



NMQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

Laboratory Reference Module Summary Report

Benthic Invertebrate Component - 2021/22

LR26

21 December 2022

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MODULE / EXERCISE DETAILS

Module:	Laboratory Reference (LR)
Exercises:	LR26
Data/Sample Request Circulated:	8th October 2021
Sample Submission Deadline:	28th January 2022
Number of Subscribing Laboratories:	6
Number of LR Received:	4

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Table 1. Summary of mis-identified taxa in the Laboratory Reference Module (LR26) (erroneous identifications in brackets).

LabCode	Taxonomic Edits	Major Taxonomic Group				
		Polychaeta	Oligochaeta	Crustacea	Mollusca	Other
BI_2803	8	<i>Aricidea catherinae</i> (<i>Aricidea</i> (<i>Strelzovia</i>) <i>suecica</i>)	-	<i>Anapagurus hyndmanni</i> (<i>Anapagurus chiroacanthus</i>)	-	-
		<i>Lumbrineris futilis</i> (<i>Scoletoma magnidentata</i>)	-	<i>Periocolodes longimanus</i> (<i>Westwoodilla caecula</i>)	-	-
		<i>Eumida sanguinea</i> agg. (<i>Eumida bahusiensis</i>)	-	<i>Hippolyte varians</i> (<i>Hippolyte leptocerus</i>)	-	-
		<i>Pseudonotomastus southerni</i> (<i>Notomastus</i> spp.)	-	-	-	-
		<i>Hypereteone foliosa</i> (<i>Eteone</i> cf. <i>flava</i>)	-	-	-	-
BI_2806	3	-	-	<i>Tanaissus danica</i> (<i>Akanthophoreus gracilis</i>)	<i>Musculus subpictus</i> (<i>Musculus discors</i>)	-
		-	-	<i>Ptilohyale littoralis</i> (<i>Apohyale perieri</i>)	-	-
BI_2807	5	<i>Eumida ockelmanni</i> (<i>Eumida sanguinea</i>)	-	-	-	-
		<i>Exogone naidina</i> (<i>Exogone verugera</i>)	-	-	-	-
		<i>Eteone longa</i> (<i>Eteone flava</i>)	-	-	-	-
		<i>Syllis fasciata</i> (<i>Trypanosyllis aeolis</i>)	-	-	-	-
		<i>Syllis hyalina</i> (<i>Syllis pulvinata</i>)	-	-	-	-
BI_2809	1	-	-	<i>Photis pollex</i> (<i>Microprotopus maculatus</i>)	-	-
TOTAL	17	10	0	6	1	0
% Error	18	59	0	35	6	0

NB: % errors for taxonomic groups are percentages of the total errors generated by each taxon (not percentages of errors within each taxon)

Table 2. Summary of identification policy differences in the Laboratory Reference Module (LR26) (original identifications in brackets).

LabCode	Number of differences	Identification policy difference explanations (participant original identifications in brackets)
BI_2803	2	<i>Harmothoe</i> (<i>Harmothoe fernandi</i>) - Taxonomic resolution reduced
		<i>Phyllodoce c.f. longipes</i> (<i>Phyllodoce longipes</i>) - Recording policy difference
BI_2806	2	<i>Dipolydora</i> (<i>Dipolydora coeca</i>) - Taxonomic resolution decreased; not <i>D. coeca</i> ; fits <i>D.</i> 'species B' according to provisional key; also some similarity to <i>D. cardalia</i> (Pacific sp.)
		<i>Stagnicola</i> (<i>Stagnicola palustris</i>) - Taxonomic resolution decreased; possibly <i>S. fuscus</i> ; but dissection required for certainty
BI_2807	3	<i>Hermania</i> sp. (<i>Hermania scabra</i>) - Taxonomic resolution reduced
		<i>Eumida ocklemanni</i> (Phyllodocidae sp.) - Taxonomic resolution increased
		Ophiuroidea (<i>Ophiotypa simplex</i>) - Taxonomic resolution reduced
BI_2809	2	<i>Phoronis</i> (<i>Phoronis muelleri</i>) - Taxonomic resolution reduced
		<i>Eumida sanguinea</i> agg. (<i>Eumida</i>) - Taxonomic resolution increased

