

**The National Marine Biological
Analytical Quality Control Scheme**

Ring Test Bulletin – RTB#32

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RING TEST DETAILS

Ring Test #32

Type/Contents – General/Mixed

Circulated – 20/09/2007

Completion Date – 23/11/2007

Number of Subscribing Laboratories – 23

Number of Participating Laboratories – 19

Number of Results Received – 23*

*multiple data entries per laboratory permitted

Summary of differences

Specimen	Genus	Species	Total differences for (23) participants	
			Genus	Species
RT3201	Ammothea	hilgendorfi	8	8
RT3202	Crangon	crangon	1	1
RT3203	Odontosyllis	gibba	0	0
RT3204	Chaetozone	cf. vivipara	1	5
RT3205	Ampharete	lindstroemi	0	1
RT3206	Mya	truncata	7	10
RT3207	Galathea	intermedia	0	1
RT3208	Eurydice	affinis	0	2
RT3209	Pomatoceros	lamarcki	0	1
RT3210	Ampelisca	diadema	0	6
RT3211	Terebellides	stroemi	0	0
RT3212	Pseudoparatanais	batei	2	2
RT3213	Pholoe	inornata	0	3
RT3214	Falcidens	crossotus	7	7
RT3215	Praxillella	affinis	7	9
RT3216	Tubificoides	cf. galiciensis	1	9
RT3217	Nephtys	kersivalensis	0	2
RT3218	Gammaropsis	lobata	6	18
RT3219	Modiolarca	tumida	12	12
RT3220	Eurydice	truncata	0	15
RT3221	Turritella	communis	0	0
RT3222	Sabellaria	alveolata	0	0
RT3223	Chelura	terebrans	0	0
RT3224	Hydrobia	ulvae	4	4
RT3225	Maera	othonis	0	1
Total differences			56	117
Average differences /lab.			2.4	5.1

Table 1. The identifications of the fauna made by participating laboratories for RT32. Names are given only where different from the AQC identification.

RT32	Taxon	LB1401a	LB1403a	LB1405a	LB1406a	LB1410a	LB1411b
RT3201	Ammothea hilgendorfi	--	Endeis spinosa	--	--	--	--
RT3202	Crangon crangon	--	--	--	--	--	--
RT3203	Odontosyllis gibba	--	--	--	--	--	--
RT3204	Chaetozone cf. vivipara	- [vivipara]	Tharyx killariensis	- [vivipara]	- [viviparia]	- [vivipara]	- [vivipera]
RT3205	Ampharete lindstroemi	--	--	--	--	--	[Ampharete] -
RT3206	Mya truncata	--	--	--	--	--	Sphenia binghami
RT3207	Galathea intermedia	--	- squamifera	--	--	--	--
RT3208	Eurydice affinis	--	--	- pulchra	--	--	--
RT3209	Pomatoceros lamarcki	--	--	- [lamarckii]	--	--	[Pomateceros] -
RT3210	Ampelisca diadema	--	--	--	--	--	--
RT3211	Terebellides stroemi	--	--	--	--	--	--
RT3212	Pseudoparatanaïs batei	--	--	--	--	--	--
RT3213	Pholoe inornata	--	--	--	--	--	--
RT3214	Falcidens crosstus	--	--	--	Chaetoderma nitidulum	Chaetoderma nitidulum	--
RT3215	Praxillella affinis	--	--	Euclymene oerstedii	Euclymene oerstedii	--	--
RT3216	Tubificoides cf. galiciensis	--	--	- [galiciensis]	- scoticus	- insularis	--
RT3217	Nephtys kersivalensis	--	--	--	--	--	--
RT3218	Gammaropsis lobata	--	- maculata	Isaea montagui	Microdeutopus sp	--	- maculata
RT3219	Modiolarca tumida	--	[Modicolarca] -	Musculus discors	--	--	Musculus discors
RT3220	Eurydice truncata	--	- spingera	- affinis	- pulchra	--	--
RT3221	Turritella communis	--	[Turitella] -	--	[Turitella] -	--	--
RT3222	Sabellaria alveolata	--	--	--	--	--	--
RT3223	Chelura terebrans	--	--	--	--	--	--
RT3224	Hydrobia ulvae	--	--	Rissoa parva (var interrupta)	--	--	--
RT3225	Maera othonis	--	--	--	--	--	--

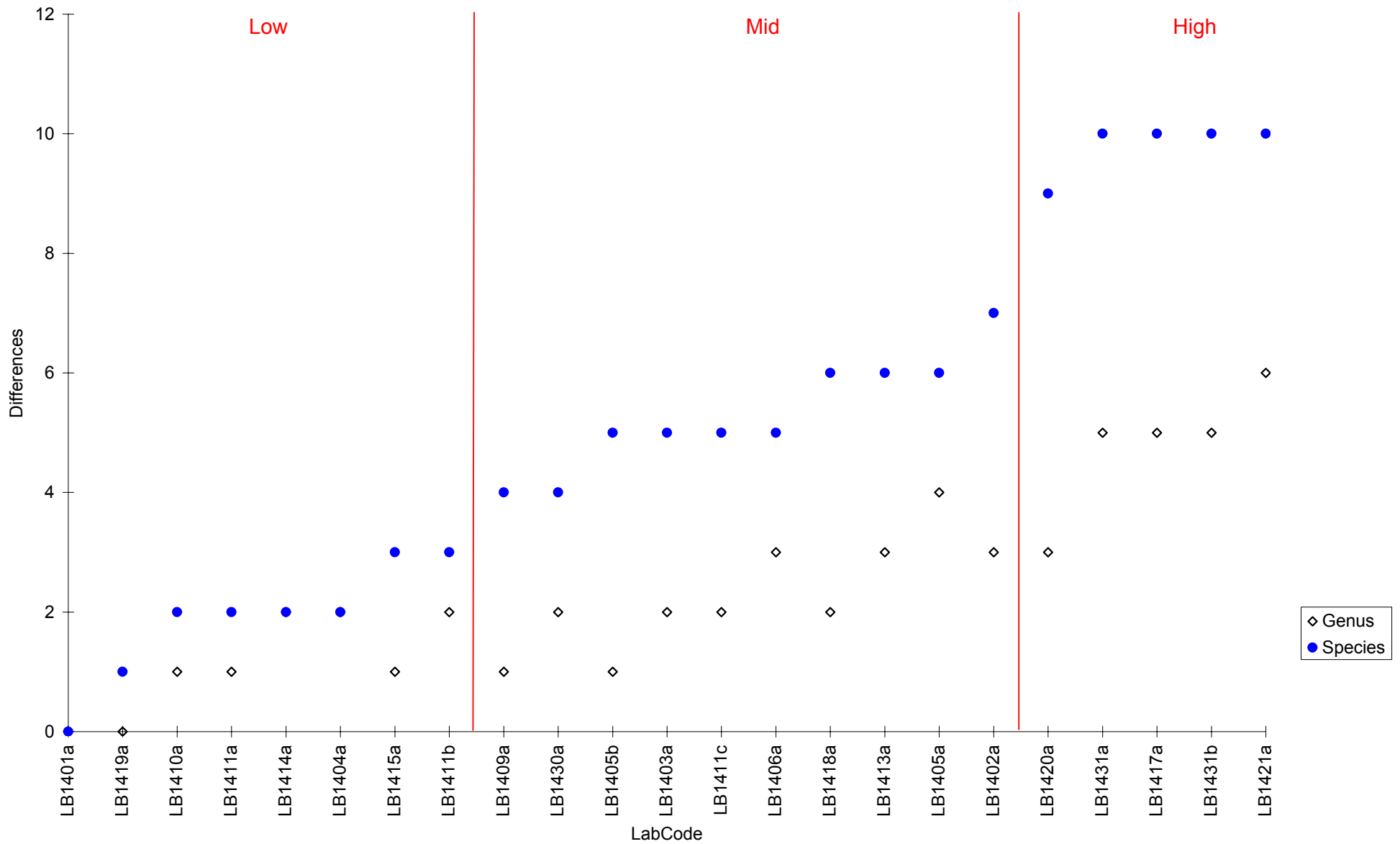
RT32	Taxon	LB1402a	LB1404a	LB1405b	LB1409a	LB1411a	LB1411c
RT3201	Ammothea hilgendorfi	--	--	--	--	--	--
RT3202	Crangon crangon	--	--	--	--	--	--
RT3203	Odontosyllis gibba	--	--	--	--	--	--
RT3204	Chaetozone cf. vivipara	[Aphelochaeta] [vivipara]	- [christiei*]	- [vivipara]	- christiei	- [vivipara]	- [vivipara]
RT3205	Ampharete lindstroemi	--	--	--	--	--	--
RT3206	Mya truncata	--	--	- arenaria	- arenaria	--	- arenaria
RT3207	Galathea intermedia	--	--	- [intermedius]	--	--	--
RT3208	Eurydice affinis	--	--	- pulchra	--	--	--
RT3209	Pomatoceros lamarcki	--	--	--	--	--	--
RT3210	Ampelisca diadema	- spinipes	--	--	- spinipes	--	--
RT3211	Terebellides stroemi	--	--	--	--	--	--
RT3212	Pseudoparatanaïs batei	--	--	[Pseudoparatonaïs] -	--	--	--
RT3213	Pholoe inornata	- baltica	--	--	--	--	--
RT3214	Falcidens crosstus	Chaetoderma nitidulum	--	--	Chaetoderma nitidulum	--	Chaetoderma nitidulum
RT3215	Praxillella affinis	Euclymene oerstedii	Euclymene lumbricoides	--	--	--	--
RT3216	Tubificoides cf. galiciensis	- [galiciensis]	- [galiciensis]	- sp.	--	- [galiciensis]	- [galiciensis]
RT3217	Nephtys kersivalensis	--	--	--	--	--	--
RT3218	Gammaropsis lobata	- maculata	Grandidierella japonica	Aoridae indet.	--	- maculata	- palmata
RT3219	Modiolarca tumida	Musculus costulatus	--	--	--	Musculus discors	Musculus discors
RT3220	Eurydice truncata	- pulchra	--	- spinigera	--	--	- pulchra
RT3221	Turritella communis	--	--	--	--	--	--
RT3222	Sabellaria alveolata	--	- [alveolata]	--	--	--	--
RT3223	Chelura terebrans	--	--	[Chelera] -	--	--	--
RT3224	Hydrobia ulvae	--	--	--	--	--	--
RT3225	Maera othonis	--	--	--	--	--	--

