NMBAQC

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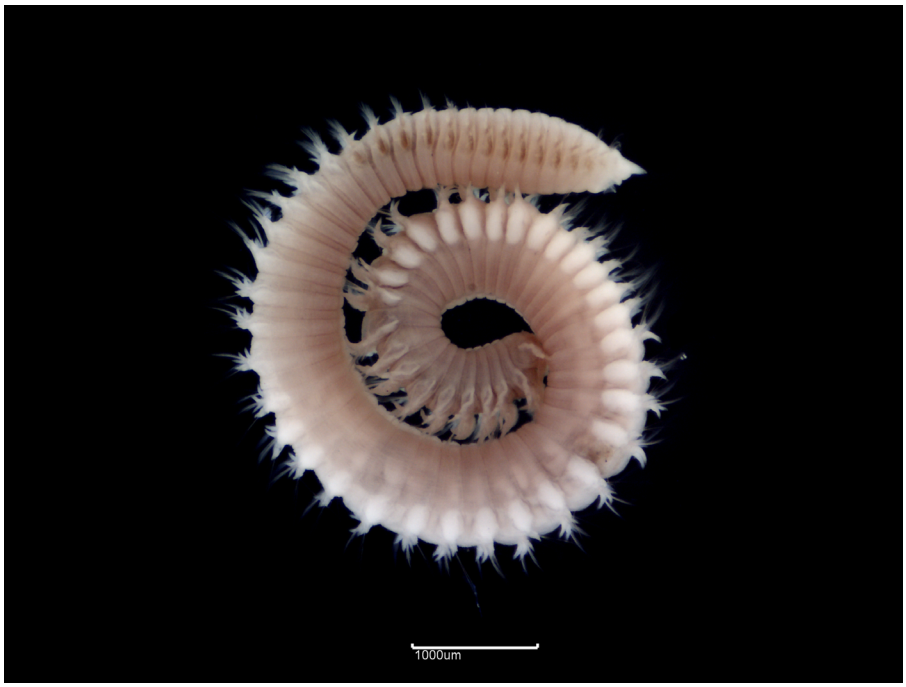
Ring Test Bulletin – RTB#57



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RING TEST DETAILS

Ring Test #57

Type/Contents – General

Circulated – 09/09/19

Results deadline – 01/11/19

Number of Subscribing Laboratories – 22

Number of Participating Laboratories – 21

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
RT5701	*Nephtys*	*kersivalensis*	medium	**0**	**7**
RT5702	*Gibbula*	*tumida*	small	**7**	**7**
RT5703	*Balanus*	*crenatus*	medium	**5**	**7**
RT5704	*Ophelina*	*acuminata*	small	**0**	**0**
RT5705	*Gammarus*	*salinus*	medium	**2**	**8**
RT5706	*Eulalia*	*mustela* agg.	medium	**10**	**11**
RT5707	*Urosalpinx*	*cinerea*	large	**1**	**1**
RT5708	*Bodotria*	*scorpioides*	medium	**2**	**10**
RT5709	*Amphiura*	*filiformis*	small	**0**	**1**
RT5710	*Chaetozone*	*christiei*	medium	**0**	**11**
RT5711	*Thalassema*	*thalassema*	small	**14**	**14**
RT5712	*Peresiella*	*clymenoides*	medium	**10**	**10**
RT5713	*Gari*	*tellinella*	small	**14**	**14**
RT5714	*Apherusa*	*bispinosa*	medium	**2**	**3**
RT5715	*Leptocheirus*	*pectinatus*	medium	**2**	**9**
RT5716	*Cylichna*	*cylindracea*	medium	**2**	**2**
RT5717	*Hediste*	*diversicolor*	medium	**3**	**3**
RT5718	*Lanice*	*conchilega*	medium	**1**	**1**
RT5719	*Spirobranchus*	*triqueter*	medium	**0**	**0**
RT5720	*Astacilla*	*dilatata*	medium	**1**	**4**
RT5721	*Harpinia*	*crenulata*	medium	**3**	**6**
RT5722	*Astarte*	*crenata*	medium	**0**	**8**
RT5723	*Leitoscoloplos*	*mammosus*	medium	**7**	**7**
RT5724	*Ophryotrocha*	*labronica* agg.	medium	**1**	**16**
RT5725	*Gattyana*	*cirrhosa*	small	**5**	**5**
			Total differences	**92**	**165**
			Average differences /lab.	**4.0**	**7.2**

Figure 1. The number of differences from the AQC identification of specimens distributed in RT57 for each of the participating laboratories. Arranged in order of increasing number of differences (by specific followed by generic errors).

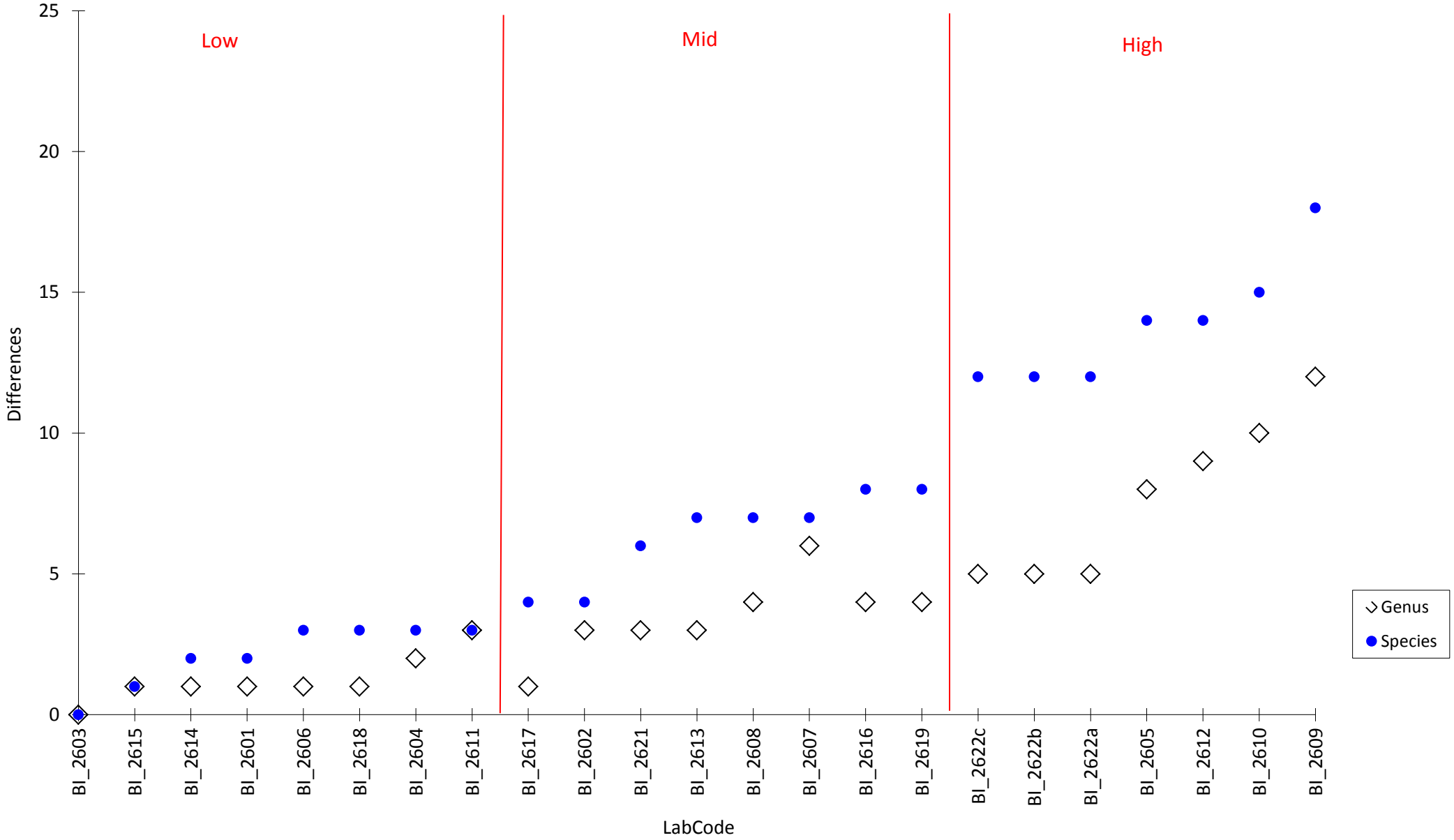

Table 1. The identification of fauna made by participating laboratories for RT57 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5701	RT5702	RT5703	RT5704	RT5705
Taxon	*Nephtys kersivalensis*	*Gibbula tumida*	*Balanus crenatus*	*Ophelina acuminata*	*Gammarus salinus*
BI_2601	- -	- -	- -	- -	- -
BI_2602	- -	- -	Semibalanus balanoides	- -	- -
BI_2603	- -	- -	- -	- -	- -
BI_2604	- -	- -	- -	- -	- -
BI_2605	- hombergii	Steromphala cineraria	- balanus	- -	- -
BI_2606	- -	- -	Semibalanus balanoides	- -	- -
BI_2607	- -	Steromphala cineraria	- -	- -	- -
BI_2608	- -	Janthina janthina	- -	- -	- -
BI_2609	- -	0 0	Amphibalanus amphitrite	- -	Echinogammarus marinus
BI_2610	- caeca	Margarites helicinus	Semibalanus balanoides	- -	Echinogammarus marinus
BI_2611	- -	- -	- -	- -	- -
BI_2612	- -	- -	- -	- -	- oceanicus
BI_2613	- -	- -	- balanus	- -	- -
BI_2614	- -	- -	- -	[Ophelia] -	- -
BI_2615	- -	- -	- -	- -	- -
BI_2616	- -	Margarites groenlandicus	- -	- -	- -
BI_2617	- -	- -	- -	- -	- zaddachi
BI_2618	- -	- -	- -	- -	- tigrinus
BI_2619	- hystricis	Steromphala cineraria	- -	[Ophelia] -	- -
BI_2621	- cirrosa	- -	Amphibalanus improvisus	- -	- -
BI_2622a	[Nephthys] hombergii	- -	- -	- -	- locusta
BI_2622b	[Nephthys] hombergii	- -	- -	- -	- locusta
BI_2622c	[Nephthys] hombergii	- -	- -	- -	- locusta

