



# NMQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

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## Ring Test Bulletin – RTB#58

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## RING TEST DETAILS

Ring Test #58

Type/Contents – Targeted – Non-native species and similar

Circulated – 01/11/19

Results deadline – 31/01/20

Number of Subscribing Laboratories – 22

Number of Participating Laboratories – 19

Number of Results Received – 19\*

\*multiple data entries per laboratory permitted

### Summary of differences

Specimen	Genus	Species	Size	Total differences for 19 returns	
				Genus	Species
RT5801	<i>Crassicorophium</i>	<i>crassicorne</i>	medium, female	1	1
RT5802	<i>Mulinia</i>	<i>lateralis</i>	medium, 10-18 mm	7	7
RT5803	<i>Schizoporella</i>	<i>japonica</i>	small portions	3	6
RT5804	<i>Musculus</i>	<i>subpictus</i>	small, 2-3 mm	0	9
RT5805	<i>Monocorophium</i>	<i>insidiosum</i>	medium, female	2	6
RT5806	<i>Crassicorophium</i>	<i>crassicorne</i>	medium, male	1	1
RT5807	<i>Alitta</i>	<i>succinea</i>	small	6	6
RT5808	<i>Palaemon</i>	<i>macroductylus</i>	medium	1	4
RT5809	<i>Austrominius</i>	<i>modestus</i>	small	0	0
RT5810	<i>Clymenella</i>	<i>torquata</i>	small	6	6
RT5811	<i>Spisula</i>	<i>subtruncata</i>	small, 3-5 mm	3	4
RT5812	<i>Caprella</i>	<i>mutica</i>	medium, female	0	7
RT5813	<i>Tubificoides</i>	<i>heterochaetus</i>	medium	2	8
RT5814	<i>Dikerogammarus</i>	<i>haemobaphes</i>	medium	9	10
RT5815	<i>Ruditapes</i>	<i>philippinarum</i>	small, 3-4 mm	2	3
RT5816	<i>Tricellaria</i>	<i>inopinata</i>	small portions	8	8
RT5817	<i>Crepidula</i>	<i>fornicata</i>	small, 5-8 mm	1	1
RT5818	<i>Sinelobus</i>	<i>vanhaareni</i>	medium	7	13
RT5819	<i>Urosalpinx</i>	<i>cinerea</i>	small, 10-14 mm	4	4
RT5820	<i>Asciella</i>	<i>aspersa</i>	small	9	9
RT5821	<i>Neomysis</i>	<i>integer</i>	medium	1	2
RT5822	<i>Sabella</i>	<i>pavonina</i>	medium	1	6
RT5823	<i>Euchone</i>	<i>limnicola</i>	medium	6	6
RT5824	<i>Chelicorophium</i>	<i>curvispinum</i>	medium	3	3
RT5825	<i>Potamopyrgus</i>	<i>antipodarum</i>	medium, 2-3 mm,	9	9
			Total differences	92	139
			Average differences /lab.	4.8	7.3

**Figure 1. The number of differences from the AQC identification of specimens distributed in RT58 for each of the participating laboratories. Arranged in order of increasing number of differences (by specific followed by generic errors).**

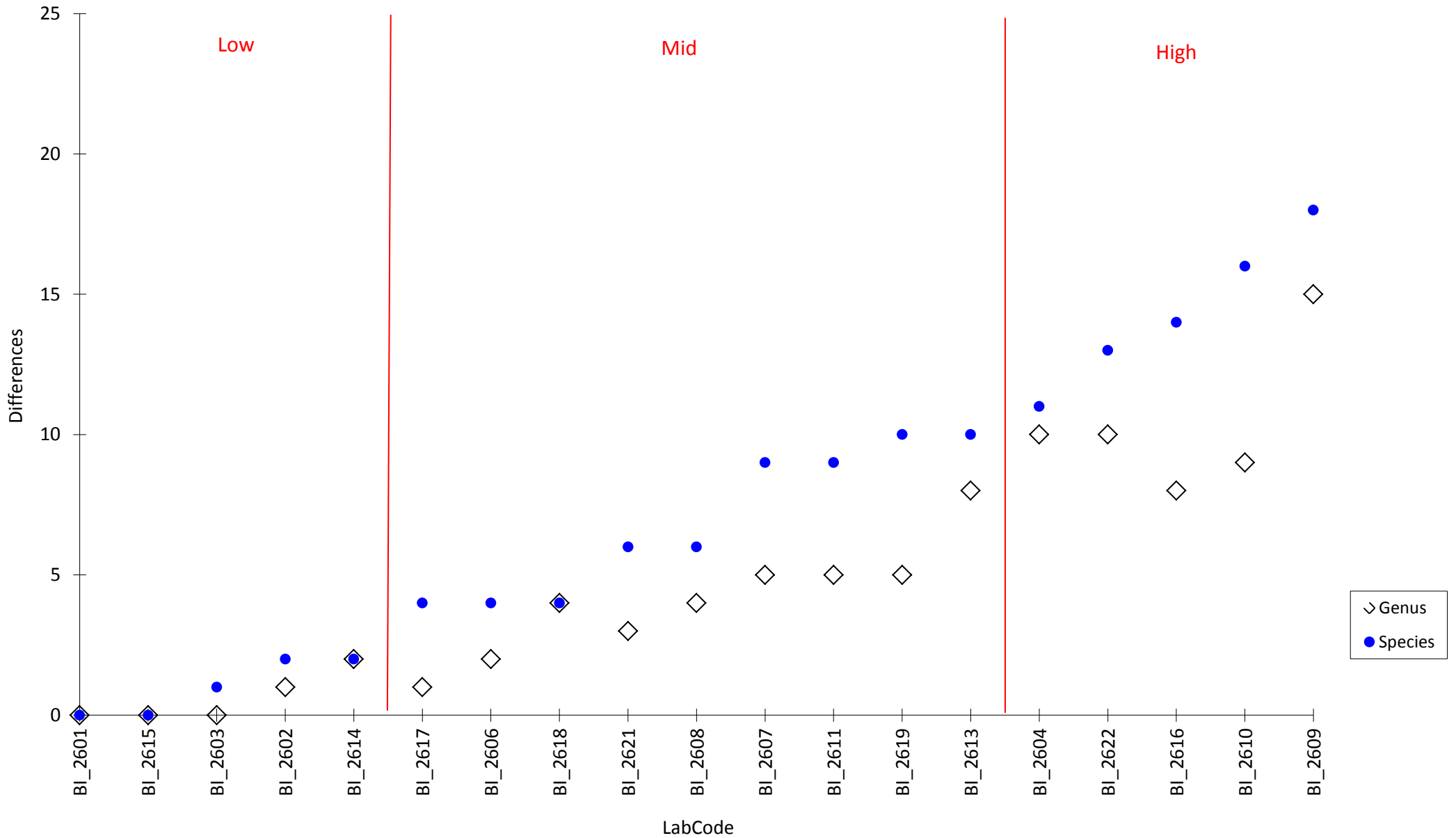


Table 1. The identification of fauna made by participating laboratories for RT58 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5801	RT5802	RT5803	RT5804	RT5805
Taxon	<i>Crassikorophium crassicorne</i>	<i>Mulinia lateralis</i>	<i>Schizoporella japonica</i>	<i>Musculus subpictus</i>	<i>Monocorophium insidiosum</i>
BI_2601	--	--	--	--	--
BI_2602	--	--	--	--	--
BI_2603	--	--	--	--	--
BI_2604	--	Mactra glauca	Pentapora foliacea	- costulatus	--
BI_2606	--	--	--	- discors	--
BI_2607	--	--	--	--	- acherusicum
BI_2608	--	--	--	--	--
BI_2609	Corophium sextonae	Spisula subtruncata	Hymedesmia 0	--	Corophium bonelli
BI_2610	--	Mactra stultorum	- unicornis	- discors	- acherusicum
BI_2611	--	--	--	- costulatus	--
BI_2613	--	Spisula solida	Watersipora subatra	- costulatus	--
BI_2614	--	--	--	--	--
BI_2615	--	--	--	--	--
BI_2616	--	Spisula elliptica	- unicornis	- costulatus	Apocorophium lacustre
BI_2617	--	--	--	--	--
BI_2618	--	Rangia cuneata	--	--	--
BI_2619	--	--	- errata	- discors	- acherusicum
BI_2621	--	--	--	- discors	- sextonae
BI_2622	--	Spisula subtruncata	--	- niger	--

Table 1. The identification of fauna made by participating laboratories for RT58 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5806	RT5807	RT5808	RT5809	RT5810
Taxon	<i>Crassikorophium crassicorne</i>	<i>Alitta succinea</i>	<i>Palaemon macrodactylus</i>	<i>Austrominius modestus</i>	<i>Clymenella torquata</i>
BI_2601	--	--	--	--	--
BI_2602	--	--	--	--	--
BI_2603	--	--	--	--	--
BI_2604	--	Eunereis longissima	--	--	--
BI_2606	--	--	--	[Amphibalanus ] [amphitrite]	--
BI_2607	--	Eunereis elitoralis	--	--	Nicomache lumbricalis
BI_2608	Monocorophium uenoi	--	--	--	Euclymene lombricoides
BI_2609	[Corophium] -	Hediste diversicolor	--	--	Euclymene oerstedii
BI_2610	--	--	- longirostris	--	Euclymene lombricoides
BI_2611	--	--	--	--	--
BI_2613	--	Hediste diversicolor	--	--	--
BI_2614	--	--	--	--	Euclymene lombricoides
BI_2615	--	--	--	--	--
BI_2616	--	Eunereis longissima	- longirostris	--	--
BI_2617	--	--	--	--	--
BI_2618	--	--	--	--	--
BI_2619	--	Hediste diversicolor	- serratus	--	--
BI_2621	--	--	--	--	--
BI_2622	--	--	Pandalus borealis	--	Euclymene lombricoides

