

NMBAQC

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Ring Test Bulletin – RTB#49



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RING TEST DETAILS

Ring Test #49

Type/Contents – General

Circulated – 27/05/15

Completion Date – 31/07/15

Number of Subscribing Laboratories – 21

Number of Participating Laboratories – 19

Number of Results Received – 20*

*multiple data entries per laboratory permitted

Summary of differences

Specimen	Genus	Species	Total differences for 20 returns	
			Genus	Species
RT4901	Poecilochaetus	serpens	0	0
RT4902	Protodorvillea	kefersteini	0	0
RT4903	Sphenia	binghami	4	4
RT4904	Eudorella	emarginata	1	3
RT4905	Spiophanes	bombyx	0	0
RT4906	Araphura	brevimanus	5	5
RT4907	Pholoe	assimilis (sensu Petersen)	0	5
RT4908	Sabellaria	spinulosa	0	3
RT4909	Amphipholis	squamata	4	4
RT4910	Golfingia	vulgaris	3	4
RT4911	Nephasoma	minutum	8	8
RT4912	Golfingia	elongata	7	9
RT4913	Dipolydora	caulleryi	3	5
RT4914	Eulalia	ornata	3	8
RT4915	Pulsellum	affine	9	16
RT4916	Branchiostoma	lanceolatum	0	1
RT4917	Mya	arenaria	5	9
RT4918	Thyasira	flexuosa	0	2
RT4919	Thracia	phaseolina	10	12
RT4920	Eurydice	pulchra	0	0
RT4921	Vitreolina	philippi	2	2
RT4922	Galathea	intermedia	0	1
RT4923	Aphelochaeta	marioni	3	3
RT4924	Aricidea	wassi	0	7
RT4925	Labidoplax	buskii	2	3
Total differences			69	114
Average differences /lab.			3.5	5.7

Figure 1. The number of differences from the AQC identification of specimens distributed in RT49 for each of the participating laboratories. Arranged in order of increasing number of differences.

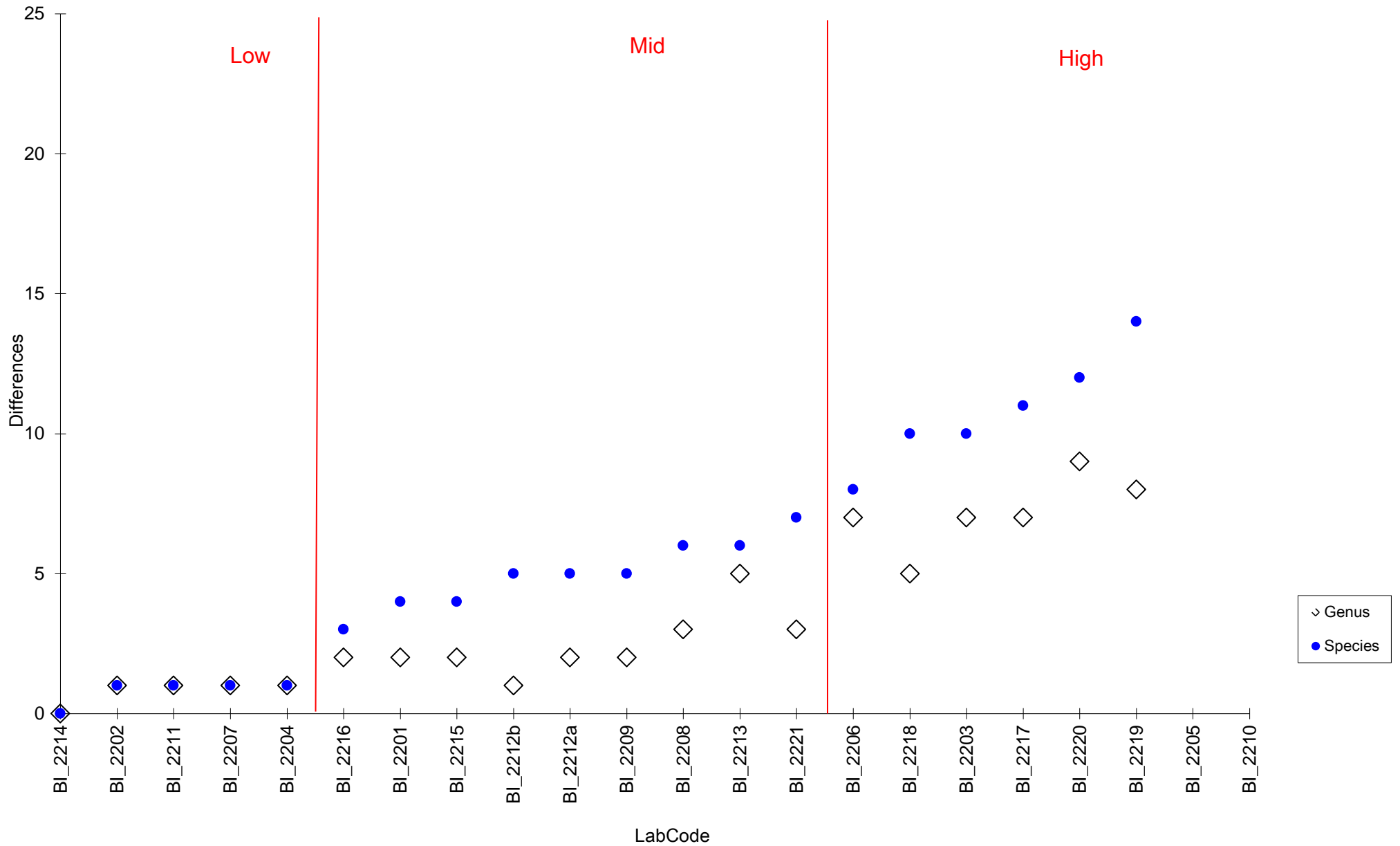


Table 1. The identification of fauna made by participating laboratories for RT49 (arranged by specimen). Names are given only where different from the AQC identification.

	RT4901	RT4902	RT4903	RT4904	RT4905	RT4906
Taxon	<i>Paecilochaetus serpens</i>	<i>Protodorvillea kefersteini</i>	<i>Sphenia binghami</i>	<i>Eudorella emarginata</i>	<i>Spiophanes bombyx</i>	<i>Araphura brevimanus</i>
BI_2201	--	--	--	--	--	--
BI_2202	--	--	--	--	--	--
BI_2203	--	--	--	--	--	Tanaopsis graciloides
BI_2204	--	--	--	--	--	--
BI_2206	--	--	Lutraria oblonga	Bathycuma brevirostre	--	Typhlotanais brevicornis
BI_2207	--	--	--	--	--	--
BI_2208	--	--	--	--	--	--
BI_2209	--	--	--	--	--	--
BI_2211	--	--	--	--	--	--
BI_2212a	--	--	--	--	--	--
BI_2212b	--	--	--	--	--	--
BI_2213	--	--	Gari fervensis	--	--	Tanaopsis graciloides
BI_2214	--	--	--	--	--	- [brevimana]
BI_2215	--	--	--	--	--	--
BI_2216	--	--	--	--	--	- [brevirama]
BI_2217	--	--	Pholas dactylus	--	--	--
BI_2218	--	--	--	- truncatulla	--	- [brevimana]
BI_2219	--	--	Hiatella rugosa	--	--	Tanaopsis graciloides
BI_2220	--	--	--	- truncatula	--	Tanaopsis graciloides
BI_2221	--	--	--	--	--	--

Table 1. The identification of fauna made by participating laboratories for RT49 (arranged by specimen). Names are given only where different from the AQC identification.