Table 1. The identification of fauna made by participating laboratories for RT57 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5706	RT5707	RT5708	RT5709	RT5710
Taxon	*Eulalia mustela agg.*	*Urosalpinx cinerea*	*Bodotria scorpioides*	*Amphiura filiformis*	*Chaetozone christiei*
BI_2601	- [brunnea]	- -	- -	- -	- -
BI_2602	- [mustela]	- -	- -	- -	- -
BI_2603	- [mustela]	- -	- -	- -	- -
BI_2604	- [mustela]	- -	- -	- -	- -
BI_2605	Eteone barbata	- -	Cumopsis longipes	- -	- setosa
BI_2606	- [mustela]	- -	- -	- -	- -
BI_2607	- [mustela]	- -	- -	- -	- setosa
BI_2608	Eumida ockelmanni	- -	- arenosa	- -	- -
BI_2609	- ornata	Buccinum sp.	- arenosa	- chiajei	- setosa
BI_2610	- [mustela]	- -	Cumella pygmaea	- -	- setosa
BI_2611	Protomystides exigua	- -	- -	- -	- -
BI_2612	Mystides borealis	- -	- pulchella	- -	- setosa
BI_2613	Protomystides exigua	- -	- -	- -	- elakata
BI_2614	- [mustela]	- -	- -	- -	- -
BI_2615	- [mustela]	- -	- -	- -	- -
BI_2616	Pseudomystides limbata	- -	- arenosa	- -	- setosa
BI_2617	- [mustela]	- -	- arenosa	- -	- -
BI_2618	- [mustela]	- -	- -	- -	- -
BI_2619	Pseudomystides limbata	- -	- [scorpiodes]	- -	- setosa
BI_2621	- [mustela]	- -	- -	- -	- -
BI_2622a	Protomystides exigua	- -	- arenosa	- -	- setosa
BI_2622b	Protomystides exigua	- -	- arenosa	- -	- setosa
BI_2622c	Protomystides exigua	- -	- arenosa	- -	- setosa

Table 1. The identification of fauna made by participating laboratories for RT57 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5711	RT5712	RT5713	RT5714	RT5715
Taxon	*Thalassema thalassema*	*Peresiella clymenoides*	*Gari tellinella*	*Apherusa bispinosa*	*Leptocheirus pectinatus*
BI_2601	Maxmuelleria lankesteri	- -	- -	- -	- -
BI_2602	Maxmuelleria lankesteri	- -	Asbjornsenia pygmaea	- -	- -
BI_2603	- -	- -	- -	- -	- -
BI_2604	- -	- -	Asbjornsenia pygmaea	- -	- -
BI_2605	- [thalassemum]	Capitella minima	Tellina pygmaea	- -	- hirsutimanus
BI_2606	- -	- -	- -	- -	- pilosus
BI_2607	Maxmuelleria lankesteri	Dasybranchus caducus	- -	- -	- -
BI_2608	Maxmuelleria lankesteri	- -	- -	- -	- hirsutimanus
BI_2609	Echiurus echiurus	Notomastus latericeus	Fabulina fabula	Nototropis falcatus	Photis longicaudata
BI_2610	Echiurus echiurus	Capitella minima	Asbjornsenia pygmaea	Gitana Sarsi	- pilosus
BI_2611	Maxmuelleria lankesteri	- -	Asbjornsenia pygmaea	- -	- -
BI_2612	Maxmuelleria lankesteri	Grania maricola	Asbjornsenia pygmaea	- sarsii	Bathyporeia pilosa
BI_2613	Echiurus echiurus	- -	Asbjornsenia pygmaea	- -	- pilosus
BI_2614	Maxmuellaria lankesteri	- -	- -	- -	- -
BI_2615	Maxmuelleria lankesteri	- -	- -	- -	- -
BI_2616	- -	Leiochone johnstoni	Asbjornsenia pygmaea	- -	- -
BI_2617	Maxmuelleria lankesteri	- -	- -	- -	- -
BI_2618	Maxmuelleria lankesteri	- -	- -	- -	- -
BI_2619	- -	Mediomastus fragilis	Tellina pygmaea	- -	[Leptochierus] hirsutimanus
BI_2621	Maxmuelleria lankesteri	- -	Asbjornsenia pygmaea	- -	- pilosus
BI_2622a	- [thallasema]	Mediomastus fragilis	Asbjornsenia pygmaea	- -	- -
BI_2622b	- [thallasema]	Mediomastus fragilis	Asbjornsenia pygmaea	- -	- -
BI_2622c	- [thallasema]	Mediomastus fragilis	Asbjornsenia pygmaea	- -	- -

Table 1. The identification of fauna made by participating laboratories for RT57 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5716	RT5717	RT5718	RT5719	RT5720
Taxon	*Cylichna cylindracea*	*Hediste diversicolor*	*Lanice conchilega*	*Spirobranchus triqueter*	*Astacilla dilatata*
BI_2601	- -	- -	- -	- -	- -
BI_2602	- -	- -	- -	- -	- -
BI_2603	- -	- -	- -	- -	- -
BI_2604	- -	Alitta virens	- -	- -	- -
BI_2605	- -	Alitta virens	- -	- -	[Arcturella] damnoniensis
BI_2606	- -	- -	- -	- -	- -
BI_2607	Retusa umbilicata	- -	- -	- -	- -
BI_2608	- -	- -	Nicolea venustula	- -	- longicornis
BI_2609	- -	- -	- -	- -	- damnoniensis
BI_2610	- -	Alitta virens	- -	- -	- -
BI_2611	- -	- -	- -	- -	- -
BI_2612	Retusa umbilicata	- -	- -	- -	Arcturus baffini
BI_2613	- -	- -	- -	- -	- -
BI_2614	- -	- -	- -	- -	- -
BI_2615	- -	- -	- -	- -	- -
BI_2616	- -	- -	- -	- -	- -
BI_2617	- [cylindreacea]	- -	- -	- -	- -
BI_2618	- -	- -	- -	- -	- -
BI_2619	- -	- -	- -	- -	- [dialata]
BI_2621	- -	- -	- -	- -	- -
BI_2622a	- -	- -	- -	- -	- -
BI_2622b	- -	- -	- -	- -	- -
BI_2622c	- -	- -	- -	- -	- -

Table 1. The identification of fauna made by participating laboratories for RT57 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5721	RT5722	RT5723	RT5724	RT5725
Taxon	*Harpinia crenulata*	*Astarte crenata*	*Leitoscoloplos mammosus*	*Ophryotrocha labronica agg.*	*Gattyana cirrhosa*
BI_2601	- -	- borealis	- -	- [gracilis]	- -
BI_2602	- -	- -	- -	- hartmanni	- [amondseni]
BI_2603	- -	- [crebricostata]	- -	- [gracilis]	- [amondseni]
BI_2604	- -	- [crebricostata]	- -	- hartmanni	- -
BI_2605	Phoxocephalus holbolli	- -	- -	- geryonicola	Eunoe oerstedi
BI_2606	- -	- -	- -	- hartmanni	- -
BI_2607	Phoxocephalus holbolli	- [crebricostata]	Scoloplos armiger	- [gracilis]	- [amondseni]
BI_2608	- -	- [crebricostata]	- -	- [maculata]	- [amondseni]
BI_2609	Phoxocephalus holbolli	- sulcata	Scoloplos armiger	0 0	- -
BI_2610	- -	- sulcata	Scoloplos armiger	- hartmanni	- -
BI_2611	- -	- [crebricostata]	- -	- [gracilis]	- [amondseni]
BI_2612	- -	- [crebricostata]	Scoloplos armiger	- hartmanni	Eunoe oerstedi
BI_2613	- -	- [crebricostata]	- -	- hartmanni	- -
BI_2614	- -	- -	- -	- hartmanni	- [amondseni]
BI_2615	- -	- -	- -	- [labronica (agg)]	- -
BI_2616	- -	- sulcata	- -	- hartmanni	- -
BI_2617	- -	- [subaequilatera]	- -	- hartmanni	- -
BI_2618	- -	- -	- -	- puerilis	- -
BI_2619	- -	- [crebicostata]	- -	- gerlachi	- -
BI_2621	- -	- sulcata	- -	- [gracilis]	- -
BI_2622a	- laevis	- elliptica	Scoloplos armiger	- hartmanni	Eunoe oerstedi
BI_2622b	- laevis	- elliptica	Scoloplos armiger	- hartmanni	Eunoe oerstedi
BI_2622c	- laevis	- elliptica	Scoloplos armiger	- hartmanni	Eunoe oerstedi

