

## Supplementary Material to “Expanding the mitochondrial genomic toolkit for Polyneoptera: New mitogenomes and evaluation of reduced marker sets for phylogeny and DNA barcoding”

**Table S4** - Nucleotide composition of mitochondrial genomes from Polyneoptera species, including AT content, GC-skew, and AT-skew calculated for the complete genome and for different genomic partitions (protein-coding genes, rRNAs, and tRNAs).

| Order     | Species                             | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-----------|-------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|           |                                     |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|           | <i>Acholotermes chirotus</i>        | NC_034135.1       | 65.89  | -0.28       | 0.29        | 64.86 | -0.06       | -0.09       | 69.58 | 0.37        | -0.33       | 68.10 | 0.14        | 0.02        |
|           | <i>Aciculitermes aciculatus</i>     | NC_034089.1       | 68.49  | -0.26       | 0.26        | 68.07 | -0.02       | -0.11       | 70.41 | 0.38        | -0.32       | 68.76 | 0.13        | 0.03        |
|           | <i>Aciculitermes maymyoensis</i>    | NC_034107.1       | 66.78  | -0.26       | 0.26        | 65.86 | -0.04       | -0.11       | 70.66 | 0.35        | -0.30       | 67.89 | 0.13        | 0.01        |
|           | <i>Acidnotermes praus</i>           | NC_034122.1       | 65.79  | -0.23       | 0.27        | 64.81 | -0.03       | -0.11       | 69.53 | 0.34        | -0.33       | 67.54 | 0.15        | 0.03        |
|           | <i>Agnathotermes crassinasus</i>    | NC_034025.1       | 66.37  | -0.28       | 0.29        | 65.58 | -0.04       | -0.11       | 68.97 | 0.37        | -0.33       | 68.38 | 0.13        | 0.03        |
|           | <i>Allodotermes schultzei</i>       | NC_034079.1       | 63.35  | -0.32       | 0.36        | 62.08 | -0.07       | -0.09       | 67.79 | 0.39        | -0.38       | 66.28 | 0.13        | 0.03        |
|           | <i>Alyscotermes kilimandjaricus</i> | NC_034022.1       | 67.51  | -0.25       | 0.26        | 66.75 | -0.03       | -0.10       | 70.97 | 0.35        | -0.33       | 68.11 | 0.13        | 0.02        |
|           | <i>Amalotermes phaeocephalus</i>    | NC_034099.1       | 66.74  | -0.27       | 0.28        | 65.97 | -0.04       | -0.10       | 69.87 | 0.34        | -0.34       | 67.86 | 0.15        | 0.02        |
|           | <i>Amitermes capito</i>             | NC_034038.1       | 67.70  | -0.26       | 0.27        | 67.16 | -0.04       | -0.10       | 69.54 | 0.34        | -0.33       | 68.98 | 0.14        | 0.03        |
|           | <i>Amitermes dentatus</i>           | NC_034075.1       | 67.00  | -0.28       | 0.29        | 66.36 | -0.04       | -0.10       | 69.42 | 0.36        | -0.35       | 68.18 | 0.13        | 0.04        |
|           | <i>Amitermes meridionalis</i>       | NC_034062.1       | 67.12  | -0.27       | 0.28        | 66.49 | -0.05       | -0.10       | 69.24 | 0.34        | -0.33       | 68.60 | 0.14        | 0.03        |
|           | <i>Amitermes obeuntis</i>           | NC_034124.1       | 67.86  | -0.27       | 0.27        | 67.15 | -0.04       | -0.10       | 71.06 | 0.37        | -0.34       | 68.78 | 0.14        | 0.03        |
|           | <i>Anhangatermes macarthuri</i>     | NC_034092.1       | 67.15  | -0.26       | 0.27        | 66.37 | -0.03       | -0.10       | 70.22 | 0.35        | -0.31       | 68.36 | 0.13        | 0.02        |
|           | <i>Anoplotermes janus</i>           | NC_034120.1       | 65.55  | -0.25       | 0.29        | 64.20 | -0.04       | -0.10       | 71.54 | 0.34        | -0.37       | 67.68 | 0.15        | 0.04        |
|           | <i>Anoplotermes parvus</i>          | NC_034123.1       | 64.96  | -0.22       | 0.28        | 63.74 | -0.04       | -0.10       | 69.33 | 0.32        | -0.35       | 67.59 | 0.12        | 0.04        |
| Blattodea | <i>Apilitermes longiceps</i>        | NC_034031.1       | 68.16  | -0.28       | 0.29        | 67.42 | -0.04       | -0.10       | 70.56 | 0.36        | -0.33       | 70.11 | 0.15        | 0.03        |

| Order | Species                              | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|--------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                      |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Araujotermes parvellus</i>        | NC_034057.1       | 67.54  | -0.26       | 0.27        | 66.80 | -0.03       | -0.10       | 70.36 | 0.35        | -0.32       | 68.85 | 0.12        | 0.03        |
|       | <i>Asalotermes murcus</i>            | NC_034132.1       | 67.56  | -0.28       | 0.28        | 66.99 | -0.04       | -0.10       | 70.14 | 0.37        | -0.35       | 68.01 | 0.13        | 0.02        |
|       | <i>Ateuchotermes retifaciens</i>     | NC_034069.1       | 66.73  | -0.31       | 0.31        | 66.00 | -0.05       | -0.09       | 69.20 | 0.41        | -0.37       | 68.71 | 0.13        | 0.03        |
|       | <i>Atlantitermes oculatissimus</i>   | NC_034148.1       | 67.56  | -0.26       | 0.27        | 66.95 | -0.02       | -0.11       | 69.95 | 0.38        | -0.33       | 68.57 | 0.14        | 0.01        |
|       | <i>Atlantitermes snyderi</i>         | NC_034102.1       | 67.10  | -0.26       | 0.27        | 66.41 | -0.03       | -0.10       | 69.54 | 0.37        | -0.33       | 68.63 | 0.15        | 0.02        |
|       | <i>Blaptica dubia</i>                | KT893459.1        | 70.83  | -0.28       | 0.07        | 70.83 | -0.03       | -0.12       | 74.81 | 0.36        | -0.08       | 73.69 | 0.19        | 0.01        |
|       | <i>Blattella bisignata</i>           | NC_018549.1       | 74.03  | -0.20       | 0.05        | 73.74 | 0.02        | -0.15       | 76.05 | 0.34        | -0.11       | 73.39 | 0.18        | 0.02        |
|       | <i>Blattella germanica</i>           | NC_012901.1       | 74.22  | -0.18       | 0.05        | 74.22 | 0.02        | -0.15       | 76.40 | 0.33        | -0.10       | 73.65 | 0.19        | 0.01        |
|       | <i>Bulbitermes laticephalus</i>      | NC_034059.1       | 68.33  | -0.28       | 0.27        | 67.84 | -0.03       | -0.10       | 70.67 | 0.38        | -0.31       | 68.57 | 0.13        | 0.03        |
|       | <i>Bulbitermes makhamensis</i>       | NC_034029.1       | 66.86  | -0.28       | 0.28        | 65.90 | -0.04       | -0.10       | 70.65 | 0.37        | -0.30       | 68.41 | 0.13        | 0.02        |
|       | <i>Bulbitermes singaporiensis</i>    | NC_034147.1       | 65.57  | -0.28       | 0.28        | 64.47 | -0.04       | -0.10       | 69.83 | 0.38        | -0.32       | 67.49 | 0.14        | 0.03        |
|       | <i>Cavitermes tuberosus</i>          | NC_034097.1       | 65.58  | -0.26       | 0.28        | 64.67 | -0.05       | -0.10       | 69.01 | 0.35        | -0.32       | 67.25 | 0.15        | 0.02        |
|       | <i>Cephalotermes rectangularis</i>   | NC_034136.1       | 66.24  | -0.28       | 0.29        | 65.27 | -0.05       | -0.10       | 69.68 | 0.35        | -0.33       | 68.44 | 0.15        | 0.02        |
|       | <i>Coatitermes kartaboensis</i>      | NC_034141.1       | 67.72  | -0.26       | 0.26        | 67.15 | -0.03       | -0.10       | 70.09 | 0.36        | -0.33       | 68.54 | 0.13        | 0.04        |
|       | <i>Compositermes vindai</i>          | NC_034144.1       | 68.03  | -0.25       | 0.28        | 67.46 | -0.03       | -0.10       | 70.42 | 0.36        | -0.35       | 68.78 | 0.16        | 0.03        |
|       | <i>Constrictotermes cyphergaster</i> | NC_034044.1       | 66.04  | -0.27       | 0.28        | 65.07 | -0.05       | -0.09       | 69.11 | 0.40        | -0.32       | 68.72 | 0.15        | 0.03        |
|       | <i>Coptotermes amanii</i>            | KU925200.1        | 62.95  | -0.34       | 0.36        | 62.60 | -0.07       | -0.08       | 66.65 | 0.41        | -0.38       | 65.55 | 0.11        | 0.03        |
|       | <i>Coptotermes elisae</i>            | KU925201.1        | 63.51  | -0.34       | 0.35        | 63.26 | -0.06       | -0.09       | 66.82 | 0.41        | -0.38       | 65.36 | 0.11        | 0.03        |
|       | <i>Coptotermes formosanus</i>        | NC_015800.1       | 64.57  | -0.31       | 0.32        | 64.57 | -0.05       | -0.09       | 68.98 | 0.40        | -0.37       | 65.89 | 0.12        | 0.04        |
|       | <i>Coptotermes frenchi</i>           | KU925204.1        | 63.27  | -0.33       | 0.35        | 62.92 | -0.07       | -0.08       | 66.82 | 0.39        | -0.36       | 65.89 | 0.12        | 0.03        |
|       | <i>Coptotermes gestroi</i>           | KU925205.1        | 63.36  | -0.32       | 0.35        | 63.10 | -0.05       | -0.09       | 67.22 | 0.40        | -0.37       | 65.33 | 0.13        | 0.03        |
|       | <i>Coptotermes heimi</i>             | KU925206.1        | 63.01  | -0.32       | 0.35        | 62.67 | -0.06       | -0.08       | 66.76 | 0.40        | -0.37       | 65.60 | 0.13        | 0.03        |
|       | <i>Coptotermes kalshoveni</i>        | KU925209.1        | 64.22  | -0.35       | 0.35        | 64.06 | -0.06       | -0.09       | 67.03 | 0.41        | -0.37       | 65.41 | 0.13        | 0.03        |
|       | <i>Coptotermes lacteus</i>           | NC_018125.1       | 63.93  | -0.32       | 0.33        | 63.18 | -0.08       | -0.08       | 66.85 | 0.40        | -0.37       | 65.35 | 0.12        | 0.03        |

| Order | Species                           | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|-----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                   |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Coptotermes michaelsoni</i>    | KU925212.1        | 63.61  | -0.32       | 0.34        | 63.32 | -0.06       | -0.08       | 67.23 | 0.39        | -0.35       | 65.80 | 0.12        | 0.02        |
|       | <i>Coptotermes remotus</i>        | KU925213.1        | 63.87  | -0.32       | 0.34        | 63.63 | -0.06       | -0.09       | 64.47 | 0.38        | -0.36       | 65.68 | 0.14        | 0.02        |
|       | <i>Coptotermes sepangensis</i>    | NC_030019.1       | 64.18  | -0.32       | 0.34        | 63.90 | -0.06       | -0.09       | 64.49 | 0.37        | -0.35       | 65.95 | 0.14        | 0.03        |
|       | <i>Coptotermes sjoestedti</i>     | NC_030020.1       | 62.97  | -0.30       | 0.35        | 61.94 | -0.06       | -0.09       | 66.22 | 0.39        | -0.37       | 65.95 | 0.13        | 0.03        |
|       | <i>Coptotermes suzhouensis</i>    | NC_037018.1       | 65.32  | -0.32       | 0.33        | 64.58 | -0.05       | -0.09       | 68.93 | 0.41        | -0.37       | 65.89 | 0.12        | 0.04        |
|       | <i>Coptotermes testaceus</i>      | NC_028722.1       | 63.09  | -0.32       | 0.35        | 62.01 | -0.05       | -0.09       | 66.34 | 0.39        | -0.36       | 66.51 | 0.14        | 0.03        |
|       | <i>Coptotermes travians</i>       | NC_030021.1       | 63.42  | -0.32       | 0.35        | 62.45 | -0.05       | -0.09       | 66.83 | 0.40        | -0.38       | 65.68 | 0.12        | 0.02        |
|       | <i>Cornitermes cumulans</i>       | NC_034086.1       | 67.94  | -0.26       | 0.26        | 67.13 | -0.04       | -0.10       | 71.42 | 0.35        | -0.30       | 68.79 | 0.12        | 0.03        |
|       | <i>Cornitermes pugnax</i>         | NC_034055.1       | 67.64  | -0.25       | 0.26        | 66.72 | -0.03       | -0.11       | 71.57 | 0.36        | -0.30       | 68.61 | 0.13        | 0.03        |
|       | <i>Crenetermes albotarsalis</i>   | NC_034113.1       | 67.78  | -0.27       | 0.27        | 67.10 | -0.04       | -0.10       | 70.35 | 0.34        | -0.31       | 69.09 | 0.12        | 0.01        |
|       | <i>Crepititermes verruculosus</i> | NC_034041.1       | 66.75  | -0.26       | 0.27        | 65.75 | -0.04       | -0.10       | 70.45 | 0.34        | -0.32       | 68.68 | 0.12        | 0.02        |
|       | <i>Cryptocercus changbaiensis</i> | NC_059066.1       | 73.04  | -0.25       | 0.24        | 72.38 | -0.01       | -0.08       | 75.73 | 0.35        | -0.30       | 74.26 | 0.17        | 0.00        |
|       | <i>Cryptocercus kyebangensis</i>  | NC_030191.1       | 73.96  | -0.24       | 0.24        | 73.42 | 0.00        | -0.09       | 76.49 | 0.34        | -0.31       | 74.52 | 0.16        | 0.00        |
|       | <i>Cryptocercus laojunensis</i>   | NC_059069.1       | 74.49  | -0.25       | 0.23        | 74.11 | -0.01       | -0.08       | 76.84 | 0.33        | -0.30       | 74.08 | 0.16        | -0.01       |
|       | <i>Cryptocercus meridianus</i>    | NC_037496.1       | 73.84  | -0.25       | 0.22        | 73.28 | -0.02       | -0.09       | 76.17 | 0.36        | -0.29       | 74.90 | 0.13        | 0.00        |
|       | <i>Cryptocercus pudacuoensis</i>  | NC_059068.1       | 75.06  | -0.21       | 0.21        | 74.80 | -0.01       | -0.09       | 77.09 | 0.32        | -0.29       | 74.19 | 0.15        | 0.01        |
|       | <i>Cryptocercus relictus</i>      | NC_018132.1       | 73.20  | -0.23       | 0.23        | 72.55 | -0.01       | -0.08       | 75.71 | 0.34        | -0.30       | 74.69 | 0.15        | 0.01        |
|       | <i>Cryptocercus sanchaensis</i>   | NC_059064.1       | 73.95  | -0.24       | 0.21        | 73.60 | -0.02       | -0.09       | 76.34 | 0.35        | -0.28       | 73.22 | 0.14        | 0.00        |
|       | <i>Cryptocercus tianbaensis</i>   | NC_059065.1       | 73.91  | -0.22       | 0.21        | 73.47 | -0.01       | -0.09       | 76.47 | 0.34        | -0.28       | 73.67 | 0.12        | 0.00        |
|       | <i>Cryptocercus weixiensis</i>    | NC_059067.1       | 74.87  | -0.23       | 0.22        | 74.67 | -0.01       | -0.09       | 76.34 | 0.35        | -0.30       | 74.34 | 0.13        | 0.01        |
|       | <i>Cryptotermes declivis</i>      | NC_045866.1       | 64.75  | -0.26       | 0.27        | 63.77 | -0.04       | -0.13       | 67.84 | 0.34        | -0.36       | 67.73 | 0.11        | 0.01        |
|       | <i>Cryptotermes havilandi</i>     | NC_056118.1       | 65.65  | -0.29       | 0.28        | 64.87 | -0.03       | -0.12       | 68.51 | -0.35       | 0.36        | 67.45 | 0.15        | -0.01       |
|       | <i>Nitiditermes fulvus</i>        | NC_034033.1       | 67.79  | -0.25       | 0.26        | 67.10 | -0.04       | -0.11       | 70.66 | 0.36        | -0.30       | 68.67 | 0.17        | 0.01        |
|       | <i>Cubitermes oblectatus</i>      | NC_034056.1       | 67.38  | -0.26       | 0.27        | 66.73 | -0.05       | -0.10       | 69.60 | 0.36        | -0.32       | 68.98 | 0.15        | 0.01        |