	RT4907	RT4908	RT4909	RT4910	RT4911	RT4912
Taxon	<i>Pholoe assimilis (sensu Petersen)</i>	<i>Sabellaria spinulosa</i>	<i>Amphipholis squamata</i>	<i>Golfingia vulgaris</i>	<i>Nephasoma minutum</i>	<i>Golfingia elongata</i>
BI_2201	- [assimilis]	--	--	[<i>Golfingia (Golfingia)</i>] [vulgaris vulgaris]	[<i>Nephasoma (Nephasoma)</i>] -	[<i>Golfingia (Golfingia)</i>] vulgaris vulgaris
BI_2202	- [assimilis]	--	--	[<i>Golfingia (Golfingia)</i>] [vulgaris vulgaris]	[<i>Nephasoma (Nephasoma)</i>] -	[<i>Golfingia (Golfingia)</i>] -
BI_2203	- [assimilis]	--	Amphiura chaigeri	--	<i>Golfingia elongata</i>	<i>Phascolosoma granulatum</i>
BI_2204	- [assimilis]	--	--	- [vulgaris vulgaris]	--	--
BI_2206	- [assimilis]	--	Amphiura chiajei	--	--	--
BI_2207	- [assimilis]	--	--	- [vulgaris vulgaris]	--	--
BI_2208	- [assimilis]	- alveolata	--	--	<i>Golfingia elongata</i>	<i>Nephasoma minutum</i>
BI_2209	- [assimilis]	--	--	[<i>Golfingia (Golfingia)</i>] elongata	[<i>Nephasoma (Nephasoma)</i>] -	<i>Nephasoma (Nephasoma) rimicola</i>
BI_2211	- [assimilis]	--	--	[<i>Golfingia (Golfingia)</i>] [vulgaris vulgaris]	[<i>Nephasoma (Nephasoma)</i>] -	[<i>Golfingia (Golfingia)</i>] -
BI_2212a	- baltica	--	--	[<i>Golfingia (Golfingia)</i>] [vulgaris vulgaris]	<i>Thysanocardia procera</i>	[<i>Golfingia (Golfingia)</i>] -
BI_2212b	- baltica	--	--	[<i>Golfingia (Golfingia)</i>] [vulgaris vulgaris]	<i>Thysanocardia procera</i>	[<i>Golfingia (Golfingia)</i>] -
BI_2213	- [assimilis]	--	--	--	<i>Onchnesoma steenstrupi</i>	--
BI_2214	- [assimilis]	--	--	--	--	--
BI_2215	- [assimilis]	--	--	--	--	--
BI_2216	- [assimilis]	- alveolata	--	--	--	--
BI_2217	- inornata	--	Amphiura chiajei	<i>Phascolion strombus</i>	<i>Phascolion strombus</i>	<i>Thysanocardia procera</i>
BI_2218	--	- alveolata	Amphiura chiajei	--	- [minuta]	<i>Phascolosoma granulatum</i>
BI_2219	- baltica	--	--	<i>Nephasoma minutum</i>	<i>Phascolion strombus</i>	- margaritacea
BI_2220	- [assimilis]	--	--	<i>Nephasoma (Nephasoma) minutum</i>	[<i>Nephasoma (Nephasoma)</i>] -	<i>Nephasoma (Nephasoma) minutum</i>
BI_2221	- baltica	--	--	- [vulgaris vulgaris]	<i>Golfingia margaritacea</i>	<i>Nephasoma minutum</i>

Table 1. The identification of fauna made by participating laboratories for RT49 (arranged by specimen). Names are given only where different from the AQC identification.

	RT4913	RT4914	RT4915	RT4916	RT4917	RT4918	RT4919
Taxon	<i>Dipolydora caulleryi</i>	<i>Eulalia ornata</i>	<i>Pulsellum affine</i>	<i>Branchiostoma lanceolatum</i>	<i>Mya arenaria</i>	<i>Thyasira flexuosa</i>	<i>Thracia phaseolina</i>
BI_2201	--	- clavigera	Antalis entalis	--	--	--	Kurtiella bidentata
BI_2202	--	--	--	--	--	--	Cochlodesma praetenu
BI_2203	Pygospio elegans	--	- lofotense	--	Morella donacina	--	--
BI_2204	--	--	Antalis entalis	--	--	--	--
BI_2206	--	--	Antaris vulgaris	--	Tapes corrugata	--	Kurtiella bidentata
BI_2207	--	--	--	--	--	--	Kurtiella bidentata
BI_2208	Pseudopolydora antennata	--	- lofotense	--	--	--	--
BI_2209	--	--	Antalis entalis	--	- truncata	--	- villosiuscula
BI_2211	--	--	--	--	--	--	Kurtiella bidentata
BI_2212a	--	Phyllococe maculata	- lofotense	--	--	--	--
BI_2212b	--	- viridis	- lofotense	--	--	--	--
BI_2213	--	--	- lofotense	--	Corbula gibba	--	Kurtiella bidentata
BI_2214	--	--	--	--	--	--	--
BI_2215	--	- clavigera	Antalis entalis	--	Sphenia binghami	--	- convexa
BI_2216	--	--	Antalis entalis	--	Corbula gibba	--	--
BI_2217	- 0	- viridis	Dentalium entalis	- 0	--	--	Kurtiella bidentata
BI_2218	- quadrilobata	Paranaitis kosteriensis	- lofotense	--	- truncata	--	Moerella pygmaea
BI_2219	Pseudopolydora paucibranchiata	- clavigera	Ditrupe arietina	--	- truncata	- sarsii	--
BI_2220	--	Eumida punctifera	Ditrupe arietina	--	--	- gouldi	Montacuta substriata
BI_2221	--	--	- lofotense	--	- truncata	--	Kurtiella bidentata

Table 1. The identification of fauna made by participating laboratories for RT49 (arranged by specimen). Names are given only where different from the AQC identification.

