

Supplementary Material

Evolutionary history of the Australasian Scirtinae (Scirtidae; Coleoptera) inferred from ultraconserved elements

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Fig. S1 Maximum likelihood tree topology from a concatenated alignment for the Scirtinae samples, unpartitioned, with *Tribolium castaneum* and *Agrilus planipennis* included as outgroups. Bootstrap proportions (%) for each node are shown.



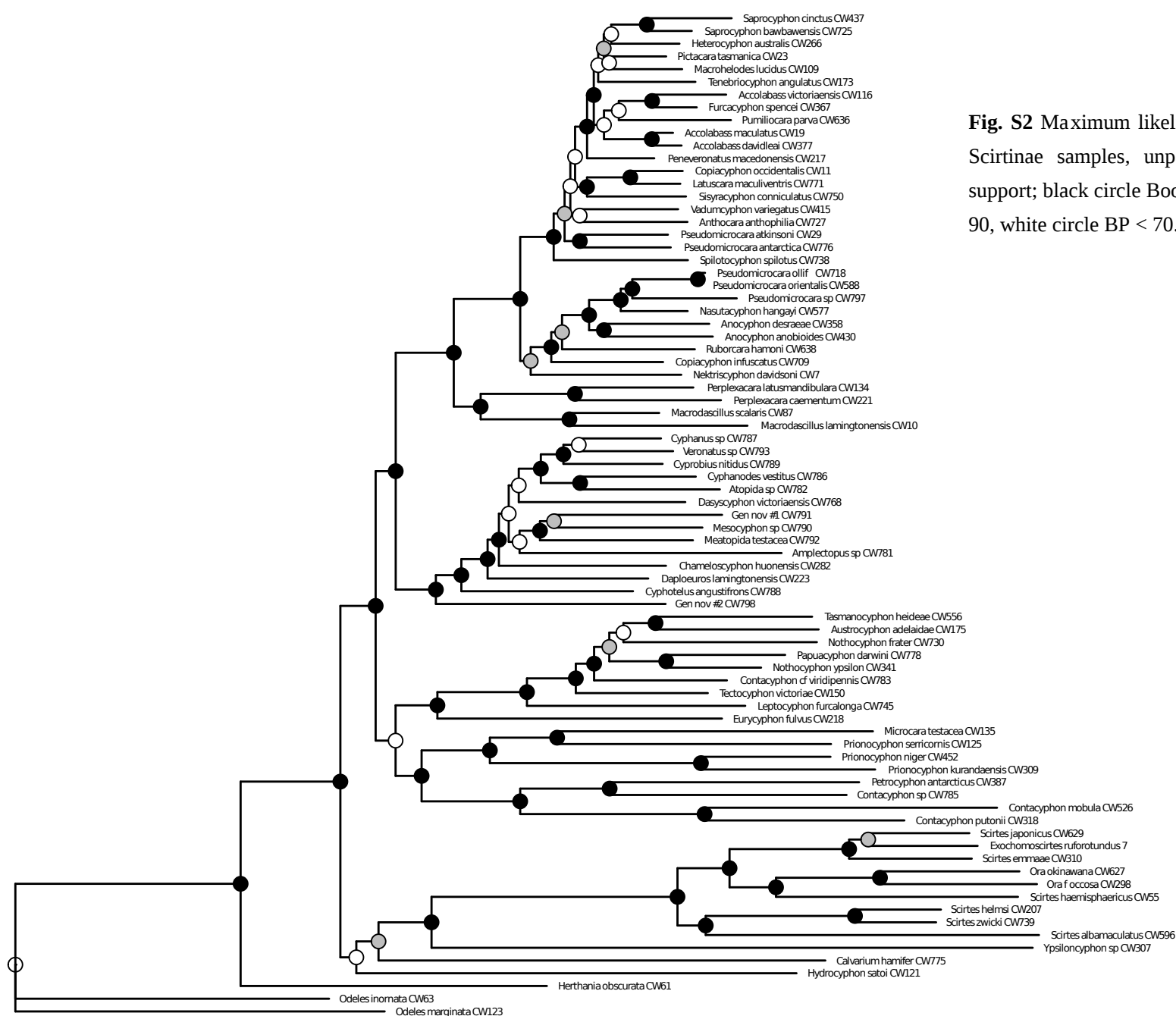


Fig. S2 Maximum likelihood tree from a concatenated alignment for the Scirtinae samples, unpartitioned, with *Odeles* as an outgroup. Node support; black circle Bootstrap percentage (BP) ≥ 90 , grey circle $70 \leq \text{BP} < 90$, white circle BP < 70 .

