

Supplementary Tables

Supplementary Table S1: Voucher, sequencing and assembly statistics for the transcriptome dataset. Vouchers for all newly generated transcriptomes were deposited in the Scripps Institution of Oceanography Benthic Invertebrate Collection (SIO-BIC) and are highlighted in bold.

Species	Voucher	SRA Accession	Tech- nology	Read length	Read pairs raw	Read pairs after trimming	Assembled contigs	Avg contig length	Max contig length	N50	Number of loci
<i>Alvinella caudata</i>	---	SRR3665374	Hiseq 2000	PE-95	4,626,483	3,760,880	20,822	812	15,017	1024	3153
<i>Alvinella pompejana</i>	---	SRR3665375	Hiseq 2000	PE-95	16,861,102	6,072,375	27,023	902	17,332	1211	4133
<i>Amphicteis</i> cf. <i>gunneri</i> group 4²	A9430	SRR11434467	Hiseq 4000	PE-100	47,931,393	45,147,588	79,401	1047	15,778	1514	6462
<i>Amphisamytha</i> <i>carldarei</i>	A7710	SRR11434468	Hiseq 4000	PE-100	39,266,357	33,542,842	63,988	1031	18,592	1545	6187
<i>Anobothrus</i> sp.³	A9432	SRR11434464	Hiseq 4000	PE-100	38,399,649	35,811,389	71,665	1101	9,772	1641	6713
<i>Eupolymnia</i> <i>crassicornis</i>	A9448	SRR11434465	Hiseq 4000	PE-100	39,305,953	35,735,791	71,807	1512	16,618	2497	7534
<i>Hypania invalida</i>	---	SRR5590961	Hiseq 2500	PE-100	26,364,747	22,683,566	41,519	1281	25,342	2035	7099
<i>Lanice conchilega</i>	---	SRR5590962	Hiseq 2500	PE-100	7,153,766	6,973,497	44,774	948	17,627	1333	6427
<i>Loimia</i> <i>bermudensis</i>	A9451	SRR11434463	Hiseq 4000	PE-100	54,545,318	51,897,892	66,423	1228	13,748	1901	7073
<i>Melinna oculata</i>	A9440	SRR11434462	Hiseq 4000	PE-100	44,374,579	41,684,736	86,098	901	16,402	1247	5522
<i>Nautalvinella irlander¹</i>	---	SRR3665379	Hiseq 2000	PE-70	7,167,558	6,601,237	16,730	711	10,137	821	1913
<i>Neoamphitrite</i> <i>robusta</i>	A9453	SRR11434461	Hiseq 4000	PE-100	47,743,495	43,663,803	83,037	1390	17,418	2331	7505

<i>Paralvinella fijiensis</i>	---	SRR3665376	Hiseq 2500	PE-100	163,263,771	155,327,397	99,518	1315	29,173	2306	7268
<i>Paralvinella grasslei</i>	---	SRR3665377	Hiseq 2000	PE-95	29,031,987	20,798,332	43,837	1113	23,838	1696	5895
<i>Paralvinella palmiformis</i>	A7728	SRR11434460	Hiseq 4000	PE-100	40,277,701	34,514,297	58,263	1212	23,449	2003	6220
<i>Pectinaria gouldii</i>	---	SRR2057036	Hiseq 2000	PE	72,926,891	59,462,937	71,643	856	10,890	1099	3090
<i>Polycirrus carolinensis</i>	A9444	SRR11434459	Hiseq 4000	PE-100	29,062,749	26,915,272	62,519	1241	10,594	1976	6622
<i>Terebellides</i> sp.⁴	A9465	SRR11434458	Hiseq 4000	PE-100	51,852,071	48,406,436	72,743	1174	16,512	1792	6972
<i>Thelepus</i> n.sp.	A5916	SRR2017640	HiSeq 2000	PE-100	41,581,952	37,783,007	86,315	456	16,862	505	3580
<i>Trichobranchus roseus</i>	A9467	SRR11434466	Hiseq 4000	PE-100	28,421,080	26,141,416	64,372	1107	10,169	1704	6064
<i>Arenicola marina</i>	---	SRR2005653	HiSeq 1000	PE-100	68,660,484	61,371,936	101,276	638	19,851	687	4109

¹On NCBI SRA as *Paralvinella pandorae irlandei*. Our results indicate that it should be *Nautalvinella irlandei*.