	RT4920	RT4921	RT4922	RT4923	RT4924	RT4925
Taxon	<i>Eurydice pulchra</i>	<i>Vitreolina philippi</i>	<i>Galathea intermedia</i>	<i>Aphelocheata marioni</i>	<i>Aricidea wassi</i>	<i>Labidoplax buskii</i>
BI_2201	--	--	--	--	[Aricidea (Aricidea)] -	--
BI_2202	--	--	--	--	[Aricidea (Aricidea)] -	--
BI_2203	--	- [philippii]	- squamifera	Chaetozone setosa	- capensis	--
BI_2204	--	--	--	--	--	--
BI_2206	--	--	--	--	--	- media
BI_2207	--	--	--	--	--	--
BI_2208	--	--	--	--	- capensis bansei	--
BI_2209	--	--	--	--	[Aricidea (Aricidea)] -	[Leptosynapta] [decaria]
BI_2211	--	--	--	--	[Aricidea (Aricidea)] -	--
BI_2212a	--	--	--	--	[Aricidea (Aricidea)] capensis bansei	--
BI_2212b	--	--	--	--	[Aricidea (Aricidea)] capensis bansei	--
BI_2213	--	- [philippii]	--	--	[Aricidea (Aricidea)] -	--
BI_2214	--	--	--	--	--	--
BI_2215	--	--	--	--	--	--
BI_2216	--	--	--	--	--	--
BI_2217	--	--	--	--	--	--
BI_2218	--	Crinophtheiros collinsi	--	--	[Aricidea (Aricidea)] -	--
BI_2219	--	--	--	Cirratulus cf caudatus	- suecica	Leptosynapta minuta
BI_2220	--	Melanella monterosatoi	--	Tharyx killariensis	[Aricidea (Aricidea)] minuta	Peachia cylindrica
BI_2221	--	--	--	--	- capensis bansei	--

Table 2. The identification of fauna made by participating laboratories for RT49 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2201	BI_2202	BI_2203	BI_2204	BI_2206	BI_2207	BI_2208
RT4901	<i>Poecilochaetus serpens</i>	--	--	--	--	--	--	--
RT4902	<i>Protodorvillea kefersteini</i>	--	--	--	--	--	--	--
RT4903	<i>Sphenia binghami</i>	--	--	--	--	<i>Lutraria oblonga</i>	--	--
RT4904	<i>Eudorella emarginata</i>	--	--	--	--	<i>Bathycuma brevistre</i>	--	--
RT4905	<i>Spiophanes bombyx</i>	--	--	--	--	--	--	--
RT4906	<i>Araphura brevimanus</i>	--	--	<i>Tanaopsis graciloides</i>	--	<i>Typhlotanis brevicornis</i>	--	--
RT4907	<i>Pholoe assimilis</i> (sensu Petersen)	- [assimilis]	- [assimilis]	- [assimilis]	- [assimilis]	- [assimilis]	- [assimilis]	- [assimilis]
RT4908	<i>Sabellaria spinulosa</i>	--	--	--	--	--	--	- alveolata
RT4909	<i>Amphipholis squamata</i>	--	--	<i>Amphiura chaigeri</i>	--	<i>Amphiura chiajei</i>	--	--
RT4910	<i>Golfingia vulgaris</i>	[<i>Golfingia</i> (<i>Golfingia</i>)] [<i>vulgaris vulgaris</i>]	[<i>Golfingia</i> (<i>Golfingia</i>)] [<i>vulgaris vulgaris</i>]	--	- [<i>vulgaris vulgaris</i>]	--	- [<i>vulgaris vulgaris</i>]	--
RT4911	<i>Nephasoma minutum</i>	[<i>Nephasoma</i> (<i>Nephasoma</i>)] -	[<i>Nephasoma</i> (<i>Nephasoma</i>)] -	<i>Golfingia elongata</i>	--	--	--	<i>Golfingia elongata</i>
RT4912	<i>Golfingia elongata</i>	[<i>Golfingia</i> (<i>Golfingia</i>)] [<i>vulgaris vulgaris</i>]	[<i>Golfingia</i> (<i>Golfingia</i>)] -	<i>Phascolosoma granulatam</i>	--	--	--	<i>Nephasoma minutum</i>
RT4913	<i>Dipolydora caulleryi</i>	--	--	<i>Pygospio elegans</i>	--	--	--	<i>Pseudopolydora antennata</i>
RT4914	<i>Eulalia ornata</i>	- clavigera	--	--	--	--	--	--
RT4915	<i>Pulsellum affine</i>	<i>Antalis entalis</i>	--	- lofotense	<i>Antalis entalis</i>	<i>Antaris vulgaris</i>	--	- lofotense
RT4916	<i>Branchiostoma lanceolatum</i>	--	--	--	--	--	--	--
RT4917	<i>Mya arenaria</i>	--	--	<i>Morella donacina</i>	--	<i>Tapes corrugata</i>	--	--
RT4918	<i>Thyasira flexuosa</i>	--	--	--	--	--	--	--
RT4919	<i>Thracia phaseolina</i>	<i>Kurtiella bidentata</i>	<i>Cochlodesma praetenuae</i>	--	--	<i>Kurtiella bidentata</i>	<i>Kurtiella bidentata</i>	--
RT4920	<i>Eurydice pulchra</i>	--	--	--	--	--	--	--
RT4921	<i>Vitreolina philippi</i>	--	--	- [philippii]	--	--	--	--
RT4922	<i>Galathea intermedia</i>	--	--	- squamifera	--	--	--	--
RT4923	<i>Aphelocheata marioni</i>	--	--	<i>Chaetozone setosa</i>	--	--	--	--
RT4924	<i>Aricidea wassi</i>	[<i>Aricidea</i> (<i>Aricidea</i>)] -	[<i>Aricidea</i> (<i>Aricidea</i>)] -	- capensis	--	--	--	- capensis bansei
RT4925	<i>Labidoplax buskii</i>	--	--	--	--	- media	--	--

