**Table S1.** Pairwise average divergences (%) for COI (637bp), 16S rRNA (451bp), 28S rRNA (958bp) and their combined (2046bp) sequences. Maximal and minimal values of average divergences between different *Chloeia* species are marked in bold and underlined, respectively

*COI*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species, Location | N | Species | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. *Chloeia bipuncta* n. sp., Hong Kong, China | 2 | 0.90 |  |  |  |  |  |  |  |
| 2. *Chloeia parva*, Hong Kong, China | 2 | 16.83 | 2.60 |  |  |  |  |  |  |
| 3*. Chloeia flava*, Tanabe Bay, Japan | 1 | 23.30 | 20.75 | 0.00 |  |  |  |  |  |
| 4. *Chloeia viridis*, Florida Straights, USA | 1 | 21.15 | 21.85 | **23.60** | 0.00 |  |  |  |  |
| 5. *Notopygos ornata*, Eastern Pacific Ocean (Mexican coast) | 8 | 25.04 | 24.20 | 28.41 | 25.83 | 1.14 |  |  |  |
| 6. *Notopygos caribea*, Belize and Panama | 3 | 23.40 | 22.63 | 27.13 | 24.27 | 23.09 | 0.73 |  |  |
| 7. *Eurythoe complanata*, Bocas del Toro, Panama | 3 | 28.38 | 26.83 | 29.17 | 29.17 | 30.19 | 29.42 | 0.33 |  |
| 8. *Amphinome rostrata*, Uracas Island, Northern Mariana Islands | 1 | 30.30 | 27.15 | 28.80 | 29.60 | 28.33 | 28.20 | 21.47 | 0.00 |

16S

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species, Location | N | Species | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. *Chloeia bipuncta* n. sp., Hong Kong, China | 2 | 0.70 |  |  |  |  |  |  |  |
| 2. *Chloeia parva*, Hong Kong, China | 2 | 4.60 | 0.40 |  |  |  |  |  |  |
| 3*. Chloeia flava*, Tanabe Bay, Japan | 1 | 7.50 | 5.40 | 0.00 |  |  |  |  |  |
| 4. *Chloeia viridis*, Florida Straights, USA | 1 | 8.40 | **10.00** | 9.10 | 0.00 |  |  |  |  |
| 5. *Notopygos ornata*, Eastern Pacific Ocean (Mexican coast) | 8 | 19.89 | 18.90 | 17.05 | 23.16 | 0.00 |  |  |  |
| 6. *Notopygos caribea*, Belize and Panama | 2 | 19.05 | 18.75 | 17.80 | 25.00 | 9.46 | 0.20 |  |  |
| 7. *Eurythoe complanata*, Bocas del Toro, Panama | 2 | 25.15 | 23.58 | 24.70 | 26.70 | 27.45 | 28.45 | 0.70 |  |
| 8. *Amphinome rostrata*, Uracas Island, Northern Mariana Islands | 1 | 26.90 | 26.65 | 28.90 | 26.30 | 29.25 | 29.30 | 18.80 | 0.00 |

28S

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species, Location | N | Species | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. *Chloeia bipuncta* n. sp., Hong Kong, China | 2 | 0.00 |  |  |  |  |  |  |  |
| 2. *Chloeia parva*, Hong Kong, China | 2 | 0.60 | 0.00 |  |  |  |  |  |  |
| 3*. Chloeia flava*, Tanabe Bay, Japan | 2 | 1.10 | 1.30 | 0.00 |  |  |  |  |  |
| 4. *Chloeia viridis*, Florida Straights, USA | 1 | 2.10 | 2.10 | **2.40** | 0.00 |  |  |  |  |
| 5. *Notopygos ornata*, Eastern Pacific Ocean (Mexican coast) | 8 | 2.85 | 3.26 | 3.99 | 3.49 | 0.04 |  |  |  |
| 6. *Notopygos caribea*, Belize and Panama | 3 | 3.03 | 3.43 | 4.22 | 3.47 | 0.80 | 0.07 |  |  |
| 7. *Eurythoe complanata*, Bocas del Toro, Panama | 2 | 9.00 | 9.00 | 9.43 | 8.50 | 8.34 | 7.90 | 0.70 |  |
| 8. *Amphinome rostrata*, Uracas Island, Northern Mariana Islands | 1 | 10.10 | 10.10 | 10.15 | 9.90 | 9.56 | 9.07 | 4.90 | 0.00 |

Concatenated sequences

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species, Location | N | Species | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. *Chloeia bipuncta* n. sp., Hong Kong, China | 2 | 0.40 |  |  |  |  |  |  |  |
| 2. *Chloeia parva*, Hong Kong, China | 2 | 6.15 | 0.90 |  |  |  |  |  |  |
| 3*. Chloeia flava*, Tanabe Bay, Japan | 1 | 9.35 | 8.30 | 0.00 |  |  |  |  |  |
| 4. *Chloeia viridis*, Florida Straights, USA | 1 | 9.00 | 9.45 | **10.70** | 0.00 |  |  |  |  |
| 5. *Notopygos ornata*, Eastern Pacific Ocean (Mexican coast) | 1 | 12.90 | 12.65 | 14.80 | 13.40 | 0.00 |  |  |  |
| 6. *Notopygos caribea*, Belize and Panama | 1 | 12.35 | 12.30 | 14.90 | 13.30 | 9.00 | 0.00 |  |  |
| 7. *Eurythoe complanata*, Bocas del Toro, Panama | 1 | 17.45 | 16.75 | 18.90 | 17.80 | 17.60 | 17.40 | 0.00 |  |
| 8. *Amphinome rostrata*, Uracas Island, Northern Mariana Islands | 1 | 18.80 | 17.85 | 19.60 | 18.30 | 18.00 | 17.80 | 12.00 | 0.00 |