



# NMQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

## Own Sample Module Summary Report

Benthic Invertebrate Component - 2015/16

OS59, 60 and 61

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## **MODULE / EXERCISE DETAILS**

Module:	Own Sample (OS)
Exercises:	OS59, 60 and 61
Data/Sample Request Circulated:	8th May 2015
Sample Submission Deadline:	31st July 2015
Number of Subscribing Laboratories:	34
Number of Own Samples Received:	96

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Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS59-61).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2201	OS59	AD count	-	1	-	-	-	2	-	-	3
		Missed	-	0	-	-	-	0	-	-	0
		%missed	-	0.0	-	-	-	0.0	-	-	0.0
	OS60	AD count	-	22	2	-	2	17	-	2	45
		Missed	-	0	0	-	1	0	-	0	1
		%missed	-	0.0	0.0	-	50.0	0.0	-	0.0	2.2
	OS61	AD count	-	4	0	-	0	31	-	-	35
		Missed	-	2	1	-	2	1	-	-	6
		%missed	-	50.0	100.0	-	200.0	3.2	-	-	17.1
BI_2202	OS59	AD count	4	12	-	-	8	3	-	5	32
		Missed	0	0	-	-	0	0	-	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0
	OS60	AD count	4	71	0	1	5	27	2	5	115
		Missed	0	1	1	0	0	0	0	0	2
		%missed	0.0	1.4	100.0	0.0	0.0	0.0	0.0	0.0	1.7
	OS61	AD count	3	27	1	-	2	1	2	1	37
		Missed	0	1	0	-	0	0	0	0	1
		%missed	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	2.7
BI_2203	OS59	AD count	-	2	-	-	3	2	-	0	7
		Missed	-	0	-	-	1	0	-	200	201
		%missed	-	0.0	-	-	33.3	0.0	-	20000.0	2871.4
	OS60	AD count	-	0	1	-	1	-	-	0	2
		Missed	-	2	228	-	8	-	-	433	671
		%missed	-	200.0	22700.0	-	800.0	-	-	43300.0	33550.0
	OS61	AD count	-	-	0	-	0	-	-	0	0
		Missed	-	-	1	-	1	-	-	191	193
		%missed	-	-	100.0	-	100.0	-	-	19100.0	19300.0
BI_2204	OS59	AD count	-	15	4	-	-	1	-	13	33
		Missed	-	0	0	-	-	0	-	0	0
		%missed	-	0.0	0.0	-	-	0.0	-	0.0	0.0
	OS60	AD count	7	18	-	-	-	335	186	15	561
		Missed	0	0	-	-	-	0	0	0	0
		%missed	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0
	OS61	AD count	7	43	-	-	10	5	16	8	89
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
BI_2205	OS59	AD count	3	63	0	5	12	18	19	84	204
		Missed	0	8	1	0	0	0	0	5	14
		%missed	0.0	12.7	100.0	0.0	0.0	0.0	0.0	6.0	6.9
	OS60	AD count	1	10	-	-	3	2	-	0	16
		Missed	0	0	-	-	0	0	-	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0
	OS61	AD count	-	3	-	-	1	-	-	-	4
		Missed	-	0	-	-	0	-	-	-	0
		%missed	-	0.0	-	-	0.0	-	-	-	0.0
BI_2207	OS59	AD count	1	86	13	-	3	12	-	3	118
		Missed	0	0	0	-	0	0	-	0	0
		%missed	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0
	OS60	AD count	3	177	3	-	7	190	4	8	392
		Missed	0	1	0	-	0	0	0	0	1
		%missed	0.0	0.6	0.0	-	0.0	0.0	0.0	0.0	0.3
	OS61	AD count	5	378	-	1	16	48	-	7	455
		Missed	0	0	-	0	0	1	-	0	1
		%missed	0.0	0.0	-	0.0	0.0	2.1	-	0.0	0.2

