

Table S1. Mitogenome sequences obtained from GenBank for gene arrangement analyses.

| Species | Number | Class | Family | Length | Reference |
|---|-------------|-------------------|----------------------|--------|--------------|
| <i>Acasta cyathus</i> | MN615272 | Balanomorph a | Balanidae | 15,251 | Unpublished |
| <i>Acasta sulcata</i> | NC_029168.1 | Balanomorph a | Balanidae | 15,326 | Unpublished. |
| <i>Altiverruca navicular*</i> (outgroup) | NC_037244.1 | Verrucomorp ha | Verrucidae | 15,976 | [57] |
| <i>Amphibalanus amphitrite</i> | NC_024525.1 | Balanomorph a | Balanidae | 15,683 | [46] |
| <i>Armatobalanus allium</i> | NC_029167.1 | Balanomorph a | Balanidae | 15,063 | Unpublished |
| <i>Balanus balanus</i> | NC_026466.1 | Balanomorph a | Balanidae | 15,955 | [15] |
| <i>Balanus trigonus</i> | NC_056392 | Balanomorph a | Balanidae | 15,336 | Unpublished |
| <i>Catomerus polymerus</i> | MH791045.1 | Balanomorph a | Catophragmida e | 15,446 | [22] |
| <i>Chelonibia testudinaria</i> | NC_029169.1 | Balanomorph a | Chelonibiidae | 14,906 | Unpublished |
| <i>Chthamalus antennatus</i> | NC_026730.1 | Balanomorph a | Chthamalidae | 15,165 | Unpublished |
| <i>Chthamalus challenger</i> | NC_043920.1 | Balanomorph a | Chthamalidae | 15,358 | [17] |
| <i>Chthamalus malayensis</i> | NC_056950 | Balanomorph a | Chthamalidae | 15,230 | Unpublished |
| <i>Eochionelasmus coreana*</i> | MT491209.1 | Balanomorph a | Chionelasmatic ae | 17,035 | [21] |
| <i>Eochionelasmus ohtai*</i> | NC_036957.1 | Balanomorph a | Chionelasmatic ae | 15,585 | [52] |
| <i>Epopella plicata</i> | NC_033393.1 | Balanomorph a | Austrobalanida e | 15,296 | Unpublished |
| <i>Fistulobalanus albicostatus</i> | NC_053649 | Balanomorph a | Balanidae | 15,665 | [20] |
| <i>Megabalanus ajax</i> | NC_024636.1 | Balanomorph a | Balanidae | 15,510 | [59] |
| <i>Megabalanus tintinnabulum</i> | NC_056162 | Balanomorph a | Balanidae | 15,107 | [50] |
| <i>Megabalanus volcano</i> | NC_006293.1 | Balanomorph a | Balanidae | 15,107 | Unpublished |
| <i>Nobia grandis</i> | NC_023945.1 | Balanomorph a | Pyrgomatidae | 15,032 | [59] |
| <i>Notochthamalus scabrosus</i> | NC_022716.1 | Balanomorph a | Chthamalidae | 15,397 | [50] |
| <i>Octomeris</i> sp. BKKC-2014 | KJ754820.1 | Balanomorph a | Chthamalidae | 15,484 | Unpublished |
| <i>Pyrgopsella youngi</i> | MN615,273 | Balanomorph a | Pyrgomatidae | 15,129 | Unpublished |

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|---|--------------|------------------|---------------|--------|-------------|
| <i>Savignium</i> sp. BKKC-2014 | KJ754821.1 | Balanomorph a | Pyrgomatidae | 14,999 | Unpublished |
| <i>Semibalanus balanoides</i> | NC_039849.1 | Balanomorph a | Balanidae | 15,119 | [13] |
| <i>Semibalanus cariosus</i> | NC_050836.1 | Balanomorph a | Balanidae | 15,118 | [23] |
| <i>Striatobalanus amaryllis</i> | NC_024526.1 | Balanomorph a | Balanidae | 15,064 | [19] |
| <i>Tesseropora rosea</i> | NC_037241.1 | Balanomorph a | Tetraclitidae | 15,330 | [48] |
| <i>Tetraclita japonica</i> | NC_008974.1 | Balanomorph a | Tetraclitidae | 15,194 | Unpublished |
| <i>Tetraclita kuroshioensis</i> | NC_056911.1 | Balanomorph a | Tetraclitidae | 15,175 | [47] |
| <i>Tetraclita rufotincta</i> | NC_037398.1 | Balanomorph a | Tetraclitidae | 15,002 | [49] |
| <i>Tetraclita serrata</i> | NC_02915.4.1 | Balanomorph a | Tetraclitidae | 15,200 | [16] |
| <i>Tetraclita squamosa</i> <i>squamosa</i> | MT232759.1 | Balanomorph a | Tetraclitidae | 15,191 | [38] |
| <i>Tetraclitella divisa</i> | NC_029170.1 | Balanomorph a | Tetraclitidae | 14,973 | Unpublished |
| <i>Megabalanus coccopoma</i> | OK631889 | Balanomorph a | Balanidae | 15,098 | This study |