²*Amphicteis gunneri* forms a cryptic species complex. This specimen falls in group 4 of an unpublished assessment (Jon Kongsrud, pers. comm.).

³This is an undescribed species informally called EP-B (Jon Kongsrud, pers. comm.).

⁴*Terebellides* is a cryptic species complex (Nygren et al. 2018) in the Atlantic. This specimen corresponds to species 25 in group C of Nygren et al. 2018.

Supplementary Table S2: Sequence and voucher information for Sanger-sequenced taxa. Sequences created for this study are highlighted in bold. Collection codes starting with A are from Scripps Institution of Oceanography Benthic Invertebrate Collection (SIO-BIC); collection codes starting with W are from the Australian Museum; CDF: Charles Darwin Foundation for the Galapagos Islands; ZMBN: Natural History Collections, University Museum of Bergen, Norway.

Taxon	Collection site	Voucher	COI	16S	18S	28S	H3
Alvinellidae							
<i>Alvinella caudata</i> Desbruyères & Laubier 1986	East Pacific Rise	A1092	JX423737	JX423669	JX423641	MT166914	MT166723
<i>Alvinella caudata</i> Desbruyères & Laubier 1986	East Pacific Rise	---	SRR3665374	SRR3665374	SRR3665374	SRR3665374	---
<i>Alvinella pompejana</i> Desbruyères & Laubier 1980	East Pacific Rise	A9429	AY645983	MT166794	MT166855	FP517935	MT166724
<i>Alvinella pompejana</i> Desbruyères & Laubier 1980	East Pacific Rise	---	SRR3665375	SRR3665375	SRR3665375	SRR3665375	---
<i>Nautalvinella irlandei</i> ¹ (Desbruyères & Laubier 1986)	East Pacific Rise	---	SRR3665379	SRR3665379	SRR3665379	SRR3665379	---
<i>Nautalvinella pandorae</i> (Desbruyères & Laubier 1986)	Juan de Fuca Ridge	A1105	DQ270466	MT166826	MT166884	MT166916	MT166764
<i>Paralvinella fijiensis</i> Desbruyères & Laubier 1993	Lau Back-Arc Basin	ZMBN10 6600	MG270110	MG253099	MG253145	---	---
<i>Paralvinella fijiensis</i> Desbruyères & Laubier 1993	Lau Back-Arc Basin	---	SRR3665376	SRR3665376	SRR3665376	SRR3665376	SRR3665376
<i>Paralvinella grasslei</i> Desbruyères & Laubier 1982	East Pacific Rise	A1093A	MT167009	MT166824	AY577886	X80654	MT166762
<i>Paralvinella grasslei</i> Desbruyères & Laubier 1982	East Pacific Rise	---	SRR3665377	SRR3665377	SRR3665377	SRR3665377	SRR3665377
<i>Paralvinella palmiformis</i> Desbruyères & Laubier 1986	Juan de Fuca Ridge	A1104	MT167010	MT166825	AF168747	MT166915	MT166763
<i>Paralvinella palmiformis</i> Desbruyères & Laubier 1986	Juan de Fuca Ridge	A7728	SRR11434460	SRR11434460	SRR11434460	SRR11434460	SRR11434460
<i>Paralvinella sulfincola</i> Desbruyères & Laubier 1993 in Tunnicliffe et al. 1993	Juan de Fuca Ridge	---	FJ976042	FJ976042	JN936461	---	---
Ampharetidae							