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS59-61).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2208	OS59	AD count	3	6	-	-	-	29	4	-	42
		Missed	0	0	-	-	-	0	0	-	0
		%missed	0.0	0.0	-	-	-	0.0	0.0	-	0.0
	OS60	AD count	3	4	-	-	-	49	5	-	61
		Missed	0	0	-	-	-	0	0	-	0
		%missed	0.0	0.0	-	-	-	0.0	0.0	-	0.0
	OS61	AD count	4	3	-	-	-	47	4	1	59
		Missed	0	0	-	-	-	0	0	0	0
		%missed	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0
BI_2209	OS59	AD count	-	15	-	-	-	-	-	-	15
		Missed	-	0	-	-	-	-	-	-	0
		%missed	-	0.0	-	-	-	-	-	-	0.0
	OS60	AD count	-	20	-	-	2	13	-	-	35
		Missed	-	0	-	-	0	4	-	-	4
		%missed	-	0.0	-	-	0.0	30.8	-	-	11.4
	OS61	AD count	10	59	-	-	-	1	2	3	75
		Missed	1	3	-	-	-	0	-	1	5
		%missed	10.0	5.1	-	-	-	0.0	-	0.0	6.7
BI_2211	OS59	AD count	-	38	-	-	12	13	5	5	73
		Missed	-	0	-	-	0	0	0	0	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0
	OS60	AD count	1	2	-	-	10	10	1	1	25
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
	OS61	AD count	-	31	-	-	11	4	4	2	52
		Missed	-	0	-	-	0	0	0	0	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0
BI_2213	OS59	AD count	-	55	-	-	7	44	-	-	106
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
	OS60	AD count	-	355	-	-	25	78	-	1	459
		Missed	-	0	-	-	0	0	-	0	0
		%missed	-	0.0	-	-	0.0	0.0	-	0.0	0.0
	OS61	AD count	-	23	6	-	1	4	-	10	44
		Missed	-	0	0	-	0	0	-	0	0
		%missed	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
BI_2216	OS59	AD count	5	673	-	-	28	27	41	5	779
		Missed	0	0	-	-	0	0	0	0	0
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0
	OS60	AD count	-	830	-	-	49	29	1154	-	2062
		Missed	-	1	-	-	0	0	0	-	1
		%missed	-	0.1	-	-	0.0	0.0	0.0	-	0.0
	OS61	AD count	3	833	-	-	50	32	1937	7	2862
		Missed	0	0	-	-	0	1	0	0	1
		%missed	0.0	0.0	-	-	0.0	3.1	0.0	0.0	0.0
BI_2218	OS59	AD count	84	211	-	-	39	9	2	6	351
		Missed	0	8	-	-	8	0	0	0	16
		%missed	0.0	3.8	-	-	20.5	0.0	0.0	0.0	4.6
	OS60	AD count	3	129	-	0	7	72	5	13	229
		Missed	0	72	-	1	1	20	0	4	98
		%missed	0.0	55.8	-	100.0	14.3	27.8	0.0	30.8	42.8
	OS61	AD count	-	2	-	-	-	47	80	-	129
		Missed	-	0	-	-	-	1	0	-	1
		%missed	-	0.0	-	-	-	2.1	0.0	-	0.8
BI_2220	OS59	AD count	-	324	-	-	-	-	-	103	427
		Missed	-	0	-	-	-	-	-	0	0
		%missed	-	0.0	-	-	-	-	-	0.0	0.0
	OS60	AD count	1	208	3	-	-	29	-	41	282
		Missed	0	0	0	-	-	0	-	1	1
		%missed	0.0	0.0	0.0	-	-	0.0	-	2.4	0.4
	OS61	AD count	-	77	1	-	-	11	-	25	114
		Missed	-	0	0	-	-	7	-	0	7
		%missed	-	0.0	0.0	-	-	63.6	-	0.0	6.1

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS59-61).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall	
BI_2226	OS59	AD count	-	4	-	-	23	-	-	-	27	
		Missed	-	0	-	-	0	-	-	-	0	
		%missed	-	0.0	-	-	0.0	-	-	-	0.0	
	OS60	AD count	-	23	-	-	6	14	-	-	2	45
		Missed	-	0	-	-	0	0	-	-	1	1
		%missed	-	0.0	-	-	0.0	0.0	-	-	50.0	2.2
	OS61	AD count	-	4	-	-	12	2	-	-	0	18
		Missed	-	0	-	-	0	0	-	-	0	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0	0.0
BI_2227	OS59	AD count	-	45	-	-	1	16	-	-	5	67
		Missed	-	0	-	-	0	1	-	-	3	4
		%missed	-	0.0	-	-	0.0	6.3	-	-	0.0	6.0
	OS60	AD count	-	-	-	-	1	-	-	-	95	96
		Missed	-	-	-	-	0	-	-	-	0	0
		%missed	-	-	-	-	0.0	-	-	-	0.0	0.0
	OS61	AD count	-	447	370	-	9	35	-	-	38	899
		Missed	-	4	5	-	1	1	-	-	0	11
		%missed	-	0.9	1.4	-	11.1	2.9	-	-	0.0	1.2
BI_2228	OS59	AD count	-	53	-	-	2	18	-	-	73	
		Missed	-	0	-	-	0	0	-	-	0	
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0	
	OS60	AD count	-	96	-	-	1	363	-	-	12	472
		Missed	-	1	-	-	0	5	-	-	0	6
		%missed	-	1.0	-	-	0.0	1.4	-	-	0.0	1.3
	OS61	AD count	-	83	112	-	3	47	-	-	23	268
		Missed	-	0	1	-	0	7	-	-	0	8
		%missed	-	0.0	0.9	-	0.0	14.9	-	-	0.0	3.0
BI_2229	OS59	AD count	2	73	4	89	10	5	12	190	385	
		Missed	1	9	2	0	1	0	0	4	17	
		%missed	50.0	12.3	50.0	0.0	10.0	0.0	0.0	2.1	4.4	
	OS60	AD count	-	-	-	-	2	-	-	-	5	7
		Missed	-	-	-	-	0	-	-	-	5	5
		%missed	-	-	-	-	0.0	-	-	-	100.0	71.4
	OS61	AD count	-	-	1	-	1	12	-	-	5	19
		Missed	-	-	0	-	0	0	-	-	2	2
		%missed	-	-	0.0	-	0.0	0.0	-	-	40.0	10.5
BI_2230	OS59	AD count	1	191	79	-	20	35	6	371	703	
		Missed	0	1	1	-	0	0	0	4	6	
		%missed	0.0	0.5	1.3	-	0.0	0.0	0.0	0.0	1.1	0.9
	OS60	AD count	16	385	52	2	20	19	21	16	531	
		Missed	0	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	0.0	
	OS61	AD count	1	663	326	-	5	242	-	-	124	1361
		Missed	0	0	0	-	0	2	-	-	0	2
		%missed	0.0	0.0	0.0	-	0.0	0.8	-	-	0.0	0.1
BI_2231	OS59	AD count	1	96	-	-	11	260	4	1	373	
		Missed	0	6	-	-	0	1	0	0	7	
		%missed	0.0	6.3	-	-	0.0	0.4	0.0	0.0	1.9	
	OS60	AD count	-	714	117	-	41	162	-	-	383	1417
		Missed	-	6	0	-	0	37	-	-	0	43
		%missed	-	0.8	0.0	-	0.0	22.8	-	-	0.0	3.0
	OS61	AD count	-	178	428	-	27	627	-	-	2163	3423
		Missed	-	0	0	-	0	2	-	-	0	2
		%missed	-	0.0	0.0	-	0.0	0.3	-	-	0.0	0.1
BI_2232	OS59	AD count	1	26	-	-	23	3	1	0	54	
		Missed	0	0	-	-	0	0	0	0	0	
		%missed	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	
	OS60	AD count	-	2	4	-	-	3	-	-	-	9
		Missed	-	0	0	-	-	0	-	-	-	0
		%missed	-	0.0	0.0	-	-	0.0	-	-	-	0.0
	OS61	AD count	-	8	16	-	32	3	-	-	2	61
		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 (OS59-61).