Table 1. The identifications of the fauna made by participating laboratories for RT32. Names are given only where different from the AQC identification.

RT32	Taxon	LB1413a	LB1415a	LB1418a	LB1420a	LB1430a	LB1431b
RT3201	Ammothea hilgendorfi	Achelia longipes #agg	--	Endeis charybdaea	Endeis spinosa	Endeis sp.	Pycnogonida indet.
RT3202	Crangon crangon	--	--	--	--	--	--
RT3203	Odontosyllis gibba	--	--	--	--	--	--
RT3204	Chaetozone cf. vivipara	[Aphelochaeta] [vivipara]	- zelandica	- [vivipara]	- [vivipara]	[Aphelochaeta] [vivipara]	- gibber
RT3205	Ampharete lindstroemi	--	--	--	--	--	--
RT3206	Mya truncata	Sphenia binghami	--	--	--	--	Sphenia binghami
RT3207	Galathea intermedia	--	--	--	--	--	--
RT3208	Eurydice affinis	--	--	--	--	--	--
RT3209	Pomatoceros lamarcki	- triqueter	--	--	--	--	--
RT3210	Ampelisca diadema	--	--	- typica	--	--	- spinipes
RT3211	Terebellides stroemi	--	--	--	--	--	--
RT3212	Pseudoparatanaïs batei	[Paratanaïs] -	--	--	Leptochelia savignyi	--	--
RT3213	Pholoe inornata	--	--	- [synopthalmica]	- baltica	- [synopthalmica/inornata]	- [synopthalmica]
RT3214	Falcidens cressotus	--	Chaetoderma nitidulum	--	--	- [cressotus]	--
RT3215	Praxillella affinis	--	--	--	[Praxillella] praetermissa	--	Euclymene sp. A
RT3216	Tubificoides cf. galiciensis	- [galiciensis]	--	--	- swirencoides	- swirencoides	- benedii
RT3217	Nephtys kersivalensis	--	--	- caeca	[Nephtys] -	[Nephtys] -	--
RT3218	Gammaropsis lobata	- maculata	- maculata	[Megamphopus] cornuta	- palmata	--	- sp.
RT3219	Modiolarca tumida	Musculus discors	--	Musculus discors	[Modiolarca] -	Musculus costulatus	Musculus discors
RT3220	Eurydice truncata	- pulchra	--	- pulchra	- pulchra	- pulchra	- pulchra
RT3221	Turritella communis	--	--	--	--	--	--
RT3222	Sabellaria alveolata	--	--	--	--	--	--
RT3223	Chelura terebrans	--	--	--	--	--	--
RT3224	Hydrobia ulvae	--	--	--	Barleeia unifasciata	--	Assiminea grayana
RT3225	Maera othonis	--	--	--	- grossimana	--	--

RT32	Taxon	LB1414a	LB1417a	LB1419a	LB1421a	LB1431a
RT3201	Ammothea hilgendorfi	--	--	--	Achelia simplex	Pycnogonida indet.
RT3202	Crangon crangon	--	--	--	Philoceras trispinosus	--
RT3203	Odontosyllis gibba	--	--	--	--	--
RT3204	Chaetozone cf. vivipara	- [vivipara]	- [vivipara]	- [vivipara]	- [vivipara]	- gibber
RT3205	Ampharete lindstroemi	--	--	--	- acutifrons	--
RT3206	Mya truncata	Sphenia binghami	Sphenia binghami	--	Thracia phaseolina	Sphenia binghami
RT3207	Galathea intermedia	--	--	--	--	--
RT3208	Eurydice affinis	--	--	--	--	--
RT3209	Pomatoceros lamarcki	--	- [lamarcki]	--	--	--
RT3210	Ampelisca diadema	--	- tenuicornis	--	--	- spinipes
RT3211	Terebellides stroemi	--	--	--	--	--
RT3212	Pseudoparatanaïs batei	--	Heterotanaïs oerstedii	--	--	--
RT3213	Pholoe inornata	--	- minuta	- [synopthalmica]	--	- [synopthalmica]
RT3214	Falcidens cressotus	--	--	--	Chaetoderma nitidulum	--
RT3215	Praxillella affinis	--	Euclymene oerstedii	--	- praetermissa	Euclymene sp. A
RT3216	Tubificoides cf. galiciensis	--	- insularis	--	Limnodriloides sp	- benedenii
RT3217	Nephtys kersivalensis	--	- longosetosa	--	--	--
RT3218	Gammaropsis lobata	Aora gracilis	Gammaridea indet.	--	- maculata	- sp.
RT3219	Modiolarca tumida	--	Musculus costulatus	--	Musculus costulatus	Musculus costulatus
RT3220	Eurydice truncata	--	- pulchra	- spinigera	- pulchra	- pulchra
RT3221	Turritella communis	--	--	--	--	--
RT3222	Sabellaria alveolata	--	--	--	--	--
RT3223	Chelura terebrans	--	--	--	--	--
RT3224	Hydrobia ulvae	--	--	--	--	Assiminea grayana
RT3225	Maera othonis	--	- [orthonis]	--	--	--

Figure 1. The number of differences from the AQC identification of specimens distributed in RT32 for each of the participating laboratories. Arranged in order of increasing number of differences.



Specimen Images and Detailed Breakdown of Identifications

LabCodes are abbreviated in this report to exclude the Scheme year, *i.e.* LB1401a = Lab 01a. An additional terminal character has been added within each LabCode (small case sequential letters) to permit multiple data entries from each laboratory, *i.e.* two participants from laboratory 01 would be coded as LB 01a & LB 01b. For details of your LabCode please contact your Scheme representative or Unicmarine Ltd.

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

RT3201 – *Ammothea hilgendorfi* (Figure 1a-b)

Substratum: Mixed. Salinity: High. Depth: Intertidal. Geography: S. England. Condition: Good, Large.