Ampharetinae

<i>Amage auricula</i> Malmgren 1866	Norwegian Sea	ZMBN 99281	---	MG253079	MG253131	---	---
<i>Amage sculpta</i> Ehlers 1908	Antarctica	---	---	MG253117	MG253162	---	---
<i>Amagopsis klugei</i> Pergament & Khlebovich 1964	Norwegian Sea	ZMBN 95455	MG270108	---	MG253173	---	---
<i>Ampharete acutifrons</i> (Grube 1860)	Iceland	---	HM473718	DQ779601	---	DQ779673	DQ779715
<i>Ampharete falcata</i> Eliason 1955	Norway, Skagerrak	ZMBN 95443	MG270099	MG253124	MG253169	---	---
<i>Ampharete finnarchica</i> (Sars 1864)	Svalbard, Spitsbergen	A1100	JX423738	JX423670	JX423642	MT166917	MT166726
<i>Amphicteis dalmatica</i> Hutchings & Rainer 1979	Australia, New South Wales	W199656	AF342678	---	---	AF342693	AF342700
<i>Amphicteis gunneri</i> (Sars 1835)	Norway, Glesvær	ZMBN 121368	MG270125	MG253105	MG253150	---	---
<i>Amphicteis</i> cf. <i>gunneri</i> group 2 ²	Norway, Trondheim fjord	A1107	MT166980	MT166796	MT166856	MT166918	MT166727
<i>Amphicteis</i> cf. <i>gunneri</i> group 4 ³	Sweden, Koster area	A9430	SRR11434467	SRR11434467	SRR11434467	SRR11434467	SRR11434467
<i>Amphicteis obscurior</i> Chamberlin 1919	Mexico, Gulf of California	A9431	MT166981	MT166797	---	MT166919	MT166728
<i>Amphicteis ninonae</i> Jirkov 1985	Svalbard, Spetsbergen	ZMBN 95441	KX497038	KX513561	---	---	---
<i>Amphisamytha carldarei</i> Stiller et al. 2013	Juan de Fuca Ridge	A7710	SRR11434468	SRR11434468	SRR11434468	SRR11434468	SRR11434468
<i>Amphisamytha jacksoni</i> Stiller et al. 2013 ⁴	Galapagos Ridge	CDF NA067-0 45-05	MT166982	MT166798	MT166857	MT166920	MT166729
<i>Amythas membranifera</i> Benham 1921	Scotia Arc	A2947	MT166983	MT166799	MT166858	MT166921	MT166730
<i>Anobothrus gracilis</i> (Malmgren 1866)	Norway, Trondheim fjord	A1106	JX423739	JX423671	JX423643	AF501670	MT166731
<i>Anobothrus laubieri</i> (Desbruyères 1978)	---	ZMBN 89833	---	MG253080	MG253132	---	---
<i>Anobothrus</i> sp. EP-B ⁵	USA, California, Whale "Ruby"	A9432	SRR11434464	SRR11434464	SRR11434464	SRR11434464	SRR11434464
<i>Asabellides californica</i> Hilbig 2000	---	A9433	MT166986	MT166802	MT166860	MT166922	MT166734

