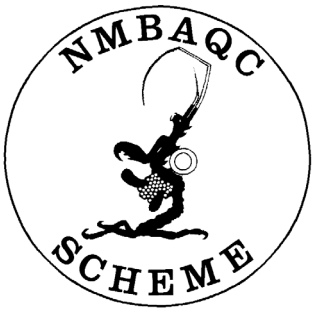

The National Marine Biological Analytical Quality Control Scheme

Ring Test Bulletin – RTB#28

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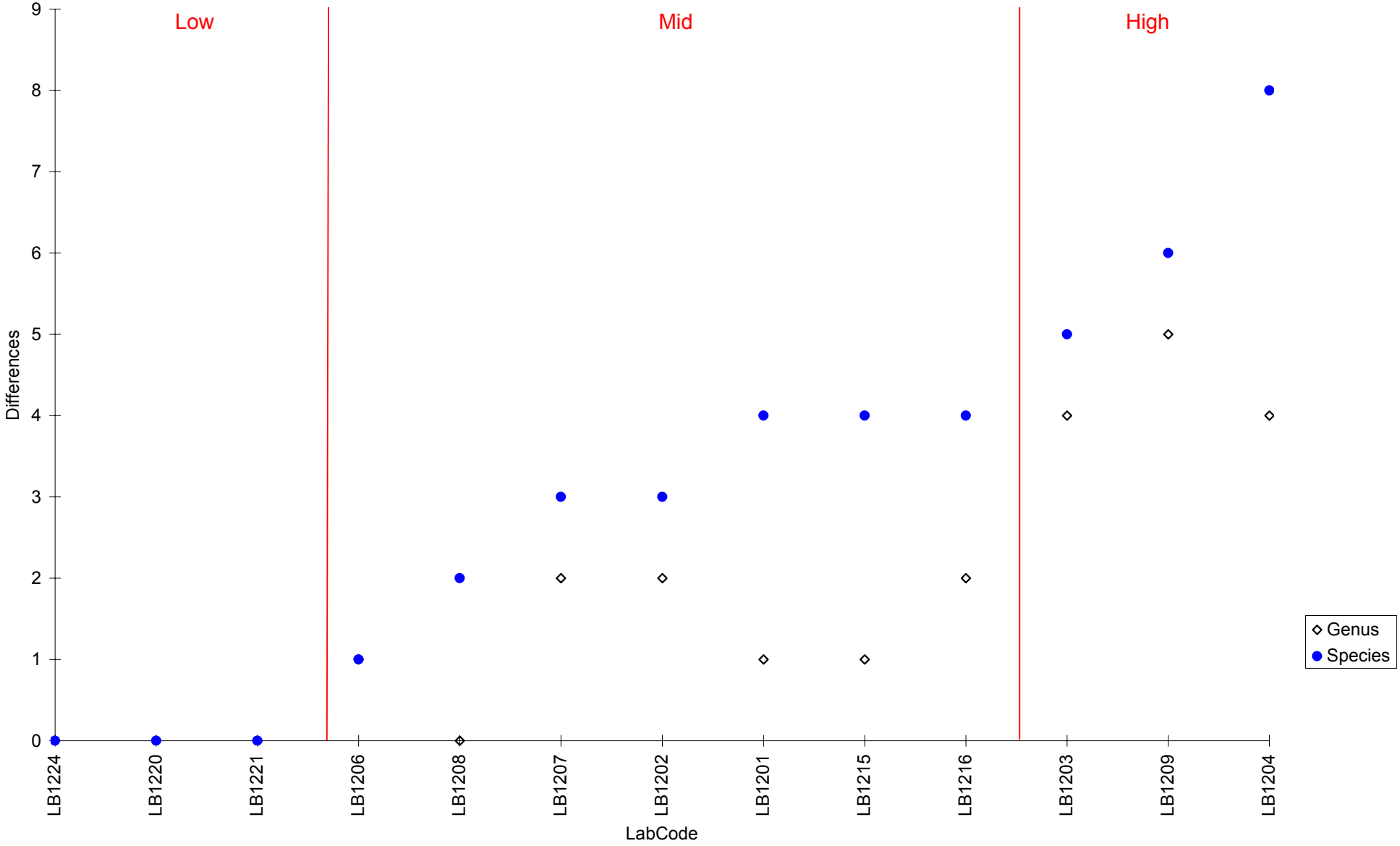
RING TEST DETAILS
Ring Test #28
Type/Contents – Targeted; 'Fish'
Circulated – 22/02/2006
Completion Date – 21/04/2006
Number of Participating Laboratories - 15
Number of Results Received – 13