Fig. 1a. *Ammothea hilgendorfi* (RT3201) - D



Fig. 1b. *Ammothea hilgendorfi* (RT3201) - D



Fig. 1d. *Endeis spinosa* (13234) - D

Eight generic and eight specific differences: Labs 03a and 20a identified as *Endeis spinosa* (Figure 1c-d); Lab 18a identified as *Endeis charybdae*; Lab 30a identified as *Endeis* sp. (all of which lack both chelifores and palps); Lab 13a identified as *Achelia longipes* agg. (Figure 1e-f); Lab 21a identified as *Achelia simplex* (both of which are small forms, up to 2mm body length, that lack dark markings on the legs); Labs 31a and 31b recorded Pycnogonida (ring test specimens should be identified at species level with appropriate confidence level notes).

Additional Literature:

Eno *et al* (eds) (1997)

Bamber (1985 & 1988)



Fig. 1c. *Endeis spinosa* (13234) - D



Fig. 1e. *Achelia longipes* agg. (9406-04945) - D

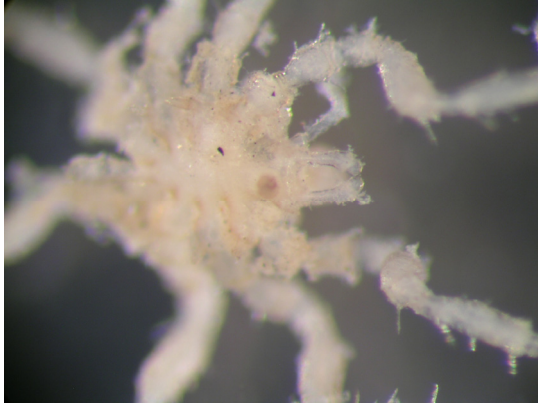


Fig. 1f. *Achelia longipes* agg. (9406-04945) - D

RT3202 – *Crangon crangon* (Figures 2a-b)

Substratum: Mixed. Salinity: Reduced. Depth: Shallow Subtidal. Geography: S. E. England. Condition: Fair, Small.



Fig. 2a. *Crangon crangon* (RT3202) - D



Fig. 2b. *Crangon crangon* (RT3202) - DA



Fig. 2d. *Philocheas trispinosus* (22740) - DA

One generic and one specific difference: Lab 21a identified as *Philoceras* (*sic.*) *trispinosus* (Figure 2c-d) (which has shorter second pereiopods with relatively larger dactyl, $\frac{3}{4}$ length of propodus).



Fig. 2c. *Philocheas trispinosus* (22740) - D

RT3203 – *Odontosyllis gibba* (Figure 3a)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Fair/Poor, Medium.



Fig. 3a. *Odontosyllis gibba* (RT3203) - L

No taxonomic differences recorded.

RT3204 – *Chaetozone cf. vivipara* (Figures 4a-b)

Substratum: Mud. Salinity: High. Depth: Infralittoral. Geography: N. E. England. Condition: Good, Large.



Fig. 4a. *Chaetozone cf. vivipara* (RT3204) - L

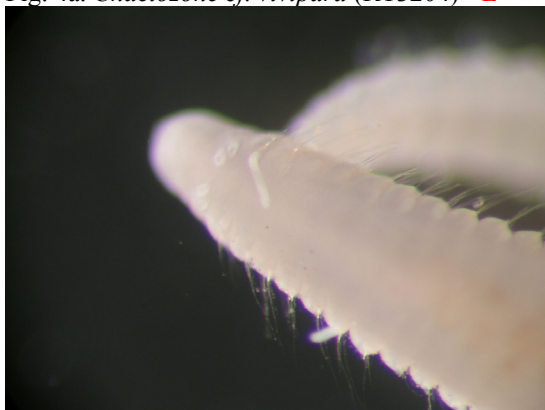


Fig. 4b. *Chaetozone cf. vivipara* (RT3204) - DA

One generic and five specific differences: Labs 04a* and 09a identified as *Chaetozone christiei* (Figure 4c) (which is more elongated, has acicular chaetae in both rami posteriorly and inhabits fully marine sands); Labs 31a and 31b identified as *Chaetozone gibber* (Figure 4d); Lab 15a identified as *Chaetozone zetlandica* (Figure 4e) (both of which have eyes and more strongly defined acicular chaetae); Lab 03a identified as *Tharyx killariensis* (Figure 4f) (which has a narrow mid body and knob-tipped acicular chaetae in posterior chaetigers).

Labs 02a, 13a and 30a recorded the synonym *Aphelochaeta vivipara*; Labs 06a and 11b incorrectly spelt the species.

*The specimens sent did not fully fit the description of *C. vivipara* (Figures 4g-i), as the first pair of gills was alongside the palps (Figure 4b); they may represent an undescribed species. This was brought to our attention by Lab 4a, who have accordingly been awarded a correct answer. The two forms are shown together in Figure 4j.



Fig. 4c. *Chaetozone christiei* (RT3013) - L



Fig. 4d. *Chaetozone gibber* (RT3024) - L



Fig. 4e. *Chaetozone zetlandica* (RT3007) - ADL



Fig. 4f. *Tharyx killariensis* (RT3012) - L



Fig. 4g. *Chaetozone vivipara* (40397) - L

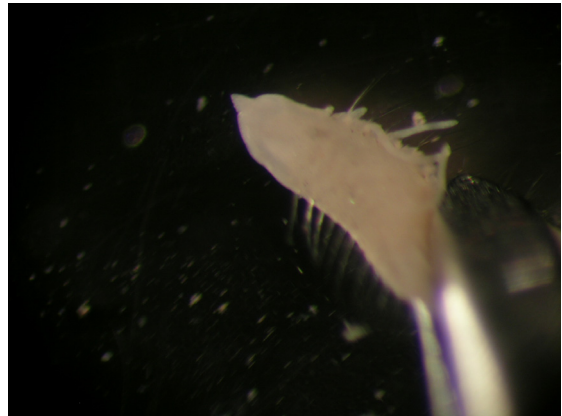


Fig. 4h. *Chaetozone vivipara* (40397) - AD

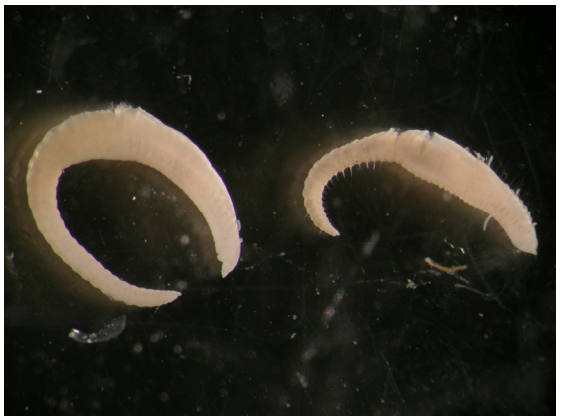


Fig. 4i. *Chaetozone vivipara* (40397) & *Chaetozone cf. vivipara* (RT3204) – left & right, respectively - L

RT3205 – *Ampharete lindstroemi* (Figures 5a-b)

Substratum: Mixed. Salinity: High. Depth: Infralittoral. Geography: N. Ireland. Condition: Fair, Medium.



Fig. 5a. *Ampharete lindstroemi* (RT3205) - L



Fig. 5b. *Ampharete lindstroemi* (RT3205) - LP



Fig. 5d. *Ampharete acutifrons* (9661) - LP

One specific difference: Lab 21a identified as *Ampharete acutifrons* (Figures 5c-d) (which has a long cirrus above each neuropodium and several long pygidial cirri which lack eyespots).

Lab 11b incorrectly spelt the genus.



Fig. 5c. *Ampharete acutifrons* (9661) - D

RT3206 – *Mya truncata* (Figure 6a)

Substratum: Mixed. Salinity: High. Depth: Infralittoral. Geography: N. Ireland. Condition: Good, Small, Juvenile specimen.