<i>Auchenoplax crinita</i> Ehlers 1887	USA, New England	---	FJ976041	FJ976041	DQ790077	DQ790026	---
<i>Auchenoplax worsfoldi</i> Jirkov & Leontovich 2013	Mauritania	ZMBN 95430	MG270100	MG253118	MG253165	---	---
<i>Eclysippe eliasoni</i> (Day 1973)	Norway, Trondheim fjord	A1108	JX423766	JX423678	JX423648	MT166924	MT166737
<i>Eclysippe vanelli</i> (Fauvel 1936)	Mauritania	ZMBN 95433	MG270103	MG253119	MG253166	---	---
<i>Glyphanostomum pallescens</i> (Théel 1879)	Iceland	---	MG270091	MG253092	MG253142	---	---
<i>Grassleia</i> cf. <i>hydrothermalis</i> Solís-Weiss 1993	Mexico, Gulf of California	A6137	KX497032	KX513552	KX13568	---	---
<i>Hypania invalida</i> (Grube 1860)	Germany, Magdeburg	---	SRR5590961	SRR5590961	---	SRR5590961	SRR5590961
<i>Lysippe labiata</i> Malmgren 1866	Svalbard, Billefjord	A9434 / ZMBN 95444	MT167003	MG253125	MT166876	MT166925	MT166752
<i>Mugga wahrbergi</i> Eliason 1955	Sweden, Gullmarsfjorden	A1118	JX423768	JX423680	JX423650	MT166926	MT166757
<i>Neosabellides elongatus</i> (Ehlers 1912)	Scotia Arc	A9435	MT167007	MT166821	MT166881	MT166927	MT166759
<i>Neosabellides lizae</i> Alvestad & Budaeva 2015	Australia, Lizard Island	W45180	MG270089	---	MG253134	---	---
<i>Noanelia</i> sp. A	Icelandic Basin	---	MG270121	MG253098	MG253144	---	---
<i>Paralysippe annectens</i> (Moore 1923)	USA, California, "Fossil Hill"	A9436	MT167011	MT166827	MT166885	MT166928	MT166765
<i>Paramytha ossicola</i> Queirós et al. 2016	Portugal, Setúbal Canyon	ZMBN 107234	---	KX513549	KX513565	---	---
<i>Paramytha schanderi</i> Kongsrud et al. 2016	Mid-Atlantic Ridge, Loki's Castle	ZMBN 87820	KX497035	KX513555	KX513571	---	---
<i>Pavelius smileyi</i> Kongsrud et al. 2016	Mid-Atlantic Ridge, Loki's Castle	ZMBN 87807	KX497034	KX513554	KX513570	---	---
<i>Pavelius uschakovi</i> Kuznetsov & Levenstein 1988	Russia, Okhotsk Sea	ZMBN 108241	KX497033	KX513553	KX513569	---	---
<i>Pavelius</i> sp. EP-B ⁶	USA, Oregon, Hydrate Ridge	A1980 / A2065	MT167012	MT166828	MT166886	MT166923	MT166766
<i>Sabellides octocirrata</i> (Sars 1835)	Norway, Trondheim fjord	A1109	JX423770	JX423682	JX423652	MT166929	MT166778

<i>Samnytha sexcirrata</i> (Sars 1856)	Norway, Trondheim fjord	A1110	MT167021	MT166839	MT166897	MT166930	MT166779
<i>Samnythella neglecta</i> Wollebaek 1912	Norwegian Sea	ZMBN 99276	MG270113	KX513551	KX513567	---	---
<i>Sosane sulcata</i> Malmgren 1866	Sweden, Vattenholmen	A1120	MG270078	MT166841	MT166899	MT166931	MT166781
<i>Sosane wireni</i> (Hessle 1917)	Norway, Bergen area	ZMBN 95447	KX497039	KX513562	KX513577	---	---
Melinnidae							
<i>Isolda bipinnata</i> Fauchald 1977	Belize	A9437	MT166993	MT166809	MT166867	MT166932	MT166742
<i>Isolda pulchella</i> Müller in Grube 1858	Morocco	ZMBN 105697	MG270120	MG253082	MG253136	---	---
<i>Melinna albicincta</i> Mackie & Pleijel 1995	Norway, Trondheim Fjord	A1113	JX423767	JX423679	JX423649	MT166933	MT166753
<i>Melinna cristata</i> (Sars 1851)	Sweden, Gullmaren	A9438	GQ229117	DQ779624	MT166877	MT166934	MT166754
<i>Melinna heterodonta</i> (Moore 1923)	USA, California	A4546	MT167004	MT166818	MT166878	MT166935	MT166755
<i>Melinna oculata</i> Hartman 1969	USA, California	A9439	MT167005	MT166819	MT166879	MT166936	MT166756
<i>Melinna oculata</i> Hartman 1969	USA, California	A9440	SRR11434462	SRR11434462	SRR11434462	SRR11434462	---
Pectinariidae							
<i>Pectinaria auricoma</i> (Müller 1776)	Sweden, Kristineberg	A1004	MT167013	DQ319857	MT166887	AF501668	MT166767
<i>Pectinaria gouldii</i> (Verrill 1874)	---	---	FJ976040	FJ976040	DQ790091	DQ790054	---
<i>Pectinaria gouldii</i> (Verrill 1874)	Massachusetts, USA	---	SRR2057036	SRR2057036	SRR2057036	SRR2057036	---
<i>Pectinaria granulata</i> (Linné 1767)	Iceland	A9441	HQ970907	MT166829	AY577890	DQ209239	MT166768
<i>Pectinaria hyperborea</i> (Malmgren, 1866)	Russia, Kandalaksha Bay	WS0244/ WS668	GU672461	---	---	---	KP113607
<i>Pectinaria koreni</i> (Malmgren 1866)	English Channel / North Sea	---	DQ319528	DQ319865	JN936463	---	---
<i>Petta pusilla</i> Malmgren 1866	Sweden, Kostergrund	A1122	MT167014	MT166830	MT166888	MT166937	MT166769
Terebellidae							
Terebellinae							