Note: * indicates deep-sea species

Table S2. Mitogenome sequences obtained from GenBank for phylogenetic analyses.

| Species | Number | Class | Family | Length | Reference |
|------------------------------------|-------------|-------------------|------------------|---------|-------------|
| <i>Acasta cyathus</i> | MN615,272 | Balanomorpha | Balanidae | 15,251 | Unpublished |
| <i>Acasta sulcata</i> | NC_029168.1 | Balanomorpha | Balanidae | 15,326 | Unpublished |
| <i>Altiverruca navicular*</i> | NC_037244.1 | Verrucomorpha | Verrucidae | 15,976 | [57] |
| <i>Amphibalanus amphitrite</i> | NC_024525.1 | Balanomorpha | Balanidae | 15,683 | [46] |
| <i>Arcoscalpellum epeum</i> | MH791047 | Scalpellomorpha | Scalpellidae | 15,593 | [56] |
| <i>Armatobalanus allium</i> | NC_029167.1 | Balanomorpha | Balanidae | 15,063 | Unpublished |
| <i>Balanus balanus</i> | NC_026466.1 | Balanomorpha | Balanidae | 15,955 | [43] |
| <i>Balanus trigonus</i> | NC_056392 | Balanomorpha | Balanidae | 15,336 | Unpublished |
| <i>Capitulum mitella</i> | NC_008742.1 | Pollicipedomorpha | Pollicipedidae | 14,915, | [53] |
| <i>Catomerus polymerus</i> | MH791045.1 | Balanomorpha | Catophragmidae | 15,446 | [22] |
| <i>Chelonibia testudinaria</i> | NC_029169.1 | Balanomorpha | Chelonibiidae | 14,906 | Unpublished |
| <i>Chthamalus antennatus</i> | NC_026730.1 | Balanomorpha | Chthamalidae | 15,165 | Unpublished |
| <i>Chthamalus challenger</i> | NC_043920.1 | Balanomorpha | Chthamalidae | 15,358 | [17] |
| <i>Chthamalus malayensis</i> | NC_056950 | Balanomorpha | Chthamalidae | 15,230 | Unpublished |
| <i>Eochionelasmus coreana*</i> | MT491209.1 | Balanomorpha | Chionelasmatidae | 17,035 | [21] |
| <i>Eochionelasmus ohtai*</i> | NC_036957.1 | Balanomorpha | Chionelasmatidae | 15,585 | [52] |
| <i>Epopella plicata</i> | NC_033393.1 | Balanomorpha | Austrobalanidae | 15,296 | Unpublished |
| <i>Fistulobalanus albicostatus</i> | NC_053649 | Balanomorpha | Balanidae | 15,665 | [20] |
| <i>Glyptelasma annandalei</i> | NC_043898.1 | Scalpellomorpha | Poecilasmatidae | 16,107 | [39] |
| <i>Lepas australis</i> | NC_025295.1 | Scalpellomorpha | Lepadidae | 15,502 | [7] |
| <i>Lepas anserifera</i> | NC_026576.1 | Scalpellomorpha | Lepadidae | 15,657 | Unpublished |
| <i>Lepas anatifera</i> | NC_062431.1 | Scalpellomorpha | Lepadidae | 15,708 | Unpublished |
| <i>Megabalanus ajax</i> | NC_024636.1 | Balanomorpha | Balanidae | 15,510 | [59] |
| <i>Megabalanus tintinnabulum</i> | NC_056162 | Balanomorpha | Balanidae | 15,107 | [44] |