Table 2. The identification of fauna made by participating laboratories for RT57 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2601	BI_2602	BI_2603	BI_2604	BI_2605	BI_2606
RT5701	*Nephtys kersivalensis*	- -	- -	- -	- -	- hombergii	- -
RT5702	*Gibbula tumida*	- -	- -	- -	- -	Steromphala cineraria	- -
RT5703	*Balanus crenatus*	- -	Semibalanus balanoides	- -	- -	- balanus	Semibalanus balanoides
RT5704	*Ophelina acuminata*	- -	- -	- -	- -	- -	- -
RT5705	*Gammarus salinus*	- -	- -	- -	- -	- -	- -
RT5706	*Eulalia mustela agg.*	- [brunnea]	- [mustela]	- [mustela]	- [mustela]	Eteone barbata	- [mustela]
RT5707	*Urosalpinx cinerea*	- -	- -	- -	- -	- -	- -
RT5708	*Bodotria scorpioides*	- -	- -	- -	- -	Cumopsis longipes	- -
RT5709	*Amphiura filiformis*	- -	- -	- -	- -	- -	- -
RT5710	*Chaetozone christiei*	- -	- -	- -	- -	- setosa	- -
RT5711	*Thalassema thalassema*	Maxmuelleria lankesteri	Maxmuelleria lankesteri	- -	- -	- [thalassemum]	- -
RT5712	*Peresiella clymenoides*	- -	- -	- -	- -	Capitella minima	- -
RT5713	*Gari tellinella*	- -	Asbjornsenia pygmaea	- -	Asbjornsenia pygmaea	Tellina pygmaea	- -
RT5714	*Apherusa bispinosa*	- -	- -	- -	- -	- -	- -
RT5715	*Leptocheirus pectinatus*	- -	- -	- -	- -	- hirsutimanus	- pilosus
RT5716	*Cylichna cylindracea*	- -	- -	- -	- -	- -	- -
RT5717	*Hediste diversicolor*	- -	- -	- -	Alitta virens	Alitta virens	- -
RT5718	*Lanice conchilega*	- -	- -	- -	- -	- -	- -
RT5719	*Spirobranchus triqueter*	- -	- -	- -	- -	- -	- -
RT5720	*Astacilla dilatata*	- -	- -	- -	- -	[Arcturella] damnoniensis	- -
RT5721	*Harpinia crenulata*	- -	- -	- -	- -	Phoxocephalus holbolli	- -
RT5722	*Astarte crenata*	- borealis	- -	- [crebricostata]	- [crebricostata]	- -	- -
RT5723	*Leitoscoloplos mammosus*	- -	- -	- -	- -	- -	- -
RT5724	*Ophryotrocha labronica agg.*	- [gracilis]	- hartmanni	- [gracilis]	- hartmanni	- geryonicola	- hartmanni
RT5725	*Gattyana cirrhosa*	- -	- [amondseni]	- [amondseni]	- -	Eunoe oerstedi	- -

Table 2. The identification of fauna made by participating laboratories for RT57 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2607	BI_2608	BI_2609	BI_2610	BI_2611	BI_2612
RT5701	*Nephtys kersivalensis*	- -	- -	- -	- caeca	- -	- -
RT5702	*Gibbula tumida*	Steromphala cineraria	Janthina janthina	0 0	Margarites helicinus	- -	- -
RT5703	*Balanus crenatus*	- -	- -	Amphibalanus amphitrite	Semibalanus balanoides	- -	- -
RT5704	*Ophelina acuminata*	- -	- -	- -	- -	- -	- -
RT5705	*Gammarus salinus*	- -	- -	Echinogammarus marinus	Echinogammarus marinus	- -	- oceanicus
RT5706	*Eulalia mustela agg.*	- [mustela]	Eumida ockelmanni	- ornata	- [mustela]	Protomystides exigua	Mystides borealis
RT5707	*Urosalpinx cinerea*	- -	- -	Buccinum sp.	- -	- -	- -
RT5708	*Bodotria scorpioides*	- -	- arenosa	- arenosa	Cumella pygmaea	- -	- pulchella
RT5709	*Amphiura filiformis*	- -	- -	- chiajei	- -	- -	- -
RT5710	*Chaetozone christiei*	- setosa	- -	- setosa	- setosa	- -	- setosa
RT5711	*Thalassema thalassema*	Maxmuelleria lankesteri	Maxmuelleria lankesteri	Echiurus echiurus	Echiurus echiurus	Maxmuelleria lankesteri	Maxmuelleria lankesteri
RT5712	*Peresiella clymenoides*	Dasybranchus caducus	- -	Notomastus latericeus	Capitella minima	- -	Grania maricola
RT5713	*Gari tellinella*	- -	- -	Fabulina fabula	Asbjornsenia pygmaea	Asbjornsenia pygmaea	Asbjornsenia pygmaea
RT5714	*Apherusa bispinosa*	- -	- -	Nototropis falcatus	Gitana Sarsi	- -	- sarsii
RT5715	*Leptocheirus pectinatus*	- -	- hirsutimanus	Photis longicaudata	- pilosus	- -	Bathyporeia pilosa
RT5716	*Cylichna cylindracea*	Retusa umbilicata	- -	- -	- -	- -	Retusa umbilicata
RT5717	*Hediste diversicolor*	- -	- -	- -	Alitta virens	- -	- -
RT5718	*Lanice conchilega*	- -	Nicolea venustula	- -	- -	- -	- -
RT5719	*Spirobranchus triqueter*	- -	- -	- -	- -	- -	- -
RT5720	*Astacilla dilatata*	- -	- longicornis	- damnoniensis	- -	- -	Arcturus baffini
RT5721	*Harpinia crenulata*	Phoxocephalus holbolli	- -	Phoxocephalus holbolli	- -	- -	- -
RT5722	*Astarte crenata*	- [crebricostata]	- [crebricostata]	- sulcata	- sulcata	- [crebricostata]	- [crebricostata]
RT5723	*Leitoscoloplos mammosus*	Scoloplos armiger	- -	Scoloplos armiger	Scoloplos armiger	- -	Scoloplos armiger
RT5724	*Ophryotrocha labronica agg.*	- [gracilis]	- [maculata]	0 0	- hartmanni	- [gracilis]	- hartmanni
RT5725	*Gattyana cirrhosa*	- [amondseni]	- [amondseni]	- -	- -	- [amondseni]	Eunoe oerstedi

Table 2. The identification of fauna made by participating laboratories for RT57 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2613	BI_2614	BI_2615	BI_2616	BI_2617	BI_2618
RT5701	*Nephtys kersivalensis*	- -	- -	- -	- -	- -	- -
RT5702	*Gibbula tumida*	- -	- -	- -	Margarites groenlandicus	- -	- -
RT5703	*Balanus crenatus*	- balanus	- -	- -	- -	- -	- -
RT5704	*Ophelina acuminata*	- -	[Ophelia] -	- -	- -	- -	- -
RT5705	*Gammarus salinus*	- -	- -	- -	- -	- zaddachi	- tigrinus
RT5706	*Eulalia mustela agg.*	Protomystides exigua	- [mustela]	- [mustela]	Pseudomystides limbata	- [mustela]	- [mustela]
RT5707	*Urosalpinx cinerea*	- -	- -	- -	- -	- -	- -
RT5708	*Bodotria scorpioides*	- -	- -	- -	- arenosa	- arenosa	- -
RT5709	*Amphiura filiformis*	- -	- -	- -	- -	- -	- -
RT5710	*Chaetozone christiei*	- elakata	- -	- -	- setosa	- -	- -
RT5711	*Thalassema thalassema*	Echiurus echiurus	Maxmuellaria lankesteri	Maxmuelleria lankesteri	- -	Maxmuelleria lankesteri	Maxmuelleria lankesteri
RT5712	*Peresiella clymenoides*	- -	- -	- -	Leiochone johnstoni	- -	- -
RT5713	*Gari tellinella*	Asbjornsenia pygmaea	- -	- -	Asbjornsenia pygmaea	- -	- -
RT5714	*Apherusa bispinosa*	- -	- -	- -	- -	- -	- -
RT5715	*Leptocheirus pectinatus*	- pilosus	- -	- -	- -	- -	- -
RT5716	*Cylichna cylindracea*	- -	- -	- -	- -	- [cylindreacea]	- -
RT5717	*Hediste diversicolor*	- -	- -	- -	- -	- -	- -
RT5718	*Lanice conchilega*	- -	- -	- -	- -	- -	- -
RT5719	*Spirobranchus triqueter*	- -	- -	- -	- -	- -	- -
RT5720	*Astacilla dilatata*	- -	- -	- -	- -	- -	- -
RT5721	*Harpinia crenulata*	- -	- -	- -	- -	- -	- -
RT5722	*Astarte crenata*	- [crebricostata]	- -	- -	- sulcata	- [subaequilatera]	- -
RT5723	*Leitoscoloplos mammosus*	- -	- -	- -	- -	- -	- -
RT5724	*Ophryotrocha labronica agg.*	- hartmanni	- hartmanni	- [labronica (agg)]	- hartmanni	- hartmanni	- puerilis
RT5725	*Gattyana cirrhosa*	- -	- [amondseni]	- -	- -	- -	- -

