

Superfamily	Family	Species	DATA
Actinioidea	Actiniidae	<i>Actinia equina</i>	Genome
		<i>Actinia tenebrosa</i>	SRR3210696
		<i>Anthopleura buddemeieri</i>	SRR3193961
		<i>Aulactinia veratra</i>	SRR3205708
		<i>Cnidopus japonicus</i>	SRR2134407
		<i>Condylactis gigantea</i>	ERR2045165
		<i>Dofleinia armata</i>	ERR6139597
		<i>Entacmaea quadricolor</i>	Ref. Delgado 2022
		<i>Epiactis prolifera</i>	Collaborators
		<i>Oulactis</i> sp.	ERR2710216
		<i>Macroactyla dorensis</i>	Ref. Delgado 2022
	Actinodendridae	<i>Actinodendron plumosum</i>	SRR10500343
Actinostoloidea	Heteractidae	<i>Heteractis crispa</i>	Ref. Delgado 2022
	Stichodactylidae	<i>Stichodactyla haddoni</i>	Ref. Delgado 2022
Edwardsioidea	Thalassianthidae	<i>Cryptodendrum adhaesivum</i>	Ref. Delgado 2022
		<i>Heterodactyla hemprichi</i>	Ref. Delgado 2022
Actinostoloidea	Actinostolidae	<i>Stomphia coccinea</i>	Collaborators
Edwardsioidea	Edwardsiidae	<i>Edwardsiella carnea</i>	SRR6480800
		<i>Nematostella vectensis</i>	Genome
Metridioidea (Cuticulate)	Andvakiidae	<i>Telmatactis australis</i>	SRR3225580
	Hormathiidae	<i>Caliactis polypus</i>	RR3205762
	Nemanthidae	<i>Nemanthus annamensis</i>	SRR3228732
Metridioidea (Acuticulate)	Aiptasiidae	<i>Aiptasiogeton eruptaurantia</i>	Sequenced
		<i>Bartholomea annulata</i>	Collaborators
		<i>Bellactis lux</i>	Sequenced
		<i>Exaiptasia diaphana</i>	SRR13526542
		<i>Neoaipatasia morbilla</i>	Sequenced
	Aliciidae	<i>Lebrunia danae</i>	Collaborators
		<i>Triactis producta</i>	SRR8297742
	Boloceroideidae	<i>Bunodeopsis globulifera</i>	Collaborators
	Diadumenidae	<i>Diadumene leucolena</i>	Collaborators
		<i>Diadumene lineata</i>	SRR8297741
	Metridiidae	<i>Metridium senile</i>	SRR6480802
	Sagartiidae	<i>Sagartia elegans</i>	Collaborators

Supplemental Table S1. Samples name and origin of data. Samples either were retrieved from NCBI using SRAs, gathered from collaborators and or sequenced for this study.