

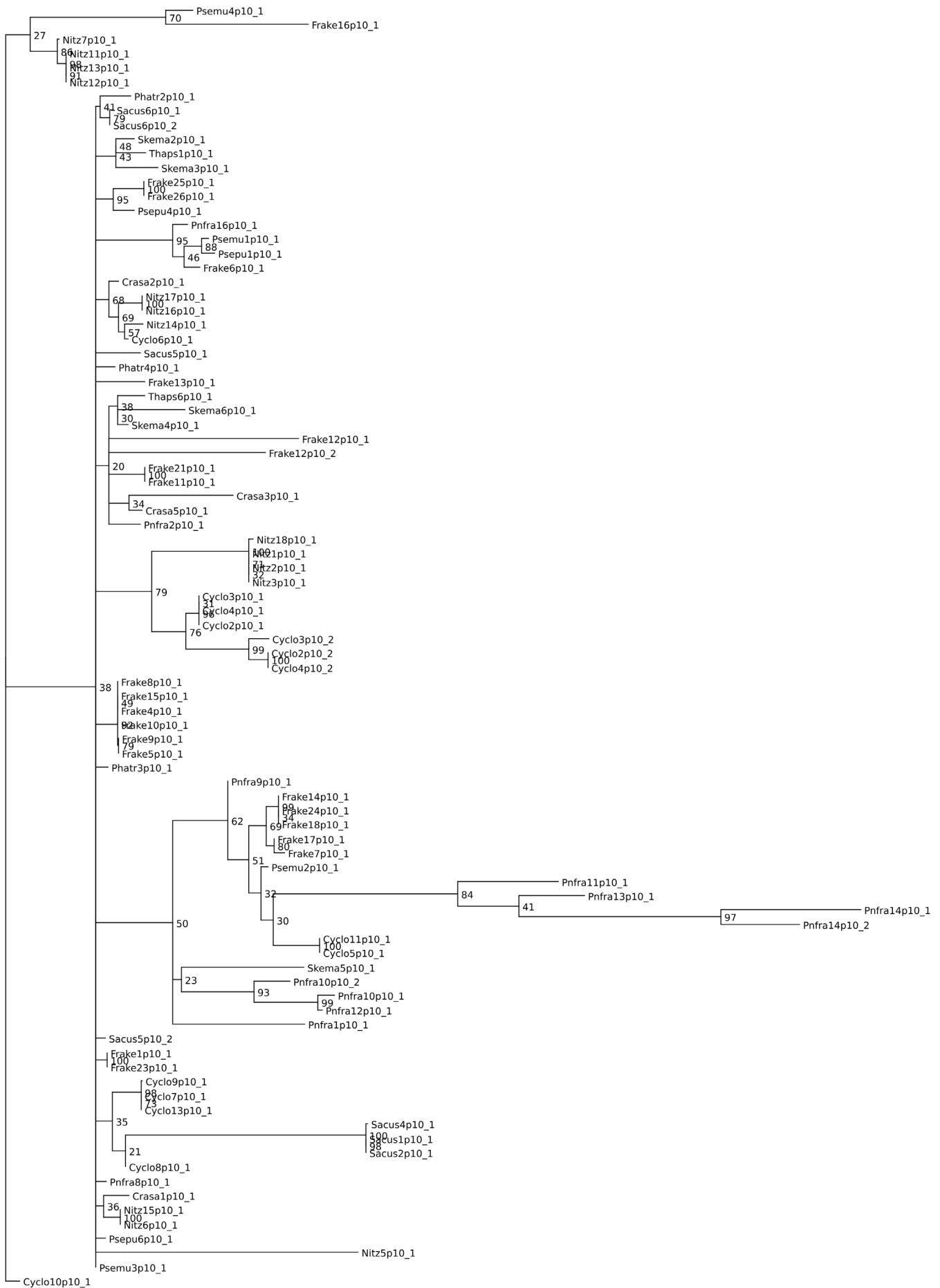
# Duplications and subdomain shuffling in diatom metacaspases

Suppl. 1. The sequences used in the phylogenetic analysis.

