

The National Marine Biological
Analytical Quality Control Scheme
www.nmqcs.org

Ring Test Bulletin – RTB#33

David Hall
Unicomarine Ltd.
January 2008
E-mail: davidhall@unicomarine.com



RING TEST DETAILS

Ring Test #33

Type/Contents – Targeted; ‘Fish’

Circulated – 06/11/2007

Completion Date – 21/12/2007

Number of Participating Laboratories – 17*

Number of Results Received – 52*

*Multiple data entries per laboratory permitted

Summary of differences

Specimen	Genus	Species	Total differences for (52) participants	
			Genus	Species
RT3301	<i>Platichthys</i>	<i>flesus</i>	20	20
RT3302	<i>Perca</i>	<i>fluviatilis</i>	1	1
RT3303	<i>Ammodytes</i>	<i>tobianus</i>	7	9
RT3304	<i>Sprattus</i>	<i>sprattus</i>	3	3
RT3305	<i>Gasterosteus</i>	<i>aculeatus</i>	0	0
RT3306	<i>Limanda</i>	<i>limanda</i>	7	7
RT3307	<i>Trachurus</i>	<i>trachurus</i>	1	1
RT3308	<i>Microstomus</i>	<i>kitt</i>	12	12
RT3309	<i>Engraulis</i>	<i>encrasicolus</i>	1	1
RT3310	<i>Solea</i>	<i>solea</i>	17	19
RT3311	<i>Merlangius</i>	<i>merlangus</i>	0	0
RT3312	<i>Abramis</i>	<i>brama</i>	15	15
RT3313	<i>Trisopterus</i>	<i>luscus</i>	1	5
RT3314	<i>Microchirus</i>	<i>variegatus</i>	22	22
RT3315	<i>Platichthys</i>	<i>flesus</i>	5	5
RT3316	<i>Rutilus</i>	<i>rutilus</i>	33	33
RT3317	<i>Pleuronectes</i>	<i>platessa</i>	11	11
RT3318	<i>Rutilus</i>	<i>rutilus</i>	11	11
RT3319	<i>Gobius</i>	<i>niger</i>	13	22
RT3320	<i>Sardina</i>	<i>pilchardus</i>	18	18
RT3321	<i>Trisopterus</i>	<i>minutus</i>	4	5
RT3322	<i>Pomatoschistus</i>	<i>microps</i>	1	29
RT3323	<i>Osmerus</i>	<i>eperlanus</i>	2	2
RT3324	<i>Lampetra</i>	<i>fluviatilis</i>	6	7
RT3325	<i>Clupea</i>	<i>harengus</i>	5	5
Total differences			216	263
Average differences			4.2	5.1

Table 1. The identification of fauna made by participating laboratories for RT33 (arranged by specimen). Names are given only where different from the AQC identification.

LabCode	RT3301	RT3302	RT3303	RT3304	RT3305	RT3306	RT3307
	<i>Platichthys flesus</i>	<i>Perca fluviatilis</i>	<i>Ammodytes tobianus</i>	<i>Sprattus sprattus</i>	<i>Gasterosteus aculeatus</i>	<i>Limanda limanda</i>	<i>Trachurus trachurus</i>
LB1401a	- [flexus]	--	--	--	--	--	--
LB1402a	--	[Pecra] [fluviatilis]	--	--	--	--	--
LB1402b	--	[Pecra] [fluviatilis]	Hyperoplus immaculatus	--	--	--	--
LB1402c	Pleuronectes platessa	[Pecra] [fluviatilis]	--	--	--	--	--
LB1403a	Pleuronectes platessa	--	--	--	--	--	--
LB1404a	--	--	--	--	--	--	--
LB1405a	Pleuronectes platessa	--	--	--	--	Hippoglossoides platessoides	--
LB1406a	Pleuronectes platessa	--	--	--	--	--	--
LB1407a	--	--	--	--	--	--	--
LB1408a	--	--	--	--	--	--	--
LB1408b	--	--	--	--	--	--	--
LB1408c	--	--	- marinus	--	--	--	--
LB1408d	--	--	- marinus	--	--	--	--
LB1408e	Hippoglossoides platessoides	--	--	--	- [aculeatus aculeatus]	--	--
LB1408f	Glyptocephalus cynoglossus	--	Hyperlopus lanceolatus	--	--	--	--
LB1408g	--	--	--	--	--	Glyptocephalus cynoglossus	--
LB1408h	--	--	--	--	--	--	--
LB1408i	--	--	--	[Spratus] [spratus]	--	--	--
LB1408j	Hippoglossoides platessoides	--	--	--	--	--	--
LB1408k	Pleuronectes platessa	--	Hyperoplus lanceolatus	--	--	--	--
LB1408l	--	--	--	--	--	--	--
LB1410a	--	Sciaena umbra	--	--	--	--	--
LB1412a	--	--	Hyperoplus lanceolatus	--	--	--	--
LB1412b	--	--	--	- [sprattus sprattus]	- [aculeatus aculeatus]	--	--
LB1412c	Limanda limanda	--	--	--	--	Arnoglossus laterna	--
LB1413a	--	--	Hyperoplus immaculatus	--	[Gasterosteus] -	Microstomus kitt	--
LB1416a	Hippoglossoides platessoides	--	--	--	--	--	--
LB1417a	[Platichthyes] -	--	--	--	--	--	--
LB1417b	--	--	--	--	--	--	--
LB1417c	--	--	--	--	--	--	--
LB1417d	--	--	--	--	--	--	--
LB1420a	Pleuronectes platessa	--	--	Alosa fallax	--	--	Pollachius pollachius
LB1420b	Platichthys (Pleuronectes) platessa	--	--	--	--	--	--
LB1420c	--	--	--	--	--	--	--
LB1420d	Pleuronectes platessa	--	--	--	--	--	--
LB1420e	Pleuronectes platessa	--	--	--	--	--	--
LB1420f	Pleuronectes platessa	--	--	--	--	--	--
LB1424a	--	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1424b	Limanda limanda	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1424c	--	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1424d	--	- [fluviatilis]	--	Leuciscus leuciscus	[Gasterosteus] -	--	--
LB1424e	--	- [fluviatilis]	Hyperoplus lanceolatus	Clupea harengus	[Gasterosteus] -	--	--
LB1424f	Limanda limanda	- [fluviatilis]	--	--	[Gasterosteus] -	Platichthys flesus	--
LB1424g	Pleuronectes platessa	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1424h	--	- [fluviatilis]	--	--	[Gasterosteus] -	Platichthys flesus	--
LB1424i	--	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1424j	--	- [fluviatilis]	--	--	[Gasterosteus] -	--	--
LB1426a	Glyptocephalus cynoglossus	--	--	--	--	--	--
LB1426b	Pleuronectes platessa	--	--	--	--	Glyptocephalus cynoglossus	--
LB1427a	[Pleuronectes] -	--	--	--	--	--	--
LB1427b	--	--	Hyperoplus immaculatus	--	--	--	--
LB1427c	--	--	- [gobianus]	--	--	[Limanela] [limanela]	--

Table 1. The identification of fauna made by participating laboratories for RT33 (arranged by specimen). Names are given only where different from the AQC identification.

LabCode	RT3308	RT3309	RT3310	RT3311	RT3312	RT3313	RT3314
	<i>Microstomus kitt</i>	<i>Engraulis encrasicolus</i>	<i>Solea solea</i>	<i>Merlangius merlangus</i>	<i>Abramis brama</i>	<i>Trisopterus luscus</i>	<i>Microchirus variegatus</i>
LB1401a	--	--	--	--	--	--	--
LB1402a	--	--	--	[Merlangius] -	Blicca bjoerkna	--	--
LB1402b	--	[Engradis] -	--	--	Blicca bjoerkna	Phycis blennoides	--
LB1402c	--	--	--	[Merlangius] -	--	--	Buglossidium luteum
LB1403a	--	--	--	--	Blicca bjoerkna	--	--
LB1404a	--	--	- lascaris	--	--	--	--
LB1405a	[Microstomus] -	--	- senegalensis	[Merlangus] -	--	--	--
LB1406a	Glyptocephalus cynoglossus	--	--	--	Scardinius erythrophthalmus	--	--
LB1407a	--	--	Buglossidium luteum	--	--	--	--
LB1408a	--	--	Buglossidium luteum	[Merlangus] -	Blicca bjoerkna	--	--
LB1408b	[Microstomas] -	--	Buglossidium luteum	--	--	--	--
LB1408c	--	[Engraulies] -	--	--	--	--	[Microchims] -
LB1408d	--	--	--	[Merlangus] -	--	[Trisopterus] -	--
LB1408e	Hippoglossoides platessoides	--	--	--	--	- esmarkii	--
LB1408f	--	--	Buglossidium luteum	--	--	--	Pegusa lascaris
LB1408g	Limanda limanda	--	--	--	Blicca bjoerkna	--	Buglossidium luteum
LB1408h	--	--	Buglossidium luteum	- [inerlangus]	--	--	--
LB1408i	Hippoglossoides platessoides	--	Buglossidium luteum	--	--	[Trisopterus] esmarkii	--
LB1408j	Hippoglossoides platessoides	--	--	[Merlangus] -	--	- esmarkii	--
LB1408k	--	--	Buglossidium luteum	--	--	--	Solea solea
LB1408l	--	--	--	--	--	--	Solea solea
LB1410a	Arnoglossus laterna	--	--	--	Blicca bjoerkna	--	--
LB1412a	--	--	--	--	Blicca bjoerkna	--	--
LB1412b	--	--	--	--	Blicca bjoerkna	--	Buglossidium luteum
LB1412c	--	--	Buglossidium luteum	--	--	- minutus	Solea solea
LB1413a	Glyptocephalus cynoglossus	--	--	--	--	--	--
LB1416a	Glyptocephalus cynoglossus	--	Buglossidium luteum	[Merlangus] -	--	- [lucus]	--
LB1417a	--	[Engraulus] -	--	- [merlangius]	--	--	- [variegatus]
LB1417b	--	--	--	[Merlangus] -	--	--	--
LB1417c	--	--	--	[Merlangus] -	--	--	--
LB1417d	--	--	--	--	--	--	Buglossidium luteum
LB1420a	--	--	--	--	--	--	Solea lascaris
LB1420b	--	- [engrasicolus]	Buglossidium luteum	- [merlangius]	--	--	Solea solea
LB1420c	[Microstomus] -	--	Pegusa lascaris	--	Blicca bjoerkna	--	--
LB1420d	--	--	--	--	Blicca bjoerkna	--	Solea solea
LB1420e	Arnoglossus laterna	--	Buglossidium luteum	--	--	--	Buglossidium luteum
LB1420f	--	--	--	--	--	--	Buglossidium luteum
LB1424a	[Microstomus] -	--	--	--	--	[Trisoptera] -	Solea solea
LB1424b	[Microstomus] -	--	--	--	--	[Trisoptera] -	Buglossidium luteum
LB1424c	Platichthys flesus	--	--	--	--	[Trisoptera] -	--
LB1424d	--	--	--	--	Scardinius erythrophthalmus	[Trisoptera] -	Buglossidium luteum
LB1424e	Hippoglossoides platessoides	--	Buglossidium luteum	--	--	[Trisoptera] -	--
LB1424f	[Microstomus] -	--	--	--	--	[Trisoptera] -	--
LB1424g	Limanda limanda	--	--	--	Blicca bloerkna	[Trisoptera] -	--
LB1424h	--	--	Buglossidium luteum	--	--	[Trisoptera] -	Solea solea
LB1424i	--	--	Buglossidium luteum	--	Blicca bjoerkna	[Trisoptera] -	Buglossidium luteum
LB1424j	[Microstomus] -	--	--	--	--	[Trisoptera] -	--
LB1426a	--	--	Buglossidium luteum	--	--	--	Pegusa lascaris
LB1426b	--	?Capelin ?	Lepidorhombus whiffiagonis	--	Spondylisoma cantharus	--	Buglossidium luteum
LB1427a	--	--	--	--	--	--	Buglossidium luteum
LB1427b	--	--	--	--	--	--	[Microchirus] -
LB1427c	--	[Engraulis] -	--	--	--	--	Solea solea

