

Supplementary Materials: The distribution of asterosaponins, polyhydroxysteroids and related glycosides in different body components of the Far Eastern starfish *Lethasterias fusca*

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Table S4. Content of detected compounds in different organs and coelomic fluid of the starfish *L. fusca* (ng/g wet weight of the organs for BW, G, PC, and S and ng/ml for CF) and result of statistical analysis (ANOVA followed by Tukey HSD test of multiple comparisons was performed for BW, G, PC, and S groups; *q*-value < 0.05 was considered statistically significant).

Table S1. Description of studied individuals of *L. fusca*.

| Individual | Animal size, mm | Animal weight, g | Wet weight of the organs, g | | | | Volume of coelomic fluid, ml |
|------------|--------------------|---------------------|-----------------------------|------|-------|------|------------------------------------|
| | | | BW | G | PC | S | |
| 1 | 178 | 286.2 | 163.76 | 3.04 | 67.80 | 3.69 | 15.0 |
| 2 | 153 | 220.3 | 85.39 | 0.70 | 32.37 | 3.26 | 24.0 |
| 3 | 128 | 103.6 | 53.63 | -* | 19.33 | 1.21 | 7.5 |
| 4 | 101 | 57.3 | 27.51 | 0.25 | 6.11 | 0.50 | 3.0 |
| 5 | 109 | 87.8 | 45.66 | 0.19 | 10.51 | 0.80 | 7.0 |

* Starfish #3 has undeveloped gonads. BW: body wall, G: gonads, PC: pyloric caeca, S: stomach

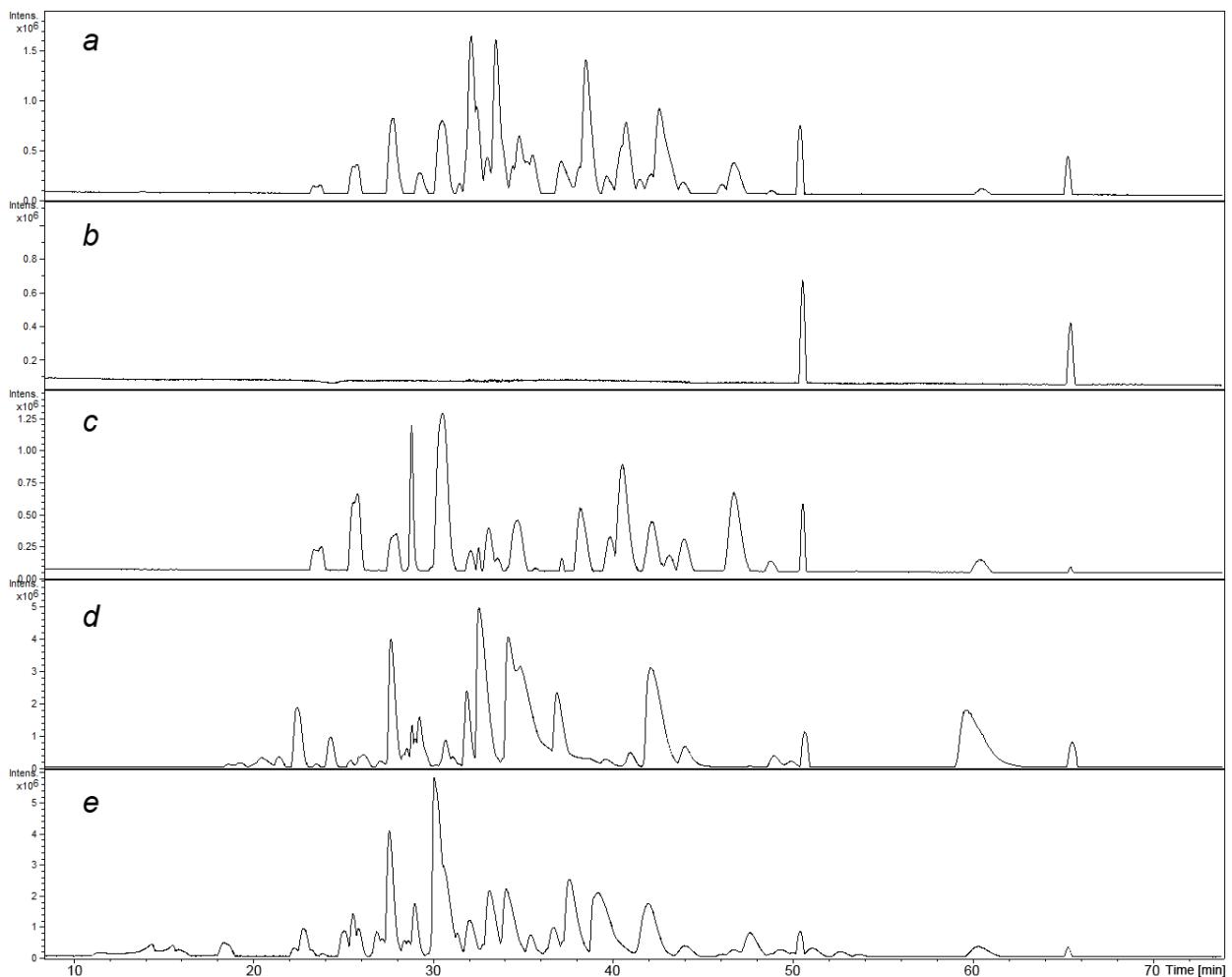


Figure S1. Typical nLC/CSI-QTOF-MS base-peak chromatograms of purified fractions of polar steroid compounds of different body components of the starfish *L. fusca* in negative ion mode: (a) body walls, sample BW#5; (b) coelomic fluid, sample CF#5; (c) gonads, sample G#5; (d) stomach, sample S#1; (e) pyloric caeca, sample PC#1.

Table S2 Batch steps and parameters used for data preprocessing in MZmine

| Batch step | Module | Parameters | |
|---------------------------------|---|---------------------------------|---------------|
| Raw data import | - | | |
| Raw data filtering | Crop filter | Retention time: | 5 – 80 min |
| Chromatogram detection | Targeted peak detection | Noise level: | 300 |
| | | <i>m/z</i> tolerance: | 5 ppm |
| | | Retention time tolerance: | 3 % |
| Chromatogram deconvolution | Local minimum search | Chromatographic threshold: | 85 % |
| | | Search minimum in Rt range: | 0.15 |
| | | Minimum absolute height: | 1000 |
| | | Minimum ratio of peak top/edge: | 2 |
| | | Peak duration range: | 0.1 – 2.0 min |
| Normalization of retention time | Retention time normalizer | <i>m/z</i> tolerance: | 3 ppm |
| | | Retention time tolerance: | 0.5 min |
| | | Minimum standard intensity: | 50000 |
| Alignment | Join aligner | <i>m/z</i> tolerance: | 5 ppm |
| | | Retention time tolerance: | 0.5 min |
| Gap filling | Same RT and <i>m/z</i> range gap filler | <i>m/z</i> tolerance: | 5 ppm |
| Export to CSV | | | |

Table S3. Polar steroids of the starfish *L. fusca* detected by nLC/CSI-QTOF-MS

| No ^a | Rt (min) | Elemental composition | Calculated m/z | Measured m/z | Δ (ppm) | Ion type | Proposed structures |
|-----------------|----------|--|----------------------|----------------------|--------------|------------------------------|---|
| 1 | 8.96 | C ₃₂ H ₅₆ O ₁₀ | 599.3801 645.3856 | 599.3805 645.3862 | -0.7 -0.9 | [M-H] [M+FA] ⁻ | 24-O-pentosyl-5α-cholestane-3β,6,8,15α,16β,24-hexao |
| 2 | 9.15 | C ₃₃ H ₅₈ O ₁₂ | 645.3856 691.391 | 645.3857 691.3913 | -0.2 -0.4 | [M-H] [M+FA] ⁻ | 24-O-hexosyl-5α-cholestane-3β,6,7,8,15α,16β,24-heptaol |
| 3 | 12.69 | C ₅₆ H ₉₄ O ₃₂ SNa | 1307.522 | 1307.5223 | -0.2 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG I |
| 4 | 13.3 | C ₂₇ H ₄₈ O ₈ | 499.3276 545.3331 | 499.3279 545.3330 | -0.6 0.2 | [M-H] [M+FA] ⁻ | 5α-cholestane-3β,4β,6α,7α,8,15α,16β,26-octao |
| 5 | 13.77 | C ₃₇ H ₆₄ O ₁₃ | 715.4274 761.4329 | 715.4280 761.4333 | -0.8 -0.5 | [M-H] [M+FA] ⁻ | fuscaside B |
| 6 | 14.06 | C ₂₇ H ₄₈ O ₁₁ SNa | 575.2532 | 575.2535 | -0.5 | [M-Na] ⁻ | Hex-AG I |
| 7 | 14.2 | C ₃₃ H ₅₈ O ₁₀ | 613.3957 659.4012 | 613.3962 659.4015 | -0.8 -0.5 | [M-H] [M+FA] ⁻ | 28-O-pentosyl-5α-ergostane-3β,6,8,15,16β,28-hexao |
| 8 | 14.39 | C ₅₇ H ₉₄ NO ₂ Na | 1256.5739 | 1256.5743 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₆ H ₅ NO ₃)-AG III |
| 9 | 14.67 | C ₂₇ H ₄₈ O ₁₁ SNa | 575.2532 | 575.2534 | -0.3 | [M-Na] ⁻ | Hex-AG I |
| 10 | 14.7 | C ₃₇ H ₆₄ O ₁₃ | 715.4274 761.4329 | 715.4271 761.4331 | 0.4 -0.3 | [M-H] [M+FA] ⁻ | distolasteroside D ₁ |
| 11 | 14.8 | C ₂₇ H ₄₈ O ₇ | 483.3327 529.3382 | 483.3337 529.3387 | -2.1 -0.9 | [M-H] [M+FA] ⁻ | 5α-cholestane-3β,6α,7α,8,15α,16β,26-heptaol |
| 12 | 14.93 | C ₃₃ H ₅₈ O ₁₀ | 613.3957 659.4012 | 613.3963 659.4019 | -1.0 -1.1 | [M-H] [M+FA] ⁻ | 24-O-hexosyl-5α-cholestane-3β,6,8,15β,24-pentaol |
| 13 | 15.66 | C ₄₉ H ₇₉ O ₂₆ SNa | 1115.4586 | 1115.4599 | -1.2 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG I |
| 14 | 15.85 | C ₃₇ H ₆₂ O ₁₃ | 713.4118 759.2172 | 713.4124 759.2172 | -0.8 0.0 | [M-H] [M+FA] ⁻ | distolasteroside D ₂ |
| 15 | 16.02 | C ₂₇ H ₄₈ O ₈ | 499.3276 545.3331 | 499.3284 545.3337 | -1.6 -1.1 | [M-H] [M+FA] ⁻ | 5α-cholestane-3β,4β,6α,7α,8,15β,16β,26-octao |
| 16 | 16.14 | C ₃₃ H ₅₈ O ₂₈ SNa | 1201.4964 | 1201.4966 | -0.2 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG IV |
| 17 | 16.58 | C ₅₆ H ₉₄ O ₃₂ SNa | 1305.5063 | 1305.5068 | -0.4 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG II |
| 18 | 17.15 | C ₃₂ H ₅₆ O ₉ | 583.3852 629.3906 | 583.3856 629.3918 | -0.7 -1.9 | [M-H] [M+FA] ⁻ | pycnopodioside A |
| 19 | 17.7 | C ₂₇ H ₄₈ O ₇ | 483.3327 529.3382 | 483.3332 529.3383 | -1.0 -0.2 | [M-H] [M+FA] ⁻ | 5α-cholestane-3β,6α,7α,8,15β,16β,26-heptaol |
| 20 | 17.72 | C ₅₀ H ₈₁ O ₂₆ SNa | 1129.4742 | 1129.4741 | 0.1 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Qui-AG I |
| 21 | 18.17 | C ₃₂ H ₅₄ O ₉ | 581.3695 627.375 | 581.3704 627.3757 | -1.5 -1.1 | [M-H] [M+FA] ⁻ | desulfated minutoside A |
| 22 | 18.85 | C ₅₀ H ₇₉ O ₂₇ SNa | 1143.4535 | 1143.4539 | -0.3 | [M-Na] ⁻ | dHex-Hex-Xyl(-Qui)-Qui-AG II |
| 23 | 18.86 | C ₃₂ H ₅₅ O ₁₄ SNa | 695.3318 | 695.3315 | 0.4 | [M-Na] ⁻ | 3-O-pentosyl-5α-cholestane-3β,6,7,8,15,16β,26-heptaol 26-O-sulfate |
| 24 | 19.04 | C ₂₇ H ₄₈ O ₆ | 467.3378 513.3433 | 467.3375 513.3428 | 0.6 1.0 | [M-H] [M+FA] ⁻ | 5α-cholestane-3β,6α,8,15β,16β,26-hexao |
| 25 | 19.07 | C ₃₇ H ₆₅ O ₃₀ SNa | 1289.5478 | 1289.5483 | -0.4 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG VI |
| 26 | 19.16 | C ₂₇ H ₄₈ O ₁₀ SNa | 559.2582 | 559.2582 | 0.0 | [M-Na] ⁻ | dHex-AG I |
| 27 | 19.35 | C ₅₁ H ₈₁ O ₂₇ SNa | 1157.4691 | 1157.4692 | -0.1 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG II |
| 28 | 19.47 | C ₃₈ H ₆₁ O ₁₈ SNa | 837.3584 | 837.3582 | 0.2 | [M-Na] ⁻ | Qui-Xyl-Qui-AG I |
| 29 | 20.01 | C ₄₉ H ₇₉ O ₂₆ SNa | 1113.4429 | 1113.4422 | 0.6 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG II |
| 30 | 20.08 | C ₂₇ H ₄₈ O ₈ SNa | 529.2841 | 529.2832 | 1.7 | [M-Na] ⁻ | - |
| 31 | 20.11 | C ₃₉ H ₆₃ O ₁₉ SNa | 867.369 | 867.3688 | 0.2 | [M-Na] ⁻ | Qui-Glc-Qui-AG I |
| 32 | 20.2 | C ₃₇ H ₆₅ O ₃₀ SNa | 1289.5478 | 1289.5472 | 0.5 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG VI |
| 33 | 20.25 | C ₅₁ H ₈₁ O ₂₇ SNa | 1157.4691 | 1157.4690 | 0.1 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG II |
| 34 | 20.3 | C ₂₁ H ₃₃ O ₆ SNa | 413.2003 | 413.2003 | 0.0 | [M-Na] ⁻ | AG I |
| 35 | 20.68 | C ₅₁ H ₈₁ O ₂₇ SNa | 1157.4691 | 1157.4694 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG II |
| 36 | 21.17 | C ₅₁ H ₈₁ O ₂₇ SNa | 1157.4691 | 1157.4681 | 0.9 | [M-Na] ⁻ | dHex-Hex-Qui(-Qui)-Qui-AG II |
| 37 | 21.55 | C ₅₀ H ₇₉ O ₂₆ SNa | 1129.4742 | 1129.4743 | -0.1 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Qui-AG I |
| 38 | 21.72 | C ₃₉ H ₆₁ O ₁₉ SNa | 865.3533 | 865.3536 | -0.3 | [M-Na] ⁻ | Qui-Glc-Qui-AG II |
| 39 | 22.12 | C ₃₉ H ₆₃ O ₁₈ SNa | 851.3741 | 851.3747 | -0.7 | [M-Na] ⁻ | Qui-Qui-Qui-AG I |
| 40 | 22.33 | C ₆₂ H ₁₀₁ O ₃₄ SNa | 1421.59 | 1421.5907 | -0.5 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG VII |
| 41 | 22.55 | C ₆₂ H ₉₉ O ₃₄ SNa | 1419.5744 | 1419.5748 | -0.3 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG VIII |
| 42 | 22.57 | C ₂₇ H ₄₈ O ₆ SNa | 559.2582 | 559.2581 | 0.2 | [M-Na] ⁻ | dHex-AG I |
| 43 | 22.59 | C ₅₀ H ₇₉ O ₂₆ SNa | 1127.4586 | 1127.4595 | -0.8 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Qui-AG II |