Table 2. The identification of fauna made by participating laboratories for RT49 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2209	BI_2211	BI_2212a	BI_2212b	BI_2213	BI_2214	BI_2215
RT4901	<i>Poecilochaetus serpens</i>	--	--	--	--	--	--	--
RT4902	<i>Protodorvillea kefersteini</i>	--	--	--	--	--	--	--
RT4903	<i>Sphenia binghami</i>	--	--	--	--	Gari fervensis	--	--
RT4904	<i>Eudorella emarginata</i>	--	--	--	--	--	--	--
RT4905	<i>Spiophanes bombyx</i>	--	--	--	--	--	--	--
RT4906	<i>Araphura brevimanus</i>	--	--	--	--	Tanaopsis graciloides	- [brevimana]	--
RT4907	<i>Pholoe assimilis</i> (sensu Petersen)	- [assimilis]	- [assimilis]	- baltica	- baltica	- [assimilis]	- [assimilis]	- [assimilis]
RT4908	<i>Sabellaria spinulosa</i>	--	--	--	--	--	--	--
RT4909	<i>Amphipholis squamata</i>	--	--	--	--	--	--	--
RT4910	<i>Golfingia vulgaris</i>	[<i>Golfingia</i> (<i>Golfingia</i>)] elongata	[<i>Golfingia</i> (<i>Golfingia</i>)] [vulgaris vulgaris]	[<i>Golfingia</i> (<i>Golfingia</i>)] [vulgaris vulgaris]	[<i>Golfingia</i> (<i>Golfingia</i>)] [vulgaris vulgaris]	--	--	--
RT4911	<i>Nephasoma minutum</i>	[<i>Nephasoma</i> (<i>Nephasoma</i>)] -	[<i>Nephasoma</i> (<i>Nephasoma</i>)] -	<i>Thysanocardia procera</i>	<i>Thysanocardia procera</i>	<i>Onchnesoma steenstrupi</i>	--	--
RT4912	<i>Golfingia elongata</i>	<i>Nephasoma</i> (<i>Nephasoma</i>) rimicola	[<i>Golfingia</i> (<i>Golfingia</i>)] -	[<i>Golfingia</i> (<i>Golfingia</i>)] -	[<i>Golfingia</i> (<i>Golfingia</i>)] -	--	--	--
RT4913	<i>Dipolydora caulleryi</i>	--	--	--	--	--	--	--
RT4914	<i>Eulalia ornata</i>	--	--	<i>Phyllodoce maculata</i>	- viridis	--	--	- clavigera
RT4915	<i>Pulsellum affine</i>	<i>Antalis entalis</i>	--	- lofotense	- lofotense	- lofotense	--	<i>Antalis entalis</i>
RT4916	<i>Branchiostoma lanceolatum</i>	--	--	--	--	--	--	--
RT4917	<i>Mya arenaria</i>	- truncata	--	--	--	<i>Corbula gibba</i>	--	<i>Sphenia binghami</i>
RT4918	<i>Thyasira flexuosa</i>	--	--	--	--	--	--	--
RT4919	<i>Thracia phaseolina</i>	- villosuscula	<i>Kurtiella bidentata</i>	--	--	<i>Kurtiella bidentata</i>	--	- convexa
RT4920	<i>Eurydice pulchra</i>	--	--	--	--	--	--	--
RT4921	<i>Vitreolina philippi</i>	--	--	--	--	- [philippii]	--	--
RT4922	<i>Galathea intermedia</i>	--	--	--	--	--	--	--
RT4923	<i>Aphelocheata marioni</i>	--	--	--	--	--	--	--
RT4924	<i>Aricidea wassi</i>	[<i>Aricidea</i> (<i>Aricidea</i>)] -	[<i>Aricidea</i> (<i>Aricidea</i>)] -	[<i>Aricidea</i> (<i>Aricidea</i>)] capensis bansei	[<i>Aricidea</i> (<i>Aricidea</i>)] capensis bansei	[<i>Aricidea</i> (<i>Aricidea</i>)] -	--	--
RT4925	<i>Labidoplax buskii</i>	[<i>Leptosynapta</i>] [decaria]	--	--	--	--	--	--

Table 2. The identification of fauna made by participating laboratories for RT49 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2216	BI_2217	BI_2218	BI_2219	BI_2220	BI_2221
RT4901	<i>Poecilochaetus serpens</i>	--	--	--	--	--	--
RT4902	<i>Protodorvillea kefersteini</i>	--	--	--	--	--	--
RT4903	<i>Sphenia binghami</i>	--	<i>Pholas dactylus</i>	--	<i>Hiatella rugosa</i>	--	--
RT4904	<i>Eudorella emarginata</i>	--	--	- truncatulla	--	- truncatula	--
RT4905	<i>Spiophanes bombyx</i>	--	--	--	--	--	--
RT4906	<i>Araphura brevimanus</i>	- [brevirama]	--	- [brevimana]	<i>Tanaopsis graciloides</i>	<i>Tanaopsis graciloides</i>	--
RT4907	<i>Pholoe assimilis</i> (sensu Petersen)	- [assimilis]	- inornata	--	- baltica	- [assimilis]	- baltica
RT4908	<i>Sabellaria spinulosa</i>	- alveolata	--	- alveolata	--	--	--
RT4909	<i>Amphipholis squamata</i>	--	<i>Amphiura chiajei</i>	<i>Amphiura chiajei</i>	--	--	--
RT4910	<i>Golfingia vulgaris</i>	--	<i>Phascolion strombus</i>	--	<i>Nephasoma minutum</i>	<i>Nephasoma (Nephasoma) minutum</i>	- [vulgaris vulgaris]
RT4911	<i>Nephasoma minutum</i>	--	<i>Phascolion strombus</i>	- [minuta]	<i>Phascolion strombus</i>	[<i>Nephasoma (Nephasoma)</i>] -	<i>Golfingia margaritacea</i>
RT4912	<i>Golfingia elongata</i>	--	<i>Thysanocardia procera</i>	<i>Phascolosoma granulatum</i>	- margaritacea	<i>Nephasoma (Nephasoma) minutum</i>	<i>Nephasoma minutum</i>
RT4913	<i>Dipolydora caulleryi</i>	--	- 0	- quadrilobata	<i>Pseudopolydora paucibranchiata</i>	--	--
RT4914	<i>Eulalia ornata</i>	--	- viridis	<i>Paranaitis kosteriensis</i>	- clavigera	<i>Eumida punctifera</i>	--
RT4915	<i>Pulsellum affine</i>	<i>Antalis entalis</i>	<i>Dentalium entalis</i>	- lofotense	<i>Ditrupa arietina</i>	<i>Ditrupa arietina</i>	- lofotense
RT4916	<i>Branchiostoma lanceolatum</i>	--	- 0	--	--	--	--
RT4917	<i>Mya arenaria</i>	<i>Corbula gibba</i>	--	- truncata	- truncata	--	- truncata
RT4918	<i>Thyasira flexuosa</i>	--	--	--	- sarsii	- gouldi	--
RT4919	<i>Thracia phaseolina</i>	--	<i>Kurtiella bidentata</i>	<i>Moerella pygmaea</i>	--	<i>Montacuta substriata</i>	<i>Kurtiella bidentata</i>
RT4920	<i>Eurydice pulchra</i>	--	--	--	--	--	--
RT4921	<i>Vitreolina philippi</i>	--	--	<i>Crinophtheiros collinsi</i>	--	<i>Melanella monterosatoi</i>	--
RT4922	<i>Galathea intermedia</i>	--	--	--	--	--	--
RT4923	<i>Aphelocheata marioni</i>	--	--	--	<i>Cirrattulus cf caudatus</i>	<i>Tharyx killariensis</i>	--
RT4924	<i>Aricidea wassi</i>	--	--	[<i>Aricidea (Aricidea)</i>] -	- suecica	[<i>Aricidea (Aricidea)</i>] minuta	- capensis bansei
RT4925	<i>Labidoplax buskii</i>	--	--	--	<i>Leptosynapta minuta</i>	<i>Peachia cylindrica</i>	--

Specimen Images and Detailed Breakdown of Identifications

LabCodes are abbreviated in this report to exclude the Scheme year, *i.e.* BI_2201a = Lab 01a. 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)

RT4901 – *Poecilochaetus serpens* (Figure 1a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Northwest England/Isle of Man. Condition: Good, Medium (7-8mm, anterior half only).



