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Fish Ring Test Bulletin

F-RT07

2013/2014 (Year 20)

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RING TEST DETAILS

Fish Ring Test #07

Type/Contents - General

Circulated – 03/02/2014

Completion Date – 04/04/2014

Number of Participating Laboratories - 11

Number of Results Received – 13*

*Multiple data entries per laboratory permitted

Table 1. The summary of differences shown for each specimen.

Specimen	Genus	Species	Taxonomic errors for 13 returns	
			Genus	Species
FRT0701	Gobio	gobio	0	0
FRT0702	Hyperoplus	lanceolatus	1	2
FRT0703	Pollachius	pollachius	0	0
FRT0704	Salmo	trutta	0	0
FRT0705	Parupeneus	indicus	9	10
FRT0706	Spondyliosoma	cantharus	0	0
FRT0707	Trachurus	trachurus	0	0
FRT0708	Echiichthys	vipera	0	0
FRT0709	Perca	fluviatilis	0	0
FRT0710	Trisopterus	luscus	0	0
FRT0711	Scomber	scombrus	0	0
FRT0712	Ammodytes	tobianus	4	6
FRT0713	Salmo	salar	1	1
FRT0714	Anguilla	anguilla	0	0
FRT0715	Liza	ramada	0	0
		Total differences	15	19
		Average differences /lab.	1.2	1.5

Synonyms and spelling errors are not included.

Table 2. The identification of fauna made by participating laboratories for F_RT07 (arranged by specimen). Names are given only where different from the AQC identification.

	F_RT0701	F_RT0702	F_RT0703	F_RT0704	F_RT0705
Taxon	<i>Gobio gobio</i>	<i>Hyperoplus lanceolatus</i>	<i>Pollachius pollachius</i>	<i>Salmo trutta</i>	<i>Parupeneus indicus</i>
LB2006	--	--	--	--	<i>Mullus surmuletus</i>
LB2012	--	--	--	--	<i>Mullus surmuletus</i>
LB2013	--	--	--	--	--
LB2027	--	--	--	--	<i>Mullus surmuletus</i>
LB2029	--	--	--	--	<i>Mullus surmuletus</i>
LB2032	--	--	--	--	<i>Mullus surmuletus</i>
LB2043	--	--	--	--	<i>Mullus surmuletus</i>
LB2054a	--	--	--	--	--
LB2054b	--	--	--	--	<i>Parupeneus prayensis</i> *
LB2059	--	- <i>tobianus</i>	--	--	--
LB2060a	--	--	--	--	<i>Pseudupeneus prayensis</i>
LB2060b	--	--	--	--	<i>Pseudupeneus prayensis</i>
LB2068	--	<i>Hyperoplus immaculatus</i>	--	--	<i>Mullus surmuletus</i>

	F_RT0706	F_RT0707	F_RT0708	F_RT0709	F_RT0710
Taxon	<i>Spondyliosoma cantharus</i>	<i>Trachurus trachurus</i>	<i>Echiichthys vipera</i>	<i>Perca fluviatilis</i>	<i>Trisopterus luscus</i>
LB2006	--	--	--	--	--
LB2012	--	--	--	--	--
LB2013	--	--	--	--	--
LB2027	--	--	--	--	--
LB2029	--	--	--	--	--
LB2032	--	--	--	--	--
LB2043	--	--	--	--	--
LB2054a	--	--	--	--	--
LB2054b	--	--	--	--	--
LB2059	--	--	--	--	--
LB2060a	--	--	--	--	--
LB2060b	--	--	--	--	--
LB2068	--	--	--	--	--

Names in [] are not counted as an error. [] indicate a synonym or a spelling error.

* indicates a spelling error in addition to a taxonomic error.

Table 2. The identification of fauna made by participating laboratories for F_RT07 (arranged by specimen). Names are given only where different from the AQC identification.

	F_RT0711	F_RT0712	F_RT0713	F_RT0714	F_RT0715
Taxon	<i>Scomber scombrus</i>	<i>Ammodytes tobianus</i>	<i>Salmo salar</i>	<i>Anguilla anguilla</i>	<i>Liza ramada</i>
LB2006	--	--	--	--	--
LB2012	--	--	--	--	- [ramanda]
LB2013	--	--	--	--	--
LB2027	--	--	--	--	--
LB2029	--	- <i>marinus</i>	--	--	--
LB2032	--	<i>Hyperoplus lanceolatus</i>	--	--	- <i>aurata</i>
LB2043	--	- <i>sp.</i>	--	--	--
LB2054a	--	<i>Hyperoplus immaculatus</i>	--	--	--
LB2054b	--	<i>Hyperoplus immaculatus</i>	--	--	--
LB2059	--	--	--	--	--
LB2060a	--	--	--	--	--
LB2060b	--	--	--	--	--
LB2068	--	<i>Hyperoplus immaculatus</i>	<i>Coregonus lavaretus</i>	--	--

Names in [] are not counted as an error. [] indicate a synonym or a spelling error.