LabCode			Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2233	OS59	AD count	-	22	73	-	-	169	-	0	264
		Missed	-	0	17	-	-	16	-	0	33
		%missed	-	0.0	23.3	-	-	9.5	-	0.0	12.5
	OS60	AD count	-	622	276	-	17	9	-	9	933
		Missed	-	23	9	-	2	29	-	0	63
		%missed	-	3.7	3.3	-	11.8	322.2	-	0.0	6.8
	OS61	AD count	7	236	2	-	237	115	8	20	625
		Missed	0	48	3	-	17	4	2	11	85
		%missed	0.0	20.3	150.0	-	7.2	3.5	25.0	55.0	13.6
BI_2234	OS59	AD count	2	36	-	-	12	13	3	5	71
		Missed	1	1	-	-	0	2	0	1	5
		%missed	50.0	2.8	-	-	0.0	15.4	0.0	20.0	7.0
	OS60	AD count	-	1	-	-	13	5	-	-	19
		Missed	-	0	-	-	0	0	-	-	0
		%missed	-	0.0	-	-	0.0	0.0	-	-	0.0
	OS61	AD count	-	1	-	-	9	3	-	-	13
		Missed	-	1	-	-	0	0	-	-	1
		%missed	-	100.0	-	-	0.0	0.0	-	-	7.7
BI_2235	OS59	AD count	-	8	-	-	2	-	-	-	10
		Missed	-	0	-	-	0	-	-	-	0
		%missed	-	0.0	-	-	0.0	-	-	-	0.0
	OS60	AD count	-	21	-	-	16	-	-	-	37
		Missed	-	0	-	-	0	-	-	-	0
		%missed	-	0.0	-	-	0.0	-	-	-	0.0
	OS61	AD count	-	13	0	-	8	-	-	0	21
		Missed	-	0	1	-	0	-	-	0	1
		%missed	-	0.0	100.0	-	0.0	-	-	0.0	4.8
BI_2236	OS59	AD count	-	23	-	-	-	21	27	-	71
		Missed	-	0	-	-	-	0	0	-	0
		%missed	-	0.0	-	-	-	0.0	0.0	-	0.0
	OS60	AD count	-	46	-	1	-	46	13	7	113
		Missed	-	4	-	0	-	2	0	0	6
		%missed	-	8.7	-	0.0	-	4.3	0.0	0.0	5.3
	OS61	AD count	-	94	-	-	5	112	118	3	332
		Missed	-	0	-	-	0	0	0	0	0
		%missed	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0
BI_2237	OS59	AD count	2	343	-	-	38	21	59	8	471
		Missed	1	13	-	-	1	1	2	0	18
		%missed	50.0	3.8	-	-	2.6	4.8	3.4	0.0	3.8
	OS60	AD count	2	249	-	-	46	38	86	8	429
		Missed	0	23	-	-	4	3	4	1	35
		%missed	0.0	9.2	-	-	8.7	7.9	4.7	12.5	8.2
	OS61	AD count	2	756	-	-	69	47	120	7	1001
		Missed	0	14	-	-	0	0	1	1	16
		%missed	0.0	1.9	-	-	0.0	0.0	0.8	14.3	1.6
BI_2238	OS59	AD count	3	103	40	-	4	62	2	4	218
		Missed	0	0	0	-	0	1	0	0	1
		%missed	0.0	0.0	0.0	-	0.0	1.6	-	0.0	0.5
	OS60	AD count	11	87	145	-	5	85	5	6	344
		Missed	0	1	1	-	1	0	0	6	9
		%missed	0.0	1.1	0.7	-	20.0	0.0	0.0	100.0	2.6
	OS61	AD count	3	80	21	-	7	97	-	6	214
		Missed	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_2239	OS59	AD count	4	253	-	2	33	19	15	47	373
		Missed	3	16	-	0	3	3	0	9	34
		%missed	75.0	6.3	-	0.0	9.1	15.8	0.0	19.1	9.1
	OS60	AD count	-	129	2	-	157	42	3	150	483
		Missed	-	6	0	-	0	1	0	9	16
		%missed	-	4.7	0.0	-	0.0	2.4	0.0	6.0	3.3
	OS61	AD count	2	65	-	-	1	82	16	7	173
		Missed	0	1	-	-	0	1	0	1	3
		%missed	0.0	1.5	-	-	0.0	1.2	0.0	14.3	1.7



Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS59-61).

LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall	
BI_2240	OS59	AD count	-	27	-	-	-	3	-	-	30
		Missed	-	0	-	-	-	0	-	-	0
		%missed	-	0.0	-	-	-	0.0	-	-	0.0
	OS60	AD count	-	353	-	-	1	1	-	18	373
		Missed	-	2	-	-	0	0	-	0	2
		%missed	-	0.6	-	-	0.0	0.0	-	0.0	0.5
	OS61	AD count	-	7	-	-	-	4	-	2	13
		Missed	-	0	-	-	-	0	-	0	0
		%missed	-	0.0	-	-	-	0.0	-	0.0	0.0
BI_2241	OS59	AD count	-	11	-	-	-	5	-	-	16
		Missed	-	0	-	-	-	0	-	-	0
		%missed	-	0.0	-	-	-	0.0	-	-	0.0
	OS60	AD count	-	75	1	-	-	4	-	-	80
		Missed	-	0	0	-	-	0	-	-	0
		%missed	-	0.0	0.0	-	-	0.0	-	-	0.0
	OS61	AD count	4	17	2	-	3	4	-	-	30
		Missed	0	0	0	-	0	0	-	-	0
		%missed	0.0	0.0	0.0	-	0.0	0.0	-	-	0.0
BI_2242	OS59	AD count	2	78	1	-	-	117	37	2	237
		Missed	0	0	0	-	-	0	0	0	0
		%missed	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
	OS60	AD count	9	62	-	-	12	10	4	3	100
		Missed	0	0	-	-	0	1	0	0	1
		%missed	0.0	0.0	-	-	0.0	10.0	0.0	0.0	1.0
	OS61	AD count	3	70	21	-	3	9	2	2	110
		Missed	0	2	1	-	0	1	0	1	5
		%missed	0.0	2.9	4.8	-	0.0	11.1	0.0	50.0	4.5
BI_2243	OS59	AD count	5	26	-	-	2	259	79	19	390
		Missed	0	0	-	-	0	2	0	0	2
		%missed	0.0	0.0	-	-	0.0	0.8	0.0	0.0	0.5
	OS60	AD count	12	96	-	-	7	21	1	-	137
		Missed	0	0	-	-	0	1	0	-	1
		%missed	0.0	0.0	-	-	0.0	4.8	0.0	-	0.7
	OS61	AD count	11	132	-	-	17	264	88	9	521
		Missed	1	28	-	-	2	10	3	0	44
		%missed	9.1	21.2	-	-	11.8	3.8	3.4	0.0	8.4
BI_2244	OS59	AD count	4	3	-	-	-	4	2	-	13
		Missed	0	0	-	-	-	0	0	-	0
		%missed	0.0	0.0	-	-	-	0.0	0.0	-	0.0
	OS60	AD count	2	30	-	-	68	2	1	-	103
		Missed	0	2	-	-	0	0	0	-	2
		%missed	0.0	6.7	-	-	0.0	0.0	0.0	-	1.9
	OS61	AD count	12	299	11	1	707	63	4	60	1157
		Missed	3	53	2	0	47	9	0	5	119
		%missed	25.0	17.7	18.2	0.0	6.6	14.3	0.0	8.3	10.3

Key: AD count = Audit Data count of fauna sorted by original analyst

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 (OS59 - 61) (erroneous identifications in brackets).