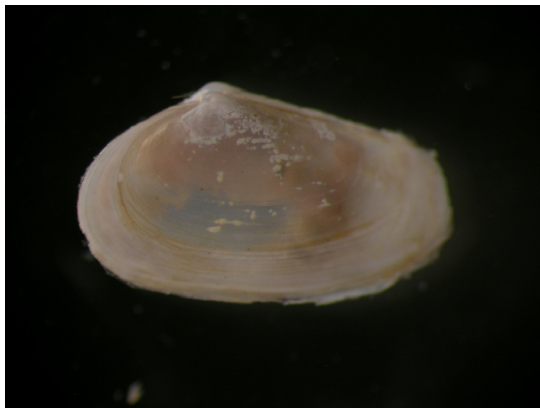


Fig. 6a. *Mya truncata* (RT3206) - L

Seven generic and ten specific differences: Labs 11b, 13a, 14a, 17a, 31a and 31b identified as *Sphenia binghami* (Figure 6b) (which has a less regular shell outline); Labs 05b, 9a and 11c identified as *Mya arenaria* (Figure 6c) (which has a deeper shell as a juvenile); Lab 21a identified as *Thracia phaseolina* (Figure 6d) (which has a different shape and periostracal granulations).

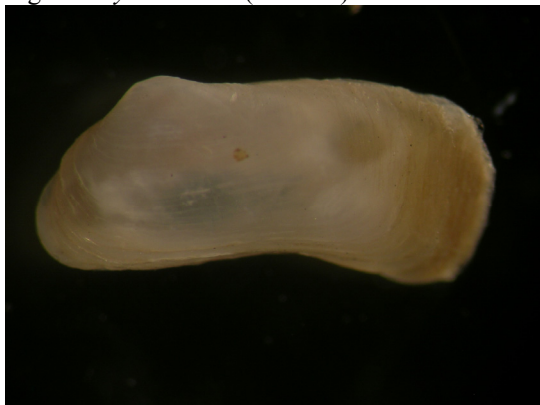


Fig. 6b. *Sphenia binghami* (34851) - L

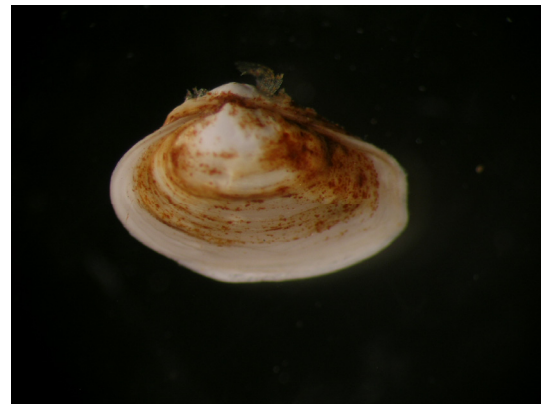


Fig. 6c. *Mya arenaria* (36371) - L



Fig. 6d. *Thracia phaseolina* (40770) - L

RT3207 – *Galathea intermedia* (Figures 7a-b)

Substratum: Gravel. Salinity: Full. Depth: Circalittoral. Geography: S. England. Condition: Poor, Small, Incomplete specimen.



Fig. 7a. *Galathea intermedia* (RT3207) - D

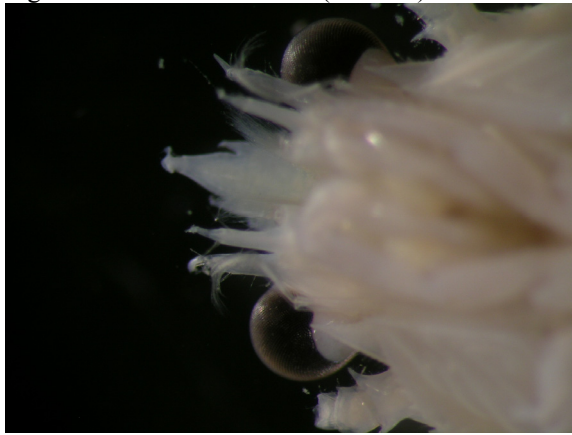


Fig. 7b. *Galathea intermedia* (RT3207) - VA

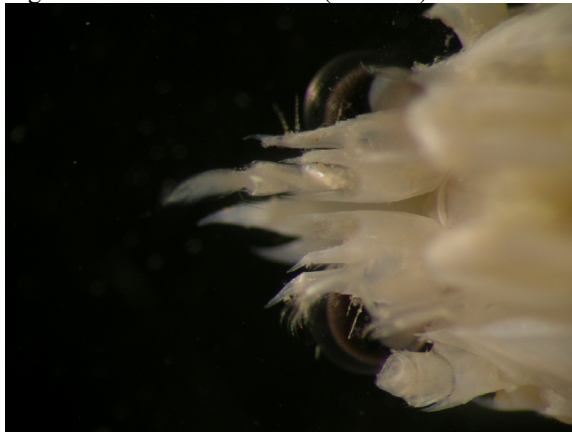


Fig. 7d. *Galathea squamifera* (34345) – VA

One specific difference: Lab 03a identified as *Galathea squamifera* (Figure 7c-d) (which has three large, strong spines on the basal segment of each antennule).

Lab 05b incorrectly spelt the species.



Fig. 7c. *Galathea squamifera* (34345) – D

RT3208 – *Eurydice affinis* (Figures 8a-c)

Substratum: Sand. Salinity: Full. Depth: Intertidal. Geography: S. W. England. Condition: Good, Medium.



Fig. 8a. *Eurydice affinis* (RT3208) - L

Two specific differences: Labs 05a and 05b identified as *Eurydice pulchra* (Figure 8d-f) (which has darker chromatophores that are also present on the ventral surface).

Additional Literature:
Hansen (1905)

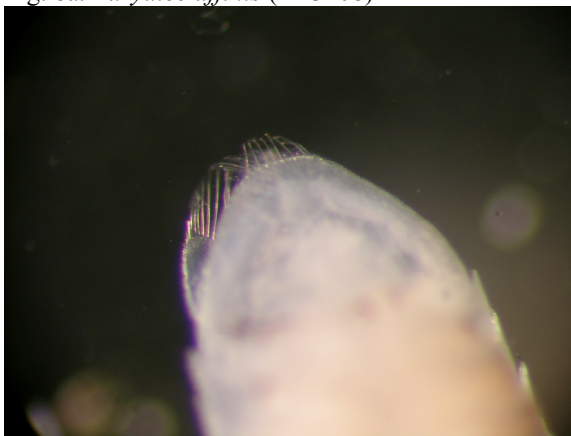


Fig. 8b. *Eurydice affinis* (RT3208) - DP

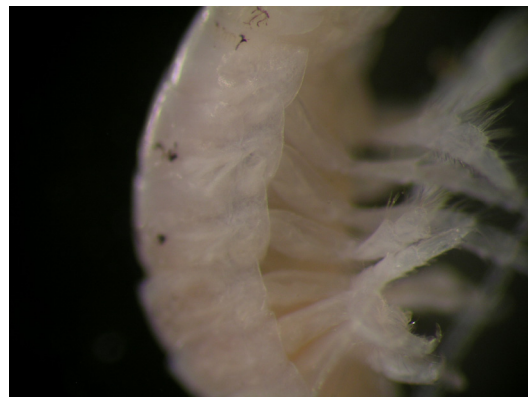


Fig. 8c. *Eurydice affinis* (RT3208) - L



Fig. 8d. *Eurydice pulchra* (DH Collection) - L



Fig. 8e. *Eurydice pulchra* (DH Collection) - DP



Fig. 8f. *Eurydice pulchra* (DH Collection) - L

RT3209 – *Pomatoceros lamarcki* (Figures 9a-b)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Fair, Medium.



Fig. 9a. *Pomatoceros lamarcki* (RT3209) - L



Fig. 9b. *Pomatoceros lamarcki* (RT3209) - L



Fig. 9d. *Pomatoceros triqueter* (39105) - L

One specific difference: Lab 13a identified as *Pomatoceros triqueter* (Figure 9c-d) (which has a shallow opercular ampulla).

Lab 11b incorrectly spelt the genus; Labs 05a and 17a incorrectly spelt the species.



Fig. 9c. *Pomatoceros triqueter* (39105) - L

RT3210 – *Ampelisca diadema* (Figures 10a-b)

Substratum: Mixed. Salinity: High. Depth: Infralittoral. Geography: N. Ireland. Condition: Good, Medium.