| No ^a | Rt (min) | Elemental composition | Calculated m/z | Measured m/z | Δ (ppm) | Ion type | Proposed structures |
|-----------------|----------|--|----------------|--------------|---------|---------------------|---|
| 44 | 22.94 | C ₆₀ H ₁₀₁ O ₃₄ SnA | 1421.59 | 1421.5902 | -0.1 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Hex-AG V |
| 45 | 23.13 | C ₅₃ H ₅₇ O ₁₄ SnA | 709.3475 | 709.3480 | -0.7 | [M-Na] ⁻ | 24-O-hexosyl-5α-cholestane-3β,6,8,15,16β,24-hexaol 3-O-sulfate |
| 46 | 23.51 | C ₅₈ H ₆₅ O ₁₇ SnA | 825.3948 | 825.3951 | -0.4 | [M-Na] ⁻ | 3-O-pentosyl-24-O-sulfohexosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 47 | 23.56 | C ₅₁ H ₈₁ O ₂₆ SnA | 1143.4899 | 1143.4906 | -0.6 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Qui-AG I |
| 48 | 23.8 | C ₅₃ H ₅₇ O ₁₃ SnA | 693.3525 | 693.3532 | -1.0 | [M-Na] ⁻ | 24-O-hexosyl-5α-cholestane-3β,6,8,15,24-pentaol 3-O-sulfate |
| 49 | 23.92 | C ₆₁ H ₉₉ O ₃₃ SnA | 1391.5795 | 1391.5805 | -0.7 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG X |
| 50 | 24.01 | C ₅₁ H ₈₁ O ₂₆ SnA | 1141.4742 | 1141.4742 | 0.0 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Qui-AG II |
| 51 | 24.36 | C ₅₈ H ₆₁ O ₁₈ SnA | 837.3584 | 837.3588 | -0.5 | [M-Na] ⁻ | Qui-Xyl-Qui-AG I |
| 52 | 24.38 | C ₅₁ H ₈₁ O ₂₆ SnA | 1141.4742 | 1141.4745 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Qui-AG II |
| 53 | 24.5 | C ₅₃ H ₅₇ O ₁₄ SnA | 709.3475 | 709.3487 | -1.7 | [M-Na] ⁻ | 24-O-sulfohexosyl-5α-cholestane-3β,6,8,15,16β,24-hexaol |
| 54 | 24.64 | C ₇₇ H ₄₁ O ₁₀ SnA | 557.2426 | 557.2422 | 0.7 | [M-Na] ⁻ | dHex-AG II |
| 55 | 24.65 | C ₅₂ H ₅₈ O ₁₂ SnA | 663.342 | 663.3420 | 0.0 | [M-Na] ⁻ | 3-O-pentosyl-5α-cholestane-3β,6,8,15,26-pentaol 26-O-sulfate |
| 56 | 25 | C ₅₃ H ₅₅ O ₁₄ SnA | 707.3318 | 707.3313 | 0.7 | [M-Na] ⁻ | 26-O-sulfohexosyl-5α-cholest-22-ene-3β,6,8,15,16β,26-hexaol |
| 57 | 25.2 | C ₅₉ H ₆₇ O ₁₇ SnA | 839.4104 | 839.4101 | 0.4 | [M-Na] ⁻ | 3-O-pentosyl-28-O-sulfohexosyl-5α-ergostane-3β,6,8,15,28-pentaol |
| 58 | 25.29 | C ₅₂ H ₅₅ O ₁₃ SnA | 677.3212 | 677.3209 | 0.4 | [M-Na] ⁻ | - |
| 59 | 25.35 | C ₅₂ H ₅₅ O ₁₂ SnA | 663.342 | 663.3415 | 0.8 | [M-Na] ⁻ | 3-O-pentosyl-5α-cholestane-3β,6,8,15,26-pentaol 26-O-sulfate |
| 60 | 25.43 | C ₅₆ H ₉₁ O ₂₉ SnA | 1259.5372 | 1259.5361 | 0.9 | [M-Na] ⁻ | dHex-Hex-Xyl(-Qui)-Hex-AG V |
| 61 | 25.5 | C ₅₂ H ₅₈ NO ₂₈ SnA | 1166.4695 | 1166.4698 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₇ H ₉ NO ₄)-AG II |
| 62 | 25.52 | C ₅₅ H ₉₁ O ₂₇ SnA | 1215.5474 | 1215.5478 | -0.3 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG XI |
| 63 | 25.68 | C ₇₇ H ₄₂ O ₁₁ SnA | 579.2845 | 579.2857 | -2.1 | [M-Na] ⁻ | 5α-cholestane-3β,4,6,7,8,15α,16β,26-octaoil 6-O-sulfate |
| 64 | 25.74 | C ₅₇ H ₆₃ O ₁₆ SnA | 795.3842 | 795.3841 | 0.1 | [M-Na] ⁻ | 3-O-sulfopentosyl-24-O-pentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 65 | 25.97 | C ₅₇ H ₆₉ O ₂₈ SnA | 1253.5267 | 1253.5273 | -0.5 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG XII |
| 66 | 25.99 | C ₅₇ H ₆₅ O ₂₉ SnA | 1273.5529 | 1273.5537 | -0.6 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG VII |
| 67 | 26.11 | C ₆₃ H ₁₀₃ O ₃₄ SnA | 1435.6057 | 1435.6061 | -0.3 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Hex-AG XIII |
| 68 | 26.11 | C ₅₂ H ₅₅ O ₁₃ SnA | 679.3369 | 679.3379 | -1.5 | [M-Na] ⁻ | 24-O-pentosyl-5α-cholestane-3β,6,8,15,16β,24-hexaol 3-O-sulfate |
| 69 | 26.18 | C ₅₈ H ₆₃ O ₁₇ SnA | 823.3791 | 823.3797 | -0.7 | [M-Na] ⁻ | 3-O-pentosyl-26-O-sulfohexosyl-27-nor-5α-ergost-22-ene-3β,6,8,15,26-pentaol |
| 70 | 26.27 | C ₅₇ H ₆₅ O ₂₉ SnA | 1273.5529 | 1273.5532 | -0.2 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Hex-AG V |
| 71 | 27.1 | C ₅₃ H ₅₅ O ₁₄ SnA | 707.3318 | 707.3323 | -0.7 | [M-Na] ⁻ | 26-O-sulfohexosyl-27-nor-5α-ergost-22-ene-3β,6,8,15,16β,26-hexaol |
| 72 | 27.13 | C ₅₄ H ₅₇ O ₁₄ SnA | 721.3475 | 721.3464 | 1.5 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergost-20(22)-ene-3β,6,8,15,16β,28-hexaol |
| 73 | 27.17 | C ₂₁ H ₃₁ O ₆ SnA | 411.1847 | 411.1857 | -2.4 | [M-Na] ⁻ | 3-O-sulfoasterone (AG II) |
| 74 | 27.18 | C ₅₇ H ₆₁ O ₂₉ SnA | 1271.5372 | 1271.5380 | -0.6 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG VIII |
| 75 | 27.3 | C ₅₃ H ₅₇ O ₁₂ SnA | 677.3576 | 677.3588 | -1.8 | [M-Na] ⁻ | 3-O-pentosyl-5α-ergostane-3β,6,8,15,26-pentaol 26-O-sulfate |
| 76 | 27.4 | C ₅₉ H ₆₅ O ₁₇ SnA | 837.3948 | 837.3953 | -0.6 | [M-Na] ⁻ | 3-O-pentosyl-28-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,28-pentaol |
| 77 | 27.55 | C ₅₇ H ₆₅ O ₂₈ SnA | 1273.5529 | 1273.5533 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG VII |
| 78 | 27.67 | C ₆₂ H ₁₀₁ O ₃₃ SnA | 1405.5951 | 1405.5958 | -0.5 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG V |
| 79 | 27.81 | C ₅₅ H ₉₁ O ₂₇ SnA | 1229.563 | 1229.5639 | -0.7 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Qui-AG XI |
| 80 | 27.81 | C ₅₆ H ₉₁ O ₂₈ SnA | 1243.5423 | 1243.5426 | -0.2 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG X |
| 81 | 27.89 | C ₅₂ H ₅₅ O ₁₂ SnA | 663.342 | 663.3426 | -0.9 | [M-Na] ⁻ | 24-O-pentosyl-5α-cholestane-3β,6,8,15,24-pentaol 3-O-sulfate |
| 82 | 27.98 | C ₅₃ H ₅₅ O ₁₂ SnA | 675.342 | 675.3424 | -0.6 | [M-Na] ⁻ | 3-O-pentosyl-5α-ergost-20(22)-ene-3β,6,8,15,28-pentaol 28-O-sulfate |
| 83 | 28.1 | C ₅₄ H ₅₉ O ₁₄ SnA | 723.3631 | 723.3638 | -1.0 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergostane-3β,6,8,15,16β,28-hexaol |
| 84 | 28.15 | C ₅₃ H ₅₅ O ₁₃ SnA | 691.3369 | 691.3378 | -1.3 | [M-Na] ⁻ | 28-O-pentosyl-5α-ergost-22-ene-3β,6,8,15,16β,28-hexaol 3-O-sulfate |
| 85 | 28.17 | C ₅₉ H ₆₅ O ₁₂ SnA | 837.3948 | 837.3958 | -1.2 | [M-Na] ⁻ | 3-O-pentosyl-28-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,28-pentaol |
| 86 | 28.38 | C ₅₉ H ₆₅ O ₁₈ SnA | 851.3741 | 851.3750 | -1.1 | [M-Na] ⁻ | Qui-Qui-Qui-AG I |
| 87 | 28.5 | C ₅₄ H ₅₈ O ₂₇ SnA | 1199.5161 | 1199.5167 | -0.5 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG X |
| 88 | 28.5 | C ₆₃ H ₁₀₃ O ₃₃ SnA | 1419.6108 | 1419.6115 | -0.5 | [M-Na] ⁻ | Hex-dHex-dHex-Glc(-Qui)-Qui-AG V |
| 89 | 28.59 | C ₅₂ H ₅₈ NO ₂₈ SnA | 1166.4695 | 1166.4709 | -1.2 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₇ H ₉ NO ₄)-AG II |
| 90 | 28.6 | C ₅₈ H ₆₅ O ₃₀ SnA | 1303.5634 | 1303.5638 | -0.3 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG XIV |
| 91 | 28.69 | C ₅₃ H ₅₅ O ₁₄ SnA | 707.3318 | 707.3324 | -0.8 | [M-Na] ⁻ | 26-O-sulfohexosyl-27-nor-5α-ergost-22-ene-3β,6,8,15,16β,26-hexaol |
| 92 | 28.93 | C ₅₇ H ₆₃ O ₁₆ SnA | 795.3842 | 795.3849 | -0.9 | [M-Na] ⁻ | 3-O-pentosyl-24-O-sulfopentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 93 | 29 | C ₅₇ H ₆₅ O ₂₈ SnA | 1257.558 | 1257.5590 | -0.8 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG V |
| 94 | 29.21 | C ₅₉ H ₆₅ O ₁₇ SnA | 837.3948 | 837.3953 | -0.6 | [M-Na] ⁻ | 3-O-pentosyl-26-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,26-pentaol |
| 95 | 29.23 | C ₆₁ H ₉₉ O ₃₂ SnA | 1375.5846 | 1375.5842 | 0.3 | [M-Na] ⁻ | Hex-dHex-Pent-Xyl(-Qui)-Qui-AG IX |
| 96 | 29.23 | C ₅₂ H ₅₅ O ₁₃ SnA | 677.3212 | 677.3203 | 1.3 | [M-Na] ⁻ | 24-O-pentosyl-5α-cholest-22-ene-3β,6,8,15,16β,24-hexaol 3-O-sulfate |
| 97 | 29.25 | C ₅₆ H ₉₁ O ₂₇ SnA | 1229.563 | 1229.5624 | 0.5 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG XV |
| 98 | 29.44 | C ₆₂ H ₁₀₃ O ₃₂ SnA | 1391.6159 | 1391.6155 | 0.3 | [M-Na] ⁻ | Hex-dHex-Pent-Xyl(-Qui)-Qui-AG XVI |
| 99 | 29.53 | C ₅₄ H ₅₉ O ₁₄ SnA | 721.3475 | 721.3471 | 0.6 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergost-20(22)-ene-3β,6,8,15,16β,28-hexaol |
| 100 | 29.64 | C ₅₇ H ₆₃ O ₁₆ SnA | 795.3842 | 795.3835 | 0.9 | [M-Na] ⁻ | 3-O-pentosyl-24-O-sulfopentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 101 | 29.7 | C ₅₇ H ₆₇ O ₁₀ SnA | 563.2895 | 563.2901 | -1.1 | [M-Na] ⁻ | 5α-cholestane-3β,6,7,8,15α,16β,26-heptaol 6-O-sulfate |
| 102 | 29.87 | C ₅₃ H ₅₅ O ₁₄ SnA | 735.3631 | 735.3628 | 0.4 | [M-Na] ⁻ | 29-O-sulfohexosyl-5α-stigmast-20(22)-ene-3β,6,8,15,16β,29-hexaol |

| No ^a | Rt (min) | Elemental composition | Calculated m/z | Measured m/z | Δ (ppm) | Ion type | Proposed structures |
|-----------------|----------|--|----------------|--------------|---------|---------------------|---|
| 103 | 29.92 | C ₃₄ H ₅₇ O ₁₃ SNa | 705.3525 | 705.3527 | -0.3 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergost-20(22)-ene-3β,6,8,15,28-pentaol |
| 104 | 30.11 | C ₃₆ H ₅₉ O ₂₈ SNa | 1245.558 | 1245.5576 | 0.3 | [M-Na] ⁻ | dHex-Hex-Xyl(-Qui)-Hex-AG XX |
| 105 | 30.3 | C ₃₈ H ₆₁ O ₂₉ SNa | 1287.5685 | 1287.5681 | 0.3 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Hex-AG XIII |
| 106 | 30.3 | C ₆₂ H ₁₀₁ O ₃₂ SNa | 1389.6002 | 1389.6003 | -0.1 | [M-Na] ⁻ | dHex-dHex-Hex-Xyl(-Qui)-Qui-AG V |
| 107 | 30.39 | C ₃₃ H ₅₇ O ₁₃ SNa | 693.3525 | 693.3533 | -1.2 | [M-Na] ⁻ | pycnopodioside C |
| 108 | 30.41 | C ₃₈ H ₆₅ O ₁₆ SNa | 809.3999 | 809.4004 | -0.6 | [M-Na] ⁻ | 3-O-pentosyl-24-O-methylsulfopentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 109 | 30.63 | C ₃₂ H ₅₃ O ₁₂ SNa | 661.3263 | 661.3266 | -0.5 | [M-Na] ⁻ | 24-O-pentosyl-5α-cholest-22-ene-3β,6,8,15,24-pentaol 3-O-sulfate |
| 110 | 30.67 | C ₆₂ H ₁₀₁ O ₃₂ SNa | 1389.6002 | 1389.6007 | -0.4 | [M-Na] ⁻ | Hex-dHex-dHex-Xyl(-Qui)-Qui-AG V |
| 111 | 30.86 | C ₅₇ H ₉₃ O ₂₉ SNa | 1273.5529 | 1273.5538 | -0.7 | [M-Na] ⁻ | dHex-Hex-Glc(-Qui)-Qui-AG V |
| 112 | 30.99 | C ₆₂ H ₁₀₁ O ₃₃ SNa | 1405.5951 | 1405.5959 | -0.6 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Hex-AG XVII |
| 113 | 31.05 | C ₃₄ H ₅₇ O ₁₄ SNa | 721.3475 | 721.3486 | -1.5 | [M-Na] ⁻ | 26-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,16β,26-hexaol |
| 114 | 31.39 | C ₃₈ H ₆₅ O ₁₆ SNa | 807.3842 | 807.3844 | -0.2 | [M-Na] ⁻ | 3-O-pentosyl-28-O-sulfopentosyl-5α-ergost-20(22)-ene-3β,6,8,15,28-pentaol |
| 115 | 31.46 | C ₃₃ H ₅₅ O ₁₃ SNa | 691.3369 | 691.3380 | -1.6 | [M-Na] ⁻ | 24-O-sulfohexosyl-5α-cholest-20(22)-ene-3β,6,8,15,24-pentaol |
| 116 | 31.71 | C ₆₃ H ₁₀₃ O ₃₃ SNa | 1419.6108 | 1419.6112 | -0.3 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG XIII |
| 117 | 31.72 | C ₇ H ₄₇ O ₉ SNa | 547.2946 | 547.2953 | -1.3 | [M-Na] ⁻ | 5α-cholestane-3β,6,8,15α,16β,26-hexaol 6-O-sulfate |
| 118 | 31.77 | C ₅₆ H ₉₁ O ₂₈ SNa | 1243.5423 | 1243.5423 | 0.0 | [M-Na] ⁻ | Fuc-Gal-Xyl(-Qui)-Qui-AG V (thornasteroside A) |
| 119 | 32.14 | C ₄₀ H ₇₇ O ₁₈ SNa | 867.4054 | 867.4058 | -0.5 | [M-Na] ⁻ | 28-O-[sulfohexosyl-hexosyl]-5α-ergost-22-ene-3β,6,8,15,28-pentaol |
| 120 | 32.22 | C ₃₄ H ₅₉ O ₁₄ SNa | 723.3631 | 723.3636 | -0.7 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergostane-3β,6,8,15,16β,28-hexaol |
| 121 | 32.27 | C ₅₇ H ₉₃ O ₂₈ SNa | 1259.5736 | 1259.5748 | -1.0 | [M-Na] ⁻ | dHex-Hex-Qui(-Qui)-Hex-AG XX |
| 122 | 32.31 | C ₅₇ H ₉₃ O ₂₈ SNa | 1257.558 | 1257.5581 | -0.1 | [M-Na] ⁻ | Fuc-Qui-Glc(-Qui)-Qui-AG V (luidiaquinoside) |
| 123 | 32.36 | C ₆₂ H ₁₀₃ O ₃₂ SNa | 1391.6159 | 1391.6166 | -0.5 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG XX |
| 124 | 32.71 | C ₃₂ H ₅₅ O ₁₃ SNa | 679.3369 | 679.3380 | -1.6 | [M-Na] ⁻ | 24-O-sulfopentosyl-5α-cholestane-3β,6,8,15,16β,24-hexaol |
| 125 | 32.88 | C ₃₃ H ₅₅ O ₁₃ SNa | 691.3369 | 691.3377 | -1.2 | [M-Na] ⁻ | - |
| 126 | 33.07 | C ₃₄ H ₅₉ O ₁₃ SNa | 707.3682 | 707.3686 | -0.6 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergostane-3β,6,8,15,28-pentaol |
| 127 | 33.37 | C ₃₄ H ₅₇ O ₁₄ SNa | 721.3475 | 721.3487 | -1.7 | [M-Na] ⁻ | 26-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,16β,26-hexaol |
| 128 | 33.47 | C ₅₆ H ₉₃ O ₂₇ SNa | 1229.563 | 1229.5636 | -0.5 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Hex-AG XX |
| 129 | 33.56 | C ₆₃ H ₁₀₃ O ₃₂ SNa | 1403.6159 | 1403.6164 | -0.4 | [M-Na] ⁻ | Hex-dHex-dHex-Qui(-Qui)-Qui-AG V |
| 130 | 33.78 | C ₆₂ H ₁₀₁ O ₃₂ SNa | 1389.6002 | 1389.6006 | -0.3 | [M-Na] ⁻ | Hex-dHex-Pent-Xyl(-Qui)-Qui-AG XIII |
| 131 | 33.84 | C ₃₃ H ₅₅ O ₁₃ SNa | 691.3369 | 691.3371 | -0.3 | [M-Na] ⁻ | 26-O-sulfohexosyl-27-nor-5α-ergost-20(22)-ene-3β,6,8,15,26-pentaol |
| 132 | 33.85 | C ₅₅ H ₈₉ O ₂₇ SNa | 1213.5317 | 1213.5320 | -0.2 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG IX |
| 133 | 34.08 | C ₇ H ₄₇ O ₉ SNa | 547.2946 | 547.2960 | -2.6 | [M-Na] ⁻ | 5α-cholestane-3β,6,8,15β,16β,26-hexaol 6-O-sulfate |
| 134 | 34.13 | C ₃₃ H ₅₅ O ₁₃ SNa | 675.342 | 675.3421 | -0.1 | [M-Na] ⁻ | 3-O-pentosyl-5α-ergost-22-ene-3β,6,8,15,26-pentaol 26-O-sulfate |
| 135 | 34.34 | C ₅₇ H ₉₃ O ₂₈ SNa | 1257.558 | 1257.5589 | -0.7 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG V |
| 136 | 34.36 | C ₇ H ₄₇ O ₉ SNa | 531.2997 | 531.3002 | -0.9 | [M-Na] ⁻ | 5α-cholestane-3β,6,8,15,24-pentaol 24-O-sulfate |
| 137 | 34.41 | C ₆₁ H ₁₀₁ O ₃₁ SNa | 1361.6053 | 1361.6050 | 0.2 | [M-Na] ⁻ | Hex-dHex-Pent-Xyl(-Qui)-Qui-AG XX |
| 138 | 34.51 | C ₃₃ H ₅₅ O ₁₃ SNa | 691.3369 | 691.3367 | 0.3 | [M-Na] ⁻ | 26-O-sulfohexosyl-27-nor-5α-ergost-20(22)-ene-3β,6,8,15,26-pentaol |
| 139 | 34.6 | C ₃₂ H ₅₅ O ₁₂ SNa | 663.342 | 663.3413 | 1.1 | [M-Na] ⁻ | coscinasteroside B |
| 140 | 34.72 | C ₅₇ H ₉₃ O ₂₇ SNa | 1243.5787 | 1243.5788 | -0.1 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG XX |
| 141 | 34.8 | C ₇ H ₄₇ O ₉ SNa | 547.2946 | 547.2960 | -2.6 | [M-Na] ⁻ | 5α-cholestane-3β,6,8,15,16β,24-hexaol 3-O-sulfate |
| 142 | 35.03 | C ₃₂ H ₅₅ O ₁₂ SNa | 663.342 | 663.3426 | -0.9 | [M-Na] ⁻ | - |
| 143 | 35.52 | C ₅₆ H ₉₁ O ₂₇ SNa | 1225.5317 | 1225.5310 | 0.6 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Hex-AG XXI |
| 144 | 35.66 | C ₆₂ H ₁₀₁ O ₃₁ SNa | 1373.6053 | 1373.6041 | 0.9 | [M-Na] ⁻ | Hex-dHex-dHex-Xyl(-Qui)-Qui-AG XXII |
| 145 | 35.7 | C ₃₈ H ₆₅ O ₁₆ SNa | 809.3999 | 809.4002 | -0.4 | [M-Na] ⁻ | 3-O-pentosyl-24-O-methylsulfopentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 146 | 35.74 | C ₂₈ H ₄₇ O ₁₀ SNa | 575.2895 | 575.2903 | -1.4 | [M-Na] ⁻ | 5α-ergost-22-ene-3β,6,7,8,15α,16β,26-heptaol 6-O-sulfate |
| 147 | 36.02 | C ₃₅ H ₅₉ O ₁₄ SNa | 735.3631 | 735.3623 | 1.1 | [M-Na] ⁻ | 29-O-sulfohexosyl-5α-stigmast-20(22)-ene-3β,6,8,15,16β,29-hexaol |
| 148 | 36.2 | C ₃₄ H ₅₇ O ₁₄ SNa | 721.3475 | 721.3478 | -0.4 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,16β,28-hexaol |
| 149 | 36.33 | C ₆₂ H ₁₀₃ O ₃₁ SNa | 1375.621 | 1375.6209 | 0.1 | [M-Na] ⁻ | Hex-dHex-dHex-Xyl(-Qui)-Qui-AG XX |
| 150 | 36.87 | C ₅₇ H ₉₁ O ₂₇ SNa | 1239.5474 | 1239.5470 | 0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG XXI |
| 151 | 37.13 | C ₃₃ H ₅₅ O ₁₃ SNa | 691.3369 | 691.3371 | -0.3 | [M-Na] ⁻ | 28-O-sulfopentosyl-5α-ergost-20(22)-ene-3β,6,8,15,16β,28-hexaol |
| 152 | 37.34 | C ₅₇ H ₉₃ O ₂₈ SNa | 1257.558 | 1257.5578 | 0.2 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Hex-AG XXII |
| 153 | 37.56 | C ₂₈ H ₄₇ O ₉ SNa | 559.2946 | 559.2942 | 0.7 | [M-Na] ⁻ | 5α-ergost-22-ene-3β,6,8,15,16β,26-hexaol 6-O-sulfate |
| 154 | 37.92 | C ₃₄ H ₅₇ O ₁₃ SNa | 705.3525 | 705.3525 | 0.0 | [M-Na] ⁻ | 28-O-sulfohexosyl-5α-ergost-22-ene-3β,6,8,15,28-pentaol |
| 155 | 37.99 | C ₃₂ H ₅₅ O ₁₂ SNa | 663.342 | 663.3417 | 0.5 | [M-Na] ⁻ | 24-O-sulfopentosyl-5α-cholestane-3β,6,8,15,24-pentaol |
| 156 | 38.49 | C ₃₈ H ₅₂ NO ₂ SNa | 1282.5532 | 1282.5519 | 1.0 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-(C ₂ H ₅ NO ₂)-AG V |
| 157 | 38.53 | C ₅₇ H ₉₃ O ₂₈ SNa | 1257.558 | 1257.5571 | 0.7 | [M-Na] ⁻ | dHex-Hex-Qui(-Qui)-Hex-AG XXII |
| 158 | 38.58 | C ₆₄ H ₁₀₅ O ₃₃ SNa | 1433.6264 | 1433.6251 | 0.9 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG XVI |
| 159 | 38.62 | C ₅₆ H ₉₃ O ₂₇ SNa | 1229.563 | 1229.5628 | 0.2 | [M-Na] ⁻ | Fuc-Gal-Xyl(-Qui)-Qui-AG XVIII (lethasterioside B) |

