

Additional file 1: Analyses protocols & detailed results

Table S1: Overview of samples analysed. DMM: Deutsches Meeresmuseum; ZSM: Zoologische Staatssammlung München; BPS: Musée d'Histoire naturelle.

Voucher specimen	Species	# reads (x10000)	# contigs	# genes captured
DMM IE/9239	<i>Elops senegalensis</i>	490	1711	1044
DMM IE/9474	<i>Pantodon buchholzi</i>	380	4731	3179
DMM IE/11506	<i>Denticeps clupeoides</i>	340	4071	2886
DMM IE/9760	<i>Dussumieria elopsoides</i>	240	2162	1477
DMM IE/4611	<i>Clupea harengus</i>	510	1612	974
DMM IE/9418	<i>Pellonula leonensis</i>	500	1358	891
ZSM-PIS-044562	<i>Limnothrissa miodon</i>	1060	4430	3077
DMM IE/6170	<i>Engraulis encrassicolus</i>	820	3546	2410
DMM IE/9671	<i>Alepocephalus bicolor</i>	200	2240	1659
DMM IE/5805	<i>Alepocephalus brevipinni</i>	600	5002	3814
n.a.	<i>Holtbyrnia anomala</i>	530	640	353
DMM IE/10166	<i>Cromeria occidentalis</i>	1800	5700	3938
DMM IE/9985	<i>Chanos chanos</i>	170	2878	2019
DMM IE/9517	<i>Gonorynchus abbreviatus</i>	230	2969	2137
ZSM32021	<i>Gymnotus</i> sp.	200	2273	2076
DMM IE/6305	<i>Alestes baremoze</i>	800	3999	2977
DMM IE/10925	<i>Schilbe mystus</i>	320	1485	617
DMM IE/9036	<i>Distichodus brevipinnis</i>	420	735	449
n.a.	<i>Anguilla anguilla</i>	800	5181	3769
DMM IE/5966a	<i>Rutilus rutilus</i>	470	5441	4513
DMM IE/5966b	<i>Rutilus rutilus</i>	720	9693	8290
DMM IE/12383	<i>Danio rerio</i>	720	11676	10929
SAM-FISHY6:PU09-49LS-1	<i>Lepidogalaxias salamandroides</i>	1350	6228	4315
DMM IE/15076	<i>Esox lucius</i>	190	344	185
UW150693	<i>Dallia pectoralis</i>	780	3792	2502
DMM IE/6000	<i>Umbra krameri</i>	910	3118	2178
DMM IE/10013	<i>Salmo trutta</i>	580	2019	1298
ZSM40048	<i>Coregonus</i> sp.	800	4410	5664
DMM IE/5848	<i>Argentina sphyraena</i>	500	2915	1952
BPS0624	<i>Opisthoproctus soleatus</i>	800	5096	3586
BPS1997	<i>Nansenia oblita</i>	740	4126	2738
DMM IE/4896	<i>Bathylagus euryops</i>	850	3124	2023
DMM IE/6150	<i>Borostomias antarcticus</i>	460	3537	2430
DMM IE/12416	<i>Astronesthes lucifer</i>	390	2505	1702
DMM IE/12433	<i>Maurollicus muelleri</i>	490	1740	1098
DMM IE/12145	<i>Retropinna tasmanica</i>	3200	6439	3482
CL284	<i>Retropinna tasmanica</i>	890	4270	2904

DMM IE/6055	<i>Mallotus villosus</i>	870	5879	4036
DMM IE/6198	<i>Osmerus eperlanus</i>	690	2452	1582
DMM IE/12147	<i>Lovettia sealii</i>	800	6190	3962
DMM IE/12429	<i>Salanx acuticeps</i>	330	3122	2074
DMM IE/9685	<i>Plecoglossus altivelis</i>	240	2047	1795
CL282	<i>Galaxias fasciatus</i>	1000	4356	2918
DMM IE/5811	<i>Evermanella balbo</i>	750	2732	1829
DMM IE/12414	<i>Lestrolepis japonica</i>	270	1800	1089
DMM IE/4644	<i>Arctozensus risso</i>	550	1735	1089
DMM IE/6171	<i>Synodus saurus</i>	590	2758	1901
DMM IE/9594	<i>Hime japonica</i>	330	2198	1467
DMM IE/9556	<i>Harpadon microchir</i>	200	1899	1253
DMM IE/9556	<i>Ateleopus japonicus</i>	190	1813	1198
BPS2503	<i>Ijimaia loppei</i>	280	2438	1598
DMM IE/6653	<i>Trachipterus trachipterus</i>	390	757	400

1 Table S2: Results from cross contamination check using detect_contamination.pl

Contaminated sample ¹	Contaminating source ²	Percentage of contamination(%) ³	Contaminated pair ⁴	All pair ⁵	Contaminating_source->Contaminated_sample ⁶	Contaminated_sample->Contaminating_source ⁷
Anguilla_anguillatm125	Alepocephalus_brevipinnit tm66merge	0.23	4	1770	1	0
Coregonus_spZSM13380	Argentina_sphyraena029t m	0.1	1	980	0	0
Cromeria_occidentalistm 583a	Bathylagus_euryopstm11 2	0.11	1	938	0	0
Danio_rerioD15	Alepocephalus_bicolor	0.08	1	1310	1	0
Alepocephalus_brevipinnit tm66merge	Danio_rerioD15	1.2	38	3174	4	1
Anguilla_anguillatm125	Danio_rerioD15	1.44	45	3119	3	0
Danio_rerioD15	Borostomias_antarcticust m762	0.05	1	1962	0	0
Galaxias_fasciatusCL282	Coregonus_spZSM13380	0.08	1	1241	0	0
Engraulis_entrassicolust m57	Galaxias_fasciatusCL282	0.11	1	914	1	0
Gonorynchus_abbreviatu s098tm	Alepocephalus_brevipinnit tm66merge	0.08	1	1189	0	0
Gonorynchus_abbreviatu s098tm	Borostomias_antarcticust m762	0.12	1	842	0	0
Gonorynchus_abbreviatu s098tm	Danio_rerioD15	0.06	1	1712	1	0
Gonorynchus_abbreviatu s098tm	Dussumiera_elopsoides0 37tm	0.17	1	603	1	0
Gymnotus_spZSM32021	Borostomias_antarcticust m762	0.14	1	694	0	0
Gymnotus_spZSM32021	Danio_rerioD15	0.06	1	1689	0	0
Gymnotus_spZSM32021	Galaxias_fasciatusCL282	0.12	1	817	0	0
Gymnotus_spZSM32021	Gonorynchus_abbreviatu s098tm	0.15	1	673	0	0

Hime_formosana137tm	Borostomias_antarcticust m762	0.15	1	656	0	0
Hime_formosana137tm	Danio_rerioD15	0.09	1	1170	0	0
Hime_formosana137tm	Gonorynchus_abbreviatu s098tm	0.17	1	583	0	0
Hime_formosana137tm	Gymnotus_spZSM32021	0.21	1	480	0	0
Lepidogalaxias_salamand roidesSAM	Bathylagus_euryopstm11 2	0.09	1	1072	0	0
Lepidogalaxias_salamand roidesSAM	Coregonus_spZSM13380	0.12	2	1631	0	0
Lepidogalaxias_salamand roidesSAM	Cromeria_occidentalistm 583a	0.1	2	1960	0	0
Lepidogalaxias_salamand roidesSAM	Engraulis_encrassicolust m57	0.08	1	1234	0	0
Lepidogalaxias_salamand roidesSAM	Galaxias_fasciatusCL282	0.06	1	1578	0	0
Limnothrissa_miodon	Bathylagus_euryopstm11 2	0.12	1	854	0	0
Limnothrissa_miodon	Lepidogalaxias_salamand roidesSAM	0.06	1	1629	0	0
Lovettia_sealii_CSIROtr	Bathylagus_euryopstm11 2	0.09	1	1054	0	0
Lovettia_sealii_CSIROtr	Lepidogalaxias_salamand roidesSAM	0.05	1	2142	0	0
Mallotus_villosustm016	Alepocephalus_bicolor	0.11	1	893	0	0
Mallotus_villosustm016	Alepocephalus_brevipinni tm66merge	0.06	1	1798	0	0
Mallotus_villosustm016	Bathylagus_euryopstm11 2	0.09	1	1062	0	0
Mallotus_villosustm016	Borostomias_antarcticust m762	0.14	2	1413	0	0
Mallotus_villosustm016	Clupea_harengustm100	0.19	1	538	0	0
Mallotus_villosustm016	Danio_rerioD15	0.03	1	3326	0	0
Gonorynchus_abbreviatu s098tm	Mallotus_villosustm016	0.42	5	1188	3	0
Mallotus_villosustm016	Gymnotus_spZSM32021	0.1	1	989	0	0

Mallotus_villosustm016	Hime_formosana137tm	0.12	1	857	0	0
Maurolicus_muelleritm2013W	Mallotus_villosustm016	0.3	2	661	0	0
Nansenia_oblitaBPS1997	Mallotus_villosustm016	0.07	1	1431	0	0
Opisthoproctus_soleatusBPS0624	Alepocephalus_brevipinnitm66merge	0.12	2	1728	0	0
Opisthoproctus_soleatusBPS0624	Alestes_baremozetm285	0.07	1	1334	0	0
Opisthoproctus_soleatusBPS0624	Anguilla_anguillatm125	0.12	2	1675	0	0
Opisthoproctus_soleatusBPS0624	Coregonus_spZSM13380	0.07	1	1515	0	0
Cromeria_occidentalistm583a	Opisthoproctus_soleatusBPS0624	0.12	2	1715	1	0
Opisthoproctus_soleatusBPS0624	Danio_rerioD15	0.74	22	2957	3	0
Dussumiera_elopsoides037tm	Opisthoproctus_soleatusBPS0624	0.13	1	767	1	0
Osmerus_eperlanustm785	Bathylagus_euryopstm112	0.2	1	494	0	0
Osmerus_eperlanustm785	Borostomias_antarcticustm762	0.14	1	721	0	0
Osmerus_eperlanustm785	Danio_rerioD15	0.08	1	1254	0	0
Esox_luciustm052	Osmerus_eperlanustm785	5.56	4	72	2	0
Gonorynchus_abbreviatu s098tm	Osmerus_eperlanustm785	0.18	1	569	1	0
Osmerus_eperlanustm785	Gymnotus_spZSM32021	0.22	1	464	0	0
Osmerus_eperlanustm785	Hime_formosana137tm	0.22	1	446	0	0
Osmerus_eperlanustm785	Maurolicus_muelleritm2013W	0.27	1	377	0	0
Osmerus_eperlanustm785	Nansenia_oblitaBPS1997	0.3	2	669	0	0

Retropinna_tasmanicaCL2 84a	Borostomias_antarcticust m762	0.08	1	1198	0	0
Retropinna_tasmanicaCL2 84a	Chanos_chanostm1777	0.11	1	921	0	0
Retropinna_tasmanicaCL2 84a	Danio_rerioD15	0.04	1	2383	0	0
Retropinna_tasmanicaCL2 84a	Galaxias_fasciatusCL282	0.08	1	1266	0	0
Gonorynchus_abbreviatu s098tm	Retropinna_tasmanicaCL2 84a	0.11	1	946	1	0
Retropinna_tasmanicaCL2 84a	Gymnotus_spZSM32021	0.13	1	796	0	0
Retropinna_tasmanicaCL2 84a	Hime_formosana137tm	0.13	1	749	0	0
Retropinna_tasmanicaCL2 84a	Lovettia_sealii_CSIROtr	0.06	1	1551	0	0
Retropinna_tasmanicaCL2 84a	Mallotus_villosustm016	0.12	2	1727	0	0
Nansenia_oblitaBPS1997	Retropinna_tasmanicaCL2 84a	0.09	1	1169	1	0
Retropinna_tasmanicaCL2 84a	Osmerus_eperlanustm78 5	0.23	2	884	0	0
Retropinna_tasmanica_C SIROtr	Borostomias_antarcticust m762	0.07	1	1396	0	0
Retropinna_tasmanica_C SIROtr	Chanos_chanostm1777	0.09	1	1116	0	0
Retropinna_tasmanica_C SIROtr	Danio_rerioD15	0.03	1	3754	0	0
Galaxias_fasciatusCL282	Retropinna_tasmanica_C SIROtr	0.06	1	1619	1	0
Gonorynchus_abbreviatu s098tm	Retropinna_tasmanica_C SIROtr	0.09	1	1148	1	0
Retropinna_tasmanica_C SIROtr	Gymnotus_spZSM32021	0.08	1	1258	0	0
Retropinna_tasmanica_C SIROtr	Hime_formosana137tm	0.11	1	880	0	0

Retropinna_tasmanica_C SIROtr	Lovettia_sealii_CSIROtr	0.24	6	2514	0	0
Retropinna_tasmanica_C SIROtr	Mallotus_villosustm016	0.09	2	2267	0	0
Nansenia_oblitaBPS1997	Retropinna_tasmanica_C SIROtr	0.07	1	1474	1	0
Retropinna_tasmanica_C SIROtr	Osmerus_eperlanustm78 5	0.21	2	952	0	0
Alepocephalus_brevipinni tm66merge	Rutilus_rutilus2	0.69	13	1881	1	0
Anguilla_anguilatm125	Rutilus_rutilus2	1.02	18	1762	5	0
Bathylagus_euryopstm11 2	Rutilus_rutilus2	0.9	9	999	3	0
Rutilus_rutilus2	Borostomias_antarcticust m762	0.25	3	1209	0	0
Rutilus_rutilus2	Cromeria_occidentalistm 583a	0.27	5	1849	0	0
Esox_luciustm052	Rutilus_rutilus2	3	3	100	1	0
Gonorynchus_abbreviatu s098tm	Rutilus_rutilus2	0.18	2	1133	1	0
Rutilus_rutilus2	Gymnotus_spZSM32021	0.1	1	1029	0	0
Rutilus_rutilus2	Hime_formosana137tm	0.13	1	778	0	0
Rutilus_rutilus2	Lepidogalaxias_salamand roidesSAM	0.36	7	1942	0	0
Limnothrissa_miodon	Rutilus_rutilus2	0.66	10	1504	3	0
Rutilus_rutilus2	Mallotus_villosustm016	0.06	1	1770	0	0
Opisthoproctus_soleatus BPS0624	Rutilus_rutilus2	0.64	11	1723	2	0
Rutilus_rutilus2	Osmerus_eperlanustm78 5	0.13	1	773	0	0
Rutilus_rutilus2	Retropinna_tasmanicaCL2 84a	0.07	1	1363	0	0
Rutilus_rutilus2	Retropinna_tasmanica_C SIROtr	0.05	1	1874	0	0
Rutilus_rutilustm70	Alepocephalus_bicolor	0.09	1	1098	1	0

Rutilus_rutilustm70	Alepocephalus_brevipinnit m66merge	0.65	17	2628	2	2
Anguilla_anguillatm125	Rutilus_rutilustm70	0.58	15	2579	6	1
Bathylagus_euryopstm11 2	Rutilus_rutilustm70	0.58	8	1389	3	0
Rutilus_rutilustm70	Borostomias_antarcticust m762	0.24	4	1652	0	0
Cromeria_occidentalistm 583a	Rutilus_rutilustm70	0.22	6	2788	1	0
Esox_luciustm052	Rutilus_rutilustm70	1.77	2	113	1	0
Gonorynchus_abbreviatu s098tm	Rutilus_rutilustm70	0.14	2	1451	1	0
Rutilus_rutilustm70	Gymnotus_spZSM32021	0.07	1	1461	0	0
Rutilus_rutilustm70	Hime_formosana137tm	0.1	1	1006	0	0
Rutilus_rutilustm70	Ijimaia_loppeBPS2503	0.09	1	1090	0	0
Rutilus_rutilustm70	Lepidogalaxias_salamand roidesSAM	0.13	4	3007	0	0
Limnothrissa_miodon	Rutilus_rutilustm70	0.37	8	2175	1	0
Rutilus_rutilustm70	Mallotus_villosustm016	0.04	1	2753	0	0
Opisthoproctus_soleatus BPS0624	Rutilus_rutilustm70	0.28	7	2475	2	0
Rutilus_rutilustm70	Osmerus_eperlanustm78 5	0.1	1	1046	0	0
Rutilus_rutilustm70	Retropinna_tasmanicaCL2 84a	0.05	1	1968	0	0
Rutilus_rutilustm70	Retropinna_tasmanica_C SIROtr	0.03	1	3083	0	0
Salanx_acuticepstmT02	Ateleopus_japonicus133t m	0.2	1	509	0	0
Salanx_acuticepstmT02	Borostomias_antarcticust m762	0.11	1	870	0	0
Harpadon_microchir067t m	Salanx_acuticepstmT02	0.78	4	512	2	0
Salanx_acuticepstmT02	Maurollicus_muellerit20 13W	0.22	1	448	0	0

Salanx_acuticepstmT02	Retropinna_tasmanicaCL284a	0.19	2	1052	0	0
Salanx_acuticepstmT02	Retropinna_tasmanica_CSIROtr	0.08	1	1255	0	0
Salmo_truttatm20154	Alestes_baremozetm285	0.18	1	546	0	0
Salmo_truttatm20154	Anguilla_anguillatm125	0.15	1	657	0	0
Salmo_truttatm20154	Lovettia_sealii_CSIROtr	0.15	1	684	0	0
Salmo_truttatm20154	Retropinna_tasmanica_CSIROtr	0.14	1	740	0	0
Salmo_truttatm20154	Schilbe_mystustm551b	36.9	69	187	8	4
Umbra_krameritm62	Alepocephalus_brevipinnitm66merge	0.26	3	1157	0	0
Umbra_krameritm62	Anguilla_anguillatm125	0.27	3	1094	0	0
Umbra_krameritm62	Bathylagus_euryopstm112	0.15	1	682	0	0
Umbra_krameritm62	Danio_rerioD15	3.24	56	1727	1	0
Umbra_krameritm62	Limnothrissa_miodon	0.1	1	997	0	0
Umbra_krameritm62	Mallotus_villosustm016	0.09	1	1142	0	0
Umbra_krameritm62	Nansenia_oblitaBPS1997	0.11	1	892	0	0
Umbra_krameritm62	Opisthoproctus_soleatusBPS0624	0.18	2	1139	0	0
Umbra_krameritm62	Osmerus_eperlanustm785	0.18	1	548	0	0
Umbra_krameritm62	Retropinna_tasmanicaCL284a	0.1	1	967	0	0
Umbra_krameritm62	Rutilus_rutilus2	2.85	33	1157	1	0
Umbra_krameritm62	Rutilus_rutilustm70	1.75	26	1484	1	0

2 ¹ Name of contaminated sample3 ² Name of contaminating source4 ³ Divide times of occurrence of contamination by times of occurrence of contaminated sample-contaminating source pair among all loci (x 100)5 ⁴ Times of occurrence of contamination between contaminated sample-contaminating source pair among all loci6 ⁵ Times of occurrence of contaminated sample-contaminating source pair among all loci7 ⁶ Times of contaminating source contaminated contaminated sample8 ⁷ Times of contaminated sample contaminated contaminating source

Table S3: Results from orthology check on additional loci using Orthograph [72].