| Order | Species                                     | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|---------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                             |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Polyspathotermes sulcifrons</i>          | NC_034109.1       | 68.10  | -0.25       | 0.26        | 67.48 | -0.05       | -0.10       | 71.20 | 0.36        | -0.32       | 68.78 | 0.17        | 0.00        |
|       | <i>Isognathotermes ugandensis</i>           | NC_026113.1       | 67.06  | -0.26       | 0.25        | 66.62 | -0.04       | -0.11       | 70.71 | 0.34        | -0.31       | 70.23 | 0.12        | 0.02        |
|       | <i>Cylindrotermes parvignathus</i>          | NC_034096.1       | 66.29  | -0.30       | 0.31        | 65.32 | -0.05       | -0.09       | 69.66 | 0.38        | -0.36       | 68.48 | 0.14        | 0.03        |
|       | <i>Drepanotermes sp. SLC-2012</i>           | NC_018129.1       | 66.29  | -0.27       | 0.26        | 65.44 | -0.05       | -0.10       | 69.53 | 0.35        | -0.34       | 67.95 | 0.16        | 0.03        |
|       | <i>Embiratermes brevinasus</i>              | NC_034101.1       | 65.90  | -0.27       | 0.29        | 64.74 | -0.04       | -0.10       | 69.47 | 0.35        | -0.33       | 69.25 | 0.13        | 0.02        |
|       | <i>Embiratermes neotenicus</i>              | NC_034930.1       | 66.02  | -0.28       | 0.28        | 65.08 | -0.03       | -0.10       | 69.67 | 0.40        | -0.34       | 67.74 | 0.13        | 0.02        |
|       | <i>Ephelotermes melachoma</i>               | NC_034019.1       | 65.41  | -0.28       | 0.29        | 64.32 | -0.05       | -0.10       | 68.90 | 0.37        | -0.33       | 68.39 | 0.11        | 0.03        |
|       | <i>Ephelotermes taylori</i>                 | NC_034149.1       | 65.83  | -0.29       | 0.29        | 64.84 | -0.06       | -0.10       | 69.20 | 0.38        | -0.33       | 68.18 | 0.12        | 0.03        |
|       | <i>Euhamitermes hamatus</i>                 | NC_034064.1       | 65.23  | -0.24       | 0.30        | 64.12 | -0.04       | -0.09       | 69.22 | 0.33        | -0.35       | 67.56 | 0.16        | 0.02        |
|       | <i>Eupolyphaga sinensis</i>                 | NC_014274.1       | 70.93  | -0.25       | 0.12        | 70.93 | 0.01        | -0.13       | 73.97 | 0.41        | -0.20       | 74.35 | 0.18        | 0.03        |
|       | <i>Foraminitermes rhinoceros</i>            | NC_034116.1       | 64.33  | -0.29       | 0.33        | 63.15 | -0.05       | -0.08       | 68.42 | 0.34        | -0.34       | 67.05 | 0.14        | 0.03        |
|       | <i>Furculitermes cubitalis</i>              | NC_034131.1       | 64.65  | -0.26       | 0.27        | 63.55 | -0.04       | -0.11       | 68.09 | 0.38        | -0.32       | 67.79 | 0.13        | 0.03        |
|       | <i>Furculitermes longilabius</i>            | NC_034128.1       | 64.50  | -0.27       | 0.28        | 63.25 | -0.04       | -0.11       | 68.79 | 0.38        | -0.33       | 67.90 | 0.13        | 0.02        |
|       | <i>Furculitermes soyeri</i>                 | NC_034082.1       | 64.29  | -0.25       | 0.27        | 63.05 | -0.04       | -0.11       | 69.16 | 0.39        | -0.33       | 67.03 | 0.14        | 0.02        |
|       | <i>Furculitermes winifredae</i>             | NC_034063.1       | 64.07  | -0.25       | 0.27        | 62.95 | -0.04       | -0.11       | 67.42 | 0.37        | -0.33       | 67.41 | 0.14        | 0.02        |
|       | <i>Geoscapheus dilatatus</i>                | MW600997.1        | 74.30  | 0.20        | -0.06       | 74.20 | -0.02       | -0.14       | 77.05 | 0.36        | -0.14       | 75.09 | 0.13        | 0.01        |
|       | <i>Globitermes globosus</i>                 | NC_034095.1       | 65.60  | -0.30       | 0.30        | 64.50 | -0.06       | -0.09       | 69.21 | 0.38        | -0.33       | 68.55 | 0.15        | 0.03        |
|       | <i>Globitermes sulphureus</i>               | NC_034139.1       | 64.91  | -0.29       | 0.30        | 63.79 | -0.06       | -0.10       | 68.08 | 0.38        | -0.35       | 68.57 | 0.15        | 0.03        |
|       | <i>Gromphadorhina portentosa</i>            | NC_030001.1       | 70.11  | -0.23       | 0.03        | 69.26 | -0.04       | -0.14       | 72.64 | 0.33        | -0.07       | 73.09 | 0.13        | 0.01        |
|       | <i>Havilanditermes proatripennis</i>        | NC_034070.1       | 67.39  | -0.28       | 0.27        | 66.72 | -0.04       | -0.10       | 69.69 | 0.42        | -0.32       | 68.93 | 0.15        | 0.01        |
|       | <i>Heterotermes cf. occiduus 3.12.2.AUS</i> | NC_030028.1       | 64.70  | -0.30       | 0.33        | 63.90 | -0.05       | -0.10       | 68.08 | 0.37        | -0.37       | 65.75 | 0.11        | 0.03        |
|       | <i>Heterotermes cf. occiduus 3.15.2.AUS</i> | NC_030029.1       | 64.15  | -0.30       | 0.34        | 63.29 | -0.05       | -0.09       | 67.74 | 0.37        | -0.37       | 65.33 | 0.11        | 0.03        |
|       | <i>Heterotermes cf. paradoxus AUS103</i>    | NC_030023.1       | 65.02  | -0.30       | 0.32        | 64.28 | -0.05       | -0.09       | 68.39 | 0.37        | -0.36       | 65.60 | 0.11        | 0.03        |
|       | <i>Heterotermes cf. paradoxus AUS121</i>    | NC_030024.1       | 64.39  | -0.30       | 0.33        | 63.62 | -0.05       | -0.09       | 67.41 | 0.35        | -0.36       | 65.62 | 0.11        | 0.03        |

| Order | Species                                    | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|--------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                            |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Heterotermes cf. paradoxus AUS88</i>    | NC_030022.1       | 65.04  | -0.30       | 0.32        | 64.32 | -0.05       | -0.09       | 68.35 | 0.37        | -0.36       | 65.53 | 0.11        | 0.03        |
|       | <i>Heterotermes crinitus</i>               | KU925226.1        | 60.87  | -0.27       | 0.33        | 60.35 | -0.06       | -0.09       | 66.97 | 0.37        | -0.35       | 64.78 | 0.11        | 0.02        |
|       | <i>Heterotermes malabaricus</i>            | KU925227.1        | 62.61  | -0.30       | 0.34        | 62.23 | -0.05       | -0.09       | 66.36 | 0.38        | -0.37       | 65.51 | 0.14        | 0.02        |
|       | <i>Heterotermes nr. tenuis COL.4PUERTO</i> | NC_030027.1       | 63.09  | -0.28       | 0.33        | 61.93 | -0.05       | -0.09       | 67.09 | 0.36        | -0.36       | 65.91 | 0.10        | 0.03        |
|       | <i>Heterotermes platycephalus</i>          | NC_030030.1       | 64.51  | -0.30       | 0.33        | 63.67 | -0.04       | -0.10       | 68.12 | 0.37        | -0.36       | 65.57 | 0.12        | 0.03        |
|       | <i>Heterotermes sp. SLC-2012</i>           | NC_018127.1       | 64.33  | -0.30       | 0.32        | 63.34 | -0.05       | -0.09       | 68.21 | 0.36        | -0.37       | 66.20 | 0.11        | 0.03        |
|       | <i>Heterotermes tenuior</i>                | NC_030031.1       | 64.42  | -0.28       | 0.32        | 63.53 | -0.06       | -0.09       | 67.48 | 0.38        | -0.34       | 66.64 | 0.13        | 0.03        |
|       | <i>Heterotermes tenuis</i>                 | KU925233.1        | 63.01  | -0.28       | 0.33        | 62.57 | -0.04       | -0.09       | 67.65 | 0.36        | -0.36       | 66.29 | 0.12        | 0.01        |
|       | <i>Heterotermes vagus</i>                  | KU925234.1        | 61.55  | -0.30       | 0.34        | 61.11 | -0.06       | -0.09       | 66.84 | 0.37        | -0.37       | 64.88 | 0.14        | 0.02        |
|       | <i>Heterotermes validus</i>                | KU925235.1        | 64.40  | -0.30       | 0.32        | 64.21 | -0.05       | -0.09       | 68.46 | 0.38        | -0.36       | 65.87 | 0.12        | 0.03        |
|       | <i>Hirtitermes hirtiventris</i>            | NC_034134.1       | 67.58  | -0.31       | 0.29        | 66.76 | -0.05       | -0.09       | 70.52 | 0.38        | -0.33       | 69.38 | 0.13        | 0.03        |
|       | <i>Hospitalitermes hospitalis</i>          | NC_034074.1       | 64.84  | -0.28       | 0.29        | 63.79 | -0.05       | -0.09       | 68.46 | 0.40        | -0.32       | 67.25 | 0.14        | 0.02        |
|       | <i>Hospitalitermes medioflavus</i>         | NC_036047.1       | 64.93  | -0.28       | 0.29        | 63.91 | -0.04       | -0.10       | 68.40 | 0.40        | -0.32       | 67.34 | 0.14        | 0.02        |
|       | <i>Humitermes krishnai</i>                 | NC_034129.1       | 65.96  | -0.22       | 0.27        | 64.86 | -0.05       | -0.09       | 69.94 | 0.33        | -0.34       | 68.20 | 0.16        | 0.02        |
|       | <i>Hypotermes makhamensis</i>              | NC_034037.1       | 63.35  | -0.31       | 0.36        | 62.33 | -0.07       | -0.08       | 66.61 | 0.38        | -0.38       | 66.06 | 0.13        | 0.04        |
|       | <i>Incisitermes minor</i>                  | NC_037511.1       | 65.17  | -0.23       | 0.26        | 64.65 | -0.03       | -0.12       | 66.98 | 0.32        | -0.36       | 66.46 | 0.12        | 0.01        |
|       | <i>Inquilinitermes inquilinus</i>          | NC_034118.1       | 66.22  | -0.28       | 0.28        | 65.30 | -0.05       | -0.11       | 69.61 | 0.37        | -0.32       | 68.02 | 0.16        | 0.01        |
|       | <i>Jugositermes tuberculatus</i>           | NC_034083.1       | 65.43  | -0.28       | 0.31        | 64.51 | -0.05       | -0.10       | 68.70 | 0.36        | -0.36       | 67.52 | 0.16        | 0.03        |
|       | <i>Labiotermes labralis</i>                | NC_034929.1       | 68.58  | -0.25       | 0.24        | 67.86 | -0.01       | -0.13       | 71.39 | 0.35        | -0.29       | 69.78 | 0.15        | 0.02        |
|       | <i>Labritermes buttelreepeni</i>           | NC_034058.1       | 64.74  | -0.28       | 0.32        | 63.63 | -0.07       | -0.08       | 68.67 | 0.35        | -0.34       | 67.11 | 0.15        | 0.02        |
|       | <i>Leucopitermes leucops</i>               | NC_034047.1       | 67.82  | -0.26       | 0.25        | 67.27 | -0.04       | -0.11       | 70.31 | 0.35        | -0.30       | 68.20 | 0.14        | 0.02        |
|       | <i>Longustitermes manni</i>                | NC_034094.1       | 65.58  | -0.28       | 0.31        | 64.41 | -0.05       | -0.10       | 70.07 | 0.38        | -0.36       | 68.18 | 0.14        | 0.03        |
|       | <i>Lophotermes septentrionalis</i>         | NC_034105.1       | 65.79  | -0.30       | 0.30        | 64.80 | -0.05       | -0.10       | 68.97 | 0.38        | -0.34       | 68.65 | 0.11        | 0.03        |
|       | <i>Macrognathotermes errator</i>           | NC_018130.1       | 66.03  | -0.28       | 0.27        | 65.07 | -0.04       | -0.11       | 69.31 | 0.37        | -0.34       | 68.45 | 0.13        | 0.03        |

| Order | Species                                | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|----------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                        |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Macrotermes annandalei</i>          | NC_034078.1       | 65.93  | -0.32       | 0.35        | 64.98 | -0.07       | -0.08       | 68.98 | 0.37        | -0.39       | 68.49 | 0.15        | 0.03        |
|       | <i>Macrotermes barneyi</i>             | NC_018599.1       | 65.53  | -0.33       | 0.34        | 65.53 | -0.06       | -0.09       | 69.69 | 0.39        | -0.41       | 68.98 | 0.14        | 0.03        |
|       | <i>Macrotermes carbonarius</i>         | NC_034046.1       | 65.53  | -0.33       | 0.35        | 64.34 | -0.06       | -0.09       | 69.48 | 0.38        | -0.40       | 68.65 | 0.13        | 0.03        |
|       | <i>Macrotermes falciger</i>            | NC_034050.1       | 65.81  | -0.32       | 0.34        | 64.97 | -0.06       | -0.08       | 68.51 | 0.36        | -0.39       | 68.08 | 0.14        | 0.02        |
|       | <i>Macrotermes gilvus</i>              | NC_034110.1       | 65.78  | -0.33       | 0.35        | 64.86 | -0.06       | -0.08       | 68.80 | 0.39        | -0.40       | 68.20 | 0.15        | 0.03        |
|       | <i>Macrotermes malaccensis</i>         | NC_034030.1       | 65.88  | -0.32       | 0.34        | 64.77 | -0.07       | -0.09       | 70.38 | 0.37        | -0.39       | 68.53 | 0.14        | 0.04        |
|       | <i>Macrotermes muelleri</i>            | NC_034127.1       | 64.34  | -0.31       | 0.36        | 63.09 | -0.06       | -0.08       | 68.10 | 0.37        | -0.41       | 68.11 | 0.15        | 0.03        |
|       | <i>Macrotermes natalensis</i>          | NC_025522.1       | 64.39  | -0.33       | 0.35        | 64.39 | -0.06       | -0.08       | 67.83 | 0.38        | -0.41       | 67.94 | 0.13        | 0.02        |
|       | <i>Macrotermes subhyalinus</i>         | NC_018128.1       | 65.16  | -0.33       | 0.34        | 64.12 | -0.06       | -0.09       | 68.35 | 0.38        | -0.40       | 68.41 | 0.13        | 0.02        |
|       | <i>Macrotermes vitrialatus</i>         | NC_034054.1       | 65.05  | -0.32       | 0.35        | 63.92 | -0.05       | -0.09       | 68.28 | 0.40        | -0.40       | 68.66 | 0.17        | 0.02        |
|       | <i>Macrotermes yunnanensis</i>         | KU900578.1        | 65.40  | -0.33       | 0.34        | 65.40 | -0.06       | -0.08       | 69.15 | 0.38        | -0.41       | 68.53 | 0.15        | 0.03        |
|       | <i>Mastotermes darwiniensis</i>        | NC_018120.1       | 67.73  | -0.25       | 0.17        | 67.10 | -0.02       | -0.13       | 69.67 | 0.34        | -0.23       | 69.78 | 0.15        | 0.00        |
|       | <i>Microcerotermes baluchistanicus</i> | NC_034065.1       | 65.81  | -0.26       | 0.28        | 64.77 | -0.03       | -0.10       | 69.21 | 0.35        | -0.31       | 68.46 | 0.12        | 0.03        |
|       | <i>Microcerotermes crassus</i>         | NC_034036.1       | 65.55  | -0.26       | 0.28        | 64.45 | -0.04       | -0.10       | 69.45 | 0.36        | -0.31       | 68.03 | 0.14        | 0.01        |
|       | <i>Microcerotermes fuscotibialis</i>   | NC_034067.1       | 64.11  | -0.27       | 0.30        | 62.83 | -0.05       | -0.10       | 67.69 | 0.39        | -0.34       | 68.30 | 0.13        | 0.03        |
|       | <i>Microcerotermes havilandi</i>       | NC_034084.1       | 65.80  | -0.25       | 0.27        | 64.70 | -0.04       | -0.10       | 69.51 | 0.36        | -0.31       | 68.47 | 0.15        | 0.02        |
|       | <i>Microcerotermes nervosus</i>        | NC_034104.1       | 66.26  | -0.26       | 0.28        | 65.29 | -0.04       | -0.10       | 69.42 | 0.36        | -0.32       | 68.76 | 0.15        | 0.02        |
|       | <i>Microcerotermes newmani</i>         | NC_034021.1       | 66.26  | -0.25       | 0.27        | 65.29 | -0.03       | -0.10       | 69.38 | 0.36        | -0.31       | 68.83 | 0.16        | 0.02        |
|       | <i>Microcerotermes parvus</i>          | NC_026114.1       | 63.67  | -0.27       | 0.28        | 63.07 | -0.05       | -0.10       | 67.82 | 0.39        | -0.33       | 67.99 | 0.13        | 0.03        |
|       | <i>Microcerotermes progrediens</i>     | NC_034133.1       | 64.87  | -0.27       | 0.29        | 63.73 | -0.06       | -0.10       | 68.97 | 0.37        | -0.34       | 67.81 | 0.13        | 0.02        |
|       | <i>Microcerotermes serrula</i>         | NC_034142.1       | 66.98  | -0.26       | 0.27        | 66.01 | -0.04       | -0.11       | 70.65 | 0.35        | -0.31       | 68.72 | 0.15        | 0.01        |
|       | <i>Microhodotermes viator</i>          | NC_018122.1       | 66.91  | -0.29       | 0.33        | 66.12 | -0.07       | -0.08       | 70.11 | 0.33        | -0.36       | 68.22 | 0.13        | 0.04        |
|       | <i>Microtermes obesi</i>               | NC_034072.1       | 63.75  | -0.32       | 0.34        | 62.60 | -0.07       | -0.09       | 67.06 | 0.38        | -0.38       | 67.43 | 0.14        | 0.01        |
|       | <i>Mirocapritermes connectens</i>      | NC_034085.1       | 67.53  | -0.27       | 0.29        | 66.68 | -0.04       | -0.10       | 70.81 | 0.34        | -0.34       | 68.99 | 0.13        | 0.03        |