<i>Amaeana trilobata</i> (Sars 1863)	Norway, Trondheimsfjord	A9442	MT166979	MT166795	---	MT166938	MT166725
<i>Artacama crassa</i> Hartman 1967	Scotia Arc	A3151	MT166984	MT166800	MT166859	MT166947	MT166732
<i>Artacama proboscidea</i> Malmgren 1866	Sweden, Kostergrund	A1125	MT166985	MT166801	AY344666	MT166948	MT166733
<i>Axionice maculata</i> (Dalyell 1853)	Svalbard, Hinlopenstretet	A1097	MT166987	MT166803	MT166861	MT166949	MT166735
<i>Biremis</i> cf. <i>blandi</i> Polloni et al. 1973	Mexico, Alarcon Rise	A7707	MT166988	MT166804	MT166862	MT166939	MT166736
<i>Eupolyinnia crassicornis</i> (Schmarda 1861)	Belize	A9446	MT166989	MT166805	MT166863	MT166950	MT166738
<i>Eupolyinnia crassicornis</i> (Schmarda 1861)	Belize	A9448	SRR11434465	SRR11434465	SRR11434465	SRR11434465	SRR11434465
<i>Eupolyinnia nebulosa</i> (Montagu 1818)	France, Banyuls	A1080	MT166990	MT166806	MT166864	MT166951	MT166739
<i>Eupolyinnia rullieri</i> Londoño-Mesa, 2009	Belize	A9447	MT166991	MT166807	MT166865	MT166952	MT166740
<i>Hauchiella renilla</i> Hutchings & Glasby 1986	Australia, South Australia	A1116	MT166992	MT166808	MT166866	MT166940	MT166741
<i>Lanassa venusta</i> (Malm 1874)	Svalbard, Raudfjord	A1099	MT166994	MT166810	MT166868	MT166953	MT166743
<i>Lanice conchilega</i> (Pallas 1766)	England, Scilly Islands	A1115	MT166995	AY340466	X79873	AY340403	MT166744
<i>Lanice conchilega</i> (Pallas 1766)	France, Roscoff	---	SRR5590962	SRR5590962	SRR5590962	SRR5590962	---
<i>Lanicola lobata</i> Hartmann-Schröder 1986	Australia, Tasmania	A9450	MT166997	MT166812	MT166870	MT166955	MT166746
<i>Laphania boeckii</i> Malmgren 1866	Svalbard, Billefjord	A1095	MT166998	MT166813	MT166871	MT166956	MT166747
<i>Leaena ebranchiata</i> (Sars 1865)	Svalbard, Billefjord	A1094	MT166999	MT166814	MT166872	MT166957	MT166748
<i>Loimia bermudensis</i> Verrill 1900	Belize	A9451	MT167000	MT166815	MT166873	MT166958	MT166749
<i>Loimia bermudensis</i> Verrill 1900	Belize	A9451	SRR11434463	SRR11434463	SRR11434463	SRR11434463	SRR11434463
<i>Loimia salazari</i> Londoño-Mesa & Carrera-Parra 2005	---	---	AY040704	---	AY040690	---	---
<i>Loimia minuta</i> Treadwell 1929	Belize	A9452	MT167001	MT166816	MT166874	MT166959	MT166750

