

Supplementary Material

More on snails and islands: molecular systematics and taxonomic revision of *Setobaudinia* Iredale (Gastropoda : Camaenidae) from the Kimberley, Western Australia, with description of new taxa

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Table S1. Museum registration numbers, voucher status and GenBank accession numbers of samples included in the molecular analysis

AM, Australian Museum, Sydney; FMNH, Field Museum of Natural History, Chicago; Ht, Holotype; NTM, Museum and Art Gallery of Northern Territory, Darwin; Pt, Paratype; QM, Queensland Museum, Brisbane; WAM, Western Australian Museum, Perth

Taxon	Museum registration number	Status	GenBank accession numbers	
			COI	16S
<i>Baudinella occidentalis</i> Köhler, 2011	WAM S37079		KF226182	HQ245452
	WAM S37694		KF226183	KF226145
<i>Baudinella setobaudinoides</i> Köhler, 2011	WAM S37035		KF226184	HQ245446
	WAM S37036		KC703099	HQ245447
<i>Baudinella thielei</i> Köhler, 2011	WAM S36398		KF226185	HQ245451
	WAM S36756		KF226186	KF226146
<i>Baudinella tuberculata</i> Köhler, 2011	WAM S37061		KF226187	HQ245448
	WAM S37062		KF226188	HQ245450
N. gen 1, sp. nov.	WAM S66304		KC703179	KC703173
<i>Cristilabrum</i> sp.	WAM S49206		KC614752	KC614705
<i>Cristilabrum</i> sp.	WAM S49207		KC614753	KC614706
<i>Cristilabrum</i> sp.	WAM S49208		KC614754	KC614707
<i>Eurytrachia mucosa</i> (Cox, 1868)	QM 54302		-	GQ851208
<i>Exiligada brabyi</i> Criscione et al., 2012	WAM S83168		JX393741	JX393654
<i>Exiligada calciphila</i> Criscione et al., 2012	AM C.475763		JX393746	JX393659
<i>Exiligada floraevallis</i> Criscione et al., 2012	AM C.475765		JX393750	JX393661
<i>Kymatobaudinia carrboydensis</i> , gen. nov., sp. nov.	WAM S84162	Ht	KF226189	KF226147
<i>Mesodontrachia fitzroyana</i> Solem, 1985	AM C.462783		KC614779	HQ245483
	AM C.462802		KC614780	KC614722
	AM C.462810		KC614784	HQ245485

<i>Mouldingia occidentalis</i> Solem, 1984	AM C.463556		KC614798	HQ245502
<i>Molema stankowskii</i> Köhler, 2011	WAM S37773		KF226190	HQ245462
	WAM S37775		KF226191	n.a.
<i>Nanotrachia carinata</i> Köhler & Criscione, 2013	WAM S66300	Ht	KC679382	KC679329
<i>Nanotrachia coronata</i> Köhler & Criscione, 2013	WAM S49181	Pt	KC679386	KC679332
<i>Nanotrachia costulata</i> Köhler & Criscione, 2013	AM C.437659		KC679387	HQ245586
	AM C.462754		KC679388	HQ245504
	AM C.470197		KC679391	KC679335
	AM C.470198		KC679394	KC679338
	AM C.470214		KC679397	KC679341
	WAM S49175		KC679380	KC679327
	WAM S49191		KC679368	KC679312
<i>Nanotrachia intermedia</i> (Solem, 1984)	WAM S49190		KC679364	KC679314
	WAM S49193		KC679370	KC679318
	WAM S49194		KC679373	KC679321
	WAM S49195		KC679376	KC679323
<i>Nanotrachia levis</i> Köhler & Criscione, 2013	WAM S49199		KC679356	KC703175
<i>Nanotrachia orientalis</i> (Solem, 1984)	WAM S49196		KC679347	KC679305
<i>Ningbingia australis</i> Solem, 1981	WAM S49180		KC614799	KC614741
<i>Ningbingia octava</i> Solem, 1981	WAM S49212		KC614800	KC614742
	WAM S49213		KC614800	KC614742
<i>Nodulabium solidum</i> Criscione & Köhler, 2013	NTM P48937	Ht	KC614767	HQ245497
	AM C.462722		KC614759	HQ245477
	AM C.462774		KC614776	HQ245482
<i>Prototrachia sedula</i> Solem, 1984	AM C.437638		KC614803	KC614744
	AM C.437654		KC614804	KC614745
	AM C.462973		KC614805	HQ245511
	AM C.462977		KC679399	HQ245512
	AM C.462978		KC679400	HQ245513
N. gen 2, sp. nov.	WAM S66305		KC703180	KC703178
<i>Retroterra discoidea</i> Köhler, 2011	WAM S36999		pending	HQ245519
<i>Retroterra solituda</i> Solem, 1985	WAM S49570		KC703103	KC703054
			pending	pending
	WAM S49567		pending	pending
<i>Rhagada</i> sp.	AM C.468709		KC703105	KC703056
<i>Rhagada bulgana</i> Solem, 1997	AM C.463552		KC703113	HQ245541
<i>Rhagada cygna</i> Solem, 1997	AM C.463537		KC703122	KC703067
<i>Rhagada harti</i> Solem, 1985	WAM S49576		KC703143	HQ245532
<i>Setobaudinia anatispretia</i> Solem, 1985	AM C.437624		KF226193	GQ443619
	AM C.437656		n.a.	HQ245557

