The National Marine Biological
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Ring Test Bulletin 45

Year 20 (2013/2014)

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RING TEST 45 DETAILS

Type/Contents: Crustacea
Circulated: 13/09/2013
Completion Date: 29/11/2013
Number of Subscribing Laboratories: 20
Number of Participating Laboratories: 19
Number of Results Received: 24 (multiple data entries per laboratory permitted)

SUMMARY OF DIFFERENCES PER SPECIMEN
(For details see Table 1)

Specimen	Genus	Species	Total differences for 24 returns	
			Genus	Species
RT4501	*Neomysis*	*integer*	2	2
RT4502	*Schistomysis*	*kervillei*	1	5
RT4503	*Tritaeta*	*gibbosa*	2	2
RT4504	*Hippolyte*	*varians*	0	0
RT4505	*Schistomysis*	*spiritus*	3	3
RT4506	*Idotea*	*chelipes*	0	2
RT4507	*Palaemon*	*varians*	0	0
RT4508	*Abludomelita*	*gladiosa*	1	4
RT4509	*Lekanesphaera*	*levii*	1	11
RT4510	*Pandalus*	*montagui*	0	0
RT4511	*Crangon*	*allmanni*	0	2
RT4512	*Verruca*	*stroemia*	0	0
RT4513	*Idotea*	*linearis*	0	0
RT4514	*Leptocheirus*	*hirsutimanus*	0	0
RT4515	*Crangon*	*crangon*	0	0
RT4516	*Unciola*	*crenatipalma*	1	1
RT4517	*Haustorius*	*arenarius*	3	3
RT4518	*Iphinoe*	*trispinosa*	0	0
RT4519	*Cumella*	*pygmaea*	5	5
RT4520	*Pseudoparatanais*	*batei*	2	2
RT4521	*Tanaopsis*	*graciloides*	5	5
RT4522	*Jassa*	*falcata/herdmani*	0	0
RT4523	*Nototropis*	*swammerdamei*	0	1
RT4524	*Cyathura*	*carinata*	0	0
RT4525	*Limnoria*	*lignorum*	0	1
		Total differences	**26**	**49**
		Average diff. / data return	**1.08**	**2.04**

Table 1. Identifications made by participating laboratories for RT 45 (arranged by specimen). Names are given only where different from AQC identification.

	RT4501 *Neomysis integer*	RT4502 *Schistomysis kervillei*	RT4503 *Tritaeta gibbosa*	RT4504 *Hippolyte varians*	RT4505 *Schistomysis spiritus*	RT4506 *Idotea chelipes*
LB2002	- -	- -	- -	- -	- -	- -
LB2004	- -	- -	- -	- -	- -	- -
LB2005	*Leptomysis lingvura*	*Paramysis arenosa*	- -	- -	- -	- -
LB2007	- -	- -	- -	- -	*Heteromysis formosa*	- -
LB2008	- -	- -	- -	- -	- -	- -
LB2019	*Leptomysis gracilis*	- -	- -	- -	- -	- -
LB2026a	- -	- -	- -	- -	- -	- -
LB2026b	- -	- -	- -	- -	- -	- -
LB2026c	- -	- -	- -	- -	- -	- -
LB2026d	- -	- -	- -	- -	- -	- -
LB2026e	- -	- -	- -	- -	- -	- -
LB2027	- -	- -	*Nototropis guttatus*	- -	*Haplostylus normani*	*- granulosa*
LB2029	- -	*- spiritus*	- -	- -	- -	*- pelagica*
LB2031	- -	- -	- -	- -	- -	- -
LB2033	- -	- -	- -	- -	- -	- -
LB2034	- -	- -	- -	- -	- -	- -
LB2053	- -	*- spiritus*	- -	- -	*Gastrosaccus sanctus*	- -
LB2054a	- -	- -	- -	- -	- -	- -
LB2054b	- -	*- ornata*	- -	- -	- -	- -
LB2058	- -	*- ornata*	*Atylus swammerdammi*	[*Hyppolyte*] -	- -	- -
LB2060	- -	- -	- -	- -	- -	- -
LB2061	- -	- -	- -	- -	- -	- -
LB2062	- -	- -	- -	- -	- -	- -
LB2068	- -	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 1. Identifications made by participating laboratories for RT 45 (arranged by specimen). Names are given only where different from AQC identification (continued).

	RT4507 *Palaemon varians*	RT4508 *Abludomelita gladiosa*	RT4509 *Lekanesphaera levii*	RT4510 *Pandalus montagui*	RT4511 *Crangon allmanni*
LB2002	[*Palaemonetes*] -	*- obtusata*	*- rugicauda*	- -	- -
LB2004	[*Palaemonetes*] -	- -	- -	- -	- -
LB2005	[*Palaemonetes*] -	- -	*Sphaeroma serratum*	- -	- -
LB2007	[*Palaemonetes*] -	- -	*- rugicauda*	- -	*- crangon*
LB2008	- -	- -	*- rugicauda*	- -	- -
LB2019	[*Palaemonetes*] -	*Melita dentata*	*- monodi*	- -	*- crangon*
LB2026a	- -	- -	- -	- -	- -
LB2026b	- -	- -	- -	- -	- -
LB2026c	- -	- -	- -	- -	- -
LB2026d	- -	- -	- -	- -	- -
LB2026e	- -	- -	- -	- -	- -
LB2027	[*Palaemonetes*] -	- -	*- rugicauda*	- -	- -
LB2029	[*Palaemonetes*] -	- -	*- monodi*	- -	- -
LB2031	- -	*- obtusata*	- -	- -	- -
LB2033	[*Palaemonetes*] -	- -	*- rugicauda*	- -	- -
LB2034	[*Palaemonetes*] -	- -	- -	- -	- -
LB2053	[*Palaemonetes*] -	- -	*- rugicauda*	- -	- -
LB2054a	[*Palaemonetes*] -	- -	- -	- -	- -
LB2054b	[*Palaemonetes*] -	[*Melita*] -	- -	- -	- -
LB2058	[*Palaemonetes*] -	- -	- -	- -	- -
LB2060	- -	- -	- -	- -	- -
LB2061	[*Palaemonetes*] -	- -	*- monodi*	- -	- -
LB2062	[*Palaemonetes*] -	- -	- -	- -	- -
LB2068	- -	*- obtusata*	*- rugicauda*	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 1. Identifications made by participating laboratories for RT 45 (arranged by specimen). Names are given only where different from AQC identification (continued).

	RT4512 *Verruca stroemia*	RT4513 *Idotea linearis*	RT4514 *Leptocheirus hirsutimanus*	RT4515 *Crangon crangon*	RT4516 *Unciola crenatipalma*
LB2002	- -	- -	- -	- -	- -
LB2004	- -	- -	- -	- -	- -
LB2005	- -	- -	- -	- -	- -
LB2007	- -	- -	- -	- -	- -
LB2008	- -	- -	- -	- -	- -
LB2019	- -	- -	- -	- -	- -
LB2026a	- -	- -	- -	- -	- -
LB2026b	- -	- -	- -	- -	- -
LB2026c	- -	- -	- -	- -	- -
LB2026d	- -	- -	- -	- -	- -
LB2026e	- -	- -	- -	- -	- -
LB2027	- -	- -	- -	- -	- -
LB2029	- -	- -	- -	- -	*Corophium arenarium*
LB2031	- -	- -	- -	- -	- -
LB2033	- -	- -	- -	- -	- -
LB2034	- -	- -	- -	- -	- -
LB2053	- -	- -	- -	- -	- -
LB2054a	- -	- -	- -	- -	- -
LB2054b	- -	- -	- -	- -	- -
LB2058	- -	- -	- -	- -	- -
LB2060	- -	- -	- -	- -	- -
LB2061	- -	- -	- -	- -	- -
LB2062	- -	- -	- -	- -	- -
LB2068	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 1. Identifications made by participating laboratories for RT 45 (arranged by specimen). Names are given only where different from AQC identification (continued).

	RT4517 *Haustorius arenarius*	RT4518 *Iphinoe trispinosa*	RT4519 *Cumella pygmaea*	RT4520 *Pseudoparatanais batei*	RT4521 *Tanaopsis graciloides*
LB2002	- -	- -	- -	- -	*Akanthophoreus gracilis*
LB2004	- -	- -	- -	- -	- -
LB2005	- -	- -	*Nannastacus unguiculatus*	*Akanthophoreus gracilis*	- -
LB2007	- -	- -	- -	- -	*Tanaissus lilljeborgi*
LB2008	- -	- [*trispnosa*]	- -	- -	- -
LB2019	- -	- -	*Pseudocuma similis*	*Tanais dulongii*	*Typhlotanais brevicornis*
LB2026a	- -	- -	- -	- -	- -
LB2026b	- -	- -	- -	- -	- -
LB2026c	- -	- -	- -	- -	- -
LB2026d	- -	- -	- -	- -	- -
LB2026e	- -	- -	- -	- -	- -
LB2027	*Parahaustorius holmesi*	- -	*Pseudocuma simile*	- -	*Heterotanais oerstedii*
LB2029	*Urothoe brevicornis*	- -	- -	- -	- -
LB2031	- -	- -	- -	- -	- -
LB2033	- -	- -	- -	- -	- -
LB2034	*Parahaustorius holmesi*	- -	- -	- -	*Akanthophoreus gracilis*
LB2053	- -	- -	- -	- -	- -
LB2054a	- -	- -	- -	- -	- -
LB2054b	- -	- -	- -	- -	- -
LB2058	- -	- -	*Bodotria arenosa*	- -	- -
LB2060	- -	- -	- -	- -	- -
LB2061	- -	- -	*Styloptocuma angustata*	- -	- -
LB2062	- -	- -	- -	- -	- -
LB2068	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 1. Identifications made by participating laboratories for RT 45 (arranged by specimen). Names are given only where different from AQC identification (continued).