Locus ¹	Orthology Group ²	Reciprocal blast hit (RBH) samples ³	Enriched samples ⁴	Reason of samples without RBH
Danio_erio.1.18296121.18296321	Danio_erio.1.18296121.18296321	33	33	
Danio_erio.1.18299488.18299648	Danio_erio.1.18299488.18299648	21	21	
Danio_erio.1.27027674.27028223	Danio_erio.1.27027674.27028223	22	22	
Danio_erio.1.28199081.28201810	Danio_erio.1.28199081.28201810	25	26	too short: Trachypterus_trachipterustm119
Danio_erio.1.31116778.31116951	Danio_erio.1.31116778.31116951	27	27	
Danio_erio.1.35295365.35295668	Danio_erio.1.35295365.35295668	17	17	
Danio_erio.1.42241149.42241322	Danio_erio.1.42241149.42241322	30	30	
Danio_erio.1.44070566.44070840	Danio_erio.1.44070566.44070840	17	17	
Danio_erio.1.46410167.46410317	Danio_erio.1.46410167.46410317	33	33	
Danio_erio.1.46425056.46425217	Danio_erio.1.46425056.46425217	33	33	
Danio_erio.10.11294348.11294150	Danio_erio.10.11294348.11294150	18	18	
Danio_erio.10.11300795.11300598	Danio_erio.10.11300795.11300598	34	34	
Danio_erio.10.11775672.11775490	Danio_erio.10.11775672.11775490	34	34	
Danio_erio.10.1631139.1630985	Danio_erio.10.1631139.1630985	27	27	
Danio_erio.10.16979013.16979308	Danio_erio.10.16979013.16979308	34	34	
Danio_erio.10.25116020.25116178	Danio_erio.10.25116020.25116178	21	21	
Danio_erio.10.32015598.32014865	Danio_erio.10.32015598.32014865	22	22	
Danio_erio.10.33338435.33338270	Danio_erio.10.33338435.33338270	20	20	
Danio_erio.10.5548973.5548817	Danio_erio.10.5548973.5548817	11	11	

Danio_rerio.11.12311921.12312121	Danio_rerio.11.12311921.12312121	31	31	
Danio_rerio.11.16233723.16233931	Danio_rerio.11.16233723.16233931	27	27	
Danio_rerio.11.16256857.16257008	Danio_rerio.11.16256857.16257008	35	35	
Danio_rerio.11.18269387.18269231	Danio_rerio.11.18269387.18269231	16	16	
Danio_rerio.11.19924211.19924416	Danio_rerio.11.19924211.19924416	39	39	
Danio_rerio.11.23200485.23200305	Danio_rerio.11.23200485.23200305	13	13	
Danio_rerio.11.27397745.27398046	Danio_rerio.11.27397745.27398046	25	25	
Danio_rerio.11.28697579.28697189	Danio_rerio.11.28697579.28697189	20	20	
Danio_rerio.11.3201229.3201384	Danio_rerio.11.3201229.3201384	25	25	
Danio_rerio.11.39782316.39782167	Danio_rerio.11.39782316.39782167	27	29	multiple blast hit in proteome: Salanx_acuticepstmT02
Danio_rerio.12.14776680.14776875	Danio_rerio.12.14776680.14776875	14	14	
Danio_rerio.12.14887893.14888055	Danio_rerio.12.14887893.14888055	28	28	
Danio_rerio.12.21063494.21063674	Danio_rerio.12.21063494.21063674	24	24	
Danio_rerio.12.23845778.23845268	Danio_rerio.12.23845778.23845268	19	19	
Danio_rerio.12.23917835.23918116	Danio_rerio.12.23917835.23918116	19	20	too short: Alepocephalus_bicolor
Danio_rerio.12.23920360.23920569	Danio_rerio.12.23920360.23920569	27	27	
Danio_rerio.12.23983879.23984119	Danio_rerio.12.23983879.23984119	18	18	
Danio_rerio.12.26434797.26434590	Danio_rerio.12.26434797.26434590	26	26	
Danio_rerio.12.28657090.28657269	Danio_rerio.12.28657090.28657269	26	26	
Danio_rerio.12.30353886.30354051	Danio_rerio.12.30353886.30354051	15	15	
Danio_rerio.12.31929346.31929176	Danio_rerio.12.31929346.31929176	33	33	
Danio_rerio.12.31958040.31958252	Danio_rerio.12.31958040.31958252	41	41	

Danio_rerio.12.35305933.35305693	Danio_rerio.12.35305933.35305693	25	25	
Danio_rerio.12.35313681.35313889	Danio_rerio.12.35313681.35313889	19	19	
Danio_rerio.12.37171331.37171537	Danio_rerio.12.37171331.37171537	15	15	
Danio_rerio.12.40250032.40250256	Danio_rerio.12.40250032.40250256	26	26	
Danio_rerio.12.9956888.9957060	Danio_rerio.12.9956888.9957060	12	12	
Danio_rerio.12.9967973.9968136	Danio_rerio.12.9967973.9968136	40	40	
Danio_rerio.13.12685153.12685346	Danio_rerio.13.12685153.12685346	25	25	
Danio_rerio.13.12773697.12774412	Danio_rerio.13.12773697.12774412	17	19	too short: Limnothrissa_miodon,Salmo_truttatm20154
Danio_rerio.13.12775856.12776101	Danio_rerio.13.12775856.12776101	17	17	
Danio_rerio.13.1277793.1277399	Danio_rerio.13.1277793.1277399	14	14	
Danio_rerio.13.12789906.12790132	Danio_rerio.13.12789906.12790132	28	28	
Danio_rerio.13.13858786.13858959	Danio_rerio.13.13858786.13858959	23	23	
Danio_rerio.13.18463225.18463413	Danio_rerio.13.18463225.18463413	38	38	
Danio_rerio.13.19367795.19368185	Danio_rerio.13.19367795.19368185	35	35	
Danio_rerio.13.24125183.24125443	Danio_rerio.13.24125183.24125443	20	20	
Danio_rerio.13.25809403.25809246	Danio_rerio.13.25809403.25809246	34	34	
Danio_rerio.13.25810415.25810236	Danio_rerio.13.25810415.25810236	42	42	
Danio_rerio.13.25816686.25816430	Danio_rerio.13.25816686.25816430	36	36	

Danio_rerio.13.30258154.30256712	Danio_rerio.13.30258154.30256712	6	19	too short: Alepocephalus_bicolor,Ateleopus_japonicus 133tm,Evermanella_balbotm67eve,Galaxias _fasciatusCL282,Gymnotus_spZSM32021,Hi me_formosana137tm,Ijimaia_loppeibPS250 3,Lepidogalaxias_salamandroidesSAM,Limno thrissa_miodon,Mallotus_villosustm016,Retr opinna_tasmanicaCL284a,Schilbe_mystustm 551b,Synodus_saurustm67syneve
Danio_rerio.13.31123940.31124158	Danio_rerio.13.31123940.31124158	23	23	
Danio_rerio.13.3616977.3617172	Danio_rerio.13.3616977.3617172	24	25	too short: Pantodon_bucholzi382tm
Danio_rerio.13.36212936.36212775	Danio_rerio.13.36212936.36212775	25	25	
Danio_rerio.13.36219960.36219803	Danio_rerio.13.36219960.36219803	26	26	
Danio_rerio.13.36222647.36222495	Danio_rerio.13.36222647.36222495	26	26	
Danio_rerio.13.37194273.37194003	Danio_rerio.13.37194273.37194003	20	20	
Danio_rerio.13.4263019.4263174	Danio_rerio.13.4263019.4263174	30	30	
Danio_rerio.13.43664682.43664837	Danio_rerio.13.43664682.43664837	26	26	
Danio_rerio.13.43863454.43863615	Danio_rerio.13.43863454.43863615	30	30	
Danio_rerio.13.4576158.4576320	Danio_rerio.13.4576158.4576320	30	30	
Danio_rerio.13.4628267.4628467	Danio_rerio.13.4628267.4628467	25	25	
Danio_rerio.13.50080710.50080522	Danio_rerio.13.50080710.50080522	18	18	
Danio_rerio.13.6543000.6542806	Danio_rerio.13.6543000.6542806	22	22	
Danio_rerio.14.4155878.4155603	Danio_rerio.14.4155878.4155603	26	26	
Danio_rerio.14.45858593.45858439	Danio_rerio.14.45858593.45858439	30	30	
Danio_rerio.14.47709684.47709855	Danio_rerio.14.47709684.47709855	37	37	
Danio_rerio.14.49325852.49325677	Danio_rerio.14.49325852.49325677	23	23	

Danio_rerio.14.9688807.9688616	Danio_rerio.14.9688807.9688616	35	35	
Danio_rerio.15.13563118.13564642	Danio_rerio.15.13563118.13564642	23	23	
Danio_rerio.15.1509765.1509586	Danio_rerio.15.1509765.1509586	32	32	
Danio_rerio.15.1542177.1542341	Danio_rerio.15.1542177.1542341	30	30	
Danio_rerio.15.1565400.1565632	Danio_rerio.15.1565400.1565632	29	29	
Danio_rerio.15.19335915.19336166	Danio_rerio.15.19335915.19336166	25	25	
Danio_rerio.15.23136899.23136641	Danio_rerio.15.23136899.23136641	14	14	
Danio_rerio.15.25309293.25309139	Danio_rerio.15.25309293.25309139	21	21	
Danio_rerio.15.38759667.38759830	Danio_rerio.15.38759667.38759830	31	31	
Danio_rerio.15.43915383.43915174	Danio_rerio.15.43915383.43915174	20	20	
Danio_rerio.15.44034117.44033966	Danio_rerio.15.44034117.44033966	24	24	
Danio_rerio.16.10486450.10486648	Danio_rerio.16.10486450.10486648	16	16	
Danio_rerio.16.14287185.14287389	Danio_rerio.16.14287185.14287389	17	18	too short: Engraulis_entrassicolustm57
Danio_rerio.16.18352845.18353006	Danio_rerio.16.18352845.18353006	37	37	
Danio_rerio.16.19755043.19754891	Danio_rerio.16.19755043.19754891	24	24	
Danio_rerio.16.34146314.34146491	Danio_rerio.16.34146314.34146491	20	20	
Danio_rerio.16.38141401.38141200	Danio_rerio.16.38141401.38141200	16	16	
Danio_rerio.16.42715246.42715402	Danio_rerio.16.42715246.42715402	21	21	
Danio_rerio.16.44470277.44470092	Danio_rerio.16.44470277.44470092	31	31	
Danio_rerio.16.45281103.45280763	Danio_rerio.16.45281103.45280763	26	26	
Danio_rerio.16.55608807.55608626	Danio_rerio.16.55608807.55608626	39	39	
Danio_rerio.16.56182262.56181994	Danio_rerio.16.56182262.56181994	39	39	
Danio_rerio.16.56184365.56184108	Danio_rerio.16.56184365.56184108	23	23	

Danio_rerio.16.6349642.6349466	Danio_rerio.16.6349642.6349466	25	25	
Danio_rerio.17.10554466.10554631	Danio_rerio.17.10554466.10554631	33	33	
Danio_rerio.17.177244.177091	Danio_rerio.17.177244.177091	37	37	
Danio_rerio.17.22402840.22402680	Danio_rerio.17.22402840.22402680	35	35	
Danio_rerio.17.22445169.22445362	Danio_rerio.17.22445169.22445362	19	19	
Danio_rerio.17.24439918.24440142	Danio_rerio.17.24439918.24440142	20	20	
Danio_rerio.17.25457338.25457123	Danio_rerio.17.25457338.25457123	19	19	
Danio_rerio.17.28158598.28158424	Danio_rerio.17.28158598.28158424	28	28	
Danio_rerio.17.28741125.28741299	Danio_rerio.17.28741125.28741299	38	38	
Danio_rerio.17.29364211.29364028	Danio_rerio.17.29364211.29364028	20	21	too short: Lovettia_sealii_CSIROtr
Danio_rerio.17.33505893.33506057	Danio_rerio.17.33505893.33506057	37	37	
Danio_rerio.17.35525279.35525115	Danio_rerio.17.35525279.35525115	41	41	
Danio_rerio.17.35538270.35538503	Danio_rerio.17.35538270.35538503	14	14	
Danio_rerio.17.44937719.44937164	Danio_rerio.17.44937719.44937164	26	26	
Danio_rerio.17.51607569.51607400	Danio_rerio.17.51607569.51607400	24	24	
Danio_rerio.17.51611735.51611568	Danio_rerio.17.51611735.51611568	28	28	
Danio_rerio.17.7887549.7887391	Danio_rerio.17.7887549.7887391	10	10	
Danio_rerio.18.11695526.11695369	Danio_rerio.18.11695526.11695369	10	10	
Danio_rerio.18.11703004.11702767	Danio_rerio.18.11703004.11702767	22	22	
Danio_rerio.18.11714356.11714185	Danio_rerio.18.11714356.11714185	22	22	
Danio_rerio.18.14950656.14950443	Danio_rerio.18.14950656.14950443	32	32	
Danio_rerio.18.14987901.14987739	Danio_rerio.18.14987901.14987739	19	19	
Danio_rerio.18.15545791.15545994	Danio_rerio.18.15545791.15545994	35	35	

Danio_rerio.18.15551355.15551549	Danio_rerio.18.15551355.15551549	19	20	multiple blast hit in proteome: Pantodon_bucholzi382tm
Danio_rerio.18.16761340.16761155	Danio_rerio.18.16761340.16761155	18	18	
Danio_rerio.18.18784958.18784737	Danio_rerio.18.18784958.18784737	33	33	
Danio_rerio.18.20275163.20275387	Danio_rerio.18.20275163.20275387	33	33	
Danio_rerio.18.20297779.20297582	Danio_rerio.18.20297779.20297582	5	26	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevi pinnitm66merge,Argentina_sphyaena029t m,Borostomias_antarcticustm762,Chanos_c hanostm1777,Cromeria_occidentalistm583a ,Danio_rerioD15,Distichodus_brevipinnitm5 59,Holtbyrnia_anomalatm117,Lepidogalaxia s_salamandroidesSAM,Limnothrissa_miodon ,Mallotus_villosustm016,Pantodon_bucholzi 382tm,Pecoglossus_altivelistm211,Retropin na_tasmanicaCL284a,Retropinna_tasmanica _CSIROtr,Rutilus_rutilus2,Rutilus_rutilus7 0,Schilbe_mystustm551b,Umbra_krameritm 62,bait_sequences
Danio_rerio.18.20898144.20898343	Danio_rerio.18.20898144.20898343	12	12	
Danio_rerio.18.33525911.33526089	Danio_rerio.18.33525911.33526089	32	32	
Danio_rerio.18.36679109.36678938	Danio_rerio.18.36679109.36678938	23	23	
Danio_rerio.18.6138540.6138356	Danio_rerio.18.6138540.6138356	11	11	
Danio_rerio.18.7870276.7870422	Danio_rerio.18.7870276.7870422	36	36	
Danio_rerio.18.7973745.7973508	Danio_rerio.18.7973745.7973508	16	16	
Danio_rerio.19.27396673.27396461	Danio_rerio.19.27396673.27396461	21	21	
Danio_rerio.19.32132282.32132457	Danio_rerio.19.32132282.32132457	19	19	

Danio_rerio.19.32777735.32778436	Danio_rerio.19.32777735.32778436	1	23	multiple blast hit in proteome: Alepocephalus_bicolor,Argentina_sphyræna 029tm,Bathylagus_euryopstm112,Borostomi as_antarcticustm762,Chanos_chanostm1777 ,Denticeps_clupeoidestm138,Elops_senegal ensistm175,Evermanella_balbotm67eve,Gal axias_fasciatusCL282,Gymnotus_spZSM3202 1,Hime_formosana137tm,Lestrolepis_japoni custmT03,Lepidogalaxias_salamandroidesSA M,Limnothrissa_miodon,Lovettia_sealii_CSIR Otr,Mallotus_villosustm016,Nansenia_oblita BPS1997,Pantodon_bucholzi382tm,Retropin na_tasmanicaCL284a,Retropinna_tasmanica _CSIROtr,Synodus_saurustm67syneve,bait_s equences
Danio_rerio.19.3530431.3530277	Danio_rerio.19.3530431.3530277	33	33	
Danio_rerio.19.36689372.36689082	Danio_rerio.19.36689372.36689082	16	16	
Danio_rerio.19.38687277.38687552	Danio_rerio.19.38687277.38687552	27	27	
Danio_rerio.19.41860989.41860834	Danio_rerio.19.41860989.41860834	11	11	
Danio_rerio.19.8398009.8398331	Danio_rerio.19.8398009.8398331	16	16	
Danio_rerio.2.10692384.10692036	Danio_rerio.2.10692384.10692036	19	19	
Danio_rerio.2.31408501.31408327	Danio_rerio.2.31408501.31408327	20	20	
Danio_rerio.2.35317604.35317817	Danio_rerio.2.35317604.35317817	13	13	
Danio_rerio.2.36373184.36373421	Danio_rerio.2.36373184.36373421	24	24	
Danio_rerio.2.36957008.36957687	Danio_rerio.2.36957008.36957687	22	22	
Danio_rerio.2.4329008.4329234	Danio_rerio.2.4329008.4329234	17	17	
Danio_rerio.2.44686510.44686671	Danio_rerio.2.44686510.44686671	26	26	
Danio_rerio.2.44836306.44836131	Danio_rerio.2.44836306.44836131	25	25	

Danio_rerio.2.45037351.45037511	Danio_rerio.2.45037351.45037511	19	19	
Danio_rerio.20.19519698.19519495	Danio_rerio.20.19519698.19519495	19	19	
Danio_rerio.20.23866727.23866572	Danio_rerio.20.23866727.23866572	31	31	
Danio_rerio.20.24314527.24314765	Danio_rerio.20.24314527.24314765	16	16	
Danio_rerio.20.25743795.25743985	Danio_rerio.20.25743795.25743985	15	15	
Danio_rerio.20.28311208.28311047	Danio_rerio.20.28311208.28311047	21	21	
Danio_rerio.20.30961284.30961102	Danio_rerio.20.30961284.30961102	36	36	
Danio_rerio.20.32523380.32523545	Danio_rerio.20.32523380.32523545	42	42	
Danio_rerio.20.34205093.34204937	Danio_rerio.20.34205093.34204937	25	25	
Danio_rerio.20.39386770.39386588	Danio_rerio.20.39386770.39386588	25	25	
Danio_rerio.20.4037479.4035425	Danio_rerio.20.4037479.4035425	21	21	
Danio_rerio.20.43707424.43707666	Danio_rerio.20.43707424.43707666	36	36	
Danio_rerio.20.49394052.49394235	Danio_rerio.20.49394052.49394235	17	17	
Danio_rerio.20.49399914.49400153	Danio_rerio.20.49399914.49400153	22	22	
Danio_rerio.20.5473684.5473845	Danio_rerio.20.5473684.5473845	27	27	
Danio_rerio.21.11889280.11889116	Danio_rerio.21.11889280.11889116	20	20	
Danio_rerio.21.13482741.13482578	Danio_rerio.21.13482741.13482578	23	23	
Danio_rerio.21.21817705.21817895	Danio_rerio.21.21817705.21817895	26	26	
Danio_rerio.21.21977503.21977310	Danio_rerio.21.21977503.21977310	24	24	
Danio_rerio.21.29152691.29152541	Danio_rerio.21.29152691.29152541	17	17	
Danio_rerio.21.33792499.33792678	Danio_rerio.21.33792499.33792678	28	28	
Danio_rerio.21.3478758.3478937	Danio_rerio.21.3478758.3478937	25	25	
Danio_rerio.21.39222598.39222411	Danio_rerio.21.39222598.39222411	17	17	

Danio_erio.21.40517808.40517649	Danio_erio.21.40517808.40517649	38	38	
Danio_erio.21.9124967.9124663	Danio_erio.21.9124967.9124663	41	41	
Danio_erio.21.9251039.9251232	Danio_erio.21.9251039.9251232	26	28	multiple blast hit in proteome: Danio_erioD15, Galaxias_fasciatusCL282
Danio_erio.21.935969.936261	Danio_erio.21.935969.936261	23	23	
Danio_erio.22.11182114.11181932	Danio_erio.22.11182114.11181932	29	29	
Danio_erio.22.40625225.40625433	Danio_erio.22.40625225.40625433	32	32	
Danio_erio.23.20480167.20479926	Danio_erio.23.20480167.20479926	21	21	
Danio_erio.23.21625189.21625352	Danio_erio.23.21625189.21625352	25	25	
Danio_erio.23.28770180.28770403	Danio_erio.23.28770180.28770403	22	22	
Danio_erio.23.28779772.28780125	Danio_erio.23.28779772.28780125	26	26	
Danio_erio.23.29224430.29224258	Danio_erio.23.29224430.29224258	33	33	
Danio_erio.23.29246807.29246237	Danio_erio.23.29246807.29246237	25	25	
Danio_erio.23.29755050.29754876	Danio_erio.23.29755050.29754876	40	40	
Danio_erio.23.31257191.31257371	Danio_erio.23.31257191.31257371	39	39	
Danio_erio.23.35444982.35444824	Danio_erio.23.35444982.35444824	23	23	
Danio_erio.23.512955.512771	Danio_erio.23.512955.512771	21	21	
Danio_erio.23.9188003.9188283	Danio_erio.23.9188003.9188283	28	28	
Danio_erio.24.21270375.21270538	Danio_erio.24.21270375.21270538	19	19	
Danio_erio.24.22337089.22337324	Danio_erio.24.22337089.22337324	16	16	
Danio_erio.24.24325336.24325570	Danio_erio.24.24325336.24325570	39	39	
Danio_erio.24.25628043.25627842	Danio_erio.24.25628043.25627842	14	14	
Danio_erio.24.36473686.36473856	Danio_erio.24.36473686.36473856	31	31	