| Order | Species                           | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|-----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                   |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Nasutitermes arborum</i>       | NC_034108.1       | 65.79  | -0.29       | 0.30        | 64.81 | -0.05       | -0.10       | 69.19 | 0.37        | -0.34       | 67.98 | 0.13        | 0.03        |
|       | <i>Nasutitermes banksi</i>        | NC_034026.1       | 64.72  | -0.27       | 0.29        | 63.52 | -0.06       | -0.10       | 68.82 | 0.38        | -0.32       | 67.58 | 0.15        | 0.02        |
|       | <i>Nasutitermes corniger</i>      | NC_026115.1       | 63.91  | -0.28       | 0.27        | 63.31 | -0.06       | -0.10       | 68.73 | 0.37        | -0.32       | 68.25 | 0.13        | 0.05        |
|       | <i>Nasutitermes diabolus</i>      | NC_034020.1       | 66.01  | -0.28       | 0.29        | 65.10 | -0.04       | -0.10       | 69.30 | 0.37        | -0.33       | 67.96 | 0.13        | 0.03        |
|       | <i>Nasutitermes exitiosus</i>     | NC_034115.1       | 64.84  | -0.29       | 0.30        | 63.64 | -0.06       | -0.10       | 68.78 | 0.38        | -0.34       | 67.87 | 0.14        | 0.02        |
|       | <i>Nasutitermes graveolus</i>     | NC_034040.1       | 64.99  | -0.30       | 0.30        | 63.65 | -0.06       | -0.09       | 70.26 | 0.41        | -0.35       | 68.11 | 0.13        | 0.02        |
|       | <i>Nasutitermes latifrons</i>     | NC_034117.1       | 64.64  | -0.29       | 0.30        | 63.36 | -0.06       | -0.10       | 69.41 | 0.40        | -0.35       | 67.83 | 0.14        | 0.02        |
|       | <i>Nasutitermes longipennis</i>   | NC_034060.1       | 65.28  | -0.30       | 0.30        | 64.16 | -0.06       | -0.09       | 69.18 | 0.39        | -0.34       | 67.78 | 0.14        | 0.02        |
|       | <i>Nasutitermes longirostris</i>  | NC_034023.1       | 67.64  | -0.28       | 0.27        | 66.88 | -0.03       | -0.10       | 70.56 | 0.38        | -0.29       | 68.97 | 0.14        | 0.03        |
|       | <i>Nasutitermes lujae</i>         | NC_034042.1       | 65.49  | -0.28       | 0.28        | 64.40 | -0.04       | -0.10       | 69.21 | 0.37        | -0.31       | 68.00 | 0.14        | 0.04        |
|       | <i>Nasutitermes macrocephalus</i> | NC_034146.1       | 64.35  | -0.28       | 0.30        | 63.02 | -0.06       | -0.10       | 68.74 | 0.39        | -0.34       | 67.74 | 0.13        | 0.02        |
|       | <i>Nasutitermes matangensis</i>   | NC_034034.1       | 63.74  | -0.28       | 0.30        | 62.32 | -0.05       | -0.10       | 68.60 | 0.39        | -0.33       | 67.16 | 0.13        | 0.04        |
|       | <i>Nasutitermes neoparvus</i>     | NC_034080.1       | 67.41  | -0.29       | 0.28        | 66.79 | -0.03       | -0.10       | 69.88 | 0.38        | -0.31       | 68.35 | 0.13        | 0.03        |
|       | <i>Nasutitermes octopilis</i>     | NC_034045.1       | 64.25  | -0.28       | 0.29        | 62.91 | -0.05       | -0.10       | 68.90 | 0.38        | -0.33       | 67.31 | 0.14        | 0.03        |
|       | <i>Nasutitermes similis</i>       | NC_034093.1       | 64.31  | -0.27       | 0.29        | 62.98 | -0.05       | -0.11       | 68.57 | 0.38        | -0.32       | 67.90 | 0.14        | 0.03        |
|       | <i>Nasutitermes triodiae</i>      | NC_018131.1       | 65.47  | -0.29       | 0.28        | 64.35 | -0.05       | -0.11       | 69.17 | 0.38        | -0.34       | 68.54 | 0.15        | 0.02        |
|       | <i>Nauphoeta cinerea</i>          | NC_035052.1       | 71.24  | -0.21       | 0.04        | 70.73 | -0.03       | -0.12       | 73.50 | 0.35        | -0.08       | 72.03 | 0.13        | 0.03        |
|       | <i>Neocapritermes angusticeps</i> | NC_034053.1       | 68.09  | -0.25       | 0.27        | 67.34 | -0.04       | -0.10       | 70.99 | 0.34        | -0.34       | 69.37 | 0.14        | 0.02        |
|       | <i>Neocapritermes taracua</i>     | NC_026116.1       | 66.69  | -0.28       | 0.28        | 66.45 | -0.04       | -0.10       | 70.76 | 0.36        | -0.34       | 68.43 | 0.14        | 0.02        |
|       | <i>Neostylopyga rhombifolia</i>   | NC_034842.1       | 74.58  | -0.19       | 0.13        | 74.06 | 0.02        | -0.11       | 77.07 | 0.34        | -0.25       | 74.95 | 0.15        | 0.02        |
|       | <i>Neotermes insularis</i>        | NC_018124.1       | 67.71  | -0.27       | 0.26        | 67.34 | -0.04       | -0.11       | 69.57 | 0.36        | -0.34       | 67.78 | 0.12        | -0.01       |
|       | <i>Neotermes koshunensis</i>      | NC_046741.1       | 68.06  | -0.24       | 0.26        | 67.72 | -0.02       | -0.10       | 69.98 | 0.31        | -0.34       | 67.91 | 0.16        | -0.02       |
|       | <i>Noditermes cristifrons</i>     | NC_034145.1       | 66.32  | -0.24       | 0.26        | 65.24 | -0.05       | -0.09       | 69.95 | 0.35        | -0.30       | 68.93 | 0.16        | 0.02        |
|       | <i>Occasitermes occasus</i>       | NC_034088.1       | 66.34  | -0.27       | 0.28        | 65.32 | -0.04       | -0.10       | 70.84 | 0.38        | -0.35       | 68.05 | 0.13        | 0.03        |

| Order | Species                                | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|----------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                        |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Odontotermes hainanensis</i>        | NC_034028.1       | 63.41  | -0.31       | 0.36        | 62.25 | -0.08       | -0.07       | 67.05 | 0.38        | -0.39       | 66.58 | 0.12        | 0.04        |
|       | <i>Odontotermes javanicus</i>          | NC_034106.1       | 62.96  | -0.30       | 0.36        | 61.81 | -0.08       | -0.08       | 66.33 | 0.37        | -0.39       | 66.46 | 0.13        | 0.03        |
|       | <i>Odontotermes longignathus</i>       | NC_034130.1       | 63.55  | -0.31       | 0.36        | 62.61 | -0.08       | -0.08       | 66.41 | 0.37        | -0.39       | 66.31 | 0.14        | 0.03        |
|       | <i>Odontotermes mathuri</i>            | NC_034035.1       | 63.92  | -0.31       | 0.36        | 62.94 | -0.09       | -0.08       | 67.15 | 0.37        | -0.38       | 66.51 | 0.13        | 0.04        |
|       | <i>Odontotermes minutus</i>            | NC_034061.1       | 63.80  | -0.31       | 0.36        | 62.83 | -0.08       | -0.08       | 66.82 | 0.38        | -0.39       | 66.58 | 0.13        | 0.04        |
|       | <i>Odontotermes obesus</i>             | NC_034027.1       | 63.26  | -0.30       | 0.36        | 62.18 | -0.07       | -0.08       | 66.36 | 0.38        | -0.38       | 66.76 | 0.13        | 0.03        |
|       | <i>Ophiotermes grandilabius</i>        | NC_034076.1       | 63.87  | -0.26       | 0.28        | 62.50 | -0.04       | -0.11       | 68.74 | 0.38        | -0.33       | 67.02 | 0.12        | 0.02        |
|       | <i>Ophiotermes mirandus</i>            | NC_034068.1       | 63.48  | -0.25       | 0.28        | 62.05 | -0.04       | -0.11       | 68.05 | 0.37        | -0.32       | 67.27 | 0.12        | 0.02        |
|       | <i>Opisthopteria orientalis</i>        | KT893460.1        | 74.44  | -0.24       | 0.05        | 74.44 | 0.00        | -0.12       | 78.05 | 0.30        | -0.07       | 74.98 | 0.15        | 0.01        |
|       | <i>Oriensubulitermes inanis</i>        | NC_034087.1       | 68.01  | -0.27       | 0.26        | 67.29 | -0.02       | -0.11       | 71.60 | 0.39        | -0.32       | 68.41 | 0.13        | 0.02        |
|       | <i>Orientotermes emersoni</i>          | NC_034048.1       | 70.25  | -0.25       | 0.22        | 69.80 | -0.02       | -0.11       | 72.64 | 0.34        | -0.30       | 70.05 | 0.12        | 0.03        |
|       | <i>Orthotermes depressifrons</i>       | NC_034125.1       | 66.15  | -0.26       | 0.28        | 65.05 | -0.05       | -0.10       | 69.92 | 0.33        | -0.33       | 68.81 | 0.14        | 0.03        |
|       | <i>Orthotermes mansuetus</i>           | NC_034100.1       | 66.13  | -0.26       | 0.28        | 65.10 | -0.06       | -0.09       | 69.50 | 0.33        | -0.32       | 68.88 | 0.16        | 0.01        |
|       | <i>Panchlora nivea</i>                 | NC_030002.1       | 73.57  | -0.19       | 0.06        | 72.86 | -0.01       | -0.13       | 77.61 | 0.30        | -0.14       | 73.21 | 0.14        | 0.01        |
|       | <i>Patawatermes nigripunctatus</i>     | NC_034032.1       | 67.30  | -0.19       | 0.25        | 66.68 | -0.04       | -0.11       | 70.04 | 0.29        | -0.33       | 67.91 | 0.16        | 0.02        |
|       | <i>Patawatermes turricola</i>          | NC_034137.1       | 66.87  | -0.21       | 0.26        | 66.01 | -0.04       | -0.10       | 70.17 | 0.30        | -0.34       | 68.45 | 0.15        | 0.03        |
|       | <i>Pericapritermes dolichocephalus</i> | NC_034112.1       | 68.19  | -0.24       | 0.27        | 67.42 | -0.02       | -0.12       | 71.78 | 0.32        | -0.35       | 69.07 | 0.14        | 0.03        |
|       | <i>Pericapritermes nitobei</i>         | NC_039398.1       | 67.29  | -0.25       | 0.28        | 66.36 | -0.04       | -0.12       | 70.42 | 0.33        | -0.33       | 69.72 | 0.13        | 0.01        |
|       | <i>Periplaneta americana</i>           | NC_016956.1       | 73.00  | -0.21       | 0.13        | 73.00 | 0.01        | -0.12       | 76.06 | 0.32        | -0.23       | 75.80 | 0.17        | 0.02        |
|       | <i>Periplaneta australasiae</i>        | NC_034841.1       | 74.54  | -0.19       | 0.12        | 74.08 | 0.04        | -0.13       | 76.37 | 0.35        | -0.23       | 75.40 | 0.16        | 0.03        |
|       | <i>Periplaneta brunnea</i>             | NC_039940.1       | 74.50  | -0.19       | 0.13        | 73.87 | 0.03        | -0.11       | 77.45 | 0.33        | -0.22       | 75.07 | 0.16        | 0.02        |
|       | <i>Periplaneta fuliginosa</i>          | NC_006076.1       | 74.59  | -0.17       | 0.12        | 74.59 | 0.03        | -0.12       | 77.49 | 0.31        | -0.22       | 75.32 | 0.15        | 0.04        |
|       | <i>Planicapritermes planiceps</i>      | NC_034090.1       | 67.40  | -0.27       | 0.28        | 66.75 | -0.04       | -0.10       | 69.81 | 0.36        | -0.34       | 68.62 | 0.15        | 0.03        |
|       | <i>Polyphaga plancyi</i>               | NC_049567.1       | 72.93  | -0.29       | 0.16        | 72.39 | 0.00        | -0.12       | 75.71 | 0.39        | -0.23       | 73.01 | 0.16        | 0.01        |

| Order | Species                                  | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                          |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Porotermes adamsoni</i>               | NC_018121.1       | 66.38  | -0.28       | 0.28        | 65.68 | -0.03       | -0.12       | 68.54 | 0.32        | -0.35       | 68.62 | 0.19        | 0.04        |
|       | <i>Postsubulitermes parviconstrictus</i> | NC_034114.1       | 67.59  | -0.29       | 0.28        | 66.98 | -0.04       | -0.10       | 70.41 | 0.37        | -0.32       | 68.01 | 0.11        | 0.03        |
|       | <i>Proboscitermes tubuliferus</i>        | NC_034071.1       | 66.13  | -0.25       | 0.28        | 65.08 | -0.04       | -0.10       | 69.49 | 0.34        | -0.32       | 68.93 | 0.16        | 0.02        |
|       | <i>Procapritermes martyni</i>            | NC_034119.1       | 69.69  | -0.24       | 0.25        | 68.94 | -0.03       | -0.10       | 73.31 | 0.32        | -0.31       | 69.89 | 0.12        | 0.04        |
|       | <i>Procubitermes undulans</i>            | NC_034138.1       | 67.21  | -0.24       | 0.25        | 66.31 | -0.04       | -0.11       | 70.50 | 0.32        | -0.29       | 69.06 | 0.13        | 0.03        |
|       | <i>Prohamitermes mirabilis</i>           | NC_034039.1       | 66.44  | -0.30       | 0.30        | 65.53 | -0.05       | -0.09       | 69.64 | 0.37        | -0.34       | 68.53 | 0.15        | 0.03        |
|       | <i>Promirotermes pygmaeus</i>            | NC_034081.1       | 64.90  | -0.29       | 0.30        | 63.72 | -0.05       | -0.10       | 69.03 | 0.39        | -0.34       | 67.59 | 0.15        | 0.01        |
|       | <i>Protermes prorepens</i>               | NC_034126.1       | 64.71  | -0.31       | 0.35        | 63.89 | -0.07       | -0.08       | 66.97 | 0.36        | -0.37       | 67.50 | 0.12        | 0.03        |
|       | <i>Pseudacanthotermes militaris</i>      | NC_034077.1       | 65.26  | -0.33       | 0.34        | 64.04 | -0.06       | -0.09       | 69.48 | 0.41        | -0.39       | 68.01 | 0.12        | 0.04        |
|       | <i>Pseudacanthotermes spiniger</i>       | NC_034024.1       | 66.38  | -0.34       | 0.34        | 65.50 | -0.06       | -0.09       | 69.82 | 0.40        | -0.40       | 68.24 | 0.13        | 0.05        |
|       | <i>Reticulitermes aculabialis</i>        | NC_026695.1       | 64.52  | -0.29       | 0.30        | 64.52 | -0.04       | -0.09       | 67.92 | 0.36        | -0.35       | 67.54 | 0.12        | 0.04        |
|       | <i>Reticulitermes chinensis</i>          | NC_025567.1       | 64.09  | -0.29       | 0.30        | 64.09 | -0.04       | -0.10       | 68.09 | 0.35        | -0.35       | 68.27 | 0.08        | 0.05        |
|       | <i>Reticulitermes flaviceps</i>          | NC_031162.1       | 65.79  | -0.28       | 0.29        | 64.90 | -0.04       | -0.10       | 68.36 | 0.35        | -0.35       | 68.89 | 0.09        | 0.04        |
|       | <i>Reticulitermes flavipes</i>           | NC_009498.1       | 64.75  | -0.29       | 0.30        | 64.75 | -0.05       | -0.09       | 68.52 | 0.34        | -0.35       | 67.92 | 0.12        | 0.04        |
|       | <i>Reticulitermes grassei</i>            | KU925237.1        | 64.62  | -0.27       | 0.30        | 64.23 | -0.03       | -0.11       | 68.31 | 0.34        | -0.34       | 67.58 | 0.11        | 0.05        |
|       | <i>Reticulitermes hageni</i>             | NC_009501.1       | 63.82  | -0.29       | 0.30        | 63.82 | -0.04       | -0.10       | 68.98 | 0.34        | -0.34       | 68.03 | 0.12        | 0.04        |
|       | <i>Reticulitermes labralis</i>           | NC_030262.1       | 64.83  | -0.28       | 0.30        | 63.74 | -0.04       | -0.10       | 68.49 | 0.35        | -0.34       | 68.02 | 0.10        | 0.04        |
|       | <i>Reticulitermes leptomandibularis</i>  | NC_042419.1       | 65.13  | -0.29       | 0.31        | 64.32 | -0.04       | -0.09       | 67.92 | 0.36        | -0.35       | 67.40 | 0.10        | 0.05        |
|       | <i>Reticulitermes lucifugus</i>          | NC_045240.1       | 64.65  | -0.27       | 0.29        | 64.24 | -0.03       | -0.10       | 67.67 | 0.33        | -0.36       | 67.76 | 0.12        | 0.04        |
|       | <i>Reticulitermes nelsonae</i>           | KU925238.1        | 64.35  | -0.29       | 0.31        | 63.86 | -0.05       | -0.10       | 64.58 | 0.30        | -0.31       | 68.01 | 0.12        | 0.04        |
|       | <i>Reticulitermes ovatilabrum</i>        | NC_053728.1       | 65.29  | -0.28       | 0.30        | 64.37 | -0.04       | -0.10       | 68.02 | 0.36        | -0.33       | 68.38 | 0.11        | 0.03        |
|       | <i>Reticulitermes santonensis</i>        | NC_009499.1       | 64.57  | -0.29       | 0.30        | 64.57 | -0.04       | -0.10       | 68.34 | 0.35        | -0.35       | 67.98 | 0.12        | 0.04        |
|       | <i>Reticulitermes tibialis</i>           | NC_045231.1       | 64.40  | -0.27       | 0.31        | 63.98 | -0.03       | -0.10       | 67.64 | 0.34        | -0.34       | 67.51 | 0.12        | 0.04        |
|       | <i>Reticulitermes virginicus</i>         | NC_009500.1       | 64.77  | -0.29       | 0.30        | 64.77 | -0.05       | -0.09       | 68.11 | 0.34        | -0.34       | 67.71 | 0.11        | 0.04        |

| Order    | Species                            | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|----------|------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|          |                                    |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|          | <i>Rhinotermes hispidus</i>        | KU925240.1        | 65.15  | -0.30       | 0.33        | 64.82 | -0.07       | -0.10       | 70.03 | 0.36        | -0.34       | 67.55 | 0.11        | 0.05        |
|          | <i>Roisinitermes ebogoensis</i>    | NC_040119.1       | 66.39  | -0.30       | 0.24        | 66.10 | -0.04       | -0.11       | 66.78 | 0.38        | -0.32       | 68.05 | 0.15        | -0.01       |
|          | <i>Rubeotermes jheringi</i>        | NC_034111.1       | 67.67  | -0.24       | 0.26        | 67.08 | -0.03       | -0.12       | 69.96 | 0.32        | -0.34       | 68.67 | 0.14        | 0.03        |
|          | <i>Ruptitermes arboreus</i>        | NC_034140.1       | 65.65  | -0.27       | 0.30        | 64.77 | -0.04       | -0.10       | 69.63 | 0.32        | -0.37       | 66.51 | 0.15        | 0.02        |
|          | <i>Schedorhinotermes breinli</i>   | NC_018126.1       | 65.29  | -0.31       | 0.33        | 63.95 | -0.07       | -0.09       | 71.01 | 0.36        | -0.36       | 67.09 | 0.13        | 0.03        |
|          | <i>Periplaneta lateralis</i>       | NC_030003.1       | 73.74  | -0.21       | 0.13        | 73.06 | 0.01        | -0.12       | 76.49 | 0.34        | -0.23       | 74.93 | 0.17        | 0.03        |
|          | <i>Silvestritermes heyeri</i>      | NC_034066.1       | 68.14  | -0.25       | 0.27        | 67.51 | -0.03       | -0.10       | 71.13 | 0.34        | -0.32       | 68.37 | 0.13        | 0.04        |
|          | <i>Sphaerotermes sphaerothorax</i> | NC_034103.1       | 65.70  | -0.28       | 0.28        | 64.90 | -0.06       | -0.11       | 68.32 | 0.39        | -0.31       | 67.79 | 0.13        | 0.02        |
|          | <i>Spinitermes trispinosus</i>     | NC_034091.1       | 64.53  | -0.27       | 0.29        | 63.42 | -0.05       | -0.10       | 68.63 | 0.40        | -0.35       | 66.69 | 0.14        | 0.02        |
|          | <i>Termes comis</i>                | NC_034121.1       | 65.65  | -0.28       | 0.30        | 64.60 | -0.05       | -0.10       | 69.28 | 0.38        | -0.34       | 68.10 | 0.11        | 0.03        |
|          | <i>Termes fatalis</i>              | NC_034049.1       | 65.56  | -0.28       | 0.29        | 64.48 | -0.06       | -0.09       | 69.54 | 0.36        | -0.33       | 67.70 | 0.15        | 0.02        |
|          | <i>Termes hospes</i>               | NC_026117.1       | 64.83  | -0.29       | 0.28        | 64.41 | -0.05       | -0.10       | 68.71 | 0.36        | -0.33       | 67.97 | 0.13        | 0.03        |
|          | <i>Termes rostratus</i>            | NC_034043.1       | 65.64  | -0.29       | 0.30        | 64.60 | -0.05       | -0.09       | 69.01 | 0.36        | -0.34       | 68.23 | 0.11        | 0.03        |
|          | <i>Thoracotermes macrothorax</i>   | NC_034143.1       | 67.49  | -0.27       | 0.27        | 66.65 | -0.05       | -0.10       | 70.35 | 0.38        | -0.32       | 69.47 | 0.16        | 0.02        |
|          | <i>Trichotermes ducis</i>          | NC_034073.1       | 66.24  | -0.27       | 0.30        | 65.43 | -0.04       | -0.10       | 68.96 | 0.36        | -0.36       | 68.22 | 0.14        | 0.03        |
|          | <i>Tuberculitermes bycanistes</i>  | NC_034052.1       | 66.04  | -0.28       | 0.28        | 65.12 | -0.05       | -0.10       | 68.93 | 0.38        | -0.34       | 68.96 | 0.12        | 0.03        |
|          | <i>Tumulitermes pastinator</i>     | NC_034098.1       | 65.25  | -0.29       | 0.30        | 64.06 | -0.06       | -0.10       | 69.16 | 0.38        | -0.33       | 68.32 | 0.13        | 0.03        |
|          | <i>Tumulitermes recalvus</i>       | NC_034051.1       | 66.22  | -0.29       | 0.29        | 65.30 | -0.06       | -0.09       | 69.21 | 0.38        | -0.34       | 68.62 | 0.13        | 0.03        |
|          | <i>Zootermopsis angusticollis</i>  | NC_018123.1       | 68.82  | -0.30       | 0.33        | 68.03 | -0.01       | -0.11       | 71.72 | 0.34        | -0.39       | 70.75 | 0.15        | 0.04        |
|          | <i>Zootermopsis nevadensis</i>     | NC_024658.1       | 68.04  | -0.29       | 0.32        | 68.04 | 0.00        | -0.12       | 71.64 | 0.33        | -0.39       | 71.29 | 0.15        | 0.04        |
|          | Average                            |                   | 66.49  | -0.27       | 0.28        | 65.73 | -0.04       | -0.10       | 69.80 | 0.36        | -0.33       | 68.54 | 0.14        | 0.03        |
|          | Standard deviation (SD)            |                   | 2.92   | 0.05        | 0.07        | 3.07  | 0.02        | 0.01        | 2.65  | 0.05        | 0.07        | 2.31  | 0.02        | 0.01        |
|          | Coefficient of variation (CV)      |                   | 0.04   | -0.17       | 0.23        | 0.05  | -0.49       | -0.13       | 0.04  | 0.15        | -0.22       | 0.03  | 0.13        | 0.44        |
| Mantodea | <i>Amantis nawai</i>               | NC_037203.1       | 75.38  | -0.18       | 0.07        | 74.50 | 0.01        | -0.13       | 79.13 | 0.34        | -0.10       | 75.74 | 0.16        | 0.02        |