| No ^a | Rt (min) | Elemental composition | Calculated m/z | Measured m/z | Δ (ppm) | Ion type | Proposed structures |
|-----------------|----------|--|----------------|--------------|----------------|---------------------|---|
| 160 | 38.88 | C ₅₈ H ₉₆ O ₂₈ SNa | 1271.5736 | 1271.5733 | 0.2 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG XIII |
| 161 | 39.07 | C ₄₅ H ₇₅ O ₂₀ SNa | 965.4421 | 965.4422 | -0.1 | [M-Na] ⁻ | Qui-Glc-Qui-AG V |
| 162 | 39.19 | C ₅₅ H ₆₁ O ₁₅ SNa | 753.3737 | 753.3748 | -1.5 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmastane-3 β ,6,7,8,15,16 β ,29-heptaol |
| 163 | 39.36 | C ₅₅ H ₆₁ O ₁₄ SNa | 737.3788 | 737.3794 | -0.8 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmastane-3 β ,6,8,15,16 β ,29-hexaol |
| 164 | 39.45 | C ₅₄ H ₅₇ O ₁₃ SNa | 705.3525 | 705.3533 | -1.1 | [M-Na] ⁻ | 26-O-sulfohexosyl-5 α -ergost-22-ene-3 β ,6,8,15,26-pentaol |
| 165 | 39.47 | C ₅₄ H ₅₇ O ₁₄ SNa | 721.3475 | 721.3481 | -0.8 | [M-Na] ⁻ | 28-O-sulfohexosyl-5 α -ergost-22-ene-3 β ,6,8,15,16 β ,28-hexaol |
| 166 | 39.55 | C ₆₂ H ₁₀₁ O ₂₂ SNa | 1389.6002 | 1389.6001 | 0.1 | [M-Na] ⁻ | Gal-Fuc-Gal-Xyl(-Qui)-Qui-AG XVII (anasteroside A) |
| 167 | 39.55 | C ₅₅ H ₅₉ O ₁₄ SNa | 735.3631 | 735.3635 | -0.5 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmast-20(22)-ene-3 β ,6,8,15,16 β ,29-hexaol |
| 168 | 39.92 | C ₅₇ H ₉₅ O ₂₇ SNa | 1243.5787 | 1243.5785 | 0.2 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG XX |
| 169 | 40.11 | C ₅₂ H ₅₅ O ₁₂ SNa | 663.342 | 663.3421 | -0.2 | [M-Na] ⁻ | 24-O-sulfopentosyl-5 α -cholestane-3 β ,6,8,15,24-pentaol |
| 170 | 40.12 | C ₅₈ H ₉₅ O ₂₈ SNa | 1271.5736 | 1271.5730 | 0.5 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG XIII |
| 171 | 40.47 | C ₅₄ H ₅₇ O ₁₃ SNa | 705.3525 | 705.3534 | -1.3 | [M-Na] ⁻ | 28-O-sulfohexosyl-5 α -ergost-22-ene-3 β ,6,8,15,28-pentaol |
| 172 | 40.47 | C ₅₃ H ₅₇ O ₁₂ SNa | 677.3576 | 677.3584 | -1.2 | [M-Na] ⁻ | 24-O-methylsulfopentosyl-5 α -cholestane-3 β ,6,8,15,24-pentaol |
| 173 | 40.68 | C ₅₆ H ₉₁ O ₂₇ SNa | 1227.5474 | 1227.5465 | 0.7 | [M-Na] ⁻ | dHex-Pent-Qui(-Qui)-Hex-AG XXII |
| 174 | 40.8 | C ₇ H ₄₁ O ₈ SNa | 525.2528 | 525.2523 | 1.0 | [M-Na] ⁻ | AG VIII |
| 175 | 40.87 | C ₅₇ H ₉₃ O ₂₇ SNa | 1241.563 | 1241.5623 | 0.6 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Qui-AG V |
| 176 | 40.87 | C ₆₃ H ₁₀₃ O ₂₂ SNa | 1403.6159 | 1403.6157 | 0.1 | [M-Na] ⁻ | Hex-dHex-dHex-Glc(-Qui)-Qui-AG XXII |
| 177 | 41.41 | C ₅₅ H ₉₁ O ₂₆ SNa | 1199.5525 | 1199.5522 | 0.3 | [M-Na] ⁻ | dHex-Pent-Xyl(-Qui)-Qui-AG XVIII |
| 178 | 41.8 | C ₇ H ₄₃ O ₈ SNa | 527.2684 | 527.2682 | 0.4 | [M-Na] ⁻ | AG VII |
| 179 | 41.98 | C ₅₄ H ₅₇ O ₁₃ SNa | 705.3525 | 705.3539 | -2.0 | [M-Na] ⁻ | 26-O-sulfohexosyl-5 α -ergost-22-ene-3 β ,6,8,15,26-pentaol |
| 180 | 42.17 | C ₅₇ H ₈₉ O ₂₆ SNa | 1221.5368 | 1221.5369 | -0.1 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₆ H ₆ O ₃)-AG V |
| 181 | 42.2 | C ₅₅ H ₆₁ O ₁₄ SNa | 737.3788 | 737.3792 | -0.5 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmastane-3 β ,6,8,15,16 β ,29-hexaol |
| 182 | 42.31 | C ₅₇ H ₉₃ O ₂₇ SNa | 1241.563 | 1241.5628 | 0.2 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Hex-AG XXII |
| 183 | 42.4 | C ₅₅ H ₅₉ O ₁₄ SNa | 735.3631 | 735.3632 | -0.1 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmast-22-ene-3 β ,6,8,15,16 β ,29-hexaol |
| 184 | 42.55 | C ₅₃ H ₅₅ O ₁₂ SNa | 675.342 | 675.3424 | -0.6 | [M-Na] ⁻ | 28-O-sulfopentosyl-5 α -ergost-20(22)-ene-3 β ,6,8,15,28-pentaol |
| 185 | 42.96 | C ₅₅ H ₆₁ O ₁₃ SNa | 721.3838 | 721.3845 | -1.0 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmastane-3 β ,6,8,15,29-pentaol |
| 186 | 43.07 | C ₅₈ H ₉₂ NO ₂ SNa | 1266.5583 | 1266.5584 | -0.1 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₇ H ₉ NO ₄)-AG V |
| 187 | 43.19 | C ₅₇ H ₉₅ O ₂₆ SNa | 1221.5368 | 1221.5374 | -0.5 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₆ H ₆ O ₃)-AG V |
| 188 | 43.69 | C ₅₃ H ₅₅ O ₁₂ SNa | 675.342 | 675.3427 | -1.0 | [M-Na] ⁻ | 28-O-sulfopentosyl-5 α -ergost-20(22)-ene-3 β ,6,8,15,28-pentaol |
| 189 | 43.86 | C ₅₅ H ₅₉ O ₁₄ SNa | 735.3631 | 735.3640 | -1.2 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmast-22-ene-3 β ,6,8,15,16 β ,29-hexaol |
| 190 | 43.97 | C ₅₇ H ₉₃ O ₂₇ SNa | 1243.5787 | 1243.5799 | -1.0 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG XVIII |
| 191 | 44.75 | C ₅₈ H ₉₅ O ₂₈ SNa | 1271.5436 | 1271.5448 | -0.9 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG XIII |
| 192 | 44.81 | C ₆₂ H ₁₀₁ O ₃₁ SNa | 1373.6053 | 1373.6056 | -0.2 | [M-Na] ⁻ | dHex-dHex-Hex-Xyl(-Qui)-Qui-AG XXII |
| 193 | 45.81 | C ₆₂ H ₁₀₁ O ₃₁ SNa | 1373.6053 | 1373.6053 | 0.0 | [M-Na] ⁻ | Hex-dHex-dHex-Xyl(-Qui)-Qui-AG XVII |
| 194 | 45.82 | C ₆₃ H ₁₀₃ O ₃₂ SNa | 1403.6159 | 1403.6164 | -0.4 | [M-Na] ⁻ | Hex-dHex-Hex-Xyl(-Qui)-Qui-AG XXIII |
| 195 | 45.99 | C ₅₇ H ₉₁ O ₂₇ SNa | 1239.5474 | 1239.5473 | 0.1 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG XIX |
| 196 | 46.45 | C ₅₂ H ₅₅ O ₁₂ SNa | 661.3263 | 661.3261 | 0.3 | [M-Na] ⁻ | 24-O-sulfopentosyl-5 α -cholest-22-ene-3 β ,6,8,15,24-pentaol |
| 197 | 47.6 | C ₅₅ H ₆₁ O ₁₄ SNa | 737.3788 | 737.3793 | -0.7 | [M-Na] ⁻ | 29-O-sulfohexosyl-5 α -stigmastane-3 β ,6,8,15,16 β ,29-hexaol |
| 198 | 48.4 | C ₅₆ H ₉₁ O ₂₇ SNa | 1227.5474 | 1227.5470 | 0.3 | [M-Na] ⁻ | Fuc-Gal-Xyl(-Qui)-Qui-AG XVII (lethasterioside A) |
| 199 | 48.83 | C ₅₈ H ₉₂ NO ₂ SNa | 1266.5583 | 1266.5580 | 0.2 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-(C ₇ H ₉ NO ₄)-AG V |
| 200 | 50.2 | C ₅₇ H ₉₅ O ₂₇ SNa | 1241.563 | 1241.5635 | -0.4 | [M-Na] ⁻ | dHex-dHex-Glc(-Qui)-Qui-AG XVII |
| 201 | 50.98 | C ₆₃ H ₁₀₃ O ₃₁ SNa | 1387.621 | 1387.6211 | -0.1 | [M-Na] ⁻ | Hex-dHex-dHex-Qui(-Qui)-Qui-AG XVII |
| 202 | 52.5 | C ₅₃ H ₅₅ O ₁₂ SNa | 677.3576 | 677.3588 | -1.8 | [M-Na] ⁻ | 24-O-methylsulfopentosyl-5 α -cholestane-3 β ,6,8,15,24-pentaol |
| 203 | 53.28 | C ₅₇ H ₉₅ O ₂₆ SNa | 1241.563 | 1241.5636 | -0.5 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-DXU-AG XVII |
| 204 | 55.29 | C ₅₄ H ₅₇ O ₁₃ SNa | 707.3682 | 707.3689 | -1.0 | [M-Na] ⁻ | 29-O-sulfopentosyl-5 α -stigmastane-3 β ,6,8,15,16 β ,29-hexaol |
| 205 | 59.82 | C ₇ H ₄₁ O ₈ SNa | 511.2735 | 511.2749 | -2.7 | [M-Na] ⁻ | 3-O-sulfothornasterol A (AG V) |
| 206 | 66.76 | C ₅₇ H ₉₅ O ₂₆ SNa | 1225.5681 | 1225.5685 | -0.3 | [M-Na] ⁻ | dHex-dHex-Qui(-Qui)-Qui-AG XVII |
| 207 | 72.27 | C ₇ H ₄₃ O ₈ SNa | 495.2786 | 495.2795 | -1.8 | [M-Na] ⁻ | 3-O-sulfo-24,25-dihydromarthasterone (AG XVII) |

^a The number of the peaks on (-)LC/MS chromatogram

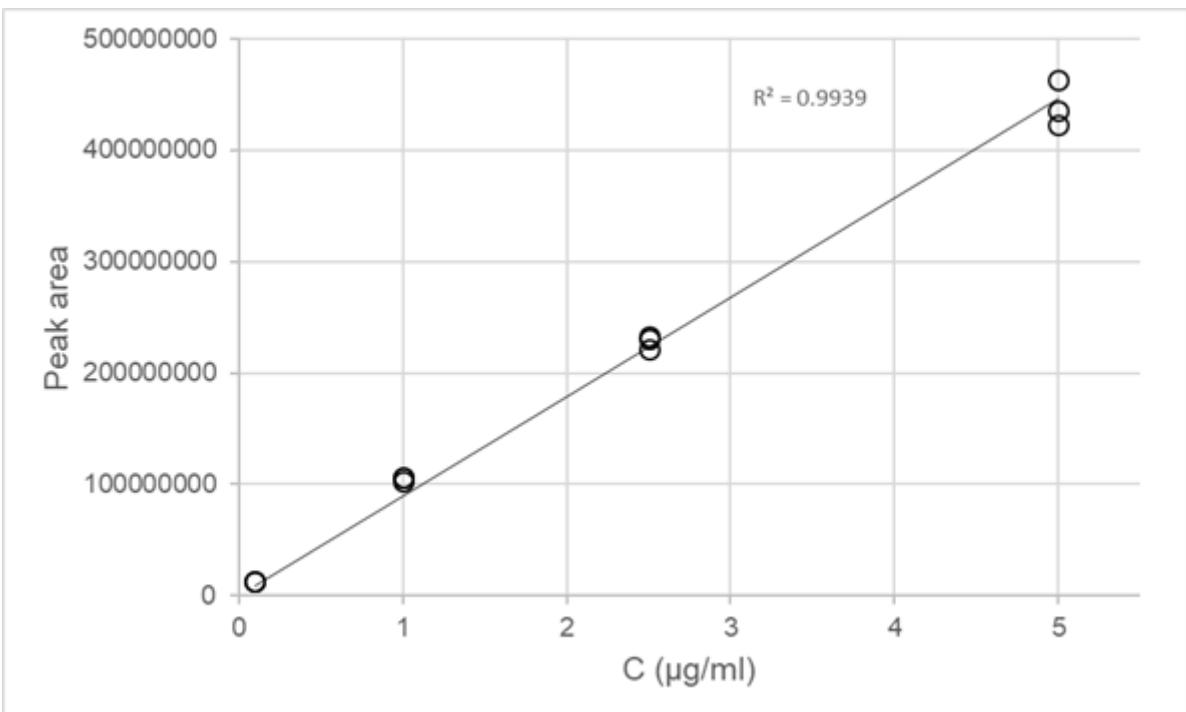


Figure 2S. Calibration curve for fusicaside A (ion $[\text{M} - \text{Na}]^-$ at m/z 795.38)