Fig. 10a. *Ampelisca diadema* (RT3210) - L

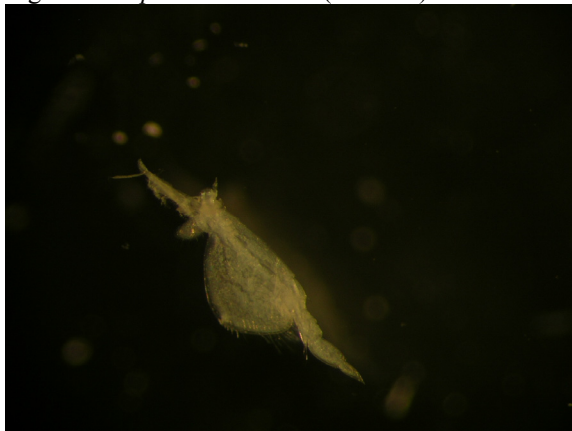


Fig. 10b. *Ampelisca diadema* (RT3210) – Pereopod 7



Fig. 10d. *Ampelisca spinipes* (9352) – Pereopod 7

Six specific differences: Labs 02a, 09a, 31a and 31b identified as *Ampelisca spinipes* (Figure 10c-d) (which has a sinuous postero-proximal margin on the basis of pereopod seven); Lab 17a identified as *Ampelisca tenuicornis* (Figure 10e-f); Lab 18a identified as *Ampelisca typica* (Figure 10g-h) (both of which have very short first antennae; *A. typica* also has a sharply keeled urosomal carina).



Fig. 10c. *Ampelisca spinipes* (9352) - L



Fig. 10e. *Ampelisca tenuicornis* (40833) - L

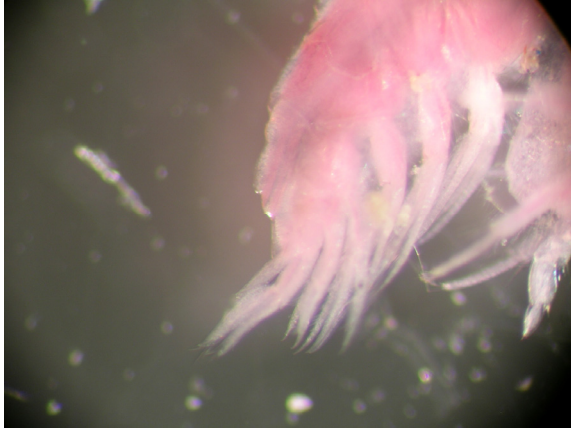


Fig. 10f. *Ampelisca tenuicornis* (40833) - LP



Fig. 10g. *Ampelisca typica* (11759) - L

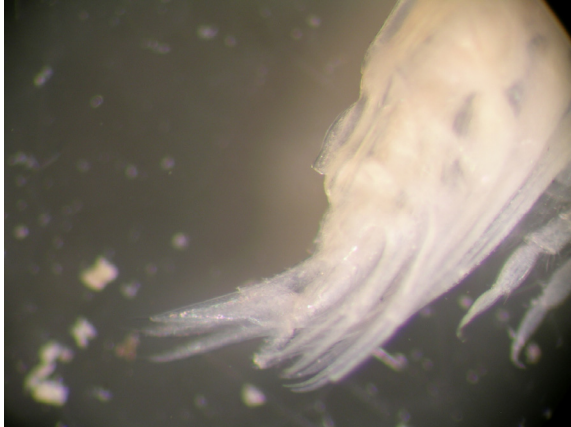


Fig. 10h. *Ampelisca typica* (11759) - LP

RT3211 – *Terebellides stroemi* (Figure 11a)

Substratum: Mixed. Salinity: High. Depth: Infralittoral. Geography: N. Ireland. Condition: Good, Small/Medium.



Fig. 11a. *Terebellides stroemi* (RT3211) - L

No taxonomic differences recorded.

RT3212 – *Pseudoparatanais batei* (Figure 12a)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Good, Medium.

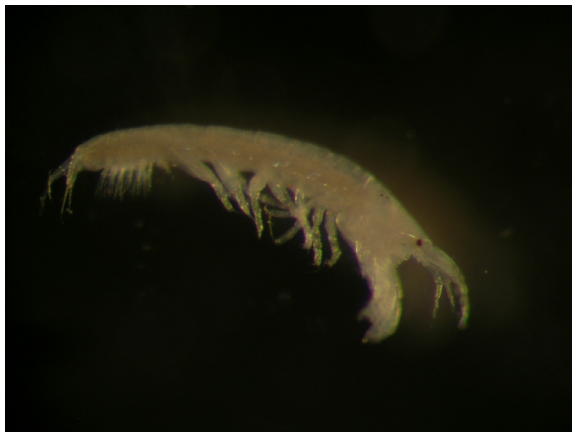


Fig. 12a. *Pseudoparatanais batei* (RT3212) - L

Two generic and two specific differences: Lab 17a identified as *Heterotanaeis oerstedii* (Figure 12b); Lab 20a identified as *Leptochelia savignyi* (Figure 12c) (both of which have four articulated endopodites and relatively much shorter exopodites).

Lab 13a recorded the synonym *Paratanais batei*; Lab 05b incorrectly spelt the genus.



Fig. 12b. *Heterotanaeis oerstedii* (40432) - L



Fig. 12c. *Leptochelia savignyi* (12198) - L

RT3213 – *Pholoe inornata* (Figure 13a)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Good, Medium.



Fig. 13a. *Pholoe inornata* (RT3213) - D

Three specific differences: Labs 02a, 17a and 20a identified as *Pholoe baltica* or the synonym *Pholoe minuta*, respectively (Figure 13b) (which has a prominent facial tubercle, is less flattened and has shorter, moniliform elytral papillae).

Labs 18a, 19a, 31a and 31b recorded *Pholoe synoithalmica* (a Mediterranean species) using Chambers (1997); The NMBAQC Scheme is following Petersen (1998) and currently treats *P. synoithalmica* as an effective synonym of *P. inornata*.



Fig. 13b. *Pholoe baltica* (35858) - D

RT3214 – *Falcidens crossotus* (Figure 14a)

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: N. Ireland. Condition: Fair, Small/Medium.



Fig. 14a. *Falcidens crossotus* (RT3214) - L

Seven generic and seven specific differences: Labs 02a, 06a, 09a, 10a, 11c, 15a and 21a identified as *Chaetoderma nitidulum* (Figure 14b) (which has a cylindrical body).

Lab 30a incorrectly spelt the species.



Fig. 14b. *Chaetoderma nitidulum* (9310-04028) - L

RT3215 – *Praxillella affinis* (Figures 15a-c)

Substratum: Mud. Salinity: Full. Depth: Circalittoral. Geography: Wales. Condition: Fair, Medium.



Fig. 15a. *Praxillella affinis* (RT3215) - L

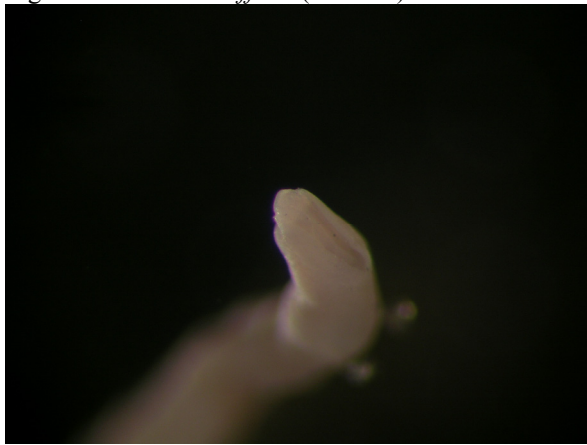


Fig. 15b. *Praxillella affinis* (RT3215) – DL Head



Fig. 15c. *Praxillella affinis* (RT3215) – L Tail



Fig. 15d. *Euclymene oerstedii* (38770) - L



Fig. 15e. *Euclymene oerstedii* (38770) – L Head

Seven generic and nine specific differences: Labs 02a, 05a, 06a and 17a identified as *Euclymene oerstedii* (Figure 15d-f); Labs 31a and 31b identified as *Euclymene* sp. A (Figure 15g-i); Lab 04a identified as *Euclymene lumbricoides* (Figure 15j-l) (all of which have an anal funnel that extends beyond the anus); Labs 20a and 21a identified as *Praxillella praetermissa* (No material available) (which lacks eyespots).

