	-	-	*Abra nitida* (*Abra alba*)	-	-
BI_2949	OS80	6	-	-	*Ampelisca pseudosarsi* (*Ampelisca sarsi*)	*Parthenina* (*Brachystomia* sp.)	-	-
			-	-	*Synchelidium longidigitatum* (*Synchelidium maculatum*)	*Bittium reticulatum* (*Cerithidium submammillatum*)	-	-
			-	-	-	Philinidae (*Retusa umbilicata*)	-	-
			-	-	-	*Parvicardium simile* (*Papillicardium papillosum*)	-	-
	OS81	1	-	-	*Ampelisca pseudospinimana (Ampelisca sarsi)*	-	-	-
	OS82	3	*Spio* (*Prionospio maciolekae*)	-	*Ampelisca pseudospinimana* (*Ampelisca sarsi*)	*Mytilaster minimus* (*Mytilaster lineatus* juv.)	-	-
BI_2950	OS80	7	*Micronephthys longicornis* (*Nephtys hombergii*)	Naididae (Capitellidae sp.)	*Ampelisca pseudospinimana* (*Ampelisca sarsi*)	*Pitar rudis* & *Chamelea gallina* (*Gouldia minima*)	-	-
			Nephtys juv. (*Micronephthys longicornis*)	-	-	-	-	-
			Prionospio maciolekae & *Spio* (*Polydora cornuta*)	-	-	-	-	-
			Prionospio maciolekae (*Prionospio multibranchiata*)	-	-	-	-	-
	OS81	14	*Nephtys hombergii* (*Nephtys cirrosa*)	-	*Ampelisca pseudospinimana* (*Ampelisca sarsi*)	*Gouldia minima* (*Pitar rudis*)	-	Nemertea (*Heteromastus filiformis*)
			Nephtys juv. (*Micronephthys longicornis*)	-	*Synchelidium longidigitatum* (*Synchelidium maculatum*)	-	-	-
			Sphaerosyllis (*Exogone naidina*)	-	*Caprella acanthifera* (*Phtisica marina*)	-	-	-
			Heteromastus filiformis (*Capitella* sp.)	-	*Medicorophium runcicorne* & *Megamphopus cornutus* (*Microdeutopus* sp.)	-	-	-
			Prionospio maciolekae (*Prionospio cirrifera*)	-	-	-	-	-
			Prionospio maciolekae (*Prionospio multibranchiata*)	-	-	-	-	-
			Prionospio maciolekae (*Aricidea* sp.)	-	-	-	-	-
			Heteromastus filiformis (Oligochaeta sp.)	-	-	-	-	-
	OS82	7	*Heteromastus filiformis* (*Capitella* sp.)	-	*Ampelisca pseudospinimana* (*Ampelisca sarsi*)	*Abra nitida* (*Abra prismatica*)	-	-
			Polydora cornuta (*Melinna palmata* juv.)	-	-	*Pitar rudis* (*Gouldia minima*)	-	-
			Prionospio maciolekae (*Prionospio multibranchiata*)	-	-	-	-	-
			Prionospio maciolekae (*Prionospio cirrifera*)	-	-	-	-	-

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS80 - 82) (erroneous identifications in brackets).

