

Appendix S1. GenBank accession numbers for loci sampled, with MCZ DNA voucher numbers. (*) indicates sequences from Edgecombe and Giribet (2008).

Specimen voucher	Locality	Year collected	Population code	COI	16S rRNA	28S rRNA	18S rRNA
MCZ DNA100280	Dip Falls	1998	DIPFA	AF37835*	AF370860*	--	EU024586*
MCZ DNA102000	Memory Creek	2004	MEMOR	EU024611*	EU024597*	EU024572*	EU024587*
MCZ DNA102001	Liawenee area Southeast of	2001	LIAWE	EU024612*	EU024598*	EU024573*	EU024588*
MCZ DNA102002	Waratah	2006	WARAT	EU024613*	EU024599*	--	--
MCZ DNA102003	Que River	2004	QUERI	EU024614*	EU024600*	EU024574*	EU024589*
MCZ DNA103594	Kerrisons Road	2008	KERRI	HQ453435	HQ026636	HQ453500	HQ453592
MCZ DNA103595	Kerrisons Road	2008	KERRI	HQ453436	HQ026637	HQ453501	HQ453576
MCZ DNA103596	Kerrisons Road	2008	KERRI	HQ453437	HQ026638	HQ453502	--
MCZ DNA103597	Kerrisons Road	2008	KERRI	HQ453438	HQ026639	HQ453503	HQ453585
MCZ DNA103598	Kerrisons Road	2008	KERRI	HQ453439	HQ026640	HQ453504	--
MCZ DNA103599	Kerrisons Road	2008	KERRI	HQ453440	HQ026641	HQ453505	HQ453565
MCZ DNA103600	Kerrisons Road	2008	KERRI	HQ453441	HQ026642	HQ453506	HQ453603
MCZ DNA103601	Kerrisons Road	2008	KERRI	HQ453442	HQ026643	HQ453507	HQ453590
MCZ DNA103602	Kerrisons Road	2008	KERRI	HQ453443	HQ026644	HQ453508	HQ453575
MCZ DNA103603	Kerrisons Road	2008	KERRI	HQ453444	HQ026645	HQ453471	HQ453572
MCZ DNA103604	Kerrisons Road	2008	KERRI	HQ453445	HQ026646	HQ453509	--
MCZ DNA103605	Kerrisons Road	2008	KERRI	HQ453446	HQ026647	HQ453510	HQ453601
MCZ DNA103609	Mt. Elephant	2008	MTELE	HQ453412	HQ026650	HQ453511	--
MCZ DNA103610	Mt. Elephant	2008	MTELE	HQ453413	HQ026651	HQ453512	HQ453588
MCZ DNA103611	Mt. Elephant	2008	MTELE	HQ453414	HQ026652	HQ453513	HQ453573
MCZ DNA103612	Mt. Elephant	2008	MTELE	HQ453415	HQ026653	HQ453514	HQ453561
MCZ DNA103613	Mt. Elephant	2008	MTELE	HQ453416	HQ026654	HQ453515	--
MCZ DNA103614	Mt. Elephant	2008	MTELE	HQ453417	HQ026655	HQ453516	HQ453586
MCZ DNA103615	Mt. Elephant	2008	MTELE	HQ453418	HQ026656	HQ453517	HQ453569
MCZ DNA103616	Mt. Elephant	2008	MTELE	HQ453419	HQ026657	HQ453518	HQ453589
MCZ DNA103617	Mt. Elephant	2008	MTELE	HQ453420	HQ026658	HQ453519	HQ453602
MCZ DNA103618	Mt. Elephant	2008	MTELE	HQ453421	HQ026659	HQ453472	--
MCZ DNA103619	Mt. Elephant	2008	MTELE	HQ453422	HQ026660	HQ453520	--
MCZ DNA103621	Penstock Lagoon	2008	PENST	--	HQ026661	HQ453521	--
MCZ DNA103622	Penstock Lagoon	2008	PENST	--	HQ026662	HQ453473	--
MCZ DNA103623	Penstock Lagoon	2008	PENST	--	HQ026663	HQ453522	--
MCZ DNA103624	Penstock Lagoon	2008	PENST	--	HQ026664	HQ453523	HQ453584
MCZ DNA103625	Penstock Lagoon	2008	PENST	--	HQ026665	HQ453524	HQ453574
MCZ DNA103626	Penstock Lagoon	2008	PENST	--	HQ026666	HQ453525	--
MCZ DNA103627	Penstock Lagoon	2008	PENST	--	HQ026667	HQ453526	HQ453571
MCZ DNA103628	Penstock Lagoon	2008	PENST	HQ453405	HQ026668	HQ453527	HQ453587
MCZ DNA103629	Penstock Lagoon	2008	PENST	HQ453406	HQ026669	HQ453528	HQ453567