Table 1. The identification of fauna made by participating laboratories for RT33 (arranged by specimen). Names are given only where different from the AQC identification.

LabCode	RT3315 <i>Platichthys flesus</i>	RT3316 <i>Rutilus rutilus</i>	RT3317 <i>Pleuronectes platessa</i>	RT3318 <i>Rutilus rutilus</i>	RT3319 <i>Gobius niger</i>
LB1401a	- [flexus]	--	--	--	--
LB1402a	--	Clupea harengus	--	--	--
LB1402b	--	Clupea harengus	--	--	--
LB1402c	--	--	--	--	--
LB1403a	--	Leuciscus leuciscus	--	--	--
LB1404a	--	Scardinius erythrophthalmus	--	--	--
LB1405a	--	Blicca bjoerkna	--	--	--
LB1406a	[Platichthys] -	--	--	--	- forsteri
LB1407a	--	Leuciscus leuciscus	--	--	--
LB1408a	--	Leuciscus leuciscus	--	[Rutilus] [rotilus]	--
LB1408b	--	Leuciscus leuciscus	--	--	--
LB1408c	[Platichthys] -	Leuciscus cephalus	--	Scardinius erythrophthalmus	--
LB1408d	--	Leuciscus cephalus	--	Scardinius erythrophthalmus	--
LB1408e	[Platichthys] -	Leuciscus leuciscus	Platichthys flesus	Abramis bjoerkna	--
LB1408f	--	Scardinius erythrophthalmus	--	--	Pomatoschistus microps
LB1408g	--	Leuciscus leuciscus	[Pleuronectes] -	--	--
LB1408h	--	Leuciscus leuciscus	--	--	--
LB1408i	--	Leuciscus leuciscus	--	Abramis bjoerkna	--
LB1408j	--	Leuciscus leuciscus	Platichthys flesus	Abramis bjoerkna	--
LB1408k	--	Leuciscus leuciscus	--	Scardinius erythrophthalmus	Pomatoschistus pictus
LB1408l	--	Leuciscus leuciscus	--	--	--
LB1410a	--	--	--	--	--
LB1412a	--	Leuciscus leuciscus	--	--	--
LB1412b	Pleuronectes platessa	Leuciscus leuciscus	--	--	Pomatoschistus microps
LB1412c	--	--	--	Scardinius erythrophthalmus	--
LB1413a	--	--	--	Scardinius erythrophthalmus	Pomatoschistus pictus
LB1416a	--	--	--	--	- paganellus
LB1417a	[Platichthys] -	--	--	--	- forsteri
LB1417b	--	--	--	--	- forsteri
LB1417c	--	--	--	--	- forsteri
LB1417d	[Platichthys] -	--	--	--	--
LB1420a	--	Leuciscus leuciscus	--	--	Pomatoschistus pictus
LB1420b	--	--	[Platichthys] -	--	Thorogobius ephippiatus
LB1420c	--	Leuciscus leuciscus	--	--	- gasteveni
LB1420d	[Pleuronectes] -	Leuciscus leuciscus	--	--	- paganellus
LB1420e	[Pleuronectes] -	--	--	--	Pomatoschistus microps
LB1420f	[Pleuronectes] -	--	--	--	Pomatoschistus minutus
LB1424a	--	Leuciscus leuciscus	--	--	--
LB1424b	Pleuronectes platessa	Leuciscus leuciscus	Pleuronectes (Platichthys) flesus	--	--
LB1424c	Pleuronectes platessa	Leuciscus leuciscus	Pleuronectes (Platichthys) flesus	--	Cottus gobio
LB1424d	--	Alburnus alburnus	Pleuronectes (Platichthys) flesus	Blicca bjoerkna	--
LB1424e	Hippoglossoides hippoglossus	Sprattus sprattus	Pleuronectes (Platichthys) flesus	Scardinius erythrophthalmus	[Gobius cobitis] cobitis
LB1424f	--	Leuciscus leuciscus	Pleuronectes (Platichthys) flesus	--	--
LB1424g	--	Leuciscus leuciscus	Pleuronectes (Platichthys) flesus	--	Pomatoschistus microps
LB1424h	--	--	Pleuronectes (Platichthys) flesus	Leuciscus leuciscus	Pomatoschistus microps
LB1424i	--	Abramis sp.	Pleuronectes (Platichthys) flesus	--	- couchi
LB1424j	--	--	--	--	--
LB1426a	--	Leuciscus idus	--	--	Pomatoschistus microps
LB1426b	--	Leuciscus leuciscus	Limanda limanda	--	Blenny ?
LB1427a	[Pleuronectes] -	--	--	--	--
LB1427b	Hippoglossoides platessoides	--	--	--	--
LB1427c	--	[Rutilus x Abramis] [rutilus x brama]	--	--	--

Table 1. The identification of fauna made by participating laboratories for RT33 (arranged by specimen). Names are given only where different from the AQC identification.

LabCode	RT3320	RT3321	RT3322	RT3323	RT3324	RT3325
	<i>Sardina pilchardus</i>	<i>Trisopterus minutus</i>	<i>Pomatoschistus microps</i>	<i>Osmerus eperlanus</i>	<i>Lampetra fluviatilis</i>	<i>Clupea harengus</i>
LB1401a	Alosa alosa	--	--	--	--	--
LB1402a	Alosa alosa	--	[Gobius] minutus	--	[Lampetra] [fluviatilis]	--
LB1402b	--	--	[Gobius] minutus	--	- [fluviatilis]	Alosa alosa
LB1402c	Alosa fallax	--	--	--	[Lampetra] [fluviatilis]	--
LB1403a	Alosa fallax	[Trisopterus] -	--	--	--	--
LB1404a	--	--	- minutus	--	--	--
LB1405a	Alosa fallax	--	- minutus	--	- [fluvialis]	--
LB1406a	--	--	--	--	--	--
LB1407a	--	--	--	--	--	--
LB1408a	--	- [minutes]	- minutus	--	--	--
LB1408b	--	--	- minutus	--	--	--
LB1408c	Alosa alosa	--	- minutus	--	--	--
LB1408d	Alosa alosa	--	- minutus	--	--	--
LB1408e	--	--	[Pomatoschistus] -	--	--	--
LB1408f	--	--	- minutus	--	--	--
LB1408g	--	--	--	--	--	--
LB1408h	--	--	--	--	--	--
LB1408i	- [pilcharchus]	--	--	--	--	--
LB1408j	--	--	--	--	--	--
LB1408k	--	--	- minutus	--	--	--
LB1408l	Alosa fallax	--	--	--	--	--
LB1410a	Alosa fallax	--	--	--	--	--
LB1412a	--	--	- pictus	--	--	--
LB1412b	--	--	- minutus	--	Petromyzon marinus	- [harengus harengus]
LB1412c	--	- esmarkii	--	--	--	--
LB1413a	Clupea harengus	--	--	--	--	Alosa fallax
LB1416a	Alosa fallax	--	--	--	--	--
LB1417a	--	--	[Potomaschistus] -	--	--	--
LB1417b	--	--	--	--	--	--
LB1417c	--	--	--	--	--	--
LB1417d	Alosa fallax	--	--	--	--	--
LB1420a	--	--	- minutus	Argentina sphyraena	- planeri	--
LB1420b	--	--	--	--	--	--
LB1420c	--	--	- minutus	--	--	--
LB1420d	Alosa fallax	Merlangius merlangus	- minutus	--	--	- [harangus]
LB1420e	Clupea harengus	--	- minutus	--	--	- [harangus]
LB1420f	--	--	--	--	--	- [harangus]
LB1424a	--	- [nuriutus]	- minutus	--	--	--
LB1424b	--	- [nuriutus]	[Pomatosluistus] minutus	--	--	--
LB1424c	--	- [nuriutus]	[Pomatosluistus] minutus	--	Pteromyzon marinus	--
LB1424d	--	- [nuriutus]	[Pomatosluistus] minutus	--	Pteromyzon marinus	--
LB1424e	Alosa fallax fallax	- [nuriutus]	Echiichthys vipera	--	- [fluviatilis]	Alosa alosa
LB1424f	Clupea harengus	- [nuriutus]	[Pomatosluistus] minutus	--	Petromyzon marinus	Alosa fallax
LB1424g	--	Melanogrammus aeglefinus	[Pomatosluistus] minutus	--	Petromyzon marinus	--
LB1424h	Clupea harengus	Pollachius virens	[Pomatosluistus] minutus	--	Petromyzon marinus	Sardinia pilchardus
LB1424i	Clupea harengus	--	[Pomatosluistus] minutus	--	- [fluviatilis]	--
LB1424j	--	- [nuriutus]	- minutus	--	--	--
LB1426a	--	--	- minutus	--	--	--
LB1426b	--	Gadus morhua	- minutus	Argentina silus	--	--
LB1427a	--	--	--	--	--	--
LB1427b	--	--	--	--	--	- [harengus]
LB1427c	--	--	- minutus	--	[Campetra] -	--

Table 2. The identification of fauna made by participating laboratories for RT33 (arranged by participant). Names are given only where different from the AQC identification.