LabCode		Taxonomic Errors	Major Taxonomic Group					
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2201	OS59	0	-	-	-	-	-	-
	OS60	1	<i>Magelona mirabilis</i> ( <i>Magelona johnstoni</i> )	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2202	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2203	OS59	0	-	-	-	-	-	-
	OS60	1	-	<i>Paranis litoralis</i> ( <i>Tubificoides pseudogaster</i> )	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2204	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	1	<i>Pista cristata</i> ( <i>Pista bansei</i> )	-	-	-	-	-
BI_2205	OS59	7	<i>Nephtys kersivalensis</i> ( <i>Nephtys hombergii</i> ) <i>Dipolydora caulleryi</i> ( <i>Dipolydora coeca</i> ) <i>Polycirrus</i> sp. ( <i>Phisidia aurea</i> ) <i>Thelepus cincinnatus</i> ( <i>Thelepus setosus</i> )	-	<i>Maerella tenuimana</i> ( <i>Cheirocratus</i> female)	-	-	<i>Golfingia elongata</i> ( <i>Nephasoma minutum</i> ) <i>Scruparia</i> sp. ( <i>Scrupocellaria</i> )
	OS60	1	<i>Bylgides</i> sp. ( <i>Eunoe</i> (damaged))	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2207	OS59	3	-	<i>Tubificoides galiciensis</i> ( <i>Tubificoides swirencoides</i> )	-	<i>Philine quadrata</i> ( <i>Philine aperta</i> )	-	Didemniidae (Polyclinidae)
	OS60	3	<i>Pseudopotamilla</i> "Type A" ( <i>Perkinsiana socialis</i> )	<i>Tubificoides galiciensis</i> ( <i>Tubificoides insularis</i> )	-	-	-	<i>Polycarpa pomaria</i> ( <i>Pyura tessellata</i> )
	OS61	3	<i>Spio symphyta</i> / <i>Dipolydora coeca</i> agg. / <i>Microspio</i> sp. ( <i>Spio filicornis</i> ) <i>Ampharete lindstroemi</i> agg. ( <i>Melinna palmata</i> )	-	-	<i>Jujubinus montagui</i> ( <i>Gibbula tumida</i> )	-	-
BI_2208	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2209	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2211	OS59	1	-	-	<i>Erichthonius</i> sp. (female) ( <i>Photis longicaudata</i> )	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	2	<i>Magelona filiformis</i> ( <i>Magelona johnstoni</i> ) <i>Spio goniocephala</i> ( <i>Spio armata</i> )	-	-	-	-	-
BI_2213	OS59	2	<i>Nephtys hombergii</i> ( <i>Nephtys cirrosa</i> )	-	-	<i>Acanthocardia echinata</i> ( <i>Pervicardium exiguum</i> )	-	-
	OS60	12	<i>Cirriformia tentaculata</i> gills (Nemertea) <i>Glycera tridactyla</i> ( <i>Glycera alba</i> ) <i>Nephtys</i> sp. juv ( <i>Nephtys cirrosa</i> ) <i>Cirriformia</i> sp. juv. ( <i>Aphelocheata</i> sp. juv.) <i>Tharyx killariensis</i> ( <i>Chaetozone setosa</i> )	-	<i>Gammarus locusta</i> ( <i>Gammarus salinus</i> ) <i>Microdeutopus anomalous</i> ( <i>Aora gracilis</i> ) <i>Grandidierella japonica</i> ( <i>Lembos</i> sp. dam.) <i>Phthisica marina</i> ( <i>Parimabus typica</i> )	<i>Cerastoderma edule</i> juv. ( <i>Cerastoderma glaucum</i> ) <i>Corbula gibba</i> ( <i>Tellinacea</i> sp. juv) <i>Ruditapes philippinarum</i> ( <i>Ruditapes decussatus</i> )	-	-
	OS61	2	<i>Capitella</i> sp. ( <i>Tubificoides swirencoides</i> )	-	-	-	-	<i>Nassarius</i> sp. eggs (Ascidacea sp.)

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS59 - 61) (erroneous identifications in brackets).

LabCode		Taxonomic Errors	Major Taxonomic Group					
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2216	OS59	0	-	-	-	-	-	-
	OS60	1	-	-	-	<i>Venus casina (Chamelea striatula)</i>	-	-
	OS61	1	-	-	-	-	-	Ascidacea juv. (Asciidiidae spp juv.)
BI_2218	OS59	0	-	-	-	-	-	-
	OS60	2	<i>Syllis parapari (Syllis garciai)</i> <i>Peresiella clymenoides (Mediomastus fragilis)</i>	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2220	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2226	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2227	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2228	OS59	0	-	-	-	-	-	-
	OS60	1	<i>Tharyx Species A (Tharyx killariensis)</i>	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2229	OS59	2	-	-	-	-	-	<i>Electra monostachys (Conopeum reticulum)</i> Plantae (Phaeophyceae?)
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2230	OS59	1	-	-	-	<i>Ruditapes philippinarum (Ruditapes decussatus)</i>	-	-
	OS60	3	<i>Mediomastus fragilis (Capitella agg.)</i>	-	-	<i>Nucula nitidosa (Nucula nucleus)</i> <i>Ruditapes philippinarum (Ruditapes decussatus)</i>	-	-
	OS61	0	-	-	-	-	-	-
	OS59	0	-	-	-	-	-	-
BI_2231	OS60	3	<i>Dipolydora coeca agg. (Pseudopolydora paucibranchiata)</i> <i>Tharyx Species A (Tharyx Type B)</i>	-	-	<i>Ruditapes philippinarum (Ruditapes decussatus)</i>	-	-
	OS61	0	-	-	-	-	-	-
	OS59	0	-	-	-	-	-	-
BI_2232	OS59	0	-	<i>Baltidrilus costatus (Tubificoides pseudogaster)</i>	-	-	-	-
	OS60	1	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2233	OS59	0	-	-	-	-	-	-
	OS60	2	<i>Ampharete cf. acutifrons (Ampharete lindstroemi)</i> <i>Mediomastus fragilis (Tubificoides amplivasatus)</i>	-	-	-	-	-
	OS61	7	<i>Nephtys kersivalensis (Nephtys hombergii)</i> <i>Jasmineira sp. (Perkinsiana rubra)</i>	-	<i>Harpinia pectinata (Harpinia antennaria)</i> <i>Bodotria scorpioides (Bodotria pulchella)</i>	-	-	<i>Golfingia vulgaris (Golfingia elongata)</i> <i>Golfingia vulgaris (Thysanocardia procera)</i> <i>Eucratea loricata (Bugula)</i>

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS59 - 61) (erroneous identifications in brackets).

