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 |