RT33	Taxon	LB1401a	LB1402b	LB1403a	LB1405a	LB1407a	LB1408b
RT3301	Platichthys flesus	- [flexus]	--	Pleuronectes platessa	Pleuronectes platessa	--	--
RT3302	Perca fluviatilis	--	[Pecra] [fluvatiis]	--	--	--	--
RT3303	Ammodytes tobianus	--	Hyperoplus immaculatus	--	--	--	--
RT3304	Sprattus sprattus	--	--	--	--	--	--
RT3305	Gasterosteus aculeatus	--	--	--	--	--	--
RT3306	Limanda limanda	--	--	--	Hippoglossoides platessoides	--	--
RT3307	Trachurus trachurus	--	--	--	--	--	--
RT3308	Microstomus kitt	--	--	--	[Microstomos] -	--	[Microstomas] -
RT3309	Engraulis encrasicolus	--	[Engradis] -	--	--	--	--
RT3310	Solea solea	--	--	--	- senegalensis	Buglossidium luteum	Buglossidium luteum
RT3311	Merlangius merlangus	--	--	--	[Merlangus] -	--	--
RT3312	Abramis brama	--	Blicca bjoerkna	Blicca bjoerkna	--	--	--
RT3313	Trisopterus luscus	--	Phycis blennoides	--	--	--	--
RT3314	Microchirus variegatus	--	--	--	--	--	--
RT3315	Platichthys flesus	- [flexus]	--	--	--	--	--
RT3316	Rutilus rutilus	--	Clupea harengus	Leuciscus leuciscus	Blicca bjoerkna	Leuciscus leuciscus	Leuciscus leuciscus
RT3317	Pleuronectes platessa	--	--	--	--	--	--
RT3318	Rutilus rutilus	--	--	--	--	--	--
RT3319	Gobius niger	--	--	--	--	--	--
RT3320	Sardina pilchardus	Alosa alosa	--	Alosa fallax	Alosa fallax	--	--
RT3321	Trisopterus minutus	--	--	[Trisopterus] -	--	--	--
RT3322	Pomatoschistus microps	--	[Gobius] minutus	--	- minutus	--	- minutus
RT3323	Osmerus eperlanus	--	--	--	--	--	--
RT3324	Lampetra fluviatilis	--	- [fluvatiis]	--	- [fluvialis]	--	--
RT3325	Clupea harengus	--	Alosa alosa	--	--	--	--

RT33	Taxon	LB1402a	LB1402c	LB1404a	LB1406a	LB1408a	LB1408c
RT3301	Platichthys flesus	--	Pleuronectes platessa	--	Pleuronectes platessa	--	--
RT3302	Perca fluviatilis	[Pecra] [fluvuatiis]	[Pecra] [fluvuatiis]	--	--	--	--
RT3303	Ammodytes tobianus	--	--	--	--	--	- marinus
RT3304	Sprattus sprattus	--	--	--	--	--	--
RT3305	Gasterosteus aculeatus	--	--	--	--	--	--
RT3306	Limanda limanda	--	--	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--	--	--
RT3308	Microstomus kitt	--	--	--	Glyptocephalus cynoglossus	--	--
RT3309	Engraulis encrasicolus	--	--	--	--	--	[Engraulies] -
RT3310	Solea solea	--	--	- lascaris	--	Buglossidium luteum	--
RT3311	Merlangius merlangus	[Merlingius] -	[Merlingius] -	--	--	[Merlangus] -	--
RT3312	Abramis brama	Blicca bjoerkna	--	--	Scardinius erythrophthalmus	Blicca bjoerkna	--
RT3313	Trisopterus luscus	--	--	--	--	--	--
RT3314	Microchirus variegatus	--	Buglossidium luteum	--	--	--	[Microchims] -
RT3315	Platichthys flesus	--	--	--	[Platichtlys] -	--	[Platichtyths] -
RT3316	Rutilus rutilus	Clupea harengus	--	Scardinus erythrophthalmus	--	Leuciscus leuciscus	Leuciscus cephalus
RT3317	Pleuronectes platessa	--	--	--	--	--	--
RT3318	Rutilus rutilus	--	--	--	--	[Rotilus] [rotilus]	Scardinius erythrophthalmus
RT3319	Gobius niger	--	--	--	- forsteri	--	--
RT3320	Sardina pilchardus	Alosa alosa	Alosa fallax	--	--	--	Alosa alosa
RT3321	Trisopterus minutus	--	--	--	--	- [minutes]	--
RT3322	Pomatoschistus microps	[Gobius] minutus	--	- minutus	--	- minutus	- minutus
RT3323	Osmerus eperlanus	--	--	--	--	--	--
RT3324	Lampetra fluviatilis	[Lamptera] [fluvatiis]	[Lamptera] [fluvatiis]	--	--	--	--
RT3325	Clupea harengus	--	--	--	--	--	--

Table 2. The identification of fauna made by participating laboratories for RT33 (arranged by participant). Names are given only where different from the AQC identification.

RT33	Taxon	LB1408d	LB1408f	LB1408h	LB1408j	LB1408i
RT3301	Platichthys flesus	--	Glyptocephalus cynoglossus	--	Hippoglossoides platessoides	--
RT3302	Perca fluviatilis	--	--	--	--	--
RT3303	Ammodytes tobianus	- marinus	Hyperlopus lanceolatus	--	--	--
RT3304	Sprattus sprattus	--	--	--	--	--
RT3305	Gasterosteus aculeatus	--	--	--	--	--
RT3306	Limanda limanda	--	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--	--
RT3308	Microstomus kitt	--	--	--	Hippoglossoides platessoides	--
RT3309	Engraulis encrasicolus	--	--	--	--	--
RT3310	Solea solea	--	Buglossidium luteum	Buglossidium luteum	--	--
RT3311	Merlangius merlangus	[Merlangus] -	--	- [inerlangus]	[Merlangus] -	--
RT3312	Abramis brama	--	--	--	--	--
RT3313	Trisopterus luscus	[Trisopterus] -	--	--	- esmarkii	--
RT3314	Microchirus variegatus	--	Pegusa lascaris	--	--	Solea solea
RT3315	Platichthys flesus	--	--	--	--	--
RT3316	Rutilus rutilus	Leuciscus cephalus	Scardinius erythrophthalmus	Leuciscus leuciscus	Leuciscus leuciscus	Leuciscus leuciscus
RT3317	Pleuronectes platessa	--	--	--	Platichthys flesus	--
RT3318	Rutilus rutilus	Scardinius erythrophthalmus	--	--	Abramis bjoerkna	--
RT3319	Gobius niger	--	Pomatoschistus microps	--	--	--
RT3320	Sardina pilchardus	Alosa alosa	--	--	--	Alosa fallax
RT3321	Trisopterus minutus	--	--	--	--	--
RT3322	Pomatoschistus microps	- minutus	- minutus	--	--	--
RT3323	Osmerus eperlanus	--	--	--	--	--
RT3324	Lampetra fluviatilis	--	--	--	--	--
RT3325	Clupea harengus	--	--	--	--	--

RT33	Taxon	LB1408e	LB1408g	LB1408i	LB1408k	LB1410a
RT3301	Platichthys flesus	Hippoglossoides platessoides	--	--	Pleuronectes platessa	--
RT3302	Perca fluviatilis	--	--	--	--	Sciaena umbra
RT3303	Ammodytes tobianus	--	--	--	Hyperoplus lanceolatus	--
RT3304	Sprattus sprattus	--	--	[Spratus] [spratus]	--	--
RT3305	Gasterosteus aculeatus	- [aculeatus aculeatus]	--	--	--	--
RT3306	Limanda limanda	--	Glyptocephalus cynoglossus	--	--	--
RT3307	Trachurus trachurus	--	--	--	--	--
RT3308	Microstomus kitt	Hippoglossoides platessoides	Limanda limanda	Hippoglossoides platessoides	--	Arnoglossus laterna
RT3309	Engraulis encrasicolus	--	--	--	--	--
RT3310	Solea solea	--	--	Buglossidium luteum	Buglossidium luteum	--
RT3311	Merlangius merlangus	--	--	--	--	--
RT3312	Abramis brama	--	Blicca bjoerkna	--	--	Blicca bjoerkna
RT3313	Trisopterus luscus	- esmarkii	--	[Tresopterus] esmarkii	--	--
RT3314	Microchirus variegatus	--	Buglossidium luteum	--	Solea solea	--
RT3315	Platichthys flesus	[Platichthys] -	--	--	--	--
RT3316	Rutilus rutilus	Leuciscus leuciscus	Leuciscus leuciscus	Leuciscus leuciscus	Leuciscus leuciscus	--
RT3317	Pleuronectes platessa	Platichthys flesus	[Pleuronectes] -	--	--	--
RT3318	Rutilus rutilus	Abramis bjoerkna	--	Abramis bjoerkna	Scardinius erythrophthalmus	--
RT3319	Gobius niger	--	--	--	Pomatoschistus pictus	--
RT3320	Sardina pilchardus	--	--	- [pilcharchus]	--	Alosa fallax
RT3321	Trisopterus minutus	--	--	--	--	--
RT3322	Pomatoschistus microps	[Pomatichistis] -	--	--	- minutus	--
RT3323	Osmerus eperlanus	--	--	--	--	--
RT3324	Lampetra fluviatilis	--	--	--	--	--
RT3325	Clupea harengus	--	--	--	--	--

Table 2. The identification of fauna made by participating laboratories for RT33 (arranged by participant). Names are given only where different from the AQC identification.

