NMBAQC

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Ring Test Bulletin – RTB#53

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RING TEST DETAILS

Ring Test #53

Type/Contents – General

Circulated – 10/07/17

Results deadline – 08/09/17

Number of Subscribing Laboratories – 24

Number of Participating Laboratories – 23

Number of Results Received – 23*

***multiple data entries per laboratory permitted**

Summary of differences

Specimen	Genus	Species	Size	Total differences for 23 returns	
				Genus	Species
RT5301	*Ruditapes*	*philippinarum*	7-9mm	1	11
RT5302	*Nebalia*	*kocatasi*	adult	0	14
RT5303	*Pasiphaea*	*sivado*	medium	0	0
RT5304	*Macropodia*	*rostrata*	medium	0	9
RT5305	*Scalibregma*	*celticum*	medium	0	1
RT5306	*Potamopyrgus*	*antipodarum*	medium	13	13
RT5307	*Metaphoxus*	*simplex*	adult	3	3
RT5308	*Eusarsiella*	*zostericola*	adult	3	3
RT5309	*Bathyarca*	*pectunculoides*	2-3mm	4	9
RT5310	*Onchnesoma*	*steenstrupii*	medium	0	0
RT5311	*Goniadella*	*gracilis*	medium	6	7
RT5312	*Paradoneis*	*ilvana*	medium	4	14
RT5313	*Chondrochelia*	*savignyi*	adult	9	9
RT5314	*Claviramus*	*candelus*	medium	9	16
RT5315	*Lysidice*	*unicornis*	medium	1	1
RT5316	*Galathowenia*	*fragilis*	medium	2	15
RT5317	*Eulalia*	*aurea*	medium	4	10
RT5318	*Praunus*	*flexuosus*	adult	0	0
RT5319	*Amythasides*	*macroglossus*	medium	17	17
RT5320	*Eugerda*	*tenuimana*	medium	12	13
RT5321	*Aricidea*	*catherinae*	medium	0	6
RT5322	*Baltidrilus*	*costatus*	medium	4	4
RT5323	*Gouldia*	*minima*	5-12mm	6	6
RT5324	*Levinsenia*	*gracilis*	medium	0	0
RT5325	*Littorina*	*compressa*	medium	0	20
			Total differences	98	201
			Average differences /lab.	4.3	8.7

Figure 1. The number of differences from the AQC identification of specimens distributed in RT53 for each of the participating laboratories. Arranged in order of increasing number of differences (by specific followed by generic errors).

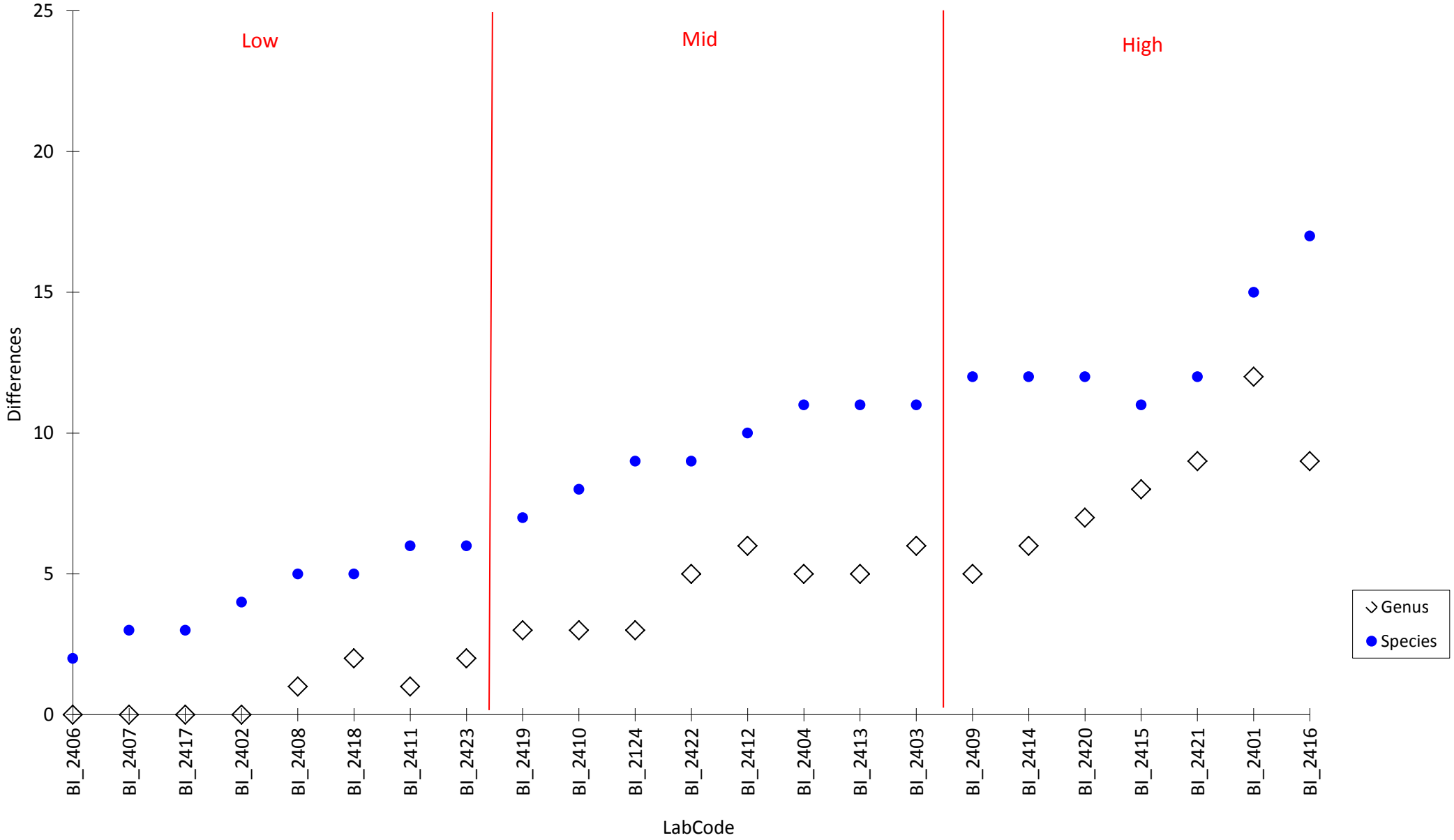

Table 1. The identification of fauna made by participating laboratories for RT53 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5301	RT5302	RT5303	RT5304	RT5305	RT5306
Taxon	*Ruditapes philippinarum*	*Nebalia kocatasi*	*Pasiphaea sivado*	*Macropodia rostrata*	*Scalibregma celticum*	*Potamopyrgus antipodarum*
BI_2401	[Tapes (Ruditapes)] -	[Nebelia] bipes	- -	- parva	- -	Hydrobia ulva
BI_2402	- -	- herbstii	- -	- -	- -	- -
BI_2403	- -	- bipes	- -	- -	- -	- -
BI_2404	- decussatus	- bipes	- -	- tenuirostris	- -	- -
BI_2406	- -	- -	- -	- parva	- -	- -
BI_2407	- -	- herbstii	- -	- parva	- -	- -
BI_2408	- -	- herbstii	- -	- -	- -	- -
BI_2409	- decussatus	- reboredae	- -	- deflexa	- -	Peringia ulvae
BI_2410	- decussatus	- -	- -	- -	- -	Peringia ulvae
BI_2411	- decussatus	- -	- -	- parva	- -	- -
BI_2412	[Venerupis] -	- bipes	- -	- -	- -	Peringia ulvae
BI_2413	- decussatus	- -	- -	- -	- -	Heleobia stagnorum
BI_2414	- decussatus	- strausi	- -	- -	- -	Peringia ulvae
BI_2415	- decussatus	- herbstii	- -	- -	- -	Rissoella diaphana
BI_2416	- -	- bipes	- -	- parva	- inflatum	Peringia ulvae
BI_2417	- -	- -	- -	- parva	- -	- -
BI_2418	- -	- -	- -	- parva	- -	Heleobia stagnorum
BI_2419	- -	- strausi	- -	- -	- -	- -
BI_2420	- decussatus	- bipes	- -	- -	- -	Peringia ulvae
BI_2421	- -	- herbstii	- -	- -	- -	Peringia ulvae
BI_2422	Venerupis corrugata	- -	- -	- -	- -	Peringia ulvae
BI_2423	- decussatus	- [kokatasi]	- -	- -	[Scalibrema] -	Hydrobia acuta neglecta
BI_2424	- decussatus	- -	- -	- -	- -	- -