Danio_rerio.24.37448217.37448483	Danio_rerio.24.37448217.37448483	20	20	
Danio_rerio.24.37481832.37482113	Danio_rerio.24.37481832.37482113	14	14	
Danio_rerio.25.17689976.17690216	Danio_rerio.25.17689976.17690216	38	38	
Danio_rerio.25.18442403.18442239	Danio_rerio.25.18442403.18442239	31	31	
Danio_rerio.25.18497602.18497790	Danio_rerio.25.18497602.18497790	22	22	
Danio_rerio.25.29603844.29603690	Danio_rerio.25.29603844.29603690	13	13	
Danio_rerio.25.29606624.29606456	Danio_rerio.25.29606624.29606456	33	33	
Danio_rerio.25.8313523.8313329	Danio_rerio.25.8313523.8313329	28	28	
Danio_rerio.3.16020366.16020173	Danio_rerio.3.16020366.16020173	20	20	
Danio_rerio.3.18741377.18742142	Danio_rerio.3.18741377.18742142	33	33	
Danio_rerio.3.25182538.25182125	Danio_rerio.3.25182538.25182125	21	29	multiple blast hit in proteome: Argentina_sphyaena029tm
Danio_rerio.3.28994856.28995066	Danio_rerio.3.28994856.28995066	21	21	
Danio_rerio.3.31281872.31281654	Danio_rerio.3.31281872.31281654	34	34	
Danio_rerio.3.32021560.32021284	Danio_rerio.3.32021560.32021284	44	44	
Danio_rerio.3.34007978.34007774	Danio_rerio.3.34007978.34007774	31	31	
Danio_rerio.3.61690400.61690212	Danio_rerio.3.61690400.61690212	18	18	
Danio_rerio.4.11489621.11489392	Danio_rerio.4.11489621.11489392	28	28	
Danio_rerio.4.14158946.14158759	Danio_rerio.4.14158946.14158759	24	24	
Danio_rerio.4.14678784.14678978	Danio_rerio.4.14678784.14678978	24	24	
Danio_rerio.4.14695312.14695549	Danio_rerio.4.14695312.14695549	23	26	too short: Dussumiera_elopsoides037tm,Rutilus_rutilus2,Schilbe_mystustm551b
Danio_rerio.4.1520960.1520751	Danio_rerio.4.1520960.1520751	21	21	
Danio_rerio.4.1633065.1632884	Danio_rerio.4.1633065.1632884	22	22	

Danio_rerio.4.18428325.18428137	Danio_rerio.4.18428325.18428137	41	41	
Danio_rerio.4.21370322.21370143	Danio_rerio.4.21370322.21370143	30	30	
Danio_rerio.4.2442747.2442586	Danio_rerio.4.2442747.2442586	11	11	
Danio_rerio.4.9953286.9953607	Danio_rerio.4.9953286.9953607	20	20	
Danio_rerio.5.17904386.17904553	Danio_rerio.5.17904386.17904553	33	33	
Danio_rerio.5.17933857.17933701	Danio_rerio.5.17933857.17933701	34	34	
Danio_rerio.5.20758624.20758424	Danio_rerio.5.20758624.20758424	18	18	
Danio_rerio.5.24335393.24335203	Danio_rerio.5.24335393.24335203	25	25	
Danio_rerio.5.26211472.26210808	Danio_rerio.5.26211472.26210808	19	20	multiple blast hit in proteome: Galaxias_fasciatusCL282
Danio_rerio.5.26790347.26790172	Danio_rerio.5.26790347.26790172	25	25	
Danio_rerio.5.27182114.27181911	Danio_rerio.5.27182114.27181911	29	29	
Danio_rerio.5.27449614.27449796	Danio_rerio.5.27449614.27449796	10	10	
Danio_rerio.5.32228605.32228818	Danio_rerio.5.32228605.32228818	28	28	
Danio_rerio.5.32247404.32247571	Danio_rerio.5.32247404.32247571	21	21	
Danio_rerio.5.33988949.33989189	Danio_rerio.5.33988949.33989189	14	14	
Danio_rerio.5.35254252.35254827	Danio_rerio.5.35254252.35254827	15	15	
Danio_rerio.5.38170455.38170229	Danio_rerio.5.38170455.38170229	27	27	
Danio_rerio.5.43258539.43258378	Danio_rerio.5.43258539.43258378	40	40	
Danio_rerio.5.43261080.43260889	Danio_rerio.5.43261080.43260889	18	18	
Danio_rerio.5.50442923.50442538	Danio_rerio.5.50442923.50442538	17	17	
Danio_rerio.5.66051445.66051641	Danio_rerio.5.66051445.66051641	11	11	
Danio_rerio.5.71821170.71820952	Danio_rerio.5.71821170.71820952	29	29	

Danio_erio.6.14888366.14888548	Danio_erio.6.14888366.14888548	16	16	
Danio_erio.6.2264949.2265119	Danio_erio.6.2264949.2265119	30	30	
Danio_erio.6.2333526.2333690	Danio_erio.6.2333526.2333690	28	28	
Danio_erio.6.28987678.28987471	Danio_erio.6.28987678.28987471	19	19	
Danio_erio.6.29101227.29101401	Danio_erio.6.29101227.29101401	41	41	
Danio_erio.6.29856354.29856205	Danio_erio.6.29856354.29856205	25	25	
Danio_erio.6.30360290.30360853	Danio_erio.6.30360290.30360853	20	25	too short: Bathylagus_euryopstm112,Gonorhynchus_a bbreviatus098tm,Holtbyrnia_anomalatm117 ,Lestrolepis_japonicustmT03,Limnothrissa_ miodon
Danio_erio.6.3295020.3295183	Danio_erio.6.3295020.3295183	41	41	
Danio_erio.6.36814228.36814430	Danio_erio.6.36814228.36814430	17	17	
Danio_erio.6.37734602.37734780	Danio_erio.6.37734602.37734780	25	25	
Danio_erio.6.37740390.37740604	Danio_erio.6.37740390.37740604	30	30	
Danio_erio.6.40759925.40759718	Danio_erio.6.40759925.40759718	16	16	
Danio_erio.6.50351368.50351533	Danio_erio.6.50351368.50351533	30	30	
Danio_erio.6.51516474.51516288	Danio_erio.6.51516474.51516288	15	15	
Danio_erio.6.57415342.57415169	Danio_erio.6.57415342.57415169	18	18	
Danio_erio.6.6198164.6197912	Danio_erio.6.6198164.6197912	30	31	too short: Gonorhynchus_abbreviatus098tm
Danio_erio.7.10385196.10384961	Danio_erio.7.10385196.10384961	14	14	
Danio_erio.7.12988024.12987840	Danio_erio.7.12988024.12987840	30	30	
Danio_erio.7.14523737.14523507	Danio_erio.7.14523737.14523507	34	34	
Danio_erio.7.21633384.21633548	Danio_erio.7.21633384.21633548	20	20	
Danio_erio.7.22597903.22598059	Danio_erio.7.22597903.22598059	15	15	

Danio_rerio.7.33959579.33959351	Danio_rerio.7.33959579.33959351	35	35	
Danio_rerio.7.51857227.51857443	Danio_rerio.7.51857227.51857443	24	24	
Danio_rerio.7.51861227.51861496	Danio_rerio.7.51861227.51861496	39	39	
Danio_rerio.7.54383033.54383225	Danio_rerio.7.54383033.54383225	16	16	
Danio_rerio.7.54387879.54388084	Danio_rerio.7.54387879.54388084	24	24	
Danio_rerio.7.62631771.62631617	Danio_rerio.7.62631771.62631617	47	47	
Danio_rerio.7.67298495.67298751	Danio_rerio.7.67298495.67298751	35	35	
Danio_rerio.7.69813677.69813832	Danio_rerio.7.69813677.69813832	26	26	
Danio_rerio.8.10280911.10281123	Danio_rerio.8.10280911.10281123	31	33	too short: Lovettia_sealii_CSIROtr,Trachypterus_trachi pterustm119
Danio_rerio.8.12264492.12264303	Danio_rerio.8.12264492.12264303	41	41	
Danio_rerio.8.21391447.21391131	Danio_rerio.8.21391447.21391131	24	24	
Danio_rerio.8.31880701.31880541	Danio_rerio.8.31880701.31880541	24	24	
Danio_rerio.8.37676522.37676718	Danio_rerio.8.37676522.37676718	25	25	
Danio_rerio.8.41829083.41828907	Danio_rerio.8.41829083.41828907	21	21	
Danio_rerio.8.54109062.54108899	Danio_rerio.8.54109062.54108899	31	31	
Danio_rerio.8.54357458.54357287	Danio_rerio.8.54357458.54357287	12	12	
Danio_rerio.8.9029197.9028817	Danio_rerio.8.9029197.9028817	34	34	
Danio_rerio.9.16436007.16436207	Danio_rerio.9.16436007.16436207	26	26	
Danio_rerio.9.17569522.17569313	Danio_rerio.9.17569522.17569313	28	28	
Danio_rerio.9.17643391.17643219	Danio_rerio.9.17643391.17643219	22	22	
Danio_rerio.9.17668575.17668301	Danio_rerio.9.17668575.17668301	38	38	
Danio_rerio.9.21889423.21889596	Danio_rerio.9.21889423.21889596	21	21	

Danio_rerio.9.22250638.22250815	Danio_rerio.9.22250638.22250815	35	35	
Danio_rerio.9.22380463.22380632	Danio_rerio.9.22380463.22380632	34	34	
Danio_rerio.9.28750682.28750235	Danio_rerio.9.28750682.28750235	30	30	
Danio_rerio.9.32772715.32772533	Danio_rerio.9.32772715.32772533	33	33	
Danio_rerio.9.33208571.33208396	Danio_rerio.9.33208571.33208396	22	22	
Danio_rerio.9.33675775.33675616	Danio_rerio.9.33675775.33675616	26	26	
Danio_rerio.9.3384683.3384995	Danio_rerio.9.3384683.3384995	38	38	
Danio_rerio.9.35991142.35991369	Danio_rerio.9.35991142.35991369	40	40	
Danio_rerio.9.39452552.39452871	Danio_rerio.9.39452552.39452871	25	25	
Danio_rerio.9.56443793.56443642	Danio_rerio.9.56443793.56443642	15	15	
Danio_rerio.9.5939584.5939378	Danio_rerio.9.5939584.5939378	39	39	
Danio_rerio.9.6994508.6994717	Danio_rerio.9.6994508.6994717	12	12	
Danio_rerio.Zv9_NA985.956.752	Danio_rerio.Zv9_NA985.956.752	13	13	
Gasterosteus_aculeatus.group1.12206723.12206886	Gasterosteus_aculeatus.group1.12206723.12206886	20	20	
Gasterosteus_aculeatus.group1.15844286.15844486	Gasterosteus_aculeatus.group1.15844286.15844486	35	35	
Gasterosteus_aculeatus.group1.15866514.15866678	Gasterosteus_aculeatus.group1.15866514.15866678	41	41	
Gasterosteus_aculeatus.group1.22775202.22775470	Gasterosteus_aculeatus.group1.22775202.22775470	19	19	
Gasterosteus_aculeatus.group1.5695811.5695565	Gasterosteus_aculeatus.group1.5695811.5695565	22	23	multiple blast hit in proteome: Schilbe_mystustm551b
Gasterosteus_aculeatus.group1.6463966.6464161	Gasterosteus_aculeatus.group1.6463966.6464161	22	22	
Gasterosteus_aculeatus.group1.7540320.7540507	Gasterosteus_aculeatus.group1.7540320.7540507	35	35	
Gasterosteus_aculeatus.group1.7990526.7990700	Gasterosteus_aculeatus.group1.7990526.7990700	14	14	

Gasterosteus_aculeatus.groupI.9579603.9579921	Gasterosteus_aculeatus.groupI.9579603.9579921	10	10	
Gasterosteus_aculeatus.groupII.10483463.10482668	Gasterosteus_aculeatus.groupII.10483463.10482668	23	23	
Gasterosteus_aculeatus.groupII.11497785.11498042	Gasterosteus_aculeatus.groupII.11497785.11498042	31	31	
Gasterosteus_aculeatus.groupII.19138798.19138960	Gasterosteus_aculeatus.groupII.19138798.19138960	13	13	
Gasterosteus_aculeatus.groupII.22647373.22646549	Gasterosteus_aculeatus.groupII.22647373.22646549	25	25	
Gasterosteus_aculeatus.groupII.316006.316200	Gasterosteus_aculeatus.groupII.316006.316200	21	21	
Gasterosteus_aculeatus.groupII.5730044.5730259	Gasterosteus_aculeatus.groupII.5730044.5730259	22	22	
Gasterosteus_aculeatus.groupII.5733532.5733724	Gasterosteus_aculeatus.groupII.5733532.5733724	38	38	
Gasterosteus_aculeatus.groupII.7726048.7726212	Gasterosteus_aculeatus.groupII.7726048.7726212	40	40	
Gasterosteus_aculeatus.groupII.8576776.8576990	Gasterosteus_aculeatus.groupII.8576776.8576990	29	29	
Gasterosteus_aculeatus.groupII.8662069.8661797	Gasterosteus_aculeatus.groupII.8662069.8661797	16	16	
Gasterosteus_aculeatus.groupIII.14087422.14087147	Gasterosteus_aculeatus.groupIII.14087422.14087147	29	29	
Gasterosteus_aculeatus.groupIII.7534838.7535419	Gasterosteus_aculeatus.groupIII.7534838.7535419	40	40	
Gasterosteus_aculeatus.groupIV.10641242.10641074	Gasterosteus_aculeatus.groupIV.10641242.10641074	14	14	

Gasterosteus_aculeatus.groupIV.10934749.10934508	Gasterosteus_aculeatus.groupIV.10934749.10934508	19	33	multiple blast hit in proteome: Alestes_baremozetm285,Arctozensus_risso, Ateleopus_japonicus133tm,Borostomias_an tarcticustm762,Gonorhynchus_abbreviatus0 98tm,Gymnotus_spZSM32021,Ijimaia_loppe BPS2503,Lestrolepis_japonicustmT03,Lovetti a_sealii_CSIROtr,Nansenia_oblitaBPS1997,Sa lmo_truttatm20154,Synodus_saurustm67sy neve,Trachypterus_trachipterustm119,Umbra krameritm62
Gasterosteus_aculeatus.groupIV.13404607.13404785	Gasterosteus_aculeatus.groupIV.13404607.13404785	28	28	
Gasterosteus_aculeatus.groupIV.14516687.14515926	Gasterosteus_aculeatus.groupIV.14516687.14515926	41	41	
Gasterosteus_aculeatus.groupIV.16567564.16567741	Gasterosteus_aculeatus.groupIV.16567564.16567741	21	21	
Gasterosteus_aculeatus.groupIV.26218502.26218667	Gasterosteus_aculeatus.groupIV.26218502.26218667	11	11	
Gasterosteus_aculeatus.groupIV.30968001.30968220	Gasterosteus_aculeatus.groupIV.30968001.30968220	18	18	
Gasterosteus_aculeatus.groupIV.3670978.3671531	Gasterosteus_aculeatus.groupIV.3670978.3671531	35	35	
Gasterosteus_aculeatus.groupIV.3671571.3672899	Gasterosteus_aculeatus.groupIV.3671571.3672899	27	27	
Gasterosteus_aculeatus.groupIV.3817767.3817926	Gasterosteus_aculeatus.groupIV.3817767.3817926	32	32	
Gasterosteus_aculeatus.groupIV.7532486.7532130	Gasterosteus_aculeatus.groupIV.7532486.7532130	22	22	
Gasterosteus_aculeatus.groupIX.10730774.10730459	Gasterosteus_aculeatus.groupIX.10730774.10730459	24	24	
Gasterosteus_aculeatus.groupIX.11195301.11195125	Gasterosteus_aculeatus.groupIX.11195301.11195125	34	34	
Gasterosteus_aculeatus.groupIX.11196191.11196036	Gasterosteus_aculeatus.groupIX.11196191.11196036	29	29	
Gasterosteus_aculeatus.groupIX.12980024.12979858	Gasterosteus_aculeatus.groupIX.12980024.12979858	39	39	

Gasterosteus_aculeatus.groupIX.13986085.13985872	Gasterosteus_aculeatus.groupIX.13986085.13985872	36	36	
Gasterosteus_aculeatus.groupIX.19232781.19232452	Gasterosteus_aculeatus.groupIX.19232781.19232452	32	32	
Gasterosteus_aculeatus.groupIX.19237881.19237709	Gasterosteus_aculeatus.groupIX.19237881.19237709	26	26	
Gasterosteus_aculeatus.groupIX.19246025.19245863	Gasterosteus_aculeatus.groupIX.19246025.19245863	18	18	
Gasterosteus_aculeatus.groupIX.19248905.19248691	Gasterosteus_aculeatus.groupIX.19248905.19248691	35	35	
Gasterosteus_aculeatus.groupIX.19278025.19277762	Gasterosteus_aculeatus.groupIX.19278025.19277762	17	17	
Gasterosteus_aculeatus.groupIX.2311910.2311755	Gasterosteus_aculeatus.groupIX.2311910.2311755	18	18	
Gasterosteus_aculeatus.groupIX.457212.457389	Gasterosteus_aculeatus.groupIX.457212.457389	10	10	
Gasterosteus_aculeatus.groupIX.464830.464997	Gasterosteus_aculeatus.groupIX.464830.464997	23	23	
Gasterosteus_aculeatus.groupIX.474652.474493	Gasterosteus_aculeatus.groupIX.474652.474493	41	41	
Gasterosteus_aculeatus.groupIX.5894096.5896405	Gasterosteus_aculeatus.groupIX.5894096.5896405	41	41	
Gasterosteus_aculeatus.groupIX.5960342.5960162	Gasterosteus_aculeatus.groupIX.5960342.5960162	22	22	
Gasterosteus_aculeatus.groupIX.6994313.6994140	Gasterosteus_aculeatus.groupIX.6994313.6994140	14	14	
Gasterosteus_aculeatus.groupIX.7010124.7009852	Gasterosteus_aculeatus.groupIX.7010124.7009852	27	27	
Gasterosteus_aculeatus.groupIX.8227145.8226941	Gasterosteus_aculeatus.groupIX.8227145.8226941	30	30	
Gasterosteus_aculeatus.groupV.12103303.12103491	Gasterosteus_aculeatus.groupV.12103303.12103491	21	21	
Gasterosteus_aculeatus.groupV.121793.122059	Gasterosteus_aculeatus.groupV.121793.122059	33	33	
Gasterosteus_aculeatus.groupV.12234447.12234222	Gasterosteus_aculeatus.groupV.12234447.12234222	21	21	