RT33	Taxon	LB1412a	LB1412c	LB1416a	LB1417b	LB1417d	LB1420b
RT3301	Platichthys flesus	--	Limanda limanda	Hippoglossoides platessoides	--	--	Platichthys (Pleuronectes) platessa
RT3302	Perca fluviatilis	--	--	--	--	--	--
RT3303	Ammodytes tobianus	Hyperoplus lanceolatus	--	--	--	--	--
RT3304	Sprattus sprattus	--	--	--	--	--	--
RT3305	Gasterosteus aculeatus	--	--	--	--	--	--
RT3306	Limanda limanda	--	Arnoglossus laterna	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--	--	--
RT3308	Microstomus kitt	--	--	Glyptocephalus cynoglossus	--	--	--
RT3309	Engraulis encrasicolus	--	--	--	--	--	- [engrasicolus]
RT3310	Solea solea	--	Buglossidium luteum	Buglossidium luteum	--	--	Buglossidium luteum
RT3311	Merlangius merlangus	--	--	[Merlangius] -	[Merlangius] -	--	- [merlangius]
RT3312	Abramis brama	Blicca bjoerkna	--	--	--	--	--
RT3313	Trisopterus luscus	--	- minutus	- [lucus]	--	--	--
RT3314	Microchirus variegatus	--	Solea solea	--	--	Buglossidium luteum	Solea solea
RT3315	Platichthys flesus	--	--	--	--	[Platichthys] -	--
RT3316	Rutilus rutilus	Leuciscus leuciscus	--	--	--	--	--
RT3317	Pleuronectes platessa	--	--	--	--	--	[Platichthys] -
RT3318	Rutilus rutilus	--	Scardinius erythrophthalmus	--	--	--	--
RT3319	Gobius niger	--	--	- paganelus	- forsteri	--	Thorogobius ephippiatus
RT3320	Sardina pilchardus	--	--	Alosa fallax	--	Alosa fallax	--
RT3321	Trisopterus minutus	--	- esmarkii	--	--	--	--
RT3322	Pomatoschistus microps	- pictus	--	--	--	--	--
RT3323	Osmerus eperlanus	--	--	--	--	--	--
RT3324	Lampetra fluviatilis	--	--	--	--	--	--
RT3325	Clupea harengus	--	--	--	--	--	--

RT33	Taxon	LB1412b	LB1413a	LB1417a	LB1417c	LB1420a	LB1420c
RT3301	Platichthys flesus	--	--	[Platichthys] -	--	Pleuronectes platessa	--
RT3302	Perca fluviatilis	--	--	--	--	--	--
RT3303	Ammodytes tobianus	--	Hyperoplus immaculatus	--	--	--	--
RT3304	Sprattus sprattus	- [sprattus sprattus]	--	--	--	Alosa fallax	--
RT3305	Gasterosteus aculeatus	- [aculeatus aculeatus]	[Gasterostus] -	--	--	--	--
RT3306	Limanda limanda	--	Microstomus kitt	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--	Pollachius pollachius	--
RT3308	Microstomus kitt	--	Glyptocephalus cynoglossus	--	--	--	[Microstomus] -
RT3309	Engraulis encrasicolus	--	--	[Engraulis] -	--	--	--
RT3310	Solea solea	--	--	--	--	--	Pegusa lascaris
RT3311	Merlangius merlangus	--	--	- [merlangius]	[Merlangius] -	--	--
RT3312	Abramis brama	Blicca bjoerkna	--	--	--	--	Blicca bjoerkna
RT3313	Trisopterus luscus	--	--	--	--	--	--
RT3314	Microchirus variegatus	Buglossidium luteum	--	- [variegatus]	--	Solea lascaris	--
RT3315	Platichthys flesus	Pleuronectes platessa	--	[Platichthys] -	--	--	--
RT3316	Rutilus rutilus	Leuciscus leuciscus	--	--	--	Leuciscus leuciscus	Leuciscus leuciscus
RT3317	Pleuronectes platessa	--	--	--	--	--	--
RT3318	Rutilus rutilus	--	Scardinius erythrophthalmus	--	--	--	--
RT3319	Gobius niger	Pomatoschistus microps	Pomatoschistus pictus	- forsteri	- forsteri	Pomatoschistus pictus	- gasteveni
RT3320	Sardina pilchardus	--	Clupea harengus	--	--	--	--
RT3321	Trisopterus minutus	--	--	--	--	--	--
RT3322	Pomatoschistus microps	- minutus	--	[Potomaschistus] -	--	- minutus	- minutus
RT3323	Osmerus eperlanus	--	--	--	--	Argentina sphyraena	--
RT3324	Lampetra fluviatilis	Petromyzon marinus	--	--	--	- planeri	--
RT3325	Clupea harengus	- [harengus harengus]	Alosa fallax	--	--	--	--

Table 2. The identification of fauna made by participating laboratories for RT33 (arranged by participant). Names are given only where different from the AQC identification.

RT33	Taxon	LB1420d	LB1420f	LB1424b	LB1424d
RT3301	Platichthys flesus	Pleuronectes platessa	Pleuronectes platessa	Limanda limanda	--
RT3302	Perca fluviatilis	--	--	- [fluviatilis]	- [fluviatilis]
RT3303	Ammodytes tobianus	--	--	--	--
RT3304	Sprattus sprattus	--	--	--	Leuciscus leuciscus
RT3305	Gasterosteus aculeatus	--	--	[Gasterosteus] -	[Gasterosteus] -
RT3306	Limanda limanda	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--
RT3308	Microstomus kitt	--	--	[Microtomus] -	--
RT3309	Engraulis encrasicolus	--	--	--	--
RT3310	Solea solea	--	--	--	--
RT3311	Merlangius merlangus	--	--	--	--
RT3312	Abramis brama	Blicca bjoerkna	--	--	Scardinius erythrophthalmus
RT3313	Trisopterus luscus	--	--	[Trisoptera] -	[Trisoptera] -
RT3314	Microchirus variegatus	Solea solea	Buglossidium luteum	Buglossidium luteum	Buglossidium luteum
RT3315	Platichthys flesus	[Pleuronectes] -	[Pleuronectes] -	Pleuronectes platessa	--
RT3316	Rutilus rutilus	Leuciscus leuciscus	--	Leuciscus leuciscus	Alburnus alburnus
RT3317	Pleuronectes platessa	--	--	Pleuronectes (Platichthys) flesus	Pleuronectes (Platichthys) flesus
RT3318	Rutilus rutilus	--	--	--	Blicca bjoerkna
RT3319	Gobius niger	- paganellus	Pomatoschistus minutus	--	--
RT3320	Sardina pilchardus	Alosa fallax	--	--	--
RT3321	Trisopterus minutus	Merlangius merlangus	--	- [nuriutus]	- [nuriutus]
RT3322	Pomatoschistus microps	- minutus	--	[Pomatosluistus] minutus	[Pomatosluistus] minutus
RT3323	Osmerus eperlanus	--	--	--	--
RT3324	Lampetra fluviatilis	--	--	--	Pteromyzon marinus
RT3325	Clupea harengus	- [harangus]	- [harangus]	--	--

RT33	Taxon	LB1420e	LB1424a	LB1424c	LB1424e
RT3301	Platichthys flesus	Pleuronectes platessa	--	--	--
RT3302	Perca fluviatilis	--	- [fluviatilis]	- [fluviatilis]	- [fluviatilis]
RT3303	Ammodytes tobianus	--	--	--	Hyperoplus lanceolatus
RT3304	Sprattus sprattus	--	--	--	Clupea harengus
RT3305	Gasterosteus aculeatus	--	[Gasterosteus] -	[Gasterosteus] -	[Gasterosteus] -
RT3306	Limanda limanda	--	--	--	--
RT3307	Trachurus trachurus	--	--	--	--
RT3308	Microstomus kitt	Arnoglossus laterna	[Microtomus] -	Platichthys flesus	Hippoglossoides platessoides
RT3309	Engraulis encrasicolus	--	--	--	--
RT3310	Solea solea	Buglossidium luteum	--	--	Buglossidium luteum
RT3311	Merlangius merlangus	--	--	--	--
RT3312	Abramis brama	--	--	--	--
RT3313	Trisopterus luscus	--	[Trisoptera] -	[Trisoptera] -	[Trisoptera] -
RT3314	Microchirus variegatus	Buglossidium luteum	Solea solea	--	--
RT3315	Platichthys flesus	[Pleuronectes] -	--	Pleuronectes platessa	Hippoglossoides hippoglossus
RT3316	Rutilus rutilus	--	Leuciscus leuciscus	Leuciscus leuciscus	Sprattus sprattus
RT3317	Pleuronectes platessa	--	--	Pleuronectes (Platichthys) flesus	Pleuronectes (Platichthys) flesus
RT3318	Rutilus rutilus	--	--	--	Scardinius erythrophthalmus
RT3319	Gobius niger	Pomatoschistus microps	--	Cottus gobio	[Gobius cobitis] cobitis
RT3320	Sardina pilchardus	Clupea harengus	--	--	Alosa fallax fallax
RT3321	Trisopterus minutus	--	- [nuriutus]	- [nuriutus]	- [nuriutus]
RT3322	Pomatoschistus microps	- minutus	- minutus	[Pomatosluistus] minutus	Echiichthys vipera
RT3323	Osmerus eperlanus	--	--	--	--
RT3324	Lampetra fluviatilis	--	--	Pteromyzon marinus	- [fluviatilis]
RT3325	Clupea harengus	- [harangus]	--	--	Alosa alosa

Table 2. The identification of fauna made by participating laboratories for RT33 (arranged by participant). Names are given only where different from the AQC identification.

