Table S1. Genbank accession details for all data used in phylogenetic analyses

Species	COI	16S	18S	Authors
Briarosaccus auratum	KR812199	KR812147		Noever et al. (2016)
Briarosaccus auratum	KR812200	KR812148		Noever et al. (2016)
Briarosaccus auratum	KR812201	KR812149		Noever et al. (2016)
Briarosaccus auratum	KR812202	KR812150		Noever et al. (2016)
Briarosaccus auratum	KR812203	KR812151		Noever et al. (2016)
Briarosaccus auratum	KR812204	KR812152		Noever et al. (2016)
Briarosaccus auratum	KR812205	KR812153		Noever et al. (2016)
Briarosaccus auratum	KR812206	KR812154		Noever et al. (2016)
Briarosaccus auratum	KR812207	KR812155		Noever et al. (2016)
Briarosaccus auratum	KR812208	KR812156		Noever et al. (2016)
Briarosaccus auratum			MN650344	Høeg et al. (2020)
Briarosaccus hoegi sp. nov.	OR466125	OR469040	OR469043	This study
Briarosaccus hoegi sp. nov.	OR466126	OR469039	OR469042	This study
Briarosaccus hoegi sp. nov.	OR466127	OR469041	OR469044	This study
Briarosaccus regalis	KR812178	KR812157		Noever et al. (2016)
Briarosaccus regalis	KR812179	KR812158		Noever et al. (2016)
Briarosaccus regalis	KR812180	KR812159		Noever et al. (2016)
Briarosaccus regalis	KR812181	KR812160		Noever et al. (2016)
Briarosaccus regalis	KR812182	KR812161		Noever et al. (2016)
Briarosaccus regalis	KR812183	KR812162		Noever et al. (2016)
Briarosaccus regalis	KR812184	KR812163		Noever et al. (2016)
Briarosaccus regalis	KR812185	KR812164		Noever et al. (2016)
Briarosaccus regalis	KR812186	KR812165		Noever et al. (2016)
Briarosaccus regalis	KR812187	KR812166		Noever et al. (2016)
Briarosaccus regalis	KR812188	KR812167		Noever et al. (2016)
Briarosaccus regalis	KR812189	KR812168		Noever et al. (2016)
Briarosaccus regalis	KR812190	KR812169		Noever et al. (2016)
Briarosaccus regalis	KR812191	KR812170		Noever et al. (2016)
Briarosaccus regalis	KR812192	KR812171		Noever et al. (2016)
Briarosaccus regalis	KR812193	KR812172		Noever et al. (2016)
Briarosaccus regalis	KR812194	KR812173		Noever et al. (2016)
Briarosaccus regalis	KR812195	KR812174		Noever et al. (2016)
Briarosaccus regalis	KR812196	KR812175		Noever et al. (2016)
Briarosaccus regalis	KR812197	KR812176		Noever et al. (2016)
Briarosaccus regalis	KR812198	KR812177		Noever et al. (2016)
Briarosaccus tenellus	PP097196	PP102205		This study
Dipterosaccus indicus	AB618607	AB778078		Yoshida et al. (2011); Yoshida et al. (2014a)
Dipterosaccus indicus	AB618608	AB778079		Yoshida et al. (2011); Yoshida et al. (2014a)
Dipterosaccus indicus	AB688765	AB778080		Yoshida et al. (2012); Yoshida et al. (2014a)
Dipterosaccus indicus	AB688766	AB778081		Yoshida et al. (2012); Yoshida et al. (2014a)
Dipterosaccus indicus	AB688767	AB778082		Yoshida et al. (2012); Yoshida et al. (2014a)
Dipterosaccus indicus	AB968035			Yoshida et al. (2014b)
Dipterosaccus indicus	AB968036			Yoshida et al. (2014b)
Dipterosaccus shiinoi	AB968037			Yoshida et al. (2014b)
Dipterosaccus shiinoi	AB742438	AB778083		Yoshida et al. (2013); Yoshida et al. (2014a)
Dipterosaccus shiinoi	AB742439	AB778084		Yoshida et al. (2013); Yoshida et al. (2014a)
Dipterosaccus shiinoi	AB742440	AB778085		Yoshida et al. (2013); Yoshida et al. (2014a)
Galatheascus striatus			MN650343	Høeg et al. (2020)
Lernaeodiscus ingolfi	MN605966	MN625175	MN625167	Korn et al. (2020a)
Lernaeodiscus ingolfi			MN650338	Høeg et al. (2020)
Lernaeodiscus kasyanovi	MW916508	MW916318	MW916319	Korn et al. (2021)