Table 1. The identification of fauna made by participating laboratories for RT53 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5307	RT5308	RT5309	RT5310	RT5311
Taxon	*Metaphoxus simplex*	*Eusarsiella zostericola*	*Bathyarca pectunculoides*	*Onchnesoma steenstrupii*	*Goniadella gracilis*
BI_2401	[Parametaphoxus] [pectinatus]	Ostracoda 0	Delectopecten vitreus	- -	Goniada maculata
BI_2402	- -	- -	- -	- [steenstrupii steenstrupii]	- -
BI_2403	- -	- -	- frielei	- [steenstrupi]	- -
BI_2404	- -	- -	- -	- [steenstrupii steenstrupii]	Glycera capitata
BI_2406	- -	- -	- frieli	- -	- -
BI_2407	- -	- -	- -	- -	- -
BI_2408	- -	- -	- frielei	- -	Progoniada regularis
BI_2409	- -	- -	- -	- [steenstrupii steenstrupii]	- -
BI_2410	- -	- -	- -	- [steenstrupii steenstrupii]	- -
BI_2411	- -	- -	- -	[Onchnesoma steenstrupii] -	- -
BI_2412	- [pectinatus]	- -	- -	- -	- -
BI_2413	- -	- -	Asperarca nodulosa	- [steenstrupii steenstrupii]	- -
BI_2414	- -	- -	Delectopecten vitreus	- [steenstrupi]	Glycinde nordmanni
BI_2415	Paraphoxus oculatus	- -	- -	- [steenstrupii steenstrupii]	Glycera lapidum
BI_2416	Paraphoxus oculatus	Pseudocythere caudata	- -	- [steenstrupi]	- bobrezkii
BI_2417	- -	- -	- -	- [steenstrupii steenstrupii]	- -
BI_2418	- -	- -	- frielei	- -	- -
BI_2419	- [pectinatus]	- -	- [petunculoides]	- [steenstrupi]	- -
BI_2420	- -	- -	- frielei	- [steenstrupii steenstrupii]	Goniada maculata
BI_2421	Parametaphoxus fultoni	Ostracoda 0	Bivalvia 0	- -	- -
BI_2422	- -	- -	- [pentenculoides]	[Ochnesoma] [steenstrupi]	- -
BI_2423	- -	- -	- -	- [steenstrupii steenstrupii]	- -
BI_2424	- -	- -	- -	- -	- -

Table 1. The identification of fauna made by participating laboratories for RT53 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5312	RT5313	RT5314	RT5315	RT5316
Taxon	*Paradoneis ilvana*	*Chondrochelia savignyi*	*Claviramus candelus*	*Lysidice unicornis*	*Galathowenia fragilis*
BI_2401	Paranoides spp	Heterotanais oerstedii	Manayunkia aestuarina	[Nematonereis] -	Myriochele heeri
BI_2402	- -	- -	- oculatus	- -	- oculata
BI_2403	Paraonis fulgens	- -	Laonome kroyeri	- -	- oculata
BI_2404	- lyra	Parasinelobus chevreuxi	- -	- -	- oculata
BI_2406	- -	- -	- -	- -	- -
BI_2407	- -	- -	- -	- -	- -
BI_2408	- -	- -	- oculatus	- -	- -
BI_2409	- lyra	- [savigny]	- oculatus	- -	Myriochele danielsseni
BI_2410	- -	Heterotanais oerstedii	- oculatus	- -	- oculata
BI_2411	- lyra	- -	- -	- -	- oculata
BI_2412	- lyra	Heterotanais oerstedii	Chone infundibuliformis	- -	- oculata
BI_2413	- sp.	- -	Jasmineira elegans	- -	- oculata
BI_2414	- armata	- -	Euchone pseudolimnicola	- -	- oculata
BI_2415	Paraonis fulgens	Heterotanais oerstedii	- -	- -	- -
BI_2416	Paraonis fulgens	Pseudoparatanais batei	Fabricia stellaris	- -	- oculata
BI_2417	- -	- -	- -	- -	- oculata
BI_2418	- -	- -	- -	- -	- -
BI_2419	- lyra	Pseudoparatanais batei	- oculatus	- -	- -
BI_2420	- -	- -	Jasmineira elegans	- -	- -
BI_2421	- armata	Tanaidacea 0	Dialychone acustica	Lumbrineris coccinea	- -
BI_2422	- lyra	- -	Megalomma vesiculosum	- -	- oculata
BI_2423	- -	[Leptochelia] -	- oculatus	- -	- oculata
BI_2424	- lyra	Heterotanais oerstedii	- oculatus	- -	- oculata

Table 1. The identification of fauna made by participating laboratories for RT53 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5317	RT5318	RT5319	RT5320	RT5321
Taxon	*Eulalia aurea*	*Praunus flexuosus*	*Amythasides macroglossus*	*Eugerda tenuimana*	*Aricidea catherinae*
BI_2401	Eumida sanguinea	[Prannus] -	Notomastus latericeus	Paragnathia formica	- -
BI_2402	- -	[Pranus] -	- -	- -	- -
BI_2403	Eumida sanguinea	- -	Samytha sexcirrata	Paragnathia formica	[Aricidea (Aricidea)] wassi
BI_2404	- -	- -	Anobothrus laubieri	Microjaera anisopoda	- [(Acmira) catherinae]
BI_2406	- -	- -	- -	- -	- -
BI_2407	- -	- -	- -	- -	- -
BI_2408	- -	- -	- -	- -	- -
BI_2409	- -	- -	Samytha sexcirrata	Macrostylis spinifera	[Aricidea (Aricidea)] albatrossae
BI_2410	- viridis	- -	Anobothrus laubieri	- -	- -
BI_2411	- ornata	- -	Ampharete octocirrata	- -	[Aricidea (Acmira)] -
BI_2412	- -	- -	Samythella elongata	Microjaera anisopoda	[Aricidea (Acmira)] -
BI_2413	- hanssoni	- -	- -	Bledius sp.	- wassi
BI_2414	- -	- -	Lysippe labiata	Ianiropsis breviremis	- cerrutii
BI_2415	Eumida sanguinea	- -	Anobothrus gracilis	- filipes	[Aricidea (Acmira)] -
BI_2416	- viridis	- -	Eclysippe vanelli	Typhlotanais brevicornis	- suecica
BI_2417	- -	- -	- -	- intermedia	[Aricidea (Acmira)] -
BI_2418	- -	- -	Eclysippe vanelli	- -	- -
BI_2419	- -	- -	Eclysippe vanelli	Microjaera ansipoda	[Aricidea (Acmira)] -
BI_2420	Eumida bahusiensis	- -	Ampharete lindstroemi	Akanthophoreus gracilis	[Aricidea Acmira] simonae
BI_2421	- -	- -	Amage gallasii	Isopoda 0	[Aricidea (Acmira)] -
BI_2422	- viridis	- -	Eclysippe vanelli	Nannoniscus oblongus	[Aricidea (Acmira)] -
BI_2423	- -	- -	Lysippe fragilis	- -	[Aricidea (Acmira)] -
BI_2424	- bilineata	- -	Ampharete lindstroemi	- -	- -

Table 1. The identification of fauna made by participating laboratories for RT53 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5322	RT5323	RT5324	RT5325
Taxon	*Baltidrilus costatus*	*Gouldia minima*	*Levinsenia gracilis*	*Littorina compressa*
BI_2401	[Heterochaeta] [costata]	Dosinia lupinus	- -	- littorea
BI_2402	- -	- -	- -	- littorea
BI_2403	- -	Mysia undata	- -	- saxatilis
BI_2404	- -	Callista chione	- -	- saxatilis
BI_2406	- -	- -	- -	- -
BI_2407	- -	- -	- -	- littorea
BI_2408	- [costata]	- -	- -	- saxatilis
BI_2409	Tubificoides pseudogaster agg	- -	- -	- saxatilis
BI_2410	- -	- -	- -	- littorea
BI_2411	- -	- -	- -	- -
BI_2412	- -	Astarte borealis	- -	- littorea
BI_2413	- -	Astarte montagui	- -	- littorea
BI_2414	- -	- -	- -	- littorea
BI_2415	Tubificoides benedii	- -	- -	- saxatilis
BI_2416	Tubificoides heterochaetus	- -	- -	- saxatilis
BI_2417	- -	- -	- -	- -
BI_2418	- -	- -	- -	- littorea
BI_2419	[Baltridrilus] -	- -	- -	- saxatilis
BI_2420	Tubificoides pseudogaster	- -	- -	- littorea
BI_2421	- -	- -	- -	- saxatilis
BI_2422	- -	- -	- -	- littorea
BI_2423	- -	- -	- -	- saxatilis
BI_2424	- -	Callista chione	- -	- littorea