Summary of differences

Specimen	Genus	Species	Total differences for (13) laboratories	
			Genus	Species
RT2801	*Arnoglossus*	*laterna*	2	2
RT2802	*Buglossidium*	*luteum*	1	1
RT2803	*Agonus*	*cataphractus*	0	0
RT2804	*Echiichthys*	*vipera*	1	1
RT2805	*Dicentrarchus*	*labrax*	0	1
RT2806	*Lumpenus*	*lumpretaeformis*	0	0
RT2807	*Limanda*	*limanda*	0	0
RT2808	*Clupea*	*harengus*	0	0
RT2809	*Syngnathus*	*rostellatus*	0	5
RT2810	*Entelurus*	*aequoreus*	0	0
RT2811	*Platichthys*	*flesus*	1	1
RT2812	*Sprattus*	*sprattus*	0	0
RT2813	*Pholis*	*gunnellus*	0	0
RT2814	*Ammodytes*	*marinus*	3	6
RT2815	*Pomatoschistus*	*microps*	1	5
RT2816	*Pomatoschistus*	*minutus*	1	4
RT2817	*Gobius*	*niger*	1	1
RT2818	*Pleuronectes*	*platessa*	4	4
RT2819	*Hippoglossoides*	*platessoides*	1	1
RT2820	*Ammodytes*	*tobianus*	2	3
RT2821	*Solea*	*solea*	1	1
RT2822	*Scomber*	*scombrus*	0	1
RT2823	*Osmerus*	*eperlanus*	0	0
RT2824	*Sprattus*	*sprattus*	0	0
RT2825	*Pleuronectes*	*platessa*	3	3
		Total differences	22	40
		Average differences /lab.	1.7	3.1

Figure 1. The number of differences from the AQC identification of specimens distributed in RT28 for each of the participating laboratories. Arranged in order of increasing number of differences.



Detailed Breakdown of Identifications

RT2801 – *Arnoglossus laterna* (Scaldfish)
Substratum: Sand. Salinity: Full. Depth: Infralittoral. Geography: N. W. England. Condition: Good, Length 10-11cm.
Two generic and two specific differences: Labs 03 and 06 identified as *Lepidorhombus whiffagonis* (which has a proportionally much larger head and dorsal and anal fins that end on the underside of the tail).

RT2802 – *Buglossidium luteum* (Solenette)
Substratum: Sand. Salinity: Full. Depth: Infralittoral. Geography: N. W. England. Condition: Good, Length 7-10cm.
One generic and one specific difference: Lab 03 identified as *Solea solea* (which has well developed pectoral fins on both sides and lacks anal and dorsal dark fin rays at regular intervals).

RT2803 – *Agonus cataphractus* (Pogge)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 10-13cm.
No differences recorded.

RT2804 – *Echiichthys vipera* (Lesser Weever)
Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 9-10cm.
One generic and one specific difference: Lab 01 identified as *Trachinus draco* (which has a much less flattened head with short spines in front of and above each eye).

RT2805 – *Dicentrarchus labrax* (Bass)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 8-9cm.
One specific difference: Lab 15 recorded the synonym *Morone labrax*; Lab 08 identified as *Dicentrarchus punctatus* (which has strong black spots laterally and fewer scales in the lateral line; this is a Mediterranean and eastern Atlantic species unlikely to occur in East Anglia).

RT2806 – *Lumpenus lumpretaeformis* (Snake Blenny)
Substratum: Mud. Salinity: Full. Depth: Circalittoral. Geography: W. Scotland. Condition: Good, Length 18-23cm.
No differences recorded.

RT2807 – *Limanda limanda* (Dab)
Substratum: Sand. Salinity: Full. Depth: Ciralittoral. Geography: W. Scotland. Condition: Good, Length 8-9cm.
No differences recorded.

RT2808 – *Clupea harengus* (Herring)
Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: W. Scotland. Condition: Good, Length 13-14cm.
No differences recorded.

RT2809 – *Syngnathus rostellatus* (Lesser Pipefish)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 12-14cm.
Five specific differences: Lab 01 identified as *Syngnathus typhle;* Labs 02, 03, 04 and 09 identified as *S. acus* (both of which have long snouts, *i.e.* the distance from the anterior edge of the eye to the tip of the snout is far greater than the distance from the anterior edge of the eye to the posterior edge of the operculum; *S. acus* has more pre and post anal body rings).

RT2810 – *Entellurus aequoreus* (Snake Pipefish)
Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: N. Ireland. Condition: Good, Length 33-43cm.
No differences recorded.

RT2811 – *Platichthys flesus* (Flounder)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 11-14cm.
One generic and one specific difference: Lab 09 identified as *Pleuronectes platessa* (which lacks short spines between the fin ray bases of the dorsal and anal fins).