Table 1. The identification of fauna made by participating laboratories for RT58 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5811	RT5812	RT5813	RT5814	RT5815
<b>Taxon</b>	<i>Spisula subtruncata</i>	<i>Caprella mutica</i>	<i>Tubificoides heterochaetus</i>	<i>Dikerogammarus haemobaphes</i>	<i>Ruditapes philippinarum</i>
BI_2601	--	--	--	--	--
BI_2602	--	--	--	--	--
BI_2603	--	--	--	--	--
BI_2604	--	--	--	Echinogammarus pirloti	Venerupis corrugata
BI_2606	--	--	--	--	--
BI_2607	--	- linearis	- pseudogaster	Echinogammarus pirloti	--
BI_2608	--	- linearis	--	--	--
BI_2609	Nucula nitidosa	- septentrionalis	- amplivasatus	Echinogammarus marinus	--
BI_2610	- elliptica	- linearis	- pseudogaster	Echinogammarus pirloti	Cerastoderma edule
BI_2611	Mulinia lateralis	- linearis	--	- villosus	- decussatus
BI_2613	--	--	--	Echinogammarus marinus	--
BI_2614	Mulinia lateralis	--	--	--	--
BI_2615	--	--	--	--	--
BI_2616	--	- septentrionalis	- pseudogaster	Echinogammarus pirloti	--
BI_2617	--	--	- galiciensis	Echinogammarus pirloti	--
BI_2618	--	--	Paranais litoralis	--	--
BI_2619	--	--	- amplivasatus	Echinogammarus marinus	- [philippinarum]
BI_2621	--	- septentrionalis	--	--	--
BI_2622	--	--	Fridericia perrieri	Echinogammarus ischnus	--

Table 1. The identification of fauna made by participating laboratories for RT58 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5816	RT5817	RT5818	RT5819	RT5820	RT5821
<b>Taxon</b>	<i>Tricellaria inopinata</i>	<i>Crepidula fornicata</i>	<i>Sinelobus vanhaareni</i>	<i>Urosalpinx cinerea</i>	<i>Ascidella aspersa</i>	<i>Neomysis integer</i>
BI_2601	--	--	--	--	--	--
BI_2602	--	--	Tanais dulongii	--	--	--
BI_2603	--	--	- stanfordi	--	- [scabra]	--
BI_2604	Cradoscrupocellaria reptans	--	Tanais dulongii	--	Molgula citrina	Euphausia 0
BI_2606	--	--	Tanais dulongii	--	--	--
BI_2607	--	--	- stanfordi	--	Corella eumyota	--
BI_2608	--	--	--	Ocinebrellus inornatus	--	--
BI_2609	Crisularia purpurotincta	lothia fulva	- stanfordi	Trophonopsis muricata	Ciona intestinalis	--
BI_2610	Bugulina fulva	--	Tanais dulongii	--	--	--
BI_2611	--	--	--	Trophonopsis muricata	Ascidia virginea	--
BI_2613	--	--	Tanais dulongii	Cyrellia aequalis	Ascidia mentula	--
BI_2614	--	--	--	--	--	--
BI_2615	--	--	--	--	- [scabra]	--
BI_2616	Cradoscrupocellaria reptans	--	- stanfordi	--	Corella eumyota	--
BI_2617	--	--	- stanfordi	--	--	--
BI_2618	Scrupocellaria scruposa	--	Tanais dulongii	--	--	--
BI_2619	Scrupocellaria scruposa	--	Tanais dulongii	--	Corella parallelogramma	- [interger]
BI_2621	Scrupocellaria scruposa	--	--	--	Corella eumyota	--
BI_2622	Scrupocellaria scruposa	--	- stanfordi	--	Corella eumyota	- americana

Table 1. The identification of fauna made by participating laboratories for RT58 (arranged by specimen). Names are given only where different from the AQC identification.

	RT5822	RT5823	RT5824	RT5825
<b>Taxon</b>	<i>Sabella pavonina</i>	<i>Euchone limnicola</i>	<i>Chelicorophium curvispinum</i>	<i>Potamopyrgus antipodarum</i>
BI_2601	--	--	--	--
BI_2602	- spallanzanii	--	--	--
BI_2603	--	--	--	--
BI_2604	--	--	--	Ecrobia ventrosa
BI_2606	- spallanzanii	Dialychone longiseta	--	--
BI_2607	--	Potamilla torelli	--	--
BI_2608	- spallanzanii	--	--	Semisalsa stagnorum
BI_2609	Pseudopotamilla reniformis	--	Corophium arenarium	Ecrobia ventrosa
BI_2610	--	Jasmineira elegans	Corophium volutator	Ecrobia ventrosa
BI_2611	--	Chone kroyerii	--	Ecrobia ventrosa
BI_2613	- spallanzanii	--	--	Ecrobia ventrosa
BI_2614	--	--	--	--
BI_2615	--	--	--	--
BI_2616	--	Dialychone dunerificta	--	Ecrobia ventrosa
BI_2617	- spallanzanii	--	--	--
BI_2618	--	--	--	--
BI_2619	--	--	--	--
BI_2621	--	--	- [cuvispinum]	Hydrobia acuta neglecta
BI_2622	--	Jasmineira caudata	Corophium volutator	Ecrobia ventrosa



Table 2. The identification of fauna made by participating laboratories for RT58 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2601	BI_2602	BI_2603	BI_2604	BI_2606	BI_2607
RT5801	<i>Crassikorophium crassicorne</i>	--	--	--	--	--	--
RT5802	<i>Mulinia lateralis</i>	--	--	--	Mactra glauca	--	--
RT5803	<i>Schizoporella japonica</i>	--	--	--	Pentapora foliacea	--	--
RT5804	<i>Musculus subpictus</i>	--	--	--	- costulatus	- discors	--
RT5805	<i>Monocorophium insidiosum</i>	--	--	--	--	--	- acherusicum
RT5806	<i>Crassikorophium crassicorne</i>	--	--	--	--	--	--
RT5807	<i>Alitta succinea</i>	--	--	--	Eunereis longissima	--	Eunereis elitoralis
RT5808	<i>Palaemon macrodactylus</i>	--	--	--	--	--	--
RT5809	<i>Austrominius modestus</i>	--	--	--	--	[Amphibalanus ] [amphitrite]	--
RT5810	<i>Clymenella torquata</i>	--	--	--	--	--	Nicomache lumbricalis
RT5811	<i>Spisula subtruncata</i>	--	--	--	--	--	--
RT5812	<i>Caprella mutica</i>	--	--	--	--	--	- linearis
RT5813	<i>Tubificoides heterochaetus</i>	--	--	--	--	--	- pseudogaster
RT5814	<i>Dikerogammarus haemobaphes</i>	--	--	--	Echinogammarus pirloti	--	Echinogammarus pirloti
RT5815	<i>Ruditapes philippinarum</i>	--	--	--	Venerupis corrugata	--	--
RT5816	<i>Tricellaria inopinata</i>	--	--	--	Cradoscrupocellaria reptans	--	--
RT5817	<i>Crepidula fornicata</i>	--	--	--	--	--	--
RT5818	<i>Sinelobus vanhaareni</i>	--	Tanais dulongii	- stanfordi	Tanais dulongii	Tanais dulongii	- stanfordi
RT5819	<i>Urosalpinx cinerea</i>	--	--	--	--	--	--
RT5820	<i>Ascidella aspersa</i>	--	--	- [scabra]	Molgula citrina	--	Corella eumyota
RT5821	<i>Neomysis integer</i>	--	--	--	Euphausia 0	--	--
RT5822	<i>Sabella pavonina</i>	--	- spallanzanii	--	--	- spallanzanii	--
RT5823	<i>Euchone limnicola</i>	--	--	--	--	Dialychone longiseta	Potamilla torelli
RT5824	<i>Chelicorophium curvispinum</i>	--	--	--	--	--	--
RT5825	<i>Potamopyrgus antipodarum</i>	--	--	--	Ecrobia ventrosa	--	--

Table 2. The identification of fauna made by participating laboratories for RT58 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2608	BI_2609	BI_2610	BI_2611	BI_2613
RT5801	<i>Crassikorophium crassicorne</i>	--	Corophium sextonae	--	--	--
RT5802	<i>Mulinia lateralis</i>	--	Spisula subtruncata	Mactra stultorum	--	Spisula solida
RT5803	<i>Schizoporella japonica</i>	--	Hymedesmia 0	- unicornis	--	Watersipora subatra
RT5804	<i>Musculus subpictus</i>	--	--	- discors	- costulatus	- costulatus
RT5805	<i>Monocorophium insidiosum</i>	--	Corophium bonelli	- acherusicum	--	--
RT5806	<i>Crassikorophium crassicorne</i>	Monocorophium uenoi	[Corophium] -	--	--	--
RT5807	<i>Alitta succinea</i>	--	Hediste diversicolor	--	--	Hediste diversicolor
RT5808	<i>Palaemon macrodactylus</i>	--	--	- longirostris	--	--
RT5809	<i>Austrominius modestus</i>	--	--	--	--	--
RT5810	<i>Clymenella torquata</i>	Euclymene lombricoides	Euclymene oerstedii	Euclymene lombricoides	--	--
RT5811	<i>Spisula subtruncata</i>	--	Nucula nitidosa	- elliptica	Mulinia lateralis	--
RT5812	<i>Caprella mutica</i>	- linearis	- septentrionalis	- linearis	- linearis	--
RT5813	<i>Tubificoides heterochaetus</i>	--	- amplivasatus	- pseudogaster	--	--
RT5814	<i>Dikerogammarus haemobaphes</i>	--	Echinogammarus marinus	Echinogammarus pirloti	- villosus	Echinogammarus marinus
RT5815	<i>Ruditapes philippinarum</i>	--	--	Cerastoderma edule	- decussatus	--
RT5816	<i>Tricellaria inopinata</i>	--	Crisularia purpurotincta	Bugulina fulva	--	--
RT5817	<i>Crepidula fornicata</i>	--	lothia fulva	--	--	--
RT5818	<i>Sinelobus vanhaareni</i>	--	- stanfordi	Tanais dulongii	--	Tanais dulongii
RT5819	<i>Urosalpinx cinerea</i>	Ocinebrellus inornatus	Trophonopsis muricata	--	Trophonopsis muricata	Cyrrillia aequalis
RT5820	<i>Asciella aspersa</i>	--	Ciona intestinalis	--	Ascidia virginea	Ascidia mentula
RT5821	<i>Neomysis integer</i>	--	--	--	--	--
RT5822	<i>Sabella pavonina</i>	- spallanzanii	Pseudopotamilla reniformis	--	--	- spallanzanii
RT5823	<i>Euchone limnicola</i>	--	--	Jasmineira elegans	Chone kroyerii	--
RT5824	<i>Chelicorophium curvispinum</i>	--	Corophium arenarium	Corophium volutator	--	--
RT5825	<i>Potamopyrgus antipodarum</i>	Semisalsa stagnorum	Ecrobia ventrosa	Ecrobia ventrosa	Ecrobia ventrosa	Ecrobia ventrosa