Fig. 1a. *Poecilochaetus serpens* (RT4901) – D

No generic and no specific differences.

RT4902 – *Protodorvillea kefersteini* (Figure 2a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Southwest England. Condition: Good, small/medium, Anterior half only, some with epitokous chaetae.

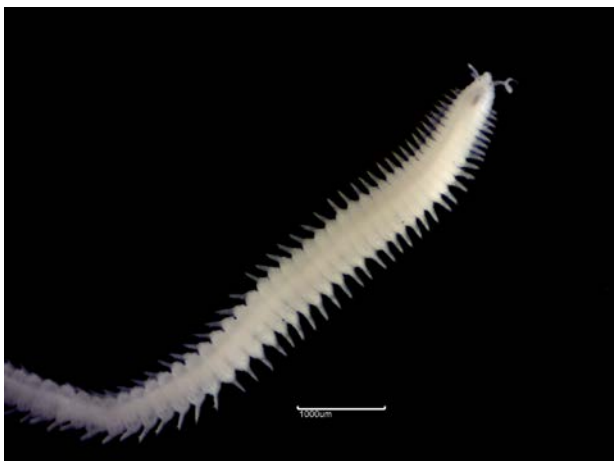


Fig. 2a. *Protodorvillea kefersteini* (RT4902) – D

No generic and no specific differences.

RT4903 – *Sphenia binghami* (Figure 3a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair, Medium (3-4mm).



Fig. 3a. *Sphenia binghami* (RT4903) - L

Four generic and four specific differences: Lab 06 identified as *Lutraria oblonga* (Figure 3c shows *Lutraria* juv.) (which has a regularly ovoid outline); Lab 13 identified as *Gari fervensis* (Figure 3b) (which has central beaks and regular concentric sculpture); Lab 17 identified as *Pholas dactylus* (Figure 3d shows Pholadidae juv.) (which has strong radial sculpture and lacks an external ligament); Lab 19 identified as *Hiatella rugosa* (no image available) (which has cardinal teeth and no chondrophore).



Fig. 3b. *Gari fervensis* (11451) - L



Fig. 3c. *Lutraria* juv. (9886) - R



Fig. 3d. Pholadidae juv. (56858) - L

RT4904 – *Eudorella emarginata* (Figure 4a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Good, Small (4mm), Complete.



Fig. 4a. *Eudorella emarginata* (RT4904) - L



Fig. 4b. *Eudorella truncatula* (10785) - L

One generic and three specific differences: Lab 06 identified as *Bathycuma brevirostre* (no image available) (which has eyes); Labs 18 and 20 identified as *Eudorella truncatula* (Figure 4b) (which has a smaller tooth below the sinus at the front of the carapace which does not projecting beyond upper teeth).

RT4905 – *Spiophanes bombyx* (Figure 5a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Fair, Small/Medium, Anterior half only.



Fig. 5a. *Spiophanes bombyx* (RT4905) – D

No generic and no specific differences.

RT4906 – *Araphura brevimanus* (Figure 6a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Good, Small (3mm), Complete.



Fig. 6a. *Araphura brevimanus* (RT4906) – D

Five generic and five specific differences: Labs 03, 13, 19 and 20 identified as *Tanaopsis graciloides* (Figure 6b) (which has two distinct teeth on the claw of the cheliped into which the dactylus fits); Lab 06 identified as *Typhlotanais brevicornis* (no image available) (which has a distinctly separated exopodite on the uropod).

Labs 14, 16 and 18 used the obsolete name *A. brevimana*.



Fig. 6b. *Tanaopsis graciloides* (10022) – D

RT4907 – *Pholoe assimilis* (sensu Petersen) (Figure 7a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Fair, Small (3mm), Complete, with scales.



Fig. 7a. *Pholoe assimilis* (sensu Petersen)

No generic and five specific differences: Lab 17 identified as *Pholoe inornata* (Figure 7b) (which has papillae on ventral cirri and long smooth elytral papillae); Lab 12a, 12b, 19 and 21 identified as *P. baltica* (Figure 7c) (which has a distinct facial tubercle). Note that, especially for the *P. inornata*, it is important to provide a literature reference for *Pholoe* identifications (sensu Petersen or Chambers), as the same name has been applied to different species by different authors.

(RT4907) – D



Fig. 7b. *Pholoe inornata* (sensu Petersen) (12096) - D



Fig. 7c. *Pholoe baltica* (sensu Petersen) (11437) - D

RT4908 – *Sabellaria spinulosa* (Figure 8a)

Substratum: Faunal turf. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good, Medium (1.5cm), Posterior missing.



Fig. 8a. *Sabellaria spinulosa* (RT4908) – D

No generic and three specific differences: Labs 8, 16 and 18 identified as *Sabellaria alveolata* (Figure 8b) (which has asymmetric angular spines pointing distally and transversely on the opercular chaetae).



Fig. 8b. *Sabellaria alveolata* (11220) – D

RT4909 – *Amphipholis squamata* (Figure 9a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair, Medium (3-4mm), Arms missing.



Fig. 9a. *Amphipholis squamata* (RT4909) – V

Four generic and four specific differences: Labs 03, 06, 17 and 18 identified as *Amphiura chiajei* (Figure 4b) (which has only one mouth papilla).



Fig. 9b. *Amphiura chiajei* (10783) – V

RT4910 – *Golfingia vulgaris* (Figure 10a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good, Small/Medium, Variable size.



Fig. 10a. *Golfingia vulgaris* (RT4910) – L

Three generic and four specific differences: Lab 09 identified as *Golfingia elongata* (Figure 12a) and Labs 19 and 20 identified as *Nephasoma minutum* (Figure 11a) (which both lack the dark pigment at both ends of the trunk); Lab 17 identified as *Phascolion strombus* (Figure 10b) (which has obvious 'holdfast' papillae).



Fig. 10b. *Phascolion strombus* (5892) – L

RT4911 – *Nephasoma minutum* (Figure 11a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper shelf). Geography: Southeast England. Condition: Fair/Good, Small/Medium.



Fig. 11a. *Nephasoma minutum* (RT4911) – L

Eight generic and eight specific differences: Labs 03 and 08 identified as *Golfingia elongata* (Figure 10b), Labs 12a and 12b identified as *Thysanocardia procera* (Figure 11b) and Lab 21 identified as *Golfingia margaritacea* (Figure 11c) (which all lack the 'pinched' area on the trunk); Lab 13 identified as *Onchnesoma steenstrupi* (Figure 11d) (which have flat spherical scales on the trunk); Labs 17 and 19 identified as *Phascolion strombus* (Figure 10c) (which has obvious 'holdfast' papillae).