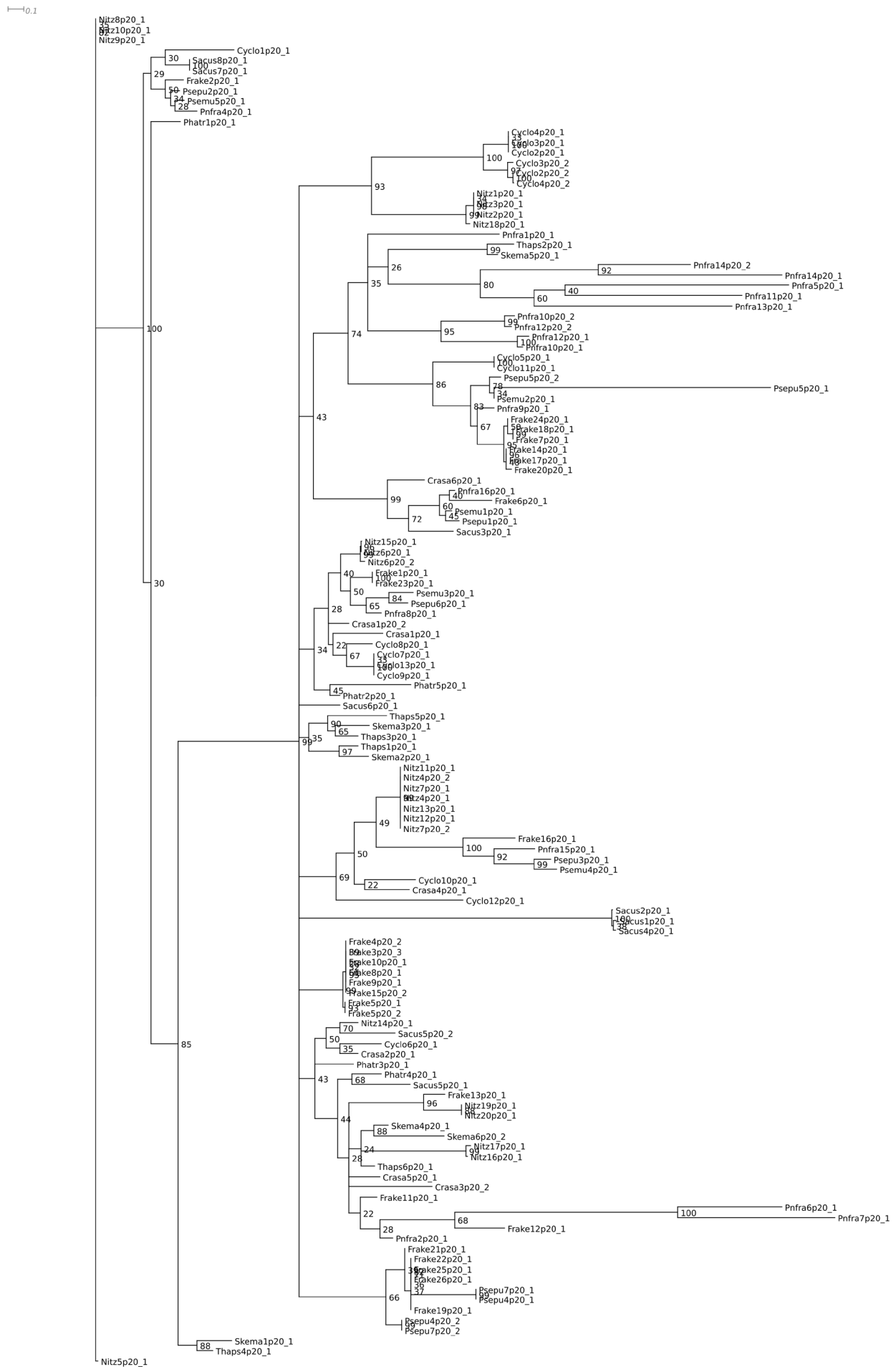
ID	Species	Original ID	Source
Phatr1	<i>Phaeodactylum tricornerutum</i>	32992	JGI genome DB
Phatr2	<i>Phaeodactylum tricornerutum</i>	48151	JGI genome DB
Phatr3	<i>Phaeodactylum tricornerutum</i>	54872	JGI genome DB
Phatr4	<i>Phaeodactylum tricornerutum</i>	54873	JGI genome DB
Phatr5	<i>Phaeodactylum tricornerutum</i>	51953	JGI genome DB
Psemu1	<i>Pseudo-nitzschia multiseriata</i>	188031	JGI genome DB
Psemu2	<i>Pseudo-nitzschia multiseriata</i>	188378	JGI genome DB
Psemu3	<i>Pseudo-nitzschia multiseriata</i>	257123	JGI genome DB
Psemu4	<i>Pseudo-nitzschia multiseriata</i>	108191	JGI genome DB
Psemu5	<i>Pseudo-nitzschia multiseriata</i>	320764	JGI genome DB
Thaps1	<i>Thalassiosira pseudonana</i>	2505	JGI genome DB
Thaps2	<i>Thalassiosira pseudonana</i>	36443	JGI genome DB
Thaps3	<i>Thalassiosira pseudonana</i>	38187	JGI genome DB
Thaps4	<i>Thalassiosira pseudonana</i>	268857	JGI genome DB
Thaps5	<i>Thalassiosira pseudonana</i>	270007	JGI genome DB
Thaps6	<i>Thalassiosira pseudonana</i>	270038	JGI genome DB
Frake1	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188115932	MMETSP/CAMPEP
Frake2	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188121526	MMETSP/CAMPEP
Frake3	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188145156	MMETSP/CAMPEP
Frake4	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188145882	MMETSP/CAMPEP
Frake5	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188155722	MMETSP/CAMPEP
Frake6	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188155854	MMETSP/CAMPEP
Frake7	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188092958	MMETSP/CAMPEP
Frake8	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188144146	MMETSP/CAMPEP
Frake9	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188142318	MMETSP/CAMPEP
Frake10	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188145540	MMETSP/CAMPEP
Frake11	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188102320	MMETSP/CAMPEP
Frake12	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188100640	MMETSP/CAMPEP
Frake13	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188069114	MMETSP/CAMPEP
Frake14	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188096456	MMETSP/CAMPEP
Frake15	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188105908	MMETSP/CAMPEP
Frake16	<i>Fragillariopsis kerguelensis</i> , strain L26_C5	CAMPEP_0188105142	MMETSP/CAMPEP