Table 2. The identification of fauna made by participating laboratories for RT58 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2614	BI_2615	BI_2616	BI_2617	BI_2618
RT5801	<i>Crassikorophium crassicorne</i>	--	--	--	--	--
RT5802	<i>Mulinia lateralis</i>	--	--	Spisula elliptica	--	Rangia cuneata
RT5803	<i>Schizoporella japonica</i>	--	--	- unicornis	--	--
RT5804	<i>Musculus subpictus</i>	--	--	- costulatus	--	--
RT5805	<i>Monocorophium insidiosum</i>	--	--	Apocorophium lacustre	--	--
RT5806	<i>Crassikorophium crassicorne</i>	--	--	--	--	--
RT5807	<i>Alitta succinea</i>	--	--	Eunereis longissima	--	--
RT5808	<i>Palaemon macrodactylus</i>	--	--	- longirostris	--	--
RT5809	<i>Austrominius modestus</i>	--	--	--	--	--
RT5810	<i>Clymenella torquata</i>	Euclymene lombricoides	--	--	--	--
RT5811	<i>Spisula subtruncata</i>	Mulinia lateralis	--	--	--	--
RT5812	<i>Caprella mutica</i>	--	--	- septentrionalis	--	--
RT5813	<i>Tubificoides heterochaetus</i>	--	--	- pseudogaster	- galiciensis	Paranais litoralis
RT5814	<i>Dikerogammarus haemobaphes</i>	--	--	Echinogammarus pirloti	Echinogammarus pirloti	--
RT5815	<i>Ruditapes philippinarum</i>	--	--	--	--	--
RT5816	<i>Tricellaria inopinata</i>	--	--	Cradoscrupocellaria reptans	--	Scrupocellaria scruposa
RT5817	<i>Crepidula fornicata</i>	--	--	--	--	--
RT5818	<i>Sinelobus vanhaareni</i>	--	--	- stanfordi	- stanfordi	Tanais dulongii
RT5819	<i>Urosalpinx cinerea</i>	--	--	--	--	--
RT5820	<i>Asciodiella aspersa</i>	--	- [scabra]	Corella eumyota	--	--
RT5821	<i>Neomysis integer</i>	--	--	--	--	--
RT5822	<i>Sabella pavonina</i>	--	--	--	- spallanzanii	--
RT5823	<i>Euchone limnicola</i>	--	--	Dialychone dunerificta	--	--
RT5824	<i>Chelicorophium curvispinum</i>	--	--	--	--	--
RT5825	<i>Potamopyrgus antipodarum</i>	--	--	Ecrobia ventrosa	--	--

Table 2. The identification of fauna made by participating laboratories for RT58 (arranged by participant). Names are given only where different from the AQC identification.

	Taxon	BI_2619	BI_2621	BI_2622
RT5801	<i>Crassikorophium crassicorne</i>	--	--	--
RT5802	<i>Mulinia lateralis</i>	--	--	<i>Spisula subtruncata</i>
RT5803	<i>Schizoporella japonica</i>	- errata	--	--
RT5804	<i>Musculus subpictus</i>	- discors	- discors	- niger
RT5805	<i>Monocorophium insidiosum</i>	- acherusicum	- sextonae	--
RT5806	<i>Crassikorophium crassicorne</i>	--	--	--
RT5807	<i>Alitta succinea</i>	<i>Hediste diversicolor</i>	--	--
RT5808	<i>Palaemon macrodactylus</i>	- serratus	--	<i>Pandalus borealis</i>
RT5809	<i>Austrominius modestus</i>	--	--	--
RT5810	<i>Clymenella torquata</i>	--	--	<i>Euclymene lombricoides</i>
RT5811	<i>Spisula subtruncata</i>	--	--	--
RT5812	<i>Caprella mutica</i>	--	- septentrionalis	--
RT5813	<i>Tubificoides heterochaetus</i>	- amplivasatus	--	<i>Fridericia perrieri</i>
RT5814	<i>Dikerogammarus haemobaphes</i>	<i>Echinogammarus marinus</i>	--	<i>Echinogammarus ischnus</i>
RT5815	<i>Ruditapes philippinarum</i>	- [philippinarum]	--	--
RT5816	<i>Tricellaria inopinata</i>	<i>Scrupocellaria scruposa</i>	<i>Scrupocellaria scruposa</i>	<i>Scrupocellaria scruposa</i>
RT5817	<i>Crepidula fornicata</i>	--	--	--
RT5818	<i>Sinelobus vanhaareni</i>	<i>Tanais dulongii</i>	--	- stanfordi
RT5819	<i>Urosalpinx cinerea</i>	--	--	--
RT5820	<i>Asciella aspersa</i>	<i>Corella parallelogramma</i>	<i>Corella eumyota</i>	<i>Corella eumyota</i>
RT5821	<i>Neomysis integer</i>	- [interger]	--	- americana
RT5822	<i>Sabella pavonina</i>	--	--	--
RT5823	<i>Euchone limnicola</i>	--	--	<i>Jasmineira caudata</i>
RT5824	<i>Chelicorophium curvispinum</i>	--	- [cuvispinum]	<i>Corophium volutator</i>
RT5825	<i>Potamopyrgus antipodarum</i>	--	<i>Hydrobia acuta neglecta</i>	<i>Ecrobia ventrosa</i>

## Specimen Images and Detailed Breakdown of Identifications

RT58 was designed to understand the level of knowledge of non-native species and to raise awareness of current identification literature and records from northern Europe and included seven species never previously sent. Two of the specimen source pots were supplied by Ton van Haaren (TVH); details are included in the explanations below each circulated specimen entry. Literature required for identification is added to the box text for the circulated specimen. There were some edits from the originally circulated identifications. The results have identified several areas that require further research.

LabCodes are abbreviated in this report to exclude the Scheme year, *e.g.* BI\_2501 = 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)

### RT5801 – *Crassikorophium crassicorne* (Bruzelius, 1859) (Figure 1a)

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Good. Size: Medium, female. All specimens from one sample.



Fig. 1a. *Crassikorophium crassicorne* (RT5801; 60773) – L



Fig. 1b. *Monocorophium sextonae* (6052) – L

One generic and specific difference: Lab 09 identified as *Corophium sextonae*, a synonym of *Monocorophium sextonae* (Figure 1b) (in which peduncle article 1 of antenna 1 is less flattened and the outer margin of the peduncle of uropod lacks setae).

**RT5802 – *Mulinia lateralis* (Say, 1822) (Figure 2a)**

Substratum: Mud. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Netherlands. Condition: Good. Size: Medium, 10-18 mm. All specimens from one sample; specimens donated by T. van Haaren.

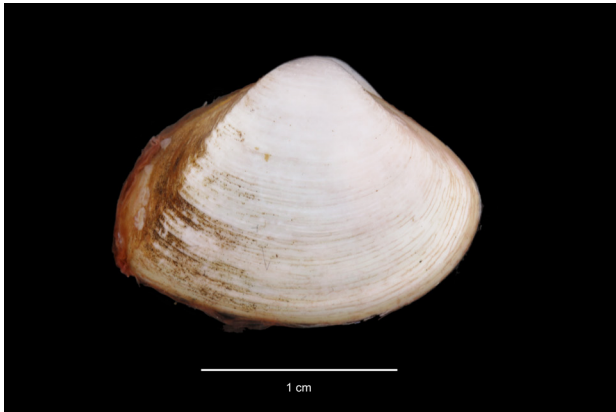


Fig. 2a. *Mulinia lateralis* (RT5802) – L

Seven generic and specific differences: Lab 04 identified as *Mactra glauca* (no material available); Lab 10 identified as *Mactra stultorum* (Figure 2b); Labs 09 and 22 identified as *Spisula subtruncata* (Figure 2c); Lab 13 identified as *Spisula solida* (no definitive material available); Lab 13 identified as *Spisula elliptica* (Figure 2d) (all of which have external ligaments and lack a strong posterior radial ridge); Lab 18 identified as *Rangia cuneata* (Figure 2e) (which has anteriorly placed umbones). See Craeymeersch *et al.* (2019).



Fig. 2b. *Mactra stultorum* (60636) – L



Fig. 2c. *Spisula subtruncata* (58733) – L

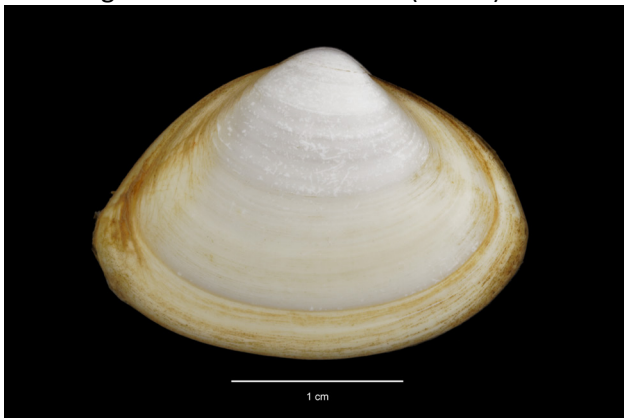


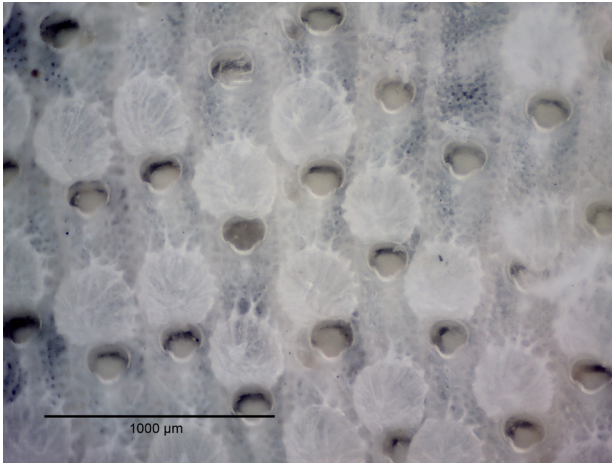
Fig. 2d. *Spisula elliptica* (62332) – L



Fig. 2e. *Rangia cuneata* (EA) – L

**RT5803 – *Schizoporella japonica* Ortmann, 1890 (Figures 3a)**

Substratum: Hard substrata. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Fair. Size: Small portions. Specimens from three samples.