LabCode		Taxonomic Errors	Major Taxonomic Group					
			Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2234	OS59	4	<i>Spio decoratus</i> ( <i>Spio symphyta</i> )	-	<i>Bathyporeia tenuipes</i> ( <i>Bathyporeia elegans</i> )	<i>Mactra stultorum</i> juv. ( <i>Spisula</i> juv.) <i>Thracia villosiuscula</i> ( <i>Thracia papyracea</i> )	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2235	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2236	OS59	3	<i>Pholoe baltica</i> (sensu Petersen) ( <i>Pholoe inornata</i> ) <i>Praxillella affinis</i> ( <i>Euclymene droebachiensis</i> )	-	-	-	-	<i>Amphiura filiformis</i> ( <i>Amphiura chiajei</i> )
	OS60	2	<i>Peresiella clymenoides</i> ( <i>Mediomastus fragilis</i> )	-	-	<i>Mysia undata</i> ( <i>Diplodonta rotundata</i> )	-	-
	OS61	5	<i>Harmothoe glabra</i> ( <i>Malmgreniella mcintoshii</i> ) <i>Sthenelais limicola</i> ( <i>Sthenelais boa</i> ) <i>Clymenella cincta</i> ( <i>Euclymene lombricoides</i> )	-	-	<i>Axinulus croulensis</i> ( <i>Thyasira flexuosa</i> ) <i>Mysia undata</i> ( <i>Diplodonta rotundata</i> )	-	-
BI_2237	OS59	3	<i>Sthenelais limicola</i> ( <i>Sthenelais boa</i> ) <i>Sphaerodoropsis minuta</i> ( <i>Sphaerodoridium claparedii</i> )	-	-	<i>Phaxas pellucidus</i> ( <i>Ensis</i> spp.)	-	-
	OS60	2	<i>Sthenelais limicola</i> ( <i>Sthenelais boa</i> ) <i>Nephtys longosetosa</i> ( <i>Nephtys caeca</i> )	-	-	-	-	-
	OS61	4	<i>Sthenelais limicola</i> ( <i>Sthenelais boa</i> ) <i>Lysippe labiata</i> ( <i>Samytha sexcirrata</i> )	-	-	<i>Phaxas pellucidus</i> ( <i>Ensis</i> spp.)	Ophiuroidea juv. ( <i>Asteroidea</i> spp.)	-
BI_2238	OS59	3	-	-	-	<i>Philine</i> sp. ( <i>Diaphana minuta</i> ) <i>Ensis</i> sp. juv. ( <i>Phaxas pellucidus</i> juv.) <i>Modiolus</i> sp. juv. ( <i>Mytilus edulis</i> )	-	-
	OS60	1	-	-	-	<i>Timoclea ovata</i> ( <i>Dosinia</i> juv.)	-	-
	OS61	4	-	-	-	<i>Philine quadripartita</i> ( <i>Philine aperta</i> ) <i>Mya truncata</i> ( <i>Pharidae</i> ) <i>Abra prismatica</i> ( <i>Abra alba</i> ) <i>Philine</i> sp. ( <i>Diaphana minuta</i> )	-	-

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS59 - 61) (erroneous identifications in brackets).

LabCode	Taxonomic Errors	Major Taxonomic Group						
		Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other	
BI_2239	OS59	19	<p><i>Arenicolidae</i> sp. juv./<i>Polycirrus</i> sp./<i>Pseudopotamilla reniformis</i> /<i>Lysidice unicornis</i> /<i>Dipolydora coeca</i> agg./<i>Sabellaria spinulosa</i> /<i>Praxillella affinis</i> /<i>Notoproctus</i> sp./<i>Asclerocheilus</i> sp. (Polychaeta)</p> <p><i>Eulalia aurea</i> (<i>Eumida sanguinea</i> juv.)</p> <p><i>Eulalia mustela</i> (<i>Hesionura elongata</i>)</p> <p><i>Myrianida</i> sp. (<i>Eusyllis blomstrandii</i>)</p> <p><i>Syllides</i> sp. (<i>Syllis armillaris</i>)</p> <p><i>Syllis armillaris</i> (<i>Syllis variegata</i>)</p> <p><i>Schistomeringos neglecta</i> (<i>Parougia caeca</i>)</p> <p><i>Dipolydora coeca</i> agg. (<i>Atherospio guillei</i>)</p> <p><i>Aurospio banyulensis</i> (<i>Pygospio elegans</i>)</p> <p><i>Nicolea venustula</i> (<i>Eupolymnia nesidensis</i>)</p> <p><i>Syllis variegata</i> (<i>Spirobranchus lamarcki</i>)</p>	-	<p><i>Cressa dubia</i> (<i>Hardametopa nasuta</i>)</p> <p><i>Unciola crenatipalma</i> (Corophiidae)</p> <p><i>Monocorophium sextonae</i> (<i>Corophium</i> juv.)</p> <p><i>Unciola crenatipalma</i> (<i>Unciola planipes</i>)</p> <p><i>Pagurus bernhardus</i> (<i>Pagurus pubescens</i>)</p>	<i>Lamellaria perspicua</i> ( <i>Lamellaria latens</i> )	-	<p><i>Nephasoma minutum</i> /<i>Golfingia elongata</i> (<i>Golfingia vulgaris</i>)</p> <p><i>Conopeum reticulum</i> (<i>Conopeum seurati</i>)</p>
	OS60	8	<p><i>Paradoneis</i> sp. (<i>Paradoneis eliasoni</i>)</p> <p><i>Monticellina</i> sp. (<i>Aphelochaeta marioni</i>)</p> <p><i>Chaetozone gibber</i> (<i>Chaetozone zetlandica</i>)</p> <p><i>Leiochone</i> sp. (<i>Clymenura</i>)</p> <p><i>Leiochone</i> sp. (<i>Euclymene Species A</i>)</p>	-	<i>Photis longicaudata</i> ( <i>Photis tenuicornis</i> )	<i>Nucula nucleus</i> ( <i>Nucula nitidosa</i> )	-	Didemnidae ( <i>Alcyonidium</i> )
	OS61	5	<p><i>Tharyx killariensis</i> (<i>Chaetozone</i> damaged)</p> <p><i>Praxillella affinis</i> (<i>Euclymene oerstedii</i>)</p>	-	<i>Ampelisca typica</i> ( <i>Ampelisca tenuicornis</i> )	<i>Nucula nucleus</i> ( <i>Nucula nitidosa</i> )	-	-
BI_2240	OS59	0	-	-	-	-	-	-
	OS60	1	-	-	<i>Nebalia reboredae</i> ( <i>Nebalia herbstii</i> )	-	-	-
	OS61	2	-	-	-	<i>Philine quadripartita</i> ( <i>Philine aperta</i> )	-	Coleoptera ( <i>Collembola</i> )
BI_2241	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	0	-	-	-	-	-	-
BI_2242	OS59	0	-	-	-	-	-	-
	OS60	2	<p><i>Pholoe baltica</i> (sensu Petersen) (<i>Pholoe inornata</i> (sensu Petersen))</p> <p><i>Glycera alba</i> (<i>Glycera lapidum</i>)</p>	-	-	-	-	-
	OS61	3	<p><i>Praxillella affinis</i> (<i>Praxillella praetermissa</i>)</p> <p><i>Spirobranchus lamarcki</i> (<i>Pomatoceros triquetter</i>)</p>	-	<i>Pagurus bernhardus</i> ( <i>Cestopagurus timidus</i> )	-	-	-
BI_2243	OS59	0	-	-	-	-	-	-
	OS60	0	-	-	-	-	-	-
	OS61	4	<i>Glycera tridactyla</i> ( <i>Glycera alba</i> )	-	<i>Diastylis bradyi</i> ( <i>Diastylis laevis</i> )	<i>Eulima glabra</i> ( <i>Eulima bilineata</i> )	-	<i>Hermania scabra</i> ( <i>Philine aperta</i> )