	RT4522 *Jassa falcata / herdmani*	RT4523 *Nototropis swammerdamei*	RT4524 *Cyathura carinata*	RT4525 *Limnoria lignorum*
LB2002	- [*herdmani*]	[*Atylus*] -	- -	- -
LB2004	- [*falcata*]	- -	- -	- -
LB2005	- [*falcata*]	- -	- -	- -
LB2007	- [*falcata*]	- -	- -	- -
LB2008	- [*falcata*]	- -	- -	- -
LB2019	- [*falcata*]	- -	- -	- -
LB2026a	- [*falcata*]	- -	- -	- -
LB2026b	- [*falcata*]	- -	- -	- -
LB2026c	- [*falcata*]	- -	- -	- -
LB2026d	- [*falcata*]	- -	- -	- -
LB2026e	- [*falcata*]	- -	- -	- -
LB2027	- [*falcata*]	[*Atylus*] *vedlomensis*	- -	- -
LB2029	- [*falcata*]	- -	- -	*- tripunctata*
LB2031	- [*falcata*]	- -	- -	- -
LB2033	- [*herdmani*]	- -	- -	- -
LB2034	- [*herdmani*]	- -	- -	- -
LB2053	- [*falcata*]	- -	- -	- -
LB2054a	- [*herdmani*]	- -	- -	- -
LB2054b	- [*herdmani*]	[*Atylus*] -	- -	- -
LB2058	- [*herdmani*]	- -	- -	- -
LB2060	- [*falcata*]	- -	- -	- -
LB2061	- [*falcata*]	- -	- -	- -
LB2062	- [*falcata*]	- -	- -	- -
LB2068	- [*falcata*]	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

SUMMARY OF DIFFERENCES PER PARTICIPATING LABORATORY
(For details see Table 2)

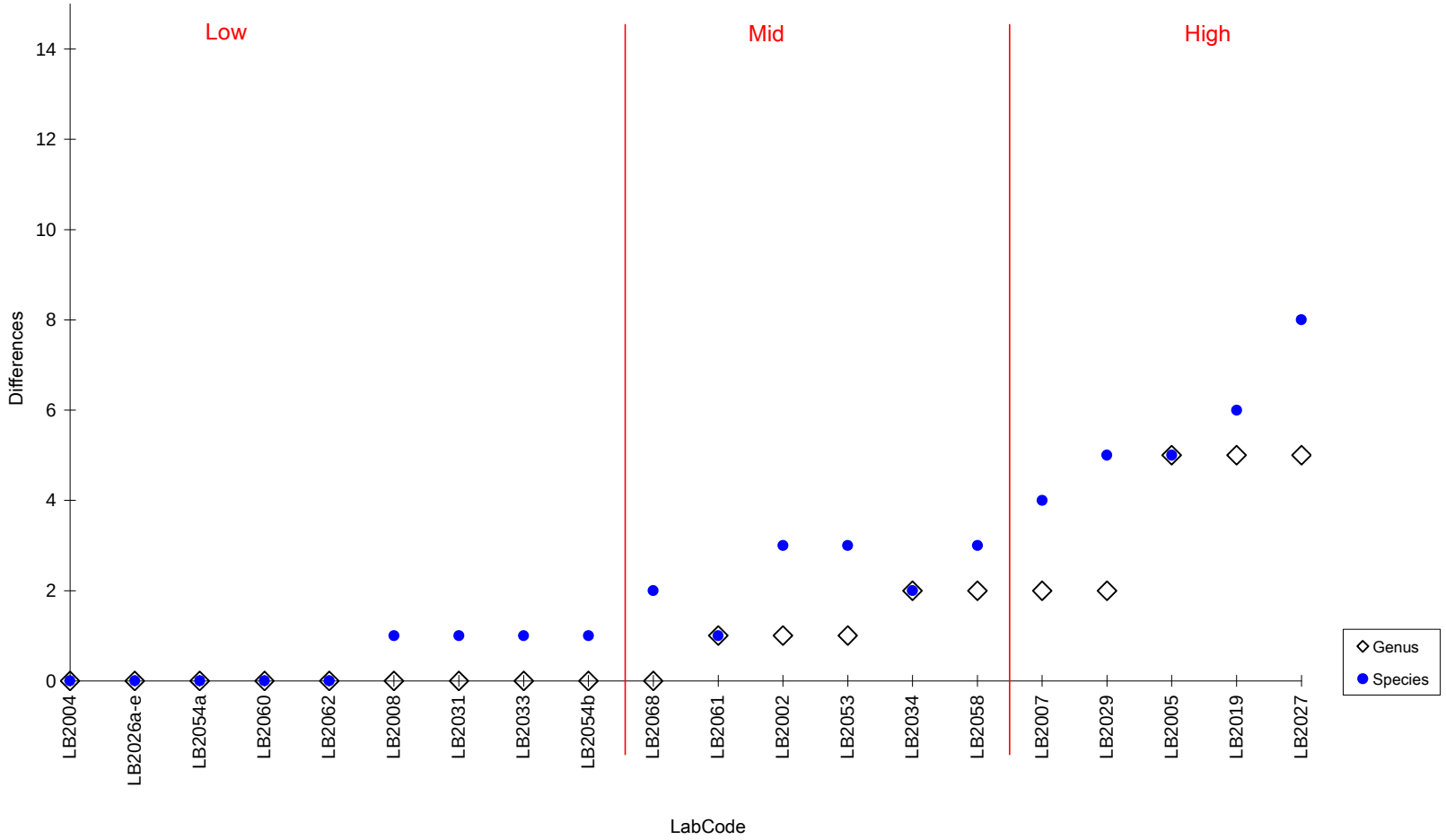

Table 2. Identifications made by participating laboratories for RT 45 (arranged by participants). Names are given only where different from AQC identification.

	Taxon	LB2002	LB2004	LB2005	LB2007	LB2008
RT4501	*Neomysis integer*	- -	- -	*Leptomysis lingvura*	- -	- -
RT4502	*Schistomysis kervillei*	- -	- -	*Paramysis arenosa*	- -	- -
RT4503	*Tritaeta gibbosa*	- -	- -	- -	- -	- -
RT4504	*Hippolyte varians*	- -	- -	- -	- -	- -
RT4505	*Schistomysis spiritus*	- -	- -	- -	*Heteromysis formosa*	- -
RT4506	*Idotea chelipes*	- -	- -	- -	- -	- -
RT4507	*Palaemon varians*	[*Palaemonetes*] -	[*Palaemonetes*] -	[*Palaemonetes*] -	[*Palaemonetes*] -	- -
RT4508	*Abludomelita gladiosa*	- *obtusata*	- -	- -	- -	- -
RT4509	*Lekanesphaera levii*	- *rugicauda*	- -	*Sphaeroma serratum*	- *rugicauda*	- *rugicauda*
RT4510	*Pandalus montagui*	- -	- -	- -	- -	- -
RT4511	*Crangon allmanni*	- -	- -	- -	- *crangon*	- -
RT4512	*Verruca stroemia*	- -	- -	- -	- -	- -
RT4513	*Idotea linearis*	- -	- -	- -	- -	- -
RT4514	*Leptocheirus hirsutimanus*	- -	- -	- -	- -	- -
RT4515	*Crangon crangon*	- -	- -	- -	- -	- -
RT4516	*Unciola crenatipalma*	- -	- -	- -	- -	- -
RT4517	*Haustorius arenarius*	- -	- -	- -	- -	- -
RT4518	*Iphinoe trispinosa*	- -	- -	- -	- -	- -
RT4519	*Cumella pygmaea*	- -	- -	*Nannastacus unguiculatus*	- -	- -
RT4520	*Pseudoparatanais batei*	- -	- -	*Akanthophoreus gracilis*	- -	- -
RT4521	*Tanaopsis graciloides*	*Akanthophoreus gracilis*	- -	- -	*Tanaissus lilljeborgi*	- -
RT4522	*Jassa falcata / herdmani*	- [*herdmani*]	- [*falcata*]	- [*falcata*]	- [*falcata*]	- [*falcata*]
RT4523	*Nototropis swammerdamei*	[*Atylus*] -	- -	- -	- -	- -
RT4524	*Cyathura carinata*	- -	- -	- -	- -	- -
RT4525	*Limnoria lignorum*	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 2. Identifications made by participating laboratories for RT 45 (arranged by participants). Names are given only where different from AQC identification (continued).