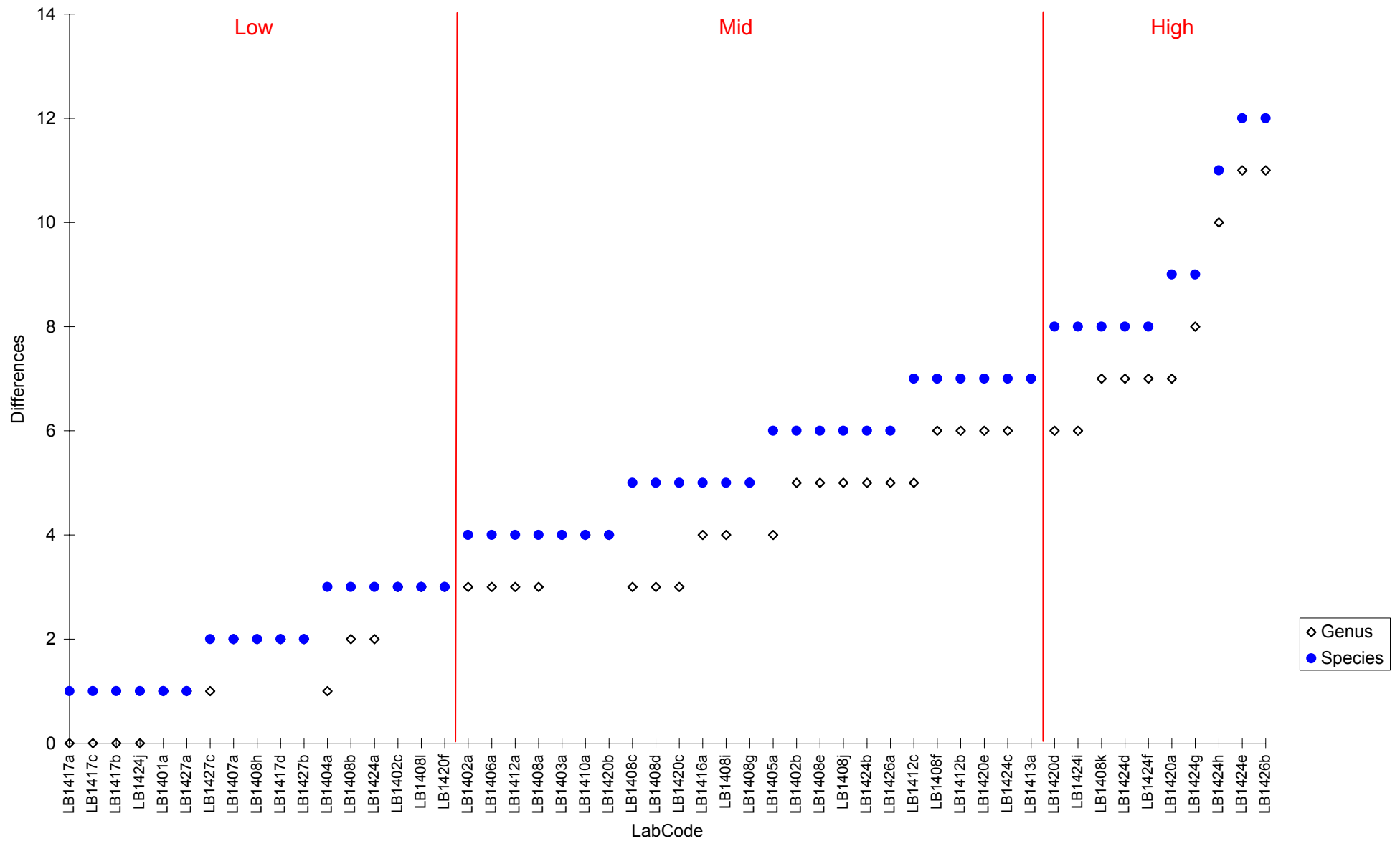
RT33	Taxon	LB1424f	LB1424h	LB1424j	LB1426b	LB1427b
RT3301	Platichthys flesus	Limanda limanda	--	--	Pleuronectes platessa	--
RT3302	Perca fluviatilis	- [fluviatilis]	- [fluviatilis]	- [fluviatilis]	--	--
RT3303	Ammodytes tobianus	--	--	--	--	Hyperoplus immaculatus
RT3304	Sprattus sprattus	--	--	--	--	--
RT3305	Gasterosteus aculeatus	[Gasterostreus] -	[Gasterostreus] -	[Gasterostreus] -	--	--
RT3306	Limanda limanda	Platichthys flesus	Platichthys flesus	--	Glyptocephalus cynoglossus	--
RT3307	Trachurus trachurus	--	--	--	--	--
RT3308	Microstomus kitt	[Microtomus] -	--	[Microtomus] -	--	--
RT3309	Engraulis encrasicolus	--	--	--	?Capelin ?	--
RT3310	Solea solea	--	Buglossidium luteum	--	Lepidorhombus whiffiagonis	--
RT3311	Merlangius merlangus	--	--	--	--	--
RT3312	Abramis brama	--	--	--	Spondylisoma cantharus	--
RT3313	Trisopterus luscus	[Trisoptera] -	[Trisoptera] -	[Trisoptera] -	--	--
RT3314	Microchirus variegatus	--	Solea solea	--	Buglossidium luteum	[Microchirus] -
RT3315	Platichthys flesus	--	--	--	--	Hippoglossoides platessoides
RT3316	Rutilus rutilus	Leuciscus leuciscus	--	--	Leuciscus leuciscus	--
RT3317	Pleuronectes platessa	Pleuronectes (Platichthys) flesus	Pleuronectes (Platichthys) flesus	--	Limanda limanda	--
RT3318	Rutilus rutilus	--	Leuciscus leuciscus	--	--	--
RT3319	Gobius niger	--	Pomatoschistus microps	--	Blenny ?	--
RT3320	Sardina pilchardus	Clupea harengus	Clupea harengus	--	--	--
RT3321	Trisopterus minutus	- [nuriutus]	Pollachius virens	- [nuriutus]	Gadus morhua	--
RT3322	Pomatoschistus microps	[Pomatosluistus] minutus	[Pomatosluistus] minutus	- minutus	- minutus	--
RT3323	Osmerus eperlanus	--	--	--	Argentina silus	--
RT3324	Lampetra fluviatilis	Petromyzon marinus	Petromyzon marinus	--	--	--
RT3325	Clupea harengus	Alosa fallax	Sardinia pilchardus	--	--	- [harengus]

RT33	Taxon	LB1424g	LB1424i	LB1426a	LB1427a	LB1427c
RT3301	Platichthys flesus	Pleuronectes platessa	--	Glyptocephalus cynoglossus	[Pleuronectes] -	--
RT3302	Perca fluviatilis	- [fluviatilis]	- [fluviatilis]	--	--	--
RT3303	Ammodytes tobianus	--	--	--	--	- [gobianus]
RT3304	Sprattus sprattus	--	--	--	--	--
RT3305	Gasterosteus aculeatus	[Gasterostreus] -	[Gasterostreus] -	--	--	--
RT3306	Limanda limanda	--	--	--	--	[Limanela] [limanela]
RT3307	Trachurus trachurus	--	--	--	--	--
RT3308	Microstomus kitt	Limanda limanda	--	--	--	--
RT3309	Engraulis encrasicolus	--	--	--	--	[Engraulis] -
RT3310	Solea solea	--	Buglossidium luteum	Buglossidium luteum	--	--
RT3311	Merlangius merlangus	--	--	--	--	--
RT3312	Abramis brama	Blicca bloerkna	Blicca bloerkna	--	--	--
RT3313	Trisopterus luscus	[Trisoptera] -	[Trisoptera] -	--	--	--
RT3314	Microchirus variegatus	--	Buglossidium luteum	Pegusa lascaris	Buglossidium luteum	Solea solea
RT3315	Platichthys flesus	--	--	--	[Pleuronectes] -	--
RT3316	Rutilus rutilus	Leuciscus leuciscus	Abramis sp.	Leuciscus idus	--	[Rutilus x Abramis] [rutilus x brama]
RT3317	Pleuronectes platessa	Pleuronectes (Platichthys) flesus	Pleuronectes (Platichthys) flesus	--	--	--
RT3318	Rutilus rutilus	--	--	--	--	--
RT3319	Gobius niger	Pomatoschistus microps	- couchi	Pomatoschistus microps	--	--
RT3320	Sardina pilchardus	--	Clupea harengus	--	--	--
RT3321	Trisopterus minutus	Melanogrammus aeglefinus	--	--	--	--
RT3322	Pomatoschistus microps	[Pomatosluistus] minutus	[Pomatosluistus] minutus	- minutus	--	- minutus
RT3323	Osmerus eperlanus	--	--	--	--	--
RT3324	Lampetra fluviatilis	Petromyzon marinus	- [fluviatilis]	--	--	[Campetra] -
RT3325	Clupea harengus	--	--	--	--	--

Table 3. Literature and resources cited by participating laboratories for RT33.