| Order | Species                          | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                  |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Amorphoscelis hainana</i>     | NC_057070.1       | 72.56  | -0.27       | 0.02        | 71.09 | -0.05       | -0.14       | 75.89 | 0.40        | -0.07       | 75.72 | 0.12        | -0.01       |
|       | <i>Anaxarcha zhengi</i>          | NC_030268.1       | 77.79  | -0.16       | 0.07        | 77.00 | 0.04        | -0.12       | 80.24 | 0.32        | -0.10       | 77.35 | 0.16        | 0.01        |
|       | <i>Arria pallida</i>             | NC_051892.1       | 78.22  | -0.20       | 0.03        | 77.20 | -0.01       | -0.13       | 80.58 | 0.35        | -0.06       | 79.19 | 0.15        | 0.01        |
|       | <i>Creobroter gemmatus</i>       | NC_030267.1       | 75.99  | -0.21       | 0.04        | 75.48 | 0.01        | -0.13       | 77.39 | 0.35        | -0.05       | 75.22 | 0.18        | 0.01        |
|       | <i>Creobroter jiangxiensis</i>   | NC_037234.1       | 75.87  | -0.20       | 0.04        | 75.33 | 0.01        | -0.13       | 77.31 | 0.35        | -0.05       | 75.30 | 0.15        | 0.01        |
|       | <i>Eomantis yunnanensis</i>      | NC_037208.1       | 73.73  | -0.23       | 0.03        | 72.95 | -0.02       | -0.15       | 75.00 | 0.39        | -0.08       | 75.68 | 0.11        | 0.01        |
|       | <i>Titanodula formosana</i>      | NC_029326.1       | 75.77  | -0.20       | 0.05        | 75.26 | -0.01       | -0.13       | 78.29 | 0.40        | -0.07       | 76.73 | 0.16        | 0.00        |
|       | <i>Hierodula membranacea</i>     | NC_048984.1       | 74.84  | -0.23       | 0.05        | 74.17 | 0.01        | -0.14       | 77.96 | 0.39        | -0.08       | 75.98 | 0.17        | 0.01        |
|       | <i>Hierodula patellifera</i>     | NC_034283.1       | 74.45  | -0.24       | 0.05        | 74.22 | -0.02       | -0.14       | 76.62 | 0.42        | -0.11       | 76.41 | 0.16        | 0.02        |
|       | <i>Humbertiella nada</i>         | NC_030264.1       | 70.12  | -0.26       | 0.01        | 68.93 | -0.05       | -0.15       | 73.07 | 0.41        | -0.01       | 73.12 | 0.15        | -0.01       |
|       | <i>Leptomantella albella</i>     | NC_024028.1       | 73.66  | -0.21       | 0.02        | 72.36 | -0.04       | -0.15       | 76.81 | 0.38        | -0.02       | 74.97 | 0.15        | 0.01        |
|       | <i>Mantis religiosa</i>          | NC_030265.1       | 76.70  | -0.19       | 0.03        | 76.21 | 0.02        | -0.15       | 77.91 | 0.36        | -0.06       | 75.84 | 0.15        | 0.01        |
|       | <i>Paratoxodera polyacantha</i>  | NC_037697.1       | 74.81  | -0.19       | 0.04        | 73.87 | -0.01       | -0.13       | 77.01 | 0.34        | -0.04       | 76.82 | 0.16        | 0.01        |
|       | <i>Pliacanthopus bimaculatus</i> | NC_051490.1       | 73.12  | -0.23       | 0.03        | 71.64 | -0.01       | -0.17       | 75.83 | 0.43        | -0.06       | 75.93 | 0.16        | 0.03        |
|       | <i>Psychomantis borneensis</i>   | NC_045876.1       | 75.52  | -0.21       | 0.04        | 74.51 | -0.01       | -0.14       | 78.23 | 0.39        | -0.06       | 76.68 | 0.14        | 0.03        |
|       | <i>Rhombodera brachynota</i>     | NC_034282.1       | 74.80  | -0.20       | 0.04        | 75.19 | 0.00        | -0.14       | 77.57 | 0.39        | -0.09       | 76.18 | 0.16        | 0.02        |
|       | <i>Hierodula longa</i>           | NC_051489.1       | 76.15  | -0.22       | 0.05        | 75.57 | -0.01       | -0.13       | 77.88 | 0.39        | -0.07       | 77.24 | 0.17        | 0.00        |
|       | <i>Rhombodera valida</i>         | NC_034284.1       | 74.82  | -0.23       | 0.07        | 74.63 | -0.01       | -0.13       | 77.74 | 0.40        | -0.09       | 77.51 | 0.14        | 0.01        |
|       | <i>Sceptuchus simplex</i>        | NC_037206.1       | 73.37  | -0.23       | 0.05        | 72.56 | -0.03       | -0.16       | 75.46 | 0.42        | -0.08       | 75.15 | 0.16        | 0.01        |
|       | <i>Schizocephala bicornis</i>    | NC_037207.1       | 74.94  | -0.20       | 0.02        | 74.46 | 0.00        | -0.14       | 77.47 | 0.39        | -0.04       | 75.53 | 0.21        | 0.02        |
|       | <i>Sibylla pretiosa</i>          | NC_037235.1       | 75.50  | -0.22       | 0.03        | 74.39 | 0.03        | -0.16       | 77.55 | 0.43        | -0.08       | 76.45 | 0.16        | 0.01        |
|       | <i>Sphodromantis lineola</i>     | NC_037204.1       | 74.68  | -0.22       | 0.04        | 73.85 | 0.01        | -0.14       | 77.67 | 0.39        | -0.08       | 75.39 | 0.17        | 0.00        |
|       | <i>Tamolanica tamolana</i>       | NC_007702.1       | 75.27  | -0.24       | 0.06        | 74.79 | 0.00        | -0.14       | 76.99 | 0.42        | -0.11       | 76.54 | 0.13        | 0.01        |
|       | <i>Tenodera sinensis</i>         | NC_030266.1       | 75.49  | -0.22       | 0.06        | 74.78 | 0.02        | -0.13       | 77.77 | 0.37        | -0.10       | 75.54 | 0.15        | 0.02        |

| Order      | Species                           | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|------------|-----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|            |                                   |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|            | <i>Tropidomantis tenera</i>       | NC_037205.1       | 74.27  | -0.22       | 0.04        | 73.18 | 0.00        | -0.14       | 76.01 | 0.40        | -0.06       | 76.13 | 0.10        | 0.01        |
|            | Average                           |                   | 74.92  | -0.22       | 0.04        | 74.16 | 0.00        | -0.14       | 77.28 | 0.39        | -0.07       | 76.09 | 0.15        | 0.01        |
|            | Standard deviation (SD)           |                   | 1.62   | 0.02        | 0.02        | 1.81  | 0.02        | 0.01        | 1.55  | 0.03        | 0.02        | 1.10  | 0.02        | 0.01        |
|            | Coefficient of variation (CV)     |                   | 0.02   | -0.11       | 0.39        | 0.02  | -4.40       | -0.09       | 0.02  | 0.08        | -0.35       | 0.01  | 0.14        | 1.04        |
|            | <i>Abracris flavolineata</i>      | BK068635          | 74.68  | -0.18       | 0.15        | 73.53 | -0.03       | -0.13       | 76.34 | 0.24        | -0.15       | 73.11 | 0.11        | 0.02        |
|            | <i>Acosmetura nigrogeniculata</i> | NC_045212.1       | 71.19  | -0.27       | 0.02        | 71.13 | -0.02       | -0.15       | 74.62 | 0.39        | -0.03       | 74.56 | 0.15        | 0.02        |
|            | <i>Acrida cinerea</i>             | NC_014887.1       | 76.07  | -0.16       | 0.17        | 75.33 | 0.00        | -0.12       | 76.31 | 0.27        | -0.18       | 74.37 | 0.13        | 0.01        |
|            | <i>Acrida willemsei</i>           | NC_011303.1       | 76.22  | -0.16       | 0.17        | 75.42 | 0.00        | -0.12       | 76.97 | 0.26        | -0.17       | 74.32 | 0.11        | 0.02        |
|            | <i>Aiolopus thalassinus</i>       | NC_034674.1       | 75.25  | -0.16       | 0.18        | 74.46 | -0.02       | -0.11       | 77.16 | 0.25        | -0.19       | 72.85 | 0.12        | 0.02        |
|            | <i>Alulatettix yunnanensis</i>    | NC_018542.1       | 75.24  | -0.21       | 0.19        | 74.52 | -0.01       | -0.11       | 77.95 | 0.31        | -0.26       | 75.19 | 0.15        | 0.01        |
|            | <i>Anabropsis carli</i>           | NC_035420.1       | 75.39  | -0.20       | 0.04        | 74.30 | 0.03        | -0.14       | 76.61 | 0.33        | -0.07       | 76.89 | 0.15        | 0.00        |
|            | <i>Anabropsis carnarius</i>       | NC_035552.1       | 74.76  | -0.24       | 0.05        | 73.27 | -0.01       | -0.13       | 76.42 | 0.34        | -0.08       | 76.54 | 0.17        | 0.01        |
|            | <i>Anabropsis crenatis</i>        | NC_035553.1       | 75.02  | -0.23       | 0.05        | 73.44 | 0.00        | -0.13       | 77.30 | 0.32        | -0.08       | 77.06 | 0.16        | 0.00        |
|            | <i>Anabrus simplex</i>            | NC_009967.1       | 69.44  | -0.28       | 0.03        | 67.68 | -0.05       | -0.17       | 71.39 | 0.35        | -0.05       | 73.05 | 0.13        | 0.01        |
|            | <i>Anapodisma miramae</i>         | NC_052715.1       | 76.64  | -0.15       | 0.13        | 76.32 | 0.00        | -0.14       | 77.31 | 0.25        | -0.15       | 75.00 | 0.12        | 0.02        |
|            | <i>Angaracris barabensis</i>      | NC_025558.1       | 75.49  | -0.17       | 0.16        | 74.53 | -0.01       | -0.11       | 76.08 | 0.25        | -0.17       | 73.87 | 0.14        | 0.01        |
|            | <i>Angaracris rhodopa</i>         | NC_025946.1       | 75.38  | -0.17       | 0.16        | 74.38 | -0.01       | -0.11       | 75.99 | 0.24        | -0.17       | 74.15 | 0.13        | 0.01        |
|            | <i>Anterastes babadaghi</i>       | NC_046894.1       | 70.84  | -0.25       | 0.03        | 70.03 | -0.03       | -0.16       | 72.02 | 0.35        | -0.07       | 73.23 | 0.15        | 0.01        |
|            | <i>Apalacris nigrogeniculata</i>  | NC_046527.1       | 73.99  | -0.18       | 0.15        | 73.19 | -0.02       | -0.12       | 74.95 | 0.27        | -0.16       | 72.39 | 0.08        | 0.04        |
|            | <i>Arcyptera coreana</i>          | NC_013805.1       | 76.34  | -0.13       | 0.13        | 75.85 | 0.00        | -0.13       | 76.39 | 0.21        | -0.14       | 73.26 | 0.10        | 0.03        |
|            | <i>Arcyptera meridionalis</i>     | NC_039962.1       | 76.38  | -0.15       | 0.12        | 75.82 | 0.00        | -0.13       | 75.95 | 0.23        | -0.13       | 73.78 | 0.10        | 0.04        |
|            | <i>Asiotmethis jubatus</i>        | NC_025904.1       | 72.28  | -0.18       | 0.14        | 71.99 | -0.03       | -0.14       | 71.57 | 0.24        | -0.16       | 70.18 | 0.10        | 0.04        |
|            | <i>Asiotmethis zacharjini</i>     | NC_020328.1       | 72.25  | -0.18       | 0.15        | 71.74 | -0.01       | -0.14       | 72.27 | 0.23        | -0.17       | 70.22 | 0.09        | 0.04        |
| Orthoptera | <i>Atractomorpha psittacina</i>   | NC_046552.1       | 74.38  | -0.17       | 0.17        | 73.71 | 0.00        | -0.13       | 75.27 | 0.26        | -0.22       | 74.06 | 0.12        | 0.03        |

| Order | Species                                  | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                          |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Atractomorpha sinensis</i>            | NC_011824.1       | 74.29  | -0.18       | 0.16        | 73.57 | 0.01        | -0.14       | 75.68 | 0.27        | -0.21       | 73.60 | 0.13        | 0.02        |
|       | <i>Bryodema dolichoptera</i>             | NC_046543.1       | 75.48  | -0.17       | 0.16        | 74.63 | -0.01       | -0.11       | 76.04 | 0.23        | -0.16       | 73.96 | 0.14        | 0.01        |
|       | <i>Bryodema kozlovi</i>                  | NC_052731.1       | 75.40  | -0.19       | 0.16        | 74.34 | -0.02       | -0.11       | 76.50 | 0.25        | -0.17       | 74.08 | 0.14        | 0.01        |
|       | <i>Bryodema nigroptera</i>               | NC_046535.1       | 75.38  | -0.18       | 0.16        | 74.38 | -0.01       | -0.11       | 76.47 | 0.25        | -0.17       | 74.15 | 0.13        | 0.01        |
|       | <i>Bryodemacris uvarovi</i>              | NC_046553.1       | 75.37  | -0.19       | 0.16        | 74.37 | -0.01       | -0.11       | 76.47 | 0.25        | -0.17       | 74.13 | 0.13        | 0.01        |
|       | <i>Bryodemella holdereri holdereri</i>   | NC_046536.1       | 75.53  | -0.17       | 0.16        | 74.64 | -0.01       | -0.11       | 76.10 | 0.24        | -0.17       | 74.02 | 0.14        | 0.00        |
|       | <i>Bryodemella tuberculata diluta</i>    | NC_046554.1       | 75.33  | -0.18       | 0.16        | 74.35 | -0.01       | -0.12       | 76.37 | 0.26        | -0.17       | 73.77 | 0.14        | 0.01        |
|       | <i>Cacoplistes rogenhoferi</i>           | NC_039664.1       | 73.31  | -0.33       | 0.07        | 73.06 | -0.02       | -0.11       | 74.33 | 0.41        | -0.08       | 75.38 | 0.19        | 0.02        |
|       | <i>Calliptamus abbreviatus</i>           | NC_030626.1       | 73.35  | -0.16       | 0.14        | 72.72 | -0.01       | -0.14       | 75.02 | 0.22        | -0.15       | 70.56 | 0.12        | 0.02        |
|       | <i>Calliptamus barbarus</i>              | NC_046544.1       | 72.35  | -0.18       | 0.16        | 71.59 | -0.02       | -0.14       | 73.36 | 0.25        | -0.18       | 70.90 | 0.12        | 0.01        |
|       | <i>Calliptamus italicus</i>              | NC_011305.1       | 73.28  | -0.16       | 0.14        | 72.45 | -0.01       | -0.14       | 73.72 | 0.23        | -0.16       | 70.44 | 0.10        | 0.02        |
|       | <i>Camptonotus carolinensis</i>          | NC_028060.1       | 69.33  | -0.31       | 0.07        | 68.06 | -0.06       | -0.16       | 72.64 | 0.40        | -0.06       | 74.91 | 0.13        | 0.03        |
|       | <i>Cardiodactylus muiri</i>              | NC_037914.1       | 76.48  | -0.29       | 0.08        | 75.54 | 0.00        | -0.13       | 77.24 | 0.39        | -0.10       | 77.46 | 0.20        | 0.02        |
|       | <i>Caryanda elegans</i>                  | NC_036750.1       | 74.89  | -0.15       | 0.14        | 74.20 | 0.01        | -0.15       | 76.73 | 0.23        | -0.15       | 72.65 | 0.11        | 0.03        |
|       | <i>Caryanda sp. ZH-2016</i>              | NC_030165.1       | 75.27  | -0.16       | 0.15        | 74.86 | 0.01        | -0.14       | 76.16 | 0.27        | -0.16       | 72.28 | 0.09        | 0.03        |
|       | <i>Caryandoides hunanica</i>             | NC_053659.1       | 76.68  | -0.13       | 0.11        | 75.84 | 0.00        | -0.15       | 77.84 | 0.24        | -0.13       | 74.73 | 0.11        | 0.03        |
|       | <i>Ceracris fasciata fasciata</i>        | NC_043956.1       | 74.72  | -0.16       | 0.14        | 73.93 | -0.01       | -0.13       | 75.62 | 0.23        | -0.12       | 73.02 | 0.13        | 0.00        |
|       | <i>Ceracris kiangsu</i>                  | NC_019994.1       | 74.90  | -0.17       | 0.16        | 74.01 | 0.00        | -0.13       | 76.11 | 0.24        | -0.14       | 73.49 | 0.12        | 0.04        |
|       | <i>Ceracris versicolor</i>               | NC_025285.1       | 75.23  | -0.15       | 0.13        | 74.44 | -0.01       | -0.14       | 75.72 | 0.20        | -0.12       | 72.98 | 0.09        | 0.03        |
|       | <i>Chondracris rosea</i>                 | NC_019993.1       | 73.85  | -0.16       | 0.15        | 72.84 | 0.01        | -0.14       | 74.55 | 0.21        | -0.17       | 72.44 | 0.10        | 0.02        |
|       | <i>Choroedocus capensis</i>              | NC_041116.1       | 73.48  | -0.16       | 0.14        | 71.64 | -0.01       | -0.14       | 74.66 | 0.23        | -0.15       | 70.39 | 0.09        | 0.02        |
|       | <i>Choroedocus violaceipes</i>           | NC_034673.1       | 73.23  | -0.17       | 0.15        | 71.59 | -0.02       | -0.14       | 77.08 | 0.21        | -0.17       | 71.02 | 0.07        | 0.02        |
|       | <i>Chorthippus fallax</i>                | NC_048465.1       | 75.13  | -0.15       | 0.14        | 74.84 | 0.01        | -0.14       | 75.89 | -0.22       | 0.16        | 71.67 | 0.09        | 0.04        |
|       | <i>Chorthippus parallelus erythropus</i> | NC_056786.1       | 75.51  | -0.15       | 0.14        | 75.04 | 0.00        | -0.14       | 75.89 | 0.25        | -0.17       | 72.93 | 0.05        | 0.04        |