Gasterosteus_aculeatus.groupV.3673287.3672838	Gasterosteus_aculeatus.groupV.3673287.3672838	22	22	
Gasterosteus_aculeatus.groupV.4690797.4691046	Gasterosteus_aculeatus.groupV.4690797.4691046	24	24	
Gasterosteus_aculeatus.groupV.6334923.6335076	Gasterosteus_aculeatus.groupV.6334923.6335076	24	24	
Gasterosteus_aculeatus.groupVI.10948740.10948904	Gasterosteus_aculeatus.groupVI.10948740.10948904	26	26	
Gasterosteus_aculeatus.groupVI.15678593.15678429	Gasterosteus_aculeatus.groupVI.15678593.15678429	22	23	multiple blast hit in proteome: Rutilus_rutilus70
Gasterosteus_aculeatus.groupVI.2442413.2443057	Gasterosteus_aculeatus.groupVI.2442413.2443057	24	24	
Gasterosteus_aculeatus.groupVI.2544394.2544560	Gasterosteus_aculeatus.groupVI.2544394.2544560	12	30	multiple blast hit in proteome: Arctozensus_risso,Argentina_sphyraena029tm,Astronesthes_luciferT04tm,Ateleopus_japonicus133tm,Bathylagus_euryopstm112,Borostomias_antarcticustm762,Coregonus_spZSM13380,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Gonorhynchus_abbreviatus098tm,Ijimaia_loppeibPS2503,Lepidogalaxias_salamandroidesSAM,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Osmerus_eperlanustm785,Retropinna_tasmanicaCL284a,Salanx_acuticepstmT02,Synodus_saurustm67syneve
Gasterosteus_aculeatus.groupVI.3173429.3173258	Gasterosteus_aculeatus.groupVI.3173429.3173258	36	36	
Gasterosteus_aculeatus.groupVI.3372181.3372369	Gasterosteus_aculeatus.groupVI.3372181.3372369	23	23	
Gasterosteus_aculeatus.groupVI.3395485.3395674	Gasterosteus_aculeatus.groupVI.3395485.3395674	28	28	
Gasterosteus_aculeatus.groupVI.3396192.3396411	Gasterosteus_aculeatus.groupVI.3396192.3396411	24	24	
Gasterosteus_aculeatus.groupVI.6302987.6302825	Gasterosteus_aculeatus.groupVI.6302987.6302825	24	24	

Gasterosteus_aculeatus.groupVI.6998907.6998287	Gasterosteus_aculeatus.groupVI.6998907.6998287	19	19	
Gasterosteus_aculeatus.groupVI.7638826.7639019	Gasterosteus_aculeatus.groupVI.7638826.7639019	32	32	
Gasterosteus_aculeatus.groupVI.7657257.7657465	Gasterosteus_aculeatus.groupVI.7657257.7657465	27	27	
Gasterosteus_aculeatus.groupVI.7852646.7852828	Gasterosteus_aculeatus.groupVI.7852646.7852828	22	22	
Gasterosteus_aculeatus.groupVI.7856797.7856978	Gasterosteus_aculeatus.groupVI.7856797.7856978	23	23	
Gasterosteus_aculeatus.groupVI.8376580.8376736	Gasterosteus_aculeatus.groupVI.8376580.8376736	28	28	
Gasterosteus_aculeatus.groupVI.9079474.9079650	Gasterosteus_aculeatus.groupVI.9079474.9079650	32	32	
Gasterosteus_aculeatus.groupVI.9206727.9206919	Gasterosteus_aculeatus.groupVI.9206727.9206919	15	15	
Gasterosteus_aculeatus.groupVII.13512188.13511784	Gasterosteus_aculeatus.groupVII.13512188.13511784	35	35	
Gasterosteus_aculeatus.groupVII.14003445.14003269	Gasterosteus_aculeatus.groupVII.14003445.14003269	23	23	
Gasterosteus_aculeatus.groupVII.14988531.1498863	Gasterosteus_aculeatus.groupVII.14988531.1498863	22	22	
Gasterosteus_aculeatus.groupVII.15811359.1581123	Gasterosteus_aculeatus.groupVII.15811359.1581123	18	18	
Gasterosteus_aculeatus.groupVII.20975145.20974921	Gasterosteus_aculeatus.groupVII.20975145.20974921	36	36	
Gasterosteus_aculeatus.groupVII.2670509.2670358	Gasterosteus_aculeatus.groupVII.2670509.2670358	16	16	

Gasterosteus_aculeatus.groupVII.3940452.3941056	Gasterosteus_aculeatus.groupVII.3940452.3941056	3	24	multiple blast hit in proteome: Alestes_baremozetm285,Anguilla_anguillat m125,Arctozensus_risso,Argentina_sphyr na029tm,Borostomias_antarcticustm762,Co regonus_spZSM13380,Cromeria_occidentali stm583a,Dallia_pectoralisUW150693- 5,Danio_rerioD15,Denticeps_clupeoidestm1 38,Gonorhynchus_abbreviatus098tm,Gymn otus_spZSM32021,Lepidogalaxias_salamand roidesSAM,Lovettia_sealii_CSIROtr,Mallotus _villosustm016,Nansenia_oblitaBPS1997,Rut ilus_rutilus2,Rutilus_rutilusm70,Synodus_sa urustm67syneve,Umbra_krameritm62,bait_ sequences
Gasterosteus_aculeatus.groupVII.4299616.4299823	Gasterosteus_aculeatus.groupVII.4299616.4299823	26	26	
Gasterosteus_aculeatus.groupVII.7907687.7907442	Gasterosteus_aculeatus.groupVII.7907687.7907442	12	12	
Gasterosteus_aculeatus.groupVIII.11687338.11687159	Gasterosteus_aculeatus.groupVIII.11687338.11687159	19	19	
Gasterosteus_aculeatus.groupVIII.12812343.12812532	Gasterosteus_aculeatus.groupVIII.12812343.12812532	13	13	
Gasterosteus_aculeatus.groupVIII.14212893.14213111	Gasterosteus_aculeatus.groupVIII.14212893.14213111	36	36	
Gasterosteus_aculeatus.groupVIII.1734231.1734479	Gasterosteus_aculeatus.groupVIII.1734231.1734479	32	32	
Gasterosteus_aculeatus.groupVIII.17977107.17976839	Gasterosteus_aculeatus.groupVIII.17977107.17976839	29	29	
Gasterosteus_aculeatus.groupVIII.18040326.18040132	Gasterosteus_aculeatus.groupVIII.18040326.18040132	29	29	
Gasterosteus_aculeatus.groupVIII.18317606.18317823	Gasterosteus_aculeatus.groupVIII.18317606.18317823	24	24	
Gasterosteus_aculeatus.groupVIII.270118.270284	Gasterosteus_aculeatus.groupVIII.270118.270284	37	37	
Gasterosteus_aculeatus.groupX.12196749.12197054	Gasterosteus_aculeatus.groupX.12196749.12197054	12	12	

Gasterosteus_aculeatus.groupX.1334192.1334033	Gasterosteus_aculeatus.groupX.1334192.1334033	24	24	
Gasterosteus_aculeatus.groupX.1334634.1334441	Gasterosteus_aculeatus.groupX.1334634.1334441	21	21	
Gasterosteus_aculeatus.groupX.8943500.8943342	Gasterosteus_aculeatus.groupX.8943500.8943342	32	32	
Gasterosteus_aculeatus.groupXI.14949685.14949481	Gasterosteus_aculeatus.groupXI.14949685.14949481	42	42	
Gasterosteus_aculeatus.groupXI.574474.574263	Gasterosteus_aculeatus.groupXI.574474.574263	29	29	
Gasterosteus_aculeatus.groupXI.591033.590815	Gasterosteus_aculeatus.groupXI.591033.590815	21	22	multiple blast hit in proteome: Harpadon_microchir067tm
Gasterosteus_aculeatus.groupXI.8161486.8161680	Gasterosteus_aculeatus.groupXI.8161486.8161680	26	26	
Gasterosteus_aculeatus.groupXII.10898024.10898206	Gasterosteus_aculeatus.groupXII.10898024.10898206	35	35	
Gasterosteus_aculeatus.groupXII.16970098.16969748	Gasterosteus_aculeatus.groupXII.16970098.16969748	16	16	
Gasterosteus_aculeatus.groupXII.171460.171266	Gasterosteus_aculeatus.groupXII.171460.171266	28	28	
Gasterosteus_aculeatus.groupXII.18252817.18253017	Gasterosteus_aculeatus.groupXII.18252817.18253017	28	28	
Gasterosteus_aculeatus.groupXII.3698994.3699162	Gasterosteus_aculeatus.groupXII.3698994.3699162	17	17	
Gasterosteus_aculeatus.groupXII.5365207.5364847	Gasterosteus_aculeatus.groupXII.5365207.5364847	26	26	
Gasterosteus_aculeatus.groupXII.5655174.5655336	Gasterosteus_aculeatus.groupXII.5655174.5655336	25	25	
Gasterosteus_aculeatus.groupXII.600852.600646	Gasterosteus_aculeatus.groupXII.600852.600646	13	13	
Gasterosteus_aculeatus.groupXII.7053581.7054279	Gasterosteus_aculeatus.groupXII.7053581.7054279	31	31	
Gasterosteus_aculeatus.groupXII.7785483.7785323	Gasterosteus_aculeatus.groupXII.7785483.7785323	43	43	
Gasterosteus_aculeatus.groupXII.7803234.7803001	Gasterosteus_aculeatus.groupXII.7803234.7803001	15	15	

Gasterosteus_aculeatus.groupXII.7804594.7804403	Gasterosteus_aculeatus.groupXII.7804594.7804403	32	32	
Gasterosteus_aculeatus.groupXII.8008167.8008356	Gasterosteus_aculeatus.groupXII.8008167.8008356	26	26	
Gasterosteus_aculeatus.groupXII.9458992.9458767	Gasterosteus_aculeatus.groupXII.9458992.9458767	18	18	
Gasterosteus_aculeatus.groupXIII.12946489.12948571	Gasterosteus_aculeatus.groupXIII.12946489.12948571	15	15	
Gasterosteus_aculeatus.groupXIII.12970150.12969980	Gasterosteus_aculeatus.groupXIII.12970150.12969980	39	39	
Gasterosteus_aculeatus.groupXIII.13364869.13365070	Gasterosteus_aculeatus.groupXIII.13364869.13365070	15	15	
Gasterosteus_aculeatus.groupXIII.14813118.14813619	Gasterosteus_aculeatus.groupXIII.14813118.14813619	39	39	
Gasterosteus_aculeatus.groupXIII.14856612.14856366	Gasterosteus_aculeatus.groupXIII.14856612.14856366	4	16	multiple blast hit in proteome: Anguilla_anguilatm125,Astronesthes_luciferT04tm,Coregonus_spZSM13380,Distichodus_brevipinnitm559,Elops_senegalensistm175,Engraulis_entrassicolustm57,Lepidogalaxias_salamandroidesSAM,Opisthoproctus_soleatusBPS0624,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Synodus_saurussn10,Umbra_krameritm62
Gasterosteus_aculeatus.groupXIII.1515533.1515706	Gasterosteus_aculeatus.groupXIII.1515533.1515706	10	10	
Gasterosteus_aculeatus.groupXIII.15370097.15370261	Gasterosteus_aculeatus.groupXIII.15370097.15370261	25	25	
Gasterosteus_aculeatus.groupXIII.15446784.15446619	Gasterosteus_aculeatus.groupXIII.15446784.15446619	33	33	
Gasterosteus_aculeatus.groupXIII.3945716.3945555	Gasterosteus_aculeatus.groupXIII.3945716.3945555	20	20	
Gasterosteus_aculeatus.groupXIII.9052677.9052492	Gasterosteus_aculeatus.groupXIII.9052677.9052492	39	39	
Gasterosteus_aculeatus.groupXIII.9053121.9052949	Gasterosteus_aculeatus.groupXIII.9053121.9052949	30	30	

Gasterosteus_aculeatus.groupXIII.9239398.9239602	Gasterosteus_aculeatus.groupXIII.9239398.9239602	36	36	
Gasterosteus_aculeatus.groupXIII.9253949.9254153	Gasterosteus_aculeatus.groupXIII.9253949.9254153	30	30	
Gasterosteus_aculeatus.groupXIII.9818443.9818267	Gasterosteus_aculeatus.groupXIII.9818443.9818267	35	36	too short: Bathylagus_euryopstm112
Gasterosteus_aculeatus.groupXIV.14052768.14052605	Gasterosteus_aculeatus.groupXIV.14052768.14052605	30	30	
Gasterosteus_aculeatus.groupXIV.14997880.14997606	Gasterosteus_aculeatus.groupXIV.14997880.14997606	26	26	
Gasterosteus_aculeatus.groupXIV.3144480.3144306	Gasterosteus_aculeatus.groupXIV.3144480.3144306	41	41	
Gasterosteus_aculeatus.groupXIV.3430390.3430001	Gasterosteus_aculeatus.groupXIV.3430390.3430001	16	30	multiple blast hit in proteome: Alestes_baremoztm285,Anguilla_anguillatm125,Borostomias_antarcticustm762,Cromeria_occidentalistm583a,Denticeps_clupeoidestm138,Distichodus_brevipinnitm559,Elops_senegalensistm175,Limnothrissa_miodon,Nansenia_oblitaBPS1997,Opisthoproctus_soleatusBPS0624,Pecoglossus_altivelistm211,Pellonula_leonensistm238,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr
Gasterosteus_aculeatus.groupXIV.5834956.5834673	Gasterosteus_aculeatus.groupXIV.5834956.5834673	32	33	too short: Limnothrissa_miodon
Gasterosteus_aculeatus.groupXIV.622775.622977	Gasterosteus_aculeatus.groupXIV.622775.622977	25	25	
Gasterosteus_aculeatus.groupXIV.7366748.7366585	Gasterosteus_aculeatus.groupXIV.7366748.7366585	46	46	
Gasterosteus_aculeatus.groupXIX.11468297.11468494	Gasterosteus_aculeatus.groupXIX.11468297.11468494	28	28	
Gasterosteus_aculeatus.groupXIX.13003493.13003645	Gasterosteus_aculeatus.groupXIX.13003493.13003645	31	39	multiple blast hit in proteome: Anguilla_anguillatm125,Astronesthes_luciferT04tm,Borostomias_antarcticustm762,Elops_senegalensistm175,Harpadon_microchir067tm,Hime_formosana137tm,Pantodon_bucholzi382tm,Rutilus_rutilustm70

Gasterosteus_aculeatus.groupXIX.14489909.14491510	Gasterosteus_aculeatus.groupXIX.14489909.14491510	25	25	
Gasterosteus_aculeatus.groupXIX.14978742.14978587	Gasterosteus_aculeatus.groupXIX.14978742.14978587	34	34	
Gasterosteus_aculeatus.groupXIX.18021050.18021246	Gasterosteus_aculeatus.groupXIX.18021050.18021246	38	38	
Gasterosteus_aculeatus.groupXIX.2223508.2223329	Gasterosteus_aculeatus.groupXIX.2223508.2223329	25	25	
Gasterosteus_aculeatus.groupXIX.2856528.2856365	Gasterosteus_aculeatus.groupXIX.2856528.2856365	18	18	
Gasterosteus_aculeatus.groupXIX.4368519.4368740	Gasterosteus_aculeatus.groupXIX.4368519.4368740	25	26	too short: Coregonus_spZSM13380
Gasterosteus_aculeatus.groupXIX.4472606.4471968	Gasterosteus_aculeatus.groupXIX.4472606.4471968	24	24	
Gasterosteus_aculeatus.groupXIX.514639.514801	Gasterosteus_aculeatus.groupXIX.514639.514801	41	41	
Gasterosteus_aculeatus.groupXIX.6655020.6654830	Gasterosteus_aculeatus.groupXIX.6655020.6654830	19	19	
Gasterosteus_aculeatus.groupXIX.7096256.7096079	Gasterosteus_aculeatus.groupXIX.7096256.7096079	24	24	
Gasterosteus_aculeatus.groupXIX.7413196.7412922	Gasterosteus_aculeatus.groupXIX.7413196.7412922	30	30	
Gasterosteus_aculeatus.groupXV.12177379.12177549	Gasterosteus_aculeatus.groupXV.12177379.12177549	33	33	
Gasterosteus_aculeatus.groupXV.15970829.15971071	Gasterosteus_aculeatus.groupXV.15970829.15971071	32	32	
Gasterosteus_aculeatus.groupXV.298005.297825	Gasterosteus_aculeatus.groupXV.298005.297825	20	20	
Gasterosteus_aculeatus.groupXV.314584.315141	Gasterosteus_aculeatus.groupXV.314584.315141	35	35	
Gasterosteus_aculeatus.groupXV.5417677.5417494	Gasterosteus_aculeatus.groupXV.5417677.5417494	18	18	
Gasterosteus_aculeatus.groupXV.9696816.9696604	Gasterosteus_aculeatus.groupXV.9696816.9696604	30	30	
Gasterosteus_aculeatus.groupXVI.10656059.10655902	Gasterosteus_aculeatus.groupXVI.10656059.10655902	27	27	

Gasterosteus_aculeatus.groupXVI.10867687.10867848	Gasterosteus_aculeatus.groupXVI.10867687.10867848	31	31	
Gasterosteus_aculeatus.groupXVI.10906239.10905548	Gasterosteus_aculeatus.groupXVI.10906239.10905548	20	20	
Gasterosteus_aculeatus.groupXVI.12886392.12886215	Gasterosteus_aculeatus.groupXVI.12886392.12886215	19	19	
Gasterosteus_aculeatus.groupXVI.15356340.15356174	Gasterosteus_aculeatus.groupXVI.15356340.15356174	12	12	
Gasterosteus_aculeatus.groupXVI.16912971.16913135	Gasterosteus_aculeatus.groupXVI.16912971.16913135	10	10	
Gasterosteus_aculeatus.groupXVI.17881136.17881303	Gasterosteus_aculeatus.groupXVI.17881136.17881303	40	40	
Gasterosteus_aculeatus.groupXVI.2437743.2437958	Gasterosteus_aculeatus.groupXVI.2437743.2437958	29	29	
Gasterosteus_aculeatus.groupXVI.2476903.2477059	Gasterosteus_aculeatus.groupXVI.2476903.2477059	40	40	
Gasterosteus_aculeatus.groupXVI.6356286.6355819	Gasterosteus_aculeatus.groupXVI.6356286.6355819	20	20	
Gasterosteus_aculeatus.groupXVI.6441779.6441954	Gasterosteus_aculeatus.groupXVI.6441779.6441954	25	25	
Gasterosteus_aculeatus.groupXVI.7739035.7738841	Gasterosteus_aculeatus.groupXVI.7739035.7738841	32	32	
Gasterosteus_aculeatus.groupXVII.447443.447600	Gasterosteus_aculeatus.groupXVII.447443.447600	10	10	
Gasterosteus_aculeatus.groupXVIII.10859578.10859415	Gasterosteus_aculeatus.groupXVIII.10859578.10859415	27	27	
Gasterosteus_aculeatus.groupXVIII.11082912.11082460	Gasterosteus_aculeatus.groupXVIII.11082912.11082460	25	25	
Gasterosteus_aculeatus.groupXVIII.11212752.11212952	Gasterosteus_aculeatus.groupXVIII.11212752.11212952	17	17	
Gasterosteus_aculeatus.groupXVIII.11496186.11496400	Gasterosteus_aculeatus.groupXVIII.11496186.11496400	10	10	
Gasterosteus_aculeatus.groupXVIII.12492229.12492059	Gasterosteus_aculeatus.groupXVIII.12492229.12492059	39	39	
Gasterosteus_aculeatus.groupXVIII.15272055.15272271	Gasterosteus_aculeatus.groupXVIII.15272055.15272271	22	22	