Table 2. The identification of fauna made by participating laboratories for RT57 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2619	BI_2621	BI_2622a	BI_2622b	BI_2622c
RT5701	*Nephtys kersivalensis*	- hystricis	- cirrosa	[Nephthys] hombergii	[Nephthys] hombergii	[Nephthys] hombergii
RT5702	*Gibbula tumida*	Steromphala cineraria	- -	- -	- -	- -
RT5703	*Balanus crenatus*	- -	Amphibalanus improvisus	- -	- -	- -
RT5704	*Ophelina acuminata*	[Ophelia] -	- -	- -	- -	- -
RT5705	*Gammarus salinus*	- -	- -	- locusta	- locusta	- locusta
RT5706	*Eulalia mustela agg.*	Pseudomystides limbata	- [mustela]	Protomystides exigua	Protomystides exigua	Protomystides exigua
RT5707	*Urosalpinx cinerea*	- -	- -	- -	- -	- -
RT5708	*Bodotria scorpioides*	- [scorpiodes]	- -	- arenosa	- arenosa	- arenosa
RT5709	*Amphiura filiformis*	- -	- -	- -	- -	- -
RT5710	*Chaetozone christiei*	- setosa	- -	- setosa	- setosa	- setosa
RT5711	*Thalassema thalassema*	- -	Maxmuelleria lankesteri	- [thallasema]	- [thallasema]	- [thallasema]
RT5712	*Peresiella clymenoides*	Mediomastus fragilis	- -	Mediomastus fragilis	Mediomastus fragilis	Mediomastus fragilis
RT5713	*Gari tellinella*	Tellina pygmaea	Asbjornsenia pygmaea	Asbjornsenia pygmaea	Asbjornsenia pygmaea	Asbjornsenia pygmaea
RT5714	*Apherusa bispinosa*	- -	- -	- -	- -	- -
RT5715	*Leptocheirus pectinatus*	[Leptochierus] hirsutimanus	- pilosus	- -	- -	- -
RT5716	*Cylichna cylindracea*	- -	- -	- -	- -	- -
RT5717	*Hediste diversicolor*	- -	- -	- -	- -	- -
RT5718	*Lanice conchilega*	- -	- -	- -	- -	- -
RT5719	*Spirobranchus triqueter*	- -	- -	- -	- -	- -
RT5720	*Astacilla dilatata*	- [dialata]	- -	- -	- -	- -
RT5721	*Harpinia crenulata*	- -	- -	- laevis	- laevis	- laevis
RT5722	*Astarte crenata*	- [crebicostata]	- sulcata	- elliptica	- elliptica	- elliptica
RT5723	*Leitoscoloplos mammosus*	- -	- -	Scoloplos armiger	Scoloplos armiger	Scoloplos armiger
RT5724	*Ophryotrocha labronica agg.*	- gerlachi	- [gracilis]	- hartmanni	- hartmanni	- hartmanni
RT5725	*Gattyana cirrhosa*	- -	- -	Eunoe oerstedi	Eunoe oerstedi	Eunoe oerstedi

Specimen Images and Detailed Breakdown of Identifications

RT57 included thirteen species never previously sent and several species anticipated to change our understanding of the fauna. Several participants highlighted problems with the originally circulated identifications and the results have identified areas that require further research; these are detailed under the specimen headings and in the discussion section below.

LabCodes are abbreviated in this report to exclude the Scheme year, *e.g.* 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.

Figured RT specimens are selected from the circulation series as typical of the size and condition range circulated. Where possible, figured specimens of other species have been selected to be of similar size as the RT specimen with wjhich they have been confused. (Figure codes: A=anterior; P=posterior; L=lateral; D=dorsal; V=ventral)

RT5701 – *Nephtys kersivalensis* McIntosh, 1908 (Figure 1a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: north of Ireland. Condition: Fair. Size: medium. Specimens from two samples.

Fig. 1a. *Nephtys kersivalensis* (RT5701, 58655) – D

Seven specific differences: Lab 10 identified as *N. caeca* (Figure 1b, f); lab 21 identified as *N. cirrosa* (Figure 1c) (both of which lack bilobed notopodial prechaetal lobes); Lab 19 identified as *N. hystricis* (Figure 1d) (which has branchiae beginning from chaetiger 6 or 7); labs 05, 22a, 22b and 22c identified as *N. hombergii* (Figures 1e, g) (which has neuropodial postchaetal lobes much longer than the acicular lobes and papillae near the anterior acicula).

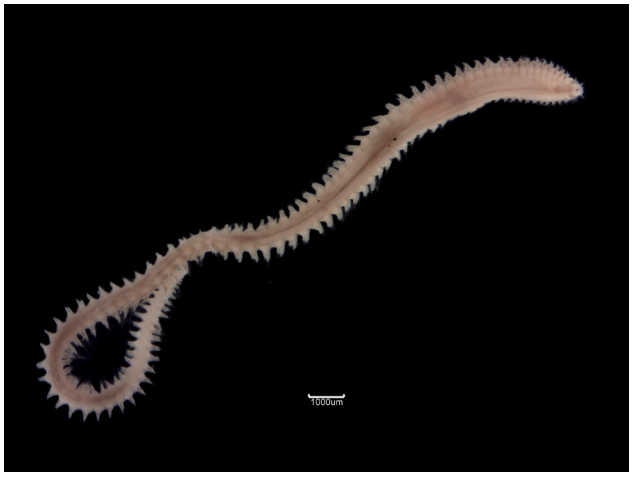

Fig. 1b. *Nephtys caeca* (60291) – D

Fig. 1c. *Nephtys cirrosa* (62410) – D

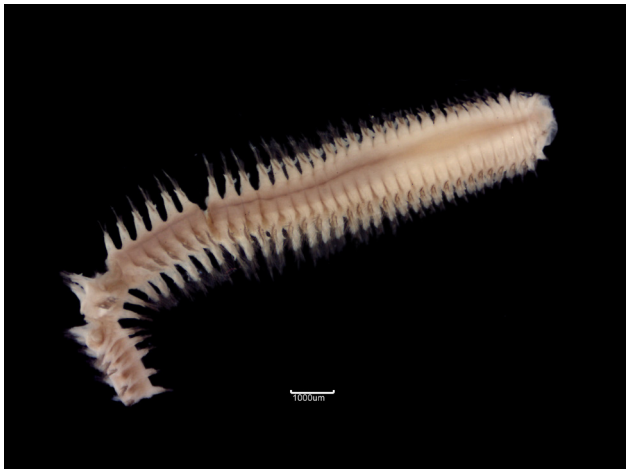

Fig. 1d. *Nephtys hystricis* (58284) – D

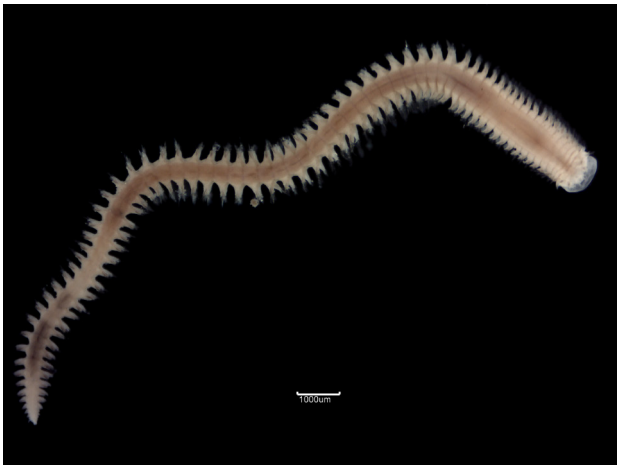

Fig. 1e. *Nephtys hombergii* (62010) – D

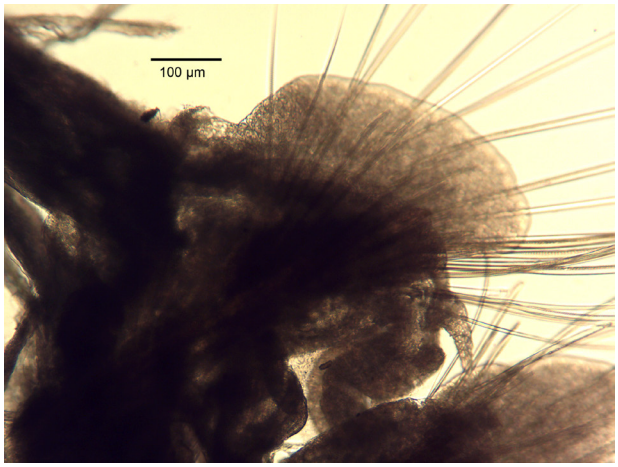

Fig. 1f. *Nephtys caeca* (60291) – A (notopodium)

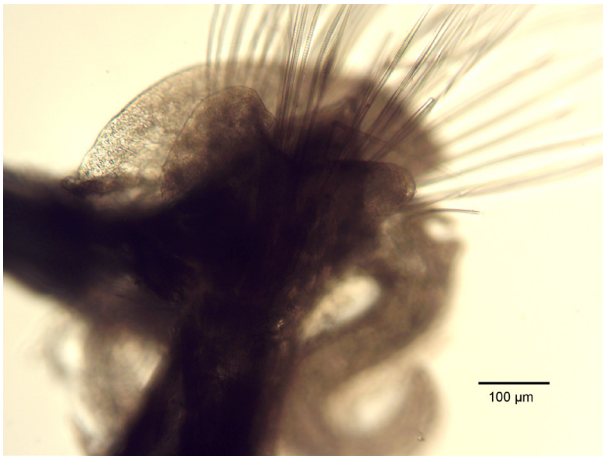

Fig. 1g. *Nephtys hombergii* (62010) – A (notopodium)

RT5702 – *Gibbula tumida* (Montagu, 1803) (Figures 2a; 2e)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good. Size: small, 2-3 mm. Specimens from four samples.