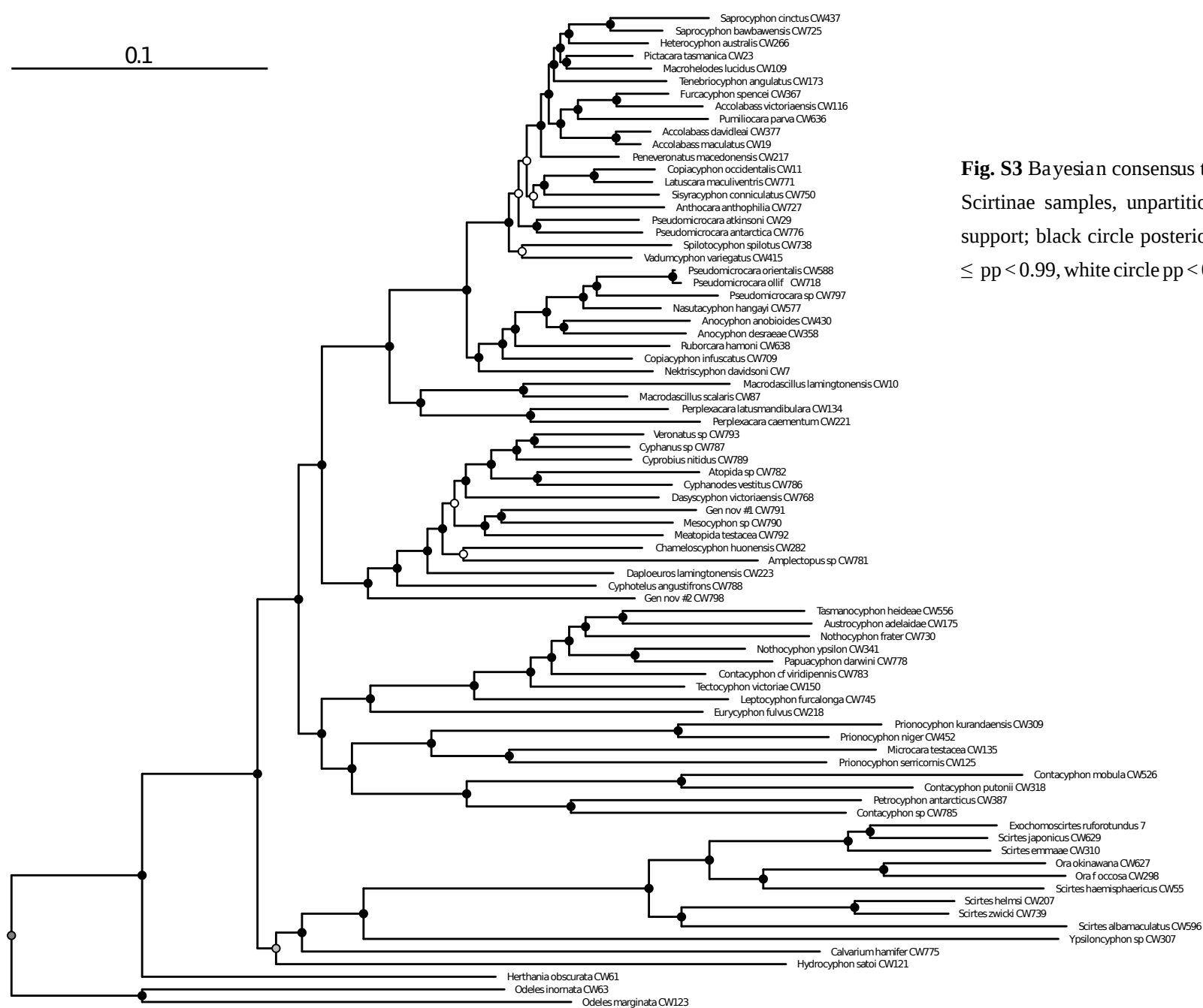


Fig. S3 Bayesian consensus tree from a concatenated alignment for the Scirtinae samples, unpartitioned, with *Odeles* as an outgroup. Node support; black circle posterior probability (pp) ≥ 0.99 , grey circle $0.75 \leq \text{pp} < 0.99$, white circle $\text{pp} < 0.75$.