<i>Lysilla</i> cf. <i>pacifica</i> Hessle 1917	New Caledonia, Lifou Island	A1114	MT167002	MT166817	MT166875	MT166941	MT166751
<i>Neoamphitrite affinis</i> (Malmgren 1866)	Sweden, Gullmarsfjord	A1117	MT167006	MT166820	MT166880	MT166960	MT166758
<i>Neoamphitrite robusta</i> (Johnson 1901)	USA, California	A9453	SRR11434461	SRR11434461	SRR11434461	SRR11434461	SRR11434461
<i>Paraeupolyinnia carus</i> Young & Kritzler 1987	Belize	A9449	MT166996	MT166811	MT166869	MT166954	MT166745
<i>Pista australis</i> Hutchings & Glasby 1988	Australia, New South Wales	W24390	AF342682	---	---	AF185159	AF185242
<i>Pista cristata</i> (Müller 1776)	Norway, Trondhejmsfjord	ZMBN 116032	MG270116	MG253107	MG253153	---	---
<i>Polycirrus arcticus</i> Sars 1865	Svalbard, Billefjord	A1096	MT167015	MT166831	MT166889	MT166942	MT166770
<i>Polycirrus californicus</i> Moore 1909	USA, California	A9443	MT167016	MT166832	MT166890	MT166943	MT166771
<i>Polycirrus carolinensis</i> Day 1973	Belize	A1101	---	MT166833	MT166891	MT166944	MT166772
<i>Polycirrus carolinensis</i> Day 1973	Belize	A9444	SRR11434459	SRR11434459	SRR11434459	SRR11434459	SRR11434459
<i>Polycirrus eximius</i> (Leidy 1855)	USA, North Carolina	A9445	MT167017	MT166834	MT166892	MT166945	MT166773
<i>Polycirrus norvegicus</i> Wollebæk 1912	Norway, Trondheim fjord	A1111	---	MT166835	MT166893	MT166946	MT166774
<i>Proclea malmgreni</i> (Ssolowiew 1899)	Sweden, Singlefjord	A1121	MT167018	MT166836	MT166894	MT166961	MT166775
<i>Reteterebella</i> cf. <i>aloba</i> Hutchings & Glasby 1988	---	A9454	MT167019	MT166837	MT166895	MT166962	MT166776
<i>Scionella lornensis</i> Pearson 1969	Sweden, Gullmarsfjord	A1119	MT167022	MT166840	MT166898	MT166963	MT166780
<i>Spinosphaera hutchingsae</i> Londoño-Mesa 2004	Belize	A9455	MT167023	MT166842	MT166900	MT166964	MT166782
<i>Terebella lapidaria</i> Linnaeus 1767	England, English Channel	A1102	JX423771	JX423683	JX423653	MT166965	MT166785
Thelepodinae							
<i>Rhinothelepus lobatus</i> Hutchings 1974	Australia, New South Wales	W49044	MT167020	MT166838	MT166896	MT166966	MT166777
<i>Streblosoma kaia</i> Reuscher et	North Fiji Basin,	A9456	MT167024	MT166843	MT166901	MT166967	MT166783