ID	Species	Original ID	Source
Frake17	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188063518	MMETSP/CAMPEP
Frake18	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188134204	MMETSP/CAMPEP
Frake19	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188135048	MMETSP/CAMPEP
Frake20	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188081888	MMETSP/CAMPEP
Frake21	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188124750	MMETSP/CAMPEP
Frake22	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188135970	MMETSP/CAMPEP
Frake23	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188123842	MMETSP/CAMPEP
Frake24	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188086850	MMETSP/CAMPEP
Frake25	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188088198	MMETSP/CAMPEP
Frake26	Fragillariopsis kerguelensis, strain L26_C5	CAMPEP_0188138200	MMETSP/CAMPEP
Pnfra1	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199828780	MMETSP/CAMPEP
Pnfra2	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199827318	MMETSP/CAMPEP
Pnfra3	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199818856	MMETSP/CAMPEP
Pnfra4	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199808942	MMETSP/CAMPEP
Pnfra5	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199794820	MMETSP/CAMPEP
Pnfra6	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199799844	MMETSP/CAMPEP
Pnfra7	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199802190	MMETSP/CAMPEP
Pnfra8	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199811974	MMETSP/CAMPEP
Pnfra9	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199756168	MMETSP/CAMPEP
Pnfra10	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199756772	MMETSP/CAMPEP
Pnfra11	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199763770	MMETSP/CAMPEP
Pnfra12	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199837356	MMETSP/CAMPEP
Pnfra13	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199834634	MMETSP/CAMPEP
Pnfra14	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199835280	MMETSP/CAMPEP
Pnfra15	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199773542	MMETSP/CAMPEP
Pnfra16	<i>Pseudo-Nitzschia fraudulenta</i> , strain WWA7	CAMPEP_0199786516	MMETSP/CAMPEP
Nitz1	<i>Nitzschia</i> sp.	CAMPEP_0113523678	MMETSP/CAMPEP
Nitz2	<i>Nitzschia</i> sp.	CAMPEP_0113502836	MMETSP/CAMPEP
Nitz3	<i>Nitzschia</i> sp.	CAMPEP_0113448076	MMETSP/CAMPEP
Nitz4	<i>Nitzschia</i> sp.	CAMPEP_0113496328	MMETSP/CAMPEP
Nitz5	<i>Nitzschia</i> sp.	CAMPEP_0113478472	MMETSP/CAMPEP
Nitz6	<i>Nitzschia</i> sp.	CAMPEP_0113486460	MMETSP/CAMPEP
Nitz7	<i>Nitzschia</i> sp.	CAMPEP_0113504564	MMETSP/CAMPEP
Nitz8	<i>Nitzschia</i> sp.	CAMPEP_0113491302	MMETSP/CAMPEP
Nitz9	<i>Nitzschia</i> sp.	CAMPEP_0113449166	MMETSP/CAMPEP
Nitz10	<i>Nitzschia</i> sp.	CAMPEP_0113461404	MMETSP/CAMPEP
Nitz11	<i>Nitzschia</i> sp.	CAMPEP_0113482286	MMETSP/CAMPEP
Nitz12	<i>Nitzschia</i> sp.	CAMPEP_0113453490	MMETSP/CAMPEP
Nitz13	<i>Nitzschia</i> sp.	CAMPEP_0113493658	MMETSP/CAMPEP
Nitz14	<i>Nitzschia</i> sp.	CAMPEP_0113504984	MMETSP/CAMPEP
Nitz15	<i>Nitzschia</i> sp.	CAMPEP_0113457654	MMETSP/CAMPEP
Nitz16	<i>Nitzschia</i> sp.	CAMPEP_0113452900	MMETSP/CAMPEP
Nitz17	<i>Nitzschia</i> sp.	CAMPEP_0113482608	MMETSP/CAMPEP
Nitz18	<i>Nitzschia</i> sp.	CAMPEP_0113440782	MMETSP/CAMPEP