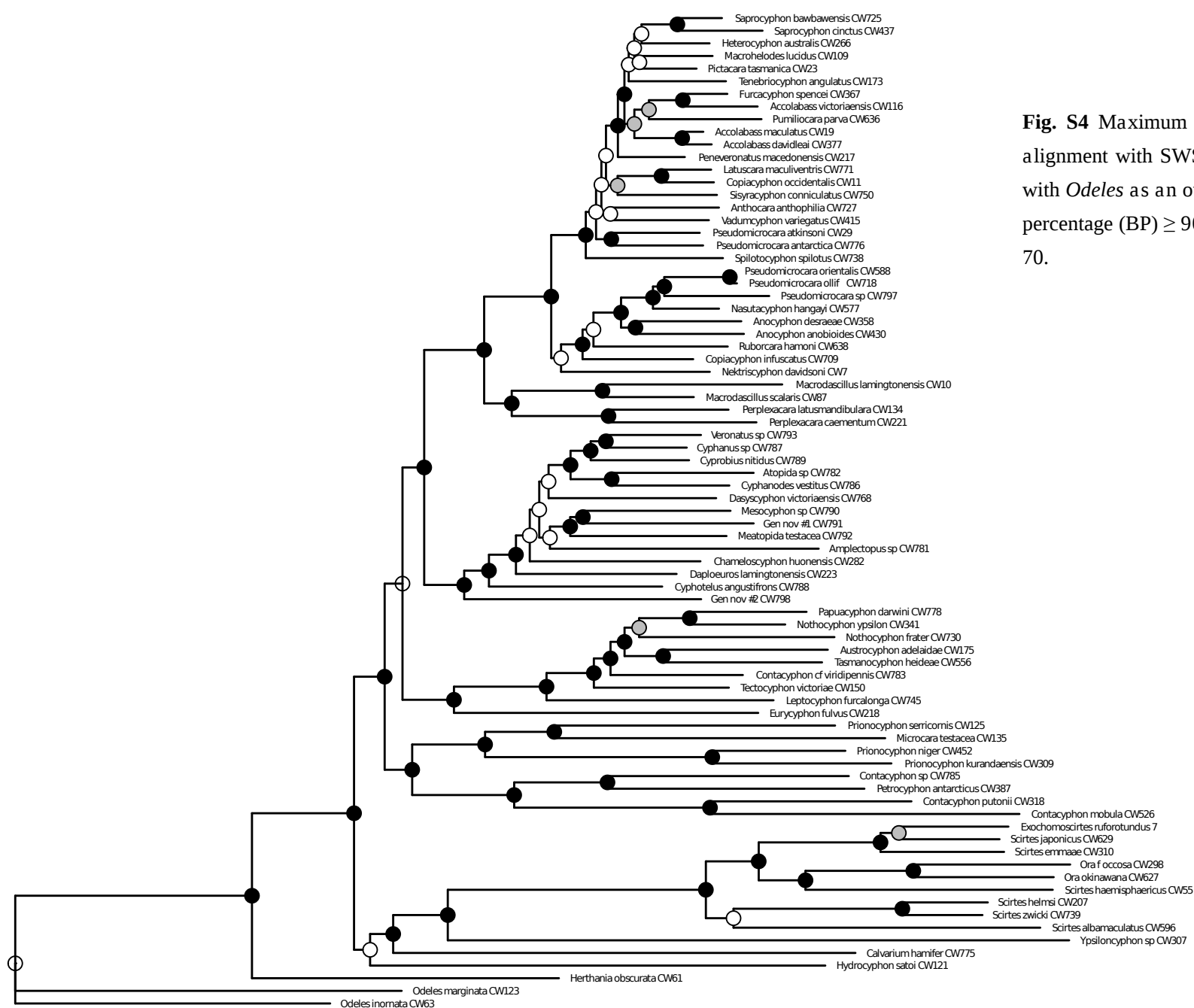


Fig. S4 Maximum likelihood tree from a concatenated alignment with SWSC-EN partitioning for the Scirtinae samples with *Odeles* as an outgroup. Node support; black circle Bootstrap percentage (BP) ≥ 90 , grey circle $70 \leq \text{BP} < 90$, white circle BP < 70 .

Table S1. Species examined in this study; includes collection details, COI GenBank number and Illumina indexing information.

Voucher	Genus	Species	Collection locality	Collection date	Collector	Latitude, longitude	GenBank number	Index 2 i5	Index 1 i7
CW377	<i>Accolabass</i>	<i>Watts</i>	<i>davidleai</i> Watts	S Frodsham's Pass, Tasmania, Australia	28/01/2011	Watts	−42.8901, 146.3774	KM376768	GGAGGAAT CTGACACA
CW19	<i>Accolabass</i>	<i>maculatus</i> (Waterhouse)	Frodsham's Pass, Tasmania, Australia	31/01/2006	Watts	−42.8178, 146.3869	KM376527	TAGAACGC	TCGCGATA
CW116	<i>Accolabass</i>	<i>victoriaensis</i> Watts	Cumberland Creek, Victoria, Australia	30/01/2009	Watts	−37.4978, 145.8875	KM376572	CAACACAG	GTCATCGA
CW781	<i>Amplectopus</i>	Sharp	sp.	Trounson Kauri Park, New Zealand	8/12/2016	Ruta	−35.7221, 173.6470	AACAACCG	ACGACTTG
CW430	<i>Anocyphon</i>	Watts <i>et al.</i>	<i>anobioides</i> (Armstrong)	TeeWah Creek, Great Sandy NP, Queensland, Australia	8/01/2012	Watts	−25.9449, 153.0486	KM376810	AGACATGC CTCTGGTT
CW358	<i>Anocyphon</i>	<i>desraeae</i> Watts	Narrabeen, New South Wales Australia	30/12/2010	Watts	−33.7166, 151.2666	KM376754	CTAGGTTG	TTCGTACC
CW727	<i>Anthocara</i>	Watts <i>et al.</i>	<i>anthophilia</i> (Watts)	Mount Bawbaw, Victoria, Australia	1/03/2016	Watts	−37.8332, 146.2833	GTCAACAG	AAGTCGAG
CW782	<i>Atopida</i>	White	sp.	Waipoua Forest, Yakas Track, New Zealand	7/12/2016	Ruta	−35.6135, 173.5313	AACAACCG	GTCATCGA
CW175	<i>Austrocyphon</i>	Zwick	<i>adelaidae</i> (Blackburn)	Waterfall Gully, South Australia, Australia	2/12/2008	Watts	−34.9719, 138.6822	KM376623	CCTTGGA TGCACCAA
CW775	<i>Calvarium</i>	Pic	<i>hamifer</i> Zwick	Cedar Creek, Queensland, Australia	6/03/2013	Watts	−27.3356, 152.8147	GGAGGAAT	CGACGTTA
CW282	<i>Chameloscyphon</i>	Watts	<i>huonensis</i> Watts	Warra, Tasmania, Australia	5/2/2010	L. Forster	−43.1109, 146.7325	KM376701	TAGAACGC AACGGTCA
CW526	<i>Contacyphon</i>	Gozis	<i>mobula</i> (Zwick)	Northern Territory, Australia	10/01/2014	Watts		TAGAACGC	TGTGAAGC
CW318	<i>Contacyphon</i>	<i>putonii</i> (Brisout)	McLeod Creek, Western Australia, Australia	20/10/2006	Watts	−34.2467, 115.8327	KM376732	AGTACACG	CTACTTGG
CW783	<i>Contacyphon</i>	<i>nr viridipennis</i> (Broun)	Mount Egmont NP, Mangorei Track, New Zealand	2/12/2016	Ruta	−39.2152, 174.0406		GTCAACAG	ATTCGAGG
CW785	<i>Contacyphon</i>	sp.	Mount Egmont NP, Waiwhakaiho track, New Zealand	3/12/2016	Ruta	−39.2829, 174.0998		AAGACACC	AACGGTCA
CW709	<i>Copiacyphon</i>	Watts <i>et al.</i>	<i>infuscatus</i> (Armstrong)	Jinalong-Treeton Rd, Western Australia, Australia	15/10/2015	Watts	−33.7922, 115.2164	MN125524	AGGAACAC ATCCGGTA
CW11	<i>Copiacyphon</i>	<i>occidentalis</i> (Armstrong)	2 km S Serpentine, Western Australia, Australia	17/10/2006	Watts	−32.3799, 115.9702	KM376519	AGTACACG	GGCGTTAT
CW786	<i>Cyphanodes</i>	Broun	<i>vestitus</i> Broun	Waitakere, New Zealand	2016	R. Leschen & J. Shen	−36.8498, 174.5430	TTCGGCTA	CTACTTGG
CW787	<i>Cyphanus</i>	Sharp	sp.	Waitakere Range, Piha Rd, New Zealand	26/11/2016	Ruta	−36.9525, 174.5173	ACAGAGGT	TGTAGCCA
CW788	<i>Cyphotelus</i>	Sharp	<i>angustifrons</i> Sharp	Stewart Island, New Zealand	2016	M. Seidel, V. Sýkora & M. Fikáček	−47.0074, 167.8277	GGTCGTAT	CTGACACA