APPENDIX

LR26 individual summary reports for participating laboratories



NMBAQC Scheme Laboratory Reference Interim Results



Laboratory reference: LR26

Audit Completion Date: 18 August 2022

Date received: 19 January 2022

Auditor (lead): Tim Worsfold

Laboratory Code: BI_2803

Auditor (review): Chris Ashelby, Marta Kazubek

Key: Blue text = no change, Green text = change

No.	Original Data (OD) Identification	Edited Data (ED) Identification	Comment	WoRMS List Reference (18/08/22)
1	Harmothoe fernandi	Harmothoe	Taxonomic resolution reduced	Harmothoe Kinberg, 1856
2	Harmothoe cf. imbricata	Harmothoe cf. imbricata		Harmothoe imbricata (Linnaeus, 1767)
3	Magelona mirabilis	Magelona mirabilis		Magelona mirabilis (Johnston, 1865)
4	Pennatula phosphorea	Pennatula phosphorea		Pennatula phosphorea Linnaeus, 1758
5	Syllis gracilis	Syllis gracilis		Syllis gracilis Grube, 1840
6	Paramphinome jeffreysii	Paramphinome jeffreysii		Paramphinome jeffreysii (McIntosh, 1868)
7	Lysilla loveni	Lysilla loveni		Lysilla loveni Malmgren, 1866
8	Aricidea (Strelzovia) suecica	Aricidea catherinae	Taxonomic edit	Aricidea (Acmira) catherinae Laubier, 1967
9	Scoletoma magnidentata	Lumbrineris futilis	Taxonomic edit	Lumbrineris futilis Kinberg, 1865
10	Anapagurus chiroacanthus	Anapagurus hyndmanni	Taxonomic edit	Anapagurus hyndmanni (Bell, 1845)
11	Pseudoprotella phasma	-	Specimen not found	
12	Eudorellopsis deformis	Eudorellopsis deformis		Eudorellopsis deformis (Krøyer, 1846)
13	Westwoodilla caecula	Perioculodes longimanus	Taxonomic edit	Perioculodes longimanus (Spence Bate & Westwood, 1868)
14	Eumida bahusiensis	Eumida sanguinea agg.	Taxonomic edit	Eumida sanguinea (Ørsted, 1843)
15	Melita palmata	Melita palmata		Melita palmata (Montagu, 1804)
16	Notomastus spp.	Pseudonotomastus southerni	Taxonomic edit	Pseudonotomastus southerni Warren & Parker, 1994
17	Apseudopsis latreillii	Apseudopsis latreillii		Apseudopsis latreillii (Milne Edwards, 1828)
18	Hippolyte leptocerus	Hippolyte varians	Taxonomic edit	Hippolyte varians Leach, 1814
19	Mysta picta	Mysta picta		Mysta picta (Quatrefages, 1866)
20	Saccocirrus papillocercus	Saccocirrus papillocercus		Saccocirrus papillocercus Bobretzky, 1872
21	Magelona filiformis	Magelona filiformis		Magelona filiformis Wilson, 1959
22	Galathea intermedia	Galathea intermedia		Galathea intermedia Lilljeborg, 1851
23	Phyllodoce longipes	Phyllodoce c.f. longipes	Recording policy difference	Phyllodoce longipes Kinberg, 1866
24	Chaetozone zetlandica	Chaetozone zetlandica		Chaetozone zetlandica McIntosh, 1911
		Cauleriella alata	Mixture	Cauleriella alata (Southern, 1914)
25	Eteone cf. flava	Hypereteone foliosa	Taxonomic edit	Hypereteone foliosa (Quatrefages, 1865)