Three generic and six specific differences: Lab 09 identified as *Hymedesmia* (Figure 3b shows an unidentified Porifera) (which lacks zooids); Lab 04 identified as *Pentapora foliacea* (Figure 3c) (which has its primary orifice longer than wide); Lab 13 identified as *Watersipora subatra* (Figure 3d) (which lacks avicularia); Lab 19 identified as *Schizoporella errata* (no material available); Labs 10 and 16 identified as *S. unicornis* (Figure 3e) (both of which have zooids less than twice as long as broad). See Ryland *et al.* (2014).

Fig. 3a. *Schizoporella japonica* (RT5803; 58323) - D

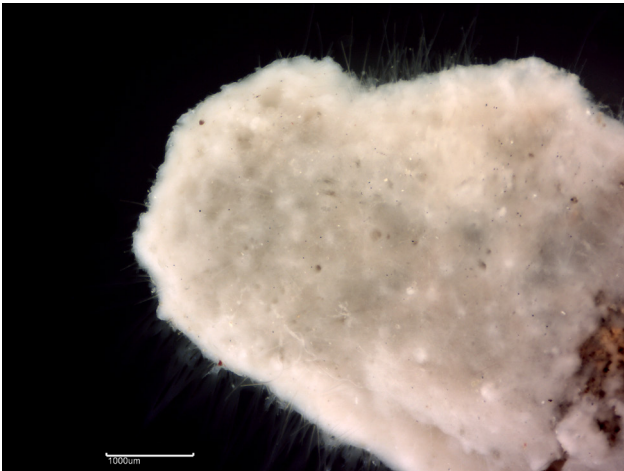


Fig. 3b. Porifera indet. (60207) - D

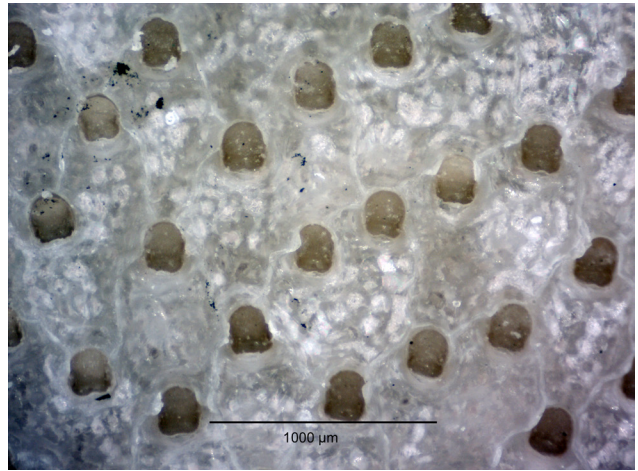


Fig. 3c. *Pentapora foliacea* (57070) - D

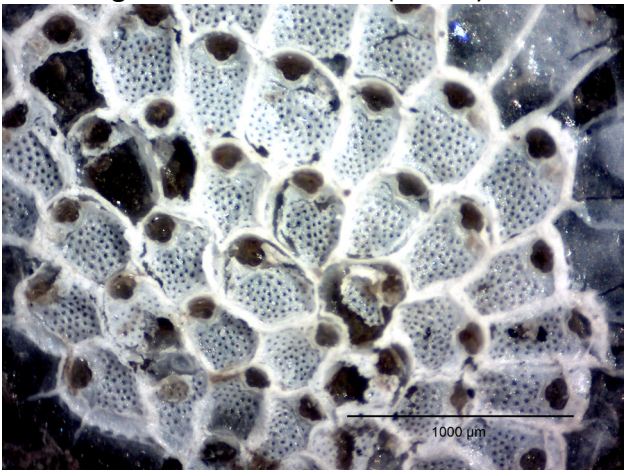


Fig. 3d. *Watersipora subatra* (63702) - D

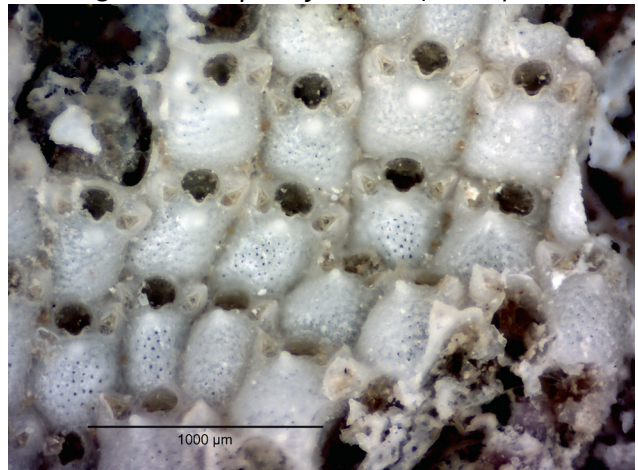


Fig. 3e. *Schizoporella unicornis* (43087) - D

**RT5804 – *Musculus subpictus* (Cantraine, 1835) (Figure 4a)**

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: North of Ireland. Condition: Good. Size: Small, 2-3 mm. All specimens from one sample.



Fig. 4a. *Musculus subpictus* (RT5804; 58679) - L

Nine generic and specific differences: Lab 22 identified as *Musculus niger* (Figure 4b) (which has over 40 posterior ribs); Labs 04, 11, 13 and 16 identified as *M. costulatus* (Figure 4c) (which has a narrower anterior margin); Labs 06, 10, 19 and 21 identified as *M. discors* (Figure 4d) (which has a more rounded posterior margin and a more central centre of gravity – closer to the umbones in *M. subpictus*).

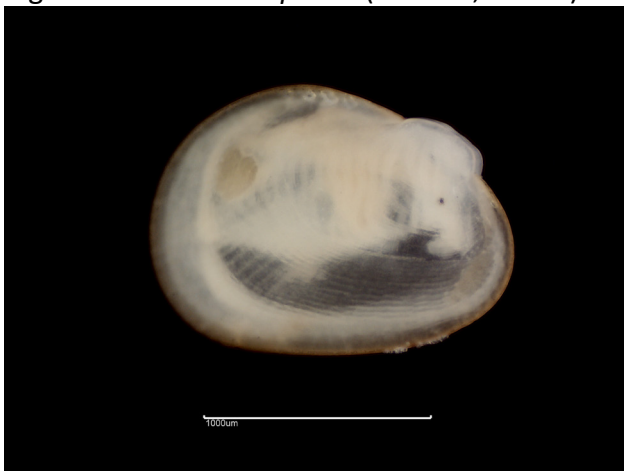


Fig. 4b. *Musculus niger* (10784) - L

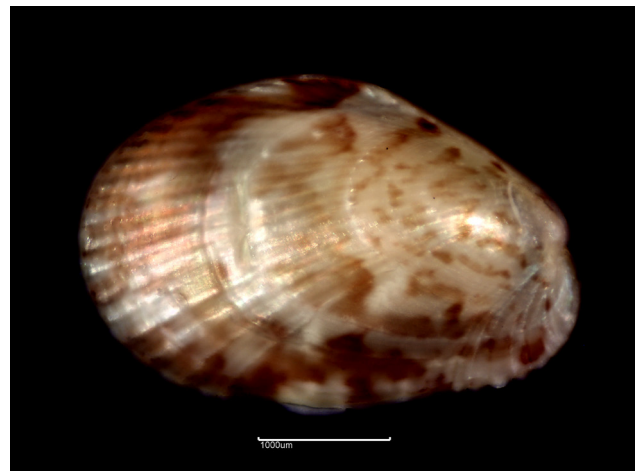


Fig. 4c. *Musculus costulatus* (60552) - L



Fig. 4d. *Musculus discors* (12315) - L



**RT5805 – *Monocorophium insidiosum* (Crawford, 1937) (Figure 5a)**

Substratum: Hard substrata. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Good. Size: Medium, female. All specimens from one sample.



Fig. 5a. *Monocorophium insidiosum* (RT5805; 59873) – L

Two generic and six specific differences: Lab 16 identified as *Apocorophium lacustre* (Figure 5b) (which lacks lateral notches where uropods join the urosome); Lab 09 identified as *Corophium bonellii*, a synonym of *Crassikorophium bonellii* (the identity of this species is uncertain but Figure 5c shows a possible example); Labs 07, 10 and 19 identified as *Monocorophium acherusicum* (Figure 5d); Lab 21 identified as *M. sextonae* (Figure 1b) (all of which have a curved proximal spine on the ventral margin of antenna 1 peduncle article 1).



Fig. 5b. *Apocorophium lacustre* (702) – L



Fig. 5c. c.f. *Crassikorophium bonellii* (11237) – L



Fig. 5d. *Monocorophium acherusicum* (11324) – L

**RT5806 – *Crassikorophium crassicorne* (Bruzelius, 1859) (Figure 6a)**

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Good. Size: Medium, male. All specimens from one sample.



Fig. 6a. *Crassikorophium crassicorne* (RT5806; 60773) – L

One generic and specific difference: Lab 08 identified as *Monocorophium uenoi* (no material available) (which lacks setae on the outer margin of uropod 1 peduncle).

Lab 09 used the synonym *Corophium crassicorne*.

**RT5807 – *Alitta succinea* (Leuckart, 1847) (Figures 7a, e)**

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good. Size: Small. Specimens from three samples.



Fig. 7a. *Alitta succinea* (RT5807; 58166) – D

Six generic and specific differences: Labs 04 and 16 identified as *Eunereis longissima* (Figures 7b, f); Lab 07 identified as *E. elittoralis* (Figures 7c, g); Labs 09, 13 and 19 identified as *Hediste diversicolor* (Figure 7d, h) (all of have the dorsal cirri of posterior parapodia inserted close to the base of the dorsal notopodial ligule).