Lab 20a incorrectly spelt the genus.

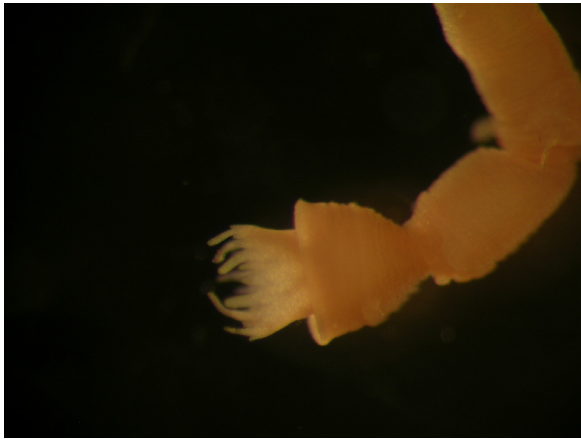


Fig. 15f. *Euclymene oerstedii* (38770) – L Tail



Fig. 15g. *Euclymene* sp. A (18210) - L



Fig. 15h. *Euclymene* sp. A (18210) – L Head



Fig. 15i. *Euclymene* sp. A (18210) – L Tail



Fig. 15j. *Euclymene lumbricoides* (8498) - L



Fig. 15k. *Euclymene lumbricoides* (8498) – L Head



Fig. 15l. *Euclymene lumbricoides* (8498) – L Tail

RT3216 – *Tubificoides cf. galiciensis* (Figures 16a-c)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Fair, Medium.



Fig. 16a. *Tubificoides cf. galiciensis* (RT3216) - L

One generic and nine specific differences: Labs 10a and 17a identified as *Tubificoides insularis* (Figure 16d-e) (which has strong papillations commencing from 3rd – 6th segment and distinctive curved chaetae with reduced upper teeth); Labs 31b and 31a identified as *Tubificoides benedii* or the synonym *Tubificoides benedenii* (*sic.*), respectively (Figure 16f-g) (which lacks hair chaetae); Lab 06a identified as *Tubificoides scoticus* (Figure 16h); Labs 20a and 30a identified as *Tubificoides swirencoides* (Figure 16i-j) (both of which lack posterior, dorsal bifid chaetae and can have weaker papillation); Lab 21a identified as *Limnodriloides* sp. (Figure 16k) (which lacks papillations and hair chaetae); Lab 05b recorded *Tubificoides* sp. (ring test specimens should be identified at species level with appropriate confidence level notes).

Labs 02a, 04a, 05a, 11a, 11c and 13c did not ascribe 'cf.' to the species identification.



Fig. 16b. *Tubificoides cf. galiciensis* (RT3216) - LA



Fig. 16c. *Tubificoides cf. galiciensis* (RT3216) – P chaetae



Fig. 16d. *Tubificoides insularis* (13679) - L



Fig. 16e. *Tubificoides insularis* (13679) - L



Fig. 16f. *Tubificoides benedii* (41367) - L



Fig. 16g. *Tubificoides benedii* (41367) - L

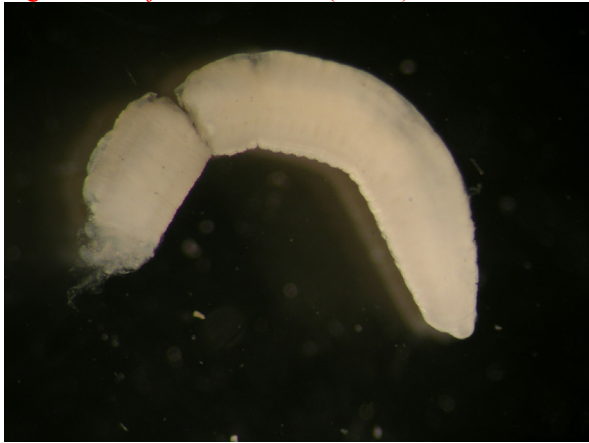


Fig. 16h. *Tubificoides scoticus* (10891) - L



Fig. 16i. *Tubificoides swirencoides* (36645) - L

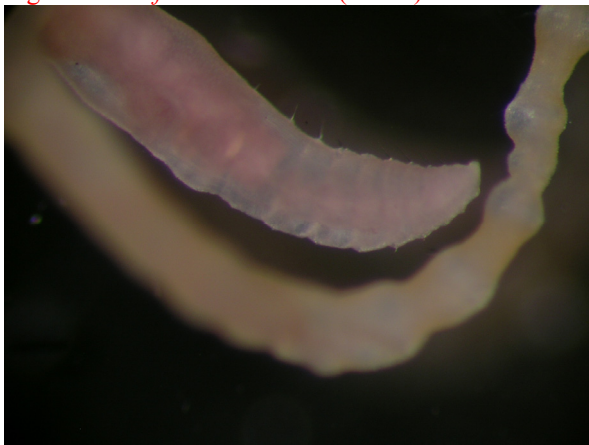


Fig. 16j. *Tubificoides swirencoides* (36645) - L

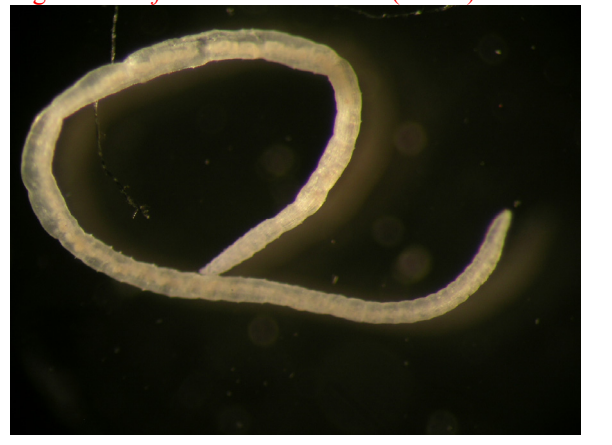


Fig. 16k. *Limnodriloides* sp. (26304) - L

RT3217 – *Nephtys kersivalensis* (Figures 17a-b)

Substratum: Mixed. Salinity: High. Depth: Infralittoral. Geography: N. Ireland. Condition: Fair, Medium.



Fig. 17a. *Nephtys kersivalensis* (RT3217) - D

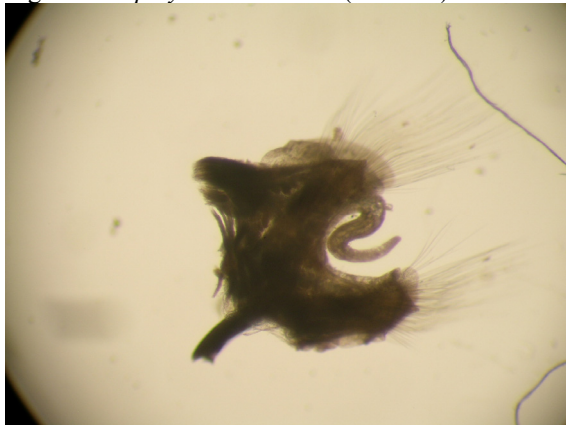


Fig. 17b. *Nephtys kersivalensis* (RT3217) – 25th Parapod

Two specific differences: Lab 17a identified as *Nephtys longosetosa* (Figure 17c); Lab 18a identified as *Nephtys caeca* (Figure 17d) (both of which have notopodial post-chaetal lamellae that do not extend beyond the noto-aciculae).

Labs 20a and 30a incorrectly spelt the genus.



Fig. 17c. *Nephtys longosetosa* (4070) - D



Fig. 17d. *Nephtys caeca* (40866) - D

RT3218 – *Gammaropsis lobata* (Figures 18a-c)

Substratum: Gravel. Salinity: Full. Depth: Circalittoral. Geography: S. England. Condition: Poor, Medium, Incomplete specimen.