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|---|------------------|-------------------|----------------|--------|-------------|
| <i>Megabalanus volcano</i> | NC_00629 3.1 | Balanomorpha | Balanidae | 15,107 | Unpublished |
| <i>Nobia grandis</i> | NC_02394 5.1 | Balanomorpha | Pyrgomatidae | 15,032 | [59]c |
| <i>Notochthamalus scabrosus</i> | NC_02271 6.1 | Balanomorpha | Chthamalidae | 15,397 | [50] |
| <i>Octomeris</i> sp. BKKC-2014 | KJ754820.1 | Balanomorpha | Chthamalidae | 15,484 | Unpublished |
| <i>Polyascus gregaria</i> (outgroup) | JN616263.1 | Rhizocephala | Polyascidae | 15,465 | [37] |
| <i>Pollicipes polymerus</i> | NC_00593 6.1 | Pollicipedomorpha | Pollicipedidae | 15,634 | [54] |
| <i>Pyrgopsella youngi</i> | MN615,27 3 | Balanomorpha | Pyrgomatidae | 15,129 | Unpublished |
| <i>Savignium</i> sp. BKKC-2014 | KJ754821.1 | Balanomorpha | Pyrgomatidae | 14,999 | Unpublished |
| <i>Semibalanus balanoides</i> | NC_03984 9.1 | Balanomorpha | Balanidae | 15,119 | [13] |
| <i>Semibalanus cariosus</i> | NC_05083 6.1 | Balanomorpha | Balanidae | 15,118 | [23] |
| <i>Striatobalanus amaryllis</i> | NC_02452 6.1 | Balanomorpha | Balanidae | 15,064 | [19] |
| <i>Sacculina</i> sp. (outgroup) | MZ4115,48 .1 | Rhizocephala | Sacculinidae | 14,579 | Unpublished |
| <i>Tesseropora rosea</i> | NC_03724 1.1 | Balanomorpha | Tetraclitidae | 15,330 | [48] |
| <i>Tetraclita japonica</i> | NC_00897 4.1 | Balanomorpha | Tetraclitidae | 15,194 | Unpublished |
| <i>Tetraclita kuroshioensis</i> | NC_05691 1.1 | Balanomorpha | Tetraclitidae | 15,175 | [47] |
| <i>Tetraclita rufotincta</i> | NC_03739 8.1 | Balanomorpha | Tetraclitidae | 15,002 | [49] |
| <i>Tetraclita serrata</i> | NC_02915, 4.1 | Balanomorpha | Tetraclitidae | 15,200 | [16] |
| <i>Tetraclita squamosa squamosa</i> | MT232759. 1 | Balanomorpha | Tetraclitidae | 15,191 | [38] |
| <i>Tetraclitella divisa</i> | NC_02917 0.1 | Balanomorpha | Tetraclitidae | 14,973 | Unpublished |
| <i>Vulcanolepas fijiensis</i> * | NC_04530 6.1 | Scalpellomorpha | Neolepadidae | 17,374 | [55] |
| <i>Megabalanus coccopoma</i> | OK631889 | Balanomorpha | Balanidae | 15,098 | This study |

Note: * indicates deep-sea species

Table S3. Condon usage in *M. coccopoma*.

| Condon | Number | Percent | Condon | Number | Percent | Condon | Number | Percent | Condon | Number | Percent |
|--------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|
| UUU-F | 259 | 7.05 | UCU-S | 118 | 3.21 | UAU-Y | 92 | 2.50 | UGU-C | 32 | 0.87 |
| UUC-F | 108 | 2.94 | UCC-S | 37 | 1.01 | UAC-Y | 52 | 1.41 | UGC-C | 7 | 0.19 |
| UUA-L | 240 | 6.53 | UCA-S | 71 | 1.93 | UAA-* | 8 | 0.22 | UGA-W | 85 | 2.31 |

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|-------|-----|------|-------|----|------|-------|----|------|-------|-----|------|
| UUG-L | 24 | 0.65 | UCG-S | 15 | 0.41 | UAG-* | 5 | 0.14 | UGG-W | 20 | 0.54 |
| CUU-L | 117 | 3.18 | CCU-P | 68 | 1.85 | CAU-H | 46 | 1.25 | CGU-R | 19 | 0.52 |
| CUC-L | 46 | 1.25 | CCC-P | 28 | 0.76 | CAC-H | 32 | 0.87 | CGC-R | 4 | 0.11 |
| CUA-L | 98 | 2.67 | CCA-P | 37 | 1.01 | CAA-Q | 53 | 1.44 | CGA-R | 31 | 0.84 |
| CUG-L | 19 | 0.52 | CCG-P | 10 | 0.27 | CAG-Q | 10 | 0.27 | CGG-R | 6 | 0.16 |
| AUU-I | 257 | 6.99 | ACU-T | 72 | 1.96 | AAU-N | 88 | 2.39 | AGU-S | 33 | 0.90 |
| AUC-I | 60 | 1.63 | ACC-T | 30 | 0.82 | AAC-N | 44 | 1.20 | AGC-S | 10 | 0.27 |
| AUA-M | 159 | 4.33 | ACA-T | 80 | 2.18 | AAA-K | 81 | 2.20 | AGA-S | 70 | 1.90 |
| AUG-M | 40 | 1.09 | ACG-T | 11 | 0.30 | AAG-K | 16 | 0.44 | AGG-S | 5 | 0.14 |
| GUU-V | 88 | 2.39 | GCU-A | 98 | 2.67 | GAU-D | 57 | 1.55 | GGU-G | 67 | 1.82 |
| GUC-V | 24 | 0.65 | GCC-A | 46 | 1.25 | GAC-D | 20 | 0.54 | GGC-G | 8 | 0.22 |
| GUA-V | 92 | 2.50 | GCA-A | 56 | 1.52 | GAA-E | 74 | 2.01 | GGA-G | 119 | 3.24 |
| GUG-V | 20 | 0.54 | GCG-A | 6 | 0.16 | GAG-E | 15 | 0.41 | GGG-G | 33 | 0.90 |