Fig. 7b. *Eunereis longissima* (10403) – D

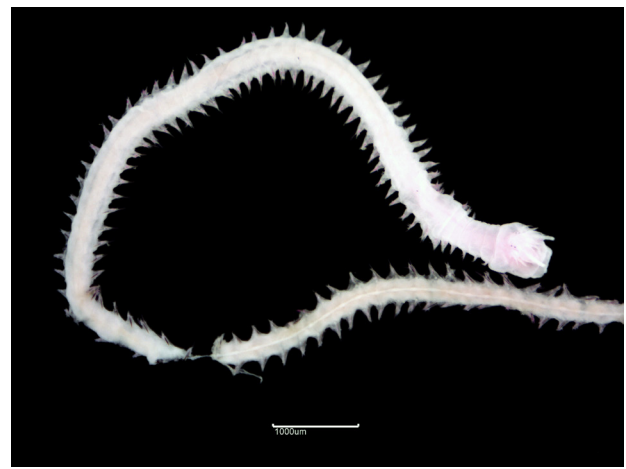


Fig. 7c. *Eunereis elittoralis* (1901, 59896) – D

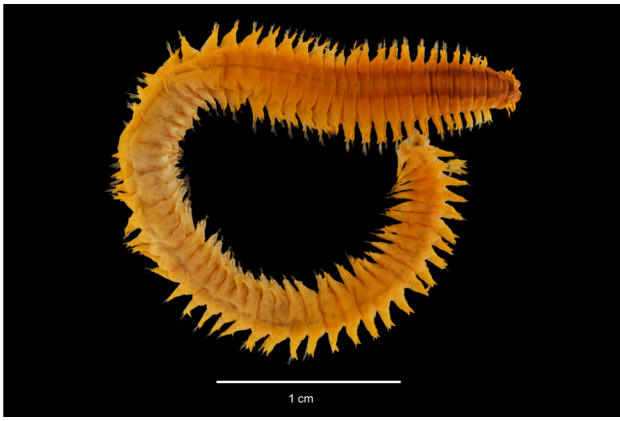


Fig. 7d. *Hediste diversicolor* (RT5717, 37532) –  
D

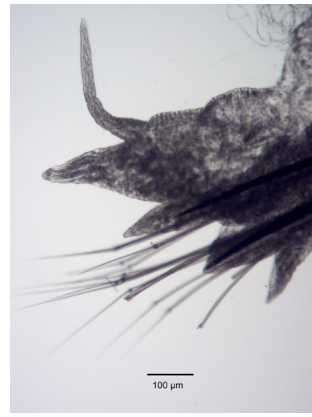


Fig. 7e. *Alitta succinea* (RT5807; 58166) –  
Posterior parapodium



Fig. 7f. *Eunereis longissima* (10403) – Posterior  
parapodium



Fig. 7g. *Eunereis elittoralis* (1802, 59458)  
Posterior parapodium

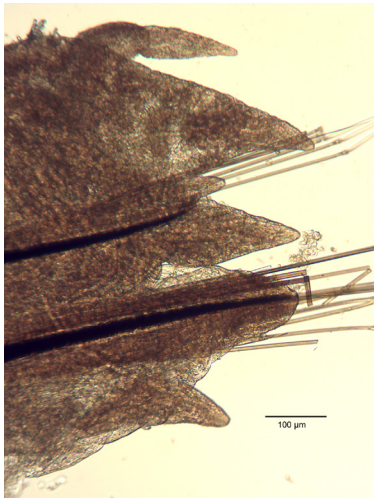


Fig. 7h. *Hediste diversicolor* (RT5717, 37532) –  
Posterior parapodium

**RT5808 – *Palaemon macrodactylus* Rathbun, 1902 (Figure 8a)**

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Fair. Size: Medium. All specimens from one sample.



Fig. 8a. *Palaemon macrodactylus* (RT5808) – L

One generic and four specific differences: Lab 22 identified as *Pandalus borealis* (Figure 8b); Lab 19 identified as *Palaemon serratus* (Figure 8c) (both of which have an upcurved rostrum); Labs 10 and 16 identified as *P. longirostris* (Figures 8d) (which has only seven or eight dorsal rostral teeth).



Fig. 8b. *Pandalus borealis* (64016) – L



Fig. 8c. *Palaemon serratus* (58196) – L



Fig. 8d. *Palaemon longirostris* (55685) – L

**RT5809 – *Austrominius modestus* (Darwin, 1854) (Figure 9a)**

Substratum: Hard substrata. Salinity: Variable (Euryhaline). Depth: Intertidal. Geography: Southeast England. Condition: Fair. Size: Small. All specimens from one sample.

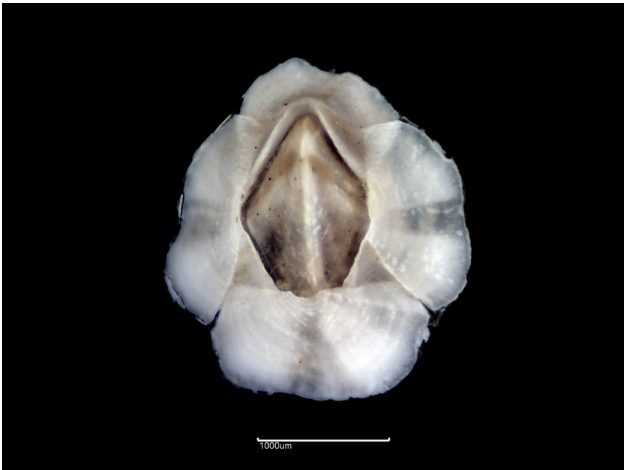


Fig. 9a. *Austrominius modestus* (RT5809; 63641) – D

No generic or specific differences.

Lab 06 identified as *Amphibalanus Amphitrite*. Re-examination of a photograph of this specimen showed it to be an individual of *A. improvisus*) that was included in error. This result has been discounted from the statistics.

**RT5810 – *Clymenella torquata* (Leidy, 1855) (Figures 10a, e)**

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: North of Ireland. Condition: Good. Size: Small. Specimens from four samples.



Fig. 10a. *Clymenella torquata* (RT5810; 60237) – L

Six generic and specific differences: Lab 07 identified as *Nicomache lumbricalis* (Figures 10b, f show *Nicomache* sp.) (which lacks a cephalic plate); Labs 09 identified as *Euclymene oerstedii* (Figures 10c, g); Labs 08, 10, 14 and 22 identified as *E. lombricoides* (Figures 10d, h) (both of which lack a collar on chaetiger 4). The circulated specimens were small and showed some variation in the length of the pygidial cirri, which did not fit with the workshop key to posterior portions (Garwood, 2007).



Fig. 10b. *Nicomache* sp. (56646) – L



Fig. 10c. *Euclymene oerstedii* (58459) – L



Fig. 10d. *Euclymene lombricoides* (60979) – L



Fig. 10e. *Clymenella torquata* (RT5810; 60237)  
– L, head



Fig. 10f. *Nicomache* sp. (56646) – L, head



Fig. 10g. *Euclymene oerstedii* (58459) – L, head



Fig. 10h. *Euclymene lombricoides* (60979) – L,  
head

**RT5811 – *Spisula subtruncata* (da Costa, 1778) (Figure 11a)**

Substratum: Mud. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good. Size: Small, 3-5 mm. All specimens from one sample.



Fig. 11a. *Spisula subtruncata* (RT5811; 62407)

– L

Three generic and four specific differences: Lab 09 identified as *Nucula nitidosa* (Figure 11b) (which is strongly inequilateral); Lab 10 identified as *Spisula elliptica* (Figure 11c) (which has an ovoid outline); Labs 11 and 14 identified as *Mulinia lateralis* (Figure 11d) (which lacks an external ligament and has a more distinct posterior radial ridge). Craeymeersch *et al.*, (2019) key *Spisula* as having no radial ridge but juvenile *S. subtruncata* may have an indistinct one.



Fig. 11b. *Nucula nitidosa* (59491) – L



Fig. 11c. *Spisula elliptica* (60486) – L



Fig. 11d. *Mulinia lateralis* (NIOZ) – L

**RT5812 – *Caprella mutica* Schurin, 1935 (Figure 12a)**

Substratum: Hard substrata. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Fair. Size: Medium, female. All specimens from one sample.



Fig. 12a. *Caprella mutica* (RT5812; 59168) – L

Seven specific differences: Labs 07, 08, 10 and 11 identified as *Caprella linearis* (Figure 12b); Labs 09, 16 and 21 identified as *C. septentrionalis* (Figure 12c) (both of which have only blunt dorsal tubercles on posterior pereonites).



Fig. 12b. *Caprella linearis* (11220) – L



Fig. 12c. *Caprella septentrionalis* (8416) – L



**RT5813 – *Tubificoides heterochaetus* (Michaelsen, 1926) (Figure 13a)**

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Fair. Size: Medium. All specimens from one sample.



Fig. 13a. *Tubificoides heterochaetus* (RT5813; 63287) - L

Two generic and eight specific differences: Lab 22 identified as *Fridericia perrieri* (Figure 13b shows an unidentified Enchytraeidae) (which lacks bifid chaetae); Lab 18 identified as *Paranais litoralis* (Figure 13c) (which lacks dorsal chaetae in segments 2-4); Labs 07, 10 and 16 identified as *Tubificoides pseudogaster* (Figure 13d) (in which all chaetae are strongly bifid); Labs 09 and 19 identified as *T. amplivasatus* (Figure 13e); Lab 17 identified as *T. galiciensis* (Figure 13f) (both of which have hair chaetae).



Fig. 13b. Enchytraeidae indet. (63424) - L



Fig. 13c. *Paranais litoralis* (RT56; 56019) - L



Fig. 13d. *Tubificoides pseudogaster* (RT56; 58771) - L



Fig. 13e. *Tubificoides amplivasatus* (RT56; 4744) - L



Fig. 13f. *Tubificoides galiciensis* (9592) - L

**RT5814 – *Dikerogammarus haemobaphes* (Eichwald, 1841) (Figure 14a)**

Substratum: Diamicton. Salinity: Low (Oligohaline). Depth: Infralittoral. Geography: Southwest England. Condition: Good. Size: Medium. Specimens from several samples.