Fig. 18a. *Gammaropsis lobata* (RT3218) - L

Six generic and eighteen specific differences: Labs 02a, 03a, 11a, 11b, 13a, 15a and 21a identified as *Gammaropsis maculata* (Figure 18d-e) (which has 2 separated teeth on the palm of gnathopod 2); Labs 11c and 20a identified as *Gammaropsis palmata* (Figure 18f-g) (which has shorter peduncle articles on antenna 2); Lab 18a identified as *Megamphopus cornuta*, a synonym of *Gammaropsis cornuta* (Figure 18h-i) (which lacks teeth on coxal plate 1); Lab 05a identified as *Isaea montagui* (Figure 18j-k) (which has a rounded ocular lobe); Lab 04a identified as *Grandidierella japonica* (Figure 18l-m); Lab 14a identified as *Aora gracilis* (Figure 18n-o); Lab 06a identified as *Microdeutopus* sp. (Figure 18p-q, *Microdeutopus gryllotalpa*); Lab 05b identified as Aoridae (all of which have gnathopod 1 larger than gnathopod 2); Lab 17a identified as Gammaridea; Labs 31a and 31b identified as *Gammaropsis* sp. (ring test specimens should be identified at species level with appropriate confidence level notes).

Additional Literature:

Myers & McGrath (1982)



Fig. 18b. *Gammaropsis lobata* (RT3218) – LA



Fig. 18c. *Gammaropsis lobata* (RT3218) – G1 & coxal plate 1



Fig. 18d. *Gammaropsis maculata* (41234) - L



Fig. 18e. *Gammaropsis maculata* (41234) - LA



Fig. 18f. *Gammaropsis palmata* (40772) - L

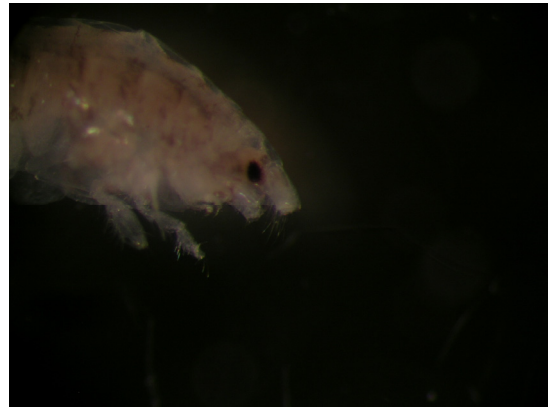


Fig. 18g. *Gammaropsis palmata* (40772) - LA



Fig. 18h. *Gammaropsis cornuta* (41548) - L



Fig. 18i. *Gammaropsis cornuta* (41548) - LA



Fig. 18j. *Isaea montagui* (DH Collection) - L

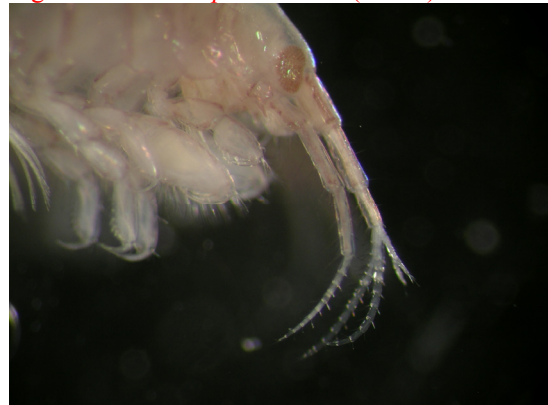


Fig. 18k. *Isaea montagui* (DH Collection) - LA



Fig. 18l. *Grandidierella japonica* (35519) - L

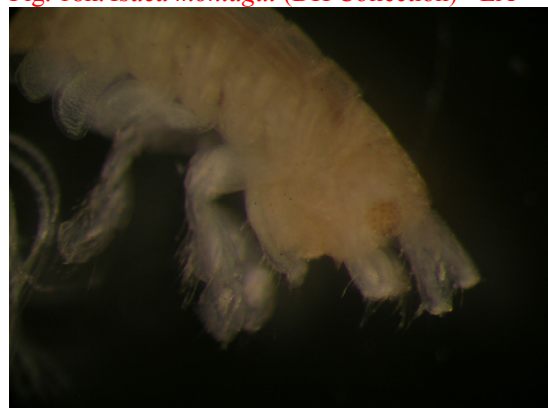


Fig. 18m. *Grandidierella japonica* (35519) - LA



Fig. 18n. *Aora gracilis* (41138) - L

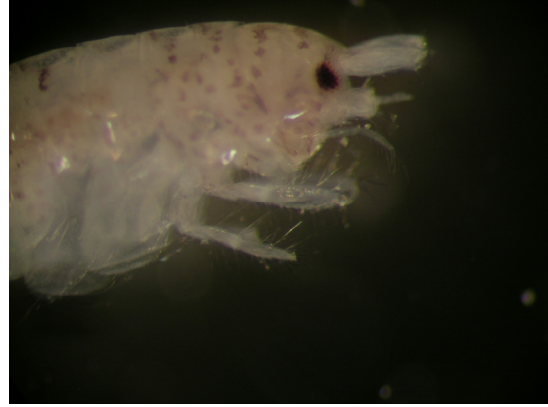


Fig. 18o. *Aora gracilis* (41138) - LA



Fig. 18p. *Microdeutopus gryllotalpa* (11426) - L

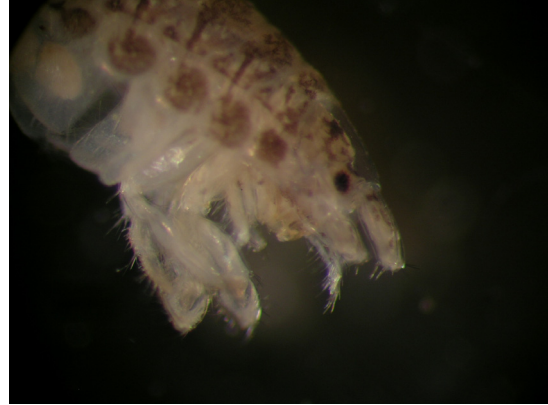


Fig. 18q. *Microdeutopus gryllotalpa* (11426) - LA

RT3219 – *Modiolarca tumida* (Figure 19a)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: N. Ireland. Condition: Good, Small.

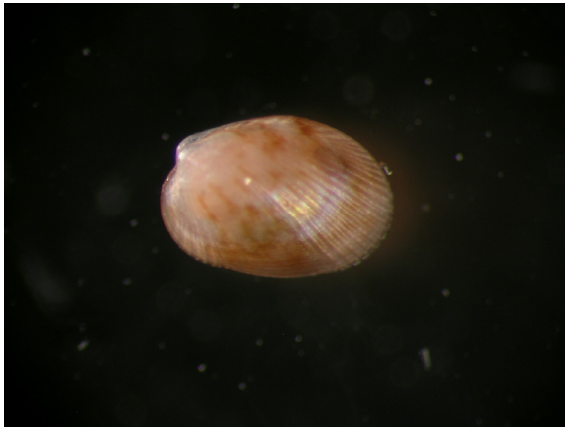


Fig. 19a. *Modiolarca tumida* (RT3219) - L

Twelve generic and twelve specific differences: Labs 05a, 11a, 11b, 11c, 13a, 18a and 31b identified as *Musculus discors* (Figure 19b); Labs 02a, 17a, 21a, 30a and 31a identified as *Musculus costulatus* (Figure 19c) (both of which have a less rhomboidal shape).

Labs 03a and 20a incorrectly spelt the genus.

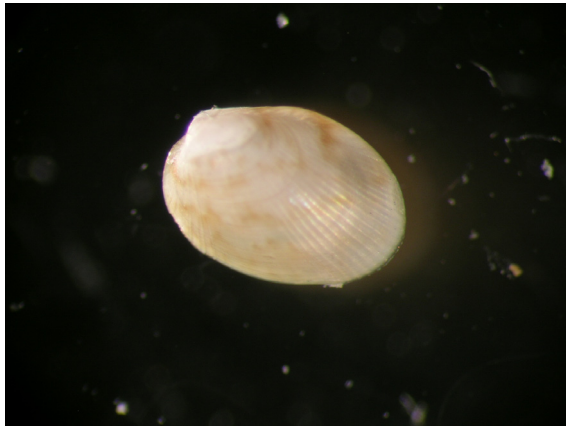


Fig. 19b. *Musculus discors* (38824) - L



Fig. 19c. *Musculus costulatus* (20131) - L

RT3220 – *Eurydice truncata* (Figures 20a-d)

Substratum: Gravel. Salinity: Full. Depth: Circalittoral. Geography: S. England. Condition: Good, Medium.