Fig. 11b. *Thysanocardia procera* (6108) – L



Fig. 11c. *Golfingia margaritacea* (8729) – L



Fig. 11d. *Onchnesoma steenstrupi* (10776) – L

RT4912 – *Golfingia elongata* (Figure 12a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good, Small/Medium (5-10mm).



Fig. 12a. *Golfingia elongata* (RT4912) – L

Seven generic and nine specific differences: Lab 01 identified as *Golfingia vulgaris* (Figure 10a) (which has dark pigment at both ends of the trunk); Lab 03 and 18 identified as *Phascolion granulatum* (No image available) (which has dome shaped papillae covering the entire body surface); Lab 08 identified as *Nephasoma minutum* (Figure 11a) (which has a 'pinched area' on the anterior end of the trunk); Labs 09, 20 and 21 identified as *Nephasoma rimicola* (No image available) (which has only two retractors); Lab 17 identified as *Thysanocardia procera* (Figure 11b) (which has zig-zag papillae on the trunk); Lab 19 identified as *Golfingia margaritacea* (Figure 11c) (which lacks hooks on the introvert).

RT4913 – *Dipolydora caulleryi* (Figure 13a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair, Small (width 0.5-1mm), Anterior half only.



Fig. 13a. *Dipolydora caulleryi* (RT4913) – D

Three generic and five specific differences: Lab 03 identified as *Pygospio elegans* (Figure 13b) (which lacks modified chaetae on segment 5); Lab 08 identified as *Pseudopolydora antennata* (No image available) and Lab 19 identified as *Pseudopolydora paucibranchiata* (Figure 13c) (which both have hooks in the neuropodia from chaetiger 8 and a more strongly curved, double row of modified chaetae on chaetiger 5); Lab 18 identified as *Dipolydora quadrilobata* (Figure 13d) (which has bidentate modified spines on chaetiger 5).

Lab 17 did not attempt a species identification.



Figure 13b. *Pygospio elegans* (7755) - D



Figure 13c. *Pseudopolydora paucibranchiata* (8490) – D



Figure 13d. *Dipolydora quadrilobata* (10556) -

D

RT4914 – *Eulalia ornata* (Figure 14a)

Substratum: Faunal turf. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair, Medium/Large, at least some dorsal/ventral cirri present.



Fig. 14a. *Eulalia ornata* (RT4914) – D

Three generic and eight specific differences: Labs 01, 15 and 19 identified as *Eulalia clavigera* (No image available); Labs 12b and 17 identified as *E. viridis* (Figure 14c) (both of which lack a colour pattern on the dorsal surface); Lab 12a identified as *Phyllodoce maculata* (Figure 14b) and Lab 18 identified as *Paranaitis kosteriensis* (Figure 14d) (which both lack a median antenna); Lab 20 identified as *Eumida punctifera* (Figure 14e) (which has a dorsally reduced segment one).



Fig. 14b. *Phyllodoce maculata* (10432) – D



Fig. 14c. *Eulalia viridis* (8545) – D



Fig. 14d. *Paranaitis kosteriensis* (4956) – D



Fig. 14e. *Eumida punctifera* (6108) – D

RT4915 – *Pulsellum affine* (Figure 15a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Fair, Medium (2-3mm), Fragile, Some with broken shell.

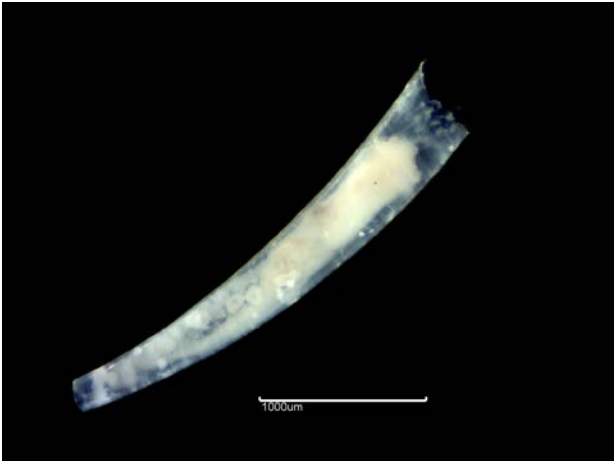


Fig. 15a. *Pulsellum affine* (RT4915) – L

Nine generic and 16 specific differences: Labs 01, 04, 09, 15 and 16 identified as *Antalis entalis* (Figure 15b), lab 17 identified as *Dentalium entalis*, a synonym of *Antalis entalis* and Lab 06 identified as *Antalis vulgaris* (spelt incorrectly) (Figure 15c) (both of which have a circular apex with a V- shaped notch); Labs 03, 08, 12, 13, 18 and 21 identified as *P. lofotense* (No image available) (which has a length to breath ration of 12 or 13); Lab 19 and 20 identified as *Ditrupa arietina* (Figure 15d) (which has chaetae and a tube with its widest part behind the aperture).

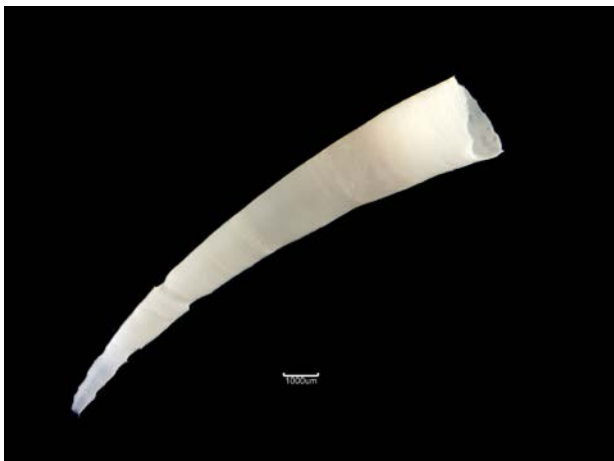


Fig. 15b. *Antalis entalis* (9516) – L



Fig. 15c. *Antalis vulgaris* (8109) – L



Fig. 15d. *Ditrupa arietina* (9567) – L

RT4916 – *Brachystoma lanceolatum* (Figure 16a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Southwest England.
Condition: Good, Medium (3-5cm), Complete.



Fig. 16a. *Brachystoma lanceolatum* (RT4916) – L

No generic and one specific difference: Lab 17 did not attempt a species identification.

RT4917 – *Mya arenaria* (Figure 17a)

Substratum: Mud. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: North of Ireland.
Condition: Good, Small (<1mm), Juvenile.



Fig. 17a. *Mya arenaria* (RT4917) – L

Five generic and nine specific differences: Lab 03 identified as *Moerella donacina* (Figure 17b); Lab 06 identified as *Tapes corrugata*, a synonym of *Venerupis corrugata* (Figure 17c) (both of which lack an internal ligament and usually have some colour pattern); Labs 09, 18, 19 and 21 identified as *Mya truncata* (Figure 17d)); Lab 15 identified as *Sphenia binghami* (Figure 3a) (both of which have a more elongated shell at this size); Labs 13 and 16 identified as *Corbula gibba* (Figure 17e) (which has a more strongly inequivalve shell).