Voucher	Genus	Species	Collection locality	Collection date	Collector	Latitude, longitude	GenBank number	Index 2 i5	Index 1 i7
CW789	<i>Cyprobius</i> Sharp	<i>nitidus</i> Sharp	Auckland, New Zealand	2016	M. Seidel & R. Leschen	−36.9859, 174.8093		ACGAATCC	CGACCATT
CW223	<i>Daploeuros</i> Watts	<i>lamingtonensis</i> Watts	Nightcap NP, Queensland, Australia	23/10/2009	Watts	−28.6141, 153.3329	KM376665	ATCGCAAC	ATTCGAGG
CW768	<i>Dasyscyphon</i> Watts	<i>victoriaensis</i> Watts	Tarra-Bulga Nt PK, Victoria, Australia	28/1/2018	Watts	−38.4298, 146.5673		ACAGAGGT	TTCGTACC
CW218	<i>Eurycyphon</i> Zwick	<i>fulvus</i> Watts	Cement creek, Victoria, Australia	30/01/2009	Watts	−37.7180, 145.75011	KM376660	CTAGGTTG	GTGTGACA
7 CW367	<i>Exochomoscirtes</i> Pic <i>Furcacyphon</i> Watts <i>et al.</i>	<i>ruforotundus</i> Watts <i>spencei</i> (Armstrong)	Australia Wentworth Falls, New South Wales, Australia	29/12/2010	Watts	−33.7164, 150.4831	KM376795	AAGACACC ACTACGGT	TCGCGATA GATCGTAC
CW791	Gen. nov. #1		Trounson Kauri Park, New Zealand	8/12/2016	Ruta	−35.7221, 173.6470		GGAGGAAT	CACCTTAC
CW798b	Gen. nov. #2		E Cape, Tsitsikamma NP, South Africa	21/11/2013	Ruta	−33.9646, 23.9031		TCCAGCAA	AAGTCGAG
CW799	Gen. nov. #3		W Cape, Harkerville, Perdekop, South Africa	25/11/2013	Ruta	−34.0467, 23.2280		ATCGCAAC	ACGGATTC
CW61	<i>Herthania</i> Klausnitzer	<i>obscurata</i> Klausnitzer	Rumoi Hokkaido, Japan	15/06/2006	H. Yoshitomi	43.8955, 141.7471	KM376544	ATCGCAAC	CGGATTGA
CW266	<i>Heterocyphon</i> Armstrong	<i>australis</i> (Erichson)	Manuka Rd, Tasmania, Australia	18/11/2009	Watts	−43.0922, 146.7251	KM376692	GCGTTAGA	ATGTAGCG
CW121	<i>Hydrocyphon</i> Redtenbacher	<i>satoi</i> Yoshitomi	Hokkaido, Japan		Watts	43.0045, 142.1279	KM376576	CAACACAG	ACGACTTG
CW771	<i>Latuscara</i> Watts <i>et al.</i>	<i>maculiventris</i> (Armstrong)	Tarra-Bulga NP, Victoria, Australia	28/1/2018	Watts	−38.4295, 146.5666	MN125513	GGTCGTAT	GACATGGT
CW745	<i>Leptocyphon</i> Zwick	<i>furalonga</i> Zwick	Hadley Rd, Western Australia, Australia	16/10/2015	Watts	−34.0555, 115.0742	MN125512	ACGAATCC	CTCTGGTT
CW10	<i>Macrodiscillus</i>	<i>lamingtonensis</i> (Watts)	Moran's Creek Falls, Queensland, Australia	17/08/2005	Watts	−28.1802, 153.1327	KM376518	CCGGAATA	CGACGTTA
CW87	<i>Macrodiscillus</i> Carter	<i>scalaris</i> (Lea)	New England NP, New South Wales, Australia	22/11/2006	Watts	−30.4825, 152.5130	KM376564	TCCAGCAA	CGGATTGA
CW109	<i>Macrohelodes</i> Blackburn	<i>lucidus</i> Blackburn	Australia					CAGCTAGA	GGCGTTAT
CW792	<i>Meatopida</i> Kialka & Ruta	<i>testacea</i> (Broun)	Waipoua Forest, Yakas Track, New Zealand	7/12/2016	Ruta	−35.6135, 173.5313		AGGAACAC	GTGTGACA
CW790	<i>Mesocyphon</i> Sharp	sp.	Mount Egmont NP, Waiwhakaiho track, New Zealand	3/12/2016	Ruta	−39.2829, 174.0998		AGACATGC	ACTCCATC
CW135	<i>Microcara</i> Thomson	<i>testacea</i> (Linnaeus)	Scotland, United Kingdom		J. Denton		KM376586	TGCCTCAA	TGTAGCCA
CW577	<i>Nasutacyphon</i> Watts <i>et al.</i>	<i>hangayi</i> (Watts)	Eubenangee Swamp, Queensland, Australia	12/03/2013	Watts	−17.3997, 145.9599		GGAGGAAT	GACATGGT
CW7	<i>Nektriscyphon</i> Watts <i>et al.</i>	<i>davidsoni</i> (Carter)	Wormangel Creek, Victoria, Australia	10/01/2006	Watts	−36.8495, 145.2296	KM376515	TCTAGTCC	CTCTGGTT
CW730	<i>Nothocyphon</i> Zwick	<i>frater</i> (Blackburn)	4 k S Narbethong, Victoria, Australia	29/02/2016	Watts	−37.5993, 145.6498		GGTCGTAT	CGACGTTA
CW341	<i>Nothocyphon</i>	<i>ypsilon</i> Zwick	Sherbrook Forest, Victoria, Australia	1/02/2009	Watts	−37.8838, 145.3566	KM376741	AGGAACAC	TGTAGCCA
CW63	<i>Odeles</i> Klausnitzer	<i>inornata</i> (Lewis)	Nakastsunai Hokkaido, Japan	19/06/2006	H. Yoshitomi	42.6952, 143.0662	KM376545	ATGCGTCA	ACGACTTG