Gasterosteus_aculeatus.groupXVIII.15542408.15542592	Gasterosteus_aculeatus.groupXVIII.15542408.15542592	27	27	
Gasterosteus_aculeatus.groupXVIII.3245898.3245650	Gasterosteus_aculeatus.groupXVIII.3245898.3245650	21	21	
Gasterosteus_aculeatus.groupXVIII.5505446.5505699	Gasterosteus_aculeatus.groupXVIII.5505446.5505699	14	14	
Gasterosteus_aculeatus.groupXVIII.5506526.5506933	Gasterosteus_aculeatus.groupXVIII.5506526.5506933	30	30	
Gasterosteus_aculeatus.groupXVIII.9374575.9374747	Gasterosteus_aculeatus.groupXVIII.9374575.9374747	23	23	
Gasterosteus_aculeatus.groupXX.10526127.10525955	Gasterosteus_aculeatus.groupXX.10526127.10525955	40	40	
Gasterosteus_aculeatus.groupXX.12725449.12725273	Gasterosteus_aculeatus.groupXX.12725449.12725273	37	37	
Gasterosteus_aculeatus.groupXX.13427022.13426822	Gasterosteus_aculeatus.groupXX.13427022.13426822	31	32	too short: Rutilus_rutilus70
Gasterosteus_aculeatus.groupXX.14253717.14253497	Gasterosteus_aculeatus.groupXX.14253717.14253497	22	22	
Gasterosteus_aculeatus.groupXX.15630217.15630386	Gasterosteus_aculeatus.groupXX.15630217.15630386	28	28	
Gasterosteus_aculeatus.groupXX.158613.159330	Gasterosteus_aculeatus.groupXX.158613.159330	25	26	multiple blast hit in proteome: Gonorhynchus_abbreviatus098tm
Gasterosteus_aculeatus.groupXX.164552.164755	Gasterosteus_aculeatus.groupXX.164552.164755	15	15	
Gasterosteus_aculeatus.groupXX.17377835.17377617	Gasterosteus_aculeatus.groupXX.17377835.17377617	11	11	
Gasterosteus_aculeatus.groupXX.17383619.17383395	Gasterosteus_aculeatus.groupXX.17383619.17383395	32	32	
Gasterosteus_aculeatus.groupXX.17781392.17780290	Gasterosteus_aculeatus.groupXX.17781392.17780290	22	22	
Gasterosteus_aculeatus.groupXX.18653582.18653731	Gasterosteus_aculeatus.groupXX.18653582.18653731	20	20	
Gasterosteus_aculeatus.groupXX.3258847.3258688	Gasterosteus_aculeatus.groupXX.3258847.3258688	23	23	
Gasterosteus_aculeatus.groupXX.8138072.8138252	Gasterosteus_aculeatus.groupXX.8138072.8138252	43	43	

Gasterosteus_aculeatus.groupXX.9099651.9099845	Gasterosteus_aculeatus.groupXX.9099651.9099845	24	24	
Gasterosteus_aculeatus.groupXXI.11189417.11189598	Gasterosteus_aculeatus.groupXXI.11189417.11189598	27	27	
Gasterosteus_aculeatus.groupXXI.11663956.11664125	Gasterosteus_aculeatus.groupXXI.11663956.11664125	36	36	
Gasterosteus_aculeatus.groupXXI.2138619.2138416	Gasterosteus_aculeatus.groupXXI.2138619.2138416	14	14	
Gasterosteus_aculeatus.groupXXI.3882897.3882724	Gasterosteus_aculeatus.groupXXI.3882897.3882724	24	24	
Gasterosteus_aculeatus.groupXXI.5769896.5769739	Gasterosteus_aculeatus.groupXXI.5769896.5769739	20	20	
Gasterosteus_aculeatus.groupXXI.9664054.9664211	Gasterosteus_aculeatus.groupXXI.9664054.9664211	23	23	
Gasterosteus_aculeatus.scaffold_1238.3012.2848	Gasterosteus_aculeatus.scaffold_1238.3012.2848	41	41	
Gasterosteus_aculeatus.scaffold_126.152577.152801	Gasterosteus_aculeatus.scaffold_126.152577.152801	29	29	
Gasterosteus_aculeatus.scaffold_211.77905.77750	Gasterosteus_aculeatus.scaffold_211.77905.77750	38	38	
Gasterosteus_aculeatus.scaffold_27.1038639.1038391	Gasterosteus_aculeatus.scaffold_27.1038639.1038391	39	39	
Gasterosteus_aculeatus.scaffold_27.2151985.2152141	Gasterosteus_aculeatus.scaffold_27.2151985.2152141	28	28	
Gasterosteus_aculeatus.scaffold_324.12639.12418	Gasterosteus_aculeatus.scaffold_324.12639.12418	28	28	
Gasterosteus_aculeatus.scaffold_48.1209822.1209595	Gasterosteus_aculeatus.scaffold_48.1209822.1209595	26	26	
Gasterosteus_aculeatus.scaffold_56.59563.59761	Gasterosteus_aculeatus.scaffold_56.59563.59761	38	38	
Gasterosteus_aculeatus.scaffold_74.312198.312040	Gasterosteus_aculeatus.scaffold_74.312198.312040	17	17	
Gasterosteus_aculeatus.scaffold_76.225290.225088	Gasterosteus_aculeatus.scaffold_76.225290.225088	17	17	
Gasterosteus_aculeatus.scaffold_80.409886.409231	Gasterosteus_aculeatus.scaffold_80.409886.409231	21	21	

Gasterosteus_aculeatus.scaffold_84.66826.67115	Gasterosteus_aculeatus.scaffold_84.66826.67115	28	28	
Gasterosteus_aculeatus.scaffold_88.93192.93019	Gasterosteus_aculeatus.scaffold_88.93192.93019	28	28	
Gasterosteus_aculeatus.scaffold_89.284328.284518	Gasterosteus_aculeatus.scaffold_89.284328.284518	27	27	
Gasterosteus_aculeatus.scaffold_98.36345.36113	Gasterosteus_aculeatus.scaffold_98.36345.36113	28	28	
Oryzias_latipes.1.15026039.15026243	Oryzias_latipes.1.15026039.15026243	30	30	
Oryzias_latipes.1.19523985.19522215	Oryzias_latipes.1.19523985.19522215	21	21	
Oryzias_latipes.1.19526200.19525852	Oryzias_latipes.1.19526200.19525852	25	25	
Oryzias_latipes.1.2307747.2307541	Oryzias_latipes.1.2307747.2307541	23	23	
Oryzias_latipes.1.2473136.2472909	Oryzias_latipes.1.2473136.2472909	22	22	
Oryzias_latipes.1.34004068.34003856	Oryzias_latipes.1.34004068.34003856	28	28	
Oryzias_latipes.1.37192141.37192333	Oryzias_latipes.1.37192141.37192333	25	25	
Oryzias_latipes.10.12010077.12009892	Oryzias_latipes.10.12010077.12009892	31	31	
Oryzias_latipes.10.13882797.13882960	Oryzias_latipes.10.13882797.13882960	40	40	
Oryzias_latipes.10.6811316.6812001	Oryzias_latipes.10.6811316.6812001	36	36	
Oryzias_latipes.10.6812140.6812383	Oryzias_latipes.10.6812140.6812383	33	33	
Oryzias_latipes.11.16322344.16322156	Oryzias_latipes.11.16322344.16322156	25	25	
Oryzias_latipes.11.17363490.17363654	Oryzias_latipes.11.17363490.17363654	38	38	
Oryzias_latipes.11.18479350.18479156	Oryzias_latipes.11.18479350.18479156	33	33	
Oryzias_latipes.11.21534604.21534305	Oryzias_latipes.11.21534604.21534305	19	20	multiple blast hit in proteome: Galaxias_fasciatusCL282

Oryzias_latipes.11.22842523.22842024	Oryzias_latipes.11.22842523.22842024	11	18	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevipinnit66merge,Denticeps_clupeoidestm138,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Pantodon_bucholzi382tm,Synodus_saurustm67syneve
Oryzias_latipes.11.9811901.9811544	Oryzias_latipes.11.9811901.9811544	37	37	
Oryzias_latipes.12.2022363.2022540	Oryzias_latipes.12.2022363.2022540	21	21	
Oryzias_latipes.12.20251518.20251853	Oryzias_latipes.12.20251518.20251853	24	24	
Oryzias_latipes.12.20473412.20473606	Oryzias_latipes.12.20473412.20473606	24	24	
Oryzias_latipes.12.3724187.3723980	Oryzias_latipes.12.3724187.3723980	0	38	multiple blast hit in proteome: Alepocephalus_bicolor,Alestes_baremozetm285,Bathylagus_euryopstm112,Borostomias_antarcticustm762,Chanos_chanostm1777,C Oregonus_spZSM13380,Cromeria_occidentalistm583a,Dallia_pectoralisUW150693-5,Danio_rerioD15,Denticeps_clupeoidestm138,Distichodus_brevipinnit559,Engraulis_encyrassicolustm57,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Gonorhynchus_abbreviatus098tm,Gymnotus_spZSM32021,Harpadon_microchir067tm,Holtbyrnia_anomalatm117,Ijimaia_lopeiBPS2503,Lepidogalaxias_salamandroidesSAM,Limnothrissa_miodon,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Maurolicus_muelleritm2013W,Nansenia_oblitaBPS1997,Opisthoproctus_oleatusBPS0624,Pantodon_bucholzi382tm,Pecoglossus_altivelistm211,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Rutilus_rutilus2,Rutilus_rutilus70,Salanx_acuticestmT02,Schilbe_mystustm551b,Synodus_saurussn10,Synodus_saurustm67syneve,Umbra_krameritm62,bait_sequences

Oryzias_latipes.12.6932069.6932758	Oryzias_latipes.12.6932069.6932758	37	37	
Oryzias_latipes.12.8987342.8987554	Oryzias_latipes.12.8987342.8987554	28	29	too short: Rutilus_rutilusm70
Oryzias_latipes.12.9727776.9727941	Oryzias_latipes.12.9727776.9727941	18	41	multiple blast hit in proteome: Arctozensus_risso,Astronesthes_luciferT04tm,Borostomias_antarcticustm762,Coregonus_spZSM13380,Cromeria_occidentalistm583a,Dallia_pectoralisUW150693-5,Engraulis_entrassicolustm57,Galaxias_fasciatusCL282,Gymnotus_spZSM32021,Hime_formosana137tm,Lepidogalaxias_salamandroidesSAM,Limnothrissa_miodon,Mallotus_villosustm016,Nansenia_oblitaBPS1997,Opisthoproctus_oleatusBPS0624,Osmerus_eperlanustm785,Pantodon_bucholzi382tm,Pecoglossus_altivelistm211,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Salanx_acuticepstmT02,Salmo_truttatm20154,Synodus_saurussn10
Oryzias_latipes.12.9993416.9993621	Oryzias_latipes.12.9993416.9993621	18	18	
Oryzias_latipes.13.18786381.18786603	Oryzias_latipes.13.18786381.18786603	22	22	
Oryzias_latipes.13.2720656.2720856	Oryzias_latipes.13.2720656.2720856	40	40	
Oryzias_latipes.13.29951718.29951519	Oryzias_latipes.13.29951718.29951519	19	19	
Oryzias_latipes.13.4205418.4205155	Oryzias_latipes.13.4205418.4205155	26	26	
Oryzias_latipes.13.9526103.9525880	Oryzias_latipes.13.9526103.9525880	18	18	
Oryzias_latipes.14.12776522.12776244	Oryzias_latipes.14.12776522.12776244	24	24	
Oryzias_latipes.14.13156289.13156047	Oryzias_latipes.14.13156289.13156047	32	32	
Oryzias_latipes.14.13233375.13232708	Oryzias_latipes.14.13233375.13232708	37	37	
Oryzias_latipes.14.28402133.28402310	Oryzias_latipes.14.28402133.28402310	29	29	
Oryzias_latipes.15.11955940.11956249	Oryzias_latipes.15.11955940.11956249	38	38	

Oryzias_latipes.15.13689346.13689181	Oryzias_latipes.15.13689346.13689181	17	17	
Oryzias_latipes.15.21752333.21752150	Oryzias_latipes.15.21752333.21752150	10	10	
Oryzias_latipes.15.22908869.22908652	Oryzias_latipes.15.22908869.22908652	25	25	
Oryzias_latipes.15.28637630.28637811	Oryzias_latipes.15.28637630.28637811	23	23	
Oryzias_latipes.15.29322568.29322720	Oryzias_latipes.15.29322568.29322720	18	18	
Oryzias_latipes.15.29399660.29400785	Oryzias_latipes.15.29399660.29400785	24	25	multiple blast hit in proteome: Rutilus_rutilusm70
Oryzias_latipes.15.3044406.3044774	Oryzias_latipes.15.3044406.3044774	16	16	
Oryzias_latipes.15.3640508.3640297	Oryzias_latipes.15.3640508.3640297	25	25	
Oryzias_latipes.15.8773287.8772959	Oryzias_latipes.15.8773287.8772959	21	21	
Oryzias_latipes.16.13676115.13675816	Oryzias_latipes.16.13676115.13675816	38	38	
Oryzias_latipes.16.16989291.16989131	Oryzias_latipes.16.16989291.16989131	12	12	
Oryzias_latipes.16.20848349.20848161	Oryzias_latipes.16.20848349.20848161	21	21	
Oryzias_latipes.16.5768531.5768378	Oryzias_latipes.16.5768531.5768378	11	11	
Oryzias_latipes.16.6252990.6253995	Oryzias_latipes.16.6252990.6253995	33	33	
Oryzias_latipes.17.12644643.12644494	Oryzias_latipes.17.12644643.12644494	36	36	
Oryzias_latipes.17.23751616.23751831	Oryzias_latipes.17.23751616.23751831	28	28	
Oryzias_latipes.17.28361251.28361049	Oryzias_latipes.17.28361251.28361049	22	22	
Oryzias_latipes.17.28760022.28760420	Oryzias_latipes.17.28760022.28760420	21	21	
Oryzias_latipes.17.29352543.29353108	Oryzias_latipes.17.29352543.29353108	21	28	multiple blast hit in proteome: Argentina_sphyrana029tm,Coregonus_spZS M13380,Hime_formosana137tm,Lepidogala xias_salamandroidesSAM,Mallotus_villosus m016,Retropinna_tasmanicaCL284a,Salmo_t ruttatm20154
Oryzias_latipes.18.11242846.11242627	Oryzias_latipes.18.11242846.11242627	18	18	

Oryzias_latipes.18.19040432.19039986	Oryzias_latipes.18.19040432.19039986	21	21	
Oryzias_latipes.18.22521969.22522200	Oryzias_latipes.18.22521969.22522200	25	25	
Oryzias_latipes.19.17937482.17937658	Oryzias_latipes.19.17937482.17937658	16	16	
Oryzias_latipes.19.1963504.1963217	Oryzias_latipes.19.1963504.1963217	19	19	
Oryzias_latipes.19.4267754.4267948	Oryzias_latipes.19.4267754.4267948	30	30	
Oryzias_latipes.19.8964514.8964728	Oryzias_latipes.19.8964514.8964728	28	28	
Oryzias_latipes.19.9754042.9754206	Oryzias_latipes.19.9754042.9754206	26	26	
Oryzias_latipes.2.5013211.5013059	Oryzias_latipes.2.5013211.5013059	26	26	
Oryzias_latipes.20.15269857.15268841	Oryzias_latipes.20.15269857.15268841	25	25	
Oryzias_latipes.20.15626365.15626204	Oryzias_latipes.20.15626365.15626204	38	38	
Oryzias_latipes.20.17308022.17307696	Oryzias_latipes.20.17308022.17307696	30	30	
Oryzias_latipes.20.1884685.1884503	Oryzias_latipes.20.1884685.1884503	29	29	
Oryzias_latipes.20.19959910.19959756	Oryzias_latipes.20.19959910.19959756	25	25	
Oryzias_latipes.20.22296673.22296892	Oryzias_latipes.20.22296673.22296892	23	23	
Oryzias_latipes.21.10045878.10045720	Oryzias_latipes.21.10045878.10045720	26	26	
Oryzias_latipes.21.13499256.13499411	Oryzias_latipes.21.13499256.13499411	28	28	
Oryzias_latipes.21.13512823.13513027	Oryzias_latipes.21.13512823.13513027	20	20	
Oryzias_latipes.21.24051290.24051460	Oryzias_latipes.21.24051290.24051460	21	21	
Oryzias_latipes.21.24592238.24591830	Oryzias_latipes.21.24592238.24591830	31	31	
Oryzias_latipes.21.26530244.26530047	Oryzias_latipes.21.26530244.26530047	22	22	
Oryzias_latipes.21.30715701.30715535	Oryzias_latipes.21.30715701.30715535	25	25	
Oryzias_latipes.21.30979450.30979680	Oryzias_latipes.21.30979450.30979680	14	14	
Oryzias_latipes.21.6683195.6682965	Oryzias_latipes.21.6683195.6682965	27	28	too short: Rutilus_rutilus2

Oryzias_latipes.22.11783180.11783001	Oryzias_latipes.22.11783180.11783001	11	11	
Oryzias_latipes.22.12394164.12393881	Oryzias_latipes.22.12394164.12393881	23	23	
Oryzias_latipes.22.13195804.13195195	Oryzias_latipes.22.13195804.13195195	30	30	
Oryzias_latipes.22.1863645.1863170	Oryzias_latipes.22.1863645.1863170	17	17	
Oryzias_latipes.22.3621848.3621225	Oryzias_latipes.22.3621848.3621225	25	25	
Oryzias_latipes.22.5282860.5282654	Oryzias_latipes.22.5282860.5282654	12	12	
Oryzias_latipes.22.7044219.7044460	Oryzias_latipes.22.7044219.7044460	31	31	
Oryzias_latipes.22.9003489.9003670	Oryzias_latipes.22.9003489.9003670	16	16	
Oryzias_latipes.23.13312579.13312349	Oryzias_latipes.23.13312579.13312349	46	46	
Oryzias_latipes.23.17635035.17635198	Oryzias_latipes.23.17635035.17635198	28	28	

Oryzias_latipes.23.17652060.17651641	Oryzias_latipes.23.17652060.17651641	3	40	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevi pinnitm66merge,Alestes_baremozetm285,A stronesthes_luciferT04tm,Ateleopus_japonic us133tm,Bathylagus_euryopstm112,Borosto mias_antarcticustm762,Chanos_chanostm17 77,Clupea_harengustm100,Coregonus_spZS M13380,Cromeria_occidentalistm583a,Dalli a_pectoralisUW150693- 5,Danio_rerioD15,Denticeps_clupeoidestm1 38,Dussumiera_elopsoides037tm,Esox_luciu stm052,Gonorhynchus_abbreviatus098tm,G ymnotus_spZSM32021,Harpadon_microchir 067tm,Hime_formosana137tm,Ijimaia_lopp eiBPS2503,Lestrolepis_japonicustmT03,Lepi dogalaxias_salamandroidesSAM,Limnothriss a_miodon,Lovettia_sealii_CSIROtr,Mallotus_ villosustm016,Maurolicus_muelleritm2013 W,Opisthoproctus_soleatusBPS0624,Osmer us_eperlanustm785,Pantodon_bucholzi382t m,Pecoglossus_altivelistm211,Pellonula_leo nensistm238,Retropinna_tasmanicaCL284a,S alanx_acuticepstmT02,Synodus_saurussn10, Synodus_saurustm67syneve,bait_sequences
Oryzias_latipes.24.19556613.19556080	Oryzias_latipes.24.19556613.19556080	26	26	
Oryzias_latipes.24.21067167.21066969	Oryzias_latipes.24.21067167.21066969	25	25	
Oryzias_latipes.24.21099756.21099484	Oryzias_latipes.24.21099756.21099484	32	32	
Oryzias_latipes.24.2341263.2341413	Oryzias_latipes.24.2341263.2341413	21	21	
Oryzias_latipes.24.2576369.2576940	Oryzias_latipes.24.2576369.2576940	27	27	
Oryzias_latipes.24.3902152.3901865	Oryzias_latipes.24.3902152.3901865	16	16	
Oryzias_latipes.24.6871007.6870826	Oryzias_latipes.24.6871007.6870826	17	17	
Oryzias_latipes.24.9598065.9598309	Oryzias_latipes.24.9598065.9598309	21	21	

Oryzias_latipes.3.13211829.13212028	Oryzias_latipes.3.13211829.13212028	36	36	
Oryzias_latipes.3.14907968.14908163	Oryzias_latipes.3.14907968.14908163	21	21	
Oryzias_latipes.3.14952723.14952551	Oryzias_latipes.3.14952723.14952551	34	34	
Oryzias_latipes.3.15769992.15770233	Oryzias_latipes.3.15769992.15770233	21	21	
Oryzias_latipes.3.16126437.16126196	Oryzias_latipes.3.16126437.16126196	35	35	
Oryzias_latipes.3.18497594.18497421	Oryzias_latipes.3.18497594.18497421	22	22	
Oryzias_latipes.3.19258428.19258194	Oryzias_latipes.3.19258428.19258194	25	25	
Oryzias_latipes.3.19970055.19970421	Oryzias_latipes.3.19970055.19970421	37	37	
Oryzias_latipes.3.24539913.24540096	Oryzias_latipes.3.24539913.24540096	17	17	
Oryzias_latipes.3.32577926.32577701	Oryzias_latipes.3.32577926.32577701	20	20	
Oryzias_latipes.3.35145903.35145738	Oryzias_latipes.3.35145903.35145738	17	17	
Oryzias_latipes.4.12032215.12032372	Oryzias_latipes.4.12032215.12032372	21	21	