| Order | Species                                  | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                          |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Chorthippus parallelus parallelus</i> | NC_056785.1       | 75.44  | -0.14       | 0.14        | 74.97 | 0.00        | -0.14       | 75.88 | 0.25        | -0.17       | 73.00 | 0.06        | 0.04        |
|       | <i>Comicus campestris</i>                | NC_028062.1       | 75.04  | -0.24       | 0.02        | 73.70 | 0.01        | -0.14       | 76.42 | 0.38        | -0.01       | 77.41 | 0.14        | 0.03        |
|       | <i>Compsorhipis davidiana</i>            | NC_029408.1       | 75.42  | -0.19       | 0.17        | 74.33 | -0.02       | -0.11       | 76.47 | 0.25        | -0.17       | 74.08 | 0.13        | 0.01        |
|       | <i>Conanalis pieli</i>                   | NC_033987.1       | 74.31  | -0.20       | 0.03        | 73.11 | -0.03       | -0.13       | 76.45 | 0.33        | -0.03       | 74.78 | 0.14        | 0.01        |
|       | <i>Conocephalus maculatus</i>            | NC_045065.1       | 72.26  | -0.19       | 0.04        | 71.15 | -0.02       | -0.15       | 73.62 | 0.34        | -0.04       | 73.84 | 0.13        | 0.03        |
|       | <i>Conocephalus melaenus</i>             | NC_033988.1       | 71.54  | -0.22       | 0.04        | 70.01 | -0.04       | -0.16       | 74.32 | 0.36        | -0.04       | 72.91 | 0.14        | 0.03        |
|       | <i>Conophymacris viridis</i>             | NC_046528.1       | 75.02  | -0.17       | 0.13        | 74.43 | 0.00        | -0.14       | 76.51 | 0.25        | -0.13       | 72.14 | 0.11        | 0.03        |
|       | <i>Curvipennis wixiensis</i>             | NC_031397.1       | 75.10  | -0.14       | 0.13        | 74.66 | 0.01        | -0.14       | 75.53 | 0.22        | -0.14       | 73.14 | 0.11        | 0.02        |
|       | <i>Cyphoderris monstrosa</i>             | NC_028059.1       | 71.70  | -0.31       | 0.11        | 69.89 | -0.06       | -0.12       | 74.35 | 0.38        | -0.15       | 73.47 | 0.14        | 0.03        |
|       | <i>Dasyhippus barbipes</i>               | NC_041412.1       | 77.82  | -0.16       | 0.01        | 76.06 | 0.03        | -0.15       | 79.75 | 0.30        | -0.02       | 76.96 | 0.08        | -0.01       |
|       | <i>Decma fissa</i>                       | NC_033981.1       | 74.87  | -0.21       | 0.03        | 74.15 | 0.02        | -0.15       | 76.81 | 0.37        | -0.05       | 76.00 | 0.17        | 0.03        |
|       | <i>Deracantha onos</i>                   | NC_011813.1       | 69.24  | -0.29       | 0.04        | 67.84 | -0.06       | -0.15       | 71.38 | 0.41        | -0.06       | 71.98 | 0.13        | 0.01        |
|       | <i>Dericorys annulata</i>                | NC_046555.1       | 72.40  | -0.17       | 0.13        | 71.75 | -0.02       | -0.14       | 73.33 | 0.24        | -0.13       | 70.76 | 0.13        | 0.02        |
|       | <i>Diabolocatantops pinguis</i>          | NC_042904.1       | 73.56  | -0.17       | 0.16        | 72.53 | 0.00        | -0.14       | 75.01 | 0.25        | -0.16       | 71.40 | 0.10        | 0.01        |
|       | <i>Dianemobius fascipes</i>              | NC_045846.1       | 72.28  | -0.34       | -0.01       | 71.37 | -0.02       | -0.15       | 72.89 | 0.43        | -0.01       | 74.63 | 0.24        | 0.01        |
|       | <i>Dianemobius furumagiensis</i>         | NC_045847.1       | 73.77  | -0.33       | -0.01       | 72.95 | -0.01       | -0.15       | 74.55 | 0.40        | 0.02        | 75.71 | 0.24        | 0.03        |
|       | <i>Diestrammena asynamora</i>            | NC_033989.1       | 75.04  | -0.19       | 0.10        | 74.20 | 0.01        | -0.13       | 78.10 | 0.31        | -0.14       | 75.32 | 0.13        | 0.00        |
|       | <i>Dnopherula yuanmowensis</i>           | NC_039408.1       | 74.90  | -0.15       | 0.14        | 74.19 | 0.02        | -0.14       | 76.37 | 0.24        | -0.16       | 72.78 | 0.12        | 0.02        |
|       | <i>Ducetia japonica</i>                  | NC_031652.1       | 74.02  | -0.23       | 0.01        | 73.08 | 0.01        | -0.16       | 75.50 | 0.37        | -0.04       | 75.44 | 0.14        | 0.01        |
|       | <i>Eclipophleps carinata</i>             | NC_054195.1       | 74.46  | -0.17       | 0.15        | 73.89 | 0.00        | -0.14       | 76.05 | 0.25        | -0.14       | 72.16 | 0.10        | 0.01        |
|       | <i>Ellipes minuta</i>                    | NC_014488.1       | 66.49  | -0.30       | 0.01        | 65.02 | -0.08       | -0.14       | 70.54 | 0.40        | -0.01       | 70.03 | 0.10        | 0.01        |
|       | <i>Emeiacris maculata</i>                | NC_046556.1       | 75.46  | -0.15       | 0.13        | 75.34 | 0.00        | -0.14       | 73.89 | 0.30        | -0.12       | 73.97 | 0.11        | 0.02        |
|       | <i>Epacromius coerulipes</i>             | NC_052732.1       | 75.51  | -0.15       | 0.17        | 74.75 | -0.01       | -0.12       | 76.02 | 0.24        | -0.19       | 73.79 | 0.11        | 0.02        |
|       | <i>Ergatettix dorsifera</i>              | NC_046540.1       | 72.18  | -0.23       | 0.21        | 70.58 | -0.03       | -0.11       | 77.64 | 0.30        | -0.27       | 74.15 | 0.14        | 0.02        |

| Order | Species                              | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|--------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                      |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Euchorthippus fusigeniculatus</i> | NC_014449.1       | 75.04  | -0.15       | 0.14        | 74.46 | 0.01        | -0.13       | 75.83 | 0.25        | -0.14       | 73.22 | 0.14        | 0.03        |
|       | <i>Euchorthippus unicolor</i>        | NC_045237.1       | 76.13  | -0.14       | 0.14        | 75.59 | 0.01        | -0.14       | 77.36 | 0.24        | -0.14       | 73.50 | 0.12        | 0.02        |
|       | <i>Euconocephalus nasutus</i>        | NC_053383.1       | 71.19  | -0.24       | 0.03        | 70.18 | -0.02       | -0.16       | 74.65 | 0.34        | -0.05       | 73.35 | 0.12        | 0.04        |
|       | <i>Eumigus monticolus</i>            | BK068638          | 70.78  | -0.20       | 0.17        | 69.52 | -0.03       | -0.14       | 72.33 | 0.25        | -0.19       | 69.48 | 0.08        | 0.05        |
|       | <i>Euparatettix bimaculatus</i>      | NC_046541.1       | 72.86  | -0.26       | 0.22        | 71.82 | -0.03       | -0.11       | 76.54 | 0.34        | -0.30       | 74.30 | 0.15        | 0.02        |
|       | <i>Euparatettix variabilis</i>       | NC_046542.1       | 73.53  | -0.25       | 0.20        | 72.51 | -0.03       | -0.11       | 76.20 | 0.31        | -0.27       | 75.28 | 0.14        | 0.02        |
|       | <i>Euthystira luteifemora</i>        | NC_046557.1       | 75.13  | -0.14       | 0.12        | 74.49 | 0.00        | -0.15       | 76.26 | 0.25        | -0.12       | 73.44 | 0.12        | 0.03        |
|       | <i>Eyprepocnemis plorans</i>         | BK068639          | 73.15  | -0.17       | 0.12        | 72.39 | -0.02       | -0.15       | 72.86 | 0.23        | -0.13       | 70.50 | 0.11        | 0.03        |
|       | <i>Fer nigripennis</i>               | NC_053658.1       | 76.44  | -0.20       | 0.15        | 75.63 | -0.02       | -0.13       | 77.16 | 0.26        | -0.15       | 75.31 | 0.09        | 0.04        |
|       | <i>Filchnerella beicki</i>           | NC_024923.1       | 72.26  | -0.19       | 0.16        | 71.78 | -0.02       | -0.14       | 72.56 | -0.05       | 0.03        | 69.47 | 0.11        | 0.02        |
|       | <i>Filchnerella helanshanensis</i>   | NC_020329.1       | 72.44  | -0.19       | 0.16        | 72.03 | -0.02       | -0.14       | 72.68 | 0.25        | -0.18       | 69.57 | 0.11        | 0.02        |
|       | <i>Filchnerella qilianshanensis</i>  | NC_046558.1       | 72.56  | -0.19       | 0.16        | 72.11 | -0.03       | -0.14       | 72.60 | 0.26        | -0.18       | 70.17 | 0.11        | 0.02        |
|       | <i>Filchnerella rubrimargina</i>     | NC_052733.1       | 72.26  | -0.19       | 0.16        | 71.70 | -0.01       | -0.14       | 72.88 | 0.24        | -0.19       | 69.92 | 0.11        | 0.03        |
|       | <i>Filchnerella tenggerensis</i>     | NC_046559.1       | 72.60  | -0.19       | 0.16        | 72.18 | -0.03       | -0.14       | 72.54 | 0.25        | -0.18       | 70.01 | 0.12        | 0.02        |
|       | <i>Fruhstorferiola huayinensis</i>   | NC_031379.1       | 75.63  | -0.16       | 0.14        | 74.62 | 0.00        | -0.14       | 75.47 | 0.24        | -0.15       | 73.51 | 0.12        | 0.01        |
|       | <i>Fruhstorferiola kulinga</i>       | NC_026716.1       | 75.38  | -0.15       | 0.14        | 74.82 | 0.00        | -0.14       | 75.33 | 0.23        | -0.15       | 73.41 | 0.12        | 0.02        |
|       | <i>Fruhstorferiola omei</i>          | NC_046545.1       | 75.18  | -0.15       | 0.14        | 74.70 | 0.00        | -0.14       | 75.43 | 0.24        | -0.16       | 73.65 | 0.12        | 0.02        |
|       | <i>Fruhstorferiola tonkinensis</i>   | NC_031817.1       | 75.30  | -0.16       | 0.13        | 74.59 | 0.00        | -0.14       | 75.47 | 0.22        | -0.14       | 73.40 | 0.07        | 0.03        |
|       | <i>Gampsocleis gratiosa</i>          | NC_011200.1       | 65.31  | -0.30       | 0.06        | 63.63 | -0.08       | -0.16       | 69.10 | 0.33        | -0.06       | 71.53 | 0.16        | 0.03        |
|       | <i>Gastrimargus marmoratus</i>       | NC_011114.1       | 75.18  | -0.23       | 0.21        | 73.96 | -0.05       | -0.10       | 77.19 | 0.28        | -0.18       | 74.83 | 0.13        | 0.03        |
|       | <i>Gesonula punctifrons</i>          | NC_046411.1       | 75.50  | -0.16       | 0.15        | 74.92 | -0.01       | -0.14       | 76.84 | 0.24        | -0.15       | 73.46 | 0.09        | 0.01        |
|       | <i>Gomphocerippus rufus</i>          | NC_014349.1       | 74.36  | -0.16       | 0.14        | 73.71 | 0.00        | -0.14       | 75.94 | 0.24        | -0.16       | 72.16 | 0.13        | 0.02        |
|       | <i>Gomphocerus licenti</i>           | NC_013847.1       | 74.80  | -0.14       | 0.14        | 74.31 | 0.02        | -0.15       | 75.86 | 0.25        | -0.15       | 72.14 | 0.10        | 0.03        |
|       | <i>Gomphocerus sibiricus</i>         | NC_021103.1       | 74.88  | -0.13       | 0.13        | 74.44 | 0.02        | -0.14       | 75.80 | 0.24        | -0.15       | 72.40 | 0.10        | 0.02        |

| Order | Species                                             | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|-----------------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                                     |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Gomphocerus sibiricus tibetanus</i>              | NC_015478.1       | 74.73  | -0.14       | 0.14        | 74.35 | 0.01        | -0.14       | 75.72 | 0.22        | -0.16       | 71.94 | 0.11        | 0.03        |
|       | <i>Gonista bicolor</i>                              | NC_029205.1       | 76.28  | -0.13       | 0.14        | 75.69 | 0.01        | -0.13       | 77.01 | 0.22        | -0.15       | 74.26 | 0.10        | 0.01        |
|       | <i>Gryllodes sigillatus</i>                         | NC_057195.1       | 70.40  | -0.31       | 0.07        | 70.06 | -0.05       | -0.15       | 71.74 | 0.39        | -0.08       | 73.93 | 0.21        | -0.01       |
|       | <i>Gryllotalpa orientalis</i>                       | NC_006678.1       | 70.49  | -0.30       | 0.04        | 69.50 | -0.04       | -0.16       | 71.57 | 0.35        | -0.09       | 73.88 | 0.15        | 0.01        |
|       | <i>Gryllotalpa pluvialis</i>                        | NC_011302.1       | 72.20  | -0.31       | 0.04        | 71.19 | -0.03       | -0.16       | 73.80 | 0.35        | -0.10       | 74.15 | 0.14        | 0.03        |
|       | <i>Gryllotalpa unispina</i>                         | NC_029148.1       | 70.84  | -0.29       | 0.05        | 69.62 | -0.04       | -0.17       | 72.59 | 0.39        | -0.11       | 74.15 | 0.13        | 0.02        |
|       | <i>Gryllus bimaculatus</i>                          | NC_053546.1       | 74.11  | -0.30       | 0.09        | 73.58 | 0.00        | -0.14       | 74.85 | 0.31        | -0.07       | 76.17 | 0.17        | -0.02       |
|       | <i>Gryllus lineaticeps</i>                          | NC_057052.1       | 72.53  | -0.29       | 0.10        | 72.89 | -0.01       | -0.13       | 72.58 | 0.40        | -0.12       | 73.98 | 0.14        | 0.00        |
|       | <i>Gryllus veletis</i>                              | NC_057053.1       | 73.63  | -0.28       | 0.09        | 73.58 | -0.01       | -0.13       | 74.66 | 0.40        | -0.11       | 76.19 | 0.20        | 0.02        |
|       | <i>Henicus brevimucronatus</i>                      | NC_028063.1       | 73.27  | -0.24       | 0.06        | 72.21 | -0.01       | -0.15       | 75.16 | 0.34        | -0.10       | 75.88 | 0.13        | 0.00        |
|       | <i>Heteropternis respondens</i>                     | NC_046537.1       | 75.71  | -0.18       | 0.17        | 74.17 | -0.02       | -0.10       | 76.62 | 0.26        | -0.18       | 73.03 | 0.12        | 0.03        |
|       | <i>Hexacentrus japonicus</i>                        | NC_033983.1       | 69.26  | -0.28       | 0.05        | 67.69 | -0.01       | -0.14       | 73.08 | 0.40        | -0.05       | 73.00 | 0.15        | 0.03        |
|       | <i>Hexacentrus unicolor</i>                         | NC_033999.1       | 69.97  | -0.26       | 0.05        | 68.40 | -0.01       | -0.14       | 73.36 | 0.38        | -0.05       | 73.26 | 0.13        | 0.04        |
|       | <i>Hieroglyphus tonkinensis</i>                     | NC_030587.1       | 74.18  | -0.17       | 0.16        | 73.28 | -0.01       | -0.13       | 75.58 | 0.23        | -0.18       | 72.21 | 0.09        | 0.03        |
|       | <i>Holochlora fruhstorferi</i>                      | NC_033993.1       | 70.16  | -0.32       | 0.00        | 68.75 | -0.05       | -0.16       | 73.56 | 0.38        | -0.02       | 74.35 | 0.10        | 0.02        |
|       | <i>Homoeoxipha nigripes</i>                         | NC_045841.1       | 77.63  | -0.27       | 0.03        | 76.46 | -0.01       | -0.16       | 78.96 | 0.38        | -0.05       | 78.90 | 0.22        | 0.01        |
|       | <i>Homogryllacris anelytra</i>                      | NC_033998.1       | 70.90  | -0.35       | 0.07        | 69.65 | -0.08       | -0.15       | 73.23 | 0.45        | -0.07       | 74.41 | 0.15        | 0.03        |
|       | <i>Humphalotropsis culaishanensis (nomen nudum)</i> | NC_023535.1       | 72.25  | -0.19       | 0.16        | 71.78 | -0.02       | -0.14       | 72.77 | 0.25        | -0.17       | 70.06 | 0.09        | 0.02        |
|       | <i>Indopodisma kingdoni</i>                         | NC_046529.1       | 75.82  | -0.15       | 0.13        | 75.23 | 0.00        | -0.14       | 75.74 | 0.22        | -0.14       | 73.22 | 0.12        | 0.01        |
|       | <i>Isophya major</i>                                | NC_042666.1       | 67.25  | -0.35       | 0.07        | 65.32 | -0.07       | -0.14       | 69.52 | 0.44        | -0.09       | 71.82 | 0.13        | 0.03        |
|       | <i>Kingdonella bicollina</i>                        | NC_023920.1       | 75.61  | -0.14       | 0.12        | 75.57 | 0.00        | -0.14       | 75.92 | 0.23        | -0.16       | 72.84 | 0.08        | 0.03        |
|       | <i>Kuwayamaea chinensis</i>                         | NC_033995.1       | 72.07  | -0.27       | 0.03        | 70.78 | -0.02       | -0.15       | 74.23 | 0.40        | -0.08       | 74.61 | 0.14        | 0.02        |
|       | <i>Lentula callani</i>                              | NC_020774.1       | 76.05  | -0.15       | 0.15        | 75.04 | 0.01        | -0.13       | 77.66 | 0.22        | -0.16       | 75.41 | 0.08        | 0.06        |