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CW123	<i>Odeles</i>	<i>marginata</i> (Fabricius)	Austria		P. Zwick		KM376577	TCCAGCAA	ATTCGAGG
CW298	<i>Ora</i> Clark	<i>floccosa</i> Watts	Cow Bay, Queensland, Australia	20/03/2010	Watts	-16.2309, 145.4643	KM376717	CTGCCATA	AATGGACG
CW627	<i>Ora</i>	<i>okinawana</i> Nakane	Amami-Oshima, Japan	20/11/2009	H. Yoshitomi	28.2842, 129.3572		ACAGAGGT	GTGTGACA
CW778	<i>Papuacyphon</i> Zwick	<i>darwini</i> Zwick	Bullsbrook, Western Australia, Australia	26/09/2016	Watts	-31.7018, 116.0050		TTCGGCTA	GGCGTTAT
CW221	<i>Perplexacara</i> Watts <i>et al.</i>	<i>caementum</i> (Watts)	Cement creek, Victoria, Australia	30/01/2009	Watts	-37.7180, 145.7501	KM376663	ATGCGTCA	GTCATCGA
CW134	<i>Perplexacara</i>	<i>latusmandibulara</i> (Watts)	Warra, Tasmania, Australia		L. Forster/ Watts	-43.1109, 146.7325	KM376585	CAGCTAGA	CTACTTGG
CW217	<i>Peneveronatus</i> Armstrong	<i>macedonensis</i> Armstrong	Sherbrook Forest, Victoria, Australia	2/02/2009	Watts	-37.8838, 145.3566	KM376659	CGGTAATC	CACCTTAC
CW387	<i>Petrocyphon</i> Watts	<i>antarcticus</i> Watts	Eric Pettets Rd, Tasmania, Australia	25/01/2011	Watts	-43.2120, 146.7617	KM376778	ATGCGTCA	TAGGATGC
CW23	<i>Pictacara</i> Watts <i>et al.</i>	<i>tasmanica</i> (Blackburn)	Frodsham's Pass, Tasmania, Australia	31/01/2006	Watts	-42.8181, 146.3867	KM376530	AGACATGC	GTCAACC
CW309	<i>Prionocyphon</i> Redtenbacher	<i>kurandaensis</i> Watts	Lake Eacham, Queensland, Australia	24/03/2010	Watts	-17.2834, 145.6167	KM376727	GAGCTCTA	GGAATTGC
CW452	<i>Prionocyphon</i>	<i>niger</i> Kitching & Allsopp	Binnu Burra, Queensland, Australia	7/01/2012	Watts	-28.2076, 153.1835	KM376820	ATCGCAAC	AAGTCGAG
CW125	<i>Prionocyphon</i>	<i>serricornis</i> (Muller)	Austria		Watts		KM376578	CACGATTC	AACGGTCA
CW797	<i>Pseudomicrocara</i> Armstrong	sp.	Pic du Pin, New Caledonia	1/12/2008	M. Wanat	-22.2491, 166.7966		TAGAACGC	AATGGACG
CW776	<i>Pseudomicrocara</i>	<i>antarctica</i> (Fairmaire)	Aldea Escala, Chubut Province, Argentina	1/12/2017	M. Archangelsky	-43.1394, -71.5459	MN125522	ACGAATCC	GTCAACC
CW29	<i>Pseudomicrocara</i>	<i>atkinsoni</i> Armstrong	Franklin Beaches, Tasmania, Australia	30/01/2006	Watts	-42.8323, 146.2013	KM376535	TGCCTCAA	ATCCGGTA
CW718	<i>Pseudomicrocara</i>	<i>olliffi</i> Armstrong	1 km S Yallingup, Western Australia, Australia	17/10/2015	Watts	-33.6499, 115.0299		AACAACCG	TAGGATGC
CW588	<i>Pseudomicrocara</i>	<i>orientalis</i> Armstrong	2 km N Mount Molloy, Queensland, Australia	8/03/2013	Watts	-16.6498, 145.3156		CGGTAATC	GACATGGT
CW636	<i>Pumiliocara</i> Watts <i>et al.</i>	<i>parva</i> (Watts)	Banksia Point, New South Wales, Australia	15/11/2014	Watts	-30.4618, 152.4832		AAGACACC	AATGGACG
CW638	<i>Ruboracara</i> Watts <i>et al.</i>	<i>hamoni</i> (Watts)	Thungutti Camp, New South Wales, Australia	13/11/2014	Watts	-30.5002, 152.3863		GTCAACAG	ACGGATTC
CW725	<i>Saprocyphon</i> Watts <i>et al.</i>	<i>bawbawensis</i> (Watts)	Tarra-Bulga Picknick ground, Victoria, Australia	3/03/2016	Watts	-38.4257, 146.5699		ACAGAGGT	ATCCGGTA
CW437	<i>Saprocyphon</i>	<i>cinctus</i> (Blackburn)	Great Sandy NP, Queensland, Australia	7/01/2012	Watts	-25.9506, 153.0499	KM376815	GTCAACAG	CGGATTGA
CW596	<i>Scirtes</i> Illiger	<i>albamaculatus</i> Watts	Eubenangee Swamp, Queensland, Australia	12/03/2013	Watts	-17.3997, 145.9599		ATGCGTCA	GGAATTGC
CW310	<i>Scirtes</i>	<i>emmae</i> Watts	Cow Bay, Queensland, Australia	20/03/2010	Watts	-16.2309, 145.4643	KM376728	AGTACACG	TGTCTGCT
CW55.1	<i>Scirtes</i>	<i>haemisphaericus</i> (Linnaeus)	Neusiedlersee, Austria	2006	M. Jäch	47.7632, 16.7902	KM376542	CACGATTC	TCGCGATA
CW207	<i>Scirtes</i>	<i>helmsi</i> Watts	9K SE Stawell, Victoria, Australia	24/09/2007	Watts	-37.1, 142.8499	KM376649	CGAAGTCA	ACTCCATC
CW629	<i>Scirtes</i>	<i>japonicus</i> Kiesenwetter	Shimane, Japan	4/05/2013	H. Yoshitomi	35.0368, 132.5614		TTCGGCTA	ATGTAGCG