	Taxon	LB2019	LB2026a	LB2026b	LB2026c	LB2026d
RT4501	*Neomysis integer*	*Leptomysis gracilis*	- -	- -	- -	- -
RT4502	*Schistomysis kervillei*	- -	- -	- -	- -	- -
RT4503	*Tritaeta gibbosa*	- -	- -	- -	- -	- -
RT4504	*Hippolyte varians*	- -	- -	- -	- -	- -
RT4505	*Schistomysis spiritus*	- -	- -	- -	- -	- -
RT4506	*Idotea chelipes*	- -	- -	- -	- -	- -
RT4507	*Palaemon varians*	[*Palaemonetes*] -	- -	- -	- -	- -
RT4508	*Abludomelita gladiosa*	*Melita dentata*	- -	- -	- -	- -
RT4509	*Lekanesphaera levii*	- [*monodi*]	- -	- -	- -	- -
RT4510	*Pandalus montagui*	- -	- -	- -	- -	- -
RT4511	*Crangon allmanni*	- *crangon*	- -	- -	- -	- -
RT4512	*Verruca stroemia*	- -	- -	- -	- -	- -
RT4513	*Idotea linearis*	- -	- -	- -	- -	- -
RT4514	*Leptocheirus hirsutimanus*	- -	- -	- -	- -	- -
RT4515	*Crangon crangon*	- -	- -	- -	- -	- -
RT4516	*Unciola crenatipalma*	- -	- -	- -	- -	- -
RT4517	*Haustorius arenarius*	- -	- -	- -	- -	- -
RT4518	*Iphinoe trispinosa*	- -	- -	- -	- -	- -
RT4519	*Cumella pygmaea*	*Pseudocuma similis*	- -	- -	- -	- -
RT4520	*Pseudoparatanais batei*	*Tanais dulongii*	- -	- -	- -	- -
RT4521	*Tanaopsis graciloides*	*Typhlotanais brevicornis*	- -	- -	- -	- -
RT4522	*Jassa falcata / herdmani*	- [*falcata*]	- [*falcata*]	- [*falcata*]	- [*falcata*]	- [*falcata*]
RT4523	*Nototropis swammerdamei*	- -	- -	- -	- -	- -
RT4524	*Cyathura carinata*	- -	- -	- -	- -	- -
RT4525	*Limnoria lignorum*	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 2. Identifications made by participating laboratories for RT 45 (arranged by participants). Names are given only where different from AQC identification (continued).

	Taxon	LB2026e	LB2027	LB2029	LB2031
RT4501	*Neomysis integer*	- -	- -	- -	- -
RT4502	*Schistomysis kervillei*	- -	- -	- *spiritus*	- -
RT4503	*Tritaeta gibbosa*	- -	*Nototropis guttatus*	- -	- -
RT4504	*Hippolyte varians*	- -	- -	- -	- -
RT4505	*Schistomysis spiritus*	- -	*Haplostylus normani*	- -	- -
RT4506	*Idotea chelipes*	- -	- *granulosa*	- *pelagica*	- -
RT4507	*Palaemon varians*	- -	[*Palaemonetes*] -	[*Palaemonetes*] -	- -
RT4508	*Abludomelita gladiosa*	- -	- -	- -	- *obtusata*
RT4509	*Lekanesphaera levii*	- -	- *rugicauda*	- [*monodi*]	- -
RT4510	*Pandalus montagui*	- -	- -	- -	- -
RT4511	*Crangon allmanni*	- -	- -	- -	- -
RT4512	*Verruca stroemia*	- -	- -	- -	- -
RT4513	*Idotea linearis*	- -	- -	- -	- -
RT4514	*Leptocheirus hirsutimanus*	- -	- -	- -	- -
RT4515	*Crangon crangon*	- -	- -	- -	- -
RT4516	*Unciola crenatipalma*	- -	- -	*Corophium arenarium*	- -
RT4517	*Haustorius arenarius*	- -	*Parahaustorius holmesi*	*Urothoe brevicornis*	- -
RT4518	*Iphinoe trispinosa*	- -	- -	- -	- -
RT4519	*Cumella* - *pygmaea*	- -	*Pseudocuma simile*	- -	- -
RT4520	*Pseudoparatanais batei*	- -	- -	- -	- -
RT4521	*Tanaopsis graciloides*	- -	*Heterotanais oerstedii*	- -	- -
RT4522	*Jassa falcata / herdmani*	- [*falcata*]	- [*falcata*]	- [*falcata*]	- [*falcata*]
RT4523	*Nototropis swammerdamei*	- -	[*Atylus*] *vedlomensis*	- -	- -
RT4524	*Cyathura carinata*	- -	- -	- -	- -
RT4525	*Limnoria lignorum*	- -	- -	- *tripunctata*	- -

Identifications in brackets not counted as differences, see comments.

Table 2. Identifications made by participating laboratories for RT 45 (arranged by participants). Names are given only where different from AQC identification (continued).

	Taxon	LB2033	LB2034	LB2053	LB2054a	LB2054b
RT4501	*Neomysis integer*	- -	- -	- -	- -	- -
RT4502	*Schistomysis kervillei*	- -	- -	*- spiritus*	- -	*- ornata*
RT4503	*Tritaeta gibbosa*	- -	- -	- -	- -	- -
RT4504	*Hippolyte varians*	- -	- -	- -	- -	- -
RT4505	*Schistomysis spiritus*	- -	- -	*Gastrosaccus sanctus*	- -	- -
RT4506	*Idotea chelipes*	- -	- -	- -	- -	- -
RT4507	*Palaemon varians*	[*Palaemonetes*] -	[*Palaemonetes*] -	[*Palaemonetes*] -	[*Palaemonetes*] -	[*Palaemonetes*] -
RT4508	*Abludomelita gladiosa*	- -	- -	- -	- -	[*Melita*] -
RT4509	*Lekanesphaera levii*	*- rugicauda*	- -	*- rugicauda*	- -	- -
RT4510	*Pandalus montagui*	- -	- -	- -	- -	- -
RT4511	*Crangon allmanni*	- -	- -	- -	- -	- -
RT4512	*Verruca stroemia*	- -	- -	- -	- -	- -
RT4513	*Idotea linearis*	- -	- -	- -	- -	- -
RT4514	*Leptocheirus hirsutimanus*	- -	- -	- -	- -	- -
RT4515	*Crangon crangon*	- -	- -	- -	- -	- -
RT4516	*Unciola crenatipalma*	- -	- -	- -	- -	- -
RT4517	*Haustorius arenarius*	- -	*Parahaustorius holmesi*	- -	- -	- -
RT4518	*Iphinoe trispinosa*	- -	- -	- -	- -	- -
RT4519	*Cumella pygmaea*	- -	- -	- -	- -	- -
RT4520	*Pseudoparatanais batei*	- -	- -	- -	- -	- -
RT4521	*Tanaopsis graciloides*	- -	*Akanthophoreus gracilis*	- -	- -	- -
RT4522	*Jassa falcata / herdmani*	- [*herdmani*]	- [*herdmani*]	- [*falcata*]	- [*herdmani*]	- [*herdmani*]
RT4523	*Nototropis swammerdamei*	- -	- -	- -	- -	[*Atylus*] -
RT4524	*Cyathura carinata*	- -	- -	- -	- -	- -
RT4525	*Limnoria lignorum*	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

Table 2. Identifications made by participating laboratories for RT 45 (arranged by participants). Names are given only where different from AQC identification (continued).

	Taxon	LB2058	LB2060	LB2061	LB2062	LB2068
RT4501	*Neomysis integer*	- -	- -	- -	- -	- -
RT4502	*Schistomysis kervillei*	- *ornata*	- -	- -	- -	- -
RT4503	*Tritaeta gibbosa*	*Atylus swammerdammi*	- -	- -	- -	- -
RT4504	*Hippolyte varians*	[*Hyppolyte*] -	- -	- -	- -	- -
RT4505	*Schistomysis spiritus*	- -	- -	- -	- -	- -
RT4506	*Idotea chelipes*	- -	- -	- -	- -	- -
RT4507	*Palaemon varians*	[*Palaemonetes*] -	- -	[*Palaemonetes*] -	[*Palaemonetes*] -	- -
RT4508	*Abludomelita gladiosa*	- -	- -	- -	- -	- *obtusata*
RT4509	*Lekanesphaera levii*	- -	- -	- [*monodi*]	- -	- *rugicauda*
RT4510	*Pandalus montagui*	- -	- -	- -	- -	- -
RT4511	*Crangon allmanni*	- -	- -	- -	- -	- -
RT4512	*Verruca stroemia*	- -	- -	- -	- -	- -
RT4513	*Idotea linearis*	- -	- -	- -	- -	- -
RT4514	*Leptocheirus hirsutimanus*	- -	- -	- -	- -	- -
RT4515	*Crangon crangon*	- -	- -	- -	- -	- -
RT4516	*Unciola crenatipalma*	- -	- -	- -	- -	- -
RT4517	*Haustorius arenarius*	- -	- -	- -	- -	- -
RT4518	*Iphinoe trispinosa*	- -	- -	- -	- -	- -
RT4519	*Cumella pygmaea*	*Bodotria arenosa*	- -	*Styloptocuma angustata*	- -	- -
RT4520	*Pseudoparatanais batei*	- -	- -	- -	- -	- -
RT4521	*Tanaopsis graciloides*	- -	- -	- -	- -	- -
RT4522	*Jassa falcata / herdmani*	- [*herdmani*]	- [*falcata*]	- [*falcata*]	- [*falcata*]	- [*falcata*]
RT4523	*Nototropis swammerdamei*	- -	- -	- -	- -	- -
RT4524	*Cyathura carinata*	- -	- -	- -	- -	- -
RT4525	*Limnoria lignorum*	- -	- -	- -	- -	- -

Identifications in brackets not counted as differences, see comments.