RT2812 – *Sprattus sprattus* (Sprat)
Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: East Anglia. Condition: Fair, Length 7-8cm.
No differences recorded.

RT2813 – *Pholis gunnellus* (Butterfish)
Substratum: Gravel. Salinity: Full. Depth: Circalittoral. Geography: E. England. Condition: Good, Length 12-14cm.
No differences recorded.

RT2814 – *Ammodytes marinus* (Raitt's Sand-eel)
Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: N. Scotland. Condition: Good, Length 9-11cm.
Three generic and six specific differences: Labs 01, 04 and 15 identified as *Ammodytes tobianus* (which has scales present at the base of each caudal lobe); Labs 07 and 16 identified as *Gymnammodytes semisquamatus* (which has lateral line pores at the end of short canals at right angles to the lateral line); Lab 09 identified as *Hyperoplus lanceolatus* (which has a hinged upper jaw that does not extend forwards).

RT2815 – *Pomatoschistus microps* (Common Goby)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 4-5cm.
One generic and five specific differences: Labs 04, 07, 15 and 16 identified as *Pomatoschistus pictus*; Lab 02 identified as *Aphia minuta* (both of which lack a '^' shaped dark pigment pattern on the pectoral fins). Edlund *et al*. (1980) gives useful features for the identification of *P. pictus, P. microps* and *P. minutus*.

RT2816 – *Pomatoschistus minutus* (Sand Goby)
Substratum: Sand / Mud. Salinity: Full. Depth: Circalittoral. Geography: W. Scotland. Condition: Good, Length 7-8cm.
One generic and four specific differences: Labs 01 and 16 identified as *Pomatoschistus microps* (which has a '^' shaped dark pigment pattern on the pectoral fins); Lab 15 identified as *P. pictus* (which has extensive dark pigment under the lower jaw and two diagonal rows of darks spots on the first dorsal fin); Lab 04 identified as *Gobiusculus flavescens* (which lacks a series of dark pigment spots along the lateral line). Edlund *et al*. (1980) gives useful features for the identification of *P. pictus, P. microps* and *P. minutus*.

RT2817 – *Gobius niger* (Black Goby)
Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 7-13cm.
One generic and one specific difference: Lab 16 identified as *Thorogobius ephippiatus* (which lacks free fin rays on the upper pectoral fins and is light in colouration with orange spots).

RT2818 – *Pleuronectes platessa* (Plaice)
Substratum: Sand / Mud. Salinity: Full. Depth: Circalittoral. Geography: East Anglia. Condition: Good, Length 10-13cm.
Four generic and four specific differences: Labs 02, 03, 04 and 09 identified as *Limanda limanda* (which has a very strongly curving lateral line above the pectoral fin and toothed scales on the eyed surface).

RT2819 – *Hippoglossoides platessoides* (Long Rough Dab)
Substratum: Mud / Sand. Salinity: Full. Depth: Circalittoral. Geography: W. Scotland. Condition: Good, Length 10-15cm.

One generic and one specific difference: Lab 15 identified as *Limanda limanda* (which has a very strongly curving lateral line above the pectoral fin and has a mouth that does not extend level to the mid-point of the eye).

RT2820 – *Ammodytes tobianus* (Lesser Sand-eel)

Substratum: Sand. Salinity: Full. Depth: Circalittoral. Geography: S. W. England. Condition: Good, Length 13-14cm.

Two generic and three specific differences: Lab 04 identified as *Hyperoplus immaculatus*; Lab 09 identified as *H. lanceolatus* (both of which have a hinged upper jaw that does not extend forwards); Lab 08 identified as *Ammodytes marinus* (which lacks scales at the base of each caudal lobe).

RT2821 – *Solea solea* (Dover Sole)

Substratum: Muddy Sand. Salinity: Full. Depth: Infralittoral. Geography: N. W. England. Condition: Fair, Length 4-6cm.

One generic and one specific difference: Lab 07 identified as *Microchirus variegatus* (which has a poorly developed pectoral fin on the blind side).

RT2822 – *Scomber scombrus* (Mackerel)

Substratum: Mixed. Salinity: Full. Depth: Circalittoral. Geography: W. France. Condition: Good, Length 18-20cm.

One specific difference: Lab 04 identified as *Scomber japonicus* (which lacks a bold dorsal colour pattern of a series of black curving lines extending beneath the lateral line).

RT2823 – *Osmerus eperlanus* (Smelt)

Substratum: Mixed. Salinity: High. Depth: Circalittoral. Geography: S. E. England. Condition: Good, Length 15-17cm.