* indicates a spelling error in addition to a taxonomic error.

Table 3. The identification of fauna made by participating laboratories for F_RT07 (arranged by participant). Names are given only where different from AQC identification.

	Taxon	LB2006	LB2012	LB2013	LB2027
F_RT0701	<i>Gobio gobio</i>	--	--	--	--
F_RT0702	<i>Hyperoplus lanceolatus</i>	--	--	--	--
F_RT0703	<i>Pollachius pollachius</i>	--	--	--	--
F_RT0704	<i>Salmo trutta</i>	--	--	--	--
F_RT0705	<i>Parupeneus indicus</i>	<i>Mullus surmuletus</i>	<i>Mullus surmuletus</i>	--	<i>Mullus surmuletus</i>
F_RT0706	<i>SpondylIOSoma cantharus</i>	--	--	--	--
F_RT0707	<i>Trachurus trachurus</i>	--	--	--	--
F_RT0708	<i>Echiichthys vipera</i>	--	--	--	--
F_RT0709	<i>Perca fluviatilis</i>	--	--	--	--
F_RT0710	<i>Trisopterus luscus</i>	--	--	--	--
F_RT0711	<i>Scomber scombrus</i>	--	--	--	--
F_RT0712	<i>Ammodytes tobianus</i>	--	--	--	--
F_RT0713	<i>Salmo salar</i>	--	--	--	--
F_RT0714	<i>Anguilla anguilla</i>	--	--	--	--
F_RT0715	<i>Liza ramada</i>	--	- [ramanda]	--	--

	Taxon	LB2029	LB2032	LB2043	LB2054A
F_RT0701	<i>Gobio gobio</i>	--	--	--	--
F_RT0702	<i>Hyperoplus lanceolatus</i>	--	--	--	--
F_RT0703	<i>Pollachius pollachius</i>	--	--	--	--
F_RT0704	<i>Salmo trutta</i>	--	--	--	--
F_RT0705	<i>Parupeneus indicus</i>	<i>Mullus surmuletus</i>	<i>Mullus surmuletus</i>	<i>Mullus surmuletus</i>	--
F_RT0706	<i>SpondylIOSoma cantharus</i>	--	--	--	--
F_RT0707	<i>Trachurus trachurus</i>	--	--	--	--
F_RT0708	<i>Echiichthys vipera</i>	--	--	--	--
F_RT0709	<i>Perca fluviatilis</i>	--	--	--	--
F_RT0710	<i>Trisopterus luscus</i>	--	--	--	--
F_RT0711	<i>Scomber scombrus</i>	--	--	--	--
F_RT0712	<i>Ammodytes tobianus</i>	- <i>marinus</i>	<i>Hyperoplus lanceolatus</i>	- <i>sp.</i>	<i>Hyperoplus immaculatus</i>
F_RT0713	<i>Salmo salar</i>	--	--	--	--
F_RT0714	<i>Anguilla anguilla</i>	--	--	--	--
F_RT0715	<i>Liza ramada</i>	--	- <i>aurata</i>	--	--

Names in [] are not counted as an error. [] indicate a synonym or a spelling error.

* indicates a spelling error in addition to a taxonomic error.

Table 3. The identification of fauna made by participating laboratories for F_RT07 (arranged by participant). Names are given only where different from AQC identification.

	Taxon	LB2054B	LB2059	LB2060A	LB2060B	LB2068
F_RT0701	<i>Gobio gobio</i>	--	--	--	--	--
F_RT0702	<i>Hyperoplus lanceolatus</i>	--	<i>Ammodytes tobianus</i>	--	--	- <i>immaculatus</i>
F_RT0703	<i>Pollachius pollachius</i>	--	--	--	--	--
F_RT0704	<i>Salmo trutta</i>	--	--	--	--	--
F_RT0705	<i>Parupeneus indicus</i>	- <i>prayensis</i>	--	<i>Pseudupeneus prayensis</i>	<i>Pseudupeneus prayensis</i>	<i>Mullus surmuletus</i>
F_RT0706	<i>Spondyllosoma cantharus</i>	--	--	--	--	--
F_RT0707	<i>Trachurus trachurus</i>	--	--	--	--	--
F_RT0708	<i>Echiichthys vipera</i>	--	--	--	--	--
F_RT0709	<i>Perca fluviatilis</i>	--	--	--	--	--
F_RT0710	<i>Trisopterus luscus</i>	--	--	--	--	--
F_RT0711	<i>Scomber scombrus</i>	--	--	--	--	--
F_RT0712	<i>Ammodytes tobianus</i>	<i>Hyperoplus immaculatus</i>	--	--	--	<i>Hyperoplus immaculatus</i>
F_RT0713	<i>Salmo salar</i>	--	--	--	--	<i>Coregonus lavaretus</i>
F_RT0714	<i>Anguilla anguilla</i>	--	--	--	--	--
F_RT0715	<i>Liza ramada</i>	--	--	--	--	--