RESULTS & DISCUSSION

RT4501 *Neomysis integer* (Leach, 1814) (Figs. 1 & 2) (cf. Tattersall & Tattersall 1951; Makings 1977)

Substrate: Mud/Sand. Salinity: High. Depth: Lower estuary. Locality: Thames Estuary. Condition/Size: Good / Medium.

Fig. 1 *Neomysis integer* (lateral view)

Telson

Fig. 2 *Neomysis integer*

Fig. 3 *Leptomysis lingvura*

Fig. 4 *Leptomysis gracilis*

Lab 2005 identified RT4501 as *Leptomysis lingvura.*
Leptomysis lingvura has a distally broad, rounded telson. The lateral margin includes spines separated by spinules (Fig. 3).
Neomysis integer has a distally tapering telson, with spines all subequal in size along the lateral edges (Fig. 2).

Lab 2019 identified RT4501 as *Leptomysis gracilis.*
Leptomysis gracilis has minute oblong scales on the body. The telson is long and narrowly rounded, the apical margin has both spines and spinules (Fig. 4).
Neomysis integer lacks the oblong scales on the integument. The telson is distally tapering with spines all subequal in size along the lateral edges (Fig. 2).

Total number of differences: 2 generic and 2 specific.

RT4502 *Schistomysis kervillei* (Sars G.O., 1885) (Figs. 5, 6 & 9) (cf. Tattersall & Tattersall 1951; Makings 1977)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Wash. Condition/Size: Good / Medium.

Fig. 5 *Schistomysis kervillei* (lateral view)

Telson

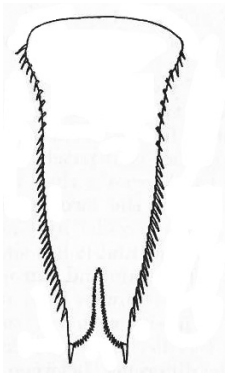

Fig. 6 *Schistomysis kervillei*

Fig. 7 *Paramysis arenosa*

Lab 2005 identified RT4502 as *Paramysis arenosa.*
Paramysis arenosa has an ovate antennal scale with convex lateral margins and which is approximately twice as long as wide. The rostrum is apically truncate. The eyestalks are short, and the telson has between 19 and 22 spines along each lateral edge (Fig. 7).
Schistomysis kervillei has an antennal scale which is long and straight sided, nearly three times as long as wide (Fig. 9). The rostrum is extended apically into an acute point. The telson has up to 30 spines along the lateral edge (Fig. 6).

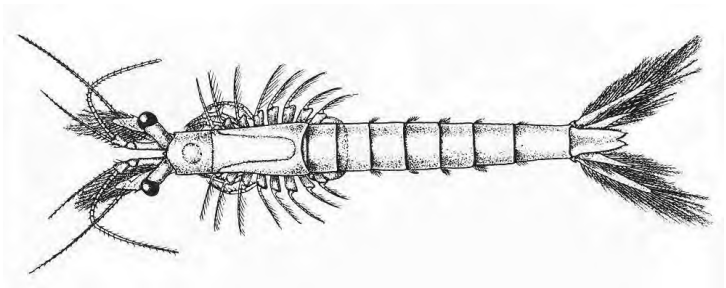

Fig. 8 *Schistomysis spiritus* (dorsal view)

Labs 2029 and 2053 identified RT4502 as *Schistomysis spiritus.*
Schistomysis spiritus has eyestalks that are longer than wide, extending the cornea well beyond the carapace margin (Fig. 8). The cornea occupies the distal third of the organ. The distal third of the endouropod is slightly incurved.
Schistomysis kervillei has eyestalks that are broad, only marginally longer than wide. The cornea occupies the distal half of the organ.The endouropod is tapered and straight, about two-thirds the length of the exopod.

Antennal scale

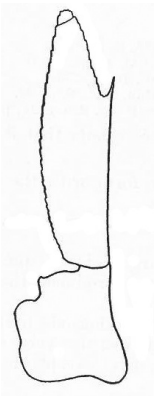

Fig. 9 *Schistomysis kervillei*

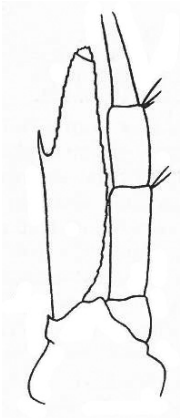

Fig. 10 *Schistomysis ornata*

Labs 2054b and 2058 identified RT4502 as *Schistomysis ornata*.
Schistomysis ornata is similar to *S. kervillei*. In *S. ornata* the sub-terminal spine of the antennal scale is halfway along the outer margin (Fig. 10). The robust setae/spines of the endouropod extend to near the apex.
Schistomysis kervillei has the sub-terminal spine of the antennal scale two thirds of the way along the outer margin (Fig. 9). The robust setae/spines of the endouropod do not reach the apex.

Total number of differences: 1 generic and 5 specific.

RT4503 *Tritaeta gibbosa* (Bate, 1862) (Figs. 11, 13 & 15) (cf. Lincoln 1979, Bousfield E.L. & Kendall J.A. 1994)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Irish Sea. Condition/Size: Good / Medium.

Fig. 11 *Tritaeta gibbosa* (lateral view)

Pleosome

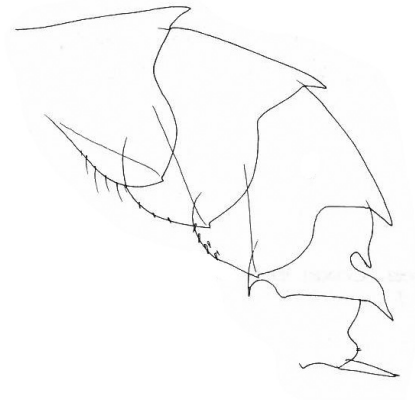

Fig. 12 *Nototropis guttatus*

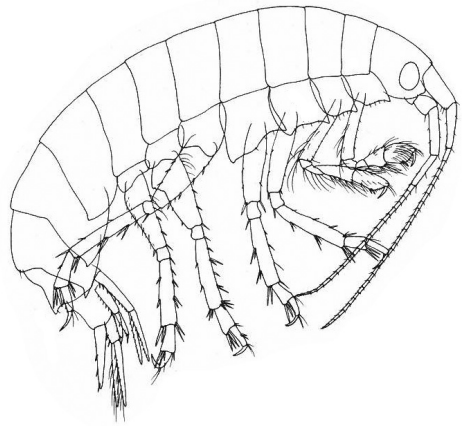

Fig. 13 *Tritaeta gibbosa*

Pereopod 7 basis

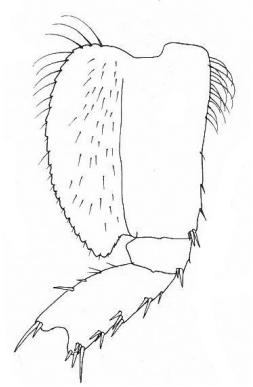

Fig. 14. *Nototropis swammerdamei*

Fig. 15. *Tritaeta gibbosa*

Lab 2027 identified RT4503 as *Nototropis guttatus.*
Nototropis guttatus has coxal plates which are longer than broad and have convex margins. The dorsal surface of the pleosome has teeth (Fig. 12).
Tritaeta gibbosa has coxal plates which are broader than long and have truncate or concave ventral margins. The dorsal surface of the pleosome lacks teeth on the dorsal surface (Figs. 11 & 13).

Lab 2058 identified RT4503 as *Atylus swammerdammi* (spelling variant of *A. swammerdamei*).
Atylus swammerdamei has been assigned to the genus *Nototropis* by Bousfield & Kendall (1994).
Nototropis swammerdamei has coxal plates which are longer than broad and have convex margins. The basis of pereopod 7 is expanded (Fig. 14). In pereopods 3 to 7 the merus is not longer than the combined length of the carpus and propodus.
Tritaeta gibbosa has truncate or concave ventral margins to the coxal plates. These plates are broader than long. The basis of pereopod 7 is not expanded (Fig. 15). In pereopods 3 to pereopods 7 the merus is longer than the combined length of the carpus and propodus.

Total number of differences: 2 generic and 2 specific.

RT4504 *Hippolyte varians* Leach, 1814 (Fig. 16) (cf. Smaldon 1979 revised by Holthius & Fransen 1993)

Substrate: Mixed. Salinity: High. Depth: Infralittloral. Locality: Thames Estuary. Condition / Size: Good / Medium.

Fig. 16 *Hippolyte varians* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4505 *Schistomysis spiritus* (Norman, 1860) (Figs. 17, 20 & 23) (cf. Smaldon 1979 revised by Holthius & Fransen 1993)

Substrate: Mixed. Salinity: High. Depth: Infralittoral. Locality: Thames Estuary. Condition/Size: Medium / small.