	AM C.471172		KF226194	KF226149
<i>Setobaudinia angustilabiata</i> , sp. nov.	WAM S83068		KF226195-96	KF226150-51
<i>Setobaudinia colmani</i> , sp. nov.	WAM S49562	Ht	KF226198	KF226152
<i>Setobaudinia capillacea</i> Köhler, 2011	WAM S36751		KF226197	HQ245568
	WAM S36752		n.a.	HQ245569
<i>Setobaudinia garlinju</i> Köhler, 2011	WAM S37050		KC679401	HQ245563
	WAM S37052		KC118657	HQ245564
	WAM S37055		KF226199	HQ245565
<i>Setobaudinia gumalamala</i> Köhler, 2011	WAM S37031		KF226200	GQ443617
	WAM S37034		n.a.	KF226153
<i>Setobaudinia herculea</i> Köhler, 2011	WAM S49353		KC679402	KC679343
<i>Setobaudinia incisa</i> , sp. nov.	WAM S84169	Ht	KF226201	KF226154
<i>Setobaudinia insolita</i> Köhler, 2011	WAM S37690		KC679403	KC679344
<i>Setobaudinia kalumburuana</i> Köhler, 2011	AM C.150786		KF226205	HQ245457
<i>Setobaudinia karczewski</i> Köhler, 2011	WAM S37784		KC679405	KC679340
			KF226206	KF226157
	WAM S49266		KF226207	KF226158
<i>Setobaudinia kessneri</i> , sp. nov.	WAM S83066		KF226208	KF226159
<i>Setobaudinia joycei</i> Köhler, 2011	WAM S37779		KF226202	HQ245570
	WAM S37780		KC679404	HQ245571
	WAM S49265		KF226203	KF226155
<i>Setobaudinia latilabiata</i> , sp. nov.	WAM S83079		KF226209	KF226160
	WAM S83081		KF226210	KF226161
<i>Setobaudinia longiflagellata</i> , sp. nov.	WAM S83070		KF226211-12	KF226162-63
	WAM S83071		KF226213	KF226164
<i>Setobaudinia malbyana</i> , sp. nov.	WAM S84163	Ht	KF226216	KF226165
	FMNH 219333		KF226215	KF234651
	WAM S83060		KF226214	KF226166
<i>Setobaudinia minima</i> , sp. nov.	WAM S84167	Ht	KF226217	KF226177
<i>Setobaudinia ngurraali</i> Köhler, 2011	WAM S36898		KF226222	HQ245562
	WAM S36721		KF226221	KF226169
	WAM S36717		KF226220	KF226168
	WAM S36366		KF226218	HQ245558
	WAM S36714		KF226219	KF226167
	WAM S36899		KF226223	KF226170
	WAM S36719		KF234652	KF234650
<i>Setobaudinia plana</i> , sp. nov.	WAM S84170	Ht	KF226224	KF226171
<i>Setobaudinia quinta</i> Köhler, 2011	WAM S37729		KF226225-26	KF226172-73
<i>Setobaudinia rectilabrum</i> (Smith, 1894)	WAM S49360		KF226227	KF226174
	WAM S49361		KF226228	KF226175