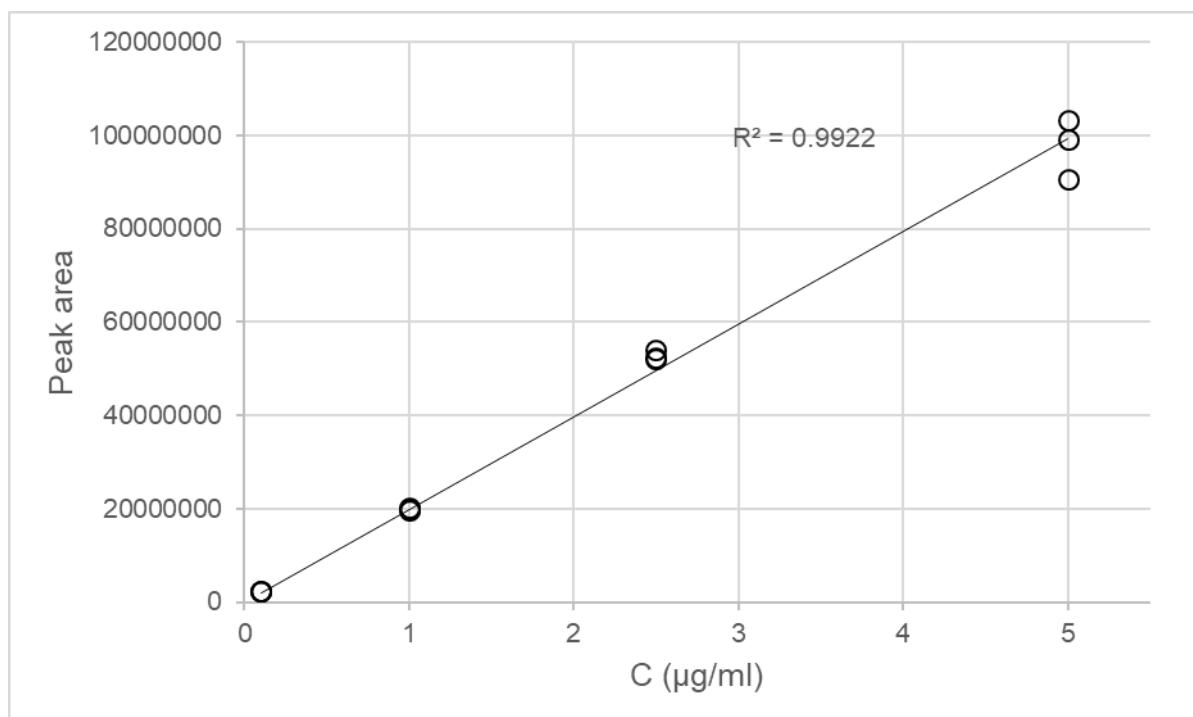


Figure 3S. Calibration curve for lethasterioside A (ion $[\text{M} - \text{Na}]^-$ at m/z 1227.54)

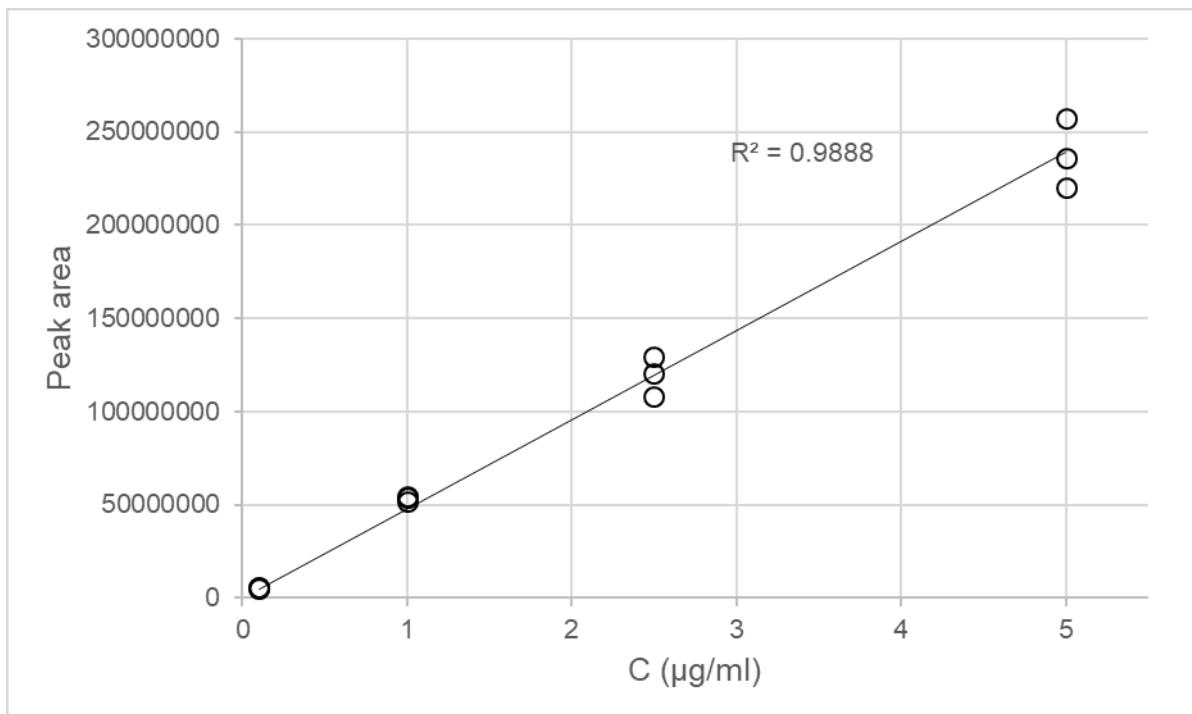


Figure 4S. Calibration curve for 5 α -cholestane-3 β ,4 β ,6 α ,7 α ,8,15 β ,16 β ,26-octaoal (for the sum of ion intensities [M - H] $^-$ at m/z 499.33 and [M + FA] $^-$ at m/z 545.3)

Table S4 Content of detected compounds in different organs and coelomic fluid of the starfish *L. fusca* (ng/g wet weight of the organs for BW, G, PC, and S and ng/ml for CF) and result of statistical analysis (ANOVA followed by Tukey HSD test of multiple comparisons was performed for BW, G, PC, and S groups; q-value < 0.05 was considered statistically significant).

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p</i> -value | <i>q</i> -value | Tukey's HSD |
|----|------------|--------|--------|--------|--------|----------------|------|------|------|------|--------|-------|--------|-------|--------|---------------|--------|--------|---------|--------|---------|---------|---------|--------|--------|-------------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 1 | 0.1 | 1.0 | 1.3 | 2.1 | 0.9 | nd | nd | nd | nd | nd | 0.5 | <0.1 | 1.6 | 15.2 | 152.9 | 175.5 | 334.7 | 757.5 | 428.4 | 3.8 | 2.1 | 20.2 | 14.0 | 6.9 | 0.001 | 0.003 | PC-BW; PC-G; S-PC | |
| 2 | 0.4 | 0.2 | 0.9 | 3.9 | 2.2 | nd | nd | nd | nd | nd | 0.2 | nd | 2.7 | 11.1 | 167.7 | 171.0 | 375.4 | 952.5 | 441.0 | 8.4 | 3.3 | 12.5 | 22.7 | 9.3 | 0.002 | 0.009 | PC-BW; PC-G; S-PC | |
| 3 | 1.1 | 55.1 | 40.1 | 36.2 | 4.8 | 0.1 | 0.1 | nd | nd | nd | 0.8 | 1.9 | 0.3 | 0.1 | 0.2 | 0.2 | 2.3 | 1.4 | 5.3 | 6.6 | 7.0 | 7.9 | 4.1 | 0.011 | 0.034 | G-BW; PC-BW; S-BW | | |
| 4 | 0.2 | 0.1 | 0.1 | 0.3 | 0.1 | nd | nd | nd | nd | nd | nd | nd | nd | 1.0 | 122.8 | 52.8 | 132.6 | 202.4 | 108.4 | 1.3 | 0.6 | 1.2 | 1.5 | 0.8 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 5 | 28.4 | 11.6 | 4.3 | 23.4 | 4.5 | nd | 0.1 | nd | nd | nd | 54.0 | 38.7 | 26.1 | 33.1 | 3304.0 | 12328.5 | 681.4 | 3065.1 | 262.5 | 56.7 | 101.7 | 19.2 | 64.2 | 7.5 | 0.068 | 0.105 | - | |
| 6 | 242.4 | 1244.9 | 2.4 | 17.9 | 1059.9 | 0.6 | 2.5 | nd | nd | 1.8 | 26.0 | 37.8 | 4.3 | 57.8 | 32.2 | 31.0 | 33.9 | 86.5 | 70.2 | 15.8 | 24.2 | 39.0 | 46.2 | 33.8 | 0.068 | 0.133 | - | |
| 7 | 0.3 | 0.7 | 2.9 | 21.6 | 168.2 | nd | nd | nd | nd | nd | 3.7 | 1.3 | 9.8 | 307.3 | 372.0 | 239.2 | 1207.3 | 3870.7 | 13159.6 | 6.4 | 4.7 | 28.4 | 69.0 | 84.0 | 0.137 | 0.161 | - | |
| 8 | 0.1 | nd | 0.2 | 0.3 | nd | nd | nd | nd | nd | nd | 61.5 | 3.3 | 2.0 | 1.7 | 2.2 | 1.5 | 1.6 | 6.3 | 2.6 | 32.6 | 26.4 | 45.7 | 172.0 | 32.3 | 0.046 | 0.099 | - | |
| 9 | 85.1 | 441.5 | 3.3 | 6.7 | 305.6 | 0.3 | 1.3 | 0.1 | <0.1 | 0.7 | 23.4 | 23.2 | 2.8 | 23.7 | 13.6 | 11.4 | 20.5 | 49.8 | 32.7 | 28.4 | 36.1 | 43.0 | 97.7 | 47.6 | 0.126 | 0.198 | - | |
| 10 | 29.8 | 449.3 | 0.4 | 3.1 | 4.2 | <0.1 | 0.3 | <0.1 | <0.1 | nd | 34.7 | 21.4 | 3.7 | 14.9 | 5697.7 | 21395.2 | 687.9 | 3043.8 | 441.0 | 84.2 | 149.3 | 8.2 | 39.0 | 9.0 | 0.117 | 0.145 | - | |
| 11 | 0.6 | 0.2 | 0.1 | 0.5 | 0.6 | nd | nd | nd | nd | nd | 0.1 | <0.1 | 0.4 | 3.6 | 340.6 | 89.4 | 171.3 | 752.5 | 275.9 | 5.6 | 2.2 | 7.2 | 19.0 | 7.2 | 0.003 | 0.01 | PC-BW; PC-G; S-PC | |
| 12 | 0.4 | 0.4 | 3.1 | 9.5 | 78.3 | nd | nd | nd | nd | nd | 3.0 | 0.8 | 7.3 | 323.1 | 391.1 | 238.7 | 428.9 | 4106.0 | 13195.0 | 1.2 | 2.1 | 18.3 | 38.2 | 124.9 | 0.164 | 0.186 | - | |
| 13 | 2.2 | 335.1 | 0.8 | 0.6 | 78.4 | nd | 1.0 | nd | nd | nd | 15.3 | 17.4 | nd | 5.0 | 9.0 | 17.0 | 10.8 | 28.7 | 19.8 | 11.6 | 11.5 | 10.4 | 6.0 | 5.2 | 0.369 | 0.426 | - | |
| 14 | 2.2 | 12.0 | <0.1 | <0.1 | nd | nd | nd | nd | nd | nd | 1.9 | 1.2 | nd | 0.1 | 502.1 | 1299.9 | 17.0 | 38.9 | 20.0 | 6.2 | 9.0 | nd | 2.6 | 0.7 | 0.147 | 0.171 | - | |
| 15 | 2.4 | 0.9 | 1.3 | 4.4 | 2.1 | nd | nd | nd | nd | nd | 1.4 | 0.7 | 4.4 | 24.6 | 855.5 | 734.2 | 1036.8 | 1989.9 | 467.7 | 14.6 | 5.3 | 20.7 | 28.8 | 7.0 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 16 | nd | 0.1 | nd | nd | 0.4 | nd | nd | nd | nd | nd | nd | nd | nd | nd | 0.6 | 1.0 | 3.0 | 9.2 | 5.2 | 85.5 | 156.7 | nd | 29.2 | 167.1 | 0.006 | 0.024 | S-BW; S-G; S-PC | |
| 17 | 22.2 | 84.9 | 14.0 | 3.0 | 126.4 | nd | nd | nd | nd | nd | 70.2 | 34.7 | 12.0 | 42.0 | 95.3 | 143.2 | 7.8 | 21.7 | 128.4 | 442.5 | 670.4 | 425.3 | 777.0 | 975.2 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 18 | 3.4 | 13.4 | 13.8 | 39.8 | 44.2 | nd | nd | nd | nd | nd | 9.0 | 4.4 | 36.7 | 232.3 | 752.0 | 1594.4 | 2317.6 | 7797.0 | 3920.7 | 11.5 | 78.7 | 185.8 | 387.0 | 174.8 | 0.007 | 0.018 | PC-BW; PC-G; S-PC | |
| 19 | 0.1 | nd | 0.3 | 0.2 | <0.1 | nd | nd | nd | nd | nd | nd | nd | nd | 0.2 | 32.0 | 3.9 | 294.4 | 95.7 | 12.6 | 2.4 | 1.4 | 35.0 | 5.8 | 1.3 | 0.127 | 0.15 | - | |
| 20 | 25.8 | 159.8 | 0.8 | 0.2 | 26.9 | nd | 0.7 | nd | nd | nd | 93.3 | 12.5 | nd | 2.8 | 27.4 | 10.7 | 5.0 | 12.6 | 7.1 | 202.2 | 25.9 | 8.1 | 12.7 | 10.2 | 0.738 | 0.738 | - | |
| 21 | 3.2 | 21.2 | 19.0 | 25.3 | 20.1 | nd | nd | nd | nd | nd | 11.3 | 7.1 | 28.1 | 117.8 | 1226.7 | 1934.7 | 2332.9 | 4028.9 | 1244.5 | 16.0 | 78.9 | 109.9 | 152.2 | 44.4 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 22 | 55.2 | 79.0 | 45.4 | 2.9 | 104.6 | nd | nd | nd | nd | nd | 2283.3 | 295.6 | 56.8 | 132.5 | 401.7 | 294.5 | 33.7 | 64.5 | 574.2 | 1810.9 | 302.4 | 346.7 | 554.8 | 724.3 | 0.243 | 0.316 | - | |
| 23 | 24.4 | 46.0 | 0.3 | 0.3 | 60.3 | <0.1 | nd | nd | nd | nd | 16.6 | 5.4 | 3.3 | 304.2 | 2056.6 | 1794.4 | 63.9 | 247.1 | 3736.0 | 79.4 | 46.6 | 9.9 | 20.5 | 145.8 | 0.016 | 0.036 | PC-BW; PC-G; S-PC | |
| 24 | 0.1 | nd | 0.3 | 8.7 | 0.1 | nd | nd | nd | nd | nd | 1.6 | nd | 9.6 | 8.1 | 23.7 | 4.5 | 161.9 | 1924.3 | 1.4 | 3.0 | 1.5 | 52.2 | 277.4 | 0.8 | 0.408 | 0.413 | - | |
| 25 | 0.5 | 0.8 | 0.5 | 1.5 | 0.4 | nd | nd | nd | nd | nd | 24.9 | 6.4 | 8.5 | 19.5 | 5.1 | 8.3 | 6.1 | 21.0 | 7.8 | 609.4 | 801.7 | 229.4 | 3538.2 | 460.4 | 0.058 | 0.119 | - | |
| 26 | 60.9 | 2463.1 | 535.4 | 5561.0 | 98.7 | 4.5 | 15.2 | 0.9 | 7.1 | 1.0 | 342.8 | 157.4 | 1453.2 | 140.3 | 75.4 | 62.7 | 41.6 | 207.8 | 52.6 | 134.0 | 76.9 | 821.2 | 279.2 | 67.3 | 0.199 | 0.269 | - | |
| 27 | 96.0 | 15.1 | 351.7 | 69.9 | 204.4 | 0.1 | nd | nd | 1.0 | nd | 962.8 | 208.3 | 574.3 | 179.6 | 117.7 | 185.8 | 120.0 | 196.1 | 228.5 | 1569.7 | 2859.7 | 18224.1 | 27866.8 | 4666.2 | 0.028 | 0.07 | - | |
| 28 | 28.0 | 1787.1 | 3301.8 | 4144.6 | 120.0 | 3.2 | 11.4 | 2.4 | 3.7 | 0.1 | 25.4 | 131.3 | 985.5 | 92.8 | 19.7 | 46.2 | 42.4 | 125.4 | 39.7 | 322.5 | 323.2 | 1743.4 | 372.7 | 142.1 | 0.063 | 0.126 | - | |
| 29 | 24.0 | 30.6 | 0.9 | 0.1 | 12.4 | nd | nd | nd | nd | nd | 1555.7 | 40.7 | 13.2 | 16.7 | 91.5 | 5.2 | 7.7 | 15.5 | 11.7 | 634.5 | 38.2 | 98.8 | 47.4 | 33.7 | 0.394 | 0.442 | - | |
| 30 | 0.2 | 164.2 | 50.0 | 53.6 | 2.3 | 0.2 | 0.9 | 0.3 | 0.1 | <0.1 | 9.6 | 7.4 | 12.9 | 6.1 | 14.4 | 21.2 | 52.6 | 122.9 | 74.6 | 15.6 | 405.3 | 683.9 | 1215.8 | 24.4 | 0.051 | 0.085 | - | |
| 31 | 1.0 | 50.4 | 9.5 | 18.2 | 9.1 | nd | nd | nd | nd | nd | 104.4 | 10.2 | 30.5 | 33.9 | 21.2 | 18.0 | 17.5 | 53.0 | 60.5 | 818.5 | 685.0 | 2984.7 | 8560.5 | 1376.3 | 0.044 | 0.099 | - | |
| 32 | 0.2 | 1.1 | 2.0 | 0.7 | 0.1 | nd | nd | nd | nd | nd | 4.4 | 2.2 | 0.7 | 6.6 | 5.2 | 7.0 | 3.7 | 12.6 | 8.4 | 1247.7 | 931.4 | 44.4 | 1379.4 | 487.3 | 0.001 | 0.004 | S-BW; S-G; S-PC | |