MCZ DNA103630	Penstock Lagoon	2008	PENST	HQ453407	HQ026670	HQ453474	HQ453568
MCZ DNA103631	Penstock Lagoon	2008	PENST	--	HQ026671	HQ453529	--
MCZ DNA103633	Penstock Lagoon	2008	PENST	--	HQ026673	HQ453530	HQ453564
MCZ DNA103634	Penstock Lagoon	2008	PENST	--	HQ026674	HQ453475	HQ453591
MCZ DNA103635	Penstock Lagoon	2008	PENST	--	HQ026675	HQ453476	--
MCZ DNA103636	Penstock Lagoon	2008	PENST	HQ453408	HQ026676	HQ453477	--
MCZ DNA103638	Wandle River	2008	WANDL	HQ453459	HQ026677	HQ453531	HQ453578
MCZ DNA103639	Wandle River	2008	WANDL	HQ453460	HQ026678	HQ453532	--
MCZ DNA103640	Wandle River	2008	WANDL	HQ453461	HQ026679	HQ453533	--
MCZ DNA103641	Wandle River	2008	WANDL	HQ453462	HQ026680	HQ453478	HQ453570

MCZ DNA103642	Wandle River	2008	WANDL	HQ453463	HQ026681	HQ453479	--
MCZ DNA103643	Wandle River	2008	WANDL	HQ453464	HQ026682	HQ453480	HQ453604
MCZ DNA103644	Wandle River	2008	WANDL	HQ453465	HQ026683	HQ453534	--
MCZ DNA103645	Wandle River	2008	WANDL	HQ453466	HQ026684	HQ453535	HQ453577
MCZ DNA103646	Wandle River	2008	WANDL	HQ453467	--	HQ453481	--
MCZ DNA103647	Wandle River	2008	WANDL	HQ453468	HQ026685	HQ453482	--
MCZ DNA103648	Wandle River	2008	WANDL	HQ453469	HQ026686	HQ453536	--
MCZ DNA103649	Wandle River	2008	WANDL	HQ453470	HQ026687	HQ453537	--
MCZ DNA103651	Weavers Creek	2008	WEAVE	HQ453423	HQ026688	HQ453538	HQ453562
MCZ DNA103652	Weavers Creek	2008	WEAVE	HQ453424	HQ026689	HQ453483	--
MCZ DNA103653	Weavers Creek	2008	WEAVE	HQ453425	HQ026690	HQ453539	--
MCZ DNA103654	Weavers Creek	2008	WEAVE	HQ453426	HQ026691	HQ453540	HQ453600
MCZ DNA103655	Weavers Creek	2008	WEAVE	HQ453427	HQ026692	HQ453484	HQ453599
MCZ DNA103656	Weavers Creek	2008	WEAVE	HQ453428	HQ026693	HQ453541	HQ453593
MCZ DNA103657	Weavers Creek	2008	WEAVE	HQ453429	HQ026694	HQ453542	--
MCZ DNA103660	Fraser Road	2008	FRASE	HQ453410	HQ026696	HQ453543	HQ453582
MCZ DNA103661	Fraser Road	2008	FRASE	HQ453411	HQ026697	HQ453485	HQ453563
MCZ DNA103662	Fraser Road	2008	FRASE	--	HQ026698	HQ453486	--
MCZ DNA103663	Fraser Road	2008	FRASE	--	HQ026699	HQ453487	--
MCZ DNA103664	Fraser Road	2008	FRASE	--	HQ026700	HQ453488	HQ453566
MCZ DNA103665	Eldridge Road	2008	ELDRI	HQ453451	HQ026701	HQ453544	--
MCZ DNA103667	Eldridge Road	2008	ELDRI	HQ453452	HQ026703	HQ453489	--
MCZ DNA103668	Eldridge Road	2008	ELDRI	HQ453453	HQ026704	HQ453490	HQ453580
MCZ DNA103669	Eldridge Road	2008	ELDRI	HQ453454	HQ026705	HQ453491	HQ453579
MCZ DNA103670	Eldridge Road	2008	ELDRI	HQ453455	HQ026706	HQ453545	--
MCZ DNA103671	Eldridge Road	2008	ELDRI	HQ453456	HQ026707	HQ453546	--
MCZ DNA103672	Eldridge Road	2008	ELDRI	HQ453457	HQ026708	HQ453492	HQ453597
MCZ DNA103673	Eldridge Road	2008	ELDRI	HQ453458	HQ026709	HQ453493	HQ453594
MCZ DNA103675	Weavers Creek	2008	WEAVE	HQ453430	HQ026710	HQ453494	HQ453583
MCZ DNA103676	Weavers Creek	2008	WEAVE	HQ453431	HQ026711	HQ453495	--
MCZ DNA103677	Weavers Creek	2008	WEAVE	HQ453432	HQ026712	HQ453547	HQ453596
MCZ DNA103678	Weavers Creek	2008	WEAVE	HQ453433	HQ026713	HQ453548	HQ453560