Fig. 17 *Schistomysis spiritus*

Antennal scale

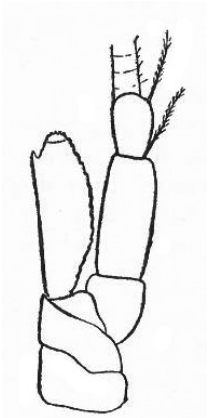

Fig. 18 *Haplostylus normani*

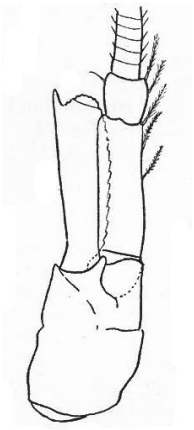

Fig. 19 *Gastrosaccus sanctus*

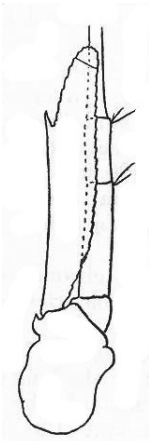

Fig. 20 *Schistomysis spiritus*

Outer edge of exouropod

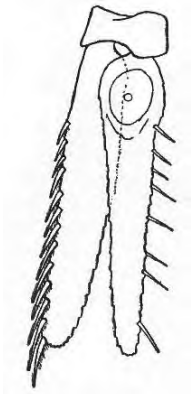

Fig. 21 *Haplostylus normani*

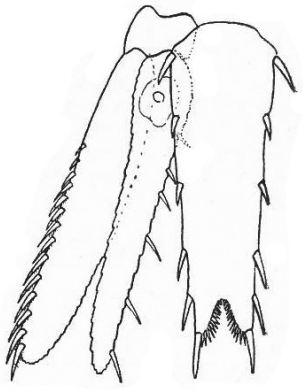

Fig. 22 *Gastrosaccus sanctus*

Fig. 23 *Schistomysis spiritus*

Lab 2007 identified RT4505 as *Heteromysis formosa.*
Heteromysis formosa has setae lining the antennal scale. There is no lateral spine present at the outer edge of the antennal scale.
Schistomysis spiritus has no setae lining the antennal scale. A lateral spine is present on the outer edge of the antennal scale (Fig. 20).

Lab 2027 identified RT4505 as *Haplostylus normani* and Lab 2053 as *Gastrosaccus sanctus.*
Haplostylus normani has an antennal scale distal lobe projecting a small way beyond the lateral spine (Fig. 18). The exouropodal outer margin is lined with robust setae/spines (Fig. 21).
Gastrosaccus sanctus has an antennal scale distal lobe which is short, not extending beyond the lateral spine (Fig. 19). The outer margin of the exouropod is lined with robust setae/spines (Fig. 22).
Schistomysis spiritus has an antennal scale distal lobe which extends much further along than the lateral spine (Fig. 20). The outer edge of the exouropod is lined with setae (Fig. 23).

Total number of differences: 3 generic and 3 specific.

RT4506 *Idotea chelipes* (Pallas, 1766) (Fig. 24 & 26) (cf. Naylor 1972)

Substrate: Mud. Salinity: Reduced. Depth: Estuarine. Locality: Thames Estuary Condition/Size: Good / Medium.

Fig. 24 *Idotea chelipes* (dorsal view)

Antennal flagellum & pleotelson

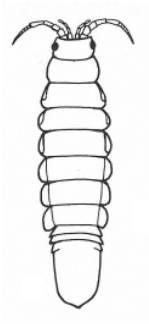

Fig. 25 *Idotea pelagica*

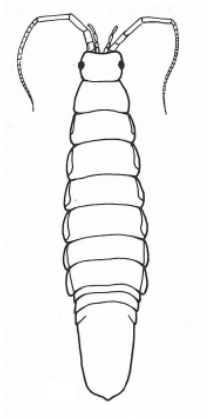

Fig. 26 *Idotea chelipes*

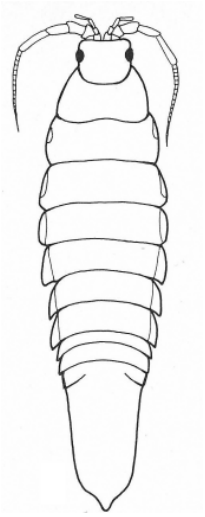

Fig. 27 *Idotea granulosa*

Lab 2029 identified RT4506 as *Idotea pelagica.*
Idotea pelagica has an antennal flagellum which is shorter than the peduncle (Fig. 25).
Idotea chelipes has an antennal flagellum which is longer than the peduncle (Fig. 24 & 26).

Lab 2027 identified RT4506 as *Idotea granulosa.*
Idotea granulosa has an acute medial process at the apex of the pleotelson, which is not keeled on the dorsal surface. The feature tends to become more developed as the creature matures. The antennule does not extend beyond the 3rd article of the antennal peduncle. The general shape of the animal is wider anteriorly and narrowing rather sharply posteriorly giving a slight oval appearance (Fig. 27).
Idotea chelipes has the sides of the pleotelson sub-parallel and the distal border has a small single medial process. The antennule extends beyond the 3rd article of the antennal peduncle. The animal has a slender body, tending to be wider midway down the body, if at all (Fig. 24 & 26).

Total number of differences: 0 generic and 2 specific.

RT4507 *Palaemon varians* Leach, 1813 (Fig. 28) (cf. Smaldon 1979 revised by Holthius & Fransen 1993; De Grave & Ashelby 2013)

Substrate: Sand/Mud. Salinity: Low. Depth: Estuarine. Locality: Thames Estuary. Condition/Size: Medium / Large.

Fig. 28 *Palaemon varians* (lateral view)

This species was correctly identified by all participants, although some used the synonym *Palaemonetes varians* (cf. De Grave & Ashelby 2013).

Total number of differences: 0 generic and 0 specific.

RT4508 *Abludomelita gladiosa* (Bate, 1862) (Figs. 29 & 31) (cf. Lincoln 1979)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Wight. Condition/Size: Good / Medium.

Fig. 29. *Abludomelita gladiosa* (lateral view)

Epimeral plate 3 tooth

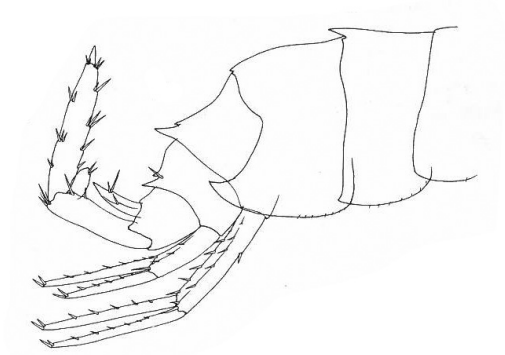

Fig. 30 *Abludomelita obtusata*

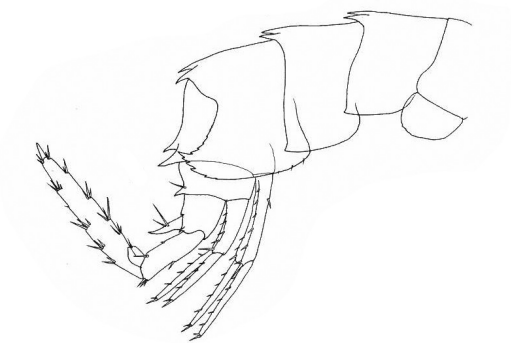

Fig. 31 *Abludomelita gladiosa*

Lab 2019 identified RT4508 as *Melita dentata* and Labs 2002, 2031 and 2068 as *Abludomelita obtusata*.
Melita dentata has teeth on the dorsal surface of the pleonites 1 to 3. These teeth are weakly developed with the medial tooth the largest. The dactylus anterior margin on gnathopod 2 is setose. The epimeral plate 3 is produced and smooth.
Abludomelita obtusata has a single dorsal tooth on pleonite 2 while pleontite 1 and 3 are smooth dorsally. The outer margin of the dactylus on gnathopod 2 is without setae. The epimeral plate 3 is produced and smooth (Fig. 30).
Abludomelita gladiosa has well developed teeth on the dorsal surface of pleonites 1 to 3. The outer margin of the dactylus on gnathopod 2 is not setose. The epimeral plate 3 is produced and serrated on the posterior and ventral margins (Fig. 31).

Lab 2054b identified RT4508 as *Melita gladiosa* which has been assigned to the genus *Abludomelita* by Karaman (1981). As this difference involves a synonym it is not counted for the purpose of this exercise.

Total number of differences: 1 generic and 3 specific.

RT4509 *Lekanesphaera levii* (Argano & Ponticelli, 1981) (Figs. 32, 33 & 34) (cf. Jacobs 1987)

Substrate: Mixed. Salinity: Low. Depth: Estuarine. Locality: Irish Sea. Condition/Size: Good / Medium.