Fig. 2a. *Gibbula tumida* (RT5702, 10197) – V

Seven specific and generic differences: Lab 08 identified as *Janthina janthina* (Figures 2b, e); Lab 10 identified as *Margarites helicinus* (Figures 2c; 2f) (both of which lack spiral sculpture or pattern); Lab 16 identified as *Margarites groenlandicus* (no material available) (which lacks spiral colour pattern); Labs 05, 07 and 19 identified as *Steromphala cineraria* (Figures 2d; 2g) (which lacks a subsutural shelf and has its colour pattern more strongly axial than spiral at this size).

Lab 09 did not attempt identification of this specimen.

Fig. 2b. *Janthina janthina* (TW) – V

Fig. 2c. *Margarites helicinus* (59868) – V

Fig. 2d. *Steromphala cineraria* (9588) – V

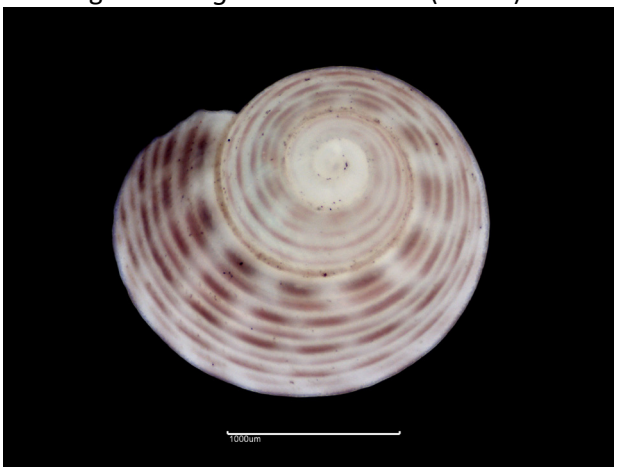

Fig. 2e. *Gibbula tumida* (RT5702) – Apical

Fig. 2f. *Margarites helicinus* (59868) – Apical

Fig. 2g. *Steromphala cineraria* (9588) – Apical

Fig. 2h. *Janthina janthina* (TW) – Apical

RT5703 – *Balanus crenatus* Bruguière, 1789 (Figure 3a)

Substratum: Hard substrata. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition. Fair. Size: medium; conjoined. All specimens from one sample.

Fig. 3a. *Balanus crenatus* (RT5703, 58893) - D

Five generic and seven specific differences: Labs 02, 06 and 10 identified as *Semibalanus balanoides* (Figure 3b) (in which the suture between the tergum and scutum slope sharply towards the carina); Lab 09 identified as *Amphibalanus amphitrite* (no material available) (which has coloured stripes); Lab 21 identified as *A. improvisus* (Figure 3c) (which has more flattened tops to the shell plates); Labs 05 and 13 identified as *Balanus balanus* (Figure 3d) (which has a beaked tergum).

Fig. 3b. *Semibalanus balanoides* (58338) – D

Fig. 3c. *Amphibalanus improvisus* (64153) – D

Fig. 3d. *Balanus balanus* (58013) – D

RT5704 – *Ophelina acuminata* Örsted, 1843 (Figure 4a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: North of Ireland. Condition: Good. Size: small. All specimens from one sample.

Fig. 4a. *Ophelina acuminata* (RT5704, 58787) - D

No generic or specific differences recorded.

RT5705 – *Gammarus salinus* Spooner, 1947 (Figure 5a)

Substratum: Sand. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Northwest England. Condition: Fair. Size: medium; no uropod 3. All specimens from one sample.

Fig. 5a. *Gammarus salinus* (RT5705, 10706) – L

Two generic and eight specific differences: Labs 09 and 10 identified as *Echinogammarus marinus* (Figure 5b); Labs 22a, 22b and 22c identified as *Gammarus locusta* (Figure 5c); Lab 12 identified as *G. oceanicus* (no material available) (all of which have regular, comb-like ventral setae on mandible palp article 3); Lab 17 identified as *G. zaddachi* (Figure 5d); Lab 18 identified as *G. tigrinus* (Figure 5e) (both of which have setae on the posterior margin of the merus of pereopods 6-7 longer than the associated spines).

Fig. 5b. *Echinogammarus marinus* (55764) – L

Fig. 5c. *Gammarus locusta* (9586) – L

Fig. 5d. *Gammarus zaddachi* (7733) – L

Fig. 5e. *Gammarus tigrinus* (RT5024) – L

RT5706 – *Eulalia mustela* aggregate Pleijel, 1987 (Figure 6a, f)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good. Size: medium. Specimens from four samples.

Fig. 6a. *Eulalia mustela* (RT5706, 10300) – D

Ten generic and eleven specific differences: Lab 05 identified as *Eteone barbata* (Figures 6b, g) (which has only two pairs of tentacular cirri); Labs 16 and 19 identified as *Pseudomystides limbata* (Figures 6c, h); Labs 11, 13, 22a, 22b and 22c identified as *Protomystides exigua* (no material available) (both of which have rounded ends to their pygidial cirri); Lab 12 identified as *Mystides borealis* (no material available) (which has short dorsal cirri); Lab 08 identified as *Eumida ockelmannii* (Figure 6d) (which has larger eyes and a more distinct median antenna); Lab 09 identified as *Eulalia ornata* (Figures 6e, i) (which has a distinct colour pattern).

Lab 01 identified as *Eulalia brunnea* (no material available) (which has larger eyes); as variation between specimens traditionally identified as *E. mustela* suggests a potential species complex that would include *E. brunnea*, which is an older name, the identification has been accepted as correct for this ring test.

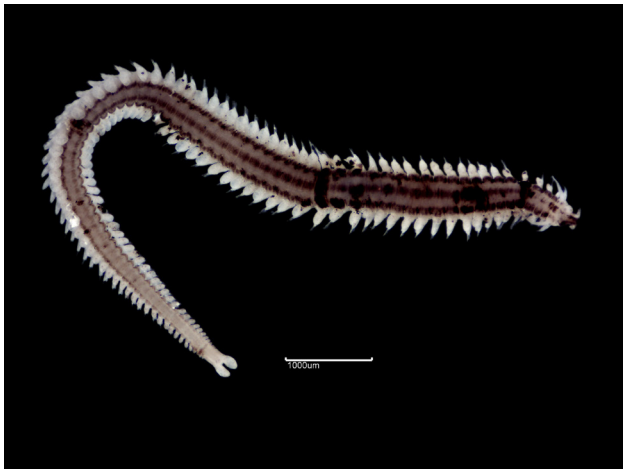

Fig. 6b. *Eteone barbata* (6012) – D

Fig. 6c. *Pseudomystides limbata* (9582) – D

Fig. 6d. *Eumida ockelmannii* (55145) – D

Fig. 6e. *Eulalia ornata* (55113) – D

Fig. 6f. *Eulalia mustela* (RT5706, 10168) – D (anterior)

Fig. 6g. *Eteone barbata* (6012) – D (anterior)

Fig. 6h. *Pseudomystides limbata* (9582) – D (anterior)

Fig. 6i. *Eulalia ornata* (55113) – D (anterior)

RT5707 – *Urosalpinx cinerea* (Say, 1822) (Figure 7a)

Substratum: Hard substrata. Salinity: Variable (Euryhaline). Depth: Intertidal. Geography: Southeast England. Condition: Good. Size: large, 20-30 mm. All specimens from one sample.

Fig. 7a. *Urosalpinx cinerea* (RT5707, 63458) – V

Fig. 7b. *Buccinum undatum* (56600) - V

One generic and specific difference: Lab 09 identified as *Buccinum* sp. (Figure 7b shows *B. undatum*) (which has a shorter siphonal canal and larger larval shell).

We recommend identifications at species level for this ring test.

RT5708 – *Bodotria scorpioides* (Montagu, 1804) (Figure 8a, f)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Good. Size: medium. All specimens from one sample.

Fig. 8a. *Bodotria scorpioides* (RT5708; 53113) – L

Two generic and ten specific differences: Lab 10 identified as *Cumella pygmaea* (Figures 8b) (which has a serrated crest to the carapace); Lab 05 identified as *Cumopsis longipes* (no material available, Figure 8c, shows *C. goodsir*) (which has uropods distinctly longer than the last three pleonites combined); Lab 12 identified as *Bodotria pulchella* (Figure 8d) (which has two carinae on each side of the carapace); Labs 06, 09, 16, 17, 22a, 22b and 22c identified as *B. arenosa* (Figure 8e) (which has no suture on the inner ramus of the uropod).

Lab 19 mis-spelled the specific name as '*scorpiodes*'.

