

1 **Supplementary Material**

2 Table S1. 16S rRNA sequences used for the phylogenetic analysis. Species, Genbank accession numbers,  
 3 length, biogeographical realms (see Spalding 2007), Locality (origin of each specimen) and references.

Species	Genebank accession number	Length (pb)	Biogeographic realms	Locality	Reference
<i>Munida acantha</i>	AY351095	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida acantha</i>	AY351096	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida acantha</i>	AY351097	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida alonsoi</i>	AY351098	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida alonsoi</i>	AY351102	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida alonsoi</i>	AY351104	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida armilla</i>	AY351106	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida armilla</i>	AY351107	514	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida asprosoma</i>	JF727277	446	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida asprosoma</i>	JF727279	446	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida asprosoma</i>	JF727280	446	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida caeli</i>	EU417975	430	Central Indo-Pacific	Solomon Islands	Cabezas et al. 2009
<i>Munida caeli</i>	EU417977	430	Central Indo-Pacific	Solomon Islands	Cabezas et al. 2009
<i>Munida clinata</i>	AY351111	516	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida clinata</i>	AY351112	516	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida clinata</i>	AY351113	516	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida compressa</i>	AY351114	513	Central Indo-Pacific	Salomon Is.	Machordon & Macpherson 2004
<i>Munida congesta</i>	AY351115	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida delicata</i>	EU417976	434	Central Indo-Pacific	New Caledonia	Cabezas et al. 2009
<i>Munida devestiva</i>	EU417989	427	Central Indo-Pacific	New Caledonia	Cabezas et al. 2009
<i>Munida distiza</i>	AY351116	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida distiza</i>	AY351118	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida distiza</i>	AY351119	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida eclepsis</i>	AY351120	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida eclepsis</i>	AY351121	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida eclepsis</i>	AY351122	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida gordoae</i>	AY351124	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida gordoae</i>	AY351126	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004

<i>Munida gordoae</i>	AY351127	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida guttata</i>	AY351128	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida guttata</i>	AY351130	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida guttata</i>	AY351131	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida idyia</i>	MK458565	512	Central Indo-Pacific	Papua New Guinea	(Macpherson et al. 2020)
<i>Munida idyia</i>	MK458566	512	Central Indo-Pacific	Papua New Guinea	Macpherson et al 2020
<i>Munida lailai</i>	EU417988	432	Central Indo-Pacific	Fiji Islands	Cabezas et al. 2009
<i>Munida lanciaria</i>	JF727288	447	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida lanciaria</i>	JF727289	447	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida leagora</i>	AY351132	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida leagora</i>	AY351133	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida leagora</i>	AY351135	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida leptosyne</i>	AY351141	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida leviantennata</i>	AY351142	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida macphersoni</i>	JF727284	447	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida mendagnai</i>	EU417973	428	Central Indo-Pacific	Solomon Islands	Cabezas et al. 2009
<i>Munida mendagnai</i>	EU417974	428	Central Indo-Pacific	Solomon Islands	Cabezas et al. 2009
<i>Munida militaris</i>	AY351143	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida militaris</i>	JF727285	446	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida militaris</i>	JF727286	446	Central Indo-Pacific	Taiwan	Cabezas et al. 2011
<i>Munida notata</i>	AY351144	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida notata</i>	AY351146	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida notata</i>	AY351147	507	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida oblongata</i>	EU417978	434	Central Indo-Pacific	Solomon Islands	Cabezas et al. 2009
<i>Munida ommata</i>	AY351148	514	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida ommata</i>	AY351150	514	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida ommata</i>	AY351151	514	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida pagesi</i>	AY351152	437	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida parca</i>	EU417986	429	Central Indo-Pacific	New Caledonia	Cabezas et al. 2009
<i>Munida parca</i>	EU417987	431	Central Indo-Pacific	New Caledonia	Cabezas et al. 2009
<i>Munida proto</i>	AY351153	444	Central Indo-Pacific	Fiji Is	Machordon & Macpherson 2004
<i>Munida psamathe</i>	AY351154	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida psamathe</i>	AY351155	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004