Table 2. The identification of fauna made by participating laboratories for RT53 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2401	BI_2402	BI_2403	BI_2404	BI_2406	BI_2407
RT5301	*Ruditapes philippinarum*	[Tapes (Ruditapes)] -	- -	- -	- decussatus	- -	- -
RT5302	*Nebalia kocatasi*	[Nebelia] bipes	- herbstii	- bipes	- bipes	- -	- herbstii
RT5303	*Pasiphaea sivado*	- -	- -	- -	- -	- -	- -
RT5304	*Macropodia rostrata*	- parva	- -	- -	- tenuirostris	- parva	- parva
RT5305	*Scalibregma celticum*	- -	- -	- -	- -	- -	- -
RT5306	*Potamopyrgus antipodarum*	Hydrobia ulva	- -	- -	- -	- -	- -
RT5307	*Metaphoxus simplex*	[Parametaphoxus] [pectinatus]	- -	- -	- -	- -	- -
RT5308	*Eusarsiella zostericola*	Ostracoda 0	- -	- -	- -	- -	- -
RT5309	*Bathyarca pectunculoides*	Delectopecten vitreus	- -	- frielei	- -	- frieli	- -
RT5310	*Onchnesoma steenstrupii*	- -	- [steenstrupii steenstrupii]	- [steenstrupi]	- [steenstrupii steenstrupii]	- -	- -
RT5311	*Goniadella gracilis*	Goniada maculata	- -	- -	Glycera capitata	- -	- -
RT5312	*Paradoneis ilvana*	Paranoides spp	- -	Paraonis fulgens	- lyra	- -	- -
RT5313	*Chondrochelia savignyi*	Heterotanais oerstedii	- -	- -	Parasinelobus chevreuxi	- -	- -
RT5314	*Claviramus candelus*	Manayunkia aestuarina	- oculatus	Laonome kroyeri	- -	- -	- -
RT5315	*Lysidice unicornis*	[Nematonereis] -	- -	- -	- -	- -	- -
RT5316	*Galathowenia fragilis*	Myriochele heeri	- oculata	- oculata	- oculata	- -	- -
RT5317	*Eulalia aurea*	Eumida sanguinea	- -	Eumida sanguinea	- -	- -	- -
RT5318	*Praunus flexuosus*	[Prannus] -	[Pranus] -	- -	- -	- -	- -
RT5319	*Amythasides macroglossus*	Notomastus latericeus	- -	Samytha sexcirrata	Anobothrus laubieri	- -	- -
RT5320	*Eugerda tenuimana*	Paragnathia formica	- -	Paragnathia formica	Microjaera anisopoda	- -	- -
RT5321	*Aricidea catherinae*	- -	- -	[Aricidea (Aricidea)] wassi	- [(Acmira) catherinae]	- -	- -
RT5322	*Baltidrilus costatus*	[Heterochaeta] [costata]	- -	- -	- -	- -	- -
RT5323	*Gouldia minima*	Dosinia lupinus	- -	Mysia undata	Callista chione	- -	- -
RT5324	*Levinsenia gracilis*	- -	- -	- -	- -	- -	- -
RT5325	*Littorina compressa*	- littorea	- littorea	- saxatilis	- saxatilis	- -	- littorea

Table 2. The identification of fauna made by participating laboratories for RT53 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2408	BI_2409	BI_2410	BI_2411
RT5301	*Ruditapes philippinarum*	- -	- decussatus	- decussatus	- decussatus
RT5302	*Nebalia kocatasi*	- herbstii	- reboredae	- -	- -
RT5303	*Pasiphaea sivado*	- -	- -	- -	- -
RT5304	*Macropodia rostrata*	- -	- deflexa	- -	- parva
RT5305	*Scalibregma celticum*	- -	- -	- -	- -
RT5306	*Potamopyrgus antipodarum*	- -	Peringia ulvae	Peringia ulvae	- -
RT5307	*Metaphoxus simplex*	- -	- -	- -	- -
RT5308	*Eusarsiella zostericola*	- -	- -	- -	- -
RT5309	*Bathyarca pectunculoides*	- frielei	- -	- -	- -
RT5310	*Onchnesoma steenstrupii*	- -	- [steenstrupii steenstrupii]	- [steenstrupii steenstrupii]	[Onchnesoma steenstrupii] -
RT5311	*Goniadella gracilis*	Progoniada regularis	- -	- -	- -
RT5312	*Paradoneis ilvana*	- -	- lyra	- -	- lyra
RT5313	*Chondrochelia savignyi*	- -	- [savigny]	Heterotanais oerstedii	- -
RT5314	*Claviramus candelus*	- oculatus	- oculatus	- oculatus	- -
RT5315	*Lysidice unicornis*	- -	- -	- -	- -
RT5316	*Galathowenia fragilis*	- -	Myriochele danielsseni	- oculata	- oculata
RT5317	*Eulalia aurea*	- -	- -	- viridis	- ornata
RT5318	*Praunus flexuosus*	- -	- -	- -	- -
RT5319	*Amythasides macroglossus*	- -	Samytha sexcirrata	Anobothrus laubieri	Ampharete octocirrata
RT5320	*Eugerda tenuimana*	- -	Macrostylis spinifera	- -	- -
RT5321	*Aricidea catherinae*	- -	[Aricidea (Aricidea)] albatrossae	- -	[Aricidea (Acmira)] -
RT5322	*Baltidrilus costatus*	- [costata]	Tubificoides pseudogaster agg	- -	- -
RT5323	*Gouldia minima*	- -	- -	- -	- -
RT5324	*Levinsenia gracilis*	- -	- -	- -	- -
RT5325	*Littorina compressa*	- saxatilis	- saxatilis	- littorea	- -

Table 2. The identification of fauna made by participating laboratories for RT53 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2412	BI_2413	BI_2414	BI_2415	BI_2416
RT5301	*Ruditapes philippinarum*	[Venerupis] -	- decussatus	- decussatus	- decussatus	- -
RT5302	*Nebalia kocatasi*	- bipes	- -	- strausi	- herbstii	- bipes
RT5303	*Pasiphaea sivado*	- -	- -	- -	- -	- -
RT5304	*Macropodia rostrata*	- -	- -	- -	- -	- parva
RT5305	*Scalibregma celticum*	- -	- -	- -	- -	- inflatum
RT5306	*Potamopyrgus antipodarum*	Peringia ulvae	Heleobia stagnorum	Peringia ulvae	Rissoella diaphana	Peringia ulvae
RT5307	*Metaphoxus simplex*	- [pectinatus]	- -	- -	Paraphoxus oculatus	Paraphoxus oculatus
RT5308	*Eusarsiella zostericola*	- -	- -	- -	- -	Pseudocythere caudata
RT5309	*Bathyarca pectunculoides*	- -	Asperarca nodulosa	Delectopecten vitreus	- -	- -
RT5310	*Onchnesoma steenstrupii*	- -	- [steenstrupii steenstrupii]	- [steenstrupi]	- [steenstrupii steenstrupii]	- [steenstrupi]
RT5311	*Goniadella gracilis*	- -	- -	Glycinde nordmanni	Glycera lapidum	- bobrezkii
RT5312	*Paradoneis ilvana*	- lyra	- sp.	- armata	Paraonis fulgens	Paraonis fulgens
RT5313	*Chondrochelia savignyi*	Heterotanais oerstedii	- -	- -	Heterotanais oerstedii	Pseudoparatanais batei
RT5314	*Claviramus candelus*	Chone infundibuliformis	Jasmineira elegans	Euchone pseudolimnicola	- -	Fabricia stellaris
RT5315	*Lysidice unicornis*	- -	- -	- -	- -	- -
RT5316	*Galathowenia fragilis*	- oculata	- oculata	- oculata	- -	- oculata
RT5317	*Eulalia aurea*	- -	- hanssoni	- -	Eumida sanguinea	- viridis
RT5318	*Praunus flexuosus*	- -	- -	- -	- -	- -
RT5319	*Amythasides macroglossus*	Samythella elongata	- -	Lysippe labiata	Anobothrus gracilis	Eclysippe vanelli
RT5320	*Eugerda tenuimana*	Microjaera anisopoda	Bledius sp.	Ianiropsis breviremis	- [filipes]	Typhlotanais brevicornis
RT5321	*Aricidea catherinae*	[Aricidea (Acmira)] -	- wassi	- cerrutii	[Aricidea (Acmira)] -	- suecica
RT5322	*Baltidrilus costatus*	- -	- -	- -	Tubificoides benedii	Tubificoides heterochaetus
RT5323	*Gouldia minima*	Astarte borealis	Astarte montagui	- -	- -	- -
RT5324	*Levinsenia gracilis*	- -	- -	- -	- -	- -
RT5325	*Littorina compressa*	- littorea	- littorea	- littorea	- saxatilis	- saxatilis