Voucher	Genus	Species	Collection locality	Collection date	Collector	Latitude, longitude	GenBank number	Index 2 i5	Index 1 i7
CW739	<i>Scirtes</i>	<i>zwicki</i> Watts	Holmes Jungle, Northern Territory, Australia	10/01/2014	Watts	−12.3994, 130.9274	MF374455	AAGACACC	TGTGAAGC
CW750	<i>Sisyracyphon</i> Watts <i>et al.</i>	<i>conniculatus</i> (Watts)	Cedar Creek, Queensland, Australia	25/01/2017	Watts	−27.3356, 152.8147	MN125521	TTCGGCTA	TGTCTGCT
CW738	<i>Spilotocyphon</i> Watts <i>et al.</i>	<i>spilotus</i> (Blackburn)	Ebor, New South Wales, Australia	30/12/2011	Watts	−30.4018, 152.3416	MN125506	GAGCTCTA	TAGGATGC
CW556	<i>Tasmanocyphon</i> Zwick	<i>heideae</i> Zwick	Lottah, Tasmania, Australia	3/02/2014	Watts	−41.2166, 148.0167		AGGAACAC	TTCGTACC
CW150	<i>Tectocyphon</i> Zwick	<i>victoriae</i> Zwick	Cement creek, Victoria, Australia	30/01/2009	Watts	−37.7180, 145.7501		CCGGAATA	CTGACACA
CW173	<i>Tenebriocyphon</i> Watts <i>et al.</i>	<i>angulatus</i> (Blackburn)	Cement creek, Victoria, Australia	30/01/2009	Watts	−37.7180, 145.7501	KM376622	TCTAGTCC	CGACCATT
CW415	<i>Vadumcyphon</i> Watts <i>et al.</i>	<i>variegatus</i> (Carter)	Cumberland Creek, Victoria, Australia	29/01/2009	Watts	−37.5496, 145.8663	KM376804	ACTACGGT	TGCACCAA
CW793	<i>Veronatus</i> Sharp	sp.	Buller District, New Zealand	3/12/2016	M. Seidel & M. Fikáček			AGTACACG	ATGTAGCG
CW307	<i>Ypsilocyphon</i> Klausnitzer	sp.	Cow Bay, Queensland, Australia	20/03/2010	Watts	−16.2309, 145.4643	KM376725	GAACGAAG	ACGGATTC
Blank								CCTTGGA	GATCGTAC

