**Supplementary Table 2.** GenBank numbers of mtCOI sequences of species of Miraciidae used in the phylogenetic analyses, and two species from Thalestridae and Pseudotachidiidae used as external groups. According to our phylogenetic analyses, a question mark (**?**) was added when the sequence did not match the placement in the expected genus.

|  |  |  |
| --- | --- | --- |
| Species | Authority | NCBI reference |
| **Family Miraciidae Dana, 1846** | | |
| **Subfamily Diosaccinae Sars G.O., 1906** | | |
| *Amonardia coreana* | Song, Rho & Kim W., 2007 | KT030279.1 |
| *Amonardia perturbata* | Lang, 1965 | MH242653.1 |
| *Amphiascoides atopus* | Lotufo & Fleeger, 1995 | KF667526.1 |
| *Amphiascoides* sp. |  | MH242654.1 |
| *Amphiascopsis* sp. |  | MH242657.1 |
| *Amphiascopsis cinctus* | (Claus, 1866) | MH670487.1 **?**  MH670486.1 **?**  MH670485.1 **?**  MH670484.1 **?**  MH670483.1 **?**  MH670482.1 **?**  MH242656.1 **?**  MH242655.1 |
| *Amphiascus* sp. |  | KX714910.1  KX714909.1 |
| *Bulbamphiascus imus* | (Brady, 1872) | MH670542.1  MH670541.1  MH670540.1  MH670539.1 |
| *Diosaccus ezoensis* | Itô T., 1974 | KR049013.1 |
| *Diosaccus koreanus* | Lim, Bang, Moon & Back, 2020 | MN996281.1  MN996280.1  MN996279.1  MN996278.1  MN996277.1  MN973820.1 |
| *Diosaccus spinatus* | Campbell, 1929 | HQ966504.1  MH242731.1  MH242730.1 |
| *Eoschizopera* sp. |  | MH976580.1 |
| *Haloschizopera pygmaea* | Dana, 1846 | MH976614.1  MH976612.1  MH976610.1  MH976609.1  MH976608.1 |
| *Haloschizopera* sp. |  | MH976605.1  MH976603.1  MH976599.1 |
| *Paramphiascella aestuarii* **n. sp.** | This study | PQ499583 |
| *Protopsammotopa norvegica* | Geddes, 1968 | MK037095.1  MK037054.1  MK036995.1 |
| *Psammotopa* sp. |  | MK037062.1  MK037035.1  MK037031.1  MK036974.1 |
| *Robertsonia normani* | Brady, 1910 | MH242652.1 |
| *Sarsamphiascus kawamurai* | (Ueda & Nagai, 2005) | MN542380.1 |
| *Sarsamphiascus undosus* | (Lang, 1965) | MH242965.1 |
| *Schizopera abei* | Karanovic, Kim & Grygier, 2015 | KP867872.1  KP867871.1  KP867870.1 |
| *Schizopera akation* | Karanovic & Cooper, 2012 | JQ390589.1  JQ390587.1  JQ390585.1  JQ390583.1  JQ390560.1 |
| *Schizopera akolos* | Karanovic & Cooper, 2012 | JQ390584.1 |
| *Schizopera analspinulosa* | Karanovic & Cooper, 2012 | JQ390588.1  JQ390586.1  JQ390563.1 |
| *Schizopera leptafurca* | Karanovic & McRae, 2013 | JQ390590.1  JQ390582.1  JQ390578.1  JQ390575.1  JQ390570.1 |
| *Schizopera kronosi* | Karanovic & Cooper, 2012 | JQ390576.1  JQ390567.1  JQ390559.1 |
| *Schizopera uranusi* | Karanovic & Cooper, 2012 | JQ390581.1  JQ390579.1  JQ390577.1  JQ390562.1  JQ390561.1 |
| **Subfamily Miraciinae Dana, 1846** | | |
| *Macrosetella gracilis* | (Dana, 1848) | MG742365.1  DQ989177.1  DQ989171.1  DQ989168.1  DQ989166.1  DQ989157.1  DQ989156.1  DQ989142.1 |
| *Miracia efferata* | Dana, 1849-1852 | DQ986700.1  GU171350.1 |
| **Subfamily Stenheliinae Brady, 1880** | | |
| *Beatricella aemula* | (Scott T., 1893) | MH670538.1  MH670537.1  MH670536.1  MH670535.1  MH670534.1  MH670533.1  MH670532.1 |
| *Delavalia palustris* | Brady, 1869 | MH976546.1  MH976543.1  MH976542.1  MH976540.1  MH976539.1 |
| *Delavalia reflexa* | Brady & Robertson, 1876 | MH976545.1  MH976538.1 |
| *Itostenhelia golikovi* | (Chislenko, 1978) | KF524867.1  KF524866.1  KF524865.1  KF524864.1  KF524863.1 |
| *Itostenhelia polyhymnia* | Karanovic & Kim, 2014 | KF524883.1  KF524869.1  KF524868.1 |
| *Stenhelia pubescens* | Chislenko, 1978 | KF524871.1  KF524870.1 |
| *Stenhelia taiae* | Mu & Huys, 2002 | KF524885.1  KF524884.1 |
| *Wellstenhelia calliope* | Karanovic & Kim, 2014 | KF524872.1 |
| *Wellstenhelia clio* | Karanovic & Kim, 2014 | KF524873.1 |
| *Wellstenhelia qingdaoensis* | (Ma & Li, 2011) | KF524874.1 |
| *Willenstenhelia thalia* | Karanovic & Kim, 2014 | KF524882.1  KF524880.1  KF524879.1  KF524878.1  KF524876.1 |
| **Family Pseudotachidiidae Lang, 1936** | | |
| **Subfamily Pseudotachidiidae Lang, 1936** | | |
| *Pseudotachidius bipartitus* | Montagna, 1980 | MF077873.1 |
| **Family Thalestridae Sars G.O., 1905** | | |
| **Subfamily Thalestrinae Lang, 1936** | | |
| *Parathalestris verrucosa* | Itô T., 1970 | MN996285.1 |