Oryzias_latipes.4.18480485.18480720	Oryzias_latipes.4.18480485.18480720	6	45	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevipinnit66merge,Alestes_baremozetm285,Arctozensus_risso,Argentina_sphyraena029tm,Astronesthes_luciferT04tm,Ateleopus_japonicus133tm,Borostomias_antarcticustm762,Chanos_chanostm1777,Clupea_harengustm100,Coregonus_spZSM13380,Dallia_pectoralisUW150693-5,Dussumiera_elopsoides037tm,Elops_senegalensistm175,Engraulis_encyrassicolustm57,Esoc_lucius052,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Harpadon_microchir067tm,Hime_formosana137tm,Ijimaia_loppeiiBPS2503,Lestrolepis_japonicustmT03,Lepidogalaxias_salamandroidesSAM,Limnothrissa_miodon,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Maurolicus_muelleritm2013W,Nansenia_oblitaBPS1997,Opisthoproctus_oleatusBPS0624,Pellonula_leonensistm238,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Rutilus_rutilus2,Rutilus_rutilustm70,Salanx_acuticepstmT02,Schilbe_mystustm551b,Synodus_saurussn10,Synodus_saurustm67syneve,Umbra_krameritm62
Oryzias_latipes.4.1998697.1998882	Oryzias_latipes.4.1998697.1998882	20	20	
Oryzias_latipes.4.30225238.30225046	Oryzias_latipes.4.30225238.30225046	26	26	
Oryzias_latipes.4.3513243.3513064	Oryzias_latipes.4.3513243.3513064	22	23	multiple blast hit in proteome: Rutilus_rutilustm70
Oryzias_latipes.4.5823361.5823512	Oryzias_latipes.4.5823361.5823512	34	34	
Oryzias_latipes.5.14676645.14676811	Oryzias_latipes.5.14676645.14676811	35	35	
Oryzias_latipes.5.25915342.25915513	Oryzias_latipes.5.25915342.25915513	26	26	
Oryzias_latipes.5.26580699.26580187	Oryzias_latipes.5.26580699.26580187	19	19	

Oryzias_latipes.5.29836259.29835240	Oryzias_latipes.5.29836259.29835240	19	19	
Oryzias_latipes.6.11042569.11042370	Oryzias_latipes.6.11042569.11042370	26	26	
Oryzias_latipes.6.11602750.11603351	Oryzias_latipes.6.11602750.11603351	29	29	
Oryzias_latipes.6.14272976.14273169	Oryzias_latipes.6.14272976.14273169	30	30	
Oryzias_latipes.6.16667564.16667764	Oryzias_latipes.6.16667564.16667764	23	23	
Oryzias_latipes.6.20527840.20528047	Oryzias_latipes.6.20527840.20528047	25	25	
Oryzias_latipes.6.21146270.21145984	Oryzias_latipes.6.21146270.21145984	24	24	
Oryzias_latipes.6.26475530.26475719	Oryzias_latipes.6.26475530.26475719	28	28	
Oryzias_latipes.6.2850371.2850522	Oryzias_latipes.6.2850371.2850522	32	32	
Oryzias_latipes.6.2850670.2850876	Oryzias_latipes.6.2850670.2850876	16	16	
Oryzias_latipes.6.286110.286304	Oryzias_latipes.6.286110.286304	14	14	
Oryzias_latipes.6.584465.584276	Oryzias_latipes.6.584465.584276	36	36	
Oryzias_latipes.6.6538732.6539544	Oryzias_latipes.6.6538732.6539544	25	25	
Oryzias_latipes.7.10498742.10498445	Oryzias_latipes.7.10498742.10498445	30	30	

Oryzias_latipes.7.11945142.11945428	Oryzias_latipes.7.11945142.11945428	6	28	multiple blast hit in proteome: Arctozensus_risso,Argentina_sphyraena029tm,Chanos_chanostm1777,Clupea_harengustm100,Coregonus_spZSM13380,Cromeria_occidentalistm583a,Distichodus_brevipinnitm559,Elops_senegalensistm175,Engraulis_encrassicolustm57,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Gymnotus_spZSM32021,Harpadon_microchir067tm,Lepidogalaxias_salamandroidesSAM,Limnothrissa_miodon,Nansenia_oblitaBPS1997,Opisthoproctus_soleatusBPS0624,Osmerus_eperlanustm785,Pecoglossus_altivelistm211,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Umbra_krameritm62
Oryzias_latipes.7.21423243.21422780	Oryzias_latipes.7.21423243.21422780	28	28	
Oryzias_latipes.7.5706062.5706217	Oryzias_latipes.7.5706062.5706217	42	42	
Oryzias_latipes.7.635525.635250	Oryzias_latipes.7.635525.635250	43	43	
Oryzias_latipes.7.636033.635833	Oryzias_latipes.7.636033.635833	34	34	
Oryzias_latipes.8.11158294.11158047	Oryzias_latipes.8.11158294.11158047	27	27	
Oryzias_latipes.8.12232553.12232783	Oryzias_latipes.8.12232553.12232783	25	25	
Oryzias_latipes.8.4463787.4463192	Oryzias_latipes.8.4463787.4463192	10	25	multiple blast hit in proteome: Alestes_baremozetm285,Argentina_sphyraena029tm,Chanos_chanostm1777,Coregonus_spZSM13380,Denticeps_clupeoidestm138,Engraulis_encrassicolustm57,Gymnotus_spZSM32021,Lepidogalaxias_salamandroidesSAM,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Nansenia_oblitaBPS1997,Osmerus_eperlanustm785,Rutilus_rutilus2,Rutilus_rutilusstm70
Oryzias_latipes.9.11144262.11144683	Oryzias_latipes.9.11144262.11144683	25	25	

Oryzias_latipes.9.12477894.12477076	Oryzias_latipes.9.12477894.12477076	16	16	
Oryzias_latipes.9.13209053.13209258	Oryzias_latipes.9.13209053.13209258	17	17	
Oryzias_latipes.9.18696088.18695938	Oryzias_latipes.9.18696088.18695938	32	32	
Oryzias_latipes.9.2024905.2024732	Oryzias_latipes.9.2024905.2024732	40	40	
Oryzias_latipes.9.23006487.23006750	Oryzias_latipes.9.23006487.23006750	29	29	
Oryzias_latipes.9.23034084.23033912	Oryzias_latipes.9.23034084.23033912	17	17	
Oryzias_latipes.9.23337195.23337830	Oryzias_latipes.9.23337195.23337830	19	19	
Oryzias_latipes.9.28835081.28835244	Oryzias_latipes.9.28835081.28835244	22	22	
Oryzias_latipes.9.2899473.2900962	Oryzias_latipes.9.2899473.2900962	20	20	
Oryzias_latipes.9.510018.510221	Oryzias_latipes.9.510018.510221	18	18	
Oryzias_latipes.9.9039709.9039257	Oryzias_latipes.9.9039709.9039257	34	34	
Oryzias_latipes.scaffold1376.15570.15771	Oryzias_latipes.scaffold1376.15570.15771	10	10	
Oryzias_latipes.scaffold2378.12948.12787	Oryzias_latipes.scaffold2378.12948.12787	20	20	
Oryzias_latipes.scaffold604.113603.113853	Oryzias_latipes.scaffold604.113603.113853	7	30	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevipinnit66merge,Anguilla_anguillatm125,Arc tozensus_risso,Argentina_sphyaena029tm, Astronesthes_luciferT04tm,Borostomias_ant arcticustm762,Coregonus_spZSM13380,Dalli a_pectoralisUW150693-5,Danio_rerioD15,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Gonorhynchus_a bbreviatus098tm,Hime_formosana137tm,Li mnothrissa_miodon,Maurolicus_muelleritm 2013W,Opisthoproctus_soleatusBPS0624,Pe llonula_leonensistm238,Retropinna_tasmani ca_CSIROtr,Rutilus_rutilus2,Rutilus_rutilust m70,Salmo_truttatm20154,Umbra_kramerit m62

Oryzias_latipes.scaffold860.78177.79007	Oryzias_latipes.scaffold860.78177.79007	18	18	
Oryzias_latipes.scaffold869.51442.51606	Oryzias_latipes.scaffold869.51442.51606	37	37	
Oryzias_latipes.scaffold960.21590.21428	Oryzias_latipes.scaffold960.21590.21428	35	35	
Oryzias_latipes.ultracontig182.2208146.2207968	Oryzias_latipes.ultracontig182.2208146.2207968	14	14	
Oryzias_latipes.ultracontig236.1451066.1450863	Oryzias_latipes.ultracontig236.1451066.1450863	10	10	
Oryzias_latipes.ultracontig90.1005190.1005405	Oryzias_latipes.ultracontig90.1005190.1005405	30	30	
Tetraodon_nigroviridis.1.10737224.10736912	Tetraodon_nigroviridis.1.10737224.10736912	19	19	
Tetraodon_nigroviridis.1.10950272.10950097	Tetraodon_nigroviridis.1.10950272.10950097	27	27	
Tetraodon_nigroviridis.1.10950974.10950784	Tetraodon_nigroviridis.1.10950974.10950784	16	16	
Tetraodon_nigroviridis.1.1137430.1137269	Tetraodon_nigroviridis.1.1137430.1137269	13	13	
Tetraodon_nigroviridis.1.11645919.11645671	Tetraodon_nigroviridis.1.11645919.11645671	26	26	
Tetraodon_nigroviridis.1.11923866.11924049	Tetraodon_nigroviridis.1.11923866.11924049	33	33	
Tetraodon_nigroviridis.1.12164607.12164454	Tetraodon_nigroviridis.1.12164607.12164454	21	21	
Tetraodon_nigroviridis.1.14898664.14898945	Tetraodon_nigroviridis.1.14898664.14898945	19	19	
Tetraodon_nigroviridis.1.14918943.14919171	Tetraodon_nigroviridis.1.14918943.14919171	15	15	
Tetraodon_nigroviridis.1.15645428.15645231	Tetraodon_nigroviridis.1.15645428.15645231	32	32	
Tetraodon_nigroviridis.1.15793367.15793639	Tetraodon_nigroviridis.1.15793367.15793639	29	29	
Tetraodon_nigroviridis.1.4338542.4338845	Tetraodon_nigroviridis.1.4338542.4338845	13	13	

Tetraodon_nigroviridis.1.7217684.7217379	Tetraodon_nigroviridis.1.7217684.7217379	37	37	
Tetraodon_nigroviridis.1.8160511.8160890	Tetraodon_nigroviridis.1.8160511.8160890	27	40	multiple blast hit in proteome: Coregonus_spZSM13380,Dallia_pectoralisUW150693-5,Denticeps_clupeoidestm138,Engraulis_encrassicolustm57,Harpadon_microchir067tm,Hime_formosana137tm,Ijimaia_loppeibPS2503,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Osmerus_eperlanustm785,Pecoglossus_altivelistm211,Retropinna_tasmanicaCL284a,Schilbe_mystustm551b
Tetraodon_nigroviridis.10.10552375.10552186	Tetraodon_nigroviridis.10.10552375.10552186	27	27	
Tetraodon_nigroviridis.10.12724961.12724768	Tetraodon_nigroviridis.10.12724961.12724768	30	30	
Tetraodon_nigroviridis.10.12726251.12726067	Tetraodon_nigroviridis.10.12726251.12726067	28	28	
Tetraodon_nigroviridis.10.1908663.1908283	Tetraodon_nigroviridis.10.1908663.1908283	24	24	
Tetraodon_nigroviridis.10.2492814.2492579	Tetraodon_nigroviridis.10.2492814.2492579	29	29	
Tetraodon_nigroviridis.10.4993447.4993203	Tetraodon_nigroviridis.10.4993447.4993203	21	21	
Tetraodon_nigroviridis.10.5837504.5837191	Tetraodon_nigroviridis.10.5837504.5837191	24	24	
Tetraodon_nigroviridis.10.606531.606275	Tetraodon_nigroviridis.10.606531.606275	20	20	
Tetraodon_nigroviridis.10.7818671.7818886	Tetraodon_nigroviridis.10.7818671.7818886	40	40	
Tetraodon_nigroviridis.10.9714335.9714123	Tetraodon_nigroviridis.10.9714335.9714123	33	33	
Tetraodon_nigroviridis.11.11125510.11125703	Tetraodon_nigroviridis.11.11125510.11125703	16	16	
Tetraodon_nigroviridis.11.2083785.2083983	Tetraodon_nigroviridis.11.2083785.2083983	20	20	

Tetraodon_nigroviridis.11.2323116.2322893	Tetraodon_nigroviridis.11.2323116.2322893	24	24	
Tetraodon_nigroviridis.11.3046273.3046090	Tetraodon_nigroviridis.11.3046273.3046090	27	27	
Tetraodon_nigroviridis.11.6042394.6042193	Tetraodon_nigroviridis.11.6042394.6042193	34	37	multiple blast hit in proteome: Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Salanx_acuticepstmT02
Tetraodon_nigroviridis.12.10805059.10805365	Tetraodon_nigroviridis.12.10805059.10805365	30	30	
Tetraodon_nigroviridis.12.10807658.10807874	Tetraodon_nigroviridis.12.10807658.10807874	39	39	
Tetraodon_nigroviridis.12.11834359.11834181	Tetraodon_nigroviridis.12.11834359.11834181	37	37	
Tetraodon_nigroviridis.12.2784042.2783890	Tetraodon_nigroviridis.12.2784042.2783890	33	33	
Tetraodon_nigroviridis.12.624348.624505	Tetraodon_nigroviridis.12.624348.624505	23	23	
Tetraodon_nigroviridis.12.6958819.6958526	Tetraodon_nigroviridis.12.6958819.6958526	20	20	
Tetraodon_nigroviridis.13.12428179.12428358	Tetraodon_nigroviridis.13.12428179.12428358	1	23	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevipinnit66merge,Argentina_sphyraena029tm,Cromeria_occidentalistm583a,Engraulis_encyrassicolustm57,Evermanella_balbotm67eve,Galaxias_fasciatusCL282,Gonorhynchus_abbreviatus098tm,Ijimaia_loppeibPS2503,Lepidogalaxias_salamandroidesSAM,Limnothrissa_miodon,Lovettia_sealii_CSIROtr,Mallotus_villosustm016,Opisthoproctus_oleatusBPS0624,Pantodon_bucholzi382tm,Pellonula_leonensistm238,Retropinna_tasmanicaCL284a,Retropinna_tasmanica_CSIROtr,Salanx_acuticepstmT02,Synodus_saurussn10,Umbra_krameritm62,bait_sequences
Tetraodon_nigroviridis.13.5229998.5230908	Tetraodon_nigroviridis.13.5229998.5230908	16	16	

Tetraodon_nigroviridis.13.5969653.5969898	Tetraodon_nigroviridis.13.5969653.5969898	24	24	
Tetraodon_nigroviridis.13.6490366.6490193	Tetraodon_nigroviridis.13.6490366.6490193	13	13	
Tetraodon_nigroviridis.13.7229990.7230145	Tetraodon_nigroviridis.13.7229990.7230145	37	38	too short: Umbra_krameritm62
Tetraodon_nigroviridis.13.7895200.7894972	Tetraodon_nigroviridis.13.7895200.7894972	28	28	
Tetraodon_nigroviridis.14.2733367.2733158	Tetraodon_nigroviridis.14.2733367.2733158	38	38	
Tetraodon_nigroviridis.14.3282493.3282323	Tetraodon_nigroviridis.14.3282493.3282323	13	13	
Tetraodon_nigroviridis.14.3743844.3743352	Tetraodon_nigroviridis.14.3743844.3743352	19	20	too short: Arctozensus_risso
Tetraodon_nigroviridis.14.4997368.4997616	Tetraodon_nigroviridis.14.4997368.4997616	13	13	
Tetraodon_nigroviridis.14.5003764.5004693	Tetraodon_nigroviridis.14.5003764.5004693	29	29	
Tetraodon_nigroviridis.14.6014338.6014173	Tetraodon_nigroviridis.14.6014338.6014173	36	36	
Tetraodon_nigroviridis.14.6747216.6746840	Tetraodon_nigroviridis.14.6747216.6746840	31	31	
Tetraodon_nigroviridis.14.6769493.6769699	Tetraodon_nigroviridis.14.6769493.6769699	14	14	
Tetraodon_nigroviridis.14.9520621.9520376	Tetraodon_nigroviridis.14.9520621.9520376	25	25	
Tetraodon_nigroviridis.14.9531497.9531711	Tetraodon_nigroviridis.14.9531497.9531711	13	13	
Tetraodon_nigroviridis.15.2856796.2856985	Tetraodon_nigroviridis.15.2856796.2856985	15	15	
Tetraodon_nigroviridis.16.1199095.1199265	Tetraodon_nigroviridis.16.1199095.1199265	32	32	
Tetraodon_nigroviridis.16.3516613.3516028	Tetraodon_nigroviridis.16.3516613.3516028	23	24	too short: Danio_rerioD15
Tetraodon_nigroviridis.16.3836165.3836462	Tetraodon_nigroviridis.16.3836165.3836462	11	11	

Tetraodon_nigroviridis.16.3836777.3836983	Tetraodon_nigroviridis.16.3836777.3836983	24	24	
Tetraodon_nigroviridis.16.4027481.4026885	Tetraodon_nigroviridis.16.4027481.4026885	21	21	
Tetraodon_nigroviridis.17.12048904.12049087	Tetraodon_nigroviridis.17.12048904.12049087	21	21	
Tetraodon_nigroviridis.17.4091888.4091700	Tetraodon_nigroviridis.17.4091888.4091700	38	38	
Tetraodon_nigroviridis.17.5587047.5587238	Tetraodon_nigroviridis.17.5587047.5587238	35	35	
Tetraodon_nigroviridis.17.6022906.6022656	Tetraodon_nigroviridis.17.6022906.6022656	31	31	
Tetraodon_nigroviridis.17.6600380.6600160	Tetraodon_nigroviridis.17.6600380.6600160	30	30	
Tetraodon_nigroviridis.18.10815524.10815717	Tetraodon_nigroviridis.18.10815524.10815717	9	31	multiple blast hit in proteome: Alepocephalus_brevipinnit66merge,Alestes_baremozetm285,Argentina_sphyrana029tm,Astronesthes_luciferT04tm,Bathylagus_euryopstm112,Borostomias_antarcticustm762,Coregonus_spZSM13380,Cromeria_occidentalistm583a,Danio_rerioD15,Denticeps_clupeoidestm138,Dussumiera_elopsoides037tm,Gonorhynchus_abbreviatus098tm,Gymnotus_spZSM32021,Ijimaia_loppeibPS2503,Limnothrissa_miodon,Opisthoproctus_oleatusBPS0624,Retropinna_tasmanica_CSIROtr,Rutilus_rutilustm70,Salanx_acuticepstmT02,Salmo_truttatm20154,Synodus_saurustm67syn eve,bait_sequences
Tetraodon_nigroviridis.18.2451038.2450849	Tetraodon_nigroviridis.18.2451038.2450849	24	24	
Tetraodon_nigroviridis.18.274610.273545	Tetraodon_nigroviridis.18.274610.273545	25	25	
Tetraodon_nigroviridis.18.2823185.2823376	Tetraodon_nigroviridis.18.2823185.2823376	28	28	
Tetraodon_nigroviridis.18.2856457.2856631	Tetraodon_nigroviridis.18.2856457.2856631	24	24	