Table S2. UCE sequencing; data amount, UCE extraction and matching (no nucleotide differences to the barcode or percentage pairwise distance to the barcode) to previous *COI* sequencing.

Voucher	Genus	Species	Paired reads	Data yield (Gb)	UCE contigs	total length UCEs (bp)	<i>COI</i> barcode
CW377	<i>Accolabass</i>	<i>davidleai</i>	1,420,275	0.43	443	291800	Match
CW19	<i>Accolabass</i>	<i>maculatus</i>	5,654,395	1.71	548	607820	88.7%
CW116	<i>Accolabass</i>	<i>victoriaensis</i>	6,789,262	2.05	472	619903	match
CW781	<i>Amplectopus</i>	sp.	14,549,490	4.39	522	780069	
CW430	<i>Anocyphon</i>	<i>anobioides</i>	10,389,484	3.14	524	572913	match
CW358	<i>Anocyphon</i>	<i>desraeae</i>	4,144,484	1.25	562	286573	match
CW727	<i>Anthocara</i>	<i>anthophilia</i>	3,766,909	1.14	540	621604	
CW782	<i>Atopida</i>	sp.	12,998,173	3.93	476	354276	
CW175	<i>Austrocyphon</i>	<i>adelaidae</i>	7,590,271	2.29	551	702259	match
Blank	Blank		4945	0	0	0	
CW775	<i>Calvarium</i>	<i>hamifer</i>	9,224,764	2.79	480	604792	
CW282	<i>Chameloscyphon</i>	<i>huonensis</i>	2,478,692	0.75	435	429639	match
CW526	<i>Contacyphon</i>	<i>mobula</i>	222,381	0.07	239	80589	
CW318	<i>Contacyphon</i>	<i>putonii</i>	6,388,700	1.93	378	236662	match
CW783	<i>Contacyphon</i>	cf. <i>viridipennis</i>	1,989,472	0.6	541	334579	
CW785	<i>Contacyphon</i>	sp.	3,437,595	1.04	549	619548	
CW709	<i>Copiacyphon</i>	<i>infuscatus</i>	4,523,710	1.37	275	191506	match
CW11	<i>Copiacyphon</i>	<i>occidentalis</i>	9,531,121	2.88	541	846512	match
CW786	<i>Cyphanodes</i>	<i>vestitus</i>	7,612,343	2.3	523	265106	
CW787	<i>Cyphanus</i>	sp.	3,142,449	0.95	520	373859	
CW788	<i>Cyphotelus</i>	<i>angustifrons</i>	4,407,761	1.33	535	463152	
CW789	<i>Cyprobius</i>	<i>nitidus</i>	4,923,591	1.49	543	365741	
CW223	<i>Daploeuos</i>	<i>lamingtonensis</i>	15,867,871	4.79	437	461625	match
CW768	<i>Dasyscyphon</i>	<i>victoriaensis</i>	12,703,680	3.84	474	391292	
CW218	<i>Eurycyphon</i>	<i>fulvus</i>	4,198,180	1.27	534	599943	match
7	<i>Exochomosciartes</i>	<i>ruforotundus</i>	1,360,230	0.41	570	528293	
CW367	<i>Furcacyphon</i>	<i>spencei</i>	7,098,594	2.14	517	611961	match
CW791	Gen. nov. #1		7,509,881	2.27	608	721577	
CW798b	Gen. nov. #2		1,414,312	0.43	523	468999	
CW799	Gen. nov. #3		2,400,960	0.73	107	31139	
CW61	<i>Herthania</i>	<i>obscurata</i>	4,137,063	1.25	601	697422	match
CW266	<i>Heterocyphon</i>	<i>australis</i>	3,948,909	1.19	575	656832	match
CW121	<i>Hydrocyphon</i>	<i>satoi</i>	3,209,042	0.97	433	320726	match
CW771	<i>Latuscara</i>	<i>maculiventris</i>	6,816,857	2.06	527	610052	match
CW745	<i>Leptocyphon</i>	<i>furcalonga</i>	15,262,987	4.61	523	802293	match
CW10	<i>Macrodiscillus</i>	<i>lamingtonensis</i>	6,651,427	2.01	540	703861	match
CW87	<i>Macrodiscillus</i>	<i>scalaris</i>	14,391,866	4.35	533	865668	match
CW109	<i>Macrohelodes</i>	<i>lucidus</i>	4,718,978	1.43	538	626748	
CW792	<i>Meatopida</i>	<i>testacea</i>	3,433,378	1.04	568	652760	
CW790	<i>Mesocyphon</i>	sp.	2,863,141	0.86	575	332328	
CW135	<i>Microcara</i>	<i>testacea</i>	3,088,081	0.93	561	595095	no <i>COI</i> barcode
CW577	<i>Nasutacyphon</i>	<i>hangayi</i>	1,836,781	0.55	519	577021	
CW7	<i>Nektriscyphon</i>	<i>davidsoni</i>	10,482,914	3.17	551	872753	match
CW730	<i>Nothocyphon</i>	<i>frater</i>	8,032,273	2.43	549	754328	

