Gene partitions (n = 128)

Adineta ricciae
Adineta vaga
Brachionus plicatilis
Arachnocampa luminosa
Ramazzottius varieornatus
Hypsibius dujardini
Peripatopsis capensis
Strigamia maritima
Limulus potyphemus
Parasteatoda tepidariorum
Centruroides sculpturatus
Palaemon suttikusi
Pleuromamma robusta
Branchinella herrodi
Daphnia pulex
Occasiapyx japonicus
Tetrodontophora bielanensis
Meinertellus cundinamarcensis
Iricholepidion gertschi
Calopteryx spiendens
Baetis sp
Isonychia bicolor
Zorotypus caudelli
Forticula auricularia
Timema cristinae
Leuctra sp
Ceuthophilus sp
Tetrix subulata
Mantis religiosa
Blaberus atropos
Zootermopsis nevadensis
Cryptocercus wrighti
Pediculus humanus
Frankliniella cephalica
Cercopis vulnerata
Acanthosoma haemorrhoidale
Acyrthosiphon pisum
Trialeurodes vaporariorum
Tenthredo koehleri anthosoma naemornioluale Acyrthosiphon pisum Trialeurodes vaporariorum Tenthredo koehleri Nasonia vitripennis Apis mellifera Solenopsis invicta Boreus hyemalis Ctenocephatides felis Rhyacophila fasciata Bombyx mori Triodia sylvina Anopheles gambiae Drosophila melanogaster firiarthiria setipennis Inocellia crassicornis Corydajus cornutus Euroleon nostras Lepicerus sp Gyrinus marinus Pyrocoelia pectoralis Infolium castaneum Dendroctonus ponderosae Spadella cepnaloptera Eukrohnja fowleri Spadella cephaloptera
Eukrohnia fowleri
Xenoturbella bocki2
Dumetocrinus antarcticus
Notocrinus virillis
Astrotoma agssizii
Parastichopus californicus
rongylocentrotus purpuratus
Cephalodiscus gracilis
Rhabdopleura sp
Harrimaniidae sp Iceland
Saccoglossus kowaleyskii
Torquaratoridae sp Iceland Ptychodera bahamensis Asymmetron lucayanus Asymmetron transport Botryllus_schlosseri Petromyzon marinus
Callorhinchus milli
Danio rerio
Takifugu rubripes
Oryzias latipes
Xenopus tropicalis
Anolis carolinensis
Gallus gallus Ornithorhynchus anatinus
Monodelphis domestica
Homo sapiens
Membranipora membranacea Macrodasys sp
Symbion pandora
Pedicellina cernua2
Loxosoma pectinaricola
Loxosomella vivipara
Rhyssoplax olivaceus
Leptochiton asellus
Leptochiton rugatus
Prochaetoderma californicum
Spathoderma clenchi
Neomenia megatrapezata
Alexandromenia crassa
Macellomenia crassa
Macellomenia schanderi
Nautilus pompilius
Octopus pimaculoides
Vampyroteuthis infernalis
Sepia officinalis
Dosidicus gigas
Euprymna scolopes
Phenacolepas pulchella
Crandul did aggantela Crepidula navicella
Pomacea canaliculata
Phylliroe bucephala
Aplysia californica
Graptacme eborea
Mytilus edulis
Limnoperna fortunei
Patinopectin yessoensis Patinopectin yessoensis
Pinctada fucata
Crassostrea gigas
Tubulanus polymorphus1
Malacobdella grossa
Paranemertes peregrina
Notospermus geniculatus
Lineus lacteus
Lineus lacteus
Lineus longissimus
Phoronis psammophila
Lingua anatina
Glottidia pyramidata
Hemithiris psittacea
Laqueus californicus
Terebratalia transversa
Owenia fusiformis
Phyllochaetopterus sp
Spiochaetopterus sp
Spiochaetopterus sp
Phascolosoma agassizii
Harmothoe imbricata
Platynereis dumerilii
Alitta succinea
Glycera dibranchiata
Tomopteris sp
Priapulus caudatus
Alvinella pompeii
Capitella teleta
Helobdella robusta
Boccardia proposcidea Boccardia_proboscidea Pomatoceros_lamarckii Absent 0 score 10 AAs