Tetraodon_nigroviridis.18.3870739.3870548	Tetraodon_nigroviridis.18.3870739.3870548	17	17	
Tetraodon_nigroviridis.18.4211448.4211215	Tetraodon_nigroviridis.18.4211448.4211215	26	26	
Tetraodon_nigroviridis.18.9142290.9142066	Tetraodon_nigroviridis.18.9142290.9142066	13	13	
Tetraodon_nigroviridis.19.1646077.1646302	Tetraodon_nigroviridis.19.1646077.1646302	33	33	
Tetraodon_nigroviridis.19.2032318.2032148	Tetraodon_nigroviridis.19.2032318.2032148	29	29	
Tetraodon_nigroviridis.19.2225567.2225724	Tetraodon_nigroviridis.19.2225567.2225724	25	25	
Tetraodon_nigroviridis.19.2487255.2487052	Tetraodon_nigroviridis.19.2487255.2487052	25	25	
Tetraodon_nigroviridis.19.3422239.3422020	Tetraodon_nigroviridis.19.3422239.3422020	33	33	
Tetraodon_nigroviridis.19.561266.561497	Tetraodon_nigroviridis.19.561266.561497	32	32	
Tetraodon_nigroviridis.2.10526544.10526320	Tetraodon_nigroviridis.2.10526544.10526320	32	32	
Tetraodon_nigroviridis.2.10541460.10541254	Tetraodon_nigroviridis.2.10541460.10541254	28	28	
Tetraodon_nigroviridis.2.10549078.10548874	Tetraodon_nigroviridis.2.10549078.10548874	28	28	
Tetraodon_nigroviridis.2.10555584.10555342	Tetraodon_nigroviridis.2.10555584.10555342	30	30	
Tetraodon_nigroviridis.2.1170368.1170619	Tetraodon_nigroviridis.2.1170368.1170619	26	26	
Tetraodon_nigroviridis.2.15425986.15426315	Tetraodon_nigroviridis.2.15425986.15426315	30	30	
Tetraodon_nigroviridis.2.19609152.19609367	Tetraodon_nigroviridis.2.19609152.19609367	12	12	
Tetraodon_nigroviridis.2.20016378.20016552	Tetraodon_nigroviridis.2.20016378.20016552	26	26	
Tetraodon_nigroviridis.2.20016623.20016799	Tetraodon_nigroviridis.2.20016623.20016799	33	33	

Tetraodon_nigroviridis.2.2344868.2344708	Tetraodon_nigroviridis.2.2344868.2344708	27	27	
Tetraodon_nigroviridis.2.5819018.5819225	Tetraodon_nigroviridis.2.5819018.5819225	20	20	
Tetraodon_nigroviridis.2.6840789.6840614	Tetraodon_nigroviridis.2.6840789.6840614	35	35	
Tetraodon_nigroviridis.2.8835022.8834718	Tetraodon_nigroviridis.2.8835022.8834718	20	20	
Tetraodon_nigroviridis.2.9375060.9374864	Tetraodon_nigroviridis.2.9375060.9374864	36	36	
Tetraodon_nigroviridis.2.9862405.9862088	Tetraodon_nigroviridis.2.9862405.9862088	1	21	multiple blast hit in proteome: Alepocephalus_bicolor,Alepocephalus_brevipinnit66merge,Alestes_baremozetm285,Arctozensus_risso,Argentina_sphyraena029tm,Ateleopus_japonicus133tm,Bathylagus_uryopstm112,Coregonus_spZSM13380,Evermannella_balbotm67eve,Galaxias_fasciatusCL282,Gonorhynchus_abbreviatus098tm,Harpadon_microchir067tm,Hime_formosana137tm,Ijimaia_loppeibPS2503,Lestrolepis_japonicustmT03,Lovettia_sealii_CSIROtr,Nansenia_oblitaBPS1997,Rutilus_rutilus2,Synodus_saurussn10,bait_sequences
Tetraodon_nigroviridis.20.506247.506095	Tetraodon_nigroviridis.20.506247.506095	30	30	
Tetraodon_nigroviridis.20.569620.569802	Tetraodon_nigroviridis.20.569620.569802	34	34	
Tetraodon_nigroviridis.21.4521965.4522122	Tetraodon_nigroviridis.21.4521965.4522122	25	25	
Tetraodon_nigroviridis.21.4849258.4848375	Tetraodon_nigroviridis.21.4849258.4848375	30	30	
Tetraodon_nigroviridis.21.5083783.5084055	Tetraodon_nigroviridis.21.5083783.5084055	11	11	
Tetraodon_nigroviridis.21.5512171.5512383	Tetraodon_nigroviridis.21.5512171.5512383	25	25	
Tetraodon_nigroviridis.21.743323.743146	Tetraodon_nigroviridis.21.743323.743146	13	13	

Tetraodon_nigroviridis.21_random.399167.399322	Tetraodon_nigroviridis.21_random.399167.399322	27	27	
Tetraodon_nigroviridis.3.11217920.11217764	Tetraodon_nigroviridis.3.11217920.11217764	14	14	
Tetraodon_nigroviridis.3.11591528.11591827	Tetraodon_nigroviridis.3.11591528.11591827	24	24	
Tetraodon_nigroviridis.3.12406720.12407208	Tetraodon_nigroviridis.3.12406720.12407208	24	24	
Tetraodon_nigroviridis.3.12541672.12541505	Tetraodon_nigroviridis.3.12541672.12541505	20	20	
Tetraodon_nigroviridis.3.12542113.12541934	Tetraodon_nigroviridis.3.12542113.12541934	20	20	
Tetraodon_nigroviridis.3.1537072.1536461	Tetraodon_nigroviridis.3.1537072.1536461	42	42	
Tetraodon_nigroviridis.3.8678081.8677902	Tetraodon_nigroviridis.3.8678081.8677902	25	25	
Tetraodon_nigroviridis.3.8980133.8979949	Tetraodon_nigroviridis.3.8980133.8979949	30	31	multiple blast hit in proteome: Galaxias_fasciatusCL282
Tetraodon_nigroviridis.3.9460089.9460559	Tetraodon_nigroviridis.3.9460089.9460559	32	32	
Tetraodon_nigroviridis.4.1173303.1173135	Tetraodon_nigroviridis.4.1173303.1173135	22	22	
Tetraodon_nigroviridis.4.6802443.6802612	Tetraodon_nigroviridis.4.6802443.6802612	16	16	
Tetraodon_nigroviridis.4.6908907.6908735	Tetraodon_nigroviridis.4.6908907.6908735	31	31	
Tetraodon_nigroviridis.5.1284444.1284729	Tetraodon_nigroviridis.5.1284444.1284729	36	36	
Tetraodon_nigroviridis.5.5093556.5093763	Tetraodon_nigroviridis.5.5093556.5093763	15	15	
Tetraodon_nigroviridis.5.5095363.5095560	Tetraodon_nigroviridis.5.5095363.5095560	34	34	
Tetraodon_nigroviridis.5.5362815.5362598	Tetraodon_nigroviridis.5.5362815.5362598	41	41	
Tetraodon_nigroviridis.5.7845285.7845440	Tetraodon_nigroviridis.5.7845285.7845440	28	28	

Tetraodon_nigroviridis.6.2366076.2365884	Tetraodon_nigroviridis.6.2366076.2365884	39	39	
Tetraodon_nigroviridis.7.1869628.1869444	Tetraodon_nigroviridis.7.1869628.1869444	24	24	
Tetraodon_nigroviridis.7.2774803.2774609	Tetraodon_nigroviridis.7.2774803.2774609	13	13	
Tetraodon_nigroviridis.7.6053517.6053242	Tetraodon_nigroviridis.7.6053517.6053242	30	30	
Tetraodon_nigroviridis.7.9865920.9865748	Tetraodon_nigroviridis.7.9865920.9865748	31	31	
Tetraodon_nigroviridis.8.10176215.10176396	Tetraodon_nigroviridis.8.10176215.10176396	17	17	
Tetraodon_nigroviridis.8.2413296.2413502	Tetraodon_nigroviridis.8.2413296.2413502	22	22	
Tetraodon_nigroviridis.8.7008945.7009118	Tetraodon_nigroviridis.8.7008945.7009118	14	14	
Tetraodon_nigroviridis.8.7731385.7731559	Tetraodon_nigroviridis.8.7731385.7731559	24	24	
Tetraodon_nigroviridis.8.9124044.9124240	Tetraodon_nigroviridis.8.9124044.9124240	22	22	
Tetraodon_nigroviridis.9.10434476.10434252	Tetraodon_nigroviridis.9.10434476.10434252	18	18	
Tetraodon_nigroviridis.9.1221010.1220801	Tetraodon_nigroviridis.9.1221010.1220801	36	36	
Tetraodon_nigroviridis.9.1221943.1221775	Tetraodon_nigroviridis.9.1221943.1221775	20	20	
Tetraodon_nigroviridis.9.3077427.3077242	Tetraodon_nigroviridis.9.3077427.3077242	29	29	
Tetraodon_nigroviridis.9.3584659.3584877	Tetraodon_nigroviridis.9.3584659.3584877	23	23	
Tetraodon_nigroviridis.9.3588928.3589197	Tetraodon_nigroviridis.9.3588928.3589197	23	23	
Tetraodon_nigroviridis.9.5241075.5240907	Tetraodon_nigroviridis.9.5241075.5240907	21	21	
Tetraodon_nigroviridis.9.5723174.5722998	Tetraodon_nigroviridis.9.5723174.5722998	40	40	

Tetraodon_nigroviridis.Un_random.12774827.12774582	Tetraodon_nigroviridis.Un_random.12774827.12774582	28	28	
Tetraodon_nigroviridis.Un_random.13372107.13371920	Tetraodon_nigroviridis.Un_random.13372107.13371920	32	32	
Tetraodon_nigroviridis.Un_random.16051748.16051943	Tetraodon_nigroviridis.Un_random.16051748.16051943	32	32	
Tetraodon_nigroviridis.Un_random.16158015.16158174	Tetraodon_nigroviridis.Un_random.16158015.16158174	20	20	
Tetraodon_nigroviridis.Un_random.19675650.19675847	Tetraodon_nigroviridis.Un_random.19675650.19675847	41	41	
Tetraodon_nigroviridis.Un_random.21080959.21081207	Tetraodon_nigroviridis.Un_random.21080959.21081207	35	35	
Tetraodon_nigroviridis.Un_random.22227359.22227187	Tetraodon_nigroviridis.Un_random.22227359.22227187	27	27	
Tetraodon_nigroviridis.Un_random.23009819.23009460	Tetraodon_nigroviridis.Un_random.23009819.23009460	26	26	
Tetraodon_nigroviridis.Un_random.27811605.27811794	Tetraodon_nigroviridis.Un_random.27811605.27811794	31	31	
Tetraodon_nigroviridis.Un_random.30449827.30449639	Tetraodon_nigroviridis.Un_random.30449827.30449639	30	30	
Tetraodon_nigroviridis.Un_random.30592448.30592657	Tetraodon_nigroviridis.Un_random.30592448.30592657	27	27	
Tetraodon_nigroviridis.Un_random.31223845.31224002	Tetraodon_nigroviridis.Un_random.31223845.31224002	24	24	
Tetraodon_nigroviridis.Un_random.33206035.33205750	Tetraodon_nigroviridis.Un_random.33206035.33205750	19	19	
Tetraodon_nigroviridis.Un_random.34922753.34922572	Tetraodon_nigroviridis.Un_random.34922753.34922572	19	19	
Tetraodon_nigroviridis.Un_random.35055718.35056321	Tetraodon_nigroviridis.Un_random.35055718.35056321	25	25	
Tetraodon_nigroviridis.Un_random.35061094.35062504	Tetraodon_nigroviridis.Un_random.35061094.35062504	45	45	
Tetraodon_nigroviridis.Un_random.35433468.35433272	Tetraodon_nigroviridis.Un_random.35433468.35433272	33	33	
Tetraodon_nigroviridis.Un_random.38209794.38209586	Tetraodon_nigroviridis.Un_random.38209794.38209586	24	24	

Tetraodon_nigroviridis.Un_random.39526571.39526367	Tetraodon_nigroviridis.Un_random.39526571.39526367	35	35	
Tetraodon_nigroviridis.Un_random.44328644.44328808	Tetraodon_nigroviridis.Un_random.44328644.44328808	24	24	
Tetraodon_nigroviridis.Un_random.55926161.55926338	Tetraodon_nigroviridis.Un_random.55926161.55926338	27	27	
Tetraodon_nigroviridis.Un_random.56239230.56239406	Tetraodon_nigroviridis.Un_random.56239230.56239406	21	21	
Tetraodon_nigroviridis.Un_random.5801278.5801710	Tetraodon_nigroviridis.Un_random.5801278.5801710	21	21	
Tetraodon_nigroviridis.Un_random.65948553.65948341	Tetraodon_nigroviridis.Un_random.65948553.65948341	43	43	
Tetraodon_nigroviridis.Un_random.67565861.67565588	Tetraodon_nigroviridis.Un_random.67565861.67565588	25	25	
Tetraodon_nigroviridis.Un_random.67566514.67566276	Tetraodon_nigroviridis.Un_random.67566514.67566276	30	30	
Tetraodon_nigroviridis.Un_random.68091178.68091359	Tetraodon_nigroviridis.Un_random.68091178.68091359	0	13	multiple blast hit in proteome: Alepocephalus_brevipinnit66merge,Alestes_baremozetm285,Argentina_sphyrana029tm,Coregonus_spZSM13380,Cromeria_occidentalistm583a,Danio_rerioD15,Denticeps_clupeoidestm138,Gonorhynchus_abbreviatus098tm,Lepidogalaxias_salamandroidesSAM,Lovettia_sealii_CSIROtr,Nansenia_oblitaBPS1997,Salmo_truttatm20154,bait_sequences
Tetraodon_nigroviridis.Un_random.71614613.71614823	Tetraodon_nigroviridis.Un_random.71614613.71614823	11	11	
Tetraodon_nigroviridis.Un_random.71759584.71759414	Tetraodon_nigroviridis.Un_random.71759584.71759414	22	22	
Tetraodon_nigroviridis.Un_random.72724049.72724201	Tetraodon_nigroviridis.Un_random.72724049.72724201	42	42	
Tetraodon_nigroviridis.Un_random.73107685.73107840	Tetraodon_nigroviridis.Un_random.73107685.73107840	35	35	
Tetraodon_nigroviridis.Un_random.78089505.78089667	Tetraodon_nigroviridis.Un_random.78089505.78089667	33	33	

Tetraodon_nigroviridis.Un_random.7929823.7929618	Tetraodon_nigroviridis.Un_random.7929823.7929618	26	26	
Tetraodon_nigroviridis.Un_random.81044266.81044574	Tetraodon_nigroviridis.Un_random.81044266.81044574	28	28	
Tetraodon_nigroviridis.Un_random.86178802.86178608	Tetraodon_nigroviridis.Un_random.86178802.86178608	19	19	
Tetraodon_nigroviridis.Un_random.91569384.91569213	Tetraodon_nigroviridis.Un_random.91569384.91569213	38	38	
Tetraodon_nigroviridis.Un_random.96042125.96042295	Tetraodon_nigroviridis.Un_random.96042125.96042295	38	38	

9 ¹ Name of locus

10 ² Name of orthology group. Sequences of orthology group come from the baits-designing sequences

11 ³ Number of samples have reciprocal blast hit in this locus

12 ⁴ Number of enriched samples in this locus

Analysis protocol for the Bayesian inference using Phylobayes 3.3f [43, 78, 79]:**1. Concatenated amino acid dataset:**

bpcomp diff:

maxdiff : 0.101187

meandiff : 0.00188709

Tracecomp.contdiff:

name	effsize	rel_diff
------	---------	----------

loglik	1791	0.0366979
--------	------	-----------

length	4101	0.00560435
--------	------	------------

alpha	2693	0.0808239
-------	------	-----------

Nmode	1280	0.0324392
-------	------	-----------

statent	1428	0.0611291
---------	------	-----------

statalpha	1342	0.0143586
-----------	------	-----------

2. Concatenated DNA dataset:

bpcomp diff:

maxdiff : 0.0877491

meandiff : 0.00241954

Tracecomp.contdiff:

name	effsize	rel_diff
------	---------	----------

loglik	471	0.548605
--------	-----	----------

length	409	0.274967
--------	-----	----------

alpha	222	0.136775
-------	-----	----------

Nmode	238	0.782935
-------	-----	----------

statent	610	0.274705
---------	-----	----------

statalpha	143	0.130307
-----------	-----	----------

42 Table S4: results from CONSEL AU test [42, 48, 49, 50, 51].

rank	item	dataset description	obs	au	np	bp	pp	kh	sh	wkh	wsh
1	6	DNA_MARE_concatenated_partitioned_RAxML best tree	0	0.776	0.55	0.567	0.5	0.71	0.946	0.71	0.946
2	5	DNA_MARE_concatenated_non-partitioned_RAxML best tree	0	0.398	0.241	0.225	0.5	0.29	0.863	0.29	0.863
3	1	DNA_speciestree	29.9	0.201	0.212	0.209	5.00E-14	0.215	0.48	0.215	0.383
4	2	AA_speciestree	210.1	9.00E-26	7.00E-12	0	3.00E-92	0	0	0	0
5	4	AA_MARE_concatenated_non_partitioned_RAxML best tree	416.4	6.00E-69	1.00E-19	0	7.00E-182	0	0	0	0
6	3	AA_MARE_concatenated_partitioned_RAxML best tree	416.4	2.00E-69	8.00E-20	0	7.00E-182	0	0	0	0

43

Fig. S2: RAxML Maximum Likelihood estimate based on the concatenated amino acid alignments of 829 most informative loci identified by MARE. Data not partitioned.

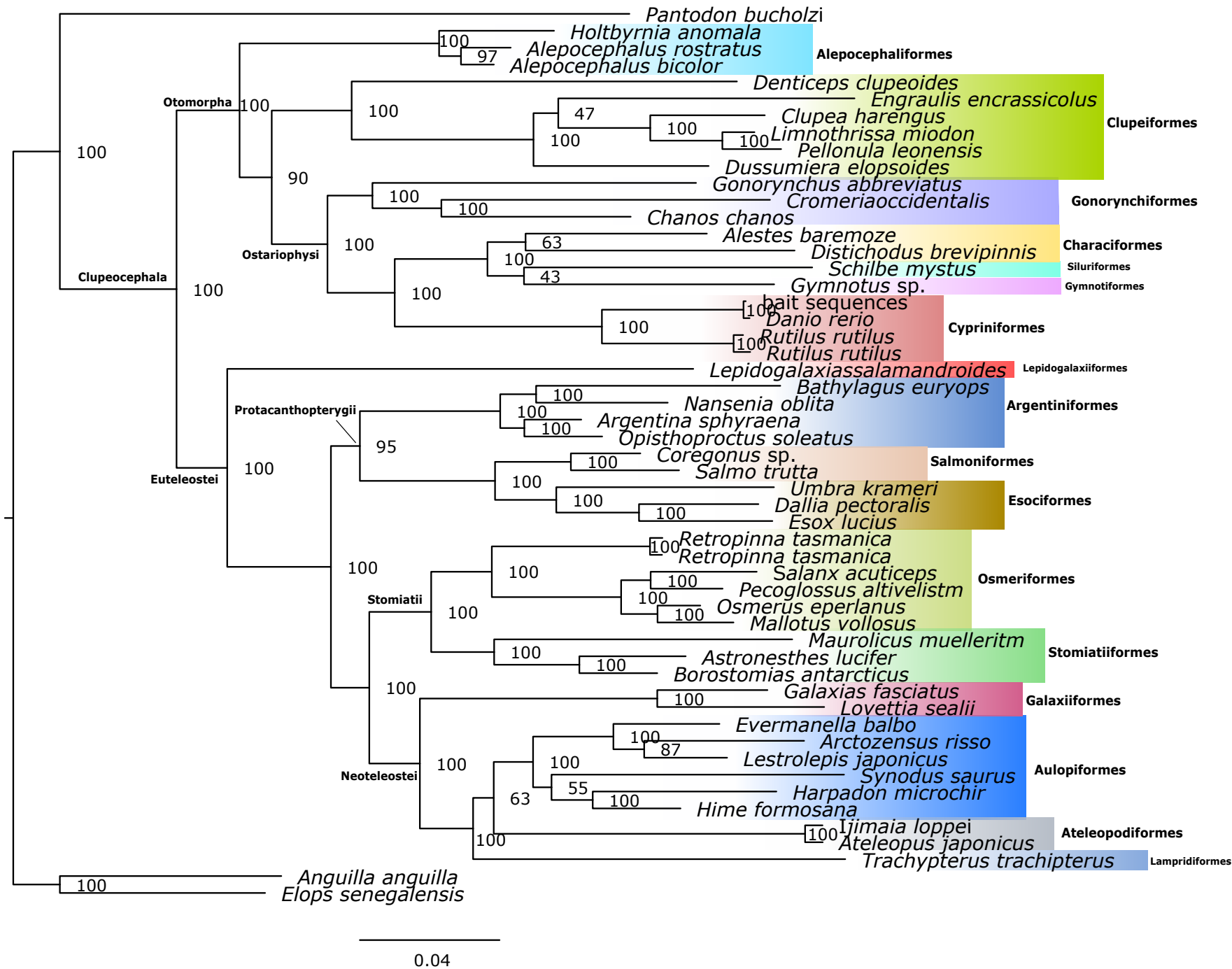


Fig. S3: RAXML Maximum Likelihood estimate based on the concatenated nucleotide alignments of 829 most informative loci identified by MARE. Data partioned based on results from PartitionFinder.