Names in [] are not counted as an error. [] indicate a synonym or a spelling error.

* indicates a spelling error in addition to a taxonomic error.

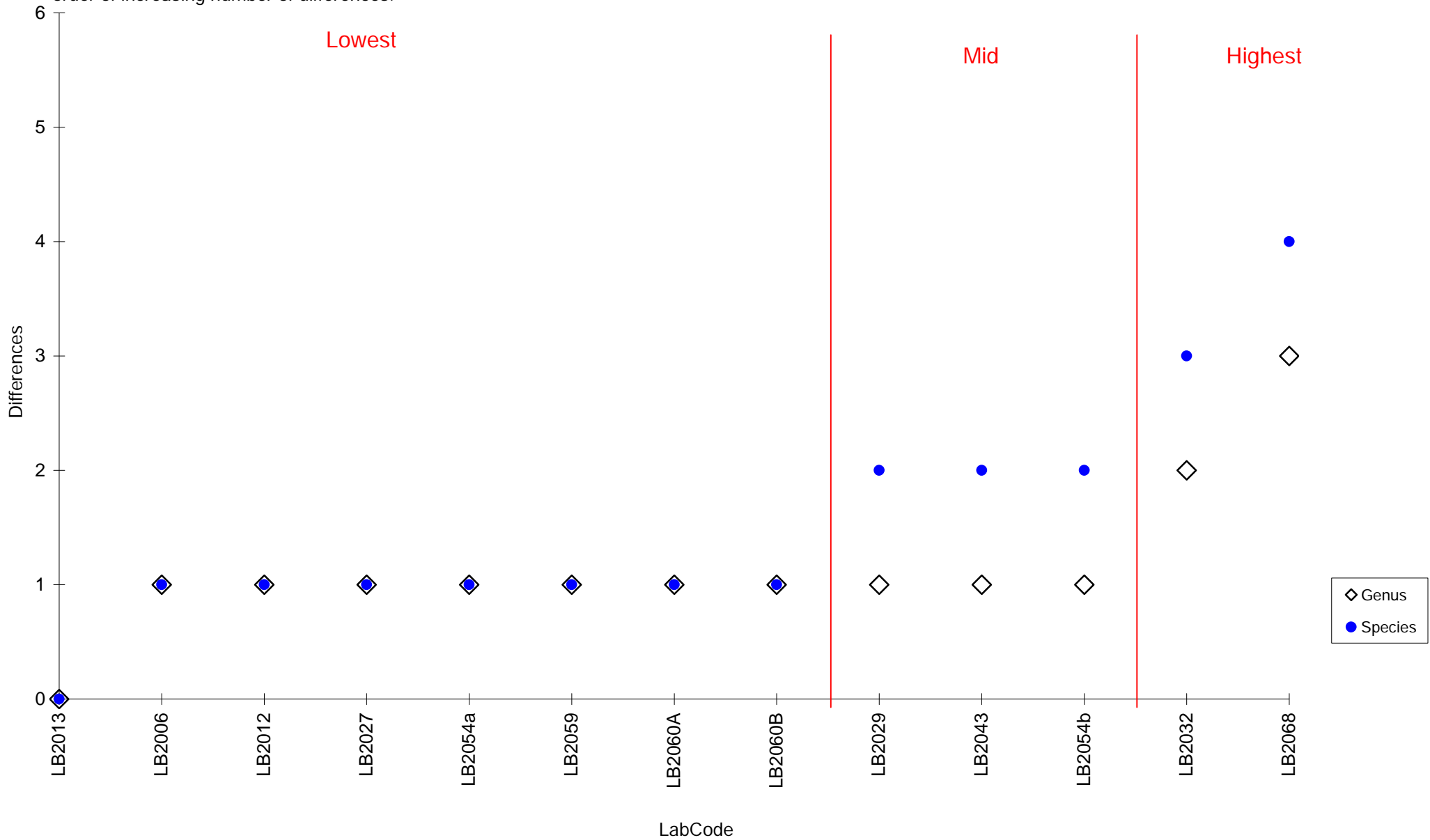
Table 4. Literature cited by participants for F_RT07 specimens.