Fig. 14a. *Dikerogammarus haemobaphes* (RT5814) – L

Nine generic and ten specific differences: Labs 04, 07, 10, 16 and 17 identified as *Echinogammarus pirloti* (Figure 14b); Labs 09, 13 and 19 identified as *E. marinus* (Figure 14c); Lab 22 identified as *E. ischnus* (Figure 14d) (all of which lack conical urosome projections); Lab 11 identified as *Dikerogammarus villosus* (Figure 14e) (which has urosome projections as high as long and 3 or more spines on the anterior projection).



Fig. 14b. *Echinogammarus pirloti* (7738) – L



Fig. 14c. *Echinogammarus marinus* (55764) – L



Fig. 14d. *Echinogammarus ischnus* (T. van Haaren)  
– L



Fig. 14e. *Dikerogammarus villosus* (T. van Haaren) – L

**RT5815 – *Ruditapes philippinarum* (Adams & Reeve, 1850) (Figure 15a)**

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good. Size: Small, 3-4 mm. All specimens from one sample.

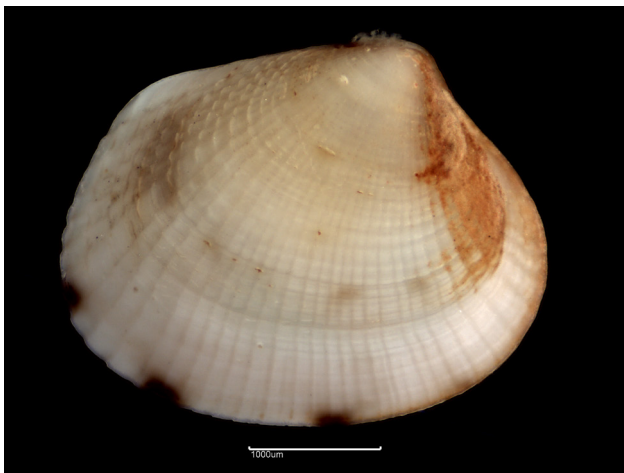


Fig. 15a. *Ruditapes philippinarum* (RT5815; 59168) – L

Two generic and three specific differences: Lab 10 identified as *Cerastoderma edule* (Figure 15b) (which has coarser radial ribs, with distinct scales); Lab 04 identified as *Venerupis corrugata* (Figure 15c) (which lacks radial ribs at this size); Lab 11 identified as *Ruditapes decussatus* (Figure 15d) (which has a less rounded outline and less marked sculpture and colour pattern).

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

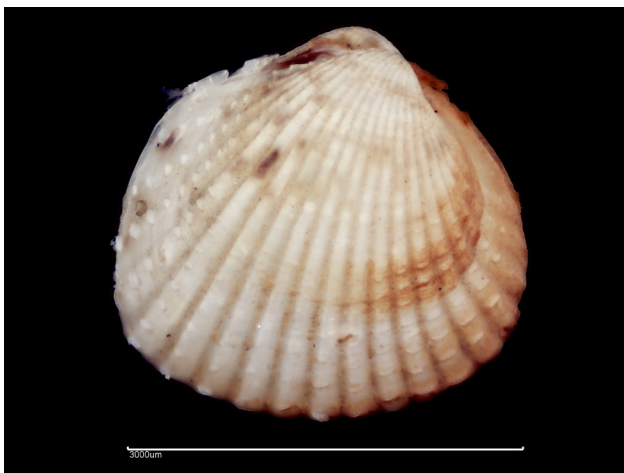


Fig. 15b. *Cerastoderma edule* (58150) – L

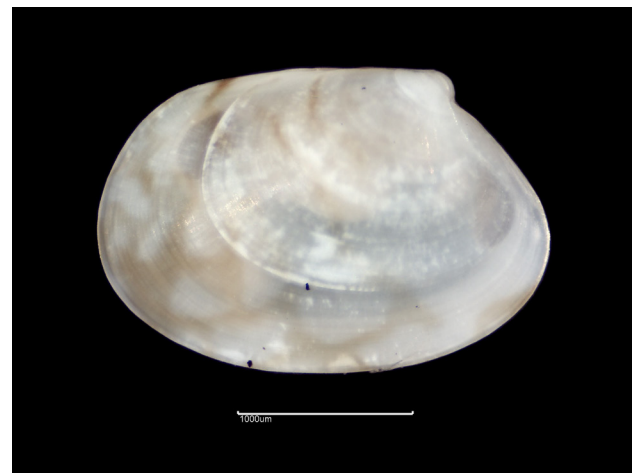


Fig. 15c. *Venerupis corrugata* (RT52; 413668) – L

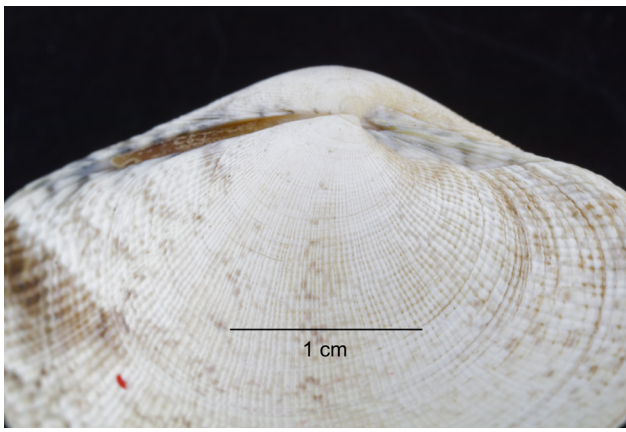


Fig. 15d. *Ruditapes decussatus* (TW) – L

**RT5816 – *Tricellaria inopinata* d'Hondt & Occhipinti Ambrogi, 1985 (Figures 16a, f)**

Substratum: Hard substrata. Salinity: Full (Euhaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Fair. Size: Small portions. Specimens from three samples.

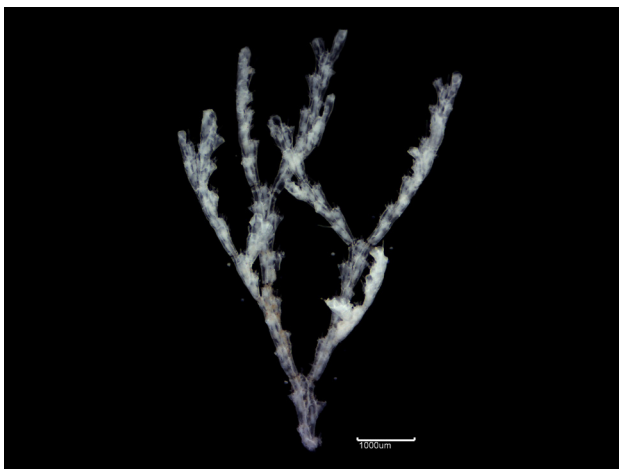


Fig. 16a. *Tricellaria inopinata* (RT5816; 59880)

Eight generic and specific differences: Lab 09 identified as *Crisularia purpurotincta* (no material available; Figures 16b, g show *C. plumosa*); Lab 10 identified as *Bugulina fulva* (Figure 16c, h); Labs 18, 19, 21 and 22 identified as *Scrupocellaria scruposa* (Figures 16d, i) (all of which lack a scutum); Labs 04 and 16 identified as *Cradoscrupocellaria reptans* (Figures 16e, j show *Cradoscrupocellaria* sp.) (in which the scutum is divided into distinct lobes).



Fig. 16b. *Crisularia plumosa* (55340)



Fig. 16c. *Bugulina fulva* (58343)



Fig. 16d. *Scrupocellaria scruposa* (58673)

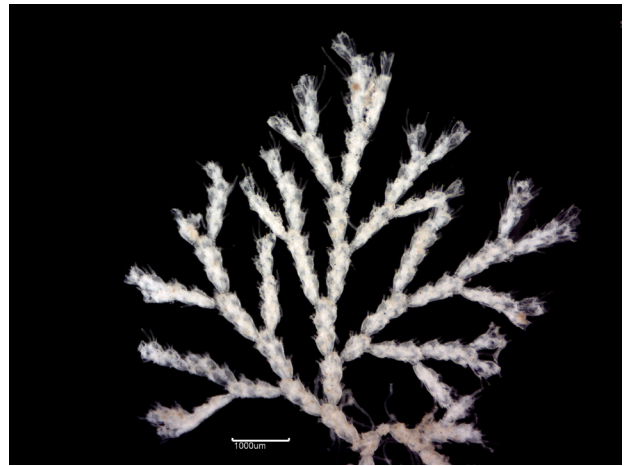


Fig. 16e. *Cradoscrupocellaria* sp. (11348)