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p-value</i> | <i>q-value</i> | Tukey's HSD |
|----|------------|--------|-------|--------|-------|----------------|------|------|------|--------|---------|------|-------|--------|--------|---------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|-----------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 33 | 161.7 | 22.0 | 13.2 | 1.3 | 29.0 | nd | nd | nd | 0.4 | nd | 1085.2 | 41.3 | 40.1 | 16.0 | 50.8 | 17.2 | 5.8 | 14.3 | 13.5 | 2298.9 | 1451.8 | 1744.3 | 5812.5 | 2437.7 | 0.001 | 0.005 | S-BW; S-G; S-PC | |
| 34 | 25.8 | 83.3 | 144.2 | 161.8 | 51.0 | 0.1 | 0.3 | 0.1 | <0.1 | 0.2 | 18.7 | 3.0 | 11.0 | 9.0 | 20.1 | 6.2 | 9.8 | 21.5 | 11.6 | 96.2 | 23.2 | 68.3 | 31.0 | 23.7 | 0.008 | 0.026 | G-BW; PC-BW | |
| 35 | 39.0 | 10.0 | 8.5 | 1.9 | 11.8 | nd | nd | nd | nd | nd | 1838.9 | 21.3 | 20.7 | 6.6 | 62.2 | 7.7 | 4.2 | 9.1 | 8.2 | 3387.0 | 235.0 | 341.7 | 793.1 | 338.6 | 0.199 | 0.269 | - | |
| 36 | 28.3 | 10.5 | 9.6 | 2.3 | 12.0 | nd | nd | nd | nd | nd | 1083.7 | 18.1 | 12.9 | 5.9 | 31.5 | 6.3 | 4.7 | 11.9 | 8.7 | 951.2 | 165.3 | 249.4 | 571.6 | 244.7 | 0.098 | 0.171 | - | |
| 37 | 53.5 | 2.1 | 1.0 | 0.2 | 1.8 | nd | nd | nd | nd | nd | 363.1 | 23.2 | 2.6 | 0.7 | 279.0 | 7.8 | 4.9 | 12.1 | 6.4 | 2880.2 | 105.3 | 3.1 | 28.0 | 31.9 | 0.477 | 0.509 | - | |
| 38 | 0.2 | 32.5 | 389.3 | 143.4 | 1.9 | <0.1 | nd | nd | <0.1 | nd | 356.8 | 6.2 | 202.1 | 27.7 | 28.7 | 13.8 | 305.2 | 681.5 | 82.2 | 179.5 | 68.7 | 21617.9 | 18196.8 | 110.2 | 0.109 | 0.177 | - | |
| 39 | 2.0 | 362.1 | 727.6 | 1029.4 | 3.3 | 0.3 | 1.7 | 0.1 | 0.7 | nd | 36.3 | 28.0 | 129.9 | 15.9 | 41.3 | 29.4 | 38.0 | 84.0 | 24.1 | 457.5 | 96.3 | 415.0 | 107.1 | 72.2 | 0.109 | 0.177 | - | |
| 40 | 15.8 | 26.6 | 7.6 | 3.2 | 66.1 | nd | nd | nd | nd | nd | 5.8 | 4.5 | 0.4 | 40.7 | 17.4 | 22.8 | 1.1 | 7.5 | 42.8 | 766.2 | 920.0 | 34.8 | 393.6 | 962.7 | 0.001 | 0.004 | S-BW; S-G; S-PC | |
| 41 | 0.4 | 1.3 | 0.4 | 0.6 | 1.7 | nd | nd | nd | nd | nd | 1.3 | 1.5 | nd | 20.1 | 4.1 | 6.9 | 0.3 | 1.8 | 15.9 | 299.0 | 513.3 | 16.6 | 286.2 | 511.3 | <0.001 | 0.003 | S-BW; S-G; S-PC | |
| 42 | 9.5 | 1334.4 | 29.4 | 88.8 | 13.1 | 2.5 | 5.1 | 2.2 | 1.6 | 2.3 | 126.9 | 58.4 | 24.8 | 23.7 | 76.3 | 42.1 | 45.6 | 156.6 | 47.6 | 352.1 | 442.9 | 6963.1 | 6687.8 | 162.4 | 0.081 | 0.151 | - | |
| 43 | 409.1 | 8.7 | 0.2 | 0.4 | 4.0 | <0.1 | nd | nd | 0.6 | 1.0 | 18306.4 | 92.9 | 110.7 | 13.0 | 1073.3 | 17.0 | 6.3 | 17.1 | 11.6 | 13986.7 | 265.0 | 71.2 | 85.0 | 137.2 | 0.509 | 0.53 | - | |
| 44 | 42.9 | 69.0 | 24.8 | 2.1 | 183.4 | nd | 0.1 | nd | nd | 0.1 | 18.3 | 3.2 | 0.5 | 13.8 | 6.7 | 5.9 | 0.5 | 3.5 | 11.2 | 730.2 | 310.0 | 161.4 | 136.4 | 412.9 | 0.002 | 0.01 | S-BW; S-G; S-PC | |
| 45 | 48.5 | 14.8 | 0.1 | 1.8 | 0.9 | nd | nd | nd | nd | nd | 12.4 | 1.3 | 1.6 | 9.4 | 2787.4 | 477.6 | 34.8 | 94.5 | 92.2 | 137.4 | 8.5 | 2.1 | 8.4 | 7.7 | 0.25 | 0.277 | - | |
| 46 | 13.5 | 80.0 | 0.2 | 4.3 | 19.9 | nd | <0.1 | nd | nd | nd | 12.7 | 5.3 | 3.0 | 40.2 | 743.7 | 2117.0 | 60.9 | 243.7 | 344.9 | 57.7 | 51.3 | 6.3 | 20.6 | 17.1 | 0.06 | 0.094 | - | |
| 47 | 16.0 | 1.3 | 0.8 | 1.1 | 1.8 | nd | nd | nd | nd | nd | 91.6 | 5.0 | 2.3 | 2.4 | 98.8 | 4.5 | 3.7 | 10.8 | 7.8 | 952.6 | 17.4 | 28.1 | 41.5 | 30.3 | 0.407 | 0.451 | - | |
| 48 | 3.7 | 2.0 | 2.8 | 2.4 | 199.6 | 0.3 | 0.1 | <0.1 | <0.1 | 0.1 | 9.2 | 1.8 | 5.9 | 718.4 | 295.4 | 75.4 | 107.8 | 207.4 | 7882.2 | 30.4 | 7.6 | 26.0 | 17.1 | 473.0 | 0.423 | 0.423 | - | |
| 49 | 29.9 | 156.4 | 88.4 | 2.0 | 153.8 | nd | 0.2 | nd | nd | nd | 36.9 | 8.4 | 1.6 | 8.6 | 8.0 | 8.8 | 4.5 | 4.2 | 4.7 | 203.2 | 199.9 | 805.2 | 126.7 | 78.7 | 0.052 | 0.108 | - | |
| 50 | 100.1 | 6.3 | 3.5 | 0.9 | 3.8 | nd | nd | nd | <0.1 | nd | 139.5 | 29.0 | 72.2 | 12.4 | 452.3 | 30.5 | 9.8 | 32.8 | 36.7 | 140.6 | 145.5 | 367.3 | 660.0 | 381.7 | 0.023 | 0.06 | - | |
| 51 | 5.8 | 385.9 | 1.0 | 31.9 | 5.7 | nd | 0.1 | nd | nd | nd | 55.2 | 32.1 | 4.9 | 13.3 | 51.4 | 66.9 | 25.3 | 38.6 | 45.0 | 843.1 | 2228.3 | 291.3 | 1226.2 | 709.9 | 0.002 | 0.009 | S-BW; S-G; S-PC | |
| 52 | 82.0 | 14.7 | 8.3 | 1.1 | 23.7 | nd | nd | 0.1 | nd | 7071.3 | 26.7 | 44.3 | 5.1 | 42.1 | 4.1 | 4.3 | 14.2 | 8.1 | 6736.8 | 57.9 | 87.0 | 102.4 | 107.8 | 0.505 | 0.53 | - | | |
| 53 | 1.9 | 3.4 | 2.4 | 45.1 | 0.3 | nd | nd | nd | nd | nd | 2.1 | 0.6 | 17.4 | 13.3 | 139.2 | 92.1 | 253.5 | 299.3 | 39.7 | 11.7 | 4.6 | 13.4 | 103.7 | 3.5 | 0.003 | 0.01 | PC-BW; PC-G; S-PC | |
| 54 | 21.7 | 114.3 | 34.3 | 140.5 | 10.1 | 0.3 | 0.7 | 0.1 | 0.1 | nd | 7473.3 | 80.6 | 268.9 | 45.8 | 507.0 | 30.2 | 133.8 | 396.3 | 54.9 | 835.4 | 72.8 | 3892.5 | 1345.9 | 260.7 | 0.383 | 0.434 | - | |
| 55 | 13.7 | 35.5 | 24.9 | 146.9 | 20.5 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 5.3 | 7.4 | 64.6 | 80.0 | 829.8 | 110.1 | 3241.0 | 8552.8 | 196.7 | 13.6 | 13.2 | 141.4 | 418.6 | 14.8 | 0.121 | 0.147 | - | |
| 56 | 2.8 | 3.0 | 8.7 | 39.6 | 0.1 | nd | nd | nd | nd | nd | 2.5 | 1.1 | 16.4 | 10.9 | 227.0 | 219.1 | 502.4 | 2626.5 | 22.2 | 13.1 | 10.5 | 20.1 | 95.6 | 2.8 | 0.165 | 0.186 | - | |
| 57 | 1.4 | 30.2 | 0.6 | 0.2 | 4.8 | nd | nd | nd | nd | nd | 3.4 | 2.2 | 0.6 | 10.2 | 158.9 | 767.9 | 49.7 | 63.8 | 123.3 | 6.1 | 13.9 | 2.9 | 5.3 | 4.1 | 0.092 | 0.124 | - | |
| 58 | 43.1 | 39.9 | 105.7 | 103.8 | 31.6 | <0.1 | nd | <0.1 | <0.1 | nd | 15.1 | 8.3 | 47.8 | 144.2 | 2348.6 | 1420.6 | 4231.9 | 5110.9 | 1115.1 | 89.0 | 64.4 | 160.4 | 251.9 | 61.4 | <0.001 | 0.002 | PC-BW; PC-G; S-PC | |
| 59 | 34.1 | 142.0 | 9.6 | 33.2 | 30.0 | 0.5 | 0.7 | 0.3 | 0.2 | 0.3 | 28.7 | 9.2 | 19.6 | 97.6 | 2323.1 | 5039.5 | 414.5 | 1843.3 | 1027.4 | 122.8 | 175.6 | 27.2 | 136.1 | 47.2 | 0.006 | 0.018 | PC-BW; PC-G; S-PC | |
| 60 | 44.0 | 70.7 | 28.5 | 2.0 | 258.2 | <0.1 | 0.1 | nd | nd | nd | 93.2 | 28.9 | 9.1 | 76.8 | 74.3 | 49.1 | 18.0 | 29.0 | 166.1 | 1841.5 | 1075.2 | 620.6 | 657.9 | 1964.5 | <0.001 | 0.001 | S-BW; S-G; S-PC | |
| 61 | 0.7 | 0.1 | 0.6 | nd | 0.5 | nd | nd | nd | nd | nd | 215.6 | 3.0 | 2.8 | 0.7 | 14.9 | 1.0 | 2.4 | 9.0 | 3.1 | 142.7 | 37.4 | 58.6 | 401.9 | 142.9 | 0.049 | 0.104 | - | |
| 62 | 32.0 | 1.2 | 0.3 | 0.1 | 1.8 | nd | nd | nd | nd | nd | 1483.7 | 5.9 | 11.3 | 3.4 | 117.8 | 1.6 | 7.5 | 57.9 | 7.0 | 943.7 | 5.0 | 8.8 | 4.1 | 10.1 | 0.511 | 0.53 | - | |
| 63 | 9.4 | 23.6 | 0.5 | 0.6 | 26.9 | <0.1 | nd | 0.1 | nd | <0.1 | 5.2 | 1.5 | 0.9 | 60.0 | 530.5 | 829.1 | 60.6 | 41.4 | 815.8 | 19.6 | 43.1 | 8.3 | 12.9 | 30.1 | 0.008 | 0.019 | PC-BW; PC-G; S-PC | |
| 64 | 62.7 | 116.2 | 472.1 | 2212.9 | 610.7 | 1.0 | 1.1 | 1.1 | 0.7 | 1.2 | 74.6 | 28.6 | 988.5 | 2157.7 | 2987.5 | 2438.9 | 17721.8 | 64535.2 | 15898.9 | 261.3 | 152.3 | 1204.6 | 3448.2 | 612.0 | 0.078 | 0.115 | - | |
| 65 | 0.6 | 0.9 | <0.1 | 0.4 | 0.3 | nd | nd | nd | nd | 0.2 | 0.4 | nd | 4.3 | 1.6 | 2.3 | 2.0 | 7.7 | 6.1 | 260.8 | 859.3 | 1.7 | 94.0 | 660.6 | 0.017 | 0.046 | S-BW; S-G; S-PC | | |
| 66 | 22.4 | 51.4 | 37.3 | 8.2 | 65.4 | 0.1 | <0.1 | nd | 0.6 | nd | 16.8 | 37.4 | 22.9 | 72.2 | 36.0 | 69.6 | 50.5 | 132.7 | 124.7 | 2048.8 | 1763.3 | 465.0 | 15822.2 | 1742.5 | 0.147 | 0.22 | - | |
| 67 | 47.4 | 443.0 | 61.9 | 10.0 | 449.9 | 0.5 | 1.5 | nd | nd | nd | 4.6 | 10.5 | 0.1 | 15.4 | 3.1 | 7.8 | 0.3 | 2.1 | 7.6 | 82.7 | 355.3 | 40.5 | 71.3 | 73.6 | 0.1 | 0.172 | - | |
| 68 | 41.4 | 113.9 | 7.8 | 16.0 | 1.2 | <0.1 | 0.1 | nd | <0.1 | nd | 20.8 | 7.4 | 4.0 | 8.2 | 2263.3 | 3657.0 | 238.2 | 384.4 | 69.6 | 155.8 | 58.1 | 10.3 | 24.7 | 6.8 | 0.06 | 0.094 | - | |