| Order | Species                              | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|--------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                      |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Lipotactes tripyrga</i>           | NC_033996.1       | 72.17  | -0.31       | 0.03        | 71.27 | -0.08       | -0.12       | 75.79 | 0.39        | -0.01       | 75.90 | 0.12        | 0.02        |
|       | <i>Lithidiopsis carinatus</i>        | NC_020775.1       | 70.32  | -0.24       | 0.18        | 69.27 | -0.05       | -0.15       | 71.72 | 0.26        | -0.18       | 69.98 | 0.09        | 0.02        |
|       | <i>Locusta migratoria manilensis</i> | NC_014891.1       | 75.33  | -0.19       | 0.19        | 74.15 | -0.04       | -0.11       | 77.43 | 0.24        | -0.17       | 74.12 | 0.14        | 0.03        |
|       | <i>Locusta migratoria migratoria</i> | NC_011119.1       | 75.53  | -0.19       | 0.19        | 74.27 | -0.04       | -0.11       | 77.63 | 0.25        | -0.18       | 73.96 | 0.15        | 0.02        |
|       | <i>Locusta migratoria tibetensis</i> | NC_015624.1       | 75.35  | -0.17       | 0.18        | 74.28 | -0.04       | -0.11       | 77.52 | 0.24        | -0.18       | 74.57 | 0.14        | 0.02        |
|       | <i>Longchuanacris curvifurcula</i>   | NC_036994.1       | 75.39  | -0.16       | 0.14        | 74.88 | 0.01        | -0.15       | 76.03 | 0.27        | -0.15       | 72.79 | 0.09        | 0.03        |
|       | <i>Loxoblemmus doenitzi</i>          | NC_033985.1       | 73.25  | -0.30       | 0.12        | 72.33 | -0.02       | -0.13       | 74.14 | 0.41        | -0.18       | 75.61 | 0.22        | 0.01        |
|       | <i>Mecopoda elongata</i>             | NC_021380.1       | 71.81  | -0.25       | 0.01        | 71.15 | -0.03       | -0.16       | 73.93 | 0.36        | -0.01       | 73.16 | 0.12        | 0.01        |
|       | <i>Mecopoda niponensis</i>           | NC_021379.1       | 72.36  | -0.23       | -0.01       | 71.82 | -0.03       | -0.16       | 74.16 | 0.36        | -0.01       | 73.47 | 0.15        | 0.03        |
|       | <i>Mecostethus alliaceus</i>         | NC_046539.1       | 75.79  | -0.18       | 0.19        | 74.28 | -0.04       | -0.10       | 77.09 | 0.24        | -0.18       | 74.10 | 0.12        | 0.03        |
|       | <i>Megaulacobothrus chinensis</i>    | NC_011095.1       | 75.11  | -0.14       | 0.14        | 74.56 | 0.00        | -0.14       | 76.11 | 0.23        | -0.16       | 72.44 | 0.09        | 0.03        |
|       | <i>Mekongiana xiangchengensis</i>    | NC_014450.1       | 74.56  | -0.19       | 0.15        | 73.95 | -0.01       | -0.13       | 75.91 | 0.26        | -0.18       | 73.05 | 0.11        | 0.01        |
|       | <i>Mekongiella kingdoni</i>          | NC_023921.1       | 73.09  | -0.21       | 0.16        | 72.20 | -0.02       | -0.13       | 75.07 | 0.26        | -0.19       | 72.38 | 0.10        | 0.02        |
|       | <i>Mekongiella xizangensis</i>       | NC_014451.1       | 73.55  | -0.21       | 0.16        | 72.82 | -0.03       | -0.12       | 74.78 | 0.26        | -0.19       | 72.78 | 0.06        | 0.03        |
|       | <i>Melanoplus differentialis</i>     | NC_057646.1       | 74.78  | -0.17       | 0.13        | 73.89 | 0.00        | -0.14       | 75.30 | 0.24        | -0.14       | 72.41 | 0.10        | 0.03        |
|       | <i>Meloimorpha japonica</i>          | NC_039665.1       | 72.43  | -0.29       | 0.07        | 71.70 | -0.02       | -0.13       | 74.10 | 0.39        | -0.13       | 75.28 | 0.18        | 0.03        |
|       | <i>Metrioptera bonneti</i>           | NC_033986.1       | 67.79  | -0.28       | 0.03        | 67.46 | -0.04       | -0.17       | 71.54 | 0.36        | -0.06       | 72.76 | 0.13        | 0.03        |
|       | <i>Mirhipipteryx andensis</i>        | NC_028065.1       | 70.03  | -0.22       | -0.01       | 69.21 | -0.05       | -0.14       | 72.97 | 0.34        | 0.00        | 72.64 | 0.16        | 0.00        |
|       | <i>Myrmecophilus manni</i>           | NC_011301.1       | 70.18  | -0.29       | 0.07        | 69.04 | -0.07       | -0.14       | 72.81 | 0.35        | -0.09       | 73.13 | 0.14        | 0.00        |
|       | <i>Natula pravdini</i>               | NC_050742.1       | 78.77  | -0.27       | 0.01        | 77.73 | 0.00        | -0.15       | 79.31 | 0.38        | 0.01        | 79.71 | 0.22        | 0.01        |
|       | <i>Nomadacris japonica</i>           | NC_036062.1       | 72.44  | -0.17       | 0.16        | 71.21 | -0.02       | -0.14       | 73.87 | 0.22        | -0.17       | 71.48 | 0.09        | 0.02        |
|       | <i>Oecanthus sinensis</i>            | NC_034799.1       | 77.39  | -0.25       | 0.02        | 76.92 | 0.02        | -0.12       | 78.83 | 0.36        | -0.04       | 77.00 | 0.17        | 0.03        |
|       | <i>Oedaleus abruptus</i>             | NC_046538.1       | 75.79  | -0.18       | 0.19        | 74.28 | -0.04       | -0.10       | 77.11 | 0.24        | -0.19       | 74.10 | 0.12        | 0.03        |
|       | <i>Oedaleus asiaticus</i>            | NC_011115.1       | 75.39  | -0.18       | 0.19        | 73.93 | -0.04       | -0.10       | 77.11 | 0.26        | -0.19       | 74.64 | 0.13        | 0.02        |

| Order | Species                               | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|---------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                       |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Oedaleus infernalis</i>            | NC_029327.1       | 76.01  | -0.18       | 0.20        | 74.98 | -0.03       | -0.10       | 77.07 | 0.26        | -0.20       | 74.30 | 0.06        | 0.06        |
|       | <i>Oedaleus manjius</i>               | NC_052734.1       | 75.83  | -0.18       | 0.19        | 74.98 | -0.03       | -0.10       | 76.96 | 0.27        | -0.20       | 74.32 | 0.14        | 0.02        |
|       | <i>Ognevia longipennis</i>            | NC_013701.1       | 76.01  | -0.14       | 0.12        | 75.30 | 0.01        | -0.14       | 76.47 | 0.21        | -0.14       | 73.83 | 0.11        | 0.03        |
|       | <i>Ommexecha virens</i>               | NC_020778.1       | 73.02  | -0.19       | 0.17        | 72.28 | -0.03       | -0.14       | 74.57 | 0.23        | -0.17       | 70.84 | 0.11        | 0.04        |
|       | <i>Omocestus viridulus</i>            | NC_046560.1       | 74.38  | -0.14       | 0.14        | 74.06 | 0.01        | -0.14       | 75.98 | 0.25        | -0.15       | 72.84 | 0.12        | 0.02        |
|       | <i>Orinhippus tibetanus</i>           | NC_023467.1       | 74.24  | -0.19       | 0.18        | 73.15 | -0.03       | -0.12       | 76.74 | 0.26        | -0.19       | 72.91 | 0.13        | 0.02        |
|       | <i>Ornebius bimaculatus</i>           | NC_039666.1       | 76.47  | -0.32       | 0.02        | 75.03 | -0.02       | -0.12       | 76.91 | 0.45        | -0.06       | 79.07 | 0.12        | 0.03        |
|       | <i>Ornebius fuscicerci</i>            | NC_039739.1       | 74.95  | -0.32       | 0.01        | 73.34 | -0.04       | -0.13       | 76.57 | 0.44        | 0.00        | 77.13 | 0.14        | 0.01        |
|       | <i>Ornebius kanetataki</i>            | NC_039667.1       | 74.24  | -0.34       | 0.00        | 73.02 | -0.04       | -0.14       | 75.40 | 0.46        | 0.00        | 77.24 | 0.16        | 0.02        |
|       | <i>Oxya agavisa</i>                   | NC_045883.1       | 75.82  | -0.15       | 0.13        | 75.01 | 0.01        | -0.14       | 78.40 | 0.23        | -0.13       | 72.23 | 0.11        | 0.04        |
|       | <i>Oxya chinensis</i>                 | NC_010219.1       | 75.89  | -0.13       | 0.12        | 75.22 | 0.02        | -0.15       | 77.88 | 0.22        | -0.13       | 73.29 | 0.09        | 0.05        |
|       | <i>Oxya hainanensis</i>               | NC_045928.1       | 75.67  | -0.14       | 0.13        | 74.97 | 0.01        | -0.15       | 77.95 | 0.22        | -0.13       | 72.85 | 0.12        | 0.04        |
|       | <i>Oxya hyla</i>                      | NC_032076.1       | 74.75  | -0.16       | 0.14        | 73.88 | 0.01        | -0.15       | 76.75 | 0.23        | -0.14       | 72.73 | 0.10        | 0.04        |
|       | <i>Oxya japonica</i>                  | NC_043773.1       | 75.41  | -0.13       | 0.13        | 74.77 | 0.02        | -0.14       | 77.47 | -0.19       | 0.12        | 72.44 | 0.14        | 0.03        |
|       | <i>Oxytauchira brachyptera</i>        | NC_046570.1       | 75.89  | -0.20       | 0.17        | 75.23 | -0.02       | -0.12       | 77.07 | 0.25        | -0.15       | 74.69 | 0.15        | 0.05        |
|       | <i>Oxytauchira flange</i>             | NC_053745.1       | 75.66  | -0.20       | 0.18        | 74.85 | -0.02       | -0.13       | 77.48 | 0.25        | -0.14       | 74.28 | 0.13        | 0.04        |
|       | <i>Pacris xizangensis</i>             | NC_023919.1       | 74.96  | -0.15       | 0.13        | 74.55 | 0.00        | -0.14       | 75.32 | 0.23        | -0.13       | 72.48 | 0.10        | 0.02        |
|       | <i>Paratoacris reticulipennis</i>     | NC_053660.1       | 75.14  | -0.16       | 0.15        | 74.43 | -0.02       | -0.14       | 77.05 | 0.24        | -0.13       | 73.05 | 0.10        | 0.02        |
|       | <i>Paratonkinacris vittifemoralis</i> | NC_046530.1       | 75.97  | -0.15       | 0.13        | 75.52 | -0.01       | -0.14       | 75.81 | 0.23        | -0.14       | 73.41 | 0.10        | 0.05        |
|       | <i>Pedopodisma emeiensis</i>          | NC_046561.1       | 76.54  | -0.12       | 0.12        | 75.90 | 0.02        | -0.14       | 76.58 | 0.20        | -0.15       | 74.34 | 0.11        | 0.03        |
|       | <i>Peripolus nepalensis</i>           | NC_029135.1       | 74.30  | -0.17       | 0.14        | 73.69 | -0.01       | -0.14       | 74.79 | 0.27        | -0.17       | 71.33 | 0.12        | 0.02        |
|       | <i>Phaneroptera gracilis</i>          | NC_034756.1       | 72.22  | -0.24       | 0.03        | 71.06 | -0.03       | -0.15       | 73.76 | 0.35        | -0.08       | 74.42 | 0.15        | 0.01        |
|       | <i>Phaneroptera nigroantennata</i>    | NC_034757.1       | 70.90  | -0.26       | 0.00        | 70.65 | -0.02       | -0.16       | 73.79 | 0.36        | -0.03       | 73.33 | 0.13        | 0.03        |
|       | <i>Phlaeoba albonema</i>              | NC_011827.1       | 74.11  | -0.17       | 0.15        | 73.54 | 0.00        | -0.13       | 75.23 | 0.23        | -0.17       | 71.74 | 0.10        | 0.03        |

| Order | Species                                  | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                          |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Phlaeoba infumata</i>                 | NC_031506.1       | 74.08  | -0.17       | 0.15        | 73.47 | 0.00        | -0.13       | 75.13 | 0.24        | -0.17       | 71.89 | 0.11        | 0.02        |
|       | <i>Phlaeoba tenebrosa</i>                | NC_029150.1       | 73.80  | -0.18       | 0.16        | 73.09 | -0.02       | -0.13       | 76.03 | 0.23        | -0.17       | 72.13 | 0.12        | 0.02        |
|       | <i>Phryganogryllacris xiai</i>           | NC_033994.1       | 72.32  | -0.36       | 0.06        | 71.16 | -0.09       | -0.14       | 74.14 | 0.44        | -0.08       | 75.67 | 0.13        | 0.03        |
|       | <i>Phyllomimus detersus</i>              | NC_028158.1       | 71.69  | -0.32       | 0.05        | 70.39 | -0.02       | -0.12       | 73.88 | 0.43        | -0.08       | 72.78 | 0.15        | 0.02        |
|       | <i>Phyllomimus sinicus</i>               | NC_033997.1       | 71.85  | -0.33       | 0.05        | 70.52 | -0.02       | -0.12       | 73.72 | 0.42        | -0.08       | 73.07 | 0.08        | 0.03        |
|       | <i>Physemacris variolosa</i>             | NC_014491.1       | 75.46  | -0.25       | 0.16        | 73.31 | -0.09       | -0.09       | 75.99 | 0.29        | -0.20       | 75.40 | 0.16        | 0.02        |
|       | <i>Pielomastax zhengi</i>                | NC_016182.1       | 71.77  | -0.11       | 0.10        | 70.24 | -0.02       | -0.13       | 75.43 | 0.20        | -0.08       | 73.00 | 0.12        | 0.02        |
|       | <i>Podisma pedestris</i>                 | BK068645          | 76.02  | -0.14       | 0.12        | 75.26 | 0.00        | -0.14       | 76.21 | 0.21        | -0.13       | 73.81 | 0.11        | 0.03        |
|       | <i>Poecilimon luschani</i>               | NC_042665.1       | 69.89  | -0.31       | 0.04        | 68.46 | -0.03       | -0.16       | 72.15 | 0.40        | -0.05       | 72.59 | 0.14        | 0.02        |
|       | <i>Polionemobius taprobanensis</i>       | NC_045848.1       | 70.34  | -0.38       | -0.01       | 69.49 | -0.05       | -0.17       | 72.85 | 0.45        | 0.02        | 74.93 | 0.20        | 0.02        |
|       | <i>Prumna arctica</i>                    | NC_013835.1       | 76.07  | -0.14       | 0.13        | 75.23 | -0.02       | -0.14       | 77.55 | 0.22        | -0.15       | 73.26 | 0.12        | 0.03        |
|       | <i>Pseudocosmetura anjiensis</i>         | NC_033853.1       | 71.34  | -0.26       | 0.04        | 69.68 | -0.01       | -0.15       | 74.65 | 0.40        | -0.03       | 75.17 | 0.17        | 0.03        |
|       | <i>Pseudoeoscyllina brevipennisoides</i> | NC_046534.1       | 76.13  | -0.14       | 0.14        | 75.60 | 0.01        | -0.14       | 77.41 | 0.23        | -0.14       | 73.28 | 0.11        | 0.02        |
|       | <i>Pseudokuzicus pieli</i>               | NC_033982.1       | 73.35  | -0.23       | 0.02        | 73.03 | -0.01       | -0.15       | 76.17 | -0.39       | 0.03        | 75.15 | 0.17        | 0.02        |
|       | <i>Pseudophyllus titan</i>               | NC_034773.1       | 72.08  | -0.34       | 0.08        | 71.07 | 0.00        | -0.14       | 74.15 | 0.43        | -0.13       | 75.51 | 0.10        | 0.04        |
|       | <i>Pseudorhynchus acuminatus</i>         | NC_033992.1       | 71.73  | -0.26       | 0.06        | 70.20 | -0.05       | -0.15       | 73.78 | 0.39        | -0.05       | 75.17 | 0.08        | 0.04        |
|       | <i>Pseudorhynchus crassiceps</i>         | NC_033990.1       | 72.60  | -0.25       | 0.06        | 71.33 | -0.04       | -0.14       | 74.74 | 0.39        | -0.06       | 74.81 | 0.12        | 0.04        |
|       | <i>Pseudothericles compressifrons</i>    | NC_028061.1       | 72.30  | -0.18       | 0.13        | 71.48 | -0.02       | -0.13       | 75.40 | 0.26        | -0.11       | 72.68 | 0.10        | 0.01        |
|       | <i>Pseudotmethis rubimarginis</i>        | NC_020330.1       | 72.36  | -0.19       | 0.16        | 71.86 | -0.02       | -0.14       | 72.82 | 0.24        | -0.18       | 69.72 | 0.12        | 0.02        |
|       | <i>Pseudoxya diminuta</i>                | NC_025765.1       | 75.90  | -0.17       | 0.15        | 75.05 | 0.00        | -0.14       | 77.25 | 0.24        | -0.14       | 72.92 | 0.13        | 0.04        |
|       | <i>Pternoscirta caliginosa</i>           | NC_035227.1       | 75.36  | -0.18       | 0.18        | 74.10 | 0.01        | -0.13       | 77.61 | 0.27        | -0.18       | 73.87 | 0.14        | 0.03        |
|       | <i>Pyrgacris descampsi</i>               | NC_020776.1       | 71.16  | -0.20       | 0.14        | 69.92 | -0.05       | -0.13       | 73.41 | 0.28        | -0.13       | 71.20 | 0.09        | 0.02        |
|       | <i>Pyrgomorpha conica</i>                | BK068644          | 75.15  | -0.18       | 0.11        | 74.43 | 0.01        | -0.14       | 76.17 | 0.23        | -0.14       | 73.94 | 0.09        | 0.02        |
|       | <i>Qinlingacris taibaiensis</i>          | NC_027187.1       | 75.27  | -0.15       | 0.12        | 75.50 | 0.00        | -0.14       | 76.75 | 0.21        | -0.14       | 73.44 | 0.11        | 0.02        |