Fig. 32 *Lekanesphaera levii* (latero-ventral view)

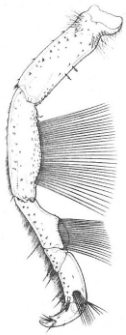

Fig. 33 *Lekanesphaera levii* pereopod 1

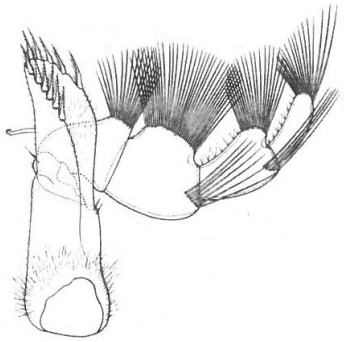

Fig. 34 *Lekanesphaera levii* maxillipede palp

Labs 2002, 2007, 2008, 2027, 2033, 2053, and 2068 identified RT4509 as *Lekanesphaera rugicauda.*
Lekanesphaera rugicauda has the dorsal surface of the pleotelson bearing small tubercles. The ischium of pereopod 1 has up to 30 smooth setae.
Lekanesphaera levii has the dorsal surface of the pleotelson free of small tubercles. The ischium of pereopod 1 has up to 70 smooth setae (Fig 33).

Lab 2005 identified RT4509 as *Sphaeroma serratum.*
Sphaeroma serratum has plumose setae on the first pereopods. The maxillipedal palp has no lobe.
Lekanesphaera levii has smooth setae on the first pereopods (Fig 33). The maxillipedal palp has a prominent lobe (Fig 34).

Labs 2019, 2029 and 2061 identified RT4509 as *Lekanesphaera monodi*.
Jacobs (1987) revised the genus *Sphaeroma* and synonymised *Sphaeroma monodi* Bocquet, Hoestlandt & Levi, 1954 as described by Naylor (1972) into *Lekanesphaera levii* (Argano & Ponticelli, 1981). *Lekanesphaera monodi* (Arcangeli, 1934), however, is considered a valid species.
Lekanesphaera monodi shows 4-6 well developed teeth on the exouropod, the first near the apex, the second relatively far from the first, with the rest following closely.
Lekanesphaera levii in contrast shows only slight serrations on the outer margin of the exouropod.

Total number of differences: 1 generic and 11 specific.

RT4510 *Pandalus montagui* Leach, 1814 (Fig. 35) (cf. Smaldon 1979 revised by Holthius & Fransen 1993)

Substrate: Mixed. Salinity: High. Depth: Infralittoral. Locality: Thames Estuary. Condition/Size: Good / Medium.

Fig. 35 *Pandalus montagui* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4511 *Crangon allmanni* Kinahan, 1860 (Figs. 36 & 38) (cf. Smaldon 1979 revised by Holthius & Fransen 1993)

Substrate: Mixed. Salinity: Full. Depth: Infralittoral. Locality: Bristol Channel. Condition/Size: Good / Medium.

Fig. 36 *Crangon allmanni* (lateral view)

Pleonite 6

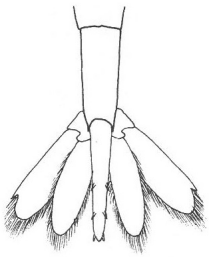

Fig. 37 *Crangon crangon*

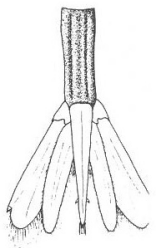

Fig. 38 *Crangon allmanni*

Labs 2007 and 2019 identified RT4511 as *Crangon crangon.*
Crangon crangon has a smooth dorsal surface to pleonite 6 (Fig. 37). On the ventral surface of pereonite 2 there is an acute spine.
Crangon allmanni has a groove with parallel carinae on the dorsal surface of pleonite 6 (Fig. 38). On the ventral surface of pereonite 2 there is a small boss.

Total number of differences: 0 generic and 2 specific.

RT4512 *Verruca stroemia* (O.F. Müller, 1776) (cf. Southward 2008)

Substrate: Mixed. Salinity: Low. Depth: Estuarine. Locality: Irish Sea. Condition/Size: Medium / Small.

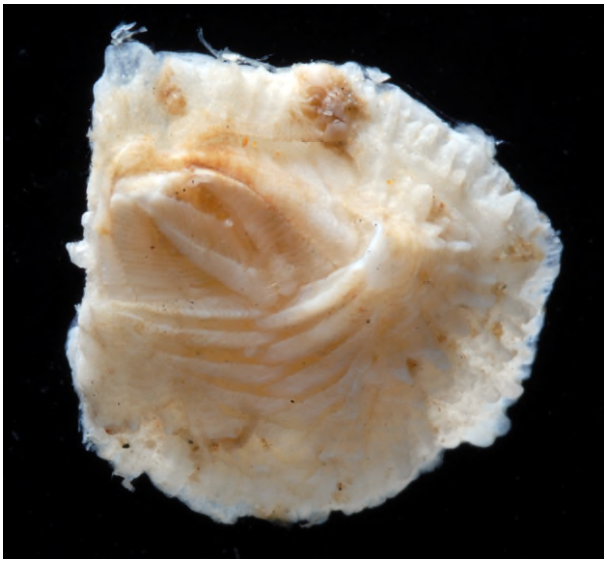

Fig 39 *Verruca stroemia* (dorsal view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4513 *Idotea linearis* (Linnaeus, 1766) (Fig. 40) (cf. Naylor 1972)

Substrate: Mixed. Salinity: Full. Depth: Infralittoral. Locality: Wash. Condition/Size: Good / Medium.

Fig. 40 *Idotea linearis* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4514 *Leptocheirus hirsutimanus* (Bate, 1862) (Fig. 41) (cf. Lincoln 1979)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Belfast. Condition/Size: Medium / Medium.

Fig. 41 *Leptocheirus hirsutimanus* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4515 *Crangon crangon* (Linnaeus, 1758) (Fig. 42) (cf. Smaldon 1979 revised by Holthius & Fransen 1993)

Substrate: Mixed. Salinity: Full. Depth: Infralittoral. Locality: Firth of Forth. Condition/Size: Good / Variable.

Fig. 42 *Crangon crangon* (dorsal view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4516 *Unciola crenatipalma* (Bate, 1862) (Figs. 43 & 45) (cf. Lincoln 1979)

Substrate: Mixed. Salinity: Full. Depth: Lower estuary. Locality: Thames Estuary. Condition/Size: Good / Medium.

Fig. 43. *Unciola crenatipalma* (lateral view)

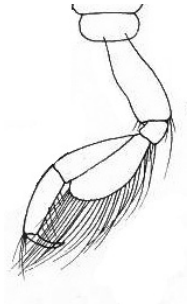

Fig. 44 *Corophium arenarium* gnathopod 2

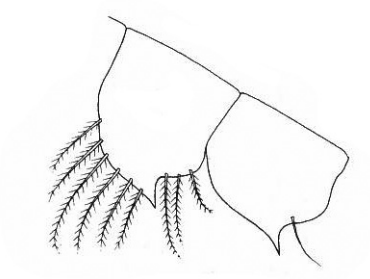

Fig. 45 *Unciola crenatipalma* epimeral plates

Lab 2029 identified RT4516 as *Corophium arenarium.*
Corophium arenarium has the merus and carpus on gnathopod 2 approximately equal sized and longitudinally fused (Fig 44). The epimeral plates 1-3 are well-developed and subquadrate.
Unciola crenatipalma has the merus and carpus of gnathopod 2 arranged in the basic pattern, the merus is shorter than the carpus and there is a flexible joint between the two. The epimeral plates 1 to 3 have acutely pointed distal margins (Fig. 45).

Total number of differences: 1 generic and 1 specific.

RT4517 *Haustorius arenarius* (Slabber, 1769) (Figs. 46 & 48) (cf. Lincoln 1979; Bousfield 1965)

Substrate: Sandy/mud. Salinity: Full. Depth: Intertidal. Locality: Thames. Condition/Size: Good / Medium.

Fig. 46 *Haustorius arenarius* (lateral view)

Pereopod 6

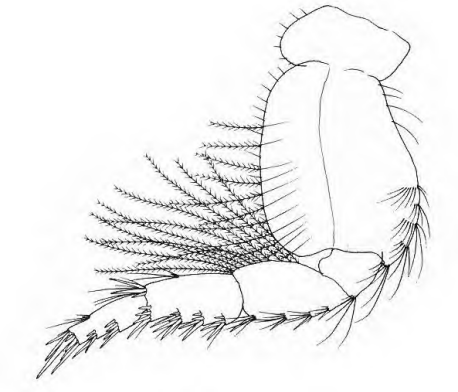

Fig. 47 *Urothoe brevicornis*

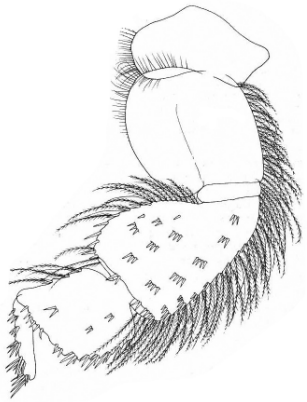

Fig. 48 *Haustorius arenarius*

Lab 2029 identified RT4517 as *Urothoe brevicornis*.
Urothoe brevicornis has pereopods 6-7 merus and carpus not strongly expanded, length twice breadth (Fig. 47). The uropod 1 peduncle and ramus are slender. Pereopod 5 enlarged and dominant over pereopod 6 to 7.
Haustorius arenarius has pereopods 6-7 merus and carpus strongly expanded, length less than twice breadth (Fig. 48). The uropod 1 ramus is robust. Pereopod 6-7 enlarged and dominant over pereopod 5.