Table 2. The identification of fauna made by participating laboratories for RT53 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2417	BI_2418	BI_2419	BI_2420
RT5301	*Ruditapes philippinarum*	- -	- -	- -	- decussatus
RT5302	*Nebalia kocatasi*	- -	- -	- strausi	- bipes
RT5303	*Pasiphaea sivado*	- -	- -	- -	- -
RT5304	*Macropodia rostrata*	- parva	- parva	- -	- -
RT5305	*Scalibregma celticum*	- -	- -	- -	- -
RT5306	*Potamopyrgus antipodarum*	- -	Heleobia stagnorum	- -	Peringia ulvae
RT5307	*Metaphoxus simplex*	- -	- -	- [pectinatus]	- -
RT5308	*Eusarsiella zostericola*	- -	- -	- -	- -
RT5309	*Bathyarca pectunculoides*	- -	- frielei	- [petunculoides]	- frielei
RT5310	*Onchnesoma steenstrupii*	- [steenstrupii steenstrupii]	- -	- [steenstrupi]	- [steenstrupii steenstrupii]
RT5311	*Goniadella gracilis*	- -	- -	- -	Goniada maculata
RT5312	*Paradoneis ilvana*	- -	- -	- lyra	- -
RT5313	*Chondrochelia savignyi*	- -	- -	Pseudoparatanais batei	- -
RT5314	*Claviramus candelus*	- -	- -	- oculatus	Jasmineira elegans
RT5315	*Lysidice unicornis*	- -	- -	- -	- -
RT5316	*Galathowenia fragilis*	- oculata	- -	- -	- -
RT5317	*Eulalia aurea*	- -	- -	- -	Eumida bahusiensis
RT5318	*Praunus flexuosus*	- -	- -	- -	- -
RT5319	*Amythasides macroglossus*	- -	Eclysippe vanelli	Eclysippe vanelli	Ampharete lindstroemi
RT5320	*Eugerda tenuimana*	- intermedia	- -	Microjaera ansipoda	Akanthophoreus gracilis
RT5321	*Aricidea catherinae*	[Aricidea (Acmira)] -	- -	[Aricidea (Acmira)] -	[Aricidea Acmira] simonae
RT5322	*Baltidrilus costatus*	- -	- -	[Baltridrilus] -	Tubificoides pseudogaster
RT5323	*Gouldia minima*	- -	- -	- -	- -
RT5324	*Levinsenia gracilis*	- -	- -	- -	- -
RT5325	*Littorina compressa*	- -	- littorea	- saxatilis	- littorea

Table 2. The identification of fauna made by participating laboratories for RT53 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2421	BI_2422	BI_2423	BI_2124
RT5301	*Ruditapes philippinarum*	- -	Venerupis corrugata	- decussatus	- decussatus
RT5302	*Nebalia kocatasi*	- herbstii	- -	- [kokatasi]	- -
RT5303	*Pasiphaea sivado*	- -	- -	- -	- -
RT5304	*Macropodia rostrata*	- -	- -	- -	- -
RT5305	*Scalibregma celticum*	- -	- -	[Scalibrema] -	- -
RT5306	*Potamopyrgus antipodarum*	Peringia ulvae	Peringia ulvae	Hydrobia acuta neglecta	- -
RT5307	*Metaphoxus simplex*	Parametaphoxus fultoni	- -	- -	- -
RT5308	*Eusarsiella zostericola*	Ostracoda 0	- -	- -	- -
RT5309	*Bathyarca pectunculoides*	Bivalvia 0	- [pentenculoides]	- -	- -
RT5310	*Onchnesoma steenstrupii*	- -	[Ochnesoma] [steenstrupi]	- [steenstrupii steenstrupii]	- -
RT5311	*Goniadella gracilis*	- -	- -	- -	- -
RT5312	*Paradoneis ilvana*	- armata	- lyra	- -	- lyra
RT5313	*Chondrochelia savignyi*	Tanaidacea 0	- -	[Leptochelia] -	Heterotanais oerstedii
RT5314	*Claviramus candelus*	Dialychone acustica	Megalomma vesiculosum	- oculatus	- oculatus
RT5315	*Lysidice unicornis*	Lumbrineris coccinea	- -	- -	- -
RT5316	*Galathowenia fragilis*	- -	- oculata	- oculata	- oculata
RT5317	*Eulalia aurea*	- -	- viridis	- -	- bilineata
RT5318	*Praunus flexuosus*	- -	- -	- -	- -
RT5319	*Amythasides macroglossus*	Amage gallasii	Eclysippe vanelli	Lysippe fragilis	Ampharete lindstroemi
RT5320	*Eugerda tenuimana*	Isopoda 0	Nannoniscus oblongus	- -	- -
RT5321	*Aricidea catherinae*	[Aricidea (Acmira)] -	[Aricidea (Acmira)] -	[Aricidea (Acmira)] -	- -
RT5322	*Baltidrilus costatus*	- -	- -	- -	- -
RT5323	*Gouldia minima*	- -	- -	- -	Callista chione
RT5324	*Levinsenia gracilis*	- -	- -	- -	- -
RT5325	*Littorina compressa*	- saxatilis	- littorea	- saxatilis	- littorea

Specimen Images and Detailed Breakdown of Identifications

LabCodes are abbreviated in this report to exclude the Scheme year, *i.e.* BI_2401 = Lab 01. An additional terminal character has been added within each LabCode (small case sequential letters) to permit multiple data entries from each laboratory, *i.e.* two participants from laboratory 01 would be coded as Lab 01a & Lab 01b. For details of your LabCode please contact your Scheme representative or APEM Ltd.

(Figure codes: A=anterior; P=posterior; L=lateral; D=dorsal; V=ventral)

RT5301 – *Ruditapes philippinarum* (Figure 1a)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good, small (7-9mm).

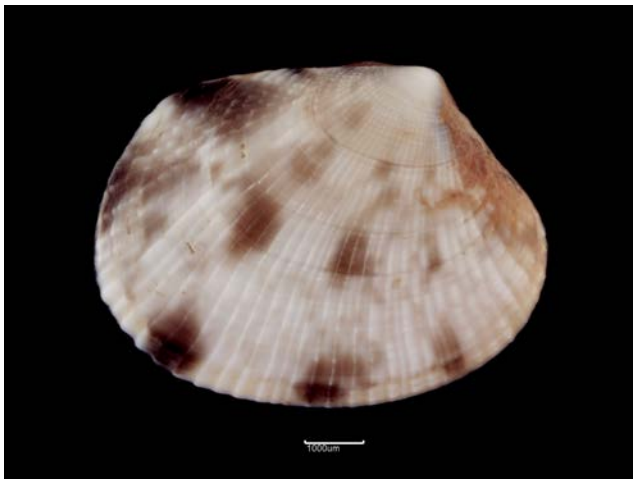

Fig. 1a. *Ruditapes philippinarum* (RT5301) – L

One generic and eleven specific differences: Lab 22 identified as *Venerupis corrugata* (Figure 1b) (which has very little radial sculpture at this size); Labs 04, 09, 10, 11, 13, 14, 15, 20, 23 and 24 identified as *Ruditapes decussatus* (Figure 1c – no small material available, use equivalent growth line to give estimate of small-size features) (which has a less rounded outline and less marked sculpture and colour pattern); differences between these species are discussed by Nerlović, *et al*., (2016) but their distinctions based on siphons relate to live material; note that Oliver *et al*. (2016) underestimate the distribution of this species, which is now widespread between Dorset and (at least) Suffolk (published record from Stour by Ashelby, 2005).

Labs 01 and 12 used previous generic nomenclature: *Tapes (Ruditapes)* and *Venerupis*.

Fig. 1b. *Venerupis corrugata* (9585) – L

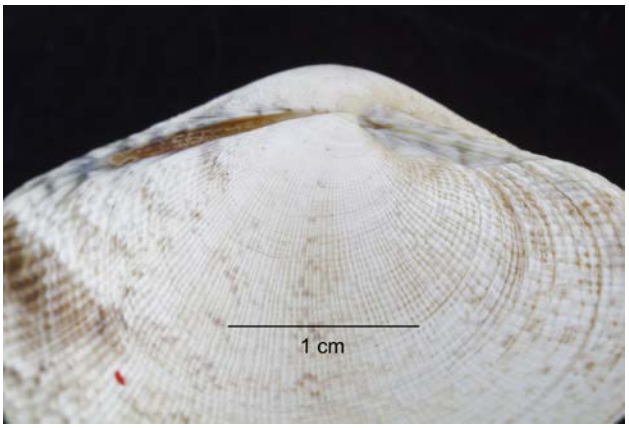

Fig. 1c. *Ruditapes decussatus* (Sussex) – L

RT5302 – *Nebalia kocatasi* (Figure 2a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Western Ireland. Condition: Good, adult, female.