Fig. 17b. *Moerella donacina* (11441) - L



Fig. 17c. *Venerupis corrugata* (7182) – L



Fig. 17d. *Mya truncata* (6100) – L



Fig. 17e. *Corbula gibba* (8500) – L

RT4918 – *Thyasira flexuosa* (Figure 18a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: North of Ireland. Condition: Good, Medium (2-3mm).



Fig. 18a. *Thyasira flexuosa* (RT4918) – L

No generic and two specific differences: Lab 19 identified as *T. sarsii* (Figure 18b) (which has a more rounded outline with a less pronounced auricle); Lab 20 identified as *T. gouldi* (Figure 18c) (which has a larger protoconch and a longer auricle relative to the submarginal sulcus).



Fig. 18b. *Thyasira sarsii* (9554) – L



Fig. 18c. *Thyasira gouldi* (56912) – L

RT4919 – *Thracia phaseolina* (Figure 19a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Good, Small (<1mm).

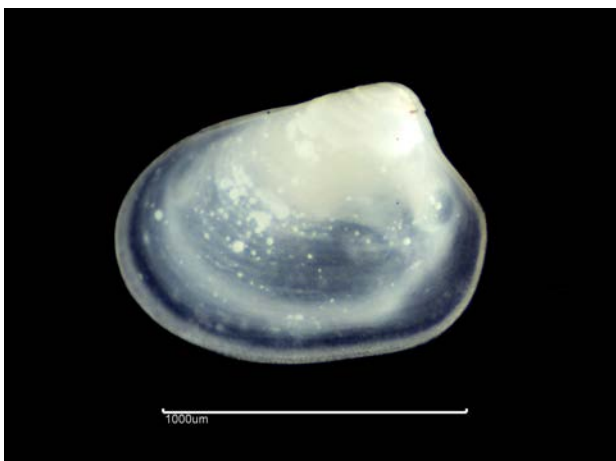


Fig. 19a. *Thracia phaseolina* (RT4919) – L

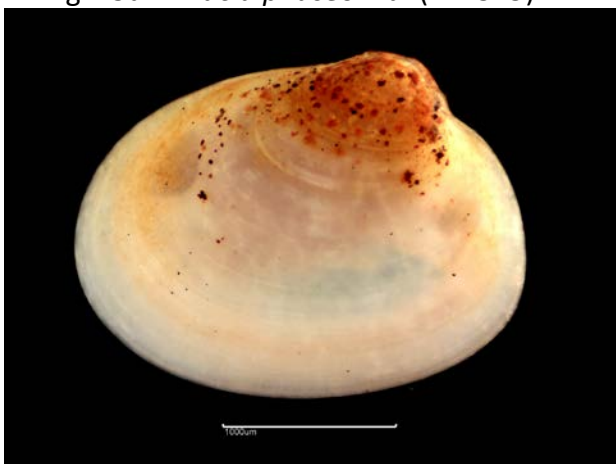


Fig. 19b. *Kurtiella bidentata* (9913) – L

10 generic and 12 specific differences: Labs 01, 06, 07, 11, 13, 17 and 21 identified as *Kurtiella bidentata* (Figure 19b); Lab 18 identified as *Moerella pygmaea* (Figure 19f); Lab 20 identified as *Montacuta substriata* (Figure 19g) (all of which lack periostracal granulations); Lab 15 identified as *Thracia convexa* (Figure 19e) (which has its umbones near the mid line); Lab 02 identified as *Cochlodesma praetenuae* (Figure 19c) (which has projecting tubercles on the posterior margin); Lab 09 identified as *Thracia villosiuscula* (Figure 19d) (which has a less pronounced umbo).

These specimens were originally circulated as *Cochlodesma praetenuae*. Following discussion with several participants, re-examination of material and comparison with growth series in our collection, we now consider them to be *Thracia phaseolina*. Identification of thracioid bivalves, as with many bivalves, is often difficult with juvenile material and requires growth series comparison. We hope to present growth series and identification notes for these and some other mollusc taxa in future.

A further taxonomic review of this taxon is ongoing. An update will be provided if the outcome alters the AQC identification.

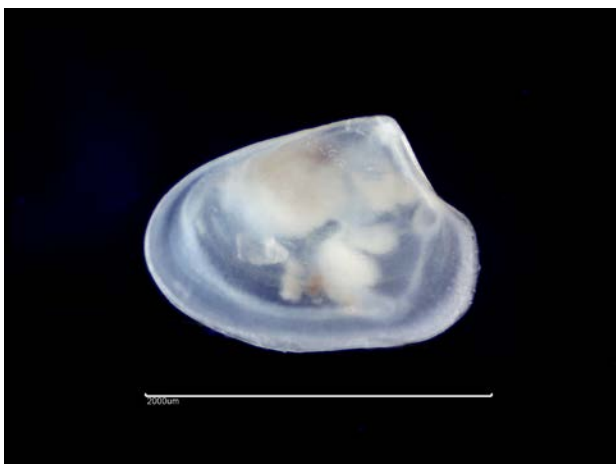


Fig. 19c. *Cochlodesma praetenuae* (55134) – L



Fig. 19d. *Thracia villosiuscula* (10453) – L

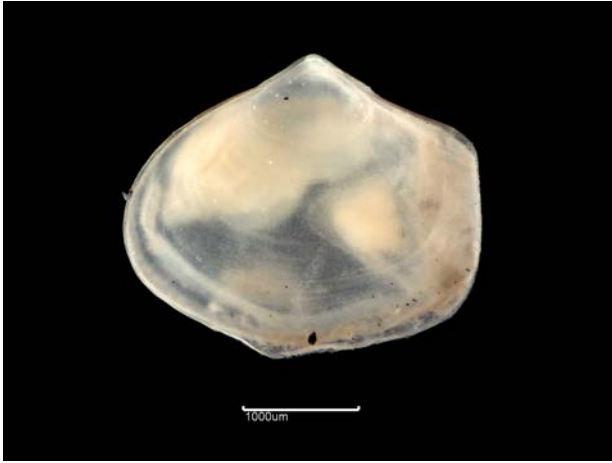


Fig. 19e. *Thracia convexa* (10838) – L



Fig. 19f. *Moerella pygmaea* (9789) – L

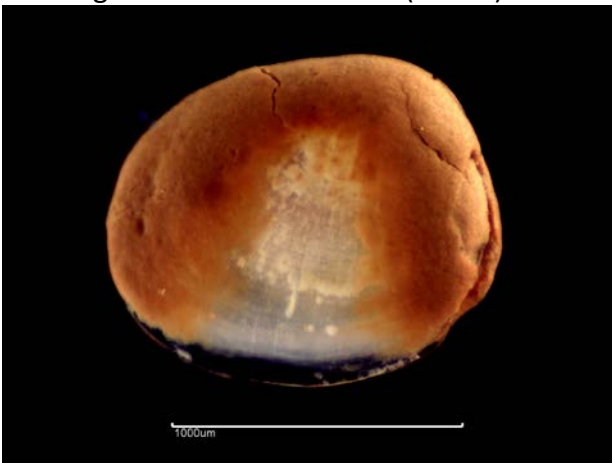


Fig. 19g. *Montacuta substriata* (10836) – L

RT4920 – *Eurydice pulchra* (Figure 20a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Intertidal. Geography: Southwest England. Condition: Good, Small (2-3mm).

