Candida albicans
Saccharomyces cerevisiae
Tricholoma matsutake
Mucor racemosus
Monosiga brevicollis
Salpingoeca infusionum
Leucosolenia sp.
Mycale fibrexilis
Suberites ficus
Pleurobrachia bachei
Beroe ovata
Mnemiopsis leidyi
Antipathes galapagensis
Montastraea franksi
Meara stichopi
Caenorhabditis elegans
Chordodes morgani
Amphiporus sp.
Diclidophora denticulata
Thalia democratica
Phascolopsis gouldii
Styela plicata
Strongylocentrotus purpuratus
Cephalodiscus gracilis
Balanoglossus sp.
Ptychodera flava
Harrimania sp.
Saccoglossus kowalevskii
Petromyzon marinus
Oncorhynchus sp.
Triakis semifasciata
Raja schmidti
Limulus polyphemus
Stylochus zebra
Proceraea cornuta
Phoronis vancouverensis
Placopecten magellanicus
Urechis caupo
Priapulus caudatus
Pycnophyes sp. *Tjarno*
Parvicardium minimum
Peripatus sp.
Stenostomum leucops
Tenebrio sp.
Milnesium sp.
Henneguya salminicola
Kudoa trifolia
Kudoa unicapsula
Atolla vanhoeffeni
Nausithoe rubra
Chrysaora melanaster
Catostylus sp.
Aurelia sp.
Phacellophora camtschatica
Darwin carybdeid sp.
Carybdea rastonii
Tripedalia cystophora
Chiropsalmus sp.
Chironex fleckeri
Craterolophus convolvulus
Haliclystus octoradiatus
Haliclystus sanjuanensis
Olindias phosphorica
Limnocnida tanganyicae
Maeotias marginata
Melicertum octocostatum
Hydrichthella epigorgia
Brinckmannia hexactinellidophila
Fabienna sphaerica
Proboscidactyla ornata
Apolemia sp.
Halistemma rubrum
Agalma elegans
Cordagalma cordiforme
Nanomia bijuga
Physophora hydrostatica
Nectopyramis sp.
Sulculeolaria quadrivalvis
Dicoryne conybearei
Adelopora crassilabrum
Lepidopora microstylus
Crypthelia cryptotrema
Pseudocrypthelia pachypoma
Hydractinia symbiolongicarpus
Clavactinia gallensis
Clava multicornis
Podocoryne carnea
Lizzia blondina
Rathkea octopunctata
Eudendrium racemosum
Halopteris minuta
Abietinaria filicula
Amphisbetia minima
Halecium muricatum Partial
Aglaophenia tubiformis
Plumularia setacea
Anthohebella parasitica
Octophialucium indicum
Clytia noliformis
Polypodium hydriforme (Host: A.ruthenus)
Polypodium hydriforme (Host:S. platorynchus) ←
Pennaria disticha
Cladocoryne floccosa
Moerisia sp.
Solanderia ericopsis
Zanclea prolifera
Porpita sp.
Velella sp.
Dipurena ophiogaster
Scrippsia pacifica
Hydra circumcincta
Euphysora bigelowi
Ectopleura dumortieri
Zyzzyzus calderi
Candelabrum cocksii
Ralpharia gorgoniae
Turritopsis dohrnii
Bougainvillia carolinensis
Pachycordyle pusilla
Bimeria vestita
Cordylophora caspia
Koellikerina fasciculate
Corydendrium sp.
Pruvotella grisea
Garveia annulata
Hydrichthys boycei
Pandea sp.
Leuckartiara octona
Rhizogeton nudus

Outgroups | Cnidaria | Bilateria | Myxozoa | Cnidaria | Hydrozoa | Leptothecata

Additional file 2. ML topology of metazoan relationships with partial 28s rDNA sequences with 129 taxa. Bootstrap values greater than 50 are indicated by *, where space permits. Arrow indicates *Polypodium* taxa. The assumed model (GTR+I + G) has six substitutions rates estimated from the data (A-C, 0.8748; A-G, 3.0821; A-T, 1.6210; C-G, 0.6013; C-T, 4.7766; G-T, 1.0000) and an assumed proportion of invariant sites (0.0657) and a gamma shaped parameter or (0.6035).