

5.1) NCBI accession numbers for sequences used for phylogenetic inference. SRA numbers are provided in place of accession numbers for those sequences that were extracted from transcriptomes, and labeled in green. New sequences submitted to NCBI labeled in yellow.

Species	16S	18S
<i>Abylopsis tetragona</i>	AY935303.1	AY937345.1
<i>Agalma clausi</i>	AY935270.1	AY937312.1
<i>Agalma elegans</i>	AY935271.1	AY937313.1
<i>Agalma okenii</i>	AY935272.1	AY937314.1
<i>Apolemia lanosa</i>	KF214712.1	KF214714.1
<i>Apolemia rubriversa</i>	KF214713.1	KF214715.1
<i>Athorybia rosacea</i>	AY935274.1	AY937316.1
<i>Bargmannia amoena</i>	AY935292.1	AY937333.1
<i>Bargmannia elongata</i>	AY935321.1	AY937334.1
<i>Chelophyes appendiculata</i>	AY935304.1	AY937346.1
<i>Chuniphyes moserae</i>	KX374464.1	KX421847.1
<i>Chuniphyes multidentata</i>	AY935293.1	AY937335.1
<i>Clytia hemisphaerica</i>	EU999221.1	FJ550601.1
<i>Cordagalma ordinatum</i>	AY935275.1	AY937317.1
<i>Craseoa lathetica</i>	AY935297.1	AY937339.1
<i>Crystallophyes amygdalina</i>	KX374466.1	KX421850.1
<i>Desmophyes haematogaster</i>	DQ080006.1	KX421851.1
<i>Diphyes dispar</i>	AY935276.1	AY937318.1
<i>Ectopleura dumortieri</i>	EU305474.1	EU272616.1
<i>Erenna laciniata</i>	KX752722.1	KX752704.1
<i>Erenna richardi</i>	KX752723.1	KX752705.1
<i>Erenna sirena</i>	KX752725.1	AY937361.1
<i>Forskalia asymmetrica</i>	AY935277.1	AY937319.1
<i>Forskalia edwardsii</i>	AY935278.1	AY937320.1
<i>Forskalia formosa</i>	AY935302.1	AY937344.1
<i>Forskalia tholoides</i>	AY935279.1	AY937321.1
<i>Frillagalma vityazi</i>	MK958598.1	SRR1548362
<i>Gymnopraia lapolislazula</i>	AY935317.1	AY937359.1
<i>Halistemma rubrum</i>	AY935316.1	AY937323.1
<i>Hippopodius hippopus</i>	AY935299.1	AF358069.1
<i>Hydra circumcincta</i>	GU722773.1	EF059948.1
<i>Kephyes ovata</i>	AY935294.1	AY937336.1
<i>Lensia conoidea</i>	AY935318.1	AY937360.1
<i>Lilyopsis fluoracantha</i>	SRR1548373	AY919607.1
<i>Lychnagalma utricularia</i>	DQ080009.1	SRR1548374
<i>Marrus claudanielis</i>	DQ080007.1	SRR1548375
<i>Muggiaea atlantica</i>	AY935295.1	AY937337.1
<i>Nanomia bijuga</i>	AY935296.1	AY937338.1
<i>Nectadamas diomedeeae</i>	AY935306.1	AY937348.1
<i>Nectopyramis natans</i>	AY935307.1	AY937349.1
<i>Physalia physalis</i>	AY935284.1	AF358065.1
<i>Physonect sp</i>	SRR1648381	DQ080012.1
<i>Physophora gilmeri</i>	SRR6512853	SRR6512853
<i>Physophora hydrostatica</i>	AY935300.1	AY937342.1
<i>Porpita porpita</i>	AY935322.1	AF358086.1

5.2) Metadata for the new sequences submitted to NCBI.

Accession #	Species	Specimen	Latitude	Longitude	Depth (m)
MK958598.1	<i>Frillagalma vityazi</i>	V2495-D8	36.697864	-122.05949	409
MK958599.1	<i>Thermopalìa</i> sp.	T1042-D5	35.833242	-122.66726	2933

Species	16S	18S
<i>Praya dubia</i>	AY935285.1	AY937326.1
<i>Resomia ornicephala</i>	SRR1548382	SRR1548382
<i>Rhizophysa eysenhardtii</i>	AY935309.1	AY937351.1
<i>Rhizophysa filiformis</i>	AY935286.1	AY937327.1
<i>Rosacea flaccida</i>	AY935287.1	AY937328.1
<i>Sphaeronectes christiansonae</i>	KX374468.1	KX421853.1
<i>Sphaeronectes koellikeri</i>	AY935301.1	AF358070.1
<i>Staurocladia wellingtoni</i>	AJ580934.1	AF358084.1
<i>Stephalia dilata</i>	AY935315.1	AY937357.1
<i>Stephanomia amphytridis</i>	AY935280.1	AY937322.1
<i>Sulculeolaria quadrivalvis</i>	AY935288.1	AY937353.1
<i>Thermopalía sp</i>	MK958599.1	SRR6512855
<i>Tottonophyes enigmatica</i>	KX374465.1	KX421849.1
<i>Velella velella</i>	AY935323.1	AF358087.1
<i>Vogtia glabra</i>	AY935308.1	AY937350.1
<i>Vogtia pentacantha</i>	AY935320.1	AY937362.1