LabCode / Smp.		Taxonomic Errors	Major Taxonomic Group						
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2951	OS80	2	*Prionospio maciolekae* (*Prionospio multibranchiata*)	-	*Ampelisca pseudosarsi* (*Ampelisca diadema*)	-	-	-
	OS81	2	*Prionospio maciolekae* (*Prionospio cirrifera*)	-	-	*Polititapes aureus* juv. (*Gouldia minima*)	-	-
	OS82	2	*Prionospio maciolekae* (*Prionospio multibranchiata*)	-	*Ampelisca pseudosarsi* (*Ampelisca diadema*)	-	-	-
BI_2952	OS80	12	*Lagis neapolitana* (*Lagis koreni*)	-	*Microdeutopus versiculatus* (*Bathyporeia guilliamsoniana*)	*Mangelia pontica* (*Cytharella costulata*)	-	-
			Aonides oxycephala (*Paradoneis harpagonea*)	-	*Medicorophium runcicorne* (*Crassicorophium crassicorne*)	*Fabulina fabula* (*Macomangulus tenuis*)	-	-
			Eumida sanguinea agg. (*Phyllodoce mucosa*)	-	-	*Moerella donacina* (*Thracia phaseolina*)	-	-
			Amphitritides gracilis (*Polycirrus* sp.)	-	-	-	-	-
			Prionospio maciolekae & *Spio* (*Prionospio cirrifera*)	-	-	-	-	-
			Schistomeringos rudolphi (*Protodorvillea kefersteini*)	-	-	-	-	-
			Prionospio maciolekae (*Spio filicornis*)	-	-	-	-	-
	OS81	4	*Heteromastus filiformis* (*Aricidea claudiae*)	-	*Medicorophium runcicorne* (*Crassicorophium crassicorne*)	*Abra nitida* (*Abra alba*)	-	-
			Nephtys hombergi (*Nephtys hystricis*)	-	-	-	-	-
	OS82	5	*Leiochone* (*Micromaldane ornithochaeta*)	-	-	*Gastrana fragilis* (*Macomangulus tenuis*)	-	-
			Capitella (Oligochaeta)	-	-	-	-	-
			Prionospio maciolekae (*Prionospio cirrifera*)	-	-	-	-	-
			Microspio & *Prionospio maciolekae* (*Spio filicornis*)	-	-	-	-	-
BI_2953	OS80	7	-	-	*Ampelisca pseudosarsi* (*Ampelisca sarsi*)	*Fabulina fabula* (*Moerella donacina*)	-	Actiniaria (*Ascidiella* sp)
			-	-	*Perioculodes longimanus* & *Bathyporeia* (*Monoculodopsis longimana*)	*Mytilus galloprovincialis* (*Modiolula phaseolina*)	-	-
			-	-	-	*Mytilus galloprovincialis* (*Mytilaster lineatus*)	-	-
			-	-	-	*Mytilaster* juv. (*Mytilus galloprovincialis*)	-	-
	OS81	9	*Nereis zonata* (*Eunereis longissima*)	-	*Ampelisca pseudosarsi* (*Ampelisca sarsi*)	*Abra alba* & *Fabulina fabula* (*Abra nitida*)	-	Edwardsiidae (*Phoronis euxinicola*)
			Hydroides dianthus & *Sabellaria taurica* (*Hydroides norvegica*)	-	Gilvossius (*Callianassa* sp.)	*Mytilaster* juv. (*Mytilus galloprovincialis*)	-	*Molgula* (*Ascidiella* sp.)
			Magelona filiformis (*Magelona mirabilis*)	-	-	-	-	-
	OS82	5	*Aricidea claudiae* (*Aricidea cerrutii*)	-	-	*Cerithidium perparvulum* (*Cerithidium submammillatum*)	-	-
			Sphaerosyllis (*Exogone naidina*)	-	-	*Abra alba* (*Abra nitida*)	-	-
			-	-	-	*Parvicardium simile* (*Papillicardium papillosum*)	-	-
TOTAL		175	76	6	32	47	1	14
% Error			43	3	18	27	1	8

NB: % errors for taxonomic groups are percentages of the total errors generated by each taxon (not percentages of errors within each taxon)

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS80-OS82.