LabCode	Literature / Resource (typographic and spelling errors corrected)
LB1401a	Whitehead et al 1986; Wheeler et at 1998
LB1402a	-
LB1402b	-
LB1402c	-
LB1403a	-
LB1404a	Whitehead et al 1986; Wheeler 1969
LB1405a	Wheeler 1969; UNESCO vols
LB1406a	Wheeler
LB1407a	Wheeler 1969; Haywood & Ryland 1990
LB1408a	Wheeler; FBA guide
LB1408b	Wheeler 1978; Haywood & Ryland 1990; FBA key
LB1408c	-
LB1408d	-
LB1408e	Wheeler 1978, 1992; Davies et al 2004; Haywood & Ryland 2002
LB1408f	Wheeler 1997
LB1408g	Haywood & Ryland
LB1408h	-
LB1408i	Wheeler
LB1408j	-
LB1408k	Wheeler 1978
LB1408l	-
LB1410a	Whitehead et al 1989; Bristow et al 1987
LB1412a	Wheeler 1978, 1983, 1997; Haywood & Ryland 1995; Dipper 1987; Miller & Loates 1997
LB1412b	Fishbase.org
LB1412c	-
LB1413a	-
LB1416a	UNESCO
LB1417a	Wheeler 1968
LB1417b	-
LB1417c	-
LB1417d	Wheeler 1976; Phillips & Rix 1995
LB1420a	Haywood 1990; Wheeler 1998
LB1420b	Haywood & Ryland 1995
LB1420c	Wheeler 1978
LB1420d	Wheeler; Haywood & Ryland
LB1420e	Haywood & Ryland 1990; Wheeler 1994, 1998
LB1420f	Haywood & Ryland; Wheeler 1994, 1998; Haywood & Russel
LB1424a	-
LB1424b	-
LB1424c	-
LB1424d	-
LB1424e	-
LB1424f	-
LB1424g	-
LB1424h	-
LB1424i	-
LB1424j	-
LB1426a	Wheeler 1997
LB1426b	-
LB1427a	Wheeler 1978; Maitland 1977
LB1427b	Wheeler 1978; Maitland & Campbell 1992; fishbase.org
LB1427c	-

Figure 1. The number of differences from the AQC identification of specimens distributed in RT33 for each of the participating laboratories. Arranged in order of increasing number of differences.



Specimen Images and Detailed Breakdown of Identifications

The common names provided include that stated in FishBase (<http://www.fishbase.org/search.php>) first followed by other commonly used names, where appropriate. 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 Unicomarine Ltd.

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

RT3301 – *Platichthys flesus* (Flounder) (Figure 1a)



Figure 1a (RT3301) - L (right - eyed side)

Substratum: Mud / Sand. Salinity: Reduced. Depth: Infralittoral. Geography: France. Condition: Good, Length 3-5cm.

Twenty generic and twenty specific differences: Labs 02c, 03a, 05a, 06a, 08k, 20a, 20b, 20d, 20e, 20f, 24g and 26b identified as *Pleuronectes platessa* (which lacks short spines between the fin ray bases of the dorsal and anal fins, see Figure 17a); Labs 08e, 08j and 16a identified as *Hippoglossoides platessoides* (which has a mouth that extends posteriorly beyond the centre of the eyes and has a more slender body outline); Labs 12c, 24b, and 24f identified as *Limanda limanda* (which has toothed scales on the eyed side and a strong 'D-shaped' curve in the lateral line above the pectoral fin, see Figure 06a); Labs 08f, and 26a identified as *Glyptocephalus cynoglossus* (which has a slender body outline, a relatively small head and straight lateral line).

Lab 27a recorded the synonym *Pleuronectes flesus*. Lab 17a incorrectly spelt the genus. Lab 01a incorrectly spelt the species.

RT3302 – *Perca fluviatilis* (European Perch, Perch) (Figure 2a)



Figure 2a (RT3302) - L

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: Ireland. Condition: Good, Length 13-18cm.

One generic and one specific difference: Lab 10a identified as *Sciaena umbra* (which is a Mediterranean species that has a significantly longer dorsal 2nd fin base compared to the anal fin base).

Labs 02a, 02b and 02c incorrectly spelt the genus. Labs 02a, 02b, 02c, 24a, 24b, 24c, 24d, 24e, 24f, 24g, 24h, 24i and 24j incorrectly spelt the species.

RT3303 – *Ammodytes tobianus* (Small Sand-eel, Lesser Sand-eel) (Figure 3a)



Figure 3a (RT3303) - L

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Good, Length 13-15cm.

Seven generic and nine specific differences: Labs 08f, 08k 12a and 24e identified as *Hyperoplus lanceolatus*; Labs 02b, 13a and 27b identified as *Hyperoplus immaculatus* (both of which have a hinged upper jaw that does not extend forwards); Labs 08c and 08d identified as *Ammodytes marinus* (which lacks scales at the base of each caudal lobe).

Lab 27c incorrectly spelt the species.

RT3304 – *Sprattus sprattus* (European Sprat, Sprat) (Figure 4a)



Figure 4a (RT3304) - L

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. E. England. Condition: Good, Length 12-14cm.

Three generic and three specific differences: Lab 20a identified as *Alosa fallax* (which has conspicuous radiating ridges on the gill covers and has the dorsal fin originating in front of the pelvic fin base); Lab 24d identified as *Leuciscus leuciscus* (which is not tolerant of fully marine conditions and lacks a distinct line of spiny scales along the ventral apex); Lab 24e identified as *Clupea harengus* (which lacks a distinct line of spiny scales along the ventral apex and has the dorsal fin originating in front of the pelvic fin base, see Figure 25a).

Lab 08i incorrectly spelt the genus and species.

RT3305 – *Gasterosteus aculeatus* (Three Spined Stickleback, Tiddler) (Figure 5a)

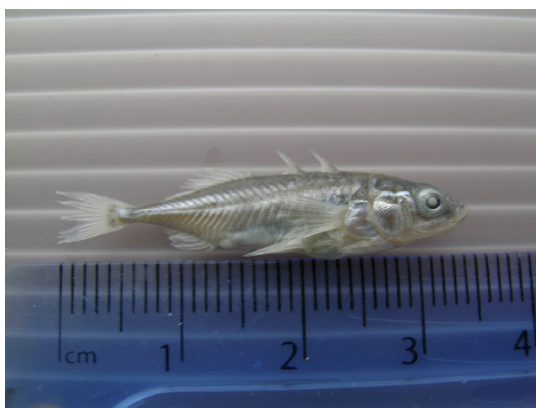


Figure 5a (RT3305) - L

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: France. Condition: Good, Length 2.5-3.5cm.

No differences recorded.

Labs 13a, 24a, 24b, 24c, 24d, 24e, 24f, 24g, 24h, 24i and 24j incorrectly spelt the genus.

RT3306 – *Limanda limanda* (Dab) (Figure 6a)

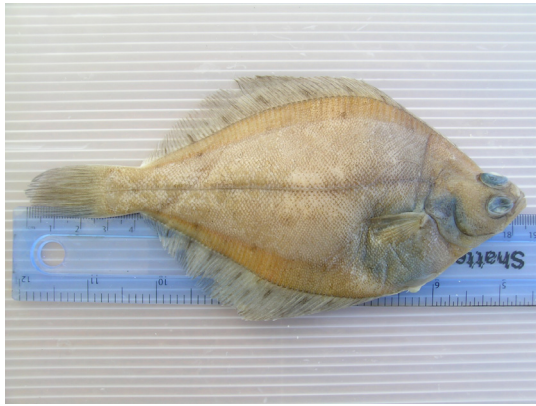


Figure 6a (RT3306) – L (right – eyed side)

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Poor/Fair, Length 17-22cm.

Seven generic and seven specific differences: Labs 08g and 26b identified as *Glyptocephalus cynoglossus* (which has a more slender body outline and a straight lateral line); Labs 24f and 24h identified as *Platichthys flesus* (which lacks toothed scales on the eyed surface and has a weaker curve in the lateral line, see Figures 01a and 15a); Lab 05a identified as *Hippoglossoides platessoides* (which lacks a very strongly curving lateral line above the pectoral fin and has a mouth that extends level to the mid-point of the eye); Lab 13a identified as *Microstomus kitt* (which has a relatively smaller head and a small mouth that only just reaches the level of the eyes, see Figure 08a); Lab 12c identified as *Arnoglossus laterna* (which is a left eyed flat fish).

Lab 27c incorrectly spelt the genus and species.

RT3307 – *Trachurus trachurus* (Atlantic Horse Mackerel, Scad) (Figure 7a)



Figure 7a (RT3307) - L

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair/Good, Length 13-17cm.

One generic and one specific difference: Lab 20a identified as *Pollachius pollachius* (which lacks a complete row of large, bony scutes along the lateral line).

RT3308 – *Microstomus kitt* (Lemon Sole) (Figure 8a)



Figure 8a (RT3308) – L (right - eyed side)

Substratum: Sand. Salinity: Full. Depth: Ciralittoral. Geography: S. W. England. Condition: Good, Length 22-24cm.

Twelve generic and twelve specific differences: Labs 08e, 08i, 08j and 24e identified as *Hippoglossoides platessoides* (which has a mouth that extends posteriorly beyond the centre of the eyes and has a more slender body outline); Labs 06a, 13a and 16a identified as *Glyptocephalus cynoglossus* (which has a more slender body outline and a straight lateral line); Labs 08g and 24g identified as *Limanda limanda* (which has a larger head and a larger mouth that reaches beyond the level of the eyes, see Figure 06a); Lab 24c identified as *Platichthys flesus* (which has a much larger head and short spines between the fin ray bases of the dorsal and anal fins, see Figures 01a and 15a); Labs 10a and 20e identified as *Arnoglossus laterna* (which is a left eyed flat fish).

Labs 05a, 08b, 20c, 24a, 24b, 24f and 24j incorrectly spelt the genus.

RT3309 – *Engraulis encrasicolus* (European Anchovy, Anchovy) (Figure 9a)



Figure 9a (RT3309) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Poor, Length 11-18cm.

One generic and one specific difference: Lab 26b identified as ?Capelin (which lacks a protruding upper snout; identification to species using scientific nomenclature with a specified confidence level is required for this exercise).

Labs 02b, 08c, 17a and 27c incorrectly spelt the genus. Lab 20b incorrectly spelt the species.