No differences recorded.

RT2824 – *Sprattus sprattus* (Sprat)

Substratum: Muddy Sand. Salinity: Full. Depth: Infralittoral. Geography: N. W. England. Condition: Fair, Length 4-4.5cm.

No differences recorded.

RT2825 – *Pleuronectes platessa* (Plaice)

Substratum: Muddy Sand. Salinity: Full. Depth: Infralittoral. Geography: N. W. England. Condition: Fair, Length 4-5cm.

Three generic and three specific differences: Lab 03 identified as *Glyptocephalus cynoglossus* (which has a more slender body and a straight lateral line); Lab 04 identified as *Platichthys flesus* (which has short spines between the fin ray bases of the dorsal and anal fins); Lab 09 identified as *Hippoglossoides platessoides* (which has rough scales on the eyed surface and a mouth that extends level to the mid point of the eyes).

Acknowledgements

We would like to thank Myles O'Reilly (SEPA West, East Kilbride) and Henk van Rein (EHS, Lisburn) for donating some excellent specimens for this ring test.

References

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Specimen Labels

These ring test specimens should **not** be returned to Unicomarine Ltd. A sheet of labels is provided for incorporating these specimens into in-house reference collections.

NMBAQC Scheme
Arnoglossus laterna
Location: Morcambe Bay
Gear: Beam Trawl
FullCode #: RT28_01

NMBAQC Scheme
Buglossidium luteum
Location: Morcambe Bay
Gear: Beam Trawl
FullCode #: RT28_02

NMBAQC Scheme
Agonus cataphractus
Location: Harwich
Gear: Beam Trawl
FullCode #: RT28_03

NMBAQC Scheme
Echiichthys vipera
Location: Gt. Yarmouth
Gear: Beam Trawl
FullCode #: RT28_04

NMBAQC Scheme
Dicentrarchus labrax
Location: Harwich
Gear: Beam Trawl
FullCode #: RT28_05

NMBAQC Scheme
Lumpenus lumpretaeformis
Location: Irvine Bay
Gear: Beam Trawl
FullCode #: RT28_06

NMBAQC Scheme
Limanda limanda
Location: Clyde
Gear: Beam Trawl
FullCode #: RT28_07

NMBAQC Scheme
Clupea harengus
Location: Irvine Bay
Gear: Beam Trawl
FullCode #: RT28_08

NMBAQC Scheme
Syngnathus rostellatus
Location: Wash
Gear: Beam Trawl
FullCode #: RT28_09

NMBAQC Scheme
Entelurus aequoreus
Location: Larne Lough
Gear: Pwr Stn Screen
FullCode #: RT28_10

NMBAQC Scheme
Platichthys flesus
Location: Harwich
Gear: Beam Trawl
FullCode #: RT28_11

NMBAQC Scheme
Sprattus sprattus
Location: Wash
Gear: Beam Trawl
FullCode #: RT28_12

NMBAQC Scheme
Pholis gunnellus
Location: East Coast
Gear: Beam Trawl
FullCode #: RT28_13

NMBAQC Scheme
Ammodytes marinus
Location: Banff
Gear: Day Grab
FullCode #: RT28_14

NMBAQC Scheme
Pomatoschistus microps
Location: Harwich
Gear: Beam Trawl
FullCode #: RT28_15

NMBAQC Scheme
Pomatoschistus minutus
Location: Clyde
Gear: Beam Trawl
FullCode #: RT28_16

NMBAQC Scheme
Gobius niger
Location: Harwich
Gear: Beam Trawl
FullCode #: RT28_17

NMBAQC Scheme
Pleuronectes platessa
Location: N. E. Wash
Gear: Beam Trawl
FullCode #: RT28_18

NMBAQC Scheme
Hippoglossoides platessoides
Location: Irvine Bay
Gear: Beam Trawl
FullCode #: RT28_19

NMBAQC Scheme
Ammodytes tobianus
Location: Teignmouth
Gear: Beam Trawl
FullCode #: RT28_20

NMBAQC Scheme
Solea solea
Location: Egremont, Mersey
Gear: Push Net
FullCode #: RT28_21

NMBAQC Scheme
Scomber scombus
Location: France
Gear: Beam Trawl
FullCode #: RT28_22

NMBAQC Scheme
Sprattus sprattus
Location:New Brighton,Mersey
Gear: Push Net
FullCode #: RT28_24

NMBAQC Scheme
Osmerus eperlanus
Location: Essex Coast
Gear: Beam Trawl
FullCode #: RT28_23

NMBAQC Scheme
Pleuronectes platessa
Location: Egremont, Mersey
Gear: Push Net
FullCode #: RT28_25