Specimen	Literature Cited for F_RT07 Identification
F_RT0701	Wheeler 1969, Wheeler 1978, Maitland 2004, Maitland and Herdson 2009
F_RT0702	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0703	Lythgoe and Lythgoe 1971, Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0704	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0705	Online www.Fishbase.org
F_RT0706	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0707	Wheeler 1969, Maitland and Herdson 2009
F_RT0708	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0709	Wheeler 1969, Wheeler 1978, Maitland 2004, Maitland and Herdson 2009
F_RT0710	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0711	Wheeler 1969, Maitland and Herdson 2009
F_RT0712	Wheeler 1969, Maitland and Herdson 2009
F_RT0713	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009
F_RT0714	Wheeler 1969, Maitland 2004, Maitland and Herdson 2009
F_RT0715	Wheeler 1969, Wheeler 1978, Maitland and Herdson 2009

Table 5. Literature used by TUM per specimen for F_RT07.

Specimen	Literature Cited for F_RT07 Identification (errors corrected)
F_RT0701	N/A
F_RT0702	Maitland and Herdson 2009 (EA fish ID), Wheeler 1978
F_RT0703	N/A
F_RT0704	N/A
F_RT0705	www.fishbase.org
F_RT0706	N/A
F_RT0707	N/A
F_RT0708	N/A
F_RT0709	N/A
F_RT0710	N/A
F_RT0711	N/A
F_RT0712	Wheeler 1978, Maitland 2004
F_RT0713	Maitland and Herdson 2009 (EA fish ID), Wheeler 1978,
F_RT0714	N/A
F_RT0715	Maitland and Herdson 2009 (EA fish ID), Wheeler 1978,

Figure 1. The number of taxonomic differences from the AQC identification of specimens distributed in F_RT07 for each of the participating laboratories. Arranged in order of increasing number of differences.



Differences exclude Synonyms and spelling errors.

Specimen Images and Detailed Breakdown of Identifications

The common names provided include those stated in FishBase (<http://www.fishbase.org/search.php>) first followed by other commonly used names, where appropriate. An additional terminal character has been added within each LabCode (small case sequential letters) to denote multiple data entries from each laboratory, *i.e.* two participants from laboratory 2001 would be coded as Lab 2001a and Lab 2001b. For details of your LabCode please contact your Scheme representative or Thomson Unicmarine Ltd. All specimens submitted were of a good condition.

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

F_RT0701 – *Gobio gobio* (Gudgeon) (Figure 1)



Figure 1 (F_RT0701) - L

Substratum: Mixed. Salinity: Reduced. Depth: Benthopelagic. Geography: Midlands.

No differences recorded.

F_RT0702 – *Hyperoplus lanceolatus* (Greater Sandeel) (Figure 2a and 2b)



Figure 2a (F_RT0702) - L

Substratum: Sand. Salinity: Full.

Depth: Pelagic-neritic. Geography: Cornwall.

One generic difference and two specific differences recorded.

Laboratory 2068 identified the specimen as *Hyperoplus immaculatus* (which has a uniformly dark upper jaw and no spot on the snout).

Laboratory 2059 identified as *Ammodytes tobianus* (which has a protrusible and shorter jaw and no dark spot on the snout).

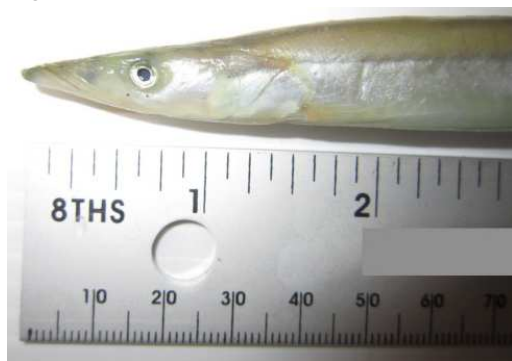


Figure 2b (F_RT0702) - L

F_RT0703 – *Pollachius pollachius* (Pollack) (Figure 3)



Substratum: Mixed. Salinity: Full.
Depth: Benthopelagic. Geography: North East.

No difference recorded.

Figure 3 (F_RT0703) - L

F_RT0704 – *Salmo trutta* (Brown Trout) (Figure 4)



Substratum: Gravel. Salinity: Reduced.
Depth: Benthopelagic. Geography: Scotland.