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p</i> -value | <i>q</i> -value | Tukey's HSD |
|-----|------------|--------|-------|-------|--------|----------------|------|------|------|-----|--------|--------|-------|--------|---------|---------------|--------|--------|---------|---------|---------|---------|---------|---------|--------|-----------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 69 | 12.3 | 78.1 | 1.5 | 9.0 | 11.4 | nd | 0.1 | nd | nd | nd | 12.0 | 6.0 | 4.8 | 32.4 | 684.6 | 2114.1 | 132.2 | 459.5 | 353.5 | 42.7 | 38.9 | 7.6 | 22.1 | 10.3 | 0.03 | 0.058 | - | |
| 70 | 38.7 | 43.1 | 35.8 | 8.5 | 48.0 | 0.4 | 0.2 | nd | 0.2 | 1.0 | 55.3 | 35.7 | 14.8 | 51.8 | 14.5 | 23.9 | 13.4 | 26.6 | 41.4 | 1897.0 | 2821.0 | 1854.2 | 3607.9 | 3845.4 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 71 | 17.3 | 16.5 | 9.1 | 10.3 | 0.1 | <0.1 | nd | nd | nd | nd | 5.7 | 2.0 | 5.0 | 5.2 | 1055.4 | 482.8 | 387.7 | 596.2 | 24.4 | 44.1 | 13.9 | 13.7 | 24.2 | 2.9 | 0.002 | 0.007 | PC-BW; PC-G; S-PC | |
| 72 | 33.1 | 15.3 | 5.9 | 69.8 | 2.5 | <0.1 | 0.1 | <0.1 | nd | nd | 11.4 | 4.0 | 35.4 | 25.5 | 2031.1 | 599.4 | 360.6 | 4368.5 | 92.6 | 98.3 | 22.3 | 19.2 | 180.9 | 8.2 | 0.06 | 0.094 | - | |
| 73 | 167.6 | 100.7 | 78.6 | 30.3 | 172.6 | 0.8 | 0.8 | 0.3 | 0.6 | 0.9 | 2986.5 | 147.1 | 135.1 | 154.8 | 1276.5 | 430.1 | 194.4 | 673.2 | 382.3 | 2266.6 | 614.8 | 1669.2 | 2807.9 | 1149.3 | 0.045 | 0.099 | - | |
| 74 | 1.6 | 8.5 | 1.2 | 5.7 | 7.2 | 0.4 | 0.4 | nd | <0.1 | 1.4 | 18.4 | 6.5 | 6.5 | 16.7 | 8.1 | 7.8 | 7.7 | 18.4 | 16.2 | 1490.5 | 1492.8 | 215.2 | 2879.9 | 1265.2 | <0.001 | 0.004 | S-BW; S-G; S-PC | |
| 75 | 0.5 | 5.3 | 37.0 | 39.3 | 0.4 | nd | nd | nd | nd | nd | 2.0 | 2.6 | 21.4 | 14.3 | 51.0 | 184.4 | 1946.5 | 2297.2 | 27.3 | 4.2 | 13.7 | 107.0 | 116.0 | 2.2 | 0.076 | 0.115 | - | |
| 76 | 0.8 | 1.8 | 16.9 | 10.0 | 1.5 | nd | nd | nd | nd | nd | 0.4 | 1.1 | 5.1 | 6.4 | 37.1 | 11.4 | 963.1 | 595.9 | 44.8 | 2.2 | 4.1 | 32.0 | 19.9 | 2.2 | 0.091 | 0.124 | - | |
| 77 | 11.2 | 17.2 | 8.4 | 9.1 | 19.2 | 0.1 | 0.1 | nd | nd | 0.1 | 66.2 | 12.2 | 11.8 | 32.2 | 23.6 | 21.0 | 11.0 | 32.8 | 28.1 | 4120.9 | 3021.4 | 302.2 | 4763.9 | 2234.7 | <0.001 | 0.002 | S-BW; S-G; S-PC | |
| 78 | 1247.1 | 4523.6 | 960.5 | 226.2 | 5384.2 | 5.6 | 9.3 | 1.2 | 5.9 | 7.7 | 2984.7 | 1785.1 | 372.0 | 2382.7 | 1179.5 | 1300.9 | 71.3 | 121.9 | 2092.6 | 25461.0 | 22508.6 | 17412.0 | 16285.3 | 35490.6 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 79 | 28.3 | 7.3 | 5.8 | 1.1 | 9.0 | nd | nd | nd | nd | nd | 682.6 | 4.2 | 6.7 | 0.2 | 68.5 | 1.5 | 3.8 | 9.4 | 4.7 | 863.5 | 5.2 | 13.2 | 7.8 | 11.0 | 0.579 | 0.584 | - | |
| 80 | 32.3 | 21.9 | 114.0 | 0.9 | 37.4 | nd | nd | nd | nd | 0.1 | 198.1 | 25.2 | 11.4 | 19.2 | 28.1 | 15.7 | 34.4 | 16.8 | 19.3 | 401.3 | 407.8 | 4922.6 | 829.8 | 231.1 | 0.159 | 0.231 | - | |
| 81 | 192.7 | 222.8 | 33.2 | 83.3 | 356.9 | 0.8 | 1.0 | 0.6 | 0.5 | 0.6 | 76.0 | 21.0 | 49.7 | 1205.1 | 10565.5 | 7590.5 | 1793.2 | 5272.2 | 10762.4 | 597.2 | 137.5 | 77.5 | 190.2 | 547.2 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 82 | 0.5 | 4.1 | 163.8 | 147.5 | 0.7 | 1.3 | 1.2 | 1.5 | 1.1 | 1.5 | 9.9 | 10.7 | 83.4 | 50.7 | 100.1 | 165.6 | 7589.5 | 7869.6 | 104.2 | 13.5 | 36.2 | 476.4 | 456.4 | 9.7 | 0.101 | 0.132 | - | |
| 83 | 19.6 | 46.4 | 1.7 | 21.2 | 1.8 | nd | <0.1 | nd | nd | nd | 9.9 | 4.6 | 11.2 | 9.8 | 1093.5 | 1578.9 | 123.0 | 1371.5 | 20.0 | 57.5 | 48.6 | 6.8 | 61.0 | 3.7 | 0.007 | 0.019 | PC-BW; PC-G; S-PC | |
| 84 | 24.3 | 24.9 | 152.2 | 96.1 | 9.8 | 0.1 | <0.1 | 0.2 | <0.1 | nd | 4.2 | 5.9 | 45.4 | 30.5 | 113.1 | 116.3 | 6812.0 | 5248.2 | 82.8 | 12.3 | 27.3 | 201.5 | 182.6 | 6.7 | 0.101 | 0.132 | - | |
| 85 | 14.9 | 88.6 | 1.0 | 7.3 | 11.7 | nd | 0.1 | nd | nd | nd | 13.7 | 9.5 | 3.5 | 36.3 | 661.1 | 2014.7 | 144.3 | 242.3 | 381.7 | 39.8 | 49.9 | 7.4 | 19.1 | 14.0 | 0.043 | 0.076 | - | |
| 86 | 13.2 | 50.0 | 1.6 | 0.6 | 1.6 | nd | nd | nd | nd | nd | 201.5 | 13.6 | 5.7 | 9.0 | 120.9 | 162.0 | 34.6 | 30.9 | 55.2 | 2873.5 | 562.2 | 124.8 | 445.3 | 233.3 | 0.127 | 0.198 | - | |
| 87 | 16.1 | 20.8 | 14.3 | 2.6 | 37.2 | nd | nd | nd | nd | nd | 1447.0 | 20.1 | 12.7 | 5.4 | 44.6 | 4.0 | 2.5 | 5.1 | 4.6 | 109.0 | 14.5 | 19.0 | 5.1 | 6.6 | 0.325 | 0.387 | - | |
| 88 | 28.3 | 137.9 | 49.4 | 12.3 | 159.7 | 0.3 | 0.2 | nd | 0.1 | nd | 127.7 | 125.6 | 34.6 | 154.0 | 29.7 | 47.5 | 6.1 | 14.9 | 68.9 | 3448.1 | 4412.0 | 2704.2 | 5002.3 | 7808.1 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 89 | 0.1 | <0.1 | 0.1 | nd | <0.1 | nd | nd | nd | nd | nd | 10.0 | 0.8 | 0.1 | 0.4 | 56.9 | 2.7 | 0.5 | 5.5 | 4.3 | 139.0 | 45.8 | 66.0 | 857.7 | 430.9 | 0.041 | 0.095 | - | |
| 90 | nd | 0.4 | 0.4 | nd | 0.3 | nd | nd | nd | nd | nd | 0.1 | nd | 0.1 | 0.3 | 1.7 | 1.1 | 6.7 | 3.4 | 45.8 | 149.4 | 29.6 | 165.0 | 29.2 | 0.004 | 0.017 | S-BW; S-G; S-PC | | |
| 91 | 21.5 | 22.1 | 5.5 | 5.9 | 0.4 | nd | nd | nd | nd | nd | 8.1 | 2.4 | 3.7 | 7.4 | 1529.7 | 936.9 | 334.6 | 397.2 | 74.7 | 31.4 | 31.5 | 13.0 | 21.7 | 4.4 | 0.009 | 0.021 | PC-BW; PC-G; S-PC | |
| 92 | 12.8 | 70.9 | 17.5 | 45.5 | 29.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 10.2 | 7.0 | 8.6 | 72.7 | 699.1 | 2149.6 | 294.6 | 619.2 | 858.0 | 26.5 | 31.4 | 13.3 | 37.2 | 22.9 | 0.003 | 0.01 | PC-BW; PC-G; S-PC | |
| 93 | 56.2 | 119.4 | 20.7 | 8.1 | 315.5 | 0.7 | 0.7 | nd | 0.6 | 0.1 | 189.6 | 101.7 | 12.0 | 184.3 | 93.5 | 77.1 | 9.8 | 17.7 | 159.0 | 5113.8 | 4837.0 | 530.3 | 1557.1 | 12851.9 | 0.017 | 0.046 | S-BW; S-G; S-PC | |
| 94 | 13.0 | 38.9 | 1.9 | 8.9 | 18.7 | nd | nd | nd | nd | nd | 12.0 | 6.5 | 4.8 | 53.2 | 679.0 | 961.2 | 67.6 | 412.2 | 639.2 | 41.8 | 25.5 | 6.2 | 23.0 | 22.6 | <0.001 | 0.002 | PC-BW; PC-G; S-PC | |
| 95 | 864.7 | 1253.2 | 96.3 | 7.6 | 1935.5 | 2.2 | 4.5 | nd | 1.1 | 3.6 | 5766.1 | 200.9 | 52.4 | 209.9 | 535.4 | 37.3 | 11.1 | 8.9 | 62.6 | 10790.0 | 975.5 | 2583.0 | 287.6 | 472.0 | 0.384 | 0.434 | - | |
| 96 | 76.6 | 41.4 | 3.4 | 8.5 | 1.0 | nd | <0.1 | nd | nd | nd | 19.6 | 3.8 | 4.3 | 7.8 | 4116.9 | 1373.3 | 173.7 | 438.3 | 57.8 | 209.0 | 24.9 | 7.8 | 20.6 | 7.0 | 0.118 | 0.145 | - | |
| 97 | 121.4 | 2.2 | 0.3 | 0.9 | 4.0 | nd | nd | nd | nd | 0.5 | 1569.6 | 10.4 | 14.4 | 2.1 | 169.8 | 1.5 | 1.9 | 8.2 | 7.4 | 1147.9 | 10.4 | 11.4 | 15.0 | 21.9 | 0.546 | 0.555 | - | |
| 98 | 156.9 | 35.0 | 19.6 | 0.6 | 50.3 | 0.2 | 0.2 | nd | nd | 0.4 | 462.3 | 6.1 | 4.0 | 3.3 | 70.2 | 3.8 | 0.4 | 11.0 | 9.4 | 1881.6 | 14.2 | 42.9 | 29.1 | 17.9 | 0.536 | 0.551 | - | |
| 99 | 5.5 | 7.6 | 3.6 | 16.4 | 19.0 | <0.1 | nd | <0.1 | nd | nd | 4.4 | 3.9 | 9.2 | 49.3 | 663.2 | 318.0 | 261.8 | 1088.7 | 582.6 | 24.5 | 16.8 | 15.0 | 51.3 | 26.5 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 100 | 6.1 | 32.2 | 82.8 | 134.9 | 10.0 | 0.3 | 0.4 | 0.4 | 0.2 | 0.3 | 6.8 | 7.2 | 73.0 | 55.4 | 174.5 | 349.8 | 5086.2 | 7383.7 | 147.6 | 13.4 | 26.6 | 140.2 | 229.6 | 8.1 | 0.087 | 0.122 | - | |
| 101 | 1.7 | 7.1 | 28.8 | 0.1 | 4.1 | nd | nd | nd | nd | nd | 2.3 | 2.1 | 0.4 | 15.7 | 297.2 | 281.6 | 1491.4 | 21.3 | 187.1 | 8.5 | 22.8 | 96.1 | 7.8 | 8.2 | 0.093 | 0.124 | - | |
| 102 | 2.2 | 46.0 | 0.3 | 26.3 | 0.4 | <0.1 | <0.1 | nd | nd | nd | 7.8 | 5.3 | 14.1 | 9.6 | 188.5 | 1149.1 | 62.5 | 1016.1 | 41.7 | 11.2 | 33.8 | 6.2 | 65.4 | 3.5 | 0.042 | 0.076 | - | |
| 103 | 3.7 | 11.7 | 10.6 | 24.0 | 105.0 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 6.1 | 6.5 | 14.1 | 314.9 | 320.7 | 408.7 | 509.3 | 1407.5 | 3597.6 | 17.6 | 23.7 | 40.2 | 76.7 | 185.2 | 0.047 | 0.08 | - | |
| 104 | 106.5 | 815.9 | 19.1 | 14.5 | 1201.8 | 0.3 | 1.7 | nd | nd | nd | 178.9 | 215.9 | 11.3 | 118.2 | 51.8 | 82.1 | 3.6 | 12.4 | 90.6 | 379.8 | 1241.2 | 94.4 | 358.6 | 642.5 | 0.149 | 0.22 | - | |