Fig. 2a. *Nebalia kocatasi* (RT5102) – L

Fourteen specific differences: Lab 19 identified as *Nebalia strausi* (no material available) (which has distally acute denticles on pleonites 6-7); Labs 01, 03, 04, 12, 16 and 20 identified as *Nebalia bipes* (no material available); Labs 02, 07, 08, 15 and 21 identified as *Nebalia herbstii* (Figure 2d); Lab 09 identified as *Nebalia reboredae* (Figure 2c) (all of which have different external armature on article 3 of the antenna and the exopod of the 2nd maxilla extending beyond the proximal article of the endopod, with the proximal article of the endopod being distinctly longer than the distal article). It is likely that many of the identification differences were the result of outdated literature; the most recent review of UK Leptostraca is McCormack *et al*. (2016).

Lab 01 mis-spelled the genus as *Nebelia*; Lab 23 mis-spelled the species as *kokatasi*.

Fig. 2b. *Nebalia herbsti* (7097) – L

Fig. 2c. *Nebalia reboredae* (11449) – L

RT5303 – *Pasiphaea sivado* (Figure 3a)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Wales. Condition: Good, medium.

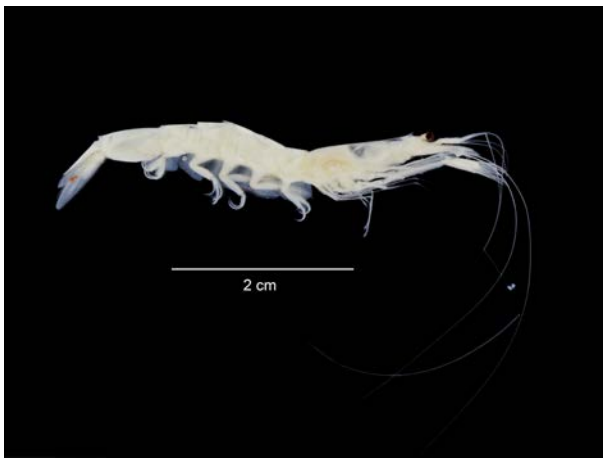

Fig. 3a. *Pasiphaea sivado* (RT5303) - L

No generic and no specific differences.

RT5304 – *Macropodia rostrata* (Figure 4a, 4b)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good, medium.

Fig. 4a. *Macropodia rostrata* (RT5304) - L

Nine specific differences: Lab 04 identified as *M. tenuirostris* (no material available); Lab 09 identified as *M. deflexa* (no material available) (both of which have a spinule between the subhepatic region of the carapace and the base of the antenna); Labs 01, 06, 07, 11, 16, 17 and 18 identified as *M. parva* (which has a strongly curved fifth pereiopod dactylus - Figure 4c); some of the other identification features (e.g., as noted by van Noort & Adema, 1985) are size and age dependant.

Fig. 4b. *Macropodia rostrata* (RT5304) – P5

Fig. 4c. *Macropodia parva* (65543) – P5

RT5305 – *Scalibregma celticum* (Figure 5a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper shelf). Geography: Southwest England. Condition: Fair, medium.

Fig. 5a. *Scalibregma celticum* (RT5305) – D

One specific difference: Lab 16 identified as *S. inflatum* (Figure 5b) (which lacks eyes).

Lab 23 mis-spelled the genus as *Scalibrema*.

Fig. 5b. *Scalibregma inflatum* (58385) – D

RT5306 – Potamopyrgus antipodarum (Figure 6a)

Substratum: Diamicton. Salinity: Reduced (Mesohaline). Depth: Infralittoral. Geography: Southeast England. Condition: Fair (damaged lips), medium, subadult.

Fig. 6a. *Potamopyrgus antipodarum* (RT5306) – V

Thirteen generic and thirteen specific differences: Lab 15 identified as *Rissoella diaphana* (Figure 6b) (which has a colourless shell, with an internal ridge visible through the operculum); Labs 13 and 18 identified as *Heleobia stagnorum* (no material available; Figure 6c shows a different cochliopid, possible a *Heleobia* sp.) (which has a white shell); Labs 01, 09, 10, 12, 14, 16, 20, 21 and 22 identified as *Peringia ulvae* (Figure 6d); Lab 23 identified as *Hydrobia acuta neglecta* (Figure 6e) (both of which have more flattened whorls).

Fig. 6b. *Rissoella diaphana* (58332) - V

Fig. 6c. *Heleobia* sp.? (58529) - V

Fig. 6d. *Peringia ulvae* (9591) – V

Fig. 6e. *Hydrobia acuta neglecta* (P842_13a) – V

RT5307 – *Metaphoxus simplex* (Figure 7a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper shelf). Geography: Southwest England. Condition: Fair, adult.

Fig. 7a. *Metaphoxus simplex* (RT5307) – L

Three generic and three specific differences: Labs 15 and 16 identified as *Paraphoxus oculatus* (Figure 7b) (which has gnathopods 1 and 2 of similar size and shape); Lab 21 identified as *Parametaphoxus fultoni* (Figure 7c) (which has the posterior margins of gnathopods 1 and 2 longer than the anterior); note that this species is correctly included in *Metaphoxus*, rather than *Parametaphoxus*; following our request this has now been updated on WoRMS.

Labs 12 and 19 used the synonym *Metaphoxus pectinatus*; Lab 01 used the synonym *Parametaphoxus pectinatus*.

Fig. 7b. *Paraphoxus oculatus* (5204) - L

Fig. 7c. *Metaphoxus fultoni* (55226) – L

RT5308 – *Eusarsiella zostericola* (Figure 8a)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good, adult.

Fig. 8a. *Eusarsiella zostericola* (RT5308) – L

Three generic and three specific differences: Lab 16 identified as *Pseudocythere caudata* (no material available; Figure 8b shows another podocopid ostracod) (which has a hard carapace and lacks a mid-valve carina).

Labs 01 and 21 identified to class level only: Ostracoda; we recommend identification to species level in the Ring Test exercise, with the 'confidence level' used to qualify the submission. Most ostracods (including many of the larger Myodocopida) are benthic so should be counted (even if only identified to order level); this species is particularly important, being non-native and abundant.

Fig. 8b. Podocopida indet. (7054) - L

RT5309 – *Bathyarca pectunculoides* (Figure 9a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (lower shelf). Geography: Barents Sea. Condition: Good, small (2-3mm).

Fig. 9a. *Bathyarca pectunculoides* (RT5309) – L

Four generic and nine specific differences: Labs 01 and 14 identified as *Delectopecten vitreus* (Figure 9b) (which has a thin translucent shell with distinct auricles); Lab 13 identified as *Asperarca nodulosa* (no material available) (which has a strongly sculptured shell); Labs 03, 06, 08, 18 and 20 identified as *Bathyarca frielei* (no material available) (which has a more rounded ventral margin, more expanded posteriorly).

Labs 19 and 22 mis-spelled the species as *petunculoides* and *pentenculoides*, respectively. Lab 21 identified to class level only: Bivalvia; we recommend identification to species level in the Ring Test exercise, with the 'confidence level' used to qualify the submission.

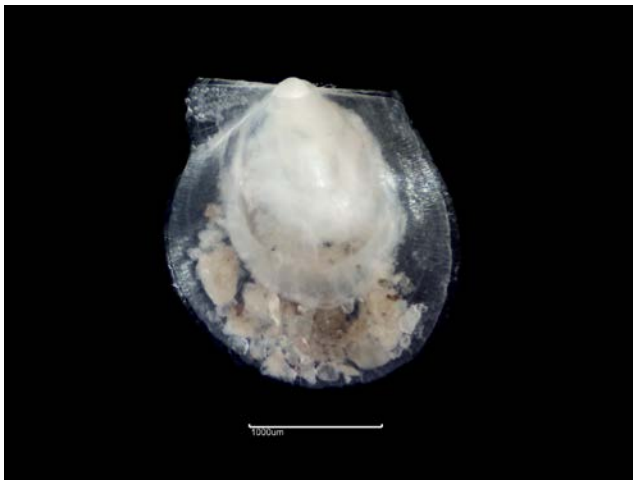

Fig. 9b. *Delectopecten vitreus* (P863 R9 2.3) – L

RT5310 – *Onchnesoma steenstrupii* (Figure 10a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (lower shelf). Geography: Norway. Condition: Fair, medium.

Fig. 10a. *Onchnesoma steenstrupii* (RT5310) – L

No generic and no specific differences.

Labs 02, 04, 09, 10, 15, 17, 20 and 23 included a subspecies name: *Onchnesoma steenstrupii steenstrupii*; identifications are only required to species level in the Ring Test exercise. Labs 03, 14, 16, 19 and 22 mis-spelled the species name: *steenstrupi*; Lab 22 mis-spelled the genus name: *Ochnesoma*.

RT5311 – *Goniadella gracilis* (Figure 11a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair, medium.