n taxa = 301

Rozella allomycis
Spizellomyces punctatus
Batrachochytrium dendrobatidis
Piromyces finnis
Neocallimastix californiae
Allomyces macrogynus
Phycomyces blakesleeanus
Rhizopus microsporus
Cryptococcus amylolentus
Ustilago maydis
Neurospora crassa
Asperiillus nidulans
Penicillium roqueforti
Corallochytrium limacisporum
Abeoforma whisleri

rallochytrium_limacisporum
Abeoforma_whisleri
Pirum_gemmata
Creolimax_fragrantissima
Sphaeroforma_arctica2
Amoebidium_parasiticum2
Ichthyophonus_hoferi
Capsaspora_owczarzaki
Pigoraptor_chileana
Pigoraptor_vietnamica
Codosiga_hollandica
Mylnosiga_fluctuans
Monosiga_forevicollis
Salpingoeca_rosetta
Hartaetosiga_gracilis

Salpingoeca_Tosetta
Hartaetosiga_gracilis
Salpingoeca_dolichothecata
Didymoeca_costata
Diaphanoeca_grandis
Savillea_parva

Diaphanoeca grandis
Savillea parva
Mertensia ovum
Euplokamis duniapae
Hormiphora californensis
Mnemiopsis leidyi2
Nepheloctena sp. red
Beroe abyssicola
Oscarella carmela2
Plakina jani
Corticium candelabrum
Hyalonema populiferum
Aphrocallistes vastus
Aphrocallistes vastus2
Euplectella sp
Rosella fibulata
Sympagella nux

Amphimedon queenslandica Ephydatia muelleri2 Spongilla lacustris Tethya wilhelma2 Tethya wilhelma Crambe crambe

Stylophora pistillata Montastraea cavernosa Porties a digities

Acropora digitifera
Craspedacusta sowerbyi
Aegina citrea
Halitrephes maasi
Hydractinia symbiolongicarpus
Clytia hemispherica22
Hydra magnipapillata

Clytia nemispnericazz
Hydra magnipapillata
Millepora alcicornis
Physalia physalis
Agalma elegans
Craseoa lathetica
Craterolophus convolvulus
Lucernariopsis campanulata
Calvadosia cruxmelitensis
Leucernaria quadricornis
Haliclystus sanjuanensis
Chironex fleckeri
Alatina alata
Tripedalia cystophora

Tripedalia cystophora Periphylla periphylla Atolla vanhoeffeni Cyanea capillatas

Chrysaora fuscescens
Chrysaora fuscescens
Aurelia aurita2
Cassiopea xamachana
Stomolophus meleagris

Stomolophus meleagris
Leucosolenia complicata
Clathrina coriacea
Leuconia nivea
Grantia compressa
Sycon ciliatum
Meara stichopi
Nemertoderma westbladi
Ascoparia sp
oporus gymnopharyngeus
Diopistnoporus longitubus
Childia submaculatum
Convolutriloha macropyga

Armorloricus_ejegana Austrognathia_sp

Strongyloides ratti Meloidogyne incognita Ascaris suum Loa loa Brugia malayi

Microstomum lineare
Prostheceraeus vittatus
Stylochus ellipticus
Geocentrophora applanata
Xenoprorhynchus spl
Prorhynchus alpinus
Prorhynchus spl
Gnosonesimida splv
Monocelis fusca
Rhynchomesostoma rostratum
Bothrioplana semperi
Fascioloides magna
Schmidtea mediterranea
Kronborgia cf amphipodicola
Protomonotresidae sp
Adineta ricciae
Adineta vaga

Euplectella sp Rosella fibulata Sympagella nux Ircinia fasciciulata

Chondrilla_nucula Petrosia_ficiformis