Supplementary file 1. Family Asteronychidae, pairwise distance values based on 443 bp mitochondrial 16S sequences, calculated using the Kimura 2-parameter method with 1,000 bootstrap replicates (Values in blue represent Standard Error).

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Species** | **GenBank Accession No.** | **P-distance (%)** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **1** | *Asteronyx luzonicus* (South China Sea) | MZ203265 |  | 0.63% | 0.64% | 0.92% | 0.99% | 0.99% | 0.99% | 1.44% | 2.18% | 2.12% |
| **2** | *Asteronyx reticulata* (East China Sea) | MZ203266 | 1.87% |  | 0.00% | 0.94% | 1.03% | 1.03% | 1.03% | 1.48% | 2.10% | 2.09% |
| **3** | *Asteronyx reticulata* (Japan) | LC276351 | 1.88% | 0.00% |  | 0.94% | 1.03% | 1.03% | 1.03% | 1.49% | 2.08% | 2.09% |
| **4** | *Asteronyx longifissus* | KM014337 | 4.04% | 4.29% | 4.29% |  | 0.61% | 0.61% | 0.61% | 1.39% | 2.04% | 2.19% |
| **5** | *Asteronyx loveni* (Japan) | LC276347 | 4.28% | 4.78% | 4.78% | 1.64% |  | 0.00% | 0.00% | 1.50% | 2.04% | 2.18% |
| **6** | *Asteronyx loveni* (East China Sea) | MZ203263 | 4.28% | 4.78% | 4.78% | 1.64% | 0.00% |  | 0.00% | 1.50% | 2.04% | 2.18% |
| **7** | *Asteronyx loveni* (South China Sea) | MZ203264 | 4.28% | 4.78% | 4.78% | 1.64% | 0.00% | 0.00% |  | 1.50% | 2.04% | 2.18% |
| **8** | *Astrodia tenuispina* | AB605077 | 8.32% | 8.83% | 8.90% | 8.62% | 9.42% | 9.42% | 9.42% |  | 2.08% | 2.10% |
| **9** | *Asteroschema intectum* | AB758484 | 17.19% | 16.84% | 16.39% | 15.81% | 16.09% | 16.09% | 16.09% | 15.78% |  | 1.55% |
| **10** | *Asteroschema horridum* | AB758487 | 16.92% | 17.17% | 16.92% | 17.84% | 18.13% | 18.13% | 18.13% | 16.38% | 9.42% |  |