| Order | Species                                        | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|------------------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                                |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Ronderosia bergii</i>                       | BK068647          | 74.75  | -0.18       | 0.14        | 73.73 | 0.00        | -0.14       | 75.48 | 0.24        | -0.12       | 72.82 | 0.12        | 0.03        |
|       | <i>Ruidocollaris convexpennis</i>              | NC_046548.1       | 73.01  | -0.32       | 0.00        | 71.34 | -0.06       | -0.16       | 75.86 | 0.37        | -0.01       | 76.06 | 0.15        | 0.02        |
|       | <i>Ruidocollaris obscura</i>                   | NC_028160.1       | 73.48  | -0.32       | 0.01        | 72.10 | -0.06       | -0.16       | 75.08 | 0.39        | -0.03       | 76.34 | 0.12        | 0.02        |
|       | <i>Ruspolia dubia</i>                          | NC_009876.1       | 70.86  | -0.24       | 0.02        | 69.98 | -0.02       | -0.16       | 73.53 | 0.33        | -0.04       | 73.47 | 0.11        | 0.02        |
|       | <i>Ruspolia lineosa</i>                        | NC_033991.1       | 71.24  | -0.23       | 0.03        | 69.84 | -0.03       | -0.16       | 74.82 | 0.35        | -0.03       | 73.64 | 0.11        | 0.02        |
|       | <i>Schistocerca gregaria gregaria</i>          | NC_013240.1       | 73.18  | -0.17       | 0.16        | 72.23 | -0.02       | -0.14       | 74.03 | 0.22        | -0.17       | 71.23 | 0.11        | 0.02        |
|       | <i>Shirakiacris shirakii</i>                   | NC_021610.1       | 72.33  | -0.16       | 0.13        | 71.47 | -0.01       | -0.15       | 73.27 | 0.23        | -0.15       | 70.22 | 0.10        | 0.03        |
|       | <i>Shirakiacris yunkweiensis</i>               | NC_046531.1       | 72.52  | -0.17       | 0.13        | 71.70 | -0.01       | -0.15       | 73.31 | 0.24        | -0.15       | 70.07 | 0.10        | 0.03        |
|       | <i>Shoveliteratura triangula</i>               | NC_048466.1       | 70.45  | -0.27       | 0.05        | 70.22 | -0.04       | -0.15       | 74.29 | 0.40        | -0.03       | 74.00 | 0.15        | 0.04        |
|       | <i>Sinochlora longifissa</i>                   | NC_021424.1       | 69.05  | -0.30       | 0.00        | 68.95 | -0.05       | -0.15       | 72.34 | 0.36        | -0.02       | 73.84 | 0.13        | 0.01        |
|       | <i>Sinochlora szechwanensis</i>                | NC_034994.1       | 69.47  | -0.31       | -0.01       | 69.71 | -0.05       | -0.15       | 73.12 | -0.13       | -0.01       | 73.89 | 0.09        | 0.03        |
|       | <i>Sinopodisma funiushana</i>                  | NC_046546.1       | 76.63  | -0.13       | 0.12        | 75.92 | 0.01        | -0.14       | 76.47 | 0.21        | -0.14       | 74.17 | 0.12        | 0.02        |
|       | <i>Sinopodisma houshana</i>                    | NC_033905.1       | 76.36  | -0.13       | 0.13        | 75.68 | 0.02        | -0.14       | 76.26 | 0.23        | -0.15       | 74.18 | 0.10        | 0.01        |
|       | <i>Sinopodisma lofaoshana</i>                  | NC_046562.1       | 76.18  | -0.13       | 0.13        | 75.58 | 0.01        | -0.14       | 76.29 | 0.22        | -0.14       | 73.51 | 0.10        | 0.02        |
|       | <i>Sinopodisma lushiensis</i>                  | NC_046549.1       | 76.73  | -0.12       | 0.12        | 76.10 | 0.02        | -0.14       | 76.88 | 0.21        | -0.14       | 73.91 | 0.11        | 0.01        |
|       | <i>Sinopodisma pieli</i>                       | NC_051867.1       | 75.97  | -0.13       | 0.13        | 75.37 | 0.00        | -0.13       | 75.79 | 0.22        | -0.14       | 73.50 | 0.13        | 0.02        |
|       | <i>Sinopodisma qinlingensis</i>                | NC_056238.1       | 76.80  | -0.12       | 0.12        | 76.22 | 0.02        | -0.14       | 76.73 | 0.21        | -0.14       | 74.03 | 0.11        | 0.01        |
|       | <i>Sinopodisma rostelloerca</i>                | NC_052716.1       | 76.00  | -0.14       | 0.13        | 75.46 | 0.00        | -0.13       | 76.40 | 0.24        | -0.16       | 73.49 | 0.11        | 0.02        |
|       | <i>Sinopodisma tsinlingensis</i>               | NC_032303.1       | 75.72  | -0.14       | 0.13        | 75.08 | 0.01        | -0.14       | 75.82 | 0.23        | -0.14       | 73.17 | 0.12        | 0.03        |
|       | <i>Sinopodisma wudangshanensis</i>             | NC_046547.1       | 76.34  | -0.13       | 0.12        | 75.95 | 0.01        | -0.14       | 76.02 | 0.22        | -0.14       | 74.26 | 0.11        | 0.02        |
|       | <i>Sinopodisma wulingshanensis</i>             | NC_033906.1       | 76.48  | -0.13       | 0.13        | 75.80 | 0.00        | -0.14       | 76.36 | 0.21        | -0.16       | 74.56 | 0.10        | 0.02        |
|       | <i>Sinotmethis brachypterus</i>                | NC_026525.1       | 72.59  | -0.19       | 0.16        | 72.05 | -0.02       | -0.14       | 72.79 | 0.26        | -0.18       | 70.28 | 0.12        | 0.02        |
|       | <i>Spathosternum prasiniferum prasiniferum</i> | NC_046532.1       | 74.10  | -0.16       | 0.14        | 73.20 | 0.00        | -0.15       | 75.39 | 0.24        | -0.16       | 72.41 | 0.12        | 0.01        |
|       | <i>Sphingonotus menglaensis</i>                | NC_046550.1       | 74.84  | -0.20       | 0.19        | 73.18 | -0.02       | -0.12       | 76.93 | 0.25        | -0.18       | 73.64 | 0.14        | 0.03        |

| Order | Species                           | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|-----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                   |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Sphingonotus ningsianus</i>    | NC_046563.1       | 74.17  | -0.21       | 0.20        | 72.47 | -0.04       | -0.11       | 76.48 | 0.24        | -0.19       | 72.73 | 0.13        | 0.03        |
|       | <i>Sphingonotus yenchihensis</i>  | NC_046564.1       | 74.90  | -0.20       | 0.19        | 73.44 | -0.02       | -0.12       | 76.74 | 0.25        | -0.19       | 72.73 | 0.13        | 0.03        |
|       | <i>Stenocatantops mistshenkoi</i> | NC_052717.1       | 72.85  | -0.18       | 0.17        | 71.73 | 0.01        | -0.14       | 74.20 | 0.24        | -0.17       | 71.18 | 0.12        | 0.03        |
|       | <i>Stenocatantops splendens</i>   | NC_041115.1       | 72.77  | -0.18       | 0.17        | 71.67 | 0.00        | -0.14       | 74.07 | 0.23        | -0.16       | 70.64 | 0.12        | 0.02        |
|       | <i>Stenopelmatus fuscus</i>       | NC_028058.1       | 70.34  | -0.25       | 0.06        | 69.25 | -0.02       | -0.15       | 74.16 | 0.37        | -0.06       | 73.49 | 0.11        | 0.00        |
|       | <i>Svistella anhuiensis</i>       | NC_053543.1       | 73.75  | -0.35       | 0.06        | 71.64 | -0.04       | -0.16       | 75.11 | 0.47        | -0.08       | 76.86 | 0.26        | -0.01       |
|       | <i>Tachycines zorzini</i>         | NC_057442.1       | 73.91  | -0.22       | 0.14        | 72.66 | -0.01       | -0.10       | 76.91 | 0.33        | -0.16       | 75.00 | 0.12        | 0.00        |
|       | <i>Tagasta indica</i>             | NC_045930.1       | 73.43  | -0.20       | 0.15        | 72.50 | 0.02        | -0.14       | 75.68 | 0.26        | -0.19       | 73.43 | 0.12        | 0.03        |
|       | <i>Tanaocerus koebelei</i>        | NC_020777.1       | 71.34  | -0.24       | 0.16        | 69.86 | -0.04       | -0.14       | 73.56 | 0.27        | -0.14       | 72.27 | 0.11        | 0.01        |
|       | <i>Tarragoilus diuturnus</i>      | NC_021397.1       | 67.21  | -0.28       | 0.08        | 66.03 | -0.06       | -0.14       | 69.90 | 0.35        | -0.10       | 72.42 | 0.12        | 0.01        |
|       | <i>Teleogryllus emma</i>          | NC_011823.1       | 73.12  | -0.27       | 0.11        | 72.61 | -0.01       | -0.14       | 73.87 | 0.42        | -0.15       | 74.86 | 0.22        | -0.01       |
|       | <i>Teleogryllus oceanicus</i>     | NC_028619.1       | 73.04  | -0.27       | 0.11        | 72.49 | 0.00        | -0.15       | 73.73 | 0.42        | -0.15       | 75.09 | 0.22        | -0.01       |
|       | <i>Tetrix japonica</i>            | NC_018543.1       | 75.57  | -0.21       | 0.19        | 74.79 | 0.00        | -0.11       | 78.20 | 0.31        | -0.26       | 75.07 | 0.14        | 0.02        |
|       | <i>Tetrix ruyuanensis</i>         | NC_046412.1       | 75.50  | -0.22       | 0.19        | 74.76 | 0.00        | -0.11       | 78.11 | 0.31        | -0.26       | 75.38 | 0.13        | 0.02        |
|       | <i>Thrinchus schrenkii</i>        | NC_014610.1       | 71.25  | -0.20       | 0.17        | 70.75 | -0.03       | -0.14       | 71.93 | 0.24        | -0.18       | 69.43 | 0.09        | 0.03        |
|       | <i>Tonkinacris sinensis</i>       | NC_032716.1       | 75.77  | -0.15       | 0.13        | 75.19 | 0.00        | -0.14       | 76.14 | 0.23        | -0.15       | 73.68 | 0.08        | 0.03        |
|       | <i>Traulia lofaoshana</i>         | NC_046551.1       | 74.37  | -0.18       | 0.16        | 73.68 | -0.01       | -0.13       | 75.74 | 0.26        | -0.16       | 72.42 | 0.11        | 0.02        |
|       | <i>Traulia minuta</i>             | NC_036063.1       | 74.52  | -0.15       | 0.14        | 73.88 | 0.00        | -0.13       | 75.30 | 0.25        | -0.16       | 72.62 | 0.10        | 0.01        |
|       | <i>Traulia nigriritibialis</i>    | NC_041114.1       | 74.63  | -0.15       | 0.14        | 73.99 | 0.00        | -0.14       | 75.25 | 0.25        | -0.15       | 72.21 | 0.09        | 0.02        |
|       | <i>Traulia orchotibialis</i>      | NC_046565.1       | 74.57  | -0.15       | 0.14        | 73.91 | 0.00        | -0.14       | 75.34 | 0.24        | -0.16       | 72.25 | 0.10        | 0.02        |
|       | <i>Traulia szetschuanensis</i>    | NC_013826.1       | 74.55  | -0.16       | 0.14        | 73.95 | 0.00        | -0.13       | 75.47 | 0.28        | -0.16       | 72.22 | 0.09        | 0.02        |
|       | <i>Trigonidium sjostedti</i>      | NC_032077.1       | 76.89  | -0.29       | 0.02        | 75.94 | -0.03       | -0.14       | 78.23 | 0.41        | -0.04       | 78.00 | 0.11        | 0.01        |
|       | <i>Trilophidia annulata</i>       | NC_027179.1       | 74.96  | -0.16       | 0.15        | 73.71 | -0.02       | -0.09       | 77.55 | 0.26        | -0.16       | 72.34 | 0.07        | 0.03        |
|       | <i>Tristira magellanica</i>       | NC_020773.1       | 74.68  | -0.17       | 0.12        | 73.92 | 0.00        | -0.14       | 74.82 | 0.25        | -0.15       | 73.67 | 0.12        | 0.03        |

| Order       | Species                              | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------------|--------------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|             |                                      |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|             | <i>Troglophilus neglectus</i>        | NC_011306.1       | 73.37  | -0.26       | 0.01        | 72.52 | -0.04       | -0.16       | 75.46 | 0.37        | -0.03       | 75.38 | 0.10        | 0.05        |
|             | <i>Truljalia hibernis</i>            | NC_034797.1       | 75.39  | -0.29       | 0.07        | 74.61 | -0.04       | -0.12       | 77.02 | 0.38        | -0.09       | 77.77 | 0.18        | 0.01        |
|             | <i>Uvaroviola multispinosa</i>       | NC_053942.1       | 75.16  | -0.19       | 0.17        | 74.37 | -0.02       | -0.11       | 75.87 | 0.25        | -0.16       | 74.06 | 0.13        | 0.01        |
|             | <i>Vandiemenna viatica</i>           | BK068658          | 75.73  | -0.16       | 0.12        | 74.66 | 0.00        | -0.10       | 77.63 | 0.25        | -0.11       | 73.61 | 0.11        | 0.03        |
|             | <i>Velarifictorus hemelytrus</i>     | NC_030762.1       | 72.65  | -0.35       | 0.09        | 71.76 | -0.03       | -0.14       | 74.53 | 0.44        | -0.09       | 75.72 | 0.21        | 0.01        |
|             | <i>Xenocatantops brachycerus</i>     | NC_021609.1       | 73.85  | -0.16       | 0.16        | 72.87 | 0.00        | -0.14       | 74.87 | 0.23        | -0.15       | 72.08 | 0.12        | 0.02        |
|             | <i>Xenogryllus marmoratus</i>        | NC_041236.1       | 72.12  | -0.38       | 0.13        | 70.84 | -0.03       | -0.12       | 72.95 | 0.46        | -0.15       | 75.84 | 0.23        | 0.00        |
|             | <i>Xianglilacris zhongdianensis</i>  | NC_046533.1       | 74.59  | -0.18       | 0.13        | 74.24 | 0.00        | -0.14       | 76.57 | 0.25        | -0.13       | 71.89 | 0.11        | 0.03        |
|             | <i>Xiphidiopsis gurneyi</i>          | NC_039981.1       | 67.50  | -0.31       | 0.07        | 66.78 | -0.05       | -0.16       | 72.89 | 0.43        | -0.06       | 73.93 | 0.15        | 0.01        |
|             | <i>Xizicus fascipes</i>              | NC_018765.1       | 70.17  | -0.28       | 0.05        | 69.55 | -0.01       | -0.16       | 74.01 | 0.41        | -0.06       | 74.26 | 0.15        | 0.01        |
|             | <i>Xizicus maculatus</i>             | NC_040974.1       | 69.21  | -0.31       | 0.07        | 68.26 | -0.04       | -0.15       | 74.49 | 0.40        | -0.05       | 74.14 | 0.15        | 0.01        |
|             | <i>Xyleus modestus</i>               | NC_014490.1       | 72.47  | -0.19       | 0.17        | 71.39 | 0.00        | -0.14       | 73.39 | 0.23        | -0.14       | 70.76 | 0.10        | 0.02        |
|             | <i>Xyleus discoideus angulatus</i>   | BK068659          | 72.95  | -0.19       | 0.17        | 71.77 | -0.01       | -0.14       | 73.80 | 0.24        | -0.16       | 71.11 | 0.13        | 0.01        |
|             | <i>Xyleus discoideus discoideus</i>  | BK068660          | 72.62  | -0.19       | 0.16        | 71.68 | -0.02       | -0.14       | 73.35 | 0.23        | -0.14       | 70.68 | 0.09        | 0.01        |
|             | <i>Yunnanacris yunnaneus</i>         | NC_030586.1       | 75.08  | -0.15       | 0.14        | 74.67 | 0.00        | -0.14       | 75.38 | 0.24        | -0.15       | 72.75 | 0.10        | 0.02        |
|             | <i>Zichya baranovi</i>               | NC_033984.1       | 71.77  | -0.28       | 0.03        | 70.70 | -0.04       | -0.16       | 73.10 | 0.38        | -0.05       | 73.83 | 0.12        | 0.01        |
|             | Average                              |                   | 73.78  | -0.21       | 0.11        | 72.90 | -0.02       | -0.14       | 75.25 | 0.28        | -0.12       | 73.49 | 0.12        | 0.02        |
|             | Standard deviation (SD)              |                   | 2.24   | 0.06        | 0.06        | 2.36  | 0.02        | 0.02        | 1.84  | 0.10        | 0.06        | 1.83  | 0.03        | 0.01        |
|             | Coefficient of variation (CV)        |                   | 0.03   | -0.30       | 0.50        | 0.03  | -1.50       | -0.11       | 0.02  | 0.36        | -0.52       | 0.02  | 0.26        | 0.56        |
| Phasmatodea | <i>Heteropteryx dilatata</i>         | NC_014680.1       | 76.10  | -0.21       | 0.19        | 75.60 | -0.02       | -0.10       | 76.98 | 0.34        | -0.25       | 78.02 | 0.16        | -0.01       |
|             | <i>Micadina phluctainoides</i>       | NC_014673.1       | 78.45  | -0.10       | 0.17        | 76.81 | 0.00        | -0.10       | 80.27 | 0.26        | -0.19       | 79.59 | 0.16        | 0.03        |
|             | <i>Phraortes illepidus</i>           | NC_014695.1       | 77.61  | -0.17       | 0.18        | 76.62 | -0.01       | -0.10       | 78.46 | 0.25        | -0.22       | 78.23 | 0.17        | 0.02        |
|             | <i>Phraortes sp. Iriomote Island</i> | NC_014705.1       | 78.82  | -0.14       | 0.18        | 77.25 | -0.01       | -0.09       | 79.84 | 0.24        | -0.22       | 80.47 | 0.17        | 0.00        |
|             | <i>Entoria okinawaensis</i>          | NC_014694.1       | 76.00  | -0.15       | 0.15        | 75.68 | -0.01       | -0.11       | 78.75 | 0.29        | -0.20       | 79.27 | 0.18        | -0.01       |