Fig. 11a. *Goniadella gracilis* (RT5311) – D

Six generic and seven specific differences: Lab 04 identified as *Glycera capitata* (Figure 11b); Lab 15 identified as *G. lapidum* (Figure 11c); Lab 14 identified as *Glycinde nordmanni* (Figure 11d) (all of which lack chevron-type paragnaths); Lab 08 identified as *Progoniada regularis* (no material available) (which lacks notochaetae); Lab 01 identified as *Goniada maculata* (Figure 11e) (which lacks notochaetae); Lab 01 identified as *Goniadella bobrezkii* (no material available) (in which both notochaetae are above the dorsal cirrus).

Fig. 11b. *Glycera capitata* (59431) – L

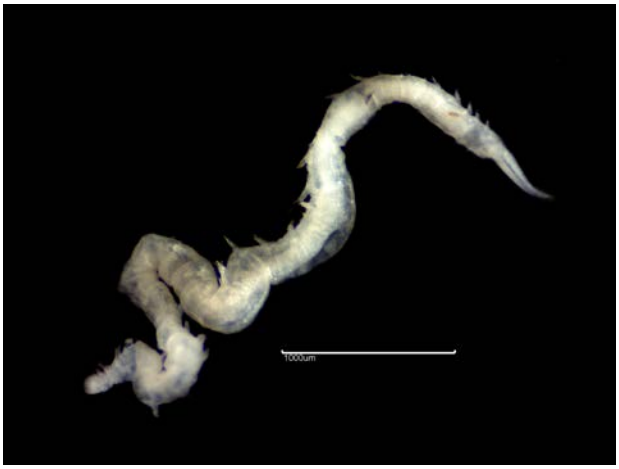

Fig. 11c. *Glycera lapidum* (RT4721) – D

Fig. 11d. *Glycinde nordmanni* (43586) – D

Fig. 11e. *Goniada maculata* (55906) – L

RT5312 – *Paradoneis ilvana* (Figure 12a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair, medium.

Fig. 12a. *Paradoneis ilvana* (RT5312) – L

Four generic and fourteen specific differences: Lab 01 identified as *Paranoides* sp., possibly a mis-spelling of *Paraonides* (no material available); Labs 03, 15 and 16 identified as *Paraonis fulgens* (Figure 12b); (both of which lack lyrate chaetae); Labs 04, 09, 11, 12, 19, 22 and 24 identified as *Paradoneis lyra* (Figure 12c) (in which the notopodial postchaetal lobes decrease in length in the anterior postbranchial region); Labs 14 and 21 identified as *Paradoneis armata* (Figure 12d) (which has harpoon-like posterior modified chaetae). *P. ilvana* was included in the recent NMBAQC Paraonidae guide (Gil, yet to be finalised and published online) but is also described in Parapar *et al*. (2012).

Fig. 12b. *Paraonis fulgens* (55246) – D/L

Fig. 12c. *Paradoneis lyra* (59279) – L

Fig. 12d. *Paradoneis armata* (7342) – D

RT5313 – *Chondrochelia savignyi* (Figure 13a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Southwest England. Condition: Good, adult, female.

Fig. 13a. *Chondrochelia savignyi* (RT5313) - L

Nine generic and nine specific differences: Lab 04 identified as *Parasinelobus chevreuxi* (no material available) (which has rows of erect setae on the first two pleonites); Labs 16 and 19 identified as *Pseudoparatanais batei* (Figure 13b) (which has only two articles to its uropod endopodite); Labs 01, 10, 12, 15 and 24 identified as *Heterotanais oerstedi* (no material available) (which has two articles to its uropod exopodite).

Lab 09 mis-spelled the species as *savigny*; Lab 23 used the earlier generic designation *Leptochelia*. Lab 21 identified to order level only: Tanaidacea; we recommend identification to species level in the Ring Test exercise, with the 'confidence level' used to qualify the submission.

Fig. 13b. *Pseudoparatanais batei* (APEM) – L

RT5314 – *Claviramus candelus* (Figure 14a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower shelf). Geography: North Sea. Condition: Fair, medium.

Fig. 14a. *Claviramus candelus* (RT5314) – L

Nine generic and sixteen specific differences: Lab 01 identified as *Manayunkia aestuarina* (Figure 14b); Lab 16 identified as *Fabricia stellaris* (Figure 14c); Lab 03 identified as *Laonome kroyeri* (Figure 14d); Lab 03 identified as *Megalomma vesiculosum*, a synonym of *Acromegalomma vesiculosum* (Figure 14e shows *Acromegalomma* sp.); Lab 12 identified as *Chone infundibuliformis* (no material available; Figure 14f shows a *Chone* or *Dialychone* sp.); Labs 13 and 20 identified as *Jasmineira elegans* (Figure 14g); Lab 14 identified as *Euchone pseudolimnicola* (Figure 14h); Lab 21 identified as *Dialychone acustica* (no material available; Figure 14f shows a *Chone* or *Dialychone* sp.); (all of which lack inflated radiolar flanges); Labs 02, 08, 09, 10, 19, 23 and 24 identified as *Claviramus oculatus* (no material available) (which lacks a glandular girdle on the second chaetiger). There is some conflict in the literature as to the distinction between the two *Claviramus* spp. and we have sent specimens for further study, which have yet to arrive.

Labs 13 and 18 noted the small size of the specimen; it was a typical size for the species.

Fig. 14b. *Manayunkia aestuarina* (57910) – L

Fig. 14c. *Fabricia stellaris* (57843) – L

Fig. 14d. *Laonome kroyeri* (7200) – D

Fig. 14e. *Acromegalomma* sp. (55446) – L

Fig. 14f. *Chone / Dialychone* (54924) – L

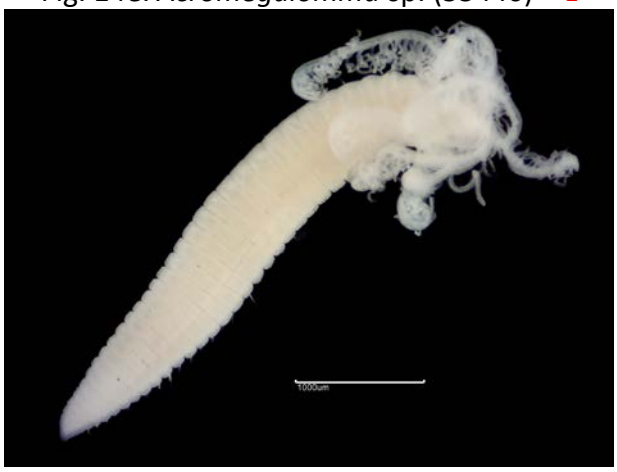

Fig. 14g. *Jasmineira* cf. *elegans* (58449) – V

Fig. 14h. *Euchone pseudolimnicola* (58297) – L

RT5315 – *Lysidice unicornis* (Figure 15a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Southwest England. Condition: Fair, medium.

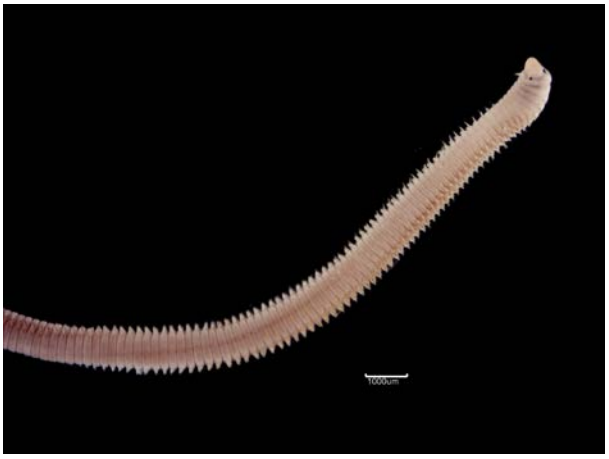

Fig. 15a. *Lysidice unicornis* (RT5315) – L

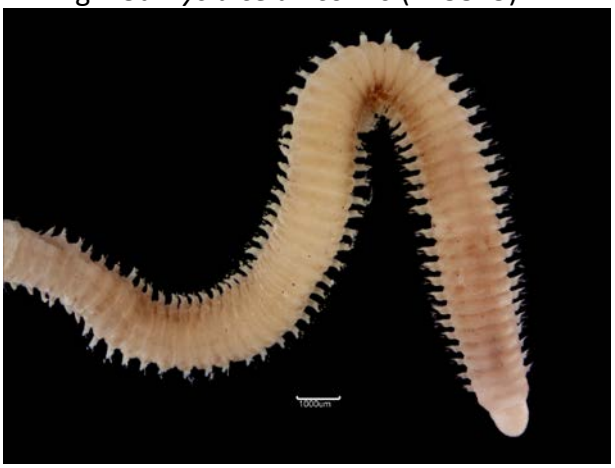

Fig. 15b. *Lumbrineris coccinea* ? (55552) – D

One generic and one specific difference: Lab 21 identified as *Lumbrineris coccinea* (Figure 15b shows a possible *L. coccinea*) (which lacks a median antenna).

Lab 01 used the previous generic designation *Nematonereis*.