Fig. 20a. *Eurydice truncata* (RT3220) - L

Fifteen specific differences: Labs 02a, 06a, 11c, 13a, 17a, 18a, 20a, 21a, 30a, 31a and 31b identified as *Eurydice pulchra* (Figure 8d-f); Lab 05a identified as *Eurydice affinis* (Figure 8a-c) (both of which have four small spines on the posterior margin of the pleotelson); Labs 03a, 05b and 19a identified as *Eurydice spinigera* (Figure 20e-g) (which has a concave pleotelson posterior margin).

Lab 03a incorrectly spelt *Eurydice spinigera* as *E. spingera*.

Additional Literature:
Hansen (1905)



Fig. 20b. *Eurydice truncata* (RT3220) - DP

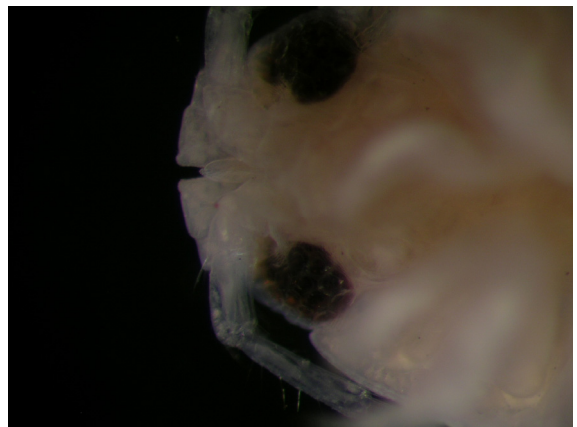


Fig. 20c. *Eurydice truncata* (RT3220) - VA

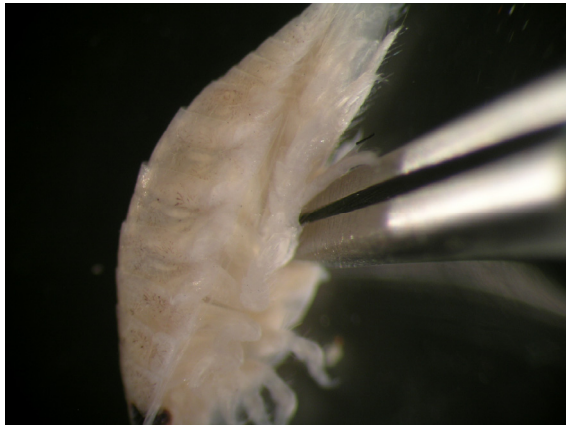


Fig. 20d. *Eurydice truncata* (RT3220) - L



Fig. 20e. *Eurydice spinigera* (36739) - L

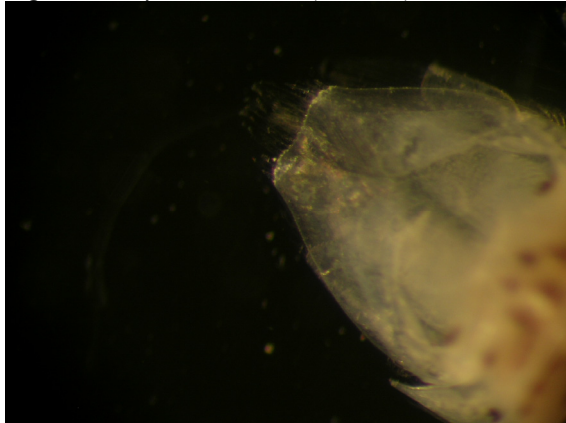


Fig. 20f. *Eurydice spinigera* (36739) - DP



Fig. 20g. *Eurydice spinigera* (36739) - L

RT32021 – *Turritella communis* (Figure 21a)

Substratum: Mud. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair, Medium.



Fig. 21a. *Turritella communis* (RT3221) - L

No taxonomic differences recorded.

Labs 03a and 06a incorrectly spelt the genus.

RT3222 – Sabellaria alveolata (Figure 22a)

Substratum: Sand. Salinity: Full. Depth: Intertidal. Geography: N. W. England. Condition: Good, Large.



Fig. 22a. *Sabellaria alveolata* (RT3222) - L

No taxonomic differences recorded.

Lab 04a incorrectly spelt the species.

RT3223 – Chelura terebrans (Figure 23a)

Substratum: Driftwood. Salinity: Full. Depth: (Circalittoral). Geography: W. Scotland. Condition: Good, Medium, Female.



Fig. 23a. *Chelura terebrans* (RT3223) - L

No taxonomic differences recorded.

Lab 05b incorrectly spelt the genus.

RT3224 – Hydrobia ulvae (Figure 24a)

Substratum: Mud. Salinity: High. Depth: Intertidal. Geography: S. England. Condition: Good, Medium.



Fig. 24a. *Hydrobia ulvae* (RT3224) - L

Four generic and four specific differences; Labs 31a and 31b identified as *Assiminea grayana* (Figure 24b) (which has a broader shell); Lab 05a identified as *Rissoa parva* (var *interrupta*) (Figure 24c) (which has colour pattern and a thinner, smaller shell); Lab 20a identified as *Barleeia unifasciata* (Figure 24d) (which has a red operculum).

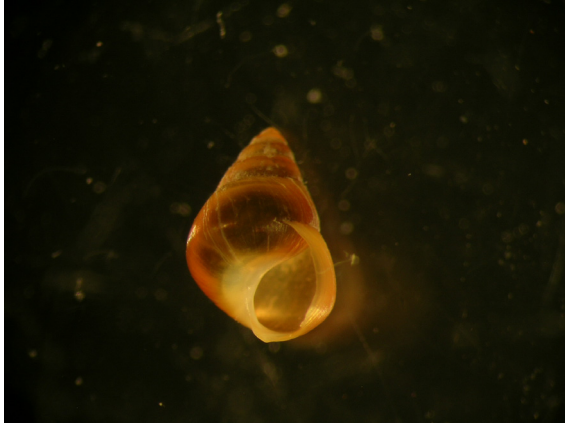


Fig. 24b. *Assimineea grayana* (36206) - L



Fig. 24c. *Rissoa interrupta* (10630) - L

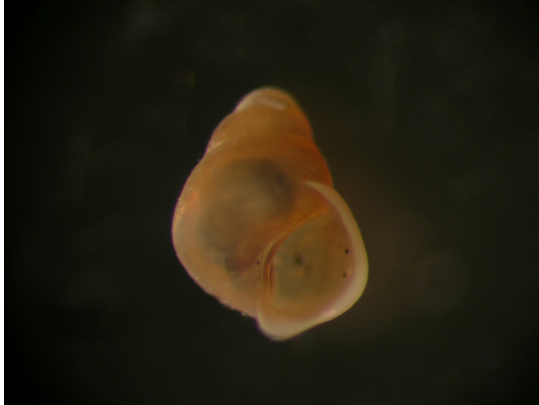


Fig. 24c. *Barleeia unifasciata* (10633) - L

RT3225 – *Maera othonis* (Figure 25a)

Substratum: Gravel. Salinity: Full. Depth: Circalittoral. Geography: S. England. Condition: Good/Fair, Medium.



Fig. 25a. *Maera othonis* (RT3225) - L

One specific difference; Lab 20a identified as *Maera grossimana* (Figure 25b) (which has a more transverse gnathopod 2 palm and lacks serrations on the posterodistal margin of epimeral plate 3).

Lab 17a incorrectly spelt the species.



Fig. 25b. *Maera grossimana* (39122) - L

Acknowledgements

We would like to thank Lin Baldock (marine consultant) and Myles O'Reilly (SEPA, East Kilbride) for donating some excellent ring test specimens for this circulation.

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Ring Test Return Instructions

Please return all ring test specimens by 9th January 2008. 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, Unicomarine Ltd., Head Office, 7 Diamond Centre, Works Road, Letchworth, Hertfordshire SG6 1LW, UK**