

Table S1: List of species and accession number used for phylogenetic analysis [15,19,22,24,37,41,42,57-86]. The sequence highlighted in bold was obtained for the present study. Specimens are reported in alphabetical order.

NCBI Accession	Species	Host(s)	Reference
GQ366703	<i>Bonamia exitiosa</i>	<i>Ostrea chilensis</i>	[57]
AF262995	<i>Bonamia ostreae</i>	<i>Ostrea edulis</i>	[58]
DQ356000	<i>Bonamia perspora</i>	<i>Ostrea equestris</i>	[19]
JF831803	<i>Bonamia</i> sp. ex <i>Dendostrea sandvicensis</i>	<i>Dendostrea sandvichensis</i>	[41]
AY449711	<i>Minchinia chitonis</i>	<i>Lepidochitona cinerea</i>	[59]
FJ518816	<i>Minchinia mercenariae</i>	<i>Mercenaria mercenaria</i>	[60]
MK070858	<i>Minchinia mytili</i>	<i>Mytilus edulis</i>	[15]
EF165631	<i>Minchinia occulta</i>	<i>Saccostrea cucullata</i>	[61]
KY522823	<i>Minchinia</i> sp. ex <i>Cerastoderma edule</i>	<i>Cerastoderma edule</i>	[22]
AY449712	<i>Minchinia</i> sp. ex <i>Cyrenoida floridana</i>	<i>Cyrenoida floridana</i>	[62]
AY449710	<i>Minchinia tapetis</i>	<i>Ruditapes decussatus</i>	[63]
U20319	<i>Minchinia teredinis</i>	<i>Teredo</i> spp.	[64]
AY435093	Haplosporida sp. ex <i>Ruditapes decussatus</i>	<i>Ruditapes decussatus</i>	[65]
DQ653412	Haplosporidia sp. ex <i>Penaeus vannamei</i>	<i>Penaeus vannamei</i>	[66]
HQ285783	Haplosporidia sp. ex <i>Penaeus vannemei</i>	<i>Penaeus vannemei</i>	[67]
AF492442	Haplosporidian ex <i>Haliotis iris</i>	<i>Haliotis iris</i>	[68]
AY449716	Haplosporidian ex <i>Pandalus platyceros</i>	<i>Pandalus platyceros</i>	[69]
DQ444238	Haplosporidian ex <i>Syllis nipponica</i>	<i>Megasyllis nipponica</i>	[70]
MT311215	<i>Haplosporidium carcini</i>	<i>Carcinus maenas</i>	[42]
U20858			
AF387122	<i>Haplosporidium costale</i>	<i>Crassostrea virginica</i>	[71]
KC578010			
MZ666335			
MT311214	<i>Haplosporidium cranc</i>	<i>Carcinus maenas</i>	[42]
KF378734	<i>Haplosporidium diporeiae</i>	<i>Diporeia</i> spp.	[72]
MK913659	<i>Haplosporidium echinogammari</i>	<i>Marinogammarus marinus</i> , <i>Pontogammarus robustoides</i>	[73]
DQ458793	<i>Haplosporidium edule</i>	<i>Cerastoderma edule</i>	[37]
OL404924		<i>Cerastoderma glaucum</i>	
KJ150289	<i>Haplosporidium littoralis</i>	<i>Carcinus maenas</i>	[74]
JX185413			
U47851	<i>Haplosporidium louisiana</i>	<i>Panopeus herbstii</i>	[75]
AY449713	<i>Haplosporidium lusitanicum</i>	<i>Patella pellucida</i>	[76]
DQ219484	<i>Haplosporidium montforti</i>	<i>Haliotis tuberculata</i>	[77]

X74131			
AB080597	<i>Haplosporidium nelsoni</i>	<i>Crassostrea virginica</i> , <i>C. gigas</i>	[24]
U19538			
KJ534587	<i>Haplosporidium patagon</i>	<i>Siphonaria lessonii</i>	[78]
AY452724	<i>Haplosporidium pickfordi</i>	<i>Physella gyrina</i> , <i>Lymnaea stagnalis</i> , <i>Planorbella campanulata</i>	[79]
MN104247			
LC338065	<i>Haplosporidium pinnae</i>	<i>Pinna nobilis</i>	[80]
HQ176468			
HQ176469	<i>Haplosporidium raabei</i>	<i>Dreissena polymorpha</i>	[81]
MK070859	<i>Haplosporidium</i> sp. ex <i>Mytilus edulis</i>	<i>Mytilus edulis</i>	[15]
AY781176	<i>Haplosporidium</i> sp. ex <i>Mytilus edulis</i>	<i>Mytilus edulis</i>	[82]
JX977120	<i>Haplosporidium</i> sp. ex <i>Saccostrea glomerata</i>	<i>Saccostrea glomerata</i>	[83]
JN368430	<i>Haplosporidium tuxtlensis</i>	<i>Siphonaria pectinata</i>	[84]
U47852	<i>Urosporidium crescens</i>	<i>Microphallus nicolli</i> parasite of <i>Callinectes sapidus</i>	[85]
AY449714	<i>Urosporidium</i> sp. ex <i>Stictodora lari</i>	<i>Stictodora lari</i> parasite of <i>Batillaria</i> <i>australis</i>	[62]
MN211513	<i>Urosporidium tapetis</i>	<i>Parvatrema duboisi</i> parasite of <i>Ruditapes philippinarum</i>	[86]