al. 2011	White Lady						
<i>Streblosoma pacifica</i> Hilbig	USA, California	A9457	MT167025	MT166844	MT166902	MT166968	MT166784
2001							
<i>Thelepus antarcticus</i> Kinberg	Scotia Arc	A2944	MT167028	MT166847	MT166905	MT166969	MT166788
1866							
<i>Thelepus australiensis</i>	Australia,	A9458	MT167029	MT166848	MT166906	MT166970	MT166789
Hutchings & Smith 1997	Whitsunday Islands						
<i>Thelepus cincinnatus</i>	Norway,	A9460/	MT167031	DQ779636	AY611462	DQ779712	DQ779769
(Fabricius 1780)	Trondheim fjord	SMNH					
		81625					
<i>Thelepus</i> cf. <i>pascua</i> (Fauchald	Indonesia, Raja	A9459	MT167030	MT166849	MT166907	MT166971	MT166790
1977)	Ampat						
<i>Thelepus</i> n.sp.	USA, California	A5916	SRR2017640	SRR2017640	SRR2017640	SRR2017640	SRR2017640
<i>Thelepus</i> n.sp.2	USA, California	A9461	MT167032	MT166850	MT166908	MT166972	MT166791
<i>Thelepus verrilli</i> (Treadwell	Belize	A9462	MT167033	MT166851	MT166909	---	MT166792
1911)							
Trichobranchidae							
<i>Octobranchus lingulatus</i>	France, Banyuls	A1103	MT167008	MT166822	MT166882	MT166974	MT166760
(Grube 1863)							
<i>Octobranchus</i> sp. ⁷	USA, California,	A9463	---	MT166823	MT166883	MT166973	MT166761
	Whale Pedro						
<i>Terebellides atlantis</i> Williams	South of Iceland	SMF	MG025259	MG025491	---	MG025418	---
1984		24678					
<i>Terebellides bigeniculatus</i>	South of Iceland	SMF	MG025318	MG025500	---	MG025427	---
Parapar, Moreira & Helgason		24636					
2011							
<i>Terebellides gracilis</i> Malm	Norway	NTU-V	MG024998	MG025452	---	MG025368	---
1874		M-68196					
<i>Terebellides irinae</i> Gagaev	Arctic Ocean	ZMBN	MG025342	MG025506	---	MG025432	---
2009		116500					
<i>Terebellides shetlandica</i>	Sweden,	A1143	MT167026	MT166845	MT166903	MT166976	MT166786
Parapar, Moreira & O'Reilly	Kristineberg						
2016							
<i>Terebellides</i> sp. LA1 ⁸	USA, California	A9464	MT167027	MT166846	MT166904	MT166975	MT166787
<i>Terebellides</i> sp. ⁹	USA, Washington	A9465	SRR11434458	SRR11434458	SRR11434458	SRR11434458	SRR11434458
<i>Terebellides stroemii</i> Sars 1835	Skagerrak, North	ZMBN	MG025097	MG025462	---	MG025380	---
	Sea	116344					
<i>Terebellides williamsae</i> Jirkov	Barents Sea	ZMBN	MG024977	MG025448	---	MG025363	---
1989		116258					

<i>Trichobranchus</i> cf. <i>bibranchiatus</i> Moore 1903	Indonesia, Raja Ampat	A7289	MT167034	MT166852	MT166910	MT166977	MT166793
<i>Trichobranchus hancocki</i> (Hartman 1955)	USA, California	A9466	MT167035	MT166853	MT166911	---	---
<i>Trichobranchus roseus</i> (Malm 1874)	Sweden, Gasoriken	A1084	MT167036	MT166854	MT166912	MT166978	---
<i>Trichobranchus roseus</i> (Malm 1874)	Sweden, Koster area	A9467	SRR11434466	SRR11434466	SRR11434466	SRR11434466	SRR11434466
<i>Trichobranchus tribranchiata</i> (Hutchings & Peart 2000)	Australia, South Australia	A1123	MT167037	DQ779605	MT166913	DQ779677	DQ779720
Outgroup							
<i>Arenicola marina</i> (Linnaeus 1758)	---	---	HQ691225	HQ691210	HQ691215	HQ691220	DQ779718

¹On NCBI SRA as *Paralvinella pandorae irlandei*. Our results indicate that it should be *Nautalvinella irlandei*.

²*Amphicteis gunneri* forms a cryptic species complex. This specimen falls in group 2 of an unpublished assessment (Jon Kongsrud, pers. comm.).

³*Amphicteis gunneri* forms a cryptic species complex. This specimen falls in group 4 of an unpublished assessment (Jon Kongsrud, pers. comm.).

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⁵This is an undescribed species informally called *Anobothrus* sp. EP-B (Jon Kongsrud, pers. comm.).

⁶This is an undescribed species informally called *Pavelius* sp. EP-B (Jon Kongsrud, pers. comm.).

⁷This is an undescribed species that has been informally referred to as “*Bizzarobranchus*” or “*genus B*” (SCAMIT, <https://preview.tinyurl.com/wmmnv5>).

⁸This is an undescribed species that has been informally referred to as *Terebellides* “sp. LA1” (SCAMIT Newsletter Vol 25(5), <https://preview.tinyurl.com/tqayhud>).

⁹*Terebellides* is a cryptic species complex (Nygren et al. 2018) in the Atlantic. This specimen corresponds to species 25 in group C of Nygren et al. 2018.