OS80

LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2904	OD	0.1671	3.8660	0.0001	-	0.4350	0.7262	3.0588	0.3310	8.5842
	AD	0.1709	4.0413	0.0001	-	0.4312	0.7549	2.8279	0.3249	8.5512
	%diff.	-2.27	-4.53	0.00	-	0.87	-3.95	7.55	1.84	0.3844
BI_2908	OD	-	3.8787	0.0035	-	0.0065	6.2133	3.1012	-	13.2032
	AD	-	1.9579	0.0021	-	0.0044	4.4276	2.5714	-	8.9634
	%diff.	-	49.5217	40.0000	-	32.3077	28.7400	17.0837	-	32.1119
BI_2916	OD	0.0001	0.0002	-	-	0.0166	0.0002	-	0.0006	0.0177
	AD	0.0001	0.0012	-	-	0.0174	0.0002	-	0.0006	0.0195
	%diff.	0.0000	-500.0000	-	-	-4.8193	0.0000	-	0.0000	-10.17
BI_2936	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2940	OD	-	1.4976	0.0001	-	0.0448	1.2111	-	-	2.7536
	AD	-	1.5544	0.0001	-	0.0441	1.3776	-	-	2.9762
	%diff.	-	-3.79	0.00	-	1.56	-13.75	-	-	-8.08
BI_2941	OD	-	0.0026	0.0015	-	0.0014	0.0001	-	0.0016	0.0072
	AD	-	0.0018	0.0013	-	0.0015	0.0001	-	0.0010	0.0057
	%diff.	-	30.77	13.33	-	-7.14	0.00	-	37.50	20.83
BI_2942	OD	0.0001	0.1412	-	-	0.0341	-	-	0.0001	0.1755
	AD	0.0001	0.1466	-	-	0.0270	-	-	0.0001	0.1738
	%diff.	0.00	-3.82	-	-	20.82	-	-	0.00	0.97
BI_2943	OD	0.0004	0.2357	-	-	0.0136	0.1107	0.0045	0.0032	0.3681
	AD	0.0002	0.1579	-	-	0.0094	0.0793	0.0025	0.0017	0.2510
	%diff.	50.00	33.01	-	-	30.88	28.36	44.44	46.88	31.81
BI_2944	OD	0.0001	0.0019	-	0.0031	0.0005	0.0018	0.0025	-	0.0099
	AD	0.0005	0.0022	-	0.0028	0.0006	0.0025	0.0023	-	0.0109
	%diff.	-400.00	-15.79	-	9.68	-20.00	-38.89	8.00	-	-10.10
BI_2945	OD	0.0018	1.2801	0.0024	-	1.6598	0.0667	0.5934	0.0002	3.6044
	AD	0.0011	1.1045	0.0018	-	1.6027	0.0641	0.6554	0.0002	3.4298
	%diff.	38.89	13.72	25.00	-	3.44	3.90	-10.45	0.00	4.84
BI_2946	OD	-	1.4199	0.0001	-	0.0307	12.5021	-	0.0357	13.9885
	AD	-	1.4968	0.0001	-	0.0223	11.0068	-	0.0377	12.5637
	%diff.	-	-5.42	0.00	-	27.36	11.96	-	-5.60	10.19
BI_2947	OD	0.0002	0.0837	0.0128	-	0.0005	0.1626	-	0.0016	0.2614
	AD	0.0003	0.0961	0.0142	-	0.0003	0.1832	-	0.0019	0.2960
	%diff.	-50.00	-14.81	-10.94	-	40.00	-12.67	-	-18.75	-13.24
BI_2948	OD	0.0028	0.1076	0.0001	-	0.0033	0.1028	-	0.0003	0.2169
	AD	0.0024	0.0979	0.0001	-	0.0024	0.1040	-	0.0003	0.2071
	%diff.	14.29	9.01	0.00	-	27.27	-1.17	-	0.00	4.52
BI_2949	OD	0.3245	2.2100	0.0300	-	0.0186	65.2190	-	0.2700	68.0721
	AD	0.2175	1.2424	0.0259	-	0.0100	63.3683	-	0.1725	65.0366
	%diff.	32.97	43.78	13.67	-	46.24	2.84	-	36.11	4.46
BI_2950	OD	-	0.2917	-	-	-	10.6639	-	-	10.9556
	AD	-	0.2732	-	-	-	11.4950	-	-	11.7682
	%diff.	-	6.34	-	-	-	-7.79	-	-	-7.42
BI_2951	OD	-	0.5249	-	-	5.2074	0.1307	-	0.0017	5.8647
	AD	-	0.2350	-	-	3.8036	0.1128	-	0.0008	4.1522
	%diff.	-	55.23	-	-	26.96	13.70	-	52.94	29.20
BI_2952	OD	0.0406	0.9403	0.0174	0.0001	0.0228	1.6787	-	0.1517	2.8516
	AD	0.0273	0.7337	0.0050	0.0001	0.0154	1.5912	-	0.0971	2.4698
	%diff.	32.76	21.97	71.26	0.00	32.46	5.21	-	35.99	13.39
BI_2953	OD	0.0209	0.0204	-	-	0.0828	13.0230	-	0.1193	13.2664
	AD	0.0133	0.0122	-	-	0.0543	12.7178	-	0.0373	12.8349
	%diff.	36.36	40.20	-	-	34.42	2.34	-	68.73	3.25

Key: OD - Own data, participating laboratory
AD - Audit data
"-" - No data.

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS80-OS82.