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS59 - 61) (erroneous identifications in brackets).

LabCode	Taxonomic Errors	Major Taxonomic Group					
		Polychaeta	Oligochaeta	Crustacea	Mollusca	Echinodermata	Other
BI_2244	OS59	0	-	-	-	-	-
	OS60	1	<i>Spio gonocephala (Spio armata)</i>	-	-	-	-
	OS61	2	-	-	<i>Ampelisca diadema (Ampelisca spinipes)</i>	-	<i>Bugula fulva (Bugula neritina)</i>
<b>TOTAL</b>	<b>141</b>	66	4	20	33	2	16
<b>% Error</b>		47	3	14	23	1	11

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 OS59-OS61.

		OS59								
LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2201	OD	-	0.0033	-	-	-	0.2074	-	-	0.2107
	AD	-	0.0021	-	-	-	0.1490	-	-	0.1511
	%diff.	-	36.36	-	-	-	28.16	-	-	28.29
BI_2202	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2203	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2204	OD	-	0.1634	0.0002	-	-	0.0430	-	0.0001	0.2067
	AD	-	0.1979	0.0002	-	-	0.0426	-	0.0001	0.2408
	%diff.	-	-21.1138	0.0000	-	-	0.9302	-	0.0000	-16.4973
BI_2205	OD	0.0016	0.2124	-	0.0014	0.0593	0.8882	0.3070	0.0023	1.4722
	AD	0.0019	0.2256	-	0.0012	0.0686	0.8634	0.3139	0.0019	1.4765
	%diff.	-18.75	-6.21	-	14.29	-15.68	2.79	-2.25	17.39	-0.29
BI_2207	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2208	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2209	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2211	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2213	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2216	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2218	OD	0.1792	1.9772	-	-	0.1648	2.1710	1.4537	0.0038	5.9497
	AD	0.1211	1.4046	-	-	0.1323	2.0648	1.3811	0.0023	5.1062
	%diff.	32.4219	28.9601	-	-	19.7209	4.8918	4.9942	39.4737	14.1772
BI_2220	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2226	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2227	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2228	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2229	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2230	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2231	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2232	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2233	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 OS59-OS61.

LabCode		OS59							Overall	
		Nemertea	Polychaeta	Oligochaeta	Cheilicerata	Crustacea	Mollusca	Echinodermata		Other
BI_2234	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2235	OD	-	0.8755	-	-	0.0158	-	-	-	0.8913
	AD	-	0.5307	-	-	0.0086	-	-	-	0.5393
	%diff.	-	39.38	-	-	45.57	-	-	-	39.49
BI_2236	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2237	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2238	OD	0.0101	1.1211	0.0037	-	0.0047	1.3978	1.0333	0.0149	3.5856
	AD	0.0148	0.8241	0.0047	-	0.0006	1.3512	1.0591	0.0129	3.2674
	%diff.	-46.53	26.49	-27.03	-	87.23	3.33	-2.50	13.42	8.87
BI_2239	OD	0.0334	1.8418	-	0.0007	0.9638	0.0568	0.0741	0.0522	3.0228
	AD	0.0221	1.6309	-	0.0001	0.9782	0.0532	0.0660	0.0393	2.7898
	%diff.	33.83	11.45	-	85.71	-1.49	6.34	10.93	24.71	7.71
BI_2240	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2241	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2242	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2243	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2244	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 OS59-OS61.

