Table S2 The representatives species of [Ascaridomorpha](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Undef&id=6249&lvl=3&lin=f&keep=1&srchmode=1&unlock" \o "infraorder) included in the present phylogeny study

|  |  |  |  |
| --- | --- | --- | --- |
| Subfamily | Family | Species | Accession no. |
|  |  | Outgroup |  |
|  |  | *Caenorhabditis elegans* | NC\_001328 |
|  |  | Ingroup |  |
| [Ascaridoidea](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Tree&id=33256&lvl=3&lin=f&keep=1&srchmode=1&unlock" \o "superfamily) |  |  |  |
|  | Anisakidae |  |  |
|  |  | *Anisakis berlandi* | NC\_026023 |
|  |  | *Anisakis pegreffii* | NC\_034329 |
|  |  | *Anisakis simplex* | NC\_007934 |
|  |  | *Contracaecum ogmorhini* | NC\_031647 |
|  |  | *Contracaecum osculatum* | NC\_024037 |
|  |  | *Contracaecum rudolphii* | NC\_014870 |
|  |  | *Pseudoterranova azarasi* | NC\_027163 |
|  |  | *Pseudoterranova bulbosa* | NC\_031643 |
|  |  | *Pseudoterranova cattani* | NC\_031644 |
|  |  | *Pseudoterranova decipiens* | NC\_031645 |
|  |  | *Pseudoterranova krabbei* | NC\_031646 |
|  | Ascarididae |  |  |
|  |  | *Ascaris lumbricoides* | NC\_016198 |
|  |  | *Ascaris ovis* | MT993838 |
|  |  | *Ascaris suum* | NC\_001327 |
|  |  | *Baylisascaris ailuri* | HQ671080 |
|  |  | *Baylisascaris procyonis* | NC\_016200 |
|  |  | *Baylisascaris schroederi* | NC\_015927 |
|  |  | *Baylisascaris transfuga* | NC\_015924 |
|  |  | *Parascaris equorum* | NC\_036427 |
|  |  | *Parascaris univalens* | NC\_024884 |
|  |  | *Toxascaris leonina* | NC\_023504 |
|  |  | *Ophidascaris baylisi* | MW880927 |
|  |  | *Ophidascaris sp.* | MK106624 |
|  | Heterocheilidae |  |  |
|  |  | *Ortleppascaris sinensis* | KU950438 |
|  | Toxocaridae |  |  |
|  |  | *Toxocara canis* | NC\_010690 |
|  |  | *Toxocara cati* | NC\_010773 |
|  |  | *Toxocara malaysiensis* | NC\_010527 |
|  |  | *Toxocara vitulorum* | NC\_070176 |
|  |  | *Toxocara apodemi* | OR241493 |
|  |  | *Porrocaecum\_sp* | CNA0050678 |
|  |  | *Porrocaecum reticulatum* | OQ863050 |
| [Heterakoidea](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Tree&id=46682&lvl=3&lin=f&keep=1&srchmode=1&unlock" \o "superfamily) |  |  |  |
|  | [Ascaridiidae](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Undef&id=46683&lvl=3&keep=1&srchmode=1&unlock" \o "family) |  |  |
|  |  | *Ascaridia galli* | NC\_021642 |
|  |  | *Ascaridia columbae* | NC\_021643 |
|  | [Heterakidae](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Undef&id=65463&lvl=3&keep=1&srchmode=1&unlock" \o "family) | *Heterakis beramporia* | NC\_029838 |
|  |  | *Heterakis gallinarum* | NC\_029839 |
| [Seuratoidea](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Tree&id=435718&lvl=3&lin=f&keep=1&srchmode=1&unlock" \o "superfamily) |  |  |  |
|  | [Cucullanidae](https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Undef&id=435719&lvl=3&keep=1&srchmode=1&unlock" \o "family) |  |  |
|  |  | *Cucullanus robustus* | NC\_016128 |