OS81

LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2904	OD	0.0010	0.0492	-	-	0.0014	0.0003	0.0010	0.0002	0.0531
	AD	0.0003	0.0391	-	-	0.0007	0.0002	0.0008	0.0002	0.0413
	%diff.	70.0000	20.5285	-	-	50.0000	33.3333	20.0000	0.0000	22.2222
BI_2908	OD	-	0.4637	-	-	0.0389	1.2409	-	-	1.7435
	AD	-	0.2082	-	-	0.0168	1.1039	-	-	1.3289
	%diff.	-	55.10	-	-	56.81	11.04	-	-	23.7798
BI_2916	OD	-	0.5456	0.0001	-	0.0220	0.3383	-	0.0011	0.9071
	AD	-	0.4841	0.0001	-	0.0188	0.3359	-	0.0011	0.8400
	%diff.	-	11.27	0.00	-	14.55	0.71	-	0.00	7.40
BI_2936	OD	0.0001	0.0323	-	-	0.0002	-	-	0.0002	0.0328
	AD	0.0001	0.0275	-	-	0.0002	-	-	0.0002	0.0280
	%diff.	0.00	14.86	-	-	0.00	-	-	0.00	14.63
BI_2940	OD	-	0.4272	0.0003	-	0.0038	0.0294	-	0.0004	0.4611
	AD	-	0.4540	0.0003	-	0.0041	0.0262	-	0.0004	0.4850
	%diff.	-	-6.27	0.00	-	-7.89	10.88	-	0.00	-5.18
BI_2941	OD	-	0.0065	-	-	0.0012	0.0027	-	-	0.0104
	AD	-	0.0054	-	-	0.0010	0.0027	-	-	0.0091
	%diff.	-	16.92	-	-	16.67	0.00	-	-	12.50
BI_2942	OD	-	0.0038	-	-	0.0051	-	-	11.7403	11.7492
	AD	-	0.0036	-	-	0.0049	-	-	11.7213	11.7298
	%diff.	-	5.26	-	-	3.92	-	-	0.16	0.17
BI_2943	OD	0.0026	0.1264	-	0.0032	0.0073	3.7721	0.0045	-	3.9161
	AD	0.0013	0.0790	-	0.0018	0.0040	3.6269	0.0031	-	3.7161
	%diff.	50.00	37.50	-	43.75	45.21	3.85	31.11	-	5.11
BI_2944	OD	0.0306	0.1742	-	-	0.0110	1.5479	0.5696	0.0432	2.3765
	AD	0.0257	0.0927	-	-	0.0043	1.4575	0.4666	0.0247	2.0715
	%diff.	16.01	46.79	-	-	60.91	5.84	18.08	42.82	12.83
BI_2945	OD	0.3202	1.2333	0.0008	-	0.0154	0.2286	1.2229	0.3706	3.3918
	AD	0.2912	1.0833	0.0007	-	0.0118	0.2299	1.1865	0.3202	3.1236
	%diff.	9.06	12.16	12.50	-	23.38	-0.57	2.98	13.60	7.91
BI_2946	OD	-	2.8396	0.0001	0.0012	0.2227	0.1178	0.0232	-	3.2046
	AD	-	3.0133	0.0001	0.0008	0.2305	0.1106	0.0237	-	3.3790
	%diff.	-	-6.12	0.00	33.33	-3.50	6.11	-2.16	-	-5.44
BI_2947	OD	0.0201	1.7312	0.0042	0.0002	0.1165	1.9963	3.7391	0.1654	7.7730
	AD	0.0128	1.2079	0.0036	0.0001	0.1170	1.8900	3.3648	0.1257	6.7219
	%diff.	36.32	30.23	14.29	50.00	-0.43	5.32	10.01	24.00	13.52
BI_2948	OD	-	0.1394	0.0005	-	0.0260	1.8140	0.1834	0.0095	2.1728
	AD	-	0.0801	0.0003	-	0.0176	2.5116	0.1524	0.0068	2.7688
	%diff.	-	42.54	40.00	-	32.31	-38.46	16.90	28.42	-27.43
BI_2949	OD	0.0325	0.4996	0.0010	0.0003	0.0379	3.6034	0.0100	0.0108	4.1955
	AD	0.0077	0.3326	0.0003	0.0002	0.0160	3.3017	0.0033	0.0058	3.6676
	%diff.	76.31	33.43	70.00	33.33	57.78	8.37	67.00	46.30	12.58
BI_2950	OD	-	-	-	-	-	8.3471	-	-	8.3471
	AD	-	-	-	-	-	8.0134	-	-	8.0134
	%diff.	-	-	-	-	-	4.00	-	-	4.00
BI_2951	OD	0.0443	0.3378	0.0081	-	0.2536	0.2408	-	0.0004	0.8850
	AD	0.0252	0.1781	0.0062	-	0.1371	0.2205	-	0.0003	0.5674
	%diff.	43.12	47.28	23.46	-	45.94	8.43	-	25.00	35.89
BI_2952	OD	0.0045	0.0623	0.0042	-	0.0027	1.0503	-	-	1.1240
	AD	0.0021	0.0377	0.0028	-	0.0020	0.9554	-	-	1.0000
	%diff.	53.33	39.49	33.33	-	25.93	9.04	-	-	11.03
BI_2953	OD	0.0024	0.0377	-	-	0.0206	16.3137	-	0.0224	16.3968
	AD	0.0013	0.1235	-	-	0.0140	17.9442	-	0.0068	18.0898
	%diff.	45.83	-227.59	-	-	32.04	-9.99	-	69.64	-10.33