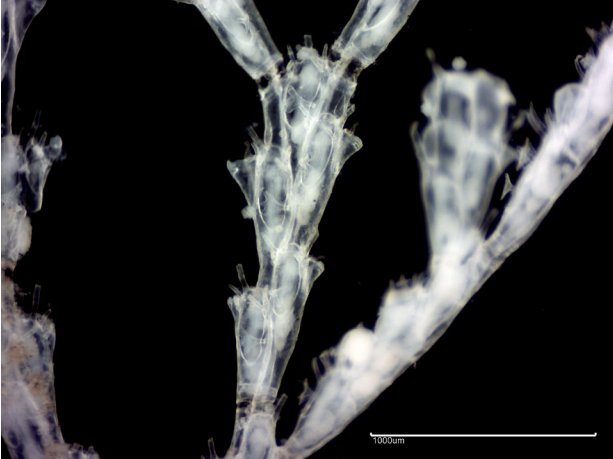


Fig. 16f. *Tricellaria inopinata* (RT5816; 59880)  
– zooids

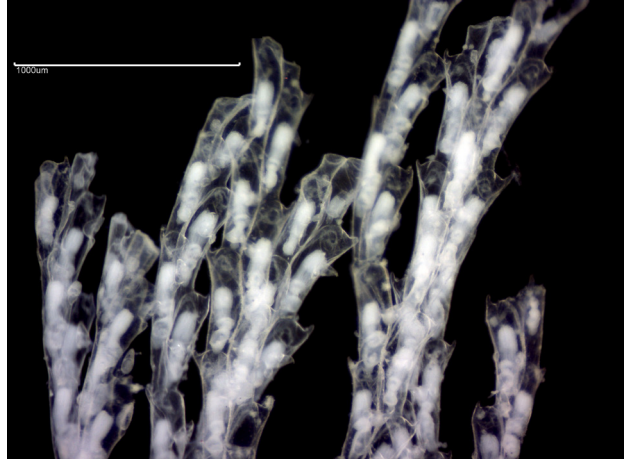


Fig. 16g. *Crisularia plumosa* (55340) – zooids

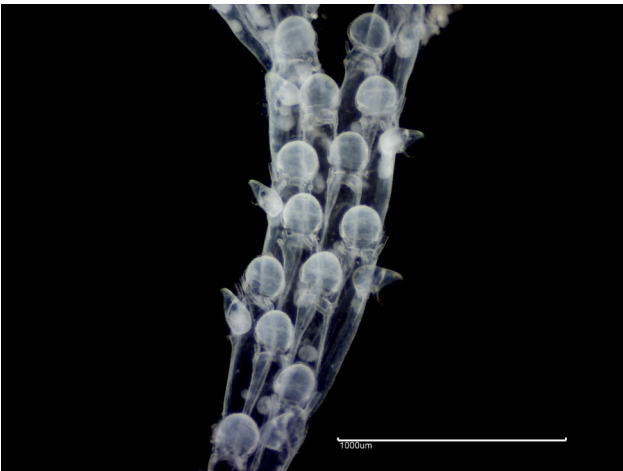


Fig. 16h. *Bugulina fulva* (58343) – zooids

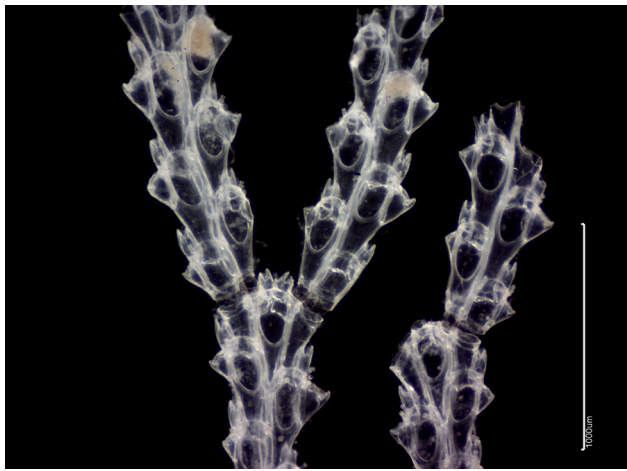


Fig. 16i. *Scrupocellaria scruposa* (58673) – zooids



Fig. 16j. *Cradoscrupocellaria* sp. (11348) –  
zooids

**RT5817 – *Crepidula fornicata* (Linnaeus, 1758) (Figures 17a)**

Substratum: Diamicton. Salinity: Full (Euhaline). Depth: Circalittoral (Upper Shelf). Geography: Southeast England. Condition: Good. Size: Small, 5-8 mm. All specimens from one sample.

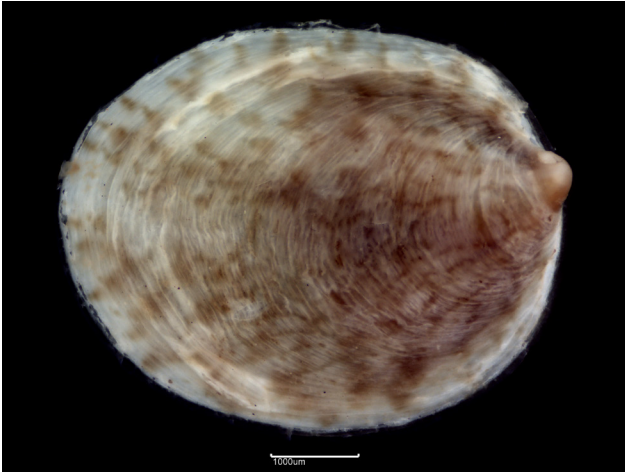


Fig. 17a. *Crepidula fornicata* (RT5817; 56608) –

D

One generic and specific difference: Lab 09 identified as *lothia fulva* (no material available) (which has no trace of coiling to the apex).

**RT5818 – *Sinelobus vanhaareni* Bamber, 2014 (Figure 18a)**

Substratum: Floral turf. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Netherlands. Condition: Good. Size: Medium, female. All specimens from one sample; supplied by T. van Haaren.



Fig. 17a. *Sinelobus vanhaareni* (RT5818) – L

Seven generic and thirteen specific differences: Labs 02, 04, 06, 10, 13, 18 and 19 identified as *Tanais dulongii* (Figure 17b) (in which the rows of plumose setae on the pleon are continuous); Labs 03, 07, 09, 16, 17 and 22 identified as *Sinelobus stanfordi* (no material available) (which has a distal tuft of setae on antennal peduncle article 2).

The species circulated was originally recorded as *Sinelobus stanfordi* when first found in Europe (Van Haaren & Soors, 2009) but later described as distinct (Bamber, 2014). The RT identifications of *S. stanfordi* could be considered effectively nomenclature differences but are technically taxonomic errors.



Fig. 17b. *Tanais dulongii* (59867) – L

**RT5819 – *Urosalpinx cinerea* (Say, 1822) (Figure 19a)**

Substratum: Hard substrata. Salinity: Variable (Euryhaline). Depth: Intertidal. Geography: Southeast England. Condition: Good. Size: Small, 10-14 mm. All specimens from one sample.



Fig. 19a. *Urosalpinx cinerea* (RT5819; 63458) –

V

Four generic and specific differences: Lab 08 identified as *Ocenebrellus inornatus* (Figure 19b) (which has coarser sculpture); Labs 09 and 11 identified as *Trophonopsis muricata* (Figure 19c) (which has finer sculpture and a longer siphonal canal); Lab 13 identified as *Cyrellia aequalis* (Figure 19d) (which has more sharply defined ribs).



Fig. 19b. *Ocenebrellus inornatus* (M. Faasse) – V



Fig. 19c. *Trophonopsis muricata* (8375) – V



Fig. 19d. *Cyrellia aequalis* (64484) – V

**RT5820 – *Ascidella aspersa* (Müller, 1776) (Figure 20a)**

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



Fig. 20a. *Ascidella aspersa* (RT5820; 58342) – L

Nine generic and specific differences: Lab 04 identified as *Molgula citrina* (Figure 20b) (which has branchial folds); Labs 07, 16, 21 and 22 identified as *Corella eumyota* (Figure 20c); Lab 19 identified as *C. parallelogramma* (Figure 20d) (both of which have spiral stigmata); Lab 12 identified as *Ciona intestinalis* (Figure 20e) (which has the gut loop below the branchial sac); Lab 11 identified as *Ascidia virginea* (no material available); Lab 12 identified as *A. mentula* (Figure 20f) (both of which have papillae on the internal longitudinal branchial bars).

Labs 03 and 15 identified as *Ascidella scabra*. These specimens (Figure 20g, from Lab 03) were found to be *A. scabra* and the identifications have been accepted as correct.