MCZ DNA103679	Weavers Creek	2008	WEAVE	HQ453434	HQ026714	HQ453549	--
MCZ DNA103681	Argent River	2008	ARGEN	HQ453449	HQ026715	HQ453496	HQ453581
MCZ DNA103682	Argent River	2008	ARGEN	HQ453450	HQ026716	HQ453550	HQ453598
MCZ DNA103683	Maggs Mountain	2008	MAGGS	HQ453447	HQ026717	HQ453551	HQ453595
MCZ DNA103684	Maggs Mountain	2008	MAGGS	HQ453448	HQ026718	HQ453552	--
MCZ DNA103706	Mt. Elephant	2002	MTELE	HQ453409	HQ026719	HQ453553	--
MCZ DNA103707	Koonya	1992	KOONY	--	--	HQ453497	--
MCZ DNA103709	Gold Creek	1994	GOLDC	--	--	HQ453554	--
	North of Newtons						
MCZ DNA103710	Marsh	1993	NEWTO	--	--	HQ453498	--
MCZ DNA103712	Ravens Hill	1991	RAVEN	--	--	HQ453555	--
MCZ DNA103713	Mt. Mangaña	2001	MTMAN	--	--	HQ453556	--
MCZ DNA103714	Mt. Elephant	1991	MTELE	--	--	HQ453499	--
MCZ DNA103717	Tarraleah	1992	TARRA	--	--	HQ453557	--
MCZ DNA103718	Boyd River	1992	BOYDR	--	--	HQ453558	--
	King William						
MCZ DNA103720	Range	1994	KINGW	--	--	HQ453559	--
MCA DNA103721	Lake Sydney	1994	LAKES	JN098454	--	--	--

Appendix S2. Molecular voucher specimens and collecting information

- MCZ DNA103656-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103657-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103660-Fraser Rd. (S 41°6'53", E 148°9'9"), Tasmania (Australia), leg. R. Mesibov, K. Hopkins, M. Alexander, 26.VIII.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103661-Fraser Rd. (S 41°6'53", E 148°9'9"), Tasmania (Australia), leg. R. Mesibov, K. Hopkins, M. Alexander, 26.VIII.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103662-Fraser Rd. (S 41°6'53", E 148°9'9"), Tasmania (Australia), leg. R. Mesibov, K. Hopkins, M. Alexander, 26.VIII.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103663-Fraser Rd. (S 41°6'53", E 148°9'9"), Tasmania (Australia), leg. R. Mesibov, K. Hopkins, M. Alexander, 26.VIII.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103664-Fraser Rd. (S 41°6'53", E 148°9'9"), Tasmania (Australia), leg. R. Mesibov, K. Hopkins, M. Alexander, 26.VIII.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103665-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103667-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103668-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103669-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103670-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103671-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103672-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103673-Eldridge Rd. (S 40°58'43", E 144°56'35"), Tasmania (Australia), leg. R. Mesibov, 7.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103675-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103676-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103677-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103678-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103679-Weavers Creek Area (S 41°25'9", E 147°20'26"), Tasmania (Australia), leg. R. Mesibov, 11.VIII.2008.
Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103681-Agent River (S 41°48'39", E 145°24'49"), Tasmania (Australia), leg. R. Mesibov, 1.X.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103682-Agent River (S 41°48'39", E 145°24'49"), Tasmania (Australia), leg. R. Mesibov, 1.X.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103683-Maggs Mountain (S 41°43'26", E 146°10'37"), Tasmania (Australia), leg. R. Mesibov, T. Moule, 8.IX.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103684-Maggs Mountain (S 41°43'26", E 146°10'37"), Tasmania (Australia), leg. R. Mesibov, T. Moule, 8.IX.2008. Repository: Museum of Comparative Zoology, Cambridge, USA.
- MCZ DNA103706/QVMAG reg no. 23:24979-Mt. Elephant (S 41°37'34", E 148°14'33"), Tasmania (Australia), leg. R. Mesibov, T. Moule, 19.I.2002. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103707/QVMAG reg no. 23:8494-Koonya (S 43°06'22", E 147°47'48"), Tasmania (Australia), leg. T. Kingston, R. D'Orazio, 9.IX.1992. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103708/QVMAG reg no. 23:12530-West Swan River (S 41°52'19", E 147°58'04"), Tasmania (Australia), leg. R. Mesibov, 3.X.1993. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103709/QVMAG reg no. 23:13759-Gold Creek (S 42°47'41", E 146°35'04"), Tasmania (Australia), leg. R. Mesibov, 24.II.1994. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.

- MCZ DNA103710/QVMAG reg no. 23:11741-North of Newtons Marsh (S 42°19'10", E 146°35'37"), Tasmania (Australia), leg. A. Richardson, 28.I.1993. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103711/QVMAG reg no. 23:5321-Mt. Maria, Maria Island (S 43°21'52", E 147°17'09"), Tasmania (Australia), leg. R. Mesibov, 16.VIII.1991. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103712/QVMAG reg no. 23:22833-Ravens Hill (S 42°25'01", E 147°51'47"), Tasmania (Australia), leg. R. Mesibov, 19.IV.1991. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103713/QVMAG reg no. 23:41758-Mt. Mangana, Bruny Island (S 43°21'52", E 147°17'09"), Tasmania (Australia), leg. K. Bonham, D. Hird, A. McEldowney, 7.IV.2001. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103714/QVMAG reg no. 23:5320-Mt. Elephant (S 41°37'34", E 148°14'33"), Tasmania (Australia), leg. R. Mesibov, 8.VII.1991. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103715/QVMAG reg no. 23:10140-Laughing Jack Lagoon (S 42°11'05", E 146°18'14"), Tasmania (Australia), leg. R. Mesibov, 23.II.1994. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103716/QVMAG reg no. 23:10138-Stormlea (S 43°11'08", E 147°46'23"), Tasmania (Australia), leg. R. Mesibov, 29.IV.1992. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103717/QVMAG reg no. 23:10139-Tarraleah (S 42°17'58", E 146°21'48"), Tasmania (Australia), leg. R. Mesibov, 11.III.1992. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103718/QVMAG reg no. 23:13758-Boyd River (S 42°49'40", E 146°18'58"), Tasmania (Australia), leg. R. Mesibov, 18.IV.1992. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103719/QVMAG reg no. 23:22812-Baldy Creek (S 42°27'02", E 147°47'57"), Tasmania (Australia), leg. R. Mesibov, 23.IV.1991. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103720/QVMAG reg no. 23:13757-King William Range (S 42°12'47", E 146°07'23"), Tasmania (Australia), leg. R. Mesibov, 17.II.1994. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.
- MCZ DNA103721/QVMAG reg no. 23:15908-Lake Sydney (S 43°17'15", E 146°36'52"), Tasmania (Australia), leg. R. Mesibov, 2.II.1994. Repository: Queen Victoria Museum and Art Gallery, Launceston, Tasmania.