Key: OD - Own data, participating laboratory
AD - Audit data
"-" - No data.

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS80-OS82.

		OS82								
LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2904	OD	0.0012	3.9377	0.0135	0.0018	0.7940	1.5719	0.3559	0.0831	6.7591
	AD	0.0007	3.7668	0.0005	0.0013	0.6965	1.5918	0.3539	0.0798	6.4913
	%diff.	41.67	4.34	96.30	27.78	12.28	-1.27	0.56	3.97	3.9621
BI_2908	OD	0.1340	0.7091	-	-	0.0069	11.6610	1.5842	-	14.0952
	AD	0.0791	0.3557	-	-	0.0040	9.8119	1.3230	-	11.5737
	%diff.	40.97	49.84	-	-	42.03	15.86	16.49	-	17.8891
BI_2916	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2936	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2940	OD	-	0.0965	-	-	0.0035	0.0055	-	-	0.1055
	AD	-	0.1006	-	-	0.0030	0.0055	-	-	0.1091
	%diff.	-	-4.25	-	-	14.29	0.00	-	-	-3.41
BI_2941	OD	0.0001	0.2706	0.0068	-	0.0247	1.8377	-	-	2.1399
	AD	0.0001	0.2506	0.0063	-	0.0219	1.8023	-	-	2.0812
	%diff.	0.00	7.39	7.35	-	11.34	1.93	-	-	2.74
BI_2942	OD	0.0084	0.4055	0.0001	-	0.0220	0.0008	0.0001	-	0.4369
	AD	0.0071	0.3813	0.0001	-	0.0186	0.0007	0.0001	-	0.4079
	%diff.	15.48	5.97	0.00	-	15.45	12.50	0.00	-	6.64
BI_2943	OD	0.0177	0.7402	0.0003	-	0.0005	0.9592	4.3599	0.0057	6.0835
	AD	0.0120	0.5081	0.0002	-	0.0005	0.7870	2.6076	0.0039	3.9193
	%diff.	32.20	31.36	33.33	-	0.00	17.95	40.19	31.58	35.57
BI_2944	OD	0.0346	0.6466	-	-	0.0039	43.4893	1.8304	1.3702	47.3750
	AD	0.0295	0.4036	-	-	0.0052	41.2294	1.5784	1.0972	44.3433
	%diff.	14.74	37.58	-	-	-33.33	5.20	13.77	19.92	6.40
BI_2945	OD	0.0016	0.1338	0.0001	-	0.0022	0.0167	0.0001	0.0002	0.1547
	AD	0.0018	0.0683	0.0001	-	0.0026	0.0206	0.0001	0.0003	0.0938
	%diff.	-12.50	48.95	0.00	-	-18.18	-23.35	0.00	-50.00	39.37
BI_2946	OD	-	7.0481	0.0203	-	0.0073	0.0486	-	-	7.1243
	AD	-	5.9444	0.0151	-	0.0065	0.0538	-	-	6.0198
	%diff.	-	15.66	25.62	-	10.96	-10.70	-	-	15.50
BI_2947	OD	0.0670	3.9990	0.0098	-	0.0344	94.7192	29.6208	0.2589	128.7091
	AD	0.0425	1.9397	0.0067	-	0.0274	88.0578	16.9401	0.1535	107.1677
	%diff.	36.57	51.50	31.63	-	20.35	7.03	42.81	40.71	16.74
BI_2948	OD	0.0056	1.4448	0.0039	-	0.0047	0.4936	11.0467	1.1868	14.1861
	AD	0.0050	0.8919	0.0031	-	0.0050	0.4390	9.6680	0.9103	11.9223
	%diff.	10.71	38.27	20.51	-	-6.38	11.06	12.48	23.30	15.96
BI_2949	OD	0.0140	1.6976	0.0100	-	0.7110	26.0400	-	0.0100	28.4826
	AD	0.0055	1.0276	0.0019	-	1.2292	24.6676	-	0.0022	26.9340
	%diff.	60.71	39.47	81.00	-	-72.88	5.27	-	78.00	5.44
BI_2950	OD	-	-	-	-	-	2.6438	-	-	2.6438
	AD	-	-	-	-	-	2.5694	-	-	2.5694
	%diff.	-	-	-	-	-	2.81	-	-	2.81
BI_2951	OD	0.0007	0.2436	0.0054	-	0.8980	0.7676	-	0.4262	2.3415
	AD	0.0004	0.1386	0.0031	-	0.6356	0.7263	-	0.2419	1.7459
	%diff.	42.86	43.10	42.59	-	29.22	5.38	-	43.24	25.44
BI_2952	OD	0.0042	0.4064	0.0026	-	0.0011	1.8298	-	0.1226	2.3667
	AD	0.0029	0.2683	0.0018	-	0.0009	1.7403	-	0.0616	2.0758
	%diff.	30.95	33.98	30.77	-	18.18	4.89	-	49.76	12.29
BI_2953	OD	0.0156	0.2309	0.0005	-	0.0041	2.4177	-	-	2.6688
	AD	0.0074	0.1106	0.0003	-	0.0030	1.7969	-	-	1.9182
	%diff.	52.56	52.10	40.00	-	26.83	25.68	-	-	28.13