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p</i> -value | <i>q</i> -value | Tukey's HSD |
|-----|------------|--------|--------|--------|--------|----------------|------|------|------|------|---------|--------|---------|--------|---------|---------------|---------|---------|---------|---------|---------|----------|----------|----------|--------|-------------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 105 | 0.1 | 18.9 | 21.9 | 0.2 | 3.1 | nd | nd | nd | nd | nd | 8.0 | 29.3 | 3.4 | 5.8 | 3.2 | 18.4 | 11.3 | 8.4 | 9.1 | 161.2 | 1549.9 | 1123.5 | 754.0 | 360.3 | 0.001 | 0.007 | S-BW; S-G; S-PC | |
| 106 | 10.2 | 35.5 | 30.5 | 5.2 | 67.1 | <0.1 | nd | nd | nd | nd | 21.6 | 32.7 | 3.4 | 27.8 | 39.7 | 32.5 | 5.2 | 29.6 | 91.9 | 451.0 | 602.9 | 422.0 | 476.9 | 877.1 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 107 | 102.9 | 218.5 | 133.4 | 1121.5 | 1463.7 | 1.2 | 1.1 | 0.8 | 0.5 | 0.9 | 112.2 | 41.1 | 630.0 | 4784.8 | 5888.6 | 7274.8 | 6844.6 | 60500.2 | 44724.5 | 397.6 | 331.4 | 548.0 | 3371.8 | 2210.5 | 0.03 | 0.058 | - | |
| 108 | 27.1 | 34.5 | 8.2 | 25.7 | 60.1 | <0.1 | 0.1 | nd | nd | 0.1 | 18.0 | 6.3 | 15.2 | 175.6 | 1423.8 | 1014.0 | 401.4 | 1457.1 | 1659.8 | 87.5 | 31.4 | 29.6 | 65.9 | 78.3 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 109 | 481.1 | 446.1 | 76.0 | 91.3 | 182.1 | 0.9 | 1.2 | 0.6 | 0.5 | 0.4 | 146.2 | 38.4 | 48.4 | 621.8 | 20976.4 | 11403.6 | 3733.6 | 4661.0 | 4457.7 | 1388.0 | 261.8 | 176.4 | 233.9 | 321.9 | 0.005 | 0.015 | PC-BW; PC-G; S-PC | |
| 110 | 130.4 | 215.3 | 58.9 | 6.1 | 255.5 | 0.6 | 1.0 | nd | nd | 0.7 | 1187.9 | 58.3 | 23.5 | 56.9 | 97.5 | 12.9 | 5.4 | 6.4 | 36.1 | 2984.0 | 485.5 | 499.1 | 98.0 | 478.6 | 0.197 | 0.269 | - | |
| 111 | 19.9 | 286.2 | 417.6 | 360.5 | 437.8 | 0.3 | 1.2 | nd | nd | nd | 185.2 | 117.2 | 187.4 | 124.1 | 70.7 | 57.5 | 90.7 | 115.9 | 222.5 | 2257.3 | 1539.2 | 8349.9 | 7599.6 | 2541.8 | 0.002 | 0.01 | S-BW; S-G; S-PC | |
| 112 | 73.4 | 34.9 | 17.4 | 8.2 | 133.6 | 0.2 | 0.2 | nd | 0.1 | 0.1 | 36.9 | 8.5 | 2.2 | 17.4 | 13.4 | 8.3 | 0.3 | 3.2 | 12.5 | 1202.6 | 868.1 | 87.0 | 122.2 | 996.0 | 0.004 | 0.017 | S-BW; S-G; S-PC | |
| 113 | 203.0 | 84.4 | 4.4 | 47.4 | 2.4 | 0.1 | 0.2 | <0.1 | 0.1 | <0.1 | 50.5 | 11.3 | 24.6 | 18.4 | 4690.4 | 2423.0 | 258.3 | 2600.9 | 55.3 | 596.9 | 103.6 | 15.0 | 141.9 | 12.3 | 0.019 | 0.039 | PC-BW; PC-G; S-PC | |
| 114 | 12.0 | 139.5 | 0.1 | 0.3 | 2.4 | <0.1 | 0.2 | nd | nd | nd | 21.8 | 47.9 | 1.5 | 11.2 | 648.1 | 3925.5 | 10.3 | 18.9 | 106.2 | 41.0 | 137.5 | 2.8 | 25.4 | 5.7 | 0.301 | 0.317 | - | |
| 115 | 14.7 | 31.3 | 27.8 | 51.3 | 44.5 | 0.1 | 0.1 | <0.1 | nd | <0.1 | 8.7 | 5.3 | 28.7 | 149.8 | 760.9 | 952.5 | 1494.4 | 3499.7 | 1729.7 | 39.5 | 47.0 | 105.9 | 199.5 | 82.7 | 0.001 | 0.003 | PC-BW; PC-G; S-PC | |
| 116 | 650.5 | 3504.6 | 330.6 | 27.3 | 3271.5 | 2.2 | 6.2 | nd | <0.1 | 2.2 | 333.2 | 191.2 | 12.0 | 122.5 | 75.8 | 114.0 | 8.9 | 5.1 | 81.2 | 1263.2 | 2469.3 | 892.8 | 171.8 | 1021.3 | 0.078 | 0.15 | - | |
| 117 | 30.2 | 23.6 | 14.3 | 34.4 | 2.6 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 10.3 | 3.1 | 17.4 | 20.5 | 1773.3 | 911.6 | 720.8 | 1433.1 | 135.7 | 95.5 | 60.6 | 246.3 | 132.8 | 9.6 | 0.001 | 0.003 | PC-BW; PC-G; S-PC | |
| 118 | 333.6 | 828.3 | 583.9 | 136.1 | 2275.8 | 1.0 | 1.0 | <0.1 | 1.3 | 0.8 | 3792.8 | 4267.7 | 626.2 | 2579.2 | 3005.3 | 1715.8 | 326.9 | 539.8 | 7021.7 | 14585.0 | 4969.3 | 10475.0 | 8972.7 | 15859.4 | <0.001 | 0.002 | S-BW; S-G; S-PC | |
| 119 | 6.4 | 13.6 | 1.8 | 6.0 | 41.1 | nd | nd | nd | nd | nd | 2.1 | 1.0 | 2.0 | 143.3 | 268.8 | 302.4 | 65.8 | 314.4 | 1770.9 | 7.4 | 6.9 | 1.7 | 2.8 | 16.8 | 0.087 | 0.122 | - | |
| 120 | 74.9 | 189.9 | 16.5 | 46.7 | 3.6 | 0.1 | 0.3 | <0.1 | <0.1 | nd | 33.9 | 17.7 | 24.3 | 22.2 | 4220.5 | 6049.3 | 911.9 | 3073.3 | 96.7 | 216.5 | 229.0 | 53.7 | 102.9 | 9.2 | 0.006 | 0.018 | PC-BW; PC-G; S-PC | |
| 121 | 219.0 | 6582.6 | 83.6 | 109.6 | 8712.1 | <0.1 | 0.3 | nd | nd | nd | 80.8 | 63.3 | 6.8 | 54.0 | 50.4 | 65.0 | 3.0 | 8.1 | 101.3 | 328.5 | 519.4 | 27372.1 | 36028.8 | 253.5 | 0.144 | 0.22 | - | |
| 122 | 579.9 | 1634.5 | 5336.8 | 1523.3 | 3693.0 | 8.7 | 7.7 | 4.1 | 10.1 | 4.3 | 8143.0 | 4067.8 | 10983.5 | 4771.8 | 1763.9 | 2631.2 | 3245.4 | 6577.6 | 5454.2 | 48739.7 | 53931.2 | 284567.3 | 376034.2 | 103719.3 | 0.007 | 0.026 | S-BW; S-G; S-PC | |
| 123 | 489.0 | 5479.4 | 2757.6 | 408.1 | 5097.8 | 2.7 | 9.0 | 0.1 | 0.6 | 0.8 | 162.2 | 133.3 | 44.3 | 311.6 | 24.0 | 39.8 | 17.6 | 8.3 | 124.1 | 222.0 | 518.7 | 700.3 | 75.5 | 152.2 | 0.009 | 0.03 | G-BW; PC-BW; S-BW | |
| 124 | 17.8 | 102.0 | 2.9 | 8.4 | 8.3 | <0.1 | 0.1 | nd | <0.1 | <0.1 | 16.8 | 10.7 | 5.6 | 28.4 | 1157.8 | 3852.9 | 174.7 | 593.2 | 295.3 | 81.5 | 181.8 | 12.3 | 30.3 | 18.1 | 0.079 | 0.116 | - | |
| 125 | 25.8 | 49.9 | 18.3 | 19.4 | 34.3 | 0.1 | 0.1 | nd | nd | nd | 8.7 | 5.0 | 9.1 | 98.5 | 1433.3 | 1496.1 | 1074.6 | 1177.6 | 1218.6 | 83.2 | 69.8 | 344.4 | 792.7 | 59.5 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 126 | 18.8 | 69.0 | 22.1 | 41.1 | 167.2 | 0.1 | 0.1 | <0.1 | <0.1 | <0.1 | 10.6 | 7.1 | 17.8 | 532.5 | 1000.0 | 2356.5 | 1179.8 | 2705.8 | 5356.8 | 72.1 | 105.4 | 26.3 | 33.6 | 288.0 | 0.001 | 0.006 | PC-BW; PC-G; S-PC | |
| 127 | 128.4 | 86.6 | 5.8 | 26.0 | 3.3 | 0.1 | 0.2 | <0.1 | <0.1 | nd | 36.3 | 8.9 | 14.7 | 19.6 | 7760.8 | 3503.5 | 335.2 | 1578.7 | 123.4 | 312.8 | 147.6 | 14.7 | 25.7 | 13.4 | 0.057 | 0.094 | - | |
| 128 | 433.1 | 4191.7 | 31.8 | 42.2 | 9053.9 | 3.4 | 13.4 | nd | <0.1 | 0.3 | 2979.7 | 365.3 | 43.6 | 522.4 | 346.2 | 73.1 | 10.1 | 33.4 | 199.7 | 1310.9 | 437.1 | 69.0 | 94.8 | 301.4 | 0.256 | 0.329 | - | |
| 129 | 21.3 | 40.2 | 36.4 | 8.1 | 80.9 | 0.5 | 0.2 | <0.1 | 0.1 | 0.2 | 122.1 | 39.0 | 36.2 | 75.0 | 36.6 | 22.1 | 7.5 | 23.5 | 38.8 | 2727.1 | 1288.5 | 1743.8 | 3810.5 | 3817.9 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 130 | 429.2 | 1304.5 | 30.0 | 3.0 | 1508.2 | 0.2 | 0.1 | nd | nd | <0.1 | 305.9 | 25.5 | 2.7 | 19.1 | 57.3 | 14.0 | 1.5 | 11.3 | 16.3 | 1420.5 | 310.8 | 90.7 | 37.6 | 111.7 | 0.189 | 0.264 | - | |
| 131 | 42.9 | 80.0 | 88.5 | 235.4 | 93.5 | 0.1 | 0.1 | 0.1 | <0.1 | nd | 27.2 | 21.6 | 101.6 | 346.9 | 1827.5 | 2467.6 | 3213.3 | 12148.3 | 2229.6 | 174.2 | 159.2 | 177.9 | 260.0 | 199.8 | 0.022 | 0.045 | PC-BW; PC-G; S-PC | |
| 132 | 252.6 | 222.8 | 36.9 | 0.7 | 746.6 | <0.1 | 0.1 | nd | nd | nd | 21675.3 | 489.9 | 174.0 | 189.7 | 1280.2 | 50.7 | 36.6 | 21.7 | 90.4 | 1944.6 | 146.3 | 428.8 | 95.9 | 186.7 | 0.323 | 0.387 | - | |
| 133 | 19.7 | 26.7 | 10.4 | 48.4 | 0.3 | <0.1 | <0.1 | <0.1 | nd | 4.7 | 2.1 | 4.4 | 5.5 | 1320.0 | 1066.3 | 194.7 | 489.3 | 30.2 | 35.6 | 63.5 | 47.2 | 160.3 | 3.3 | 0.012 | 0.028 | PC-BW; PC-G; S-PC | | |
| 134 | 8.2 | 137.3 | 441.3 | 684.8 | 18.9 | 1.0 | 1.2 | 1.2 | 0.6 | 0.8 | 46.8 | 42.3 | 417.4 | 254.9 | 425.1 | 4246.4 | 17724.9 | 32643.9 | 475.9 | 43.4 | 400.0 | 1118.1 | 1348.5 | 37.6 | 0.082 | 0.118 | - | |
| 135 | 547.4 | 416.2 | 433.3 | 115.2 | 674.2 | 4.6 | 4.2 | 1.8 | 5.7 | 3.6 | 5379.4 | 1840.9 | 1271.8 | 881.5 | 601.5 | 236.0 | 78.5 | 190.3 | 260.4 | 66353.2 | 37735.9 | 53881.5 | 102158.9 | 62721.9 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 136 | 148.1 | 203.5 | 141.3 | 351.8 | 529.3 | 1.1 | 1.0 | 0.8 | 0.6 | 0.6 | 90.5 | 34.0 | 230.0 | 1842.6 | 9716.0 | 8446.9 | 6865.8 | 20963.6 | 17103.3 | 359.1 | 584.5 | 564.4 | 1614.3 | 804.8 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 137 | 106.7 | 1254.5 | 158.8 | 8.9 | 1870.8 | 1.2 | 3.9 | nd | nd | 0.2 | 148.4 | 27.6 | 5.3 | 76.4 | 9.8 | 9.2 | 6.8 | 26.8 | 36.9 | 102.7 | 58.0 | 96.4 | 11.5 | 23.0 | 0.087 | 0.158 | - | |
| 138 | 32.9 | 100.2 | 54.8 | 80.6 | 141.4 | 0.4 | 0.4 | 0.3 | 0.1 | 0.2 | 37.3 | 22.8 | 124.6 | 557.7 | 2017.6 | 4406.6 | 3134.4 | 4121.9 | 5374.4 | 103.0 | 187.1 | 34.4 | 55.6 | 231.4 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 139 | 1.1 | 0.8 | 16.6 | 44.5 | 8.7 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.9 | 0.6 | 1.5 | 7.3 | 123.5 | 60.0 | 1115.9 | 9287.4 | 356.8 | 33.0 | 9.6 | 373.1 | 661.3 | 49.6 | 0.316 | 0.33 | - | |
| 140 | 364.5 | 4911.2 | 105.3 | 103.2 | 5453.0 | 1.6 | 5.2 | 0.2 | 0.5 | 0.8 | 996.0 | 1460.6 | 47.4 | 814.7 | 277.5 | 812.7 | 6.9 | 14.4 | 671.5 | 1988.3 | 8404.5 | 233.8 | 1640.3 | 5397.0 | 0.161 | 0.231 | - | |

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p</i> -value | <i>q</i> -value | Tukey's HSD |
|-----|------------|--------|---------|--------|---------|----------------|------|------|------|------|--------|--------|--------|--------|---------|---------------|--------|---------|---------|---------|---------|---------|---------|---------|--------|-----------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 141 | 20.0 | 26.5 | 10.4 | 47.2 | 3.5 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 6.9 | 2.2 | 19.4 | 14.3 | 129.9 | 89.8 | 570.2 | 1643.4 | 27.6 | 11.4 | 11.9 | 14.2 | 33.7 | 3.3 | 0.123 | 0.147 | - | |
| 142 | 41.5 | 53.8 | 99.8 | 370.7 | 77.7 | 0.8 | 0.8 | 0.8 | 0.4 | 0.5 | 38.0 | 13.8 | 227.5 | 344.3 | 2423.3 | 1717.5 | 5516.0 | 25018.3 | 2415.6 | 271.7 | 110.4 | 298.2 | 499.6 | 168.8 | 0.105 | 0.135 | - | |
| 143 | 355.4 | 672.4 | 10.9 | 8.7 | 3021.2 | 1.2 | 2.6 | nd | nd | 3.0 | 251.3 | 169.3 | 11.1 | 188.1 | 24.7 | 12.3 | 0.5 | 4.9 | 69.9 | 407.7 | 170.2 | 45.9 | 78.9 | 212.0 | 0.274 | 0.349 | - | |
| 144 | 42.7 | 299.4 | 216.6 | 7.7 | 126.0 | 0.1 | 0.2 | nd | <0.1 | nd | 30.3 | 35.6 | 3.1 | 8.8 | 2.5 | 14.7 | 6.8 | 1.2 | 11.4 | 36.2 | 356.2 | 2681.3 | 47.4 | 195.7 | 0.297 | 0.366 | - | |
| 145 | 14.1 | 34.1 | 0.1 | 0.1 | 8.0 | <0.1 | <0.1 | <0.1 | <0.1 | nd | 17.5 | 8.3 | 0.9 | 22.7 | 790.5 | 1206.7 | 13.2 | 28.0 | 301.5 | 55.8 | 42.6 | 1.8 | 10.8 | 14.0 | 0.043 | 0.076 | - | |
| 146 | 16.5 | 24.0 | 12.4 | 0.2 | 1.0 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | 8.1 | 3.5 | 0.9 | 9.7 | 1124.5 | 996.5 | 666.4 | 23.0 | 112.3 | 29.0 | 68.3 | 23.0 | 7.0 | 6.2 | 0.007 | 0.019 | PC-BW; PC-G; S-PC | |
| 147 | 5.2 | 55.3 | 38.8 | 24.9 | 1.2 | <0.1 | <0.1 | nd | nd | nd | 7.6 | 26.8 | 8.7 | 14.7 | 337.6 | 1820.1 | 1773.4 | 1273.3 | 62.9 | 17.4 | 80.8 | 123.8 | 72.4 | 5.7 | 0.003 | 0.01 | PC-BW; PC-G; S-PC | |
| 148 | 23.3 | 14.5 | 10.7 | 22.6 | 3.6 | <0.1 | <0.1 | <0.1 | nd | nd | 6.6 | 2.3 | 9.5 | 17.8 | 1321.4 | 515.3 | 602.9 | 1272.3 | 175.0 | 59.6 | 23.5 | 16.6 | 27.6 | 8.7 | 0.001 | 0.003 | PC-BW; PC-G; S-PC | |
| 149 | 62.3 | 505.8 | 293.1 | 22.5 | 397.0 | 0.2 | 1.2 | nd | <0.1 | nd | 175.1 | 17.9 | 7.5 | 20.8 | 9.8 | 4.5 | 1.4 | 0.1 | 11.5 | 126.6 | 47.8 | 242.3 | 16.2 | 17.8 | 0.034 | 0.082 | - | |
| 150 | 540.3 | 1512.6 | 377.2 | 316.1 | 3502.2 | 4.4 | 5.0 | 1.2 | 4.9 | 4.8 | 2212.2 | 1126.0 | 122.8 | 934.6 | 194.2 | 398.7 | 11.2 | 25.9 | 489.8 | 25710.7 | 34145.3 | 3104.1 | 12623.3 | 66909.2 | 0.008 | 0.026 | S-BW; S-G; S-PC | |
| 151 | 41.0 | 244.9 | 46.3 | 36.6 | 12.3 | 0.4 | 0.6 | 0.2 | 0.2 | 0.1 | 44.3 | 41.0 | 22.8 | 56.7 | 2543.9 | 8308.0 | 2693.6 | 2011.1 | 464.3 | 139.4 | 560.6 | 141.3 | 162.9 | 28.8 | 0.014 | 0.032 | PC-BW; PC-G; S-PC | |
| 152 | 139.9 | 500.5 | 153.5 | 39.1 | 1166.6 | 1.0 | 0.5 | 0.1 | 1.0 | 0.1 | 2934.8 | 493.7 | 122.7 | 172.7 | 192.7 | 164.6 | 29.3 | 29.3 | 154.3 | 7144.0 | 5105.7 | 4667.3 | 9264.6 | 6723.2 | <0.001 | <0.001 | S-BW; S-G; S-PC | |
| 153 | 165.1 | 93.4 | 57.8 | 92.8 | 3.6 | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 56.6 | 14.3 | 50.4 | 40.5 | 10733.6 | 3850.3 | 3295.0 | 6150.0 | 120.7 | 614.8 | 308.4 | 422.2 | 344.8 | 23.4 | 0.005 | 0.015 | PC-BW; PC-G; S-PC | |
| 154 | 58.7 | 153.6 | 176.8 | 325.3 | 526.7 | 0.9 | 0.8 | 0.7 | 0.4 | 0.5 | 52.6 | 34.5 | 183.9 | 1681.7 | 3398.5 | 5175.8 | 7696.1 | 19630.7 | 13505.1 | 233.6 | 287.7 | 591.9 | 1059.0 | 973.5 | 0.001 | 0.005 | PC-BW; PC-G; S-PC | |
| 155 | 11.9 | 29.1 | 17.3 | 29.5 | 515.2 | 0.7 | 0.6 | 0.4 | 0.3 | 0.4 | 19.9 | 7.5 | 20.1 | 1413.2 | 675.5 | 1199.5 | 849.5 | 1737.0 | 15716.3 | 38.2 | 81.6 | 112.0 | 112.3 | 995.3 | 0.247 | 0.277 | - | |
| 156 | 0.4 | 0.8 | 0.4 | nd | 4.5 | nd | nd | nd | nd | nd | 48.7 | 1.9 | 0.9 | 0.1 | 6.9 | nd | nd | 0.8 | 0.1 | 247.4 | 54.9 | 118.3 | 1236.8 | 245.8 | 0.079 | 0.15 | - | |
| 157 | 3596.0 | 4270.7 | 247.7 | 112.9 | 10421.1 | 9.0 | 13.3 | 0.4 | 1.1 | 26.4 | 2984.1 | 471.9 | 121.6 | 489.3 | 214.3 | 86.0 | 22.1 | 29.8 | 200.5 | 5927.2 | 2898.0 | 3239.4 | 6855.4 | 4183.1 | 0.032 | 0.079 | - | |
| 158 | 29.8 | 94.2 | 19.5 | 0.2 | 130.5 | 0.3 | 0.6 | nd | nd | 0.1 | 31.9 | 9.7 | 2.9 | 7.9 | 8.8 | 6.3 | 2.5 | 2.9 | 9.2 | 93.4 | 66.3 | 125.9 | 25.8 | 41.0 | 0.035 | 0.083 | - | |
| 159 | 167.8 | 1285.7 | 1786.7 | 277.6 | 2053.0 | <0.1 | 0.6 | nd | nd | nd | 511.7 | 368.1 | 63.7 | 278.2 | 65.5 | 55.8 | 32.0 | 17.1 | 163.0 | 507.3 | 415.7 | 493.3 | 152.9 | 254.2 | 0.015 | 0.046 | G-BW; PC-BW; S-BW | |
| 160 | 18.0 | 190.2 | 955.1 | 54.5 | 87.6 | 0.6 | 0.7 | 0.1 | 0.4 | <0.1 | 173.3 | 505.3 | 150.4 | 101.7 | 56.8 | 274.5 | 302.5 | 78.6 | 105.2 | 1753.7 | 8243.3 | 47948.8 | 10879.9 | 4370.2 | 0.085 | 0.157 | - | |
| 161 | 0.6 | 9.5 | 231.5 | 70.7 | 18.3 | 0.9 | 0.6 | 0.3 | 0.3 | 0.2 | 78.0 | 20.1 | 1388.3 | 103.3 | 71.6 | 30.3 | 1200.9 | 1986.6 | 226.5 | 376.8 | 382.1 | 24757.8 | 4086.5 | 438.5 | 0.313 | 0.381 | - | |
| 162 | 2.3 | 85.9 | 0.8 | 0.1 | 0.1 | nd | 0.1 | nd | nd | nd | 11.4 | 8.6 | 0.4 | 1.7 | 150.2 | 926.1 | 112.1 | 13.0 | 11.2 | 6.6 | 146.9 | 6.6 | 29.2 | 1.5 | 0.263 | 0.287 | - | |
| 163 | 42.1 | 70.4 | 70.3 | 44.5 | 125.2 | 0.2 | 0.3 | 0.1 | <0.1 | 0.1 | 25.5 | 15.2 | 29.5 | 352.8 | 2533.6 | 2803.6 | 3856.6 | 2849.6 | 2990.6 | 124.8 | 141.9 | 253.4 | 176.3 | 166.2 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 164 | 167.9 | 280.8 | 47.9 | 169.4 | 384.6 | 0.5 | 0.6 | 0.4 | 0.3 | 0.3 | 49.6 | 57.9 | 56.5 | 862.8 | 8078.0 | 7436.9 | 1775.2 | 8096.6 | 7645.3 | 705.7 | 592.2 | 211.9 | 605.0 | 711.0 | <0.001 | <0.001 | PC-BW; PC-G; S-PC | |
| 165 | 164.8 | 238.3 | 34.7 | 183.8 | 28.8 | 0.4 | 0.6 | 0.1 | 0.2 | 0.1 | 68.9 | 45.7 | 96.3 | 135.0 | 8432.5 | 7242.8 | 1763.2 | 10733.0 | 732.7 | 625.5 | 267.9 | 119.1 | 502.8 | 63.6 | 0.002 | 0.009 | PC-BW; PC-G; S-PC | |
| 166 | 889.8 | 704.5 | 13656.4 | 6416.2 | 1561.4 | 5.5 | 3.3 | 4.8 | 7.2 | 6.8 | 119.0 | 30.8 | 593.5 | 103.7 | 21.3 | 7.7 | 74.1 | 67.1 | 39.5 | 233.4 | 180.3 | 4437.4 | 217.6 | 167.9 | 0.103 | 0.173 | - | |
| 167 | 267.2 | 42.8 | 0.8 | 11.7 | 3.8 | 0.2 | 0.2 | <0.1 | 0.1 | nd | 81.6 | 14.4 | 6.8 | 11.8 | 13744.3 | 1401.4 | 100.4 | 432.7 | 84.4 | 744.3 | 55.6 | 8.8 | 34.2 | 19.8 | 0.338 | 0.349 | - | |
| 168 | 77.5 | 430.1 | 2486.5 | 565.6 | 450.0 | 0.1 | nd | nd | 0.1 | nd | 151.0 | 48.0 | 51.9 | 51.3 | 18.2 | 17.5 | 13.3 | 9.8 | 20.9 | 147.9 | 300.2 | 1233.3 | 182.4 | 149.4 | 0.147 | 0.22 | - | |
| 169 | 9.9 | 26.1 | 122.6 | 505.7 | 1067.1 | 1.7 | 1.5 | 1.1 | 0.7 | 1.0 | 51.9 | 19.1 | 327.9 | 3377.1 | 846.6 | 1159.7 | 6230.3 | 30397.1 | 25925.6 | 61.9 | 91.7 | 539.6 | 1864.8 | 1938.1 | 0.047 | 0.08 | - | |
| 170 | 7.9 | 26.0 | 55.5 | 5.1 | 11.6 | nd | <0.1 | nd | nd | nd | 37.8 | 31.3 | 11.9 | 6.1 | 17.0 | 14.9 | 16.7 | 5.7 | 5.5 | 591.4 | 401.2 | 2609.1 | 568.3 | 189.6 | 0.043 | 0.099 | - | |
| 171 | 177.1 | 283.2 | 50.0 | 173.3 | 398.1 | 1.0 | 1.2 | 0.7 | 0.6 | 0.7 | 78.2 | 70.4 | 147.9 | 1383.3 | 3902.7 | 3400.2 | 7949.7 | 11623.8 | 10862.9 | 279.4 | 190.6 | 549.5 | 714.0 | 657.8 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 172 | 15.0 | 7.1 | 11.9 | 25.1 | 31.6 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 8.4 | 5.2 | 19.7 | 119.8 | 1300.1 | 297.7 | 723.3 | 1797.0 | 1141.8 | 325.6 | 32.6 | 68.7 | 111.8 | 79.5 | <0.001 | 0.001 | PC-BW; PC-G; S-PC | |
| 173 | 2135.4 | 1439.0 | 32.8 | 31.3 | 5636.7 | 3.7 | 4.8 | nd | <0.1 | 10.6 | 8447.0 | 369.6 | 81.4 | 327.1 | 576.8 | 51.1 | 6.9 | 9.3 | 127.1 | 1971.4 | 406.7 | 126.3 | 128.1 | 477.5 | 0.439 | 0.477 | - | |
| 174 | 0.6 | 5.3 | 0.7 | 0.6 | 1.2 | 0.6 | nd | nd | 0.2 | nd | 14.1 | 7.0 | 5.6 | 27.7 | 86.6 | 50.9 | 41.6 | 195.2 | 84.8 | 909.9 | 710.8 | 110.2 | 1712.5 | 651.0 | 0.002 | 0.009 | S-BW; S-G; S-PC | |
| 175 | 48.4 | 111.6 | 204.6 | 79.5 | 265.5 | 0.7 | 0.5 | nd | 0.4 | <0.1 | 613.3 | 257.2 | 242.7 | 306.7 | 277.7 | 141.4 | 79.0 | 239.8 | 387.8 | 4657.0 | 2556.3 | 8932.2 | 12245.8 | 9725.7 | <0.001 | 0.001 | S-BW; S-G; S-PC | |
| 176 | 43.1 | 66.9 | 2283.0 | 503.0 | 133.0 | 1.0 | 0.6 | 0.1 | 0.4 | <0.1 | 162.3 | 11.4 | 78.3 | 21.3 | 16.7 | 1.3 | 17.0 | 12.3 | 7.5 | 398.8 | 82.3 | 4341.6 | 218.6 | 178.5 | 0.424 | 0.465 | - | |