RT5316 – *Galathowenia fragilis* (Figure 16a, 16b)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: Norway. Condition: Fair, medium.

Fig. 16a. *Galathowenia fragilis* (RT5316) – L

Two generic and fifteen specific differences: Lab 01 identified as *Myriochele heeri* (Figure 16d); Lab 08 identified as *Myriochele danielsseni* (Figure 16e) (both of which have rounded head regions); Labs 02, 03, 04, 10, 11, 12, 13, 14, 16, 17, 22, 23 and 24 identified as *Galathowenia oculata* (Figure 16c) (which lacks a distinct transverse slit between the first and second chaetigers). Some specimens were noted to have had eyespots; we have examined variation in more material and found that specimens that otherwise fit the features for *G. fragilis* (Parapar, 2006), sometimes have small eyespots. As there is some conflict in the literature as to the distinction between the two *Galathowenia* spp. we have sent specimens for further study, which have yet to arrive.

Fig. 16b. *Galathowenia fragilis* (RT5316) – V

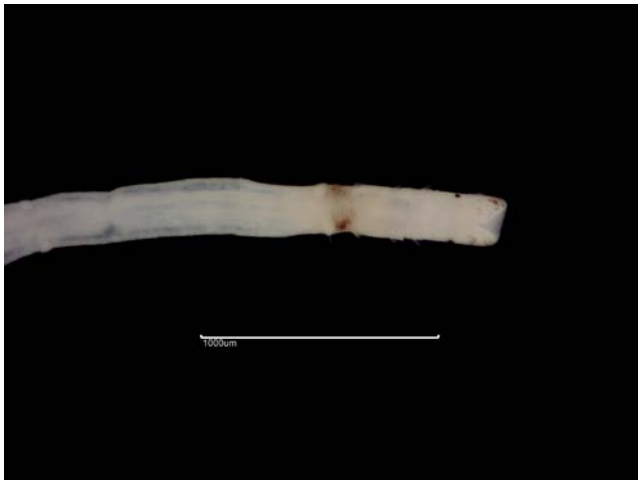

Fig. 16c. *Galathowenia oculata* (57523) – V

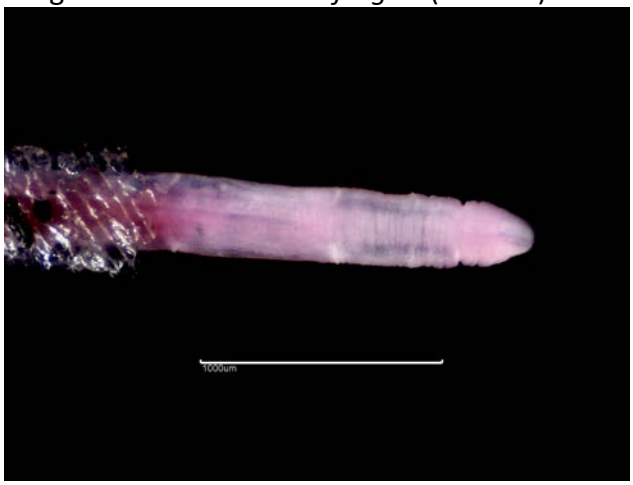

Fig. 16d. *Myriochele heeri* (58978) – V

Fig. 16e. *Myriochele danielsseni* (59487) – V

RT5317 – *Eulalia aurea* (Figure 17a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair, medium.

Fig. 17a. *Eulalia aurea* (RT5316) – L

Four generic and ten specific differences: Labs 01. 03 and 15 identified as *Eumida sanguinea* (Figure 17b); Lab 20 identified as *Eumida bahusiensis* (Figure 17c) (both of which have a dorsally reduced segment one and eyes placed forward of the rear margin of the prostomium); Lab 24 identified as *Eulalia bilineata* (Figure 17d) (which has rounded dorsal cirri); Labs 10, 16 and 22 identified as *Eulalia viridis* (Figure 17e); Lab 13 identified as *Eulalia hanssoni* (no material available) (both of which lack pigment pattern); Lab 11 identified as *Eulalia ornata* (Figure 17f) (which has two transverse bands on each segment).

Fig. 17b. *Eumida sanguinea* agg. (54827) – D

Fig. 17c. *Eumida bahusiensis* 9594 – D

Fig. 17d. *Eulalia bilineata* (10155) – D

Fig. 17e. *Eulalia viridis* (8545) – D

Fig. 17f. *Eulalia ornata* (RT49_14) – D

RT5318 – *Praunus flexuosus* (Figure 18a)

Substratum: Diamicton. Salinity: Reduced (Mesohaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good, adult.

Fig. 18a. *Praunus flexuosus* (9000) – L

No generic and no specific differences.

Labs 01 and 02 mis-spelled the genus as *Prannus* and *Pranus*, respectively.

RT5319 – *Amythasides macroglossus* (Figure 19a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: Norway. Condition: Fair, medium.

Fig. 19a. *Amythasides macroglossus* (RT5319) – L

Seventeen generic and seventeen specific differences: Lab 01 identified as *Notomastus latericeus* (Figure 19b) (which lacks a transverse row of dorsal branchiae); Labs 03 and 09 identified as *Samytha sexcirrata* (Figure 19c); Lab 12 identified as *Samythella elongata* (no material available); Lab 21 identified as *Amage gallasii* (no material available; Figure 19d shows *A. auricula*) (all of which lack paleae); Lab 14 identified as *Lysippe labiata* (no material available); Lab 14 identified as *Lysippe fragilis* (Figure 19e) (both of which have a longitudinally folded lower lip); Labs 04 and 10 identified as *Anobothrus laubieri* (no material available); Lab 15 identified as *Anobothrus gracilis* (Figure 19f); Labs 20 and 24 identified as *Ampharete lindstroemi* (Figure 19g) (all of which have more distinct, stouter paleae); Lab 11 identified as *Ampharete octocirrata* (Figure 19h) (which has paleae shorter than its notochaetae); Labs 16, 18, 19 and 22 identified as *Eclysippe vanelli* (Figure 19i) (which has the segments of the last five thoracic uncinigers distinctly longer than those of the anterior). Some specimens had eyespots, which may not be a reliable feature.

Lab 18 noted the small size of the specimen; it was a typical size for the species.

Fig. 19b. *Notomastus latericeus* (9726) – L

Fig. 19c. *Samytha sexcirrata* (9547) – V

Fig. 19d. *Amage auricula* (59439) – D

Fig. 19e. *Lysippe fragilis* (58973) – V

Fig. 19f. *Anobothrus gracilis* (37594) – D

Fig. 19g. *Ampharete lindstroemi* (58912) – L

Fig. 19h. *Ampharete octocirrata* (8406) – L

Fig. 19i. *Eclysippe vanelli* (10798) – L

RT5320 – *Eugerda tenuimana* (Figure 20a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower shelf). Geography: North Sea. Condition: Fair, medium.

Fig. 20a. *Eugerda tenuimana* (RT5320) – L

Twelve generic and thirteen specific differences: Lab 13 identified as *Bledius* sp. (Figure 20b shows a similar staphylinid) (which has three pairs of legs, and wing cases); Labs 01 and 03 identified as *Paragnathia formica* (Figure 20c) (which has five pairs of legs); Lab 16 identified as *Typhlotanais brevicornis* (no material available; Figure 20d shows *T. aequiremis*); Lab 20 identified as *Akanthophoreus gracilis* (Figure 20e) (both of which have the head fused to the first pereonite); Labs 04, 12 and 19 identified as *Microjaera anisopoda* (Figure 20f); Lab 09 identified as *Macrostylis spinifera* (no material available) (both of which have the first two pereonites of approximately equal length); Lab 22 identified as *Nannoniscus oblongus* (no material available); Lab 14 identified as *Ianiropsis breviremis* (no material available; Figure 20g shows *Janira maculosa*) (both of which are distinctly dorso-ventrally flattened with no clear difference in form between the first four pereonites relative to the final three); Lab 17 identified as *Eugerda intermedia* (no material available) (which has the merus of pereiopod 1 only 2X the length of the merus – 3X in *E. tenuimana*; see Hult,1936).

Lab 15 used the synonym *Eugerda filipes*; synonymy discussed by Brix (2007) but not immediately updated on WoRMS; we have since asked for this to be done. Lab 21 identified to order level only: Isopoda; we recommend identification to species level in the Ring Test exercise, with the 'confidence level' used to qualify the submission.

Fig. 20b. Staphylinidae (9407) - D

Fig. 20c. *Paragnathia formica* (55474) - D

Fig. 20d. *Typhlotanais aequiremis* (10785) - D

Fig. 20e. *Akanthophoreus gracilis* (413691) - D

Fig. 20f. *Microjaera anisopoda* (6936) - D

Fig. 20g. *Janira maculosa* (9588) - D

RT5321 – *Aricidea catherinae* (Figure 21a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower shelf). Geography: North Sea. Condition: Fair, medium.