ID	Species	Original ID	Source
Nitz19	<i>Nitzschia</i> sp.	CAMPEP_0113486762	MMETSP/CAMPEP
Nitz20	<i>Nitzschia</i> sp.	CAMPEP_0113499798	MMETSP/CAMPEP
Cyclo1	<i>Cylindrotheca closterium</i>	CAMPEP_0113617760	MMETSP/CAMPEP
Cyclo2	<i>Cylindrotheca closterium</i>	CAMPEP_0113648858	MMETSP/CAMPEP
Cyclo3	<i>Cylindrotheca closterium</i>	CAMPEP_0113617200	MMETSP/CAMPEP
Cyclo4	<i>Cylindrotheca closterium</i>	CAMPEP_0113636160	MMETSP/CAMPEP
Cyclo5	<i>Cylindrotheca closterium</i>	CAMPEP_0113628734	MMETSP/CAMPEP
Cyclo6	<i>Cylindrotheca closterium</i>	CAMPEP_0113620546	MMETSP/CAMPEP
Cyclo7	<i>Cylindrotheca closterium</i>	CAMPEP_0113655168	MMETSP/CAMPEP
Cyclo8	<i>Cylindrotheca closterium</i>	CAMPEP_0113609280	MMETSP/CAMPEP
Cyclo9	<i>Cylindrotheca closterium</i>	CAMPEP_0113638630	MMETSP/CAMPEP
Cyclo10	<i>Cylindrotheca closterium</i>	CAMPEP_0113621988	MMETSP/CAMPEP
Cyclo11	<i>Cylindrotheca closterium</i>	CAMPEP_0113648236	MMETSP/CAMPEP
Cyclo12	<i>Cylindrotheca closterium</i>	CAMPEP_0113611562	MMETSP/CAMPEP
Cyclo13	<i>Cylindrotheca closterium</i>	CAMPEP_0113614846	MMETSP/CAMPEP
Psepu1	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172363384	MMETSP/CAMPEP
Psepu2	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172370472	MMETSP/CAMPEP
Psepu3	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172377020	MMETSP/CAMPEP
Psepu4	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172378556	MMETSP/CAMPEP
Psepu5	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172377478	MMETSP/CAMPEP
Psepu6	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172356604	MMETSP/CAMPEP
Psepu7	<i>Pseudo-nitzschia pungens</i>	CAMPEP_0172358182	MMETSP/CAMPEP
Crasa1	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198134924	MMETSP/CAMPEP
Crasa2	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198129594	MMETSP/CAMPEP
Crasa3	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198133806	MMETSP/CAMPEP
Crasa4	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198110384	MMETSP/CAMPEP
Crasa5	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198114578	MMETSP/CAMPEP
Crasa6	<i>Craspedostauros australis</i> , strain CCMP 3328	CAMPEP_0198121818	MMETSP/CAMPEP
Sacus1	<i>Synedra acus</i> subsp. <i>radians</i>	5582	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus2	<i>Synedra acus</i> subsp. <i>radians</i>	7884	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus3	<i>Synedra acus</i> subsp. <i>radians</i>	10107	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus4	<i>Synedra acus</i> subsp. <i>radians</i>	12375	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus5	<i>Synedra acus</i> subsp. <i>radians</i>	14822	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus6	<i>Synedra acus</i> subsp. <i>radians</i>	18835	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus7	<i>Synedra acus</i> subsp. <i>radians</i>	22059	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Sacus8	<i>Synedra acus</i> subsp. <i>radians</i>	23175	<a href="https://lin.irk.ru/sacus">https://lin.irk.ru/sacus</a>
Skema1	<i>Skeletonema marinoi</i>	ANA05821.1	GenPept
Skema2	<i>Skeletonema marinoi</i>	ANA05822.1	GenPept
Skema3	<i>Skeletonema marinoi</i>	ANA05823.1	GenPept
Skema4	<i>Skeletonema marinoi</i>	ANA05824.1	GenPept
Skema5	<i>Skeletonema marinoi</i>	ANA05825.1	GenPept
Skema6	<i>Skeletonema marinoi</i>	ANA05826.1	GenPept



**Suppl. 2.** The complete maximum likelihood phylogenetic tree of p10 subunits of diatom metacaspases. The nodes with the bootstrap support under 20% are collapsed



**Suppl. 3.** The complete maximum likelihood phylogenetic tree of p20 subunits of diatom metacaspases. The nodes with the bootstrap support under 20% are collapsed