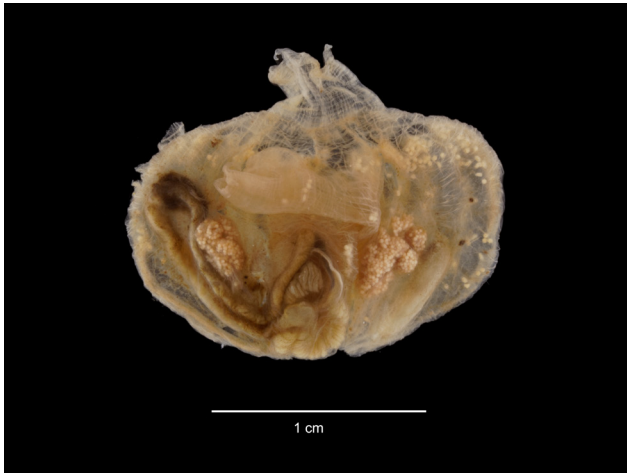


Fig. 20b. *Molgula citrina* (63444) – L

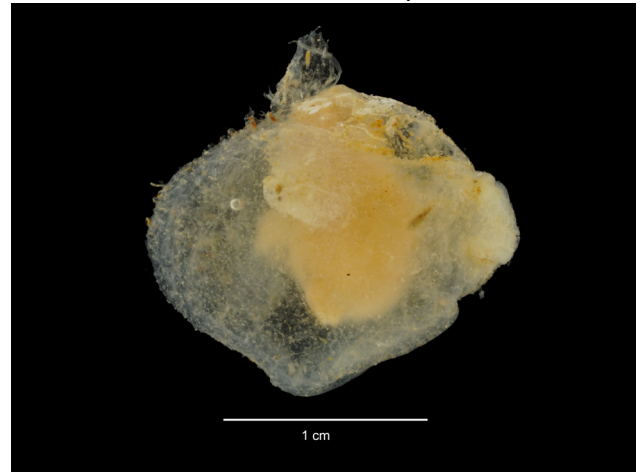


Fig. 20c. *Corella eumyota* (57866) – L



Fig. 20d. *Corella parallelogramma* (59164) – L

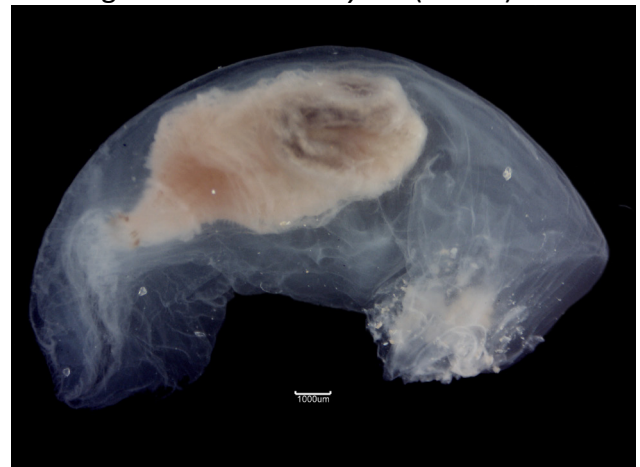


Fig. 20e. *Ciona intestinalis* (RT5501; 57161) – L





Fig. 20f. *Ascidia mentula* (63692) – L

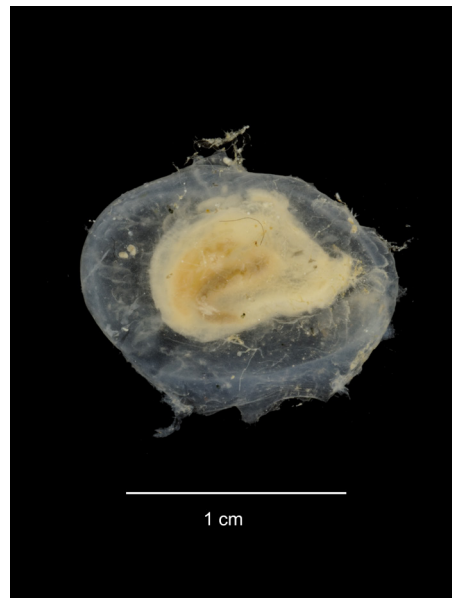


Fig. 20g. *Ascidiella scabra* (RT5820; 58342) – L

**RT5821 – *Neomysis integer* (Leach, 1814) (Figures 21a, d, f, h)**

Substratum: Diamicton. Salinity: Reduced (Mesohaline). Depth: Infralittoral. Geography: Southeast England. Condition: Fair. Size: Medium. All specimens from one sample.



Fig. 21a. *Neomysis integer* (RT5821; 55878) – L

One generic and two specific differences: Lab 04 identified as *Euphausia* (Figure 21b shows the euphausiid *Nyctiphanes couchii*) (which lacks statocysts in its uropods); Lab 22 identified as *Neomysis americana* (Figures 21c, e, g, i) (in which the telson spines are variable in length – Pezy et al., 2018).

Lab 19 mis-spelled the specific name as 'interger'.



Fig. 21b. *Nyctiphanes couchii* (65450) – L



Fig. 21c. *Neomysis americana* (Ton Van Haaren) – L



Fig. 21d. *Neomysis integer* (414272) – D, head

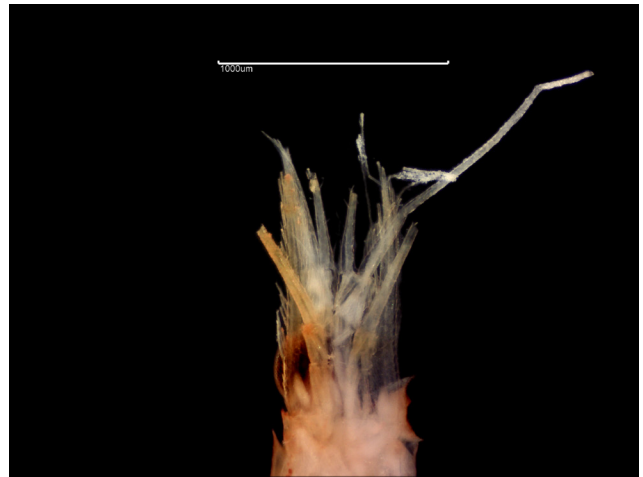


Fig. 21e. *Neomysis americana* (Ton Van Haaren) – D, head



Fig. 21f. *Neomysis integer* (414272) – D, tail



Fig. 21g. *Neomysis americana* (Ton Van Haaren) – D, tail

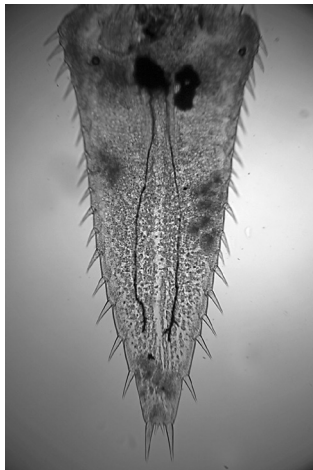


Fig. 21h. *Neomysis integer* (Marco Faasse) – D, telson



Fig. 21i. *Neomysis americana* (Marco Faasse) – D, telson

**RT5822 – *Sabella pavonina* Savigny, 1822 (Figure 22a, c)**

Substratum: Diamicton. Salinity: Variable (Euryhaline). Depth: Infralittoral. Geography: Southeast England. Condition: Good. Size: medium. All specimens from one sample.



Fig. 22a. *Sabella pavonina* (RT5822; 63505) – L

One generic and six specific differences: Lab 09 identified as *Pseudopotamilla reniformis* (Figures 22b, d show *Pseudopotamilla* sp.) (which has compound eyes on the radioles); Labs 02, 06, 08, 13 and 17 identified as *Sabella spallanzanii* (no material available) (in which the thorax is only as long as its breadth - Knight Jones & Perkins, 1998).



Fig. 22b. *Pseudopotamilla* sp. (60490) – L



Fig. 22c. *Sabella pavonina* (RT5822; 63505) – V



Fig. 22d. *Pseudopotamilla* sp. (60490) – V

**RT5823 – *Euchone limnicola* Reish, 1959 (Figure 23a)**

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



Fig. 23a. *Euchone limnicola* (RT5823; 57520) –

L

Six generic and specific differences: Lab 07 identified as *Potamilla torelli* (no material available); Lab 10 identified as *Jasmineira elegans* (Figure 23b); Lab 22 identified as *J. caudata* (Figure 23c); Lab 11 identified as *Chone kroyerii* (no material available; Figure 23d shows *Chone duneri*) (all of which lack an anal depression); Lab 06 identified as *Dialychone longiseta* (Figure 23e); Lab 16 identified as *D. dunerificta* (Figure 23f) (both of which have a barely perceptible anal depression).



Fig. 23b. *Jasmineira elegans* (58449) – L



Fig. 23c. *Jasmineira caudata* (9783) – L



Fig. 23d. *Chone duneri* (60257) – L



Fig. 23e. *Dialychone longiseta* (54924) – L

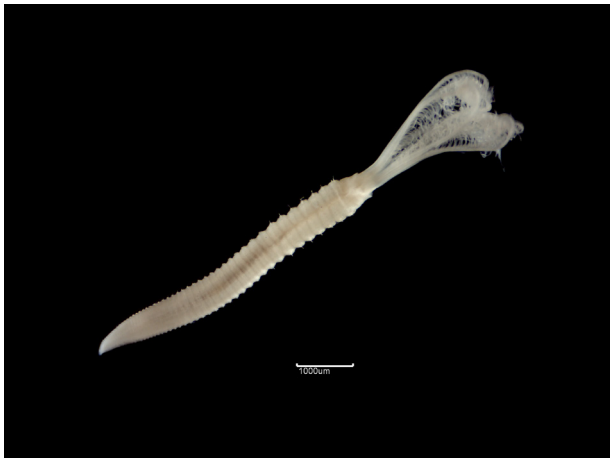


Fig. 23f. *Dilychone dunerificta* (58127) – L

**RT5824 – *Chelicorophium curvispinum* (G.O. Sars, 1895) (Figure 24a)**

Substratum: Diamicton. Salinity: Low (Oligohaline). Depth: Infralittoral. Geography: Southwest England. Condition: Good. Size: Medium. Specimens from several samples.



Fig. 24a. *Chelicorophium curvispinum* (RT5824) – L

Three generic and specific differences: Lab 09 identified as *Corophium arenarium* (Figure 24b); Labs 10 and 22 identified as *C. volutator* (Figure 24c) (both of which lack accessory processes on the distal ventrolateral angle of antenna 2 peduncle article 4).

Lab 21 mis-spelled the specific name as 'cuvispinum'.



Fig. 24b. *Corophium arenarium* (2631) – L



Fig. 24c. *Corophium volutator* (63438) – L

**RT5825 – *Potamopyrgus antipodarum* (Gray, 1843) (Figure 25a)**

Substratum: Hard substrata. Salinity: Low (Oligohaline). Depth: Infralittoral. Geography: Northern Scotland. Condition: Good. Size: medium, 2-3 mm, subadult. All specimens from one sample.



Fig. 25a. *Potamopyrgus antipodarum* (RT5825; 58335) –

Nine generic and specific differences: Lab 08 identified as *Semisalsa stagnorum* (no material available; Figure 25b shows a different cochliopid) (which has a white shell); Lab 21 identified as *Hydrobia acuta neglecta* (Figure 25c) (which has more flattened whorls); Labs 04, 09, 10, 11, 13, 16 and 22 identified as *Ecrobia ventrosa* (Figure 25d) (which is smaller and narrower for the same number of whorls).



Fig. 25b. Cochliopidae (58529) – V



Fig. 25c. *Hydrobia acuta neglecta* (APEM) – V



Fig. 25d. *Ecrobia ventrosa* (61932) – V

## **Taxonomic and Identification policy problems highlighted by this RT**

The ring test was used to highlight identification problems with non-native and cryptogenic species and to alert participants to some possibilities for future introductions. It was anticipated that it would highlight areas for further work. Some 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 all participants that have provided feedback following issue of interim results. We are grateful to Ton van Haaren (Eurofins, Amsterdam) for supply of Specimens 02 and 17; also to Kirsty Tennant (APEM Freshwater BioLabs) for supply of Specimens 14 and 24. Ton van Haaren also provided specimens of species for comparison with Specimens 14 and 21. Bianka Rasch (NIOZ) provided comparative material for Specimen 11 and Marco Faasse (Eurofins - eCOAST Marine Research) provided photographs for Specimen 21 and comparative material for Specimen 19.

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### **Ring Test Specimen Return Instructions**

Considering on-going COVID-19 global restrictions, participants have the [option of retaining these ring test specimens for incorporation into own in-house reference collections](#). These specimens are particularly useful for comparison and confirmation of notable taxa. Alternatively, please return the ring test specimens as soon as practicable.

Return address: [\*\*David Hall, APEM Ltd., 7a Diamond Centre,  
Works Road, Letchworth, Hertfordshire SG6 1LW, UK\*\*](#)