<i>Munida psamathe</i>	AY351158	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida psylla</i>	AY351159	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida rhodonia</i>	AY351160	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida rhodonia</i>	AY351161	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida rosula</i>	AY351162	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida rubrodigitalis</i>	AY351163	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida rufiantennulata</i>	AY351164	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida spilota</i>	AY351165	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida spilota</i>	AY351166	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida stia</i>	AY351168	517	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida stia</i>	AY351169	517	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida stia</i>	AY351170	517	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida taenia</i>	AY351173	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida taenia</i>	AY351175	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida taenia</i>	AY351176	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida thoe</i>	AY351178	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida thoe</i>	AY351179	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida thoe</i>	AY351180	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida tiresias</i>	AY351183	513	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida tuberculata</i>	AY351184	514	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida tyche</i>	AY351185	513	Central Indo-Pacific	Vanuatu	Machordon & Macpherson 2004
<i>Munida tyche</i>	AY351186	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida zebra</i>	AY351187	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida zebra</i>	AY351189	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Munida zebra</i>	AY351190	511	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<b><i>Munida diritas sp. nov.</i></b>	<b>MT936349</b>	512	Temperate South America	Desventuras Island	Present study
<i>Munida gregaria</i>	AY700158	416	Temperate South America	Chile	Pérez-Barros et al. 2008
<i>Munida gregaria</i>	EF428963	512	Temperate South America	Argentina	Terrat et al. 2008
<i>Munida spinosa</i>	KJ957175	468	Temperate South America	Argentina	GenBank
<i>Munida spinosa</i>	KJ957182	462	Temperate South America	Argentina	GenBank
<i>Munida subrugosa</i>	AY050075	407	Temperate South America	Chile	Pérez-losada et al. 2002
<i>Munida subrugosa</i>	AY700159	416	Temperate South America	Chile	Pérez-Barros et al. 2008
<i>Munida subrugosa</i>	AY700161	416	Temperate South America	Chile	Pérez-Barros et al. 2008

<i>Munida flinti</i>	MF490158	517	Tropical Atlantic	Brasil	Mantelatto et al. 2017
<i>Munida iris</i>	KF182521	448	Tropical Atlantic	Musean specimen	Bracken-Grissom et al. 2013
<i>Munida microphthalmalma</i>	MF490159	512	Tropical Atlantic	Brasil	Mantelatto et al. 2017
<i>Munida pusilla</i>	KF182522	517	Tropical Atlantic	Musean specimen	Bracken-Grissom et al. 2013
<i>Munida valida</i>	JN800548	480	Tropical Atlantic	Musean specimen	Bybee et al. 2011
<i>Munida benguela</i>	KY230467	497	Western Indo-Pacific	Mozambique	Macpherson et al. 2017
<i>Munida benguela</i>	KY230468	501	Western Indo-Pacific	Mozambique	Macpherson et al. 2017
<i>Munida euripa</i>	KY230469	513	Western Indo-Pacific	Madagascar	Macpherson et al. 2017
<i>Munida mesembria</i>	KY230470	513	Western Indo-Pacific	Mozambique	Macpherson et al. 2017
<i>Munida mesembria</i>	KY230471	481	Western Indo-Pacific	Mozambique	Macpherson et al. 2017
<i>Munida remota</i>	KY230472	512	Western Indo-Pacific	Madagascar	Macpherson et al. 2017
<i>Munida shaula</i>	KY230473	512	Western Indo-Pacific	Madagascar	Macpherson et al. 2017
<i>Munida shaula</i>	KY230474	512	Western Indo-Pacific	Madagascar	Macpherson et al. 2017
<i>Munida stomifera</i>	KY230475	477	Western Indo-Pacific	Madagascar	Macpherson et al. 2017
<i>Cervimunida johni</i>	AY351244	513	Temperate South America	Chile	Machordon & Macpherson 2004
<i>Pleuroncodes monodon</i>	AY351259	514	Temperate South America	Chile	Machordon & Macpherson 2004
<i>Raymunida insulata</i>	AY351235	513	Western Indo-Pacific	Seychelles Is	Machordon & Macpherson 2004
<i>Raymunida elegantissima</i>	AY351231	512	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Raymunida cagnetei</i>	AY351224	511	Eastern Indo-Pacific	Marquesas Is.	Machordon & Macpherson 2004
<i>Eumunida sternomaculata</i>	AY351260	515	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004
<i>Leiogalathea laevirostris</i>	AY351252	506	Central Indo-Pacific	New Caledonia	Machordon & Macpherson 2004

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