| Order      | Species                          | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|------------|----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|            |                                  |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|            | <i>Eurycantha calcarata</i>      | NC_058255.1       | 78.16  | -0.22       | 0.15        | 76.73 | 0.00        | -0.11       | 78.06 | 0.28        | -0.20       | 80.14 | 0.16        | 0.04        |
|            | <i>Extatosoma tiaratum</i>       | NC_017748.1       | 75.97  | -0.26       | 0.20        | 75.23 | -0.04       | -0.08       | 77.12 | 0.35        | -0.24       | 78.40 | 0.19        | 0.01        |
|            | <i>Medauroidea extradentata</i>  | BK068643          | 77.59  | -0.16       | 0.14        | 76.12 | 0.02        | -0.11       | 78.12 | 0.23        | -0.20       | 78.29 | 0.19        | 0.01        |
|            | <i>Megacrania alpheus adan</i>   | NC_014688.1       | 76.87  | -0.20       | 0.20        | 75.50 | -0.01       | -0.08       | 78.21 | 0.32        | -0.23       | 79.03 | 0.17        | 0.00        |
|            | <i>Phobaeticus serratipes</i>    | NC_014678.1       | 77.02  | -0.22       | 0.19        | 75.94 | -0.01       | -0.09       | 79.21 | 0.28        | -0.23       | 77.98 | 0.14        | 0.02        |
|            | <i>Ramulus hainanense</i>        | NC_013185.1       | 73.10  | -0.21       | 0.18        | 71.65 | -0.02       | -0.11       | 77.72 | 0.31        | -0.24       | 76.73 | 0.18        | 0.02        |
|            | <i>Ramulus mikado</i>            | NC_014702.1       | 75.99  | -0.11       | 0.14        | 75.56 | 0.00        | -0.11       | 78.62 | 0.26        | -0.19       | 78.37 | 0.19        | -0.01       |
|            | <i>Timema bartmani</i>           | BK068649          | 76.11  | -0.16       | 0.07        | 72.17 | -0.01       | -0.15       | 76.88 | 0.30        | -0.14       | 76.36 | 0.17        | 0.01        |
|            | <i>Timema genevieveae</i>        | BK068650          | 75.28  | -0.18       | 0.08        | 71.73 | -0.01       | -0.15       | 77.03 | 0.30        | -0.15       | 75.90 | 0.18        | 0.00        |
|            | <i>Timema monikensis</i>         | BK068651          | 73.56  | -0.20       | 0.08        | 70.87 | -0.04       | -0.14       | 76.43 | 0.30        | -0.12       | 76.57 | 0.14        | 0.00        |
|            | <i>Timema podura</i>             | BK068652          | 74.42  | -0.20       | 0.08        | 71.70 | -0.01       | -0.15       | 76.99 | 0.30        | -0.14       | 76.38 | 0.16        | 0.01        |
|            | <i>Timema poppensis</i>          | BK068664          | 73.54  | -0.13       | 0.07        | 71.05 | 0.00        | -0.14       | 76.70 | 0.28        | -0.13       | 76.26 | 0.17        | 0.00        |
|            | <i>Timema shepardi</i>           | BK068665          | 73.70  | -0.16       | 0.07        | 71.14 | -0.01       | -0.14       | 76.37 | 0.28        | -0.13       | 76.78 | 0.16        | 0.01        |
|            | Average                          |                   | 76.02  | -0.18       | 0.14        | 74.30 | -0.01       | -0.11       | 77.88 | 0.29        | -0.19       | 77.93 | 0.17        | 0.01        |
|            | Standard deviation (SD)          |                   | 1.79   | 0.04        | 0.05        | 2.39  | 0.01        | 0.02        | 1.16  | 0.03        | 0.04        | 1.42  | 0.01        | 0.01        |
|            | Coefficient of variation (CV)    |                   | 0.02   | -0.24       | 0.36        | 0.03  | -1.17       | -0.22       | 0.01  | 0.11        | -0.23       | 0.02  | 0.08        | 1.53        |
|            | <i>Acroneuria carolinensis</i>   | NC_053852.1       | 62.45  | -0.30       | 0.07        | 62.70 | -0.05       | -0.19       | 68.61 | 0.38        | -0.10       | 67.79 | 0.10        | -0.01       |
|            | <i>Acroneuria hainana</i>        | NC_026104.1       | 68.26  | 0.32        | -0.14       | 60.45 | -0.08       | -0.20       | 66.94 | 0.40        | -0.04       | 66.17 | 0.09        | -0.02       |
|            | <i>Amphinemura bulla</i>         | NC_057056.1       | 66.31  | -0.26       | 0.06        | 67.18 | -0.03       | -0.18       | 70.93 | 0.29        | -0.09       | 70.62 | 0.13        | -0.01       |
|            | <i>Amphinemura longispina</i>    | NC_044748.1       | 69.31  | -0.23       | 0.06        | 63.93 | -0.05       | -0.17       | 70.56 | 0.27        | -0.09       | 70.69 | 0.14        | 0.00        |
|            | <i>Amphinemura yao</i>           | NC_044749.1       | 70.94  | -0.21       | 0.04        | 66.56 | -0.06       | -0.18       | 71.59 | 0.27        | -0.10       | 71.02 | 0.13        | -0.01       |
|            | <i>Amphinemura sulcicollis</i>   | BK068636          | 64.59  | -0.26       | 0.07        | 65.90 | -0.05       | -0.17       | 71.08 | 0.28        | -0.09       | 70.77 | 0.12        | 0.00        |
|            | <i>Antarctoperla michaelsoni</i> | NC_042199.1       | 67.81  | -0.23       | 0.02        | 68.10 | -0.03       | -0.19       | 72.65 | 0.30        | -0.08       | 70.56 | 0.14        | 0.00        |
| Plecoptera | <i>Apteroperla tikumana</i>      | NC_027698.1       | 67.80  | -0.23       | 0.03        | 65.73 | -0.02       | -0.18       | 72.16 | 0.27        | -0.01       | 70.66 | 0.13        | -0.01       |

| Order | Species                         | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|---------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                 |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Brachyptera seticornis</i>   | BK068663          | 62.62  | -0.30       | 0.06        | 65.72 | -0.04       | -0.19       | 71.48 | 0.28        | -0.04       | 71.94 | 0.13        | -0.01       |
|       | <i>Capnia zijinshana</i>        | NC_034661.1       | 69.56  | -0.25       | 0.02        | 68.28 | 0.00        | -0.18       | 72.72 | 0.27        | -0.03       | 70.53 | 0.11        | 0.00        |
|       | <i>Diamphipnoa annulata</i>     | NC_042205.1       | 68.55  | -0.21       | 0.05        | 66.22 | -0.03       | -0.16       | 72.28 | 0.28        | -0.15       | 70.92 | 0.13        | -0.02       |
|       | <i>Dinocras cephalotes</i>      | NC_022843.1       | 70.80  | -0.19       | 0.04        | 59.94 | -0.08       | -0.21       | 68.00 | 0.37        | -0.06       | 67.54 | 0.13        | -0.03       |
|       | <i>Flavoperla hatakeyamae</i>   | NC_057436.1       | 69.79  | -0.22       | 0.06        | 64.36 | -0.01       | -0.20       | 70.53 | 0.40        | -0.08       | 70.43 | 0.14        | -0.02       |
|       | <i>Indonemoura jacobsoni</i>    | NC_044750.1       | 67.31  | -0.28       | 0.09        | 67.36 | -0.01       | -0.17       | 72.25 | 0.32        | -0.10       | 70.78 | 0.12        | -0.02       |
|       | <i>Indonemoura nohirae</i>      | NC_044751.1       | 69.94  | -0.27       | 0.04        | 69.57 | 0.01        | -0.18       | 72.93 | 0.30        | -0.08       | 70.79 | 0.13        | 0.00        |
|       | <i>Isoperla bilineata</i>       | NC_038190.1       | 64.14  | -0.29       | 0.05        | 66.92 | 0.00        | -0.20       | 70.85 | 0.31        | -0.07       | 69.07 | 0.11        | 0.00        |
|       | <i>Isoperla eximia</i>          | NC_038167.1       | 67.45  | -0.21       | 0.04        | 66.09 | -0.04       | -0.18       | 71.11 | 0.31        | -0.09       | 70.18 | 0.11        | -0.01       |
|       | <i>Kamimuria chungnanshana</i>  | NC_028076.1       | 64.78  | -0.30       | 0.07        | 68.01 | -0.02       | -0.18       | 71.28 | 0.36        | -0.07       | 71.71 | 0.13        | -0.01       |
|       | <i>Kathroperla doma</i>         | BK068661          | 68.94  | -0.21       | 0.06        | 66.05 | -0.02       | -0.18       | 71.16 | 0.36        | -0.12       | 68.97 | 0.14        | -0.01       |
|       | <i>Kathroperla siskiyou</i>     | BK068662          | 66.34  | -0.26       | 0.08        | 69.95 | 0.00        | -0.18       | 71.43 | 0.33        | -0.12       | 69.99 | 0.13        | 0.01        |
|       | <i>Leuctra hippopus</i>         | BK068663          | 68.54  | -0.23       | 0.08        | 66.62 | -0.02       | -0.16       | 71.30 | 0.35        | -0.07       | 69.57 | 0.13        | -0.01       |
|       | <i>Mesonemoura metafiligera</i> | NC_044719.1       | 71.84  | -0.18       | 0.03        | 66.95 | 0.00        | -0.19       | 72.63 | 0.30        | -0.09       | 71.16 | 0.14        | -0.01       |
|       | <i>Mesonemoura tritaenia</i>    | NC_044720.1       | 69.17  | -0.19       | 0.04        | 66.46 | -0.03       | -0.17       | 72.02 | 0.30        | -0.10       | 71.31 | 0.12        | -0.01       |
|       | <i>Nemoura meniscata</i>        | NC_057513.1       | 69.00  | -0.20       | 0.06        | 68.94 | 0.01        | -0.19       | 73.53 | 0.27        | -0.09       | 71.25 | 0.13        | -0.02       |
|       | <i>Nemoura nankinensis</i>      | NC_034939.1       | 69.69  | -0.19       | 0.04        | 68.95 | 0.01        | -0.18       | 73.55 | 0.28        | -0.10       | 71.25 | 0.13        | 0.00        |
|       | <i>Neonemura barrosi</i>        | NC_042206.1       | 66.50  | -0.28       | 0.07        | 68.76 | -0.03       | -0.15       | 73.96 | 0.30        | -0.07       | 71.16 | 0.13        | 0.00        |
|       | <i>Neuroperla schedingi</i>     | NC_042200.1       | 67.73  | -0.24       | 0.05        | 66.40 | -0.07       | -0.17       | 70.33 | 0.36        | -0.13       | 69.89 | 0.12        | -0.02       |
|       | <i>Oyamia nigribasis</i>        | NC_056285.1       | 71.46  | -0.22       | 0.04        | 68.48 | -0.03       | -0.17       | 71.81 | 0.36        | -0.07       | 70.22 | 0.14        | -0.02       |
|       | <i>Paragnetina indentata</i>    | NC_057280.1       | 70.68  | -0.20       | 0.02        | 61.91 | -0.07       | -0.18       | 68.04 | 0.40        | -0.05       | 68.28 | 0.11        | 0.02        |
|       | <i>Paraleuctra cercia</i>       | NC_053557.1       | 69.19  | -0.26       | 0.02        | 65.50 | -0.01       | -0.19       | 71.47 | 0.32        | -0.09       | 68.75 | 0.13        | 0.00        |
|       | <i>Paraperla wilsoni</i>        | BK068646          | 69.41  | -0.20       | 0.03        | 66.68 | -0.03       | -0.17       | 72.21 | 0.32        | -0.11       | 69.30 | 0.09        | 0.00        |
|       | <i>Perlesta teaysia</i>         | NC_057281.1       | 69.77  | -0.26       | 0.06        | 63.10 | -0.04       | -0.18       | 68.57 | 0.37        | -0.10       | 67.07 | 0.11        | -0.01       |

| Order | Species                           | NCBI<br>accession | Genome |             |             | PCG   |             |             | rRNA  |             |             | tRNA  |             |             |
|-------|-----------------------------------|-------------------|--------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|-------|-------------|-------------|
|       |                                   |                   | AT     | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew | AT    | GC-<br>skew | AT-<br>skew |
|       | <i>Perlomyia isobeae</i>          | NC_053558.1       | 68.83  | -0.22       | 0.06        | 70.52 | 0.02        | -0.18       | 72.72 | 0.33        | -0.07       | 71.26 | 0.13        | 0.01        |
|       | <i>Protonemura kohnoae</i>        | NC_044752.1       | 67.10  | -0.24       | 0.07        | 67.22 | 0.01        | -0.18       | 72.63 | 0.30        | -0.08       | 70.15 | 0.12        | -0.02       |
|       | <i>Protonemura meyeri</i>         | NC_050322.1       | 66.78  | -0.23       | 0.07        | 66.89 | 0.00        | -0.19       | 71.76 | 0.29        | -0.09       | 71.19 | 0.14        | 0.00        |
|       | <i>Protonemura orbiculata</i>     | NC_044753.1       | 70.69  | -0.24       | 0.06        | 67.66 | 0.01        | -0.18       | 72.53 | 0.28        | -0.08       | 70.71 | 0.13        | -0.01       |
|       | <i>Pseudomegarcys japonica</i>    | NC_038168.1       | 66.70  | -0.30       | 0.09        | 64.07 | -0.04       | -0.18       | 71.66 | 0.33        | -0.09       | 69.57 | 0.10        | -0.02       |
|       | <i>Pteronarcella badia</i>        | NC_029248.1       | 69.76  | -0.15       | 0.02        | 67.02 | -0.07       | -0.17       | 70.54 | 0.32        | -0.07       | 67.77 | 0.11        | 0.01        |
|       | <i>Pteronarcys princeps</i>       | NC_006133.1       | 63.68  | -0.31       | 0.05        | 70.48 | -0.01       | -0.18       | 71.95 | 0.33        | -0.08       | 70.07 | 0.14        | -0.02       |
|       | <i>Rhopalopsole bulbifera</i>     | NC_042207.1       | 66.23  | -0.26       | 0.06        | 69.87 | 0.02        | -0.16       | 74.33 | 0.34        | -0.05       | 71.71 | 0.13        | 0.01        |
|       | <i>Scopura longa</i>              | NC_041105.1       | 68.02  | -0.22       | 0.06        | 67.93 | -0.02       | -0.19       | 71.76 | 0.34        | -0.06       | 70.28 | 0.11        | 0.02        |
|       | <i>Siphonoperla torrentium</i>    | BK068648          | 66.51  | -0.19       | 0.03        | 65.85 | -0.03       | -0.17       | 72.15 | 0.29        | -0.11       | 69.99 | 0.12        | -0.01       |
|       | <i>Soliperla sp. ZTC-2018</i>     | NC_038189.1       | 67.49  | -0.20       | 0.03        | 67.98 | -0.03       | -0.16       | 72.43 | 0.32        | -0.13       | 70.55 | 0.13        | 0.00        |
|       | <i>Sphaeronemoura acutispina</i>  | NC_044755.1       | 68.04  | -0.27       | 0.09        | 67.60 | -0.01       | -0.18       | 72.90 | 0.31        | -0.10       | 70.74 | 0.12        | 0.00        |
|       | <i>Sphaeronemoura elephas</i>     | NC_057512.1       | 71.27  | -0.24       | 0.08        | 64.57 | -0.07       | -0.17       | 71.01 | 0.31        | -0.11       | 70.51 | 0.11        | 0.00        |
|       | <i>Sphaeronemoura grandicauda</i> | NC_044754.1       | 68.21  | -0.23       | 0.04        | 64.32 | -0.04       | -0.19       | 71.31 | 0.31        | -0.10       | 70.24 | 0.13        | -0.01       |
|       | <i>Styloperla spinicercia</i>     | NC_034809.1       | 68.37  | -0.27       | 0.08        | 69.32 | 0.00        | -0.18       | 73.49 | 0.36        | -0.10       | 71.13 | 0.13        | -0.01       |
|       | <i>Suwallia errata</i>            | NC_037754.1       | 68.17  | -0.24       | 0.08        | 64.15 | -0.05       | -0.17       | 71.49 | 0.34        | -0.12       | 69.20 | 0.10        | 0.00        |
|       | <i>Taeniopteryx ugola</i>         | NC_037897.1       | 70.75  | -0.22       | 0.08        | 68.56 | 0.03        | -0.20       | 72.72 | 0.28        | -0.05       | 71.31 | 0.13        | -0.02       |
|       | <i>Togoperla limbata</i>          | NC_053853.1       | 71.53  | -0.20       | 0.06        | 61.44 | -0.07       | -0.18       | 66.83 | 0.40        | -0.03       | 68.67 | 0.10        | -0.01       |
|       | <i>Utaperla gaspesiana</i>        | BK068655          | 68.47  | -0.18       | 0.01        | 68.79 | 0.00        | -0.16       | 72.76 | 0.30        | -0.11       | 69.93 | 0.07        | 0.00        |
|       | <i>Utaperla lepnevae</i>          | BK068656          | 72.58  | 0.35        | -0.17       | 69.79 | 0.01        | -0.16       | 73.53 | 0.30        | -0.11       | 69.63 | 0.09        | -0.01       |
|       | <i>Utaperla sopladora</i>         | BK068657          | 67.53  | -0.21       | 0.09        | 69.16 | -0.01       | -0.16       | 73.04 | 0.30        | -0.11       | 69.52 | 0.09        | 0.00        |
|       | <i>Zelandoperla fenestrata</i>    | NC_034997.1       | 70.67  | -0.23       | 0.08        | 64.65 | -0.06       | -0.17       | 70.93 | 0.30        | -0.11       | 71.28 | 0.13        | -0.01       |
|       | Average                           |                   | 68.30  | -0.21       | 0.05        | 66.59 | -0.02       | -0.18       | 71.56 | 0.32        | -0.09       | 70.11 | 0.12        | -0.01       |
|       | Standard deviation (SD)           |                   | 2.27   | 0.11        | 0.05        | 2.49  | 0.03        | 0.01        | 1.63  | 0.04        | 0.03        | 1.24  | 0.02        | 0.01        |

| Order | Species                       | NCBI<br>accession | Genome |             |             | PCG  |             |             | rRNA |             |             | tRNA |             |             |
|-------|-------------------------------|-------------------|--------|-------------|-------------|------|-------------|-------------|------|-------------|-------------|------|-------------|-------------|
|       |                               |                   | AT     | GC-<br>skew | AT-<br>skew | AT   | GC-<br>skew | AT-<br>skew | AT   | GC-<br>skew | AT-<br>skew | AT   | GC-<br>skew | AT-<br>skew |
|       | Coefficient of variation (CV) |                   | 0.03   | -0.53       | 0.97        | 0.04 | -1.17       | -0.07       | 0.02 | 0.12        | -0.32       | 0.02 | 0.14        | -1.44       |