NMBACQ Scheme Laboratory Reference Interim Results



Laboratory reference: LR26

Audit Completion Date: 28 November 2022

Date received: 09 November 2022

Auditor (lead): Tim Worsfold

Laboratory Code: BI_2806

Auditor (review): Marta Kazubek, Chris Ashelby

Key: Blue text = no change, Green text = change

No.	Original Data (OD) Identification	Edited Data (ED) Identification	Comment	WoRMS List Reference (08/12/22)
1	Stenothoe tergestina	Stenothoe tergestina		Stenothoe tergestina (Nebeski, 1881)
2	Hydroides ezoensis	Hydroides ezoensis		Hydroides ezoensis Okuda, 1934
3	Neoamphitrite figulus	Neoamphitrite figulus		Neoamphitrite figulus (Dalyell, 1853)
4	Nereis pelagica	Nereis pelagica		Nereis pelagica Linnaeus, 1758
5	Alitta succinea	Alitta succinea		Alitta succinea (Leuckart, 1847)
6	Laomedea	Laomedea		Laomedea Lamouroux, 1812
7	Musculus discors	Musculus subpictus	Taxonomic edit	Musculus subpictus (Cantraine, 1835)
8	Eulalia ornata	Eulalia ornata		Eulalia ornata Saint-Joseph, 1888
9	Dipolydora coeca	Dipolydora	Taxonomic resolution decreased; not D. coeca; fits D. 'species B' according to provisional key; also some similarity to D. cardalia (Pacific sp.)	Dipolydora Verrill, 1881
10	Mulinia lateralis	Mulinia lateralis		Mulinia lateralis (Say, 1822)
11	Arachnidium fibrosum	Arachnidium fibrosum		Arachnidium fibrosum Hincks, 1880
12	Nymphon brevirostre	Nymphon brevirostre		Nymphon brevirostre Hodge, 1863
13	Dyopedos monacanthus	Dyopedos monacanthus		Dyopedos monacanthus (Metzger, 1875)
14	Akanthophoreus gracilis	Tanaissus danica	Taxonomic edit	Tanaissus danica (Hansen, 1910)
15	Calycella syringa	Calycella syringa		Calycella syringa (Linnaeus, 1767)
16	Stenothoe tergestina	Stenothoe tergestina		Stenothoe tergestina (Nebeski, 1881)
17	Stenothoe tergestina	Stenothoe tergestina		Stenothoe tergestina (Nebeski, 1881)
18	Apohyale perieri	Ptilohyale littoralis	Taxonomic edit	Ptilohyale littoralis (Stimpson, 1853)
19	Potamopyrgus antipodarum	Potamopyrgus antipodarum		Potamopyrgus antipodarum (J. E. Gray, 1843)
20	Stagnicola palustris	Stagnicola	Taxonomic resolution decreased; possibly S. fuscus; but dissection required for certainty	Stagnicola Jeffreys, 1830
21	Bithynia leachii	Bithynia leachii		Bithynia leachii (Sheppard, 1823)
22	Bithynia tentaculata	Bithynia tentaculata		Bithynia tentaculata (Linnaeus, 1758)
23	Ophiactis balli	Ophiactis balli		Ophiactis balli (W. Thompson, 1840)
24	Tomopteris	Tomopteris		Tomopteris Eschscholtz, 1825
25	Metopa alderi	Metopa alderi		Metopa alderi (Spence Bate, 1857)