Fig. 21a. *Aricidea catherinae* (RT5321) – L

Six specific differences: Labs 03 and 13 identified as *Aricidea wassi* (Figure 21b) (which has an articulated median antenna); Lab 09 identified as *Aricidea albatrossae* (Figure 21c); Lab 16 identified as *Aricidea suecica* (Figure 21d) (both of which have a graduation between capillary and modified chaetae); Lab 14 identified as *Aricidea simonae* (Figure 21e) (which lacks aristae on its modified chaetae – although these can fall off from *A. catherinae* - and has a straight sided median antenna); Lab 14 identified as *Aricidea cerrutii* (Figure 21f) (which has hooded modified chaetae and a straight sided median antenna).

Labs 04, 11, 12, 15, 17, 19, 21, 22 and 23 included the subgenus name: *Acmira*; only the genus and species are required in the Ring Test exercise.

Fig. 21b. *Aricidea wassi* (RT4924) – L

Fig. 21c. *Aricidea albatrossae* (58975) - L

Fig. 21d. *Aricidea suecica* ? (8089) – L

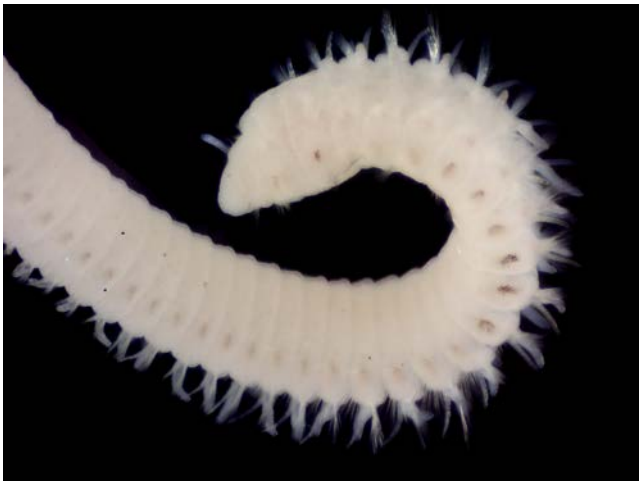

Fig. 21e. *Aricidea simonae* (8129) - L

Fig. 21f. *Aricidea cerrutii* (58089) - L

RT5322 – *Baltidrilus costatus* (Figure 22a)

Substratum: Mud. Salinity: Variable (Euryhaline). Depth: Intertidal. Geography: Southwest England. Condition: Fair, medium.

Fig. 22a. *Baltidrilus costatus* (RT5322) – L

Four generic and four specific differences: Lab 15 identified as *Tubificoides benedii* (Figure 22b); Lab 16 identified as *Tubificoides heterochaetus*; (no material available); Lab 20 identified as *Tubificoides pseudogaster*; (Figure 22c); Lab 20 identified as *T. pseudogaster* agg. (all of which lack palmate chaetae).

Lab 01 used the previous genus name: *Heterochaeta*; Lab 19 mis-spelled the genus name: *Baltridrilus*; Lab 08 mis-spelled the species name: *costata*.

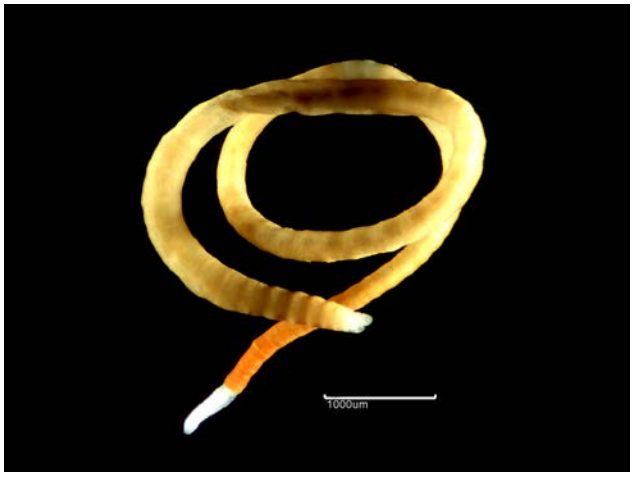

Fig. 22b. *Tubificoides benedii* (9591) – L

Fig. 22c. *Tubificoides pseudogaster* agg. (9591) – L

RT5323 – *Gouldia minima* (Figure 23a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Good, medium (5-12mm).

Fig. 23a. *Gouldia minima* (RT5323) – L

Six generic and six specific differences: Lab 13 identified as *Astarte montagui* (Figure 23b) (which has distinct concentric ridges); Lab 12 identified as *Astarte borealis* (no material available) (which has a darker shell, without a pallial sinus); Lab 01 identified as *Dosinia lupinus* (Figure 23c) (which has a more rounded shell); Lab 03 identified as *Mysia undata* (Figure 23d) (which has a thinner, colourless, more tumid shell); Labs 04 and 24 identified as *Callista chione* (Figure 23e) (which has a more glossy shell).

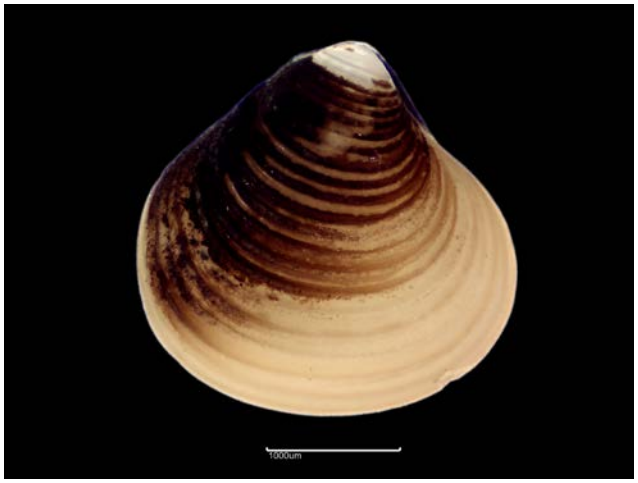

Fig. 23b. *Astarte montagui* (P134_VAR12.1) – L

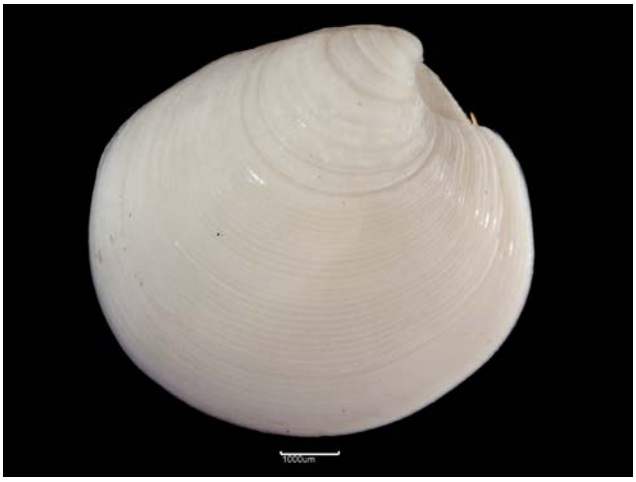

Fig. 23c. *Dosinia lupinus* (55135) – L

Fig. 23d. *Mysia undata* (56945) – L

Fig. 23e. *Callista chione* (7355) – L

RT5324 – *Levinsenia gracilis* (Figure 24a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower shelf). Geography: North Sea. Condition: Fair, medium.

Fig. 24a. *Levinsenia gracilis* (RT5324) – L

No generic and no specific differences.

RT5325 – *Littorina compressa* (Figure 25a)

Substratum: Hard substrata. Salinity: Full (Euhaline). Depth: Intertidal. Geography: western Scotland. Condition: Good, medium.

Fig. 25a. *Littorina compressa* (RT5325) – V

No generic and twenty specific differences: Labs 01, 02, 07, 10, 12, 13, 14, 18, 20, 22 and 24 identified as *Littorina littorea* (Figure 25b) (which has a concave outline to its spire at this size); Labs 03, 08, 09, 15, 16, 19, 21 and 23 identified as *Littorina saxatilis* (Figure 25c) (which has more rounded whorls, with either obsolete or less regular spiral sculpture).

Lab 19 stated 'aggregate' in the notes. *L. compressa* (formerly *L. nigrolineata*) is within the *L. saxatilis* aggregate but recognizable using external features and we recommend identification to species level in the Ring Test exercise.

Fig. 25b. *Littorina littorea* (NW Scotland) – V

Fig. 25c. *Littorina saxatilis* (NW Scotland) – V

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Please return all ring test specimens by 1st December 2017. These are reference collection specimens and must be returned to our museum. Your laboratory will be ineligible for future ring tests if specimens are not returned.

Return address: **David Hall, APEM Ltd., 7a Diamond Centre,**
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