		OS60								
LabCode		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2201	OD	-	0.4472	0.0001	-	0.0003	0.7142	-	0.0005	1.1623
	AD	-	0.3251	0.0001	-	0.0002	0.6433	-	0.0011	0.9698
	%diff.	-	27.30	0.00	-	33.33	9.93	-	-120.00	16.56
BI_2202	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2203	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2204	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2205	OD	0.0013	0.1744	-	-	0.2421	0.0317	-	-	0.4495
	AD	0.0013	0.1306	-	-	0.2507	0.0334	-	-	0.4160
	%diff.	0.00	25.11	-	-	-3.55	-5.36	-	-	7.45
BI_2207	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2208	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2209	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2211	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2213	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2216	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2218	OD	0.0385	3.3563	-	-	0.0365	3.5027	0.0165	3.7288	10.6793
	AD	0.0290	2.3740	-	-	0.0247	3.2817	0.2857	3.3844	9.3795
	%diff.	24.6753	29.2673	-	-	32.3288	6.3094	-1631.5152	9.2362	12.1712
BI_2220	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2226	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2227	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2228	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2229	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2230	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2231	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2232	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2233	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 OS59-OS61.

		OS60								
LabCode		Nemertea	Polychaeta	Oligochaeta	Cheicerata	Crustacea	Mollusca	Echinodermata	Other	Overall
BI_2234	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2235	OD	-	0.5199	-	-	0.0285	-	0.0022	0.0054	0.5560
	AD	-	0.4391	-	-	0.0245	-	0.0016	0.0026	0.4678
	%diff.	-	15.54	-	-	14.04	-	27.27	51.85	15.86
BI_2236	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2237	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2238	OD	0.0018	0.1889	0.0111	-	0.0100	1.2652	45.9525	0.0005	47.4300
	AD	0.0013	0.1600	0.0162	-	0.0105	1.1351	40.1358	0.0002	41.4591
	%diff.	27.78	15.30	-45.95	-	-5.00	10.28	12.66	60.00	12.59
BI_2239	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2240	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2241	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2242	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2243	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2244	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 OS59-OS61.

LabCode		OS61							Overall	
		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata		Other
BI_2201	OD	-	0.1269	-	-	-	7.4194	-	-	7.5463
	AD	-	0.0898	-	-	-	7.1191	-	-	7.2089
	%diff.	-	29.24	-	-	-	4.05	-	-	4.47
BI_2202	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2203	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2204	OD	0.0079	0.2699	-	-	0.0127	0.7040	0.0480	0.0367	1.0792
	AD	0.0086	0.2596	-	-	0.0127	0.7039	0.0505	0.0407	1.0760
	%diff.	-8.8608	3.8162	-	-	0.0000	0.0142	-5.2083	-10.8992	0.2965
BI_2205	OD	-	0.0595	-	-	0.1575	-	-	-	0.2170
	AD	-	0.0663	-	-	0.1566	-	-	-	0.2229
	%diff.	-	-11.43	-	-	0.57	-	-	-	-2.72
BI_2207	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2208	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2209	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2211	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2213	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2216	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2218	OD	-	0.0039	-	-	-	0.9677	1.7501	-	2.7217
	AD	-	0.0021	-	-	-	0.7508	1.4681	-	2.2210
	%diff.	-	46.1538	-	-	-	22.4140	16.1134	-	18.3966
BI_2220	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2226	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2227	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2228	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2229	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2230	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2231	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2232	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2233	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 OS59-OS61.

LabCode		OS61							Overall	
		Nemertea	Polychaeta	Oligochaeta	Chelicerata	Crustacea	Mollusca	Echinodermata		Other
BI_2234	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2235	OD	-	0.9245	-	-	0.0317	-	-	-	0.9562
	AD	-	0.8381	-	-	0.0282	-	-	-	0.8663
	%diff.	-	9.35	-	-	11.04	-	-	-	9.40
BI_2236	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2237	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2238	OD	0.0019	3.7785	0.0032	-	0.0012	5.6354	0.0322	0.0004	9.4528
	AD	0.0012	0.1902	0.0025	-	0.0007	5.4283	0.0346	0.0004	5.6579
	%diff.	36.84	94.97	21.88	-	41.67	3.67	-7.45	0.00	40.15
BI_2239	OD	1.1286	0.9678	-	-	0.0006	5.9722	0.7421	0.1112	8.9225
	AD	1.0971	1.1342	-	-	0.0006	6.7908	1.5601	0.1013	10.6841
	%diff.	2.79	-17.19	-	-	0.00	-13.71	-110.23	8.90	-19.74
BI_2240	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2241	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2242	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2243	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-
BI_2244	OD	-	-	-	-	-	-	-	-	0.0000
	AD	-	-	-	-	-	-	-	-	0.0000
	%diff.	-	-	-	-	-	-	-	-	-

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 2015/16.

Scheme Year	Exercise	Number of samples		% Pass
		Pass (>90% BCSI)	Fail (<90% BCSI)	
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
2014/2015 (21)*	56, 57, 58	71	22	76
2015/2016 (22)*	59, 60, 61	81	15	84
	<b>Total</b>	<b>1164</b>	<b>245</b>	<b>79</b>

\* - Own Samples selected from completed data matrices, i.e. 'blind audits'

BCSI - Bray Curtis Similarity Index (untransformed)