No differences recorded.

Figure 4 (F_RT0704) - L

F_RT0705 – *Parupeneus indicus* (Indian Goatfish) (Figure 5)



Substratum: Mixed. Salinity: Full. Depth:
Demersal. Geography: Exotic

Nine generic and ten specific differences recorded. Laboratories 2006; 2012; 2027; 2029; 2032; 2043 and 2068 identified as *Mullus surmuletus* (which lacks a dark round spot on the caudal peduncle of which, two thirds lie above the lateral line).

Laboratory 2054b identified as *Parupeneus prayensis* which does not exist (misspelling / misuse of *Pseudupemeus prayensis*).

Laboratories 2060a and 2060b identified as *Pseudupeneus prayensis* (which lacks a dark spot on the caudal peduncle and anal fin spines. Lateral line has a 28 - 29 scale count rather than 26 - 31).

F_RT0706 – *Spondyliosoma cantharus* (Black Sea Bream) (Figure 6)



Figure 6 (F_RT0706) - L

Substratum: Mixed. Salinity: Full.
Depth: Benthopelagic. Geography: Cornwall.

No differences recorded.

F_RT0707 – *Trachurus trachurus* (Atlantic Horse Mackerel / Scad) (Figure 7)



Figure 7 (F_RT0707) - L

Substratum: Sand. Salinity: Full. Depth: Pelagic-
neritic. Geography: S.W. England.

No differences were recorded.

F_RT0708 – *Echiichthys vipera* (Lesser Weever) (Figure 8)



Figure 8 (F_RT0708) - L

Substratum: Sand. Salinity: Full. Depth: Littoral /
Benthic. Geography: Cornwall.

No differences recorded.

F_RT0709 – *Perca fluviatilis* (Perch) (Figure 9)



Figure 9 (F_RT0709) - L

Substratum: Mixed. Salinity: Reduced.
Depth: Infralittoral. Geography: Midlands.

No differences recorded.

F_RT0710 – *Trisopterus luscus* (Bib / Pouting) (Figure 10)



Figure 10 (F_RT0710) - L

Substratum: Sand. Salinity: Full. Depth: Benthopelagic. Geography: S.W. England.

No differences recorded.

F_RT0711 – *Scomber scombrus* (Mackerel) (Figure 11)



Figure 11 (F_RT0711) - L

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: Cornwall

No differences recorded.

F_RT0712 – *Ammodytes tobianus* (Lesser Sandeel) (Figure 12a and 12b)



Figure 12a (F_RT0712) - L

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England.

Four generic and six specific differences recorded.

Laboratory 2029 identified as *Ammodytes marinas* and Laboratory 2043 identified as *Ammodytes* sp. (belly scales in *A.tobianus* are arranged in a chevron pattern).



Figure 12b (F_RT0712) - L

Laboratory 2032 identified as *Hyperoplus lanceolatus* (which lacks a spot on the snout).

Laboratories 2054 (entries a and b) and 2068 identified as *Hyperoplus immaculatus* (eye diameter to snout length is less than 2 and the jaw is shorter and protrusible).

F_RT0713 – *Salmo salar* (Atlantic Salmon) (Figure 13)



Figure 13 (F_RT0713) - L

Substratum: Gravel. Salinity: Reduced.
Depth: Benthopelagic. Geography: Scotland.

One generic and one specific error recorded.

Laboratory 2068 recorded as *Coregonus laveretus* (upper jaw not protruding, parr markings absent. Mouth position terminal not inferior).

F_RT0714 – *Anguilla anguilla* (European Eel) (Figure 14)



Figure 14 (F_RT0714) - L

Substratum: Mixed. Salinity: High.
Depth: Demersal. Geography: N.W England.

No differences recorded.

F_RT0715 – *Liza ramada* (Thin-lipped Mullet) (Figure 15)



Figure 15 (F_RT0715) - L

Substratum: Mixed. Salinity: Reduced. Depth:
Pelagic-neritic. Geography: South East.

One specific difference recorded.

Laboratory 2032 recorded the specimen as *Liza aurata* (*L.ramada* lacks a gold spot on the operculum and cheek. Teeth on upper lip relatively small and pectoral fin is relatively short).

References

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- FishBase - <http://www.fishbase.org/search.php>
- FishBase - <http://www.fishbase.org/summary/Parupeneus-indicus.html>
- World Register of Marine Species - <http://www.marinespecies.org/aphia.php?p=search>

Specimens

You are permitted to keep all specimens for incorporation into your reference collection.