Key: OD - Own data, participating laboratory
AD - Audit data
"-" - No data.

Table 5. Comparison of the overall performance of laboratories in the Own Sample exercises from 1995/96 to 2022/23 (OS01-82).

		Number of samples		
Scheme Year	**Exercise**	**Pass (>90% BCSI)**	**Fail (<90% BCSI)**	**% Pass**
02 (1995/96)	01	14	0	100
03 (1996/97)	02, 03, 04	27	11	71
04 (1997/98)	05, 06, 07	33	7	83
05 (1998/99)	08, 09, 10	30	12	71
06 (1999/00)	11, 12, 13	37	14	73
07 (2000/01)	14, 15, 16	30	15	67
08 (2001/02)*	17, 18, 19	35	10	78
09 (2002/03)*	20, 21, 22	33	11	75
10 (2003/04)*	23, 24, 25	43	8	84
11 (2004/05)*	26, 27, 28	51	3	94
12 (2005/06)*	29, 30, 31	50	4	93
13 (2006/07)*	32, 33, 34	63	6	91
14 (2007/08)*	35, 36, 37	69	12	85
15 (2008/09)*	38, 39, 40	67	24	74
16 (2009/10)*	41, 42, 43	75	18	81
17 (2010/11)*	44, 45, 46	85	14	86
18 (2011/12)*	47, 48, 49	95	4	96
19 (2012/13)*	50, 51, 52	102	6	94
20 (2013/14)*	53, 54, 55	73	29	72
2014/15 (21)*	56, 57, 58	71	22	76
2015/16 (22)*	59, 60, 61	81	15	84
2016/17 (23)*	62, 63, 64	72	12	86
2017/18 (24)*	65, 66, 67	70	9	89
2018/19 (25)*	68, 69, 70	73	16	82
2019/20 (26)*	71, 72, 73	89	8	92
2020/21 (27)*	74, 75, 76	65	4	94
2021/22 (28)*	77, 78, 79	83	6	93
2022/23 (29)**	80, 81, 82	91	16	85
	Total	**1707**	**316**	**84**

* - Own Samples selected from completed data matrices

* - includes 15 Own Samples from the Black Sea

BCSI - Bray Curtis Similarity Index (untransformed)