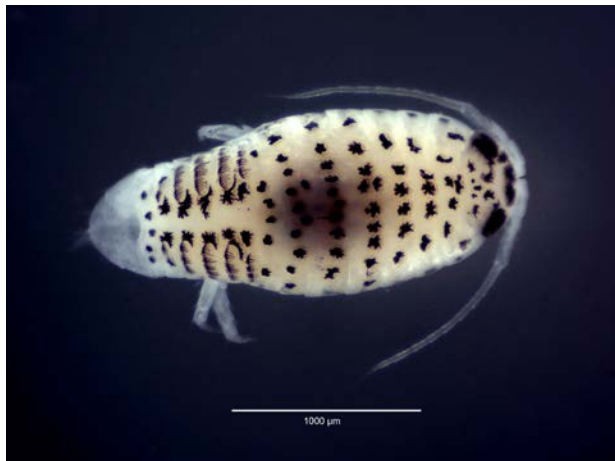


Fig. 20a. *Eurydice pulchra* (RT4920) – L

No generic and no specific differences.

RT4921 – *Vitreolina philippi* (Figure 21a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Good, Medium (2mm).



Fig. 21a. *Vitreolina philippi* (RT4921) – L



Fig. 21b. *Melanella polita* (10798) – L

Two generic and two specific differences: Lab 18 identified as *Crinoptheiros collinsi* (No image available) (which has a last whorl occupying more than half of the shell height); Lab 20 identified as *Melanella monterosatoi* (Figure 21b shows *M. polita*) (which has no anal sinus on the outer lip).

RT4922 – *Galathea intermedia* (Figure 22a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair, Small (<5mm), Juvenile, Legs missing.



Fig. 22a. *Galathea intermedia* (RT4922) – D



Fig. 22b. *Galathea squamifera* (11347) – D

No generic and one specific difference: Lab 03 identified as *G. squamifera* (Figure 22b) (which has three spines on the basal segment of the antennule).

RT4923 – *Aphelochaeta marioni* (Figure 23)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: West Scotland. Condition: Fair, Medium, (4-8mm), Anterior half only.



Fig. 23a. *Aphelochaeta marioni* (RT4923) – L

Three generic and three specific differences: Lab 03 identified as *Chaetozone setosa* (Figure 23b) (which has a more elongate, pointed prostomium); Lab 19 identified as *Cirratulus cf caudatus* (Figure 23c) (which has a prostomium that is excavate ventrally); Lab 20 identified as *Tharyx killariensis* (Figure 23d) (which has finer anterior capillaries that are directed backwards and a more pointed prostomium).



Fig. 23b. *Chaetozone setosa* (9547) – L



Fig. 23c. *Cirratulus cf caudatus* (9561) – L



Fig. 23d. *Tharyx killariensis* (8727) – L

RT4924 – *Aricidea wassi* (Figure 24a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Fair, Small (2-3mm), Anterior half only.



Fig. 24a. *Aricidea wassi* (RT4924) – L

No generic and seven specific differences: Lab 03 identified as *A. capensis* and Labs 08, 12a, 12b and 21 identified as *A. capensis bansei* (No image available); Lab 19 identified as *A. suecica* (No image available) (all of which have a shorter prostomial antenna); Lab 20 identified as *A. minuta* (Figure 24b) (which has a single articulation prostomial antenna).

Labs 01, 02, 09, 11, 12, 13, 18 and 21 used the representation from WoRMS that includes the subgenus: *Aricidea* (*Aricidea*). Note that alternative representations in WoRMS are not incorrect; NMBAQC Scheme representations standardize to exclude subgenera.



Fig. 24b. *Aricidea minuta* (7054) – L

RT4925 – *Labidoplax buskii* (Figure 25a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Lower Shelf). Geography: North Sea. Condition: Poor/Fair, Small/Medium, Variable size and some incomplete.



Fig. 25a. *Labidoplax buskii* (RT4925) – L

Two generic and three specific differences; Lab 06 identified as *L. media* (Figure 25b) (which has twelve tentacles); Lab 19 identified as *Leptosynapta minuta* (Figure 25c) (which lacks tentacle tubercles and has no handle on its anchor plates); Lab 20 identified as *Peachia cylindrica* (No image available) (which lacks tube feet and spicules in skin).

Lab 09 was sent *Leptosynapta decaria* (Figure 25d) in error.

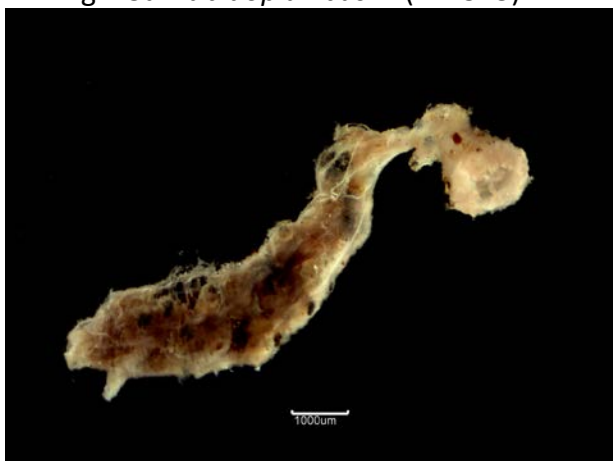


Fig. 25b. *Labidoplax media* (5944) – L



Fig. 25c. *Leptosynapta minuta* (7108) – L



Fig. 25d. *Leptosynapta decaria* (9543) – L

Acknowledgements

We would like to thank Bryan Wasson (MESL) for donating material for this ring test and Jamie Dyson (Fugro Survey, Taxonomy Laboratory) for permitting the use of Figure 20b.

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<i>Thracia convexa</i>	19e
<i>Thracia phaseolina</i>	19a
<i>Thracia villosiuscula</i>	19d
<i>Thysanocardia procera</i>	11b
<i>Thyasira flexuosa</i>	18a
<i>Thyasira sarsi</i>	18b
<i>Venerupis corrugata</i>	17c
<i>Vitreolina philippi</i>	21a

Ring Test Specimen Return Instructions

Please return all ring test specimens by 26th February 2016. 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,
Works Road, Letchworth, Hertfordshire SG6 1LW, UK**