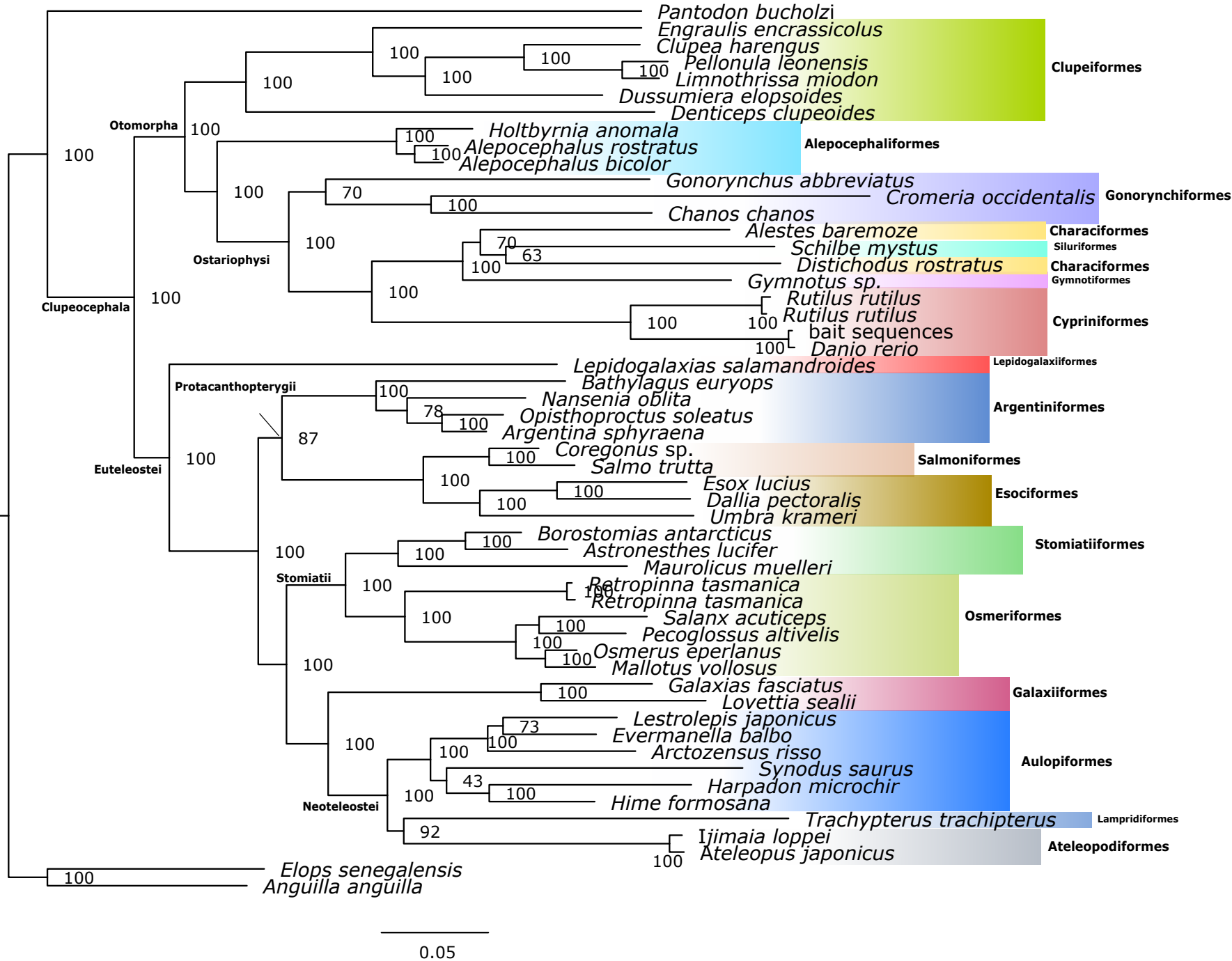


Fig. S4: RAxML Maximum Likelihood estimate based on the concatenated nucleotide alignments of 829 most informative loci identified by MARE. Data not partitioned.

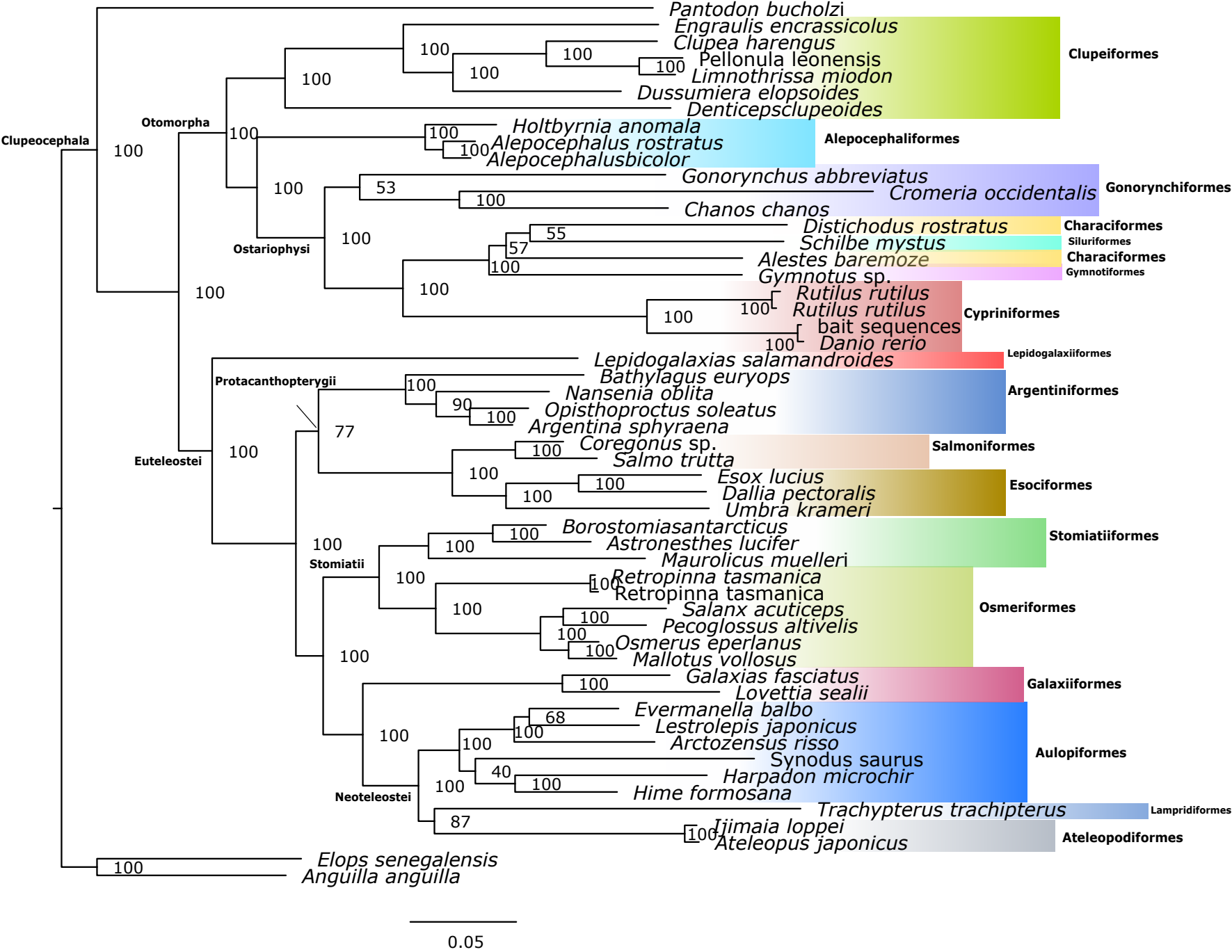


Fig. S5: Bayesian inference using the CAT Dirichlet process implemented in PhyloBayes on the concatenated amino acid alignments of 829 phylogenetically most informative loci identified with MARE.

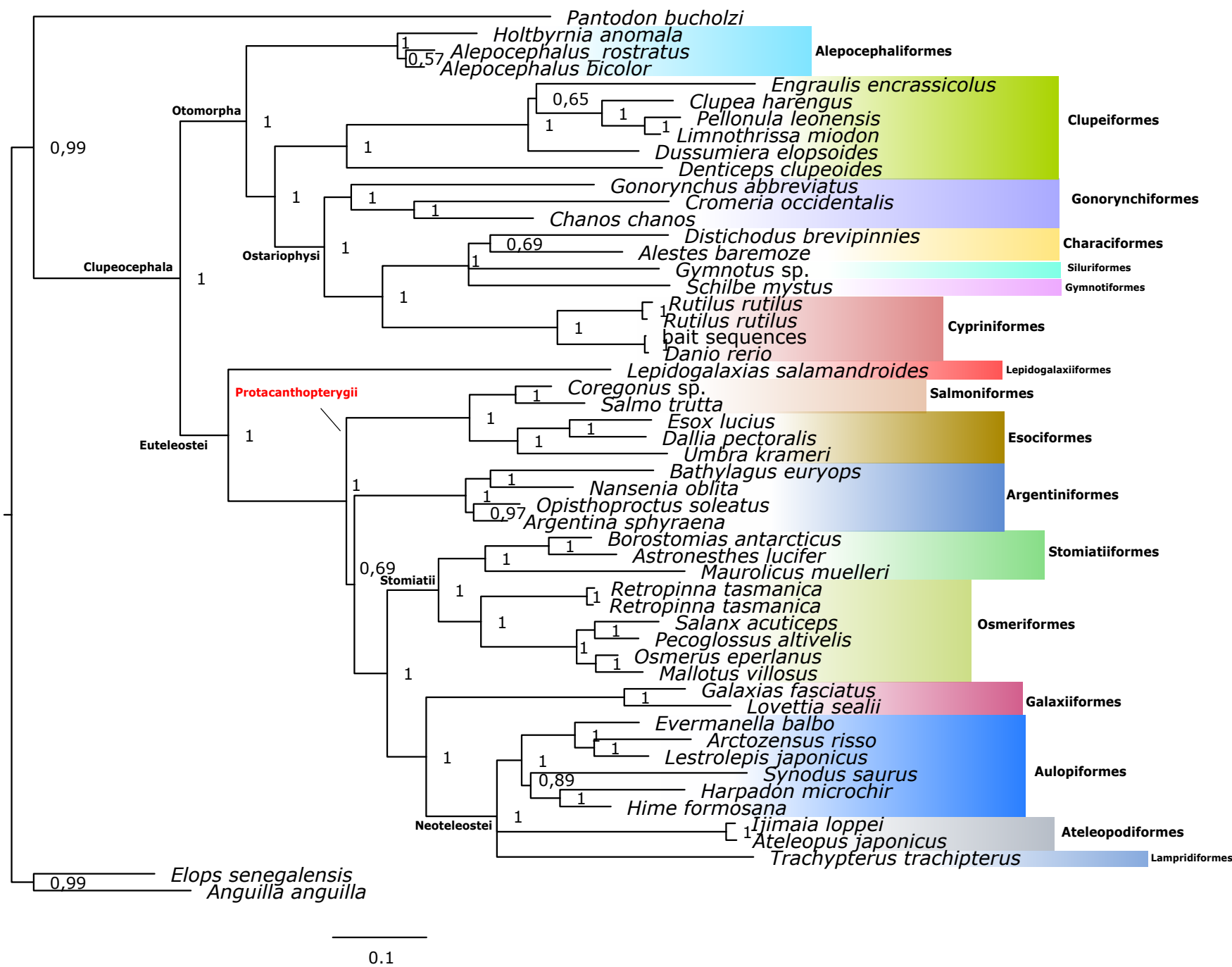


Fig. S6: Bayesian inference using the CAT Dirichlet process implemented in PhyloBayes on the concatenated nucleotide alignments of 829 phylogenetically most informative loci identified with MARE.

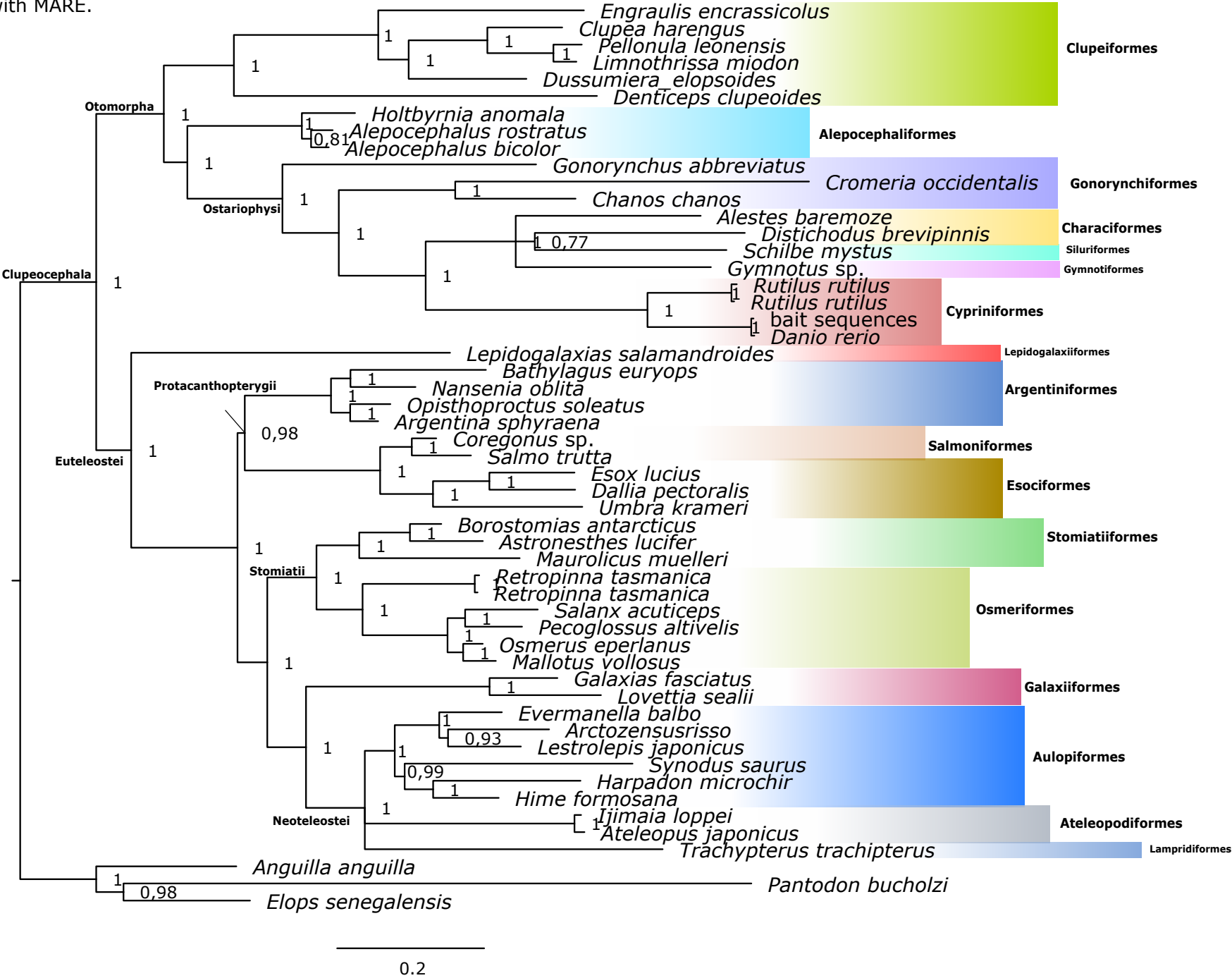


Fig. S7: Speciestree computed using ASTRAL from 829 individual maximum likelihood gene trees based on single loci amino acid alignments..

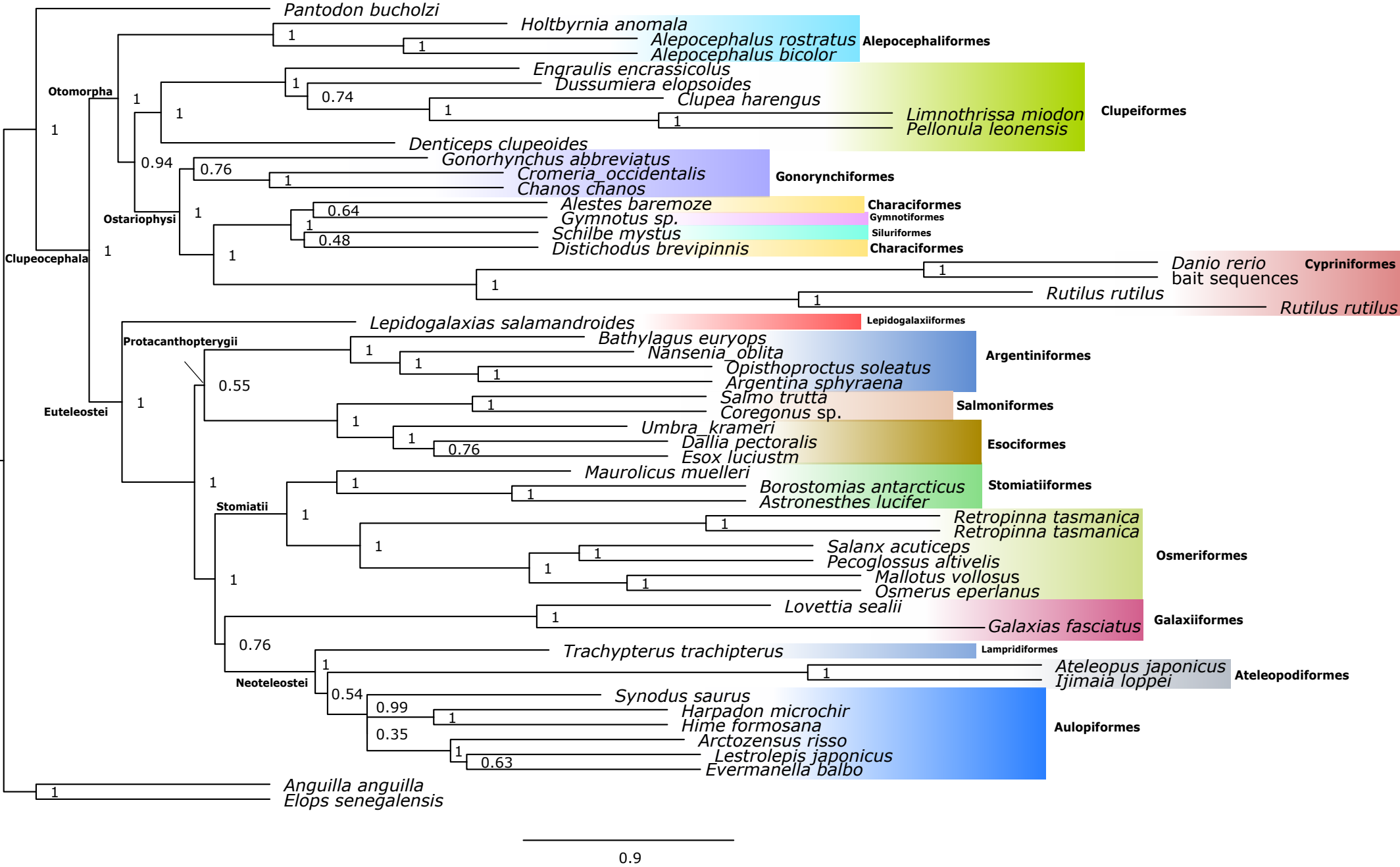


Fig. S8: Speciestree computed using ASTRAL from 829 individual maximum likelihood gene trees based on single loci DNA alignments.