Lernaeodiscus porcellanae	MN605965	MN625174	MN625166	Korn et al. (2020a)
Lernaeodiscus porcellanae			DQ826569	Glenner & Hebsgaard (2006)
Lernaeodiscus rybakovi	MN605964	MN625173	MN625165	Korn et al. (2020a)
Ommatogaster nana	AB602398			Yoshida et al. (2011)
Ommatogaster nana	AB688768			Yoshida et al. (2012)
Peltogaster aff. *ovalis*	AB778063	AB778095		Yoshida et al. (2014a)
Peltogaste curvata			MN650342	Høeg et al. (2020)
Peltogaster lineata	MK604142	MK604159		Jung et al. (2019)
Peltogaster lineata	MZ723909	MZ723912		Golubinskaya et al. (2021)
Peltogaster lineata	AB778055	AB778086		Yoshida et al. (2014a)
Peltogaster lineata	AB778056	AB778087		Yoshida et al. (2014a)
Peltogaster lineata		AB778088		Yoshida et al. (2014a)
Peltogaster lineata	AB778057	AB778089		Yoshida et al. (2014a)
Peltogaster lineata	AB778058	AB778090		Yoshida et al. (2014a)
Peltogaster lineata	AB778059	AB778091		Yoshida et al. (2014a)
Peltogaster lineata	AB778060	AB778092		Yoshida et al. (2014a)
Peltogaster lineata	AB778061	AB778093		Yoshida et al. (2014a)
Peltogaster lineata	AB778062	AB778094		Yoshida et al. (2014a)
Peltogaster lineata		MZ723913		Golubinskaya et al. (2021)
Peltogaster lineata		MZ723914		Golubinskaya et al. (2021)
Peltogaster lineata		MZ723915		Golubinskaya et al. (2021)
Peltogaster lineata		MZ723916		Golubinskaya et al. (2021)
Peltogaster lineata		MZ723917		Golubinskaya et al. (2021)
Peltogaster lineata			OR469045	This study
Peltogaster lineata			OR469046	This study
Peltogaster paguri	KT209453			Raupach et al. (2015)
Peltogaster paguri	KT208574			Raupach et al. (2015)
Peltogaster paguri	KT209076	FJ481958	DQ826570	Raupach et al. (2015); Glenner et al. (2013)
Peltogaster paguri			EU082415	Pérez-Losada et al. (2008)
Peltogaster postica	AB602392	AB778105		Yoshida et al. (2011); Yoshida et al. (2014a)
Peltogaster postica	AB602393			Yoshida et al. (2011)
Peltogaster postica	AB602394			Yoshida et al. (2011)
Peltogaster postica	AB602395			Yoshida et al. (2011)
Peltogaster postica	AB602396	AB778106		Yoshida et al. (2011); Yoshida et al. (2014a)
Peltogaster postica	AB602397	AB778107		Yoshida et al. (2011); Yoshida et al. (2014a)
Peltogaster postica	AB778064	AB778099		Yoshida et al. (2014a)
Peltogaster postica	AB778065	AB778100		Yoshida et al. (2014a)
Peltogaster postica	AB778066	AB778101		Yoshida et al. (2014a)
Peltogaster postica	AB778067	AB778102		Yoshida et al. (2014a)
Peltogaster postica	AB778068	AB778103		Yoshida et al. (2014a)
Peltogaster postica	AB778070	AB778108		Yoshida et al. (2014a)
Peltogaster postica	AB778071	AB778109		Yoshida et al. (2014a)
Peltogaster postica	AB778072	AB778110		Yoshida et al. (2014a)
Peltogaster postica	MK604144			Jung et al. (2019)
Peltogaster postica	MK604145			Jung et al. (2019)
Peltogaster postica	MK604146			Jung et al. (2019)
Peltogaster postica	MK604147			Jung et al. (2019)
Peltogaster postica	MK604148			Jung et al. (2019)
Peltogaster postica	MK604149			Jung et al. (2019)
Peltogaster postica	AB688769	AB778098		Yoshida et al. (2012); Yoshida et al. (2014a)
Peltogaster postica	AB688770	AB778096		Yoshida et al. (2012); Yoshida et al. (2014a)
Peltogaster postica	AB688771	AB778097		Yoshida et al. (2012); Yoshida et al. (2014a)
Peltogaster reticulata	MN193580			Korn et al.(2020b)
Peltogaster reticulata	MN193582			Korn et al.(2020b)
Peltogaster sp.	MK604150	MK604166		Jung et al (2019)

Peltogaster sp.	MK604151	MK604167		Jung et al (2019)
Peltogaster sp.	AB778073			Yoshida et al. (2014a)
Peltogaster sp.	AB778074	AB778111		Yoshida et al. (2014a)
Peltogaster sp.	AB778075	AB778112		Yoshida et al. (2014a)
Septosaccus cf. *snelliusi*	AB688772			Yoshida et al. (2012)
Septosaccus cf. *snelliusi*	AB688773			Yoshida et al. (2012)
Septosaccus rodriguezii			DQ826571	Glenner, Hebsgaard (2006)
Tortugaster boschmai			MN650341	Høeg et al. (2020)
Cyphosaccus norvegicus			MN650337	Høeg et al. (2020)
Peltogasterella gracilis	AB778076	AB778113		Yoshida et al. (2014a)
Peltogasterella gracilis	AB778077	AB778114		Yoshida et al. (2014a)
Peltogasterella gracilis	LC013686			Yoshida et al. (2015)
Peltogasterella gracilis	LC013687			Yoshida et al. (2015)
Peltogasterella gracilis	LC013688			Yoshida et al. (2015)
Peltogasterella gracilis	MK604152	MK604168		Jung et al. (2019)
Peltogasterella gracilis	MK604153	MK604169		Jung et al. (2019)
Peltogasterella gracilis	MK604154	MK604170		Jung et al. (2019)
Peltogasterella gracilis	MK604155			Jung et al. (2019)
Peltogasterella gracilis	MK604156	MK604171		Jung et al. (2019)
Peltogasterella gracilis	MK604157	MK604172		Jung et al. (2019)
Peltogasterella gracilis	MK604158	MK604173		Jung et al. (2019)
Peltogasterella sensuru	LC013689	LC013697		Yoshida et al. (2015)
Peltogasterella sensuru	LC013690	LC013698		Yoshida et al. (2015)
Peltogasterella sensuru	LC013691	LC013699		Yoshida et al. (2015)
Peltogasterella sensuru	LC013692	LC013700		Yoshida et al. (2015)
Peltogasterella sensuru	LC013693	LC013701		Yoshida et al. (2015)
Peltogasterella sensuru	LC013694	LC013702		Yoshida et al. (2015)
Peltogasterella sensuru	LC013695			Yoshida et al. (2015)
Peltogasterella sulcata		FJ481955	DQ82672	Glenner et al. (2013)
Peltogasterella sulcata			EU082416	Pérez-Losada et al. (2008)

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