	WAM S49365		KF226229	KF226176
<i>Setobaudinia spina</i> (Solem, 1985)	AM C.460993		KF226231	HQ245458
	AM C.150538		KF226230	HQ245459
<i>Setobaudinia umbadayi</i> Köhler, 2011	WAM S36704		KF226232	KF226178
	WAM S36705		KF226233	n.a.
	WAM S36708		KF226234-35	GQ443618 HQ245559
	WAM S36709		KF226236	HQ245560
	WAM S36719		KC118657	HQ245561
<i>Setobaudinia wujurru</i> Köhler, 2011	WAM S36352		KF226237	HQ245566
	WAM S36749		KF226238	HQ245567
<i>Torresitrachia alenae</i> Willan et al., 2009	AM C.462997		KC118664	KC118594
<i>Torresitrachia aquilonia</i> Köhler, 2011	WAM S36632		KC118665	HQ245591
<i>Torresitrachia cuttacutta</i> Willan et al., 2009	AM C.462999		KC118721	KC118638
<i>Torresitrachia darwinii</i> Willan et al., 2009	AM C.462300		KC118727	KC118642
<i>Torresitrachia janszi</i> Köhler, 2011	WAM S36628		KC118730	HQ245596
<i>Torresitrachia flindersi</i> Köhler, 2011	WAM S37022		KC118728	KC118643
<i>Trachiopsis strangulata</i> (Hombron & Jacquinot, 1841)	QM 21520		-	GQ851208
<i>Trachiopsis victoriana</i> (Solem, 1985)	AM C.463536		KF226239	HQ245572
	AM C.463565		KF226240	KF226176
	AM C.468864		KF226242	KF226179-80
	AM C.476734		KF226244	n.a.
<i>Turgenitubulus aslini</i> Solem, 1981	WAM S49177		KC614806	KC614746
<i>Turgenitubulus christenseni</i> Solem, 1981	WAM S49201		KC614808	KC614748
<i>Turgenitubulus pagodula</i> Solem, 1981	WAM S49187		KC614809	KC614749
Undescribed genus	AM C.462970		KF226192	HQ245503
<i>Vincentruchia desmonda</i> (Solem, 1985)	AM C.476736		KC614790	KC614733
	AM C.476737		KC614791	KC614734
	AM C.476738		KC614792	KC614735
<i>Vincentruchia gregoriana</i> Criscione & Köhler, 2013	NTM P48936	Ht	KC614769	HQ245488
	AM C.462747		KC614769	HQ245489
	AM C.462780		KC614765	KC614718
<i>Westraltruchia alterna</i> Iredale, 1939	AM C.463539		KC614811	HQ245619

Table S2. Length (mm) and ratios of different sections of the reproductive system of taxa recognised herein

Taxon codes: ang, *S. angustilabiata*; col, *S. colmani*; inc, *S. incisa*; kes, *S. kessneri*; lat, *S. latilabiata*; lon, *S. longiflagellata*; mal, *S. malbyana*; min, *S. minima*; pla, *S. plana*; kym, *Kymatobaudinia carrboydensis*

Taxon	Length (mm)							Ratios between lengths					
	Flagellum	Lobum	Epiphallus	Penis	Vagina	Free oviduct	Bursa	Flagellum/lobum	Lobum/epiphallus	Epiphallus/penis	Vagina/penis	Vagina/free oviduct	Bursa/free oviduct
lon	6.4	1.9	1.4	8.5	4.1	1.7	6.7	4.6	1.3	0.2	0.5	2.5	4
ang	2.5	1.5	1.0	5.4	2.5	2.6	8.6	2.5	1.5	0.2	0.5	0.9	3
lat	1.8	1.7	1.5	7.7	3.3	1.9	7.5	1.2	1.1	0.2	0.4	1.7	4
min	3.2	1.2	1.1	4.6	2.0	3.2	9.6	2.9	1.1	0.2	0.4	0.6	3
col	2.3	1.3	1.1	5.4	2.8	1.1	6.6	2.2	1.2	0.2	0.5	2.5	6
kes	4.1	2.7	1.6	7.6	1.7	1.9	7.4	2.5	1.7	0.2	0.2	0.9	4
inc	1.6	0.7	1.8	3.2	0.8	0.6	3.8	0.9	0.4	0.5	0.2	1.4	7
mab	2.6	1.3	1.3	6.2	1.6	2.2	7.1	2.1	1.0	0.2	0.3	0.7	3
pla	1.7	0.4	0.8	3.2	1.1	1.7	7.8	2.1	0.5	0.3	0.4	0.7	5
spi	2.6	0.8	1.2	5.7	2.1	0.8	9.6	2.3	0.7	0.2	0.4	2.7	12
kym	0.6	0.0	0.4	2.5	3.8	1.1	7.7	1.5	0.0	0.2	1.5	3.7	7