NMBQC Scheme Laboratory Reference Interim Results



Laboratory reference: LR26

Audit Completion Date: 1st June 2022

Date received: 17th March 2022

Auditor (lead): Tim Worsfold / Chris Ashelby / Nic Pennisi

Laboratory Code: BI_2807

Auditor (review): David Hall

Key: Blue text = no change, Green text = change

No.	Original Data (OD) Identification	Edited Data (ED) Identification	Comment	WoRMS List Reference (01/06/22)
1	Hermania scabra	Hermania sp.	Taxonomic resolution reduced	Hermania Monterosato, 1884
2	Mya truncata, juv.	Mya truncata juv.		Mya truncata Linnaeus, 1758
3	Thyasira flexuosa	Thyasira flexuosa		Thyasira flexuosa (Montagu, 1803)
4	Diaphana minuta	Diaphana minuta		Diaphana minuta T. Brown, 1827
5	Harmothoe imbricata	Harmothoe imbricata		Harmothoe imbricata (Linnaeus, 1767)
6	Eumida sanguinea	Eumida ockelmanni	Taxonomic edit	Eumida ockelmanni Eibye-Jacobsen, 1987
7	Exogone verugera	Exogone naidina	Taxonomic edit	Exogone naidina Örsted, 1845
8	Eteone flava	Eteone longa	Taxonomic edit	Eteone longa (Fabricius, 1780)
9	Pontocrates arcticus	Pontocrates arcticus		Pontocrates arcticus G.O. Sars, 1895
10	Phyllodocidae sp.	Eumida ockelmanni	Taxonomic resolution increased	Eumida ockelmanni Eibye-Jacobsen, 1987
11	Chone duneri	Chone duneri		Chone duneri Malmgren, 1867
12	Ophiura albida	Ophiura albida		Ophiura albida Forbes, 1839
13	Rostrocolodes borealis	Rostrocolodes borealis	Spelling error	Rostrocolodes borealis (Boeck, 1871)
14	Cistenides granulata	Cistenides granulata		Cistenides granulata (Linnaeus, 1767)
15	Nephtys ciliata	Nephtys ciliata		Nephtys ciliata (Müller, 1788)
16	Ophiotypa simplex	Ophiuroidea	Taxonomic resolution reduced	Ophiuroidea
17	Trypanosyllis aeolis	Syllis fasciata	Taxonomic edit	Syllis fasciata Malmgren, 1867
18	Nototropis swammerdamei	Nototropis swammerdamei		Nototropis swammerdamei (H. Milne Edwards, 1830)
19	Anonyx sarsi	Anonyx sarsi		Anonyx sarsi Steele & Brunel, 1968
20	Crassicorophium crassicorne	Crassicorophium crassicorne		Crassicorophium crassicorne (Bruzelius, 1859)
21	Monocorophium sextonae	Crassicorophium bonellii		Crassicorophium bonellii (H. Milne Edwards, 1830)
22	Pseudosyllis brevipennis	Pseudosyllis brevipennis		Pseudosyllis brevipennis Grube, 1863
23	Erinaceusyllis erinaceus	Erinaceusyllis erinaceus		Erinaceusyllis erinaceus (Claparède, 1863)
24	Syllis pulvinata	Syllis hyalina	Taxonomic edit	Syllis hyalina Grube, 1863
25	Colus gracilis	Colus gracilis		Colus gracilis (da Costa, 1778)



NMBACQ Scheme Laboratory Reference Interim Results



Laboratory reference: LR26

Audit Completion Date: 18 August 2022

Date received: 22 June 2022

Auditor (lead): Tim Worsfold

Laboratory Code: BI_2809

Auditor (review): Chris Ashelby

Key: Blue text = no change, Green text = change

No.	Original Data (OD) Identification	Edited Data (ED) Identification	Comment	WoRMS List Reference (18/08/22)
1	Diogenes curvimanus	Diogenes curvimanus		Diogenes curvimanus (Clément, 1874)
2	Phoronis muelleri	Phoronis	Taxonomic resolution reduced	Phoronis Wright, 1856
3	Caulleriella alata	Caulleriella alata		Caulleriella alata (Southern, 1914)
4	Paramysis nouveli	Paramysis nouveli		Paramysis (Longidentia) nouveli Labat, 1953
5	Neoamphitrite figulus	Neoamphitrite figulus		Neoamphitrite figulus (Dalyell, 1853)
6	Pholoe inornata	Pholoe inornata		Pholoe inornata Johnston, 1839
7	Gattyana cirrhosa	Gattyana cirrhosa		Gattyana cirrhosa (Pallas, 1766)
8	Sthenelais boa	Sthenelais boa		Sthenelais boa (Johnston, 1833)
9	Polydora cornuta	Polydora cornuta		Polydora cornuta Bosc, 1802
10	Eunereis longissima	Eunereis longissima		Eunereis longissima (Johnston, 1840)
11	Sabella pavonina	Sabella pavonina		Sabella pavonina Savigny, 1822
12	Achelia echinata	Achelia echinata		Achelia echinata Hodge, 1864
13	Ammothea hilgendorfi	Ammothea hilgendorfi		Ammothea hilgendorfi (Böhm, 1879)
14	Cheirocratus sundevallii	Cheirocratus sundevallii		Cheirocratus sundevallii (Rathke, 1843)
15	Aora gracilis	Aora gracilis		Aora gracilis (Spence Bate, 1857)
16	Erichthonius didymus	Erichthonius didymus		Erichthonius didymus Krapp-Schickel, 2013
17	Abludomelita obtusata	Abludomelita obtusata		Abludomelita obtusata (Montagu, 1813)
18	Phtisica marina	Phtisica marina		Phtisica marina Slabber, 1769
19	Microprotopus maculatus	Photis pollex	Taxonomic edit	Photis pollex Walker, 1895
20	Eumida	Eumida sanguinea agg.	Taxonomic resolution increased	Eumida sanguinea (Örsted, 1843)
21	Myrianida	Myrianida		Myrianida Milne Edwards, 1845
22	-	-	-	-
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-