RT3310 – *Solea solea* (Common Sole, Dover Sole) (Figure 10a)



Figure 10a (RT3310) – L (right – eyed side)

Substratum: Muddy Sand. Salinity: High. Depth: Infralittoral. Geography: France. Condition: Good, Length 3.5-6cm.

Seventeen generic and nineteen specific differences: Labs 07a, 08a, 08b, 08f, 08h, 08i, 08k, 12c, 16a, 20b, 20e, 24e, 24h, 24i and 26a identified as *Buglossidium luteum* (which lacks well developed pectoral fins on both sides and has dark fin rays at regular intervals along the anal and dorsal fins); Labs 04a and 20c identified as *Pegusa lascaris* or the synonym *Solea lascaris* (which has a conspicuous rosette-like nostril on the blind side equal in size to the eye diameter); Lab 05a identified as *Solea senegalensis* (which is a Mediterranean and West African species which has an entirely black pectoral fin on the eyed side); Lab 26b identified as *Lepidorhombus whiffiagonis* (which is a left eyed flat fish with a terminal mouth).

RT3311 – *Merlangius merlangus* (Whiting) (Figure 11a)



Figure 11a (RT3311) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Good, Length 23-26cm.

No differences recorded.

Labs 02a, 02c, 05a, 08a, 08d, 08j, 16a, 17b and 17c incorrectly spelt the genus. Labs 08h, 17a and 20b incorrectly spelt the species.

RT3312 – *Abramis brama* (Common Bream, Bronze Bream) (Figure 12a)



Figure 12a (RT3312) - D

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: Ireland. Condition: Good, Length 17-21cm.

Fifteen generic and fifteen specific differences: Labs 02a, 02b, 03a, 08a, 08g, 10a, 12a, 12b, 20c, 20d, 24g and 24i identified as *Blicca bjoerkna* (which has an anal fin with fewer fin rays that is positioned level with the last dorsal fin ray, a less deep body form and lacks a single series of five pharyngeal teeth (dissection required for examination of pharyngeal teeth)); Labs 06a and 24d identified as *Scardinius erythrophthalmus* (which has just 10-11 anal fin rays); Lab 26b identified as *Spondyliosoma cantharus* (which is a fully marine species, which has a much longer dorsal fin base).

RT3313 – *Trisopterus luscus* (Pouting, Bib, Pout) (Figure 13a)



Figure 13a (RT3313) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair/Good, Length 21-35cm.

One generic and five specific differences: Labs 08e, 08i and 08j identified as *Trisopterus esmarkii*; Lab 12c identified as *Trisopterus minutus* (both of which have bodies that are not significantly deeper than the head lengths, anal fins that originate approximately level with the interspace between the dorsal fins and have barbels which are shorter than the eye diameter, see Figure 21a for *T. minutus*); Lab 02b identified as *Phycis blennoides* (which lacks pigmentation at the base of the pectoral fin and has fewer dorsal and anal fins).

Labs 08d, 08i, 24a, 24b, 24c, 24d, 24e, 24f, 24g, 24h, 24i and 24j incorrectly spelt the genus. Lab 16a incorrectly spelt the species.

RT3314 – *Microchirus variegatus* (Thickback Sole) (Figure 14a)



Figure 14a (RT3314) – L (right – eyed side)

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Good, Length 11-18cm.

Twenty-two generic and twenty-two specific differences: Labs 02c, 08g, 12b, 17d, 20e, 20f, 24b, 24d, 24i, 26b and 27a identified as *Buglossidium luteum* (which has smaller eyes, lacks dark colour bands across the eyed surface and has regularly spaced dark anal and dorsal fin rays); Labs 08k, 08l, 12c, 20b, 20d, 24a, 24h and 27c identified as *Solea solea*; Labs 08f, 20a and 26a identified as *Pegusa lascaris* or the synonym *Solea lascaris* (both of which have larger pectoral fins with the blind side fin only slightly smaller, see Figure 10a for *S. solea*).

Lab 08c and 27b incorrectly spelt the genus. Lab 17a incorrectly spelt the species.

RT3315 – *Platichthys flesus* (Flounder) (Figure 15a)



Figure 15a (RT3315) – L (right – eyed side)

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair/Good, Length 13-15cm.

Five generic and five specific differences: Labs 12b, 24b and 24c identified as *Pleuronectes platessa* (which lacks short spines between the fin ray bases of the dorsal and anal fins, see Figure 17a); Lab 24e identified as *Hippoglossoides hippoglossus*; Lab 27b identified as *Hippoglossoides platessoides* (both of which have mouths that extends posteriorly beyond the centre of the eyes and have more slender body outlines).

Labs 20d, 20e, 20f and 27a recorded the synonym *Pleuronectes flesus*. Labs 06a, 08c, 08e, 17a and 17d incorrectly spelt the genus. Lab 01a incorrectly spelt the species.

RT3316 – *Rutilus rutilus* (Roach) (Figure 16a)



Figure 16a (RT3316) - L

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: Ireland. Condition: Good, Length 10-11cm. Notes: Red/orange eyes and fins.

Thirty-three generic and thirty-three specific differences: Labs 03a, 07a, 08a, 08b, 08c, 08g, 08h, 08i, 08j, 08k, 08l, 12a, 12b, 20a, 20c, 20d, 24a, 24b, 24c, 24f, 24g and 26b identified as *Leuciscus leuciscus* (which has the dorsal fin positioned more posteriorly relative to the pelvic fins, fewer dorsal and anal fin rays and lacks red/orange eyes and fins); Labs 08c and 08d identified as *Leuciscus cephalus*; Lab 26a identified as *Leuciscus idus* (both of which have the dorsal fins positioned more posteriorly relative to the pelvic fins and lack red/orange eyes and fins); Labs 02a and 02b identified as *Clupea harengus* (which is not tolerant of greatly reduced salinity, has a darker body with a shorter anal fin, see Figure 25a); Labs 04a and 08f identified as *Scardinius erythrophthalmus*; Lab 05a identified as *Blicca bjoerkna* (both of which have the dorsal fins positioned more posteriorly relative to the pelvic fins); Lab 24d identified as *Alburnus alburnus* (which has more numerous anal fin rays and the dorsal fin positioned posterior to the pelvic fins); Lab 24e identified as *Sprattus sprattus* (which is not tolerant of greatly reduced salinity and has the dorsal fin positioned posterior to the pelvic fins, see Figure 04a); Lab 24i identified as *Abramis* sp. (which has very numerous anal fin rays; identification to species with a specified confidence level is required for this exercise).

RT3317 – *Pleuronectes platessa* (European Plaice, Plaice) (Figure 17a)



Figure 17a (RT3317) – L (right – eyed side)

Substratum: Sand / Mud. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair/Good, Length 20-26cm.

Eleven generic and eleven specific differences: Labs 08e, 08j, 24b, 24c, 24d, 24e, 24f, 24g, 24h and 24i identified as *Platichthys flesus* or the synonym *Pleuronectes flesus* (which has short spines between the fin ray bases of the dorsal and anal fins, see Figures 01a and 15a); Lab 26b identified as *Limanda limanda* (which has a very strongly curving lateral line above the pectoral fin and toothed scales on the eyed surface, see Figure 06a).

Lab 08g incorrectly spelt the genus.

RT3318 – *Rutilus rutilus* (Roach) (Figure 18a)



Figure 18a (RT3318) - L

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: Ireland. Condition: Good, Length 16-20cm. Notes: Red/orange eyes and fins.

Eleven generic and eleven specific differences: Labs 08c, 08d, 08k, 12c, 13a and 24e identified as *Scardinius erythrophthalmus* (which has the origin of the dorsal fin behind the line of the pelvic fin base and a strong ventral keel from the pelvic fins to the anus); Labs 08e, 08i, 08j and 24d identified as *Blicca bjoerkna* or the synonym *Abramis bjoerkna* (which has more anal fin rays and the dorsal fin positioned behind the pelvic fins); Lab 24h identified as *Leuciscus leuciscus* (which has a less deep body and fewer dorsal and anal fin rays).

Lab 08a incorrectly spelt the genus and species.

RT3319 – *Gobius niger* (Black Goby) (Figure 19a)



Figure 19a (RT3319) - L

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 7-9cm.

Thirteen generic and twenty-two specific differences: Labs 08f, 12b, 20e, 24g, 24h and 26a identified as *Pomatoschistus microps*; Labs 08k, 13a and 20a identified as *Pomatoschistus pictus*; Lab 20f identified as *Pomatoschistus minutus* (all of which have a longer, narrower caudal peduncle and a row of complete papillae along the underside of each eye, see Figure 22a for *P. microps*); Labs 06a, 17a, 17b and 17c identified as *Gobius forsteri* (which has a characteristic black spot at the rear base of the 1st dorsal fin and a larger interspace between the dorsal fins); Labs 16a and 20d identified as *Gobius paganellus* (which has 5-7 finger-like branches on the anterior nostril, a body with 50-57 scales along the lateral line and the free upper, pectoral fin rays almost reach the dorsal fin base); Lab 20c identified as *Gobius gasteveni* (which has free upper, pectoral fin rays that almost reach the dorsal fin base and lacks elongated anterior fin rays in the 1st dorsal fin); Lab 24e identified as *Gobius cobitis* (which has

several finger-like projections on the anterior nostril and a body with 59-67 scales along the lateral line); Lab 24i identified as *Gobius couchi* (which has a relatively large interspace between the dorsal fins and lacks elongated anterior fin rays in the 1st dorsal fin); Lab 20b identified as *Thorogobius ephippiatus* (which lacks free fin rays on the upper pectoral fins and is light in colouration with orange spots); Lab 24c identified as *Cottus gobio* (which is a freshwater species lacking pelvic fins united by a membrane); Lab 26b identified as Blenny (which lack pelvic fins united by a membrane; identification to species using scientific nomenclature with a specified confidence level is required for this exercise).

RT3320 – *Sardina pilchardus* (European Pilchard, Sardine) (Figure 20a)



Figure 20a (RT3320) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Poor, Length 18-23cm.