Voucher	Genus	Species	Paired reads	Data yield (Gb)	UCE contigs	total length UCEs (bp)	COI barcode
CW341	<i>Nothocyphon</i>	<i>ypsilon</i>	2,925,231	0.88	478	430247	match
CW63	<i>Odeles</i>	<i>inornata</i>	6,798,600	2.05	588	809315	match
CW123	<i>Odeles</i>	<i>marginata</i>	3,455,506	1.04	542	500091	97.7%
CW298	<i>Ora</i>	<i>floccosa</i>	2,480,349	0.75	558	596051	match
CW627	<i>Ora</i>	<i>okinawana</i>	877,913	0.27	419	212476	
CW778	<i>Papuacyphon</i>	<i>darwini</i>	11,013,191	3.33	518	884371	
CW221	<i>Perplexacara</i>	<i>caementum</i>	11,622,074	3.51	503	675353	match
CW134	<i>Perplexacara</i>	<i>latusmandibulara</i>	6,248,341	1.89	593	784779	match
CW217	<i>Peneveronatus</i>	<i>macedonensis</i>	4,287,847	1.29	547	600573	match
CW387	<i>Petrocyphon</i>	<i>antarcticus</i>	5,067,469	1.53	527	640244	match
CW23	<i>Pictacara</i>	<i>tasmanica</i>	9,274,027	2.8	525	745171	match
CW309	<i>Prionocyphon</i>	<i>kurandaensis</i>	12,070,721	3.65	471	630749	match
CW452	<i>Prionocyphon</i>	<i>niger</i>	6,847,971	2.07	461	717766	Match
CW125	<i>Prionocyphon</i>	<i>serricornis</i>	6,305,878	1.9	560	476895	match
CW797	<i>Pseudomicrocara</i>	sp.	13,320,905	4.02	543	985461	
CW776	<i>Pseudomicrocara</i>	<i>antarctica</i>	5,646,690	1.71	523	635033	match
CW29	<i>Pseudomicrocara</i>	<i>atkinsoni</i>	4,231,841	1.28	539	681959	match
CW718	<i>Pseudomicrocara</i>	<i>olliffi</i>	17,044,347	5.15	332	581889	
CW588	<i>Pseudomicrocara</i>	<i>orientalis</i>	5,332,773	1.61	552	757234	
CW636	<i>Pumiliocara</i>	<i>parva</i>	4,162,029	1.26	508	431493	
CW638	<i>Ruborcara</i>	<i>hamoni</i>	3,913,680	1.18	452	463919	
CW725	<i>Saprocyphon</i>	<i>bawbawensis</i>	13,730,600	4.15	514	747490	
CW437	<i>Saprocyphon</i>	<i>cinctus</i>	3,141,153	0.95	522	562356	match
CW596	<i>Scirtes</i>	<i>albamaculatus</i>	6,560,726	1.98	545	782069	
CW310	<i>Scirtes</i>	<i>emmae</i>	9,477,244	2.86	552	829310	match
CW55.1	<i>Scirtes</i>	<i>haemisphaericus</i>	14,450,549	4.36	526	834182	match
CW207	<i>Scirtes</i>	<i>helmsi</i>	7,702,039	2.33	530	608214	94%
CW629	<i>Scirtes</i>	<i>japonicus</i>	3,082,362	0.93	444	293124	
CW739	<i>Scirtes</i>	<i>zwicki</i>	4,622,318	1.4	479	556077	match
CW750	<i>Sisyrcyphon</i>	<i>conniculatus</i>	5,425,103	1.64	562	573223	match
CW738	<i>Spilotocyphon</i>	<i>spilotus</i>	1,324,320	0.4	562	551765	match
CW556	<i>Tasmanocyphon</i>	<i>heideae</i>	22,218,106	6.71	496	809702	
CW150	<i>Tectocyphon</i>	<i>victoriae</i>	3,427,967	1.04	507	545541	
CW173	<i>Tenebriocyphon</i>	<i>angulatus</i>	4,080,034	1.23	552	600317	match
CW415	<i>Vadumcyphon</i>	<i>variegatus</i>	3,571,585	1.08	399	219672	match
CW793	<i>Veronatus</i>	sp.	2,074,899	0.63	484	255572	
CW307	<i>Ypsiloncyphon</i>	sp.	1,886,690	0.57	533	554606	match