Fig. 8b. *Cumella pygmaea* (9594) - L

Fig. 8c. *Cumopsis goodsir* (62402) - L

Fig. 8d. *Bodotria pulchella* (5839) - L

Fig. 8e. *Bodotria arenosa* (55224) - L

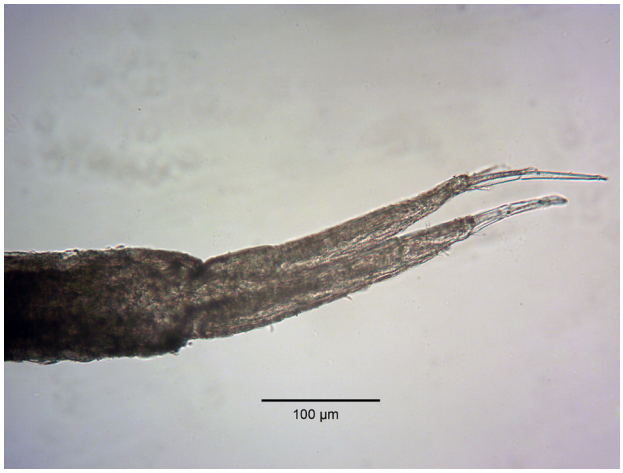

Fig. 8f. *Bodotria scorpioides* (RT5708; 53113) – Uropod (endopod below)

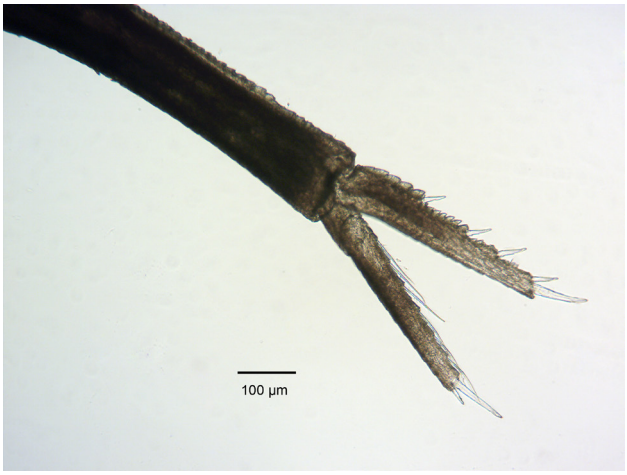

Fig. 8g. *Bodotria arenosa* (55224) – Uropod (endopod above)

RT5709 – *Amphiura filiformis* (O.F. Müller, 1776) (Figure 9a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Northwest England. Condition: Fair (bases of arms only). Size: small. All specimens from one sample.

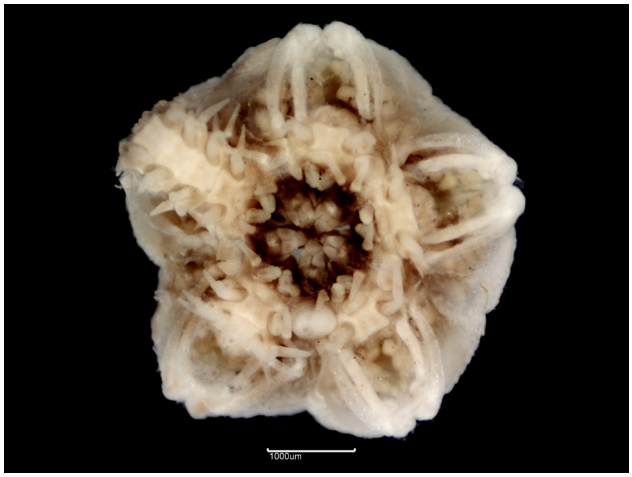

Fig. 9a. *Amphiura filiformis* (RT5709, 54941) – V

One generic and one specific difference: Lab 09 identified as *Amphiura chiajei* (Figure 9b) (which has tentacle scales and distinct scales on the underside of the disc).

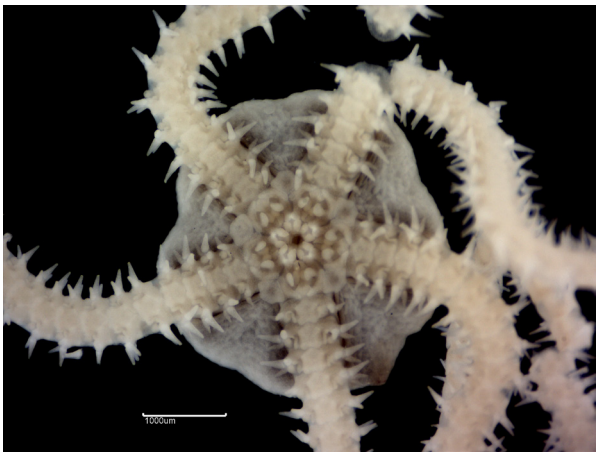

Fig. 9b. *Amphiura chiajei* (60980) – V

RT5710 – *Chaetozone christiei* Chambers, 2000 (Figure 10a, d, f)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Good. Size: medium. All specimens from one sample.

Fig. 10a. *Chaetozone christiei* (RT5710, 57455) – L

Eleven specific differences: Lab 13 identified as *Chaetozone elakata* (Figure 10b); Labs 05, 07, 09, 10, 12, 16, 19, 22a, 22b and 22c identified as *C. setosa* (Figure 10c, e, g) (both of which have posterior acicular chaetae in near-complete rings and palps placed further forward relative to the first chaetae).

There is evidence of variation within specimens that fit Chambers (2000) description of *C. christiei* and it may represent a species complex.

Fig. 10b. *Chaetozone elakata* (8530) – L

Fig. 10c. *Chaetozone setosa* (59443) – L

Fig. 10d. *Chaetozone christiei* (RT5710, 57455) – D (posterior)

Fig. 10e. *Chaetozone setosa* (59443) – D (posterior)

Fig. 10e. *Chaetozone christiei* (RT5710, 57455) – D (anterior)

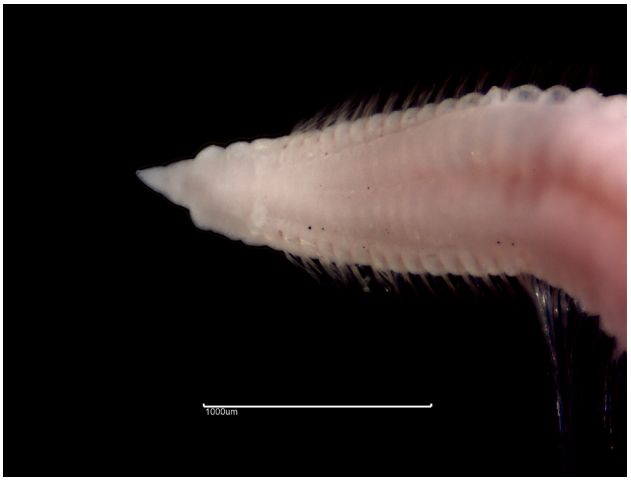

Fig. 10f. *Chaetozone setosa* (59443) – D (anterior)

RT5711 – *Thalassema thalassema* (Pallas, 1766) (Figure 11a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair. Size: small. Specimens from eleven samples.

Fig. 11a. *Thalassema thalassema* (RT5711, 55124) – V

Fourteen generic and specific differences: Labs 10 and 13 identified as *Echiurus echiurus* (Figures 11b, c) (which has posterior circles of setae); Labs 01, 02, 07, 08, 11, 12, 14, 15, 17, 18 and 21 identified as *Maxmuelleria lankesteri* (Figures 11d) (which has a more pronounced emargination at the tip of the proboscis). Although we have retained the original identification of the RT specimens, it is recognised that there is further work needed and we are in the process of finding external confirmation.

Lab 05 spelled the specific name as *thalassemum*; Labs 22a, 22b and 22b as *thallasema*.

Fig. 11b. *Echiurus echiurus* (60028) – V

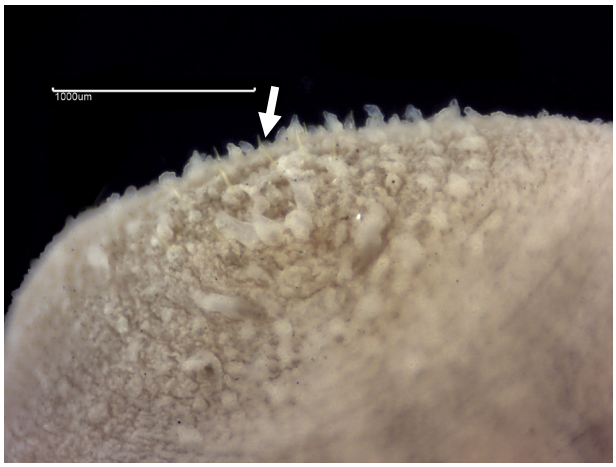

Fig. 11c. *Echiurus echiurus* (60028) – V (posterior)

Fig. 11d. *Maxmuelleria lankesteri* (9588) – V

RT5712 – *Peresiella clymenoides* Harmelin, 1968 (Figures 12a, h)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair. Size: medium. All specimens from one sample.

Fig. 12a. *Peresiella clymenoides* (RT5712, 55101) – L

Ten generic and specific differences: Lab 12 identified as *Grania maricola* (Figure 12b) (which lacks capillary chaetae); Lab 16 identified as *Leiochone johnstoni* (Figure 12c) (which has a cephalic plate); Labs 05 and 10 identified as *Capitella minima* (Figure 12d shows *Capitella* sp.) (which has a blunt prostomium); Lab 07 identified as *Dasybranchus caducus* (Figures 12e, i) (which has capillary chaetae on 13 segments); Lab 09 identified as *Notomastus latericeus* (Figure 12f) (which has capillary chaetae on 11 segments); Labs 19, 22a, 22b and 22c identified as *Mediomastus fragilis* (Figure 12g) (which has capillary chaetae on 4 segments).