Eighteen generic and eighteen specific differences: Labs 02c, 03a, 05a, 08l, 10a, 16a, 17d, 20d and 24e identified as *Alosa fallax*; Labs 01a, 02a, 08c and 08d identified as *Alosa alosa* (both of which have smaller scales, stronger cleft snouts and lack longer posterior anal fin rays); Labs 13a, 20e, 24f, 24h and 24i identified as *Clupea harengus* (which is larger, lacks prominent radiating lines on the gill cover and has the origin of the dorsal fin positioned at equal distance between the mouth than the tail fin base, see Figure 25a).

Lab 08i incorrectly spelt the species.

RT3321 – *Trisopterus minutus* (Poor Cod) (Figure 21a)



Figure 21a (RT3321) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Fair/Good, Length 16-18cm.

Four generic and five specific differences: Lab 12c identified as *Trisopterus esmarkii* (which has a shorter barbel, a body depth less than the head length and a lower jaw that is longer than the upper snout); Lab 20d identified as *Merlangius merlangus* (which has a very small barbel, a much longer snout and the 1st anal fin originating underneath the centre of the 1st dorsal fin, see Figure 11a); Lab 24g identified as *Melanogrammus aeglefinus* (which has a very small barbel and a conspicuous dark pigment spot on the lateral line beneath the 1st dorsal fin); Lab 24h identified as *Pollachius virens* (which has a small barbel, relatively smaller eyes and large interspaces between fins); Lab 26b identified as *Gadus morhua* (which has a longer snout and relatively smaller eyes).

Lab 03a incorrectly spelt the genus. Labs 08a, 24a, 24b, 24c, 24d, 24e, 24f and 24j incorrectly spelt the species.

RT3322 – *Pomatoschistus microps* (Common Goby) (Figure 22a)

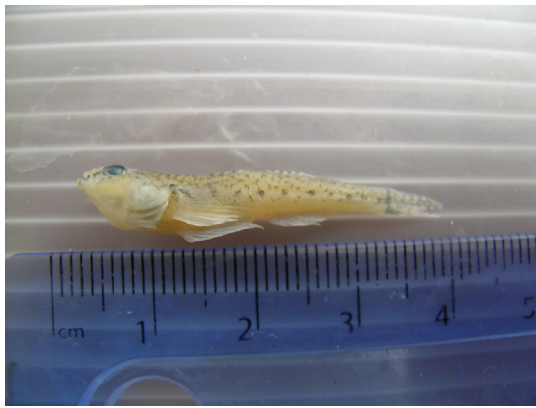


Figure 22a (RT3322) - L

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 3-4cm.

One generic and twenty-nine specific differences: Labs 02a, 02b, 04a, 05a, 08a, 08b, 08c, 08d, 08f, 08k, 12b, 20a, 20c, 20d, 20e, 24a, 24b, 24c, 24d, 24f, 24g, 24h, 24i, 24j, 26a, 26b and 27c identified as *Pomatoschistus minutus* or the synonym *Gobius minutus* (which lacks a ‘^’ shaped dark pigment pattern on the pectoral fins); Lab 12a identified as *Pomatoschistus pictus* (which has also lacks a ‘^’ shaped dark pigment pattern on the pectoral fins and has extensive dark pigment under the lower jaw and two diagonal rows of dark spots on the 1st dorsal fin); Lab 24e identified as *Echiichthys vivpera* (which lacks a frontal fold of skin across the pelvic fins and has much longer 2nd dorsal and anal fin bases).

Labs 08e, 17a, 24b, 24c, 24d, 24f, 24g, 24h and 24i incorrectly spelt the genus.

Additional Literature:
Edlund *et al.* (1980)

RT3323 – *Osmerus eperlanus* (European Smelt, Smelt) (Figure 23a)



Figure 23a (RT3323) – L

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: S. E. England. Condition: Fair/Good, Length 15-18cm.

Two generic and two specific differences: Lab 20a identified as *Argentina sphyraena*; Lab 26b identified as *Argentina silus* (both of which have larger eyes and dorsal fin bases that are anterior to the pelvic fin bases).

RT3324 – *Lampetra fluviatilis* (European River Lamprey, Lampern) (Figure 24a)



Figure 24a (RT3324) - L

Substratum: Mixed. Salinity: Reduced. Depth: Infralittoral. Geography: Ireland. Condition: Good, Length 30-38cm.

Six generic and seven specific differences: Labs 12b, 24c, 24d, 24f, 24g and 24h identified as *Petromyzon marinus* (which has more numerous teeth arranged in rows with smaller teeth in the outer region of the sucking disc); Lab 20a identified as *Lampetra planeri* (which lacks an interspace between dorsal fins).

Labs 02a, 02c and 27c incorrectly spelt the genus. Labs 02a, 02b, 02c, 05a, 24e and 24i incorrectly spelt the species.

RT3325 – *Clupea harengus* (Atlantic Herring, Herring) (Figure 25a)



Figure 25a (RT3325) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: S. E. England. Condition: Good, Length 25-30cm.

Five generic and five specific differences: Labs 02b and 24e identified as *Alosa alosa*; Lab 13a and 24f identified as *Alosa fallax* (both of which have prominent radiating lines on the gill covers); Lab 24h identified as *Sardina pilchardus* (which is smaller, has prominent radiating lines on the gill covers and has the origin of the dorsal fin closer to the mouth than the tail fin base, see Figure 20a).

Labs 12b, 20d, 20e, 20f and 27b incorrectly spelt the species.

Acknowledgements

I would like to thank Mélanie Béguer (Cemagref) for donating some excellent specimens for this ring test.

References

- Edlund, A., Sundmark, G. & Thorman, S., 1980. The identification of *Pomatoschistus pictus*, *P. microps* and *P. minutes* (Gobiidae, Pisces), *Sarsia*, **65**, 239-242.
- Hayward, P. J. & Ryland, J. S. (eds), 1990. *The marine fauna of the British Isles and North-West Europe: Volume 2: Molluscs to Chordates*. Oxford University Press, Oxford, 628-996.
- Hayward, P. J. & Ryland, J. S. (eds), 1995. *Handbook of the marine fauna of North-West Europe*. Oxford University Press, Oxford, 800pp.
- Howson, C.M. & Picton, B.E. (eds), 1997. *The species directory of the marine fauna and flora of the British Isles and surrounding seas*. Ulster Museum and The Marine Conservation Society, Belfast and Ross-on-Wye, 508p.
- Muus, B. J. & Dahlstrom, P. (1974). *Collins guide to the sea fishes of Britain and North-Western Europe*. Collins, London, 244pp.
- Wheeler, A., 1969. *The fishes of the British Isles and North West Europe*. Macmillan, London, 613pp.
- Wheeler, A., 1978. *Key to the fishes of Northern Europe*. Warne, London, 380pp.
- FishBase - <http://www.fishbase.org/search.php>
- The Aquarium Project – <http://web.ukonline.co.uk/aquarium/>

Specimen Labels

You are **not** required to return the specimens to Unicomarine Ltd. A sheet of labels is provided for incorporating these specimens into in-house reference collections.

If you have no further use for the specimens please return them to the following address:

**David Hall, Unicomarine Ltd., Head Office, 7 Diamond Centre,
Works Road, Letchworth, Hertfordshire SG6 1LW, UK**

NMBAQC Scheme <i>Platichthys flesus</i> Location: Gironde, France Gear: Agassiz Trawl FullCode #: RT33_01	NMBAQC Scheme <i>Perca fluviatilis</i> Location: Ireland Gear: Beam Trawl FullCode #: RT33_02	NMBAQC Scheme <i>Ammodytes tobianus</i> Location: Teignmouth Gear: Beam Trawl FullCode #: RT33_03	NMBAQC Scheme <i>Sprattus sprattus</i> Location: Essex Coast Gear: Beam Trawl FullCode #: RT33_04
NMBAQC Scheme <i>Gasterosteus aculeatus</i> Location: Gironde, France Gear: Push Net FullCode #: RT33_05	NMBAQC Scheme <i>Limanda limanda</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_06	NMBAQC Scheme <i>Trachurus trachurus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_07	NMBAQC Scheme <i>Microstomus kitt</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_08
NMBAQC Scheme <i>Engraulis encrasicolus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_09	NMBAQC Scheme <i>Solea solea</i> Location: Gironde, France Gear: Agassiz Trawl FullCode #: RT33_10	NMBAQC Scheme <i>Merlangius merlangus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_11	NMBAQC Scheme <i>Abramis brama</i> Location: Ireland Gear: Beam Trawl FullCode #: RT33_12
NMBAQC Scheme <i>Trisopterus luscus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_13	NMBAQC Scheme <i>Microchirus variegatus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_14	NMBAQC Scheme <i>Platichthys flesus</i> Location: Harwich Gear: Beam Trawl FullCode #: RT33_15	NMBAQC Scheme <i>Rutilus rutilus</i> Location: Ireland Gear: Beam Trawl FullCode #: RT33_16
NMBAQC Scheme <i>Pleuronectes platessa</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_17	NMBAQC Scheme <i>Rutilus rutilus</i> Location: Ireland Gear: Beam Trawl FullCode #: RT33_18	NMBAQC Scheme <i>Gobius niger</i> Location: Harwich Gear: Beam Trawl FullCode #: RT33_19	NMBAQC Scheme <i>Sardina pilchardus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_20
NMBAQC Scheme <i>Trisopterus minutus</i> Location: Plymouth Gear: Beam Trawl FullCode #: RT33_21	NMBAQC Scheme <i>Pomatoschistus microps</i> Location: Harwich Gear: Beam Trawl FullCode #: RT33_22	NMBAQC Scheme <i>Osmerus eperlanus</i> Location: Essex Coast Gear: Beam Trawl FullCode #: RT33_23	NMBAQC Scheme <i>Lampetra fluviatilis</i> Location: Ireland Gear: Beam Trawl FullCode #: RT33_24
NMBAQC Scheme <i>Clupea harengus</i> Location: Thames Gear: Beam Trawl FullCode #: RT33_25			