| N | Body Walls | | | | | Coelomic fluid | | | | | Gonads | | | | | Pyloric caeca | | | | | Stomach | | | | | <i>p</i> -value | <i>q</i> -value | Tukey's HSD |
|-----|------------|--------|--------|--------|--------|----------------|------|------|------|------|---------|--------|--------|--------|---------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|-----------------|-------------------|-------------|
| | BW#1 | BW#2 | BW#3 | BW#4 | BW#5 | CF1 | CF2 | CF3 | CF4 | CF5 | G#1 | G#2 | G#4 | G#5 | PC#1 | PC#2 | PC#3 | PC#4 | PC#5 | S#1 | S#2 | S#3 | S#4 | S#5 | | | | |
| 177 | 130.1 | 968.7 | 278.5 | 19.4 | 1419.9 | 0.3 | 1.9 | nd | nd | nd | 1522.4 | 112.7 | 24.8 | 91.2 | 64.2 | 23.3 | 4.1 | 3.2 | 54.0 | 470.9 | 147.0 | 176.7 | 29.5 | 45.3 | 0.29 | 0.361 | - | |
| 178 | 1.8 | 0.7 | 0.5 | 10.5 | 10.2 | 1.1 | 0.2 | 0.1 | 0.4 | 0.1 | 28.6 | 8.4 | 9.5 | 54.8 | 197.5 | 106.8 | 94.9 | 505.1 | 193.7 | 1474.2 | 900.9 | 162.4 | 1728.2 | 852.3 | 0.001 | 0.004 | S-BW; S-G; S-PC | |
| 179 | 176.4 | 517.7 | 39.1 | 116.6 | 532.1 | 1.6 | 2.1 | 1.0 | 0.7 | 0.9 | 129.8 | 70.0 | 99.4 | 1845.8 | 10130.1 | 14976.0 | 2479.3 | 7496.3 | 19375.3 | 639.9 | 806.0 | 219.7 | 619.2 | 1123.6 | <0.001 | 0.002 | PC-BW; PC-G; S-PC | |
| 180 | 24.5 | 18.6 | 66.0 | 29.8 | 116.3 | nd | nd | nd | 0.1 | nd | 2316.3 | 209.7 | 140.8 | 235.4 | 169.5 | 94.4 | 22.6 | 94.1 | 94.6 | 2643.2 | 2111.4 | 4624.6 | 11194.8 | 3774.3 | 0.004 | 0.017 | S-BW; S-G; S-PC | |
| 181 | 11.4 | 99.4 | 108.1 | 40.8 | 7.8 | 0.2 | 0.3 | 0.2 | <0.1 | <0.1 | 17.8 | 17.5 | 25.2 | 27.0 | 761.0 | 3737.7 | 5788.2 | 2598.7 | 133.8 | 37.6 | 179.3 | 280.1 | 148.0 | 9.2 | 0.009 | 0.021 | PC-BW; PC-G; S-PC | |
| 182 | 2497.1 | 4167.9 | 983.3 | 627.0 | 8925.0 | 10.2 | 12.7 | 2.1 | 7.5 | 14.0 | 4003.8 | 1902.6 | 165.7 | 1779.7 | 714.0 | 826.4 | 43.4 | 83.4 | 1405.5 | 48534.8 | 47305.1 | 1990.1 | 9162.0 | 75914.8 | 0.008 | 0.026 | S-BW; S-G; S-PC | |
| 183 | 47.6 | 60.5 | 4.2 | 12.5 | 0.1 | <0.1 | 0.1 | nd | <0.1 | nd | 16.9 | 10.0 | 7.6 | 7.1 | 2334.3 | 1980.8 | 231.1 | 834.3 | 27.1 | 146.8 | 106.2 | 17.8 | 61.7 | 5.0 | 0.017 | 0.036 | PC-BW; PC-G; S-PC | |
| 184 | 3.1 | 22.7 | 115.5 | 56.2 | 35.5 | 0.4 | 0.5 | 0.4 | 0.2 | 0.2 | 6.1 | 8.1 | 35.8 | 107.8 | 96.5 | 349.9 | 5133.3 | 3205.6 | 1340.6 | 10.4 | 50.5 | 526.7 | 205.6 | 86.4 | 0.033 | 0.063 | - | |
| 185 | 4.9 | 3.6 | 37.5 | 20.2 | 204.6 | 0.1 | <0.1 | <0.1 | nd | <0.1 | 10.3 | 5.6 | 15.2 | 692.9 | 404.8 | 300.9 | 2095.2 | 1379.7 | 8216.7 | 49.2 | 36.8 | 161.3 | 94.9 | 368.0 | 0.114 | 0.145 | - | |
| 186 | 4.4 | 7.2 | 14.1 | 0.8 | 12.3 | 7.1 | 8.5 | 7.6 | 6.0 | 7.7 | 2342.1 | 80.1 | 60.7 | 50.4 | 110.1 | 25.1 | 22.8 | 47.1 | 44.7 | 2829.6 | 974.5 | 1702.8 | 9603.1 | 3777.1 | 0.016 | 0.046 | S-BW; S-G; S-PC | |
| 187 | 46.9 | 9.9 | 22.2 | 16.6 | 29.2 | 0.1 | <0.1 | nd | <0.1 | nd | 7138.4 | 62.3 | 69.5 | 43.2 | 360.9 | 27.9 | 6.8 | 17.4 | 18.1 | 1998.2 | 120.8 | 798.9 | 1544.7 | 185.8 | 0.353 | 0.412 | - | |
| 188 | 2.8 | 46.6 | 24.6 | 17.9 | 369.6 | 1.1 | 1.1 | 0.8 | 0.4 | 0.7 | 20.3 | 18.2 | 24.3 | 1212.6 | 146.5 | 1811.8 | 823.7 | 845.5 | 13910.6 | 11.2 | 166.5 | 141.0 | 121.4 | 811.8 | 0.268 | 0.289 | - | |
| 189 | 31.4 | 57.0 | 11.9 | 12.2 | 9.3 | 0.1 | 0.2 | nd | nd | nd | 19.3 | 9.7 | 9.0 | 32.8 | 2229.9 | 2326.5 | 659.8 | 834.3 | 385.9 | 100.4 | 106.9 | 37.8 | 64.7 | 19.3 | 0.002 | 0.006 | PC-BW; PC-G; S-PC | |
| 190 | 819.0 | 1272.3 | 694.4 | 231.8 | 763.6 | 2.5 | 3.4 | nd | 0.9 | 2.0 | 16433.3 | 253.1 | 226.9 | 96.1 | 166.1 | 25.1 | 4.8 | 6.6 | 30.2 | 8230.7 | 921.5 | 428.3 | 222.5 | 922.7 | 0.454 | 0.489 | - | |
| 191 | 0.5 | 83.0 | 3.3 | 0.4 | 62.1 | <0.1 | 0.5 | nd | nd | nd | 46.5 | 16.5 | <0.1 | 7.1 | 0.1 | 2.5 | nd | 0.1 | 4.8 | 33.7 | 57.6 | 92.9 | 32.8 | 17.0 | 0.101 | 0.172 | - | |
| 192 | 26.1 | 18.1 | 620.7 | 198.9 | 44.7 | 0.3 | 0.1 | nd | nd | nd | 8.2 | 0.3 | 18.2 | 3.5 | 0.1 | nd | 5.2 | 6.6 | 0.9 | 9.7 | 6.0 | 118.8 | 7.6 | 6.1 | 0.166 | 0.235 | - | |
| 193 | 89.8 | 48.0 | 477.0 | 183.9 | 89.2 | 0.7 | 0.1 | nd | nd | 0.1 | 31.6 | 1.0 | 18.4 | 5.9 | 2.8 | nd | 1.6 | 1.9 | 0.8 | 35.3 | 15.3 | 321.8 | 10.5 | 5.6 | 0.11 | 0.177 | - | |
| 194 | 65.1 | 558.5 | 473.1 | 26.5 | 351.7 | 0.9 | 1.7 | nd | nd | nd | 8.3 | 10.0 | 2.5 | 16.6 | 0.1 | 3.0 | 2.7 | 6.6 | 10.9 | 15.1 | 21.2 | 98.4 | 4.9 | 12.0 | 0.006 | 0.024 | G-BW; PC-BW; S-BW | |
| 195 | 653.1 | 1543.8 | 4173.5 | 1751.9 | 1557.2 | 2.6 | 2.7 | 0.5 | 1.5 | 2.1 | 458.7 | 110.4 | 230.8 | 112.4 | 22.2 | 9.8 | 8.8 | 17.0 | 14.9 | 421.6 | 407.3 | 2181.8 | 368.9 | 352.3 | 0.009 | 0.029 | G-BW; PC-BW | |
| 196 | 19.8 | 32.8 | 230.7 | 530.9 | 863.3 | 1.6 | 1.0 | 0.9 | 0.5 | 0.7 | 45.3 | 23.3 | 298.1 | 2944.5 | 1540.8 | 1460.9 | 11699.2 | 33181.6 | 25318.7 | 119.1 | 135.0 | 1016.8 | 1905.3 | 2044.4 | 0.022 | 0.045 | PC-BW; PC-G; S-PC | |
| 197 | 59.1 | 15.2 | 2.3 | 1.6 | 4.8 | 0.1 | <0.1 | nd | <0.1 | nd | 15.7 | 3.1 | 0.5 | 13.0 | 3978.5 | 620.8 | 52.6 | 35.1 | 113.8 | 228.2 | 23.6 | 4.3 | 7.9 | 18.2 | 0.289 | 0.308 | - | |
| 198 | 157.3 | 122.3 | 5574.0 | 3952.7 | 551.7 | 0.2 | nd | nd | nd | nd | 255.1 | 56.0 | 443.0 | 91.1 | 43.3 | 9.7 | 173.6 | 268.5 | 58.9 | 190.5 | 59.0 | 744.3 | 100.0 | 69.6 | 0.097 | 0.171 | - | |
| 199 | 16.1 | 3.5 | 2.2 | 1.1 | 1.1 | 4.4 | 4.2 | 4.1 | 3.1 | 4.1 | 175.3 | 22.3 | 18.9 | 30.0 | 226.6 | 25.1 | 14.4 | 38.7 | 38.1 | 4126.3 | 1289.7 | 1714.1 | 17776.5 | 11203.0 | 0.017 | 0.046 | S-BW; S-G; S-PC | |
| 200 | 93.8 | 249.6 | 2325.5 | 2064.5 | 430.0 | 0.9 | nd | <0.1 | 1.2 | nd | 483.4 | 70.5 | 614.2 | 116.5 | 54.2 | 19.1 | 164.5 | 319.7 | 51.5 | 409.4 | 722.2 | 8208.9 | 1435.2 | 613.8 | 0.281 | 0.354 | - | |
| 201 | 7.2 | 6.5 | 1075.1 | 527.6 | 26.7 | 0.1 | nd | 0.1 | 0.1 | <0.1 | 5.0 | 0.9 | 56.7 | 10.2 | 0.3 | 0.1 | 3.2 | 7.5 | 2.0 | 55.7 | 19.7 | 351.9 | 30.3 | 46.5 | 0.212 | 0.283 | - | |
| 202 | 14.5 | 12.8 | 1.2 | 0.1 | 47.5 | <0.1 | nd | nd | nd | nd | 7.3 | 2.7 | 2.5 | 175.2 | 1195.2 | 633.9 | 48.2 | 211.7 | 2531.8 | 66.8 | 40.5 | 9.2 | 22.4 | 97.6 | 0.039 | 0.072 | - | |
| 203 | 368.5 | 263.8 | 5114.3 | 1743.7 | 277.9 | 1.6 | 0.1 | 1.3 | 1.9 | 1.5 | 403.2 | 86.5 | 621.5 | 78.3 | 22.6 | 5.1 | 24.3 | 34.3 | 10.7 | 1068.4 | 783.4 | 11283.8 | 958.3 | 550.5 | 0.335 | 0.395 | - | |
| 204 | 0.6 | 1.8 | 9.4 | 78.1 | 5.6 | <0.1 | <0.1 | nd | nd | nd | 3.6 | 1.1 | 44.6 | 45.1 | 32.9 | 56.6 | 448.3 | 5233.9 | 222.9 | 3.7 | 5.5 | 44.9 | 324.4 | 13.1 | 0.342 | 0.35 | - | |
| 205 | 1597.0 | 1008.3 | 795.8 | 359.8 | 1721.4 | 22.3 | 20.4 | 17.4 | 24.6 | 19.7 | 30876.2 | 3304.3 | 2029.5 | 4245.0 | 13186.6 | 4638.6 | 2979.9 | 9927.2 | 7953.1 | 42662.0 | 23410.4 | 52198.3 | 77821.2 | 30560.5 | <0.001 | 0.002 | S-BW; S-G; S-PC | |
| 206 | 16.4 | 75.5 | 547.4 | 799.2 | 73.4 | nd | nd | nd | <0.1 | nd | 42.3 | 17.7 | 189.5 | 37.8 | 10.4 | 3.7 | 32.4 | 63.2 | 11.2 | 77.2 | 75.7 | 544.1 | 94.7 | 94.3 | 0.223 | 0.294 | - | |
| 207 | 675.3 | 471.0 | 774.9 | 149.1 | 319.1 | 12.3 | 14.0 | 13.3 | 6.8 | 8.2 | 385.9 | 62.9 | 61.6 | 107.3 | 196.6 | 300.5 | 457.0 | 274.4 | 372.8 | 446.3 | 322.6 | 775.6 | 1042.3 | 735.4 | 0.017 | 0.046 | S-G; S-PC | |

BW: body wall, G: gonads, PC: pyloric caeca, S: stomach; nd: not detected