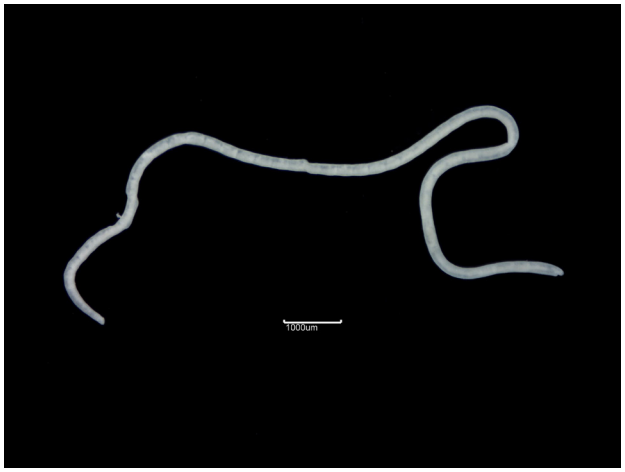

Fig. 12b. *Grania maricola* (RT5616) – L

Fig. 12c. *Leiochone johnstoni* (62353) – L

Fig. 12d. *Capitella* sp. (60793) – L

Fig. 12e. *Dasybranchus caducus* (60951) – L

Fig. 12f. *Notomastus latericeus* (9475) – L

Fig. 12g. *Mediomastus fragilis* (RT5606) – L

Fig. 12h. *Peresiella clymenoides* (RT5712, 55101) – L (anterior)

Fig. 12i. *Dasybranchus caducus* (60951) – L (anterior)

RT5713 – *Gari tellinella* (Lamarck, 1818) (Figure 13a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Western Scotland. Condition: Fair. Size: small, 2-3 mm. All specimens from one sample.

Fig. 13a. *Gari tellinella* (RT5713, 55226) - L

Fourteen generic and specific differences: Lab 09 identified as *Fabulina fabula* (Figure 13b); Labs 02, 04, 10, 11, 12, 13, 16, 21, 22a, 22b and 22c identified as *Asbjornsenia pygmaea* (Figure 13c) and Labs 05 and 19 identified as its synonym *Tellina pygmaea* (both of which have more strongly projecting hinge ligaments and more distinct and regular concentric ridges).

Fig. 13b. *Fabulina fabula* (RT5206) - L

Fig. 13c. *Asbjornsenia pygmaea* (RT5211) - L

RT5714 – *Apherusa bispinosa* (Spence Bate, 1857) (Figure 14a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair. Size: medium. Specimens from three samples.

Fig. 14a. *Apherusa bispinosa* (RT5714, 10173) – L

Two generic and three specific differences: Lab 09 identified as *Nototropis falcatus* (Figure 14b); (which has a cleft telson); Lab 10 identified as *Gitana sarsi* (Figure 14c) (which has a simple, rounded epimeral plate 3); Lab 12 identified as *Apherusa sarsii* (no material available) (which has a blunt, bidentate telson).

Fig. 14b. *Nototropis falcatus* (9812) – L

Fig. 14c. *Gitana sarsi* (60256) – L

RT5715 – *Leptocheirus pectinatus* (Norman, 1869) (Figure 15a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southwest England. Condition: Fair. Size: medium. All specimens from one sample.

Fig. 15a. *Leptocheirus pectinatus* (RT5715, 7131) – L

Two generic and nine specific differences: Lab 12 identified as *Bathyporeia pilosa* (Figure 15b); (which has a geniculate antenna 1 peduncle); Lab 09 identified as *Photis longicaudata* (Figure 15c) (which has uropod 3 rami of different sizes); Labs 05, 08 and 19 identified as *Leptocheirus hirsutimanus* (Figure 15d) (which has more strongly expanded uropod 2 rami); Labs 06, 10, 13 and 21 identified as *L. pilosus* (no material available) (which has a more strongly expanded gnathopod 1 propodus).

Lab 19 spelled the genus name as *Leptochierus*.

Fig. 15b. *Bathyporeia pilosa* (60740) – L

Fig. 15c. *Photis longicaudata* (RT4723) – L

Fig. 15d. *Leptocheirus hirsutimanus* (58380) – L

RT5716 – *Cylichna cylindracea* (Pennant, 1777) (Figure 16a)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Western Scotland. Condition: Fair (lip damage), medium. Size: 3-4 mm. Specimens from six samples.

Fig. 16a. *Cylichna cylindracea* (RT5716, 59214) – V

Two generic and specific differences: Labs 07 and 12 identified as *Retusa umbilicata* (Figure 16b) (which has more convex sides to the shell and lacks pigment on the columella).

Lab 17 spelled the specific name as *cylindreacea*.

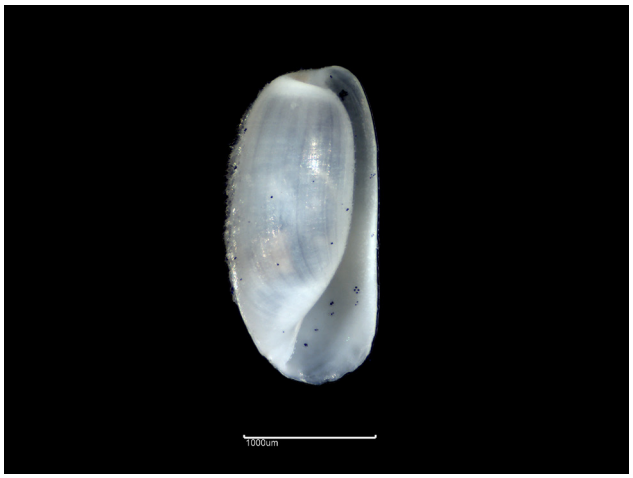

Fig. 16b. *Retusa umbilicata* (7351) – V

RT5717 – *Hediste diversicolor* (O.F. Müller, 1776) (Figures 17a, c)

Substratum: Mud. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: North of Ireland. Condition: Fair. Size: medium. All specimens from one sample.

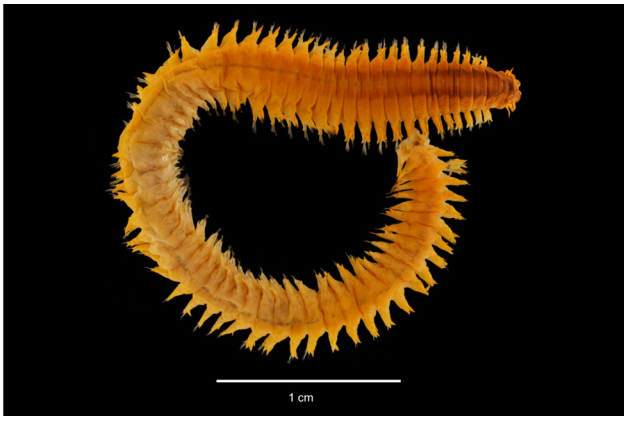

Fig. 17a. *Hediste diversicolor* (RT5717, 37532) – D

Three generic and specific differences: Labs 04, 05 and 10 identified as *Alitta virens* (Figures 17b, d) (which has expanded dorsal notopodial ligules in posterior segments).

Fig. 17b. *Alitta virens* (62957) – D

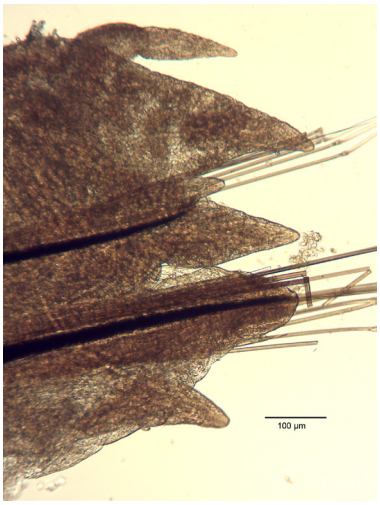

Fig. 17c. *Hediste diversicolor* (RT5717, 37532) – posterior parapodium

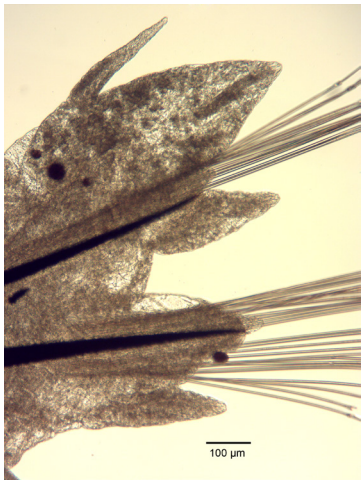

Fig. 17d. *Alitta virens* (62957) – posterior parapodium

RT5718 – *Lanice conchilega* (Pallas, 1766) (Figures 18a, b)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Fair. Size: medium. All specimens from one sample.

Fig. 18a. *Lanice conchilega* (RT5718, 37532) – L

One generic and specific difference: Lab 08, 05 and 10 identified as *Nicolea venustula* (Figures 18c, d) (which lacks lateral lobes).

Fig. 18b. *Lanice conchilega* (RT5718, 37532) – V (anterior)

Fig. 18c. *Nicolea venustula* (60249) – V (anterior)

Fig. 18d. *Nicolea venustula* (60249) – D

RT5719 – *Spirobranchus triqueter* (Linnaeus, 1758) (Figure 19a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good. Size: medium. Specimens from two samples.

Fig. 19a. *Spirobranchus triqueter* (RT5719, 10437) – L

No generic or specific differences recorded.

RT5720 – *Astacilla dilatata* (G.O. Sars, 1883) (Figures 20a, 20d)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: North Sea. Condition: Good. Size: medium. Specimens from four samples.