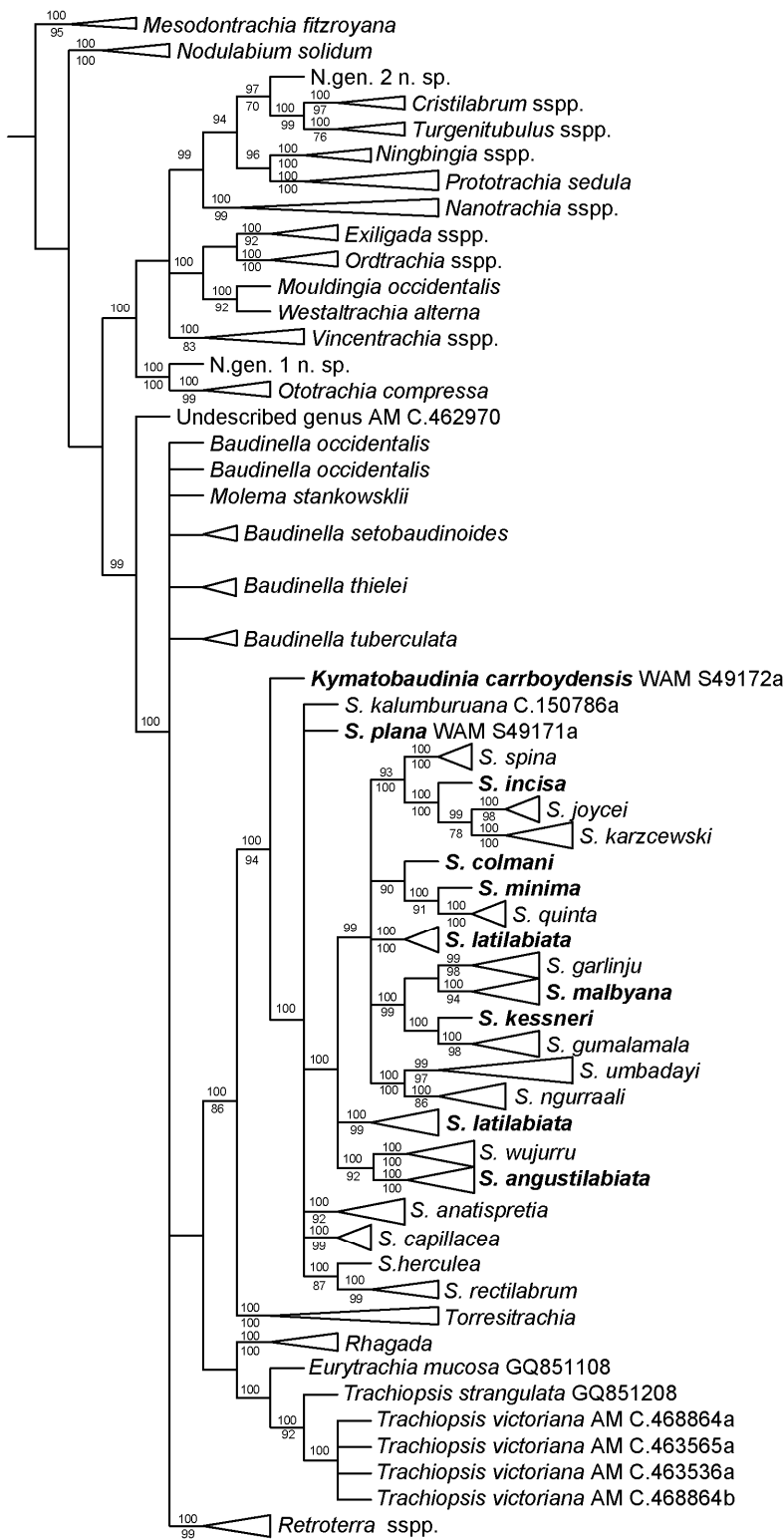


Fig. S1. Strict consensus of the Bayesian inference (BI) and maximum likelihood (ML) phylograms based on analyses of the 16S dataset including GenBank sequences of *Trachiopsis strangulata* and *Eurytrachia mucosa*. Numbers above branches indicate nodal support (%) by Bayesian posterior clade probabilities (BPP; only values $\geq 90\%$ are shown). Numbers below branches indicate nodal support (%) by ML bootstrapping (BTSP; only values $\geq 70\%$ are shown). Congeneric outgroup taxa are shown as collapsed.