Labs 2027 and 2034 identified RT4517 as *Parahaustorius holmesi*.
Parahaustorius holmesi has the posterodistal margin of epimeron 3 free. The urosome is strongly developed and not overhung by the pleosome. The dactylus of gnathopod 2 is conspicuous. This species is known from the Western Atlantic.
Haustorius arenarius has the posterodistal border of the epimeron 3 strongly reflexed forming a lobe overhanging the urosome. The urosome is weakly developed. The dactylus of gnathopod 2 is minutely chelate. This species is known to occur in the Eastern Atlantic.

Total number of differences: 3 generic and 3 specific.

RT4518 *Iphinoe trispinosa* (Goodsir, 1843) (Fig. 49) (cf. Jones 1976; Shalla 2011)

Substrate: Sand/ gravel. Salinity: Full. Depth: Circalittoral. Locality: Uist. Condition/Size: Good / Medium.

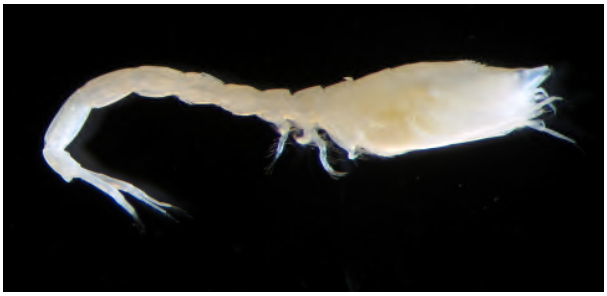

Fig. 49 *Iphinoe trispinosa* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4519 *Cumella pygmaea* G.O. Sars, 1865 (Figs. 50 & 52) (cf. Jones 1976; Shalla 2011)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Wash. Condition/Size: Medium / Small.

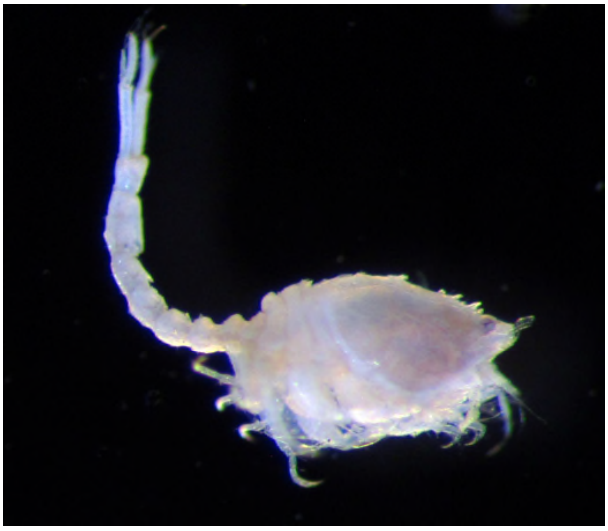

Fig. 50 *Cumella pygmaea* (lateral view)

Uropods and telson

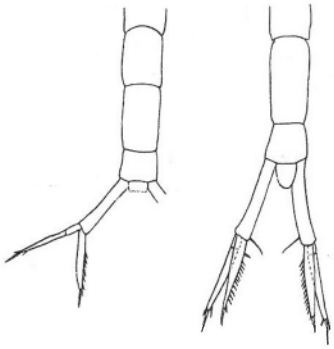

Fig. 51 *Pseudocuma simile* (female and male)

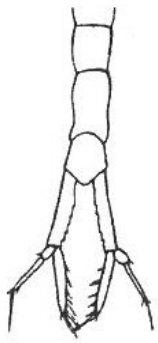

Fig. 52 *Cumella pygmaea*

Labs 2019 and 2027 identified RT4519 as *Pseudocuma similis (*variant spelling for *Pseudocuma simile*).
Pseudocuma simile has a freely articulated telson. The endo- and exouropods are sub-equal in length and breadth (Fig. 51). The anterolateral angle of the carapace is shallow and armed with three small teeth.
Cumella pygmaea has a telson which is fused to pleonite 6. The endouropod is broad and long relative to the exouropod (Fig. 52). The anterolateral angle of the carapace is shallow and unarmed.

Lab 2058 identified RT4519 as *Bodotria arenosa.*
Bodotria arenosa has exopodites on the first pereopod only. The carapace has median and lateral carinae.
Cumella pygmaea has exopodites on all but the last three pereopods (females) and all but the last one (males). The carapace does not have a lateral carina.

Lab 2005 identified RT4519 as *Nannastacus unguiculatus.*
Nannastacus unguiculatus has the two ocular groups widely separated, each composed of several lenses.
Cumella pygmaea has a median ocular group.

Lab 2061 identified RT4519 as *Styloptocuma angustata.*
Styloptocuma angustata has long pseudorostral lobes and a long styliform ocular lobe, reaching to the bases of the pseudorostral lobes.
Cumella pygmaea has short pseudorostral lobes (Fig. 50) and a short ocular lobe, not reaching to the bases of the pseudorostral lobes.

Total number of differences: 5 generic and 5 specific.

RT4520 *Pseudoparatanais batei* (Sars G.O., 1882) (Fig. 53) (cf. Holdich & Jones 1983)

Substrate: Mixed. Salinity: Full. Depth: Infralittoral. Locality: Orkneys. Condition/Size: Good / Small.

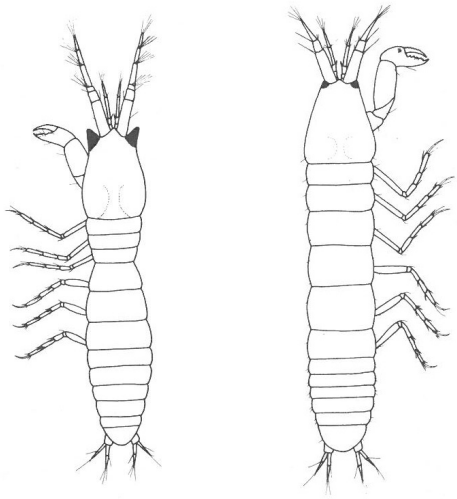

Fig. 53 *Pseudoparatanais batei* (male and female)

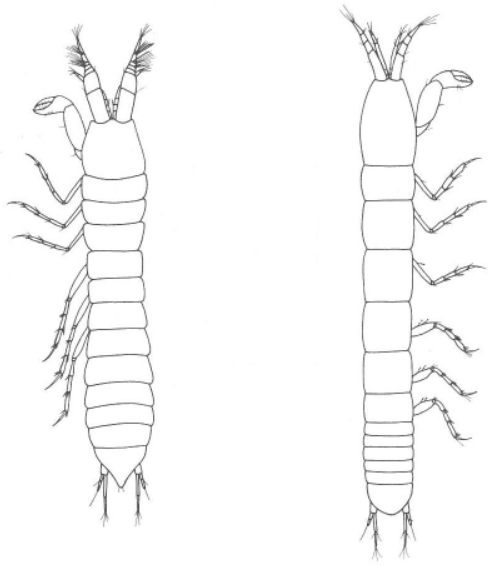

Fig. 54 *Akanthophoreus gracilis* (male and female)

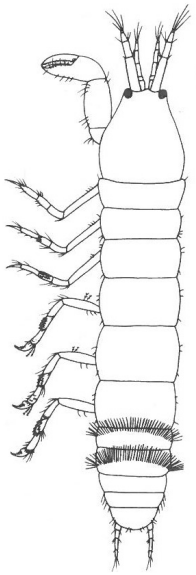

Fig. 55 *Tanais dulongii*

Lab 2005 identified RT4520 as *Akanthophoreus gracilis.*
Akanthophoreus gracilis has no eyes (Fig. 54). The pleonites each have a prominent ventral tubercle.
Pseudoparatanais batei has eyes (Fig. 53). The antennae are five articled, the second article has a spiny seta ventrally, the third segment having one dorsally. The pleonites do not have a ventral tubercle.

Lab 2019 identified RT4520 as *Tanais dulongii.*
Tanais dulongii has a pleon made up of 4 segments, the first 2 of which bear a strong, semicircular row of erect setae dorsally (Fig. 55). The endopodite of the uropods is made up of 3 articles.
Pseudoparatanais batei has no semicircular row of erect setae dorsally on the pleon (Fig. 53). The two rami of the uropod are clear and both rami are 2 articled.

Total number of differences: 2 generic and 2 specific.

RT4521 *Tanaopsis graciloides* (Lilljeborg, 1864) (Fig. 56) (cf. Holdich & Jones 1983)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Moray Firth. Condition/Size: Fair / Small.