Fig. 20a. *Astacilla dilatata* (RT5720, 58203) – L

One generic and four specific differences: Lab 12 identified as *Arcturus baffini* (no material available) (which has paired tubercles on multiple segments); Lab 08 identified as *Astacilla longicornis* (Figures 20b, c) (which has a narrow peraeon somite 4); Labs 05 and 09 identified as *Astacilla damnoniensis* (no material available), Lab 05 by the generic synonym *Arcturella*, (which has a single large process in the centre of peraeon somite 4).

Lab 19 spelled the specific name as *dialata*.

Fig. 20b. *Astacilla longicornis* (9588) – L

Fig. 20c. *Astacilla longicornis* (9588) – D

Fig. 20d. *Astacilla dilatata* (RT5720, 58203) – D

RT5721 – *Harpinia crenulata* (Boeck, 1871) (Figure 21a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: north of Ireland. Condition: Fair. Size: medium. Specimens from four samples.

Fig. 21a. *Harpinia crenulata* (RT5721, 58678) – L

Three generic and six specific differences: Labs 05, 07 and 09 identified as *Phoxocephalus holbolli* (Figure 21b) (which has a broad pereopod 5 basis); Labs 22a, 22b and 22c identified as *Harpinia laevis* (Figure 21c) (which lacks teeth on epimeral plate 3).

Fig. 21b. *Phoxocephalus holbolli* (56900) – L

Fig. 21c. *Harpinia laevis* (9522) - L

RT5722 – *Astarte crenata* (Gray, 1824) (Figure 22a)

Substratum: Sand. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Arctic. Condition: Fair. Size: medium. All specimens from one sample; donated by Igor Jirkov.

Fig. 22a. *Astarte crenata* (RT5722, IJ) – L

Eight specific differences: Lab 01 identified as *Astarte borealis* (no material available) (which has finer, less regular concentric ridges); Labs 22a, 22b and 22c identified as *A. elliptica* (Figure 22b) (which has a punctate periostracum and umbones directed more strongly to the anterior); Labs 09, 10, 16 and 21 identified as *A. sulcata* (Figure 22c) (which is less rounded and has more regular, wavy lines to the periostracum).

Labs 03, 04, 07, 08, 11, 12, 13 and 19 identified as *A. crebricostata* (no material available); Lab 17 identified as *A. subaequilatera* (no material available). WoRMS currently follows Huber (2010), which considers *A. crenata*, *A. crebricostata* and *A. subaequilatera* to be distinct and separated geographically, with *A. subaequilatera* restricted to the NW Atlantic (the apparent synonymy in WoRMS relates only to those assigned *sensu* Gould in Binney, 1870). However, as there is disagreement on the status of *A. crebricostata* and *A. subaequilatera*, (e.g. Gaevskoi, 1948; Coan *et al*., 2000) we have accepted both names as correct for the purposes of this ring test.

Fig. 22b. *Astarte elliptica* (6100) – L

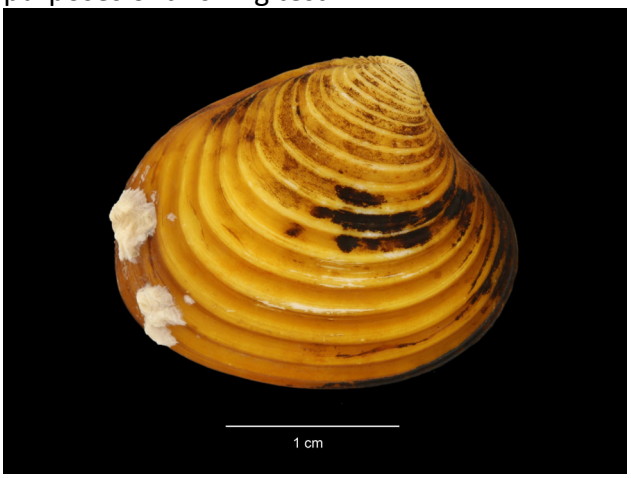

Fig. 22c. *Astarte sulcata* (8558) – L

RT5723 – *Leitoscoloplos mammosus* Mackie, 1987 (Figure 23a, b)

Substratum: Mud. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: North of Ireland. Condition: Fair. Size: medium. All specimens from one sample.

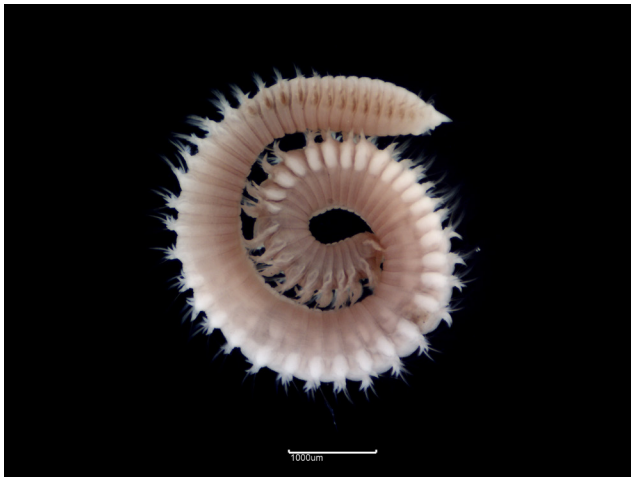

Fig. 23a. *Leitoscoloplos mammosus* (RT5723, 58733) – L

Seven generic and specific differences: Labs 07, 09, 10, 12, 22a, 22b and 22c identified as *Scoloplos armiger* (Figure 23c, d) (which has subpodal papillae on the later thoracic and early abdominal segments).

Fig. 23b. *Leitoscoloplos mammosus* (RT5723, 58733) – L (mid)

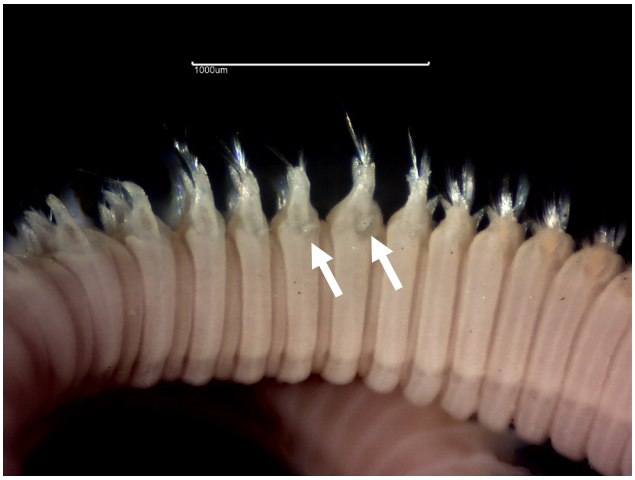

Fig. 23c. *Scoloplos armiger* (59309) – L (mid)

Fig. 23d. *Scoloplos armiger* (9591) – L

RT5724 – *Ophryotrocha labronica* aggregate La Greca & Bacci, 1962 (Figure 24a)

Substratum: Mud. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: northeast England. Condition: Fair. Size: medium. All specimens from one sample.

Fig. 24a. *Ophryotrocha labronica* agg. (RT5724, 57520) – D

One generic and sixteen specific differences: Lab 05 identified as *Ophryotrocha geryonicola* (no material available); Lab 18 identified as *O. puerilis* (no material available) (both of which have dorsal and ventral cirri); Lab 19 identified as *O. gerlachi* (no material available); Labs 02, 04, 06, 10, 12, 13, 14, 16, 17, 22a, 22b and 22c identified as *O. hartmanni* (no material available) (both of which lack subacicular unjointed chaetae).

Lab 08 identified as *O. maculata* (no material available); Labs 01, 03, 07, 11 and 21 identified as *O. gracilis* (no material available); as the distinctions are unclear, these identifications have been accepted as correct. Lab 09 did not attempt identification of this specimen. Many taxonomic problems remain with the group. Paxton & Akesson (2010) revised the '*labronica* group', defined by reproduction and asymmetrical maxillae and Simonini et al. (2009) reviewed Italian *Ophryotrocha* records but there has been no recent review of British species.

RT5725 – *Gattyana cirrhosa* (Pallas, 1766) (Figure 25a)

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: North of Ireland. Condition: Fair. Size: small. All specimens from one sample.

Fig. 25a. *Gattyana cirrhosa* (RT5725, 58769) – D

Five generic and specific differences: Labs 05, 12, 22a, 22b and 22c identified as *Eunoe oerstedi* (no material available) (in which all notochaetae have stout tips).

Labs 02, 03, 07, 08, 11 and 14 identified as *Gattyana amondseni*. Ushakov (1982) and Jirkov (2001) give the shape of the elytral papillae (4 tubercles) as the key feature; Barnich (2010) uses the length of the non-spinous tip to the lower neurochaetae. We found the latter feature to vary with size within the batch used for the ring test, while the elytra were consistent with *G. cirrhosa*. We have accepted identifications of *A. amondseni* as correct for this ring test.

Taxonomic and Identification policy problems highlighted by this RT

An important purpose for the ring test exercises is to highlight areas for further work in identification standardisation and taxonomic research. Several participants submitted comments following submission of the initial results and reviews of identifications and scoring policies were made after circulation of the interim results. Several taxonomic and identification problems were highlighted through this exercise, discussed above.

Acknowledgements

We would like to thank Igor Jirkov (Moscow State University) for supply of Specimen 22 and comments on other specimens; and all participants that have provided feedback following issue of interim results.

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Ring Test Specimen Return Instructions

Please return all ring test specimens by 31st January 2020. 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**