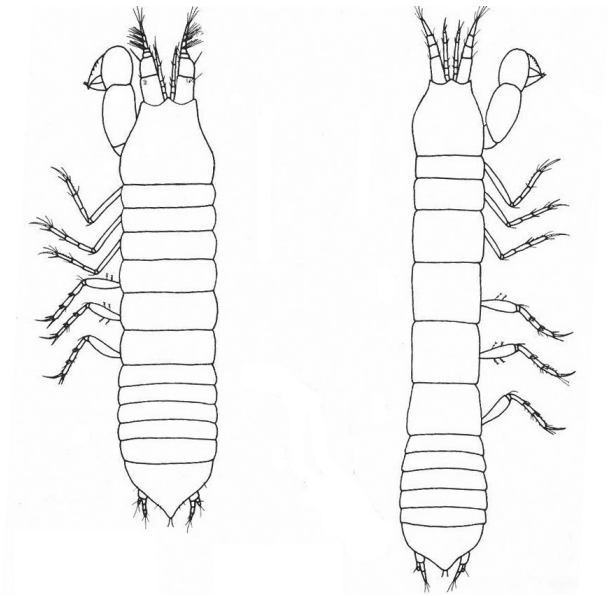

Fig. 56 *Tanaopsis graciloides* (male and female)

Labs 2002 and 2034 identified RT4521 as *Akanthophoreus gracilis* and Lab 2007 identified RT4521 as *Tanaissus lilljeborgi.*
Akanthophoreus gracilis has prominent uropods which are as long or longer than the pleotelson. (Fig. 54). There is a prominent ventral tubercle on each pleonite.
Tanaissus lilljeborgi has prominent uropods which are distinctly longer than the pleotelson. There are no ventral tubercles on the pleon segments.
Tanaopsis graciloides has short uropods which do not reach the length of the pleotelson (Fig. 56). There are no ventral tubercles on the pleon segments. The members of this genus are most readily identified from others of the family by the maxillule, which has an almost right angled endite, terminating in six spines.

Lab 2027 identified RT4521 as *Heterotanais oerstedii.*
Heterotanais oerstedii has eyes. The antennae are six articled, the second and third having a strong dorsal spine in the distal corner. The endite of the maxillule has nine long spines.
Tanaopsis graciloides is eyeless. The antennae are six-articled without dorsal spines in the distal corner of the articles. The endite of the maxillule has an almost right angled endite, terminating in six spines.

Lab 2019 identified RT4521 as *Typhlotanais brevicornis.*
Typhlotanais brevicornis has the first pereonite longer than the sixth. The upper margin of the dactylus is smooth. The exopodite of the uropod is very small and single-articled.
Tanaopsis graciloides has the first pereonite shorter than the sixth. The upper margin of the dactylus is crenulated. The exopodite of the uropod is two articled.

Total number of differences: 5 generic and 5 specific.

RT4522 *Jassa falcata* (Montagu, 1808) / *Jassa herdmani* (Walker, 1893) (Figs. 57-60) (cf. Lincoln 1979; Conlan 1990)

Substrate: Mixed. Salinity: Full. Depth: Infralittoral. Locality: Wash. Condition/Size: Good / Large.

Fig. 57. *Jassa herdmani* (latero-ventral view)

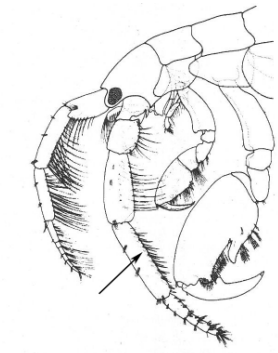

Fig. 58 *Jassa herdmani* antenna 2

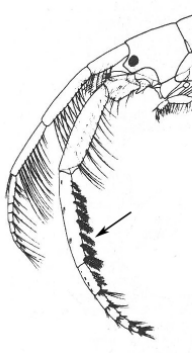

Fig. 59 *Jassa falcata* antenna 2

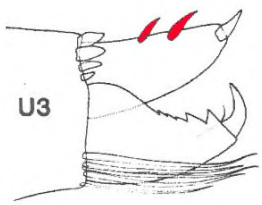

Fig. 60 *Jassa falcata* uropod 3

Specimens sent to participants had been identified as *Jassa falcata*, following Lincoln (1979). A literature search conducted to analyse the results of the ring test showed that in her revision of the genus *Jassa*, Conlan (1990) redescribed several species, among them *J. falcata* and *J. herdmani* which were previously considered synonymous (cf. Sexton & Reid 1951) and are known to occur in the same habitat (cf. Beermann & Franke 2012 and Beermann 2013).

Jassa falcata is mainly characterised by plumose setae on segment 5 of the antenna 2 peduncle and the first segment of the flagellum (Fig. 59). The inner ramus of uropod 3 has 1 or 2 spines centrally in addition to the usual apical spine (Fig. 60).
Jassa herdmani is characterised by non-plumose setae on segment 5 of the antenna 2 peduncle and the first segment of the flagellum (Fig. 57 & 58). The inner ramus of uropod 3 has no central spines.
Re-examination of the specimens remaining from the population sent to participants turned out to be *J. herdmani* as they show the characters described above.
As most labs use Lincoln to identify their amphipods and might not be aware of Conlan's revision all identifications as *J. falcata* or *J. herdmani* will be considered correct for the purpose of this ring test. We suggest though that participants re-examine their specimens and come back to us with their results.

Total number of differences: 0 generic and 0 specific.

RT4523 *Nototropis swammerdamei* (Milne-Edwards, 1830) (Figs. 61 & 63) (cf. Lincoln 1979; Bousfield & Kendall 1994)

Substrate: Mixed. Salinity: Full. Depth: Circalittoral. Locality: Wash. Condition/Size: Good / Medium.

Fig. 61 *Nototropis swammerdamei* (lateral view)

Pleon

Fig. 62 *Nototropis vedlomensis*

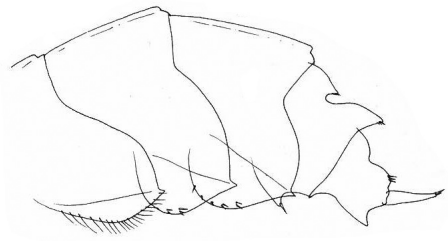

Fig. 63 *Nototropis swammerdamei*

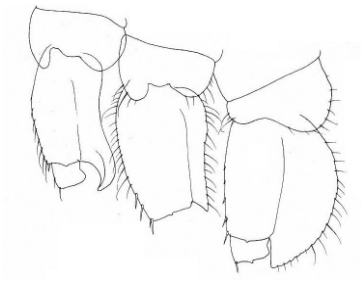

Fig. 64 *Nototropis vedlomensis* basis of pereopod 5

Lab 2007 identified RT4523 as *Atylus vedlomensis* which has been moved to the genus *Nototropis* by Bousfield & Kendall (1994).
Nototropis vedlomensis has dorsal teeth on the pleosomites 1 to 3 (Fig.62). The posterior distal margin of the basis of pereopod 5 shows a hook-like process (Fig. 64).

Nototropis swammerdamei has no dorsal teeth on the pleosomites 1 to 3 (Fig. 63). The posterior distal margin of the basis of pereopod 5 shows no hook-like process.

Total number of differences: 0 generic and 1 specific.

RT4524 *Cyathura carinata* (Krøyer, 1847) (Fig. 65) (cf. Lincoln 1979; Naylor 1972)

Substrate: Mud. Salinity: Low. Depth: Estuarine. Locality: Cardigan Bay. Condition/Size: Fair / Small.

Fig. 65 *Cyathura carinata* (lateral view)

This species was correctly identified by all participants.

Total number of differences: 0 generic and 0 specific.

RT4525 *Limnoria lignorum* (Rathke, 1799) (Figs. 66 & 68) (cf. Naylor 1972)

Substrate: Mud. Salinity: Full. Depth: Intertidal. Locality: Thames Estuary. Condition/Size: Good / Small.

Fig. 66 *Limnoria lignorum* (dorso-lateral view)

Pleotelson

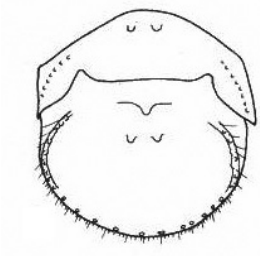

Fig. 67 *Limnoria tripunctata*

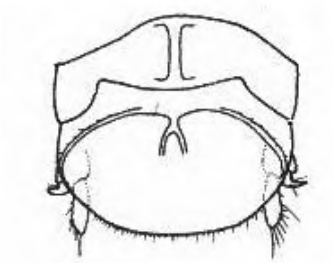

Fig. 68 *Limnoria lignorum*

Lab 2029 identified RT4525 as *Limnoria tripunctata.*
Limnoria tripunctata has the posterior border of the pleotelson tuberculate and the central area of the pleotelson shows 3 tubercles (Fig. 67). The antennal flagellum has 5 segments.

Limnoria lignorum has no tubercles on the posterior margin of the pleotelson and the central area of the pleotelson shows a carina shaped like an inverted 'Y' (Fig. 68). The antennal flagellum has 4 segments.

Total number of differences: 0 generic and 1 specific.

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Ring Test Specimen Return Instructions

Please return all ring test specimens by 31th July 2014
These are reference specimens and must be returned to our collection. Your laboratory may be ineligible for future ring tests if specimens are not returned.

Return address: **Tony Freeston, Thomson Unicomarine Ltd., Business Centre East, Fifth Avenue, Letchworth, Hertfordshire SG6 2TS, UK**