**Supplemental Table 3**

Summary of molecular (GCMS) and isotope (EA-IRMS, GC-C-IRMS) data obtained on Late Woodland pottery from the Dawson site in Québec (Canada). FA (Cx:y) = fatty acids with carbon length x and number of unsaturations, br=branched chain acids, DCx = α,ω-dicarboxylic acids with carbon length x, TMTD = 4,8,12- trimethyltridecanoic acid, pri = pristanic acid, phy = phytanic acid, APAA (Cx) = ω-(o-alkylphenyl) alkanoic acids with x carbon atoms, amy = α- amyrin, DHA = Methyl dehydroabietate, 7-oxo-DHA = 7-oxo-dehydroabietic acid, cholest = cholesterol and Cholest-5-ene, 3-methoxy-, (3.beta.)-, stig = stigmastanol. Phy(xx) refers to the ratio of SRR%.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample ID** | **Lab code** | **Lipid conc. (µg.g-1)** | **Lipid composition** | **Aquatic bio** | **APAA C18**  **E/H ratio** | **APAAC20/C18** | **TMTD/phy** | **% SRR** | **C16:0 δ13C** | **C18:0 δ13C** | **Δ13C** | **δ15N** | **δ13C** | **C:N** |
| 1 | 7A2-I | 9 | FA(C9:0-26:0 C16:1-18:1,18:2 C15br-17br), TMTD, pri, phy, DHA, cholest | No |  |  | 0.05 | 41 | -24.4 | -22.7 | 1.7 |  |  |  |
| 2 | 7C1-I | 21 | FA(C8:0-26:0 C16:1-18:1,22:1 C15br-17br), DC(C10), TMTD, pri, phy, DHA, 7-oxo-DHA | No |  |  | 0.12 | 50 | -21.8 | -21.0 | 0.8 |  |  |  |
| 3 | 7D2-I | 32 | FA(C9:0-26:0 C16:1-22:1 C15br-19br), DC(C9,10), APAA(C16-20), TMTD, pri, phy, cholest | Yes | 1.5 | 0.15 | 0.36 | 83 | -25.9 | -26.2 | -0.4 |  |  |  |
| 4 | D34-I | 394 | FA(C9:0-24:0 C16:1-20:1 C15br-17br), DC(C6-14), APAA(C16-22), TMTD, pri, phy | Yes |  |  |  |  |  |  |  |  |  |  |
| 5 | 7E2-I | 4 | FA(C9:0-18:0 C16:1-18:1,18:2), DC(C6), DHA | N/A |  |  |  |  |  |  |  |  |  |  |
| 6 | 7E5-I | 118 | FA(C9:0-25:0 C18:1 C15br-17br), DC(C8-12), APAA(C16-22), TMTD, phy, DHA, cholest, amy | Yes | 3.56 | 0.11 | 1.39 | 72 | -25.6 | -26.3 | -0.7 |  |  |  |
| 7 | 7F1-I | 66 | FA(C9:0-28:0 C18:1-22:1 C17br), DC(C6-10),TMTD, pri, phy, DHA, 7-oxo-DHA | No |  |  | 0.07 | 71 | -25.7 | -28.8 | -3.1 |  |  |  |
| 8 | 9A1-I | 72 | FA(C9:0-21:0 C18:1-20:1,24:1 C17br), DC(C6-13), APAA(C16-22), TMTD, pri, phy, DHA, 7-oxo-DHA | Yes |  | 0.33 | 1.46 | 72 | -23.7 | -24.0 | -0.3 |  |  |  |
| 9 | 9E1-I | 71 | FA(C10:0-24:0 C18:1-24:1 C17br), DC(C6-12), APAA(C16-22), TMTD, pri, phy, DHA, stig | Yes |  | 0.21 | 0.19 | 80 | -21.8 | -22.5 | -0.7 |  |  |  |
| 10 | 9G2-I | 41 | FA(C9:0-25:0 C16:1-24:1 C13br,17br-19br), DC(C6-13), APAA(C18-22), TMTD, pri, phy, DHA, 7-oxo-DHA, cholest | Yes |  | 0.41 | 0.06 | 80 | -25.2 | -28.4 | -3.2 |  |  |  |
| 11 | 9J2-I | 24 | FA(C10:0-30:0 C16:1-18:1,22:1 C17br), TMTD, pri, phy, DHA, 7-oxo-DHA | No |  |  | 0.06 | 56 | -24.6 | -23.7 | 0.9 |  |  |  |
| 12 | 9P1-I | 17 | FA(C12:0-28:0 C16:1-18:1,22:1 C15br-19br), DC(C16), pri, phy, cholest | No |  |  |  | 53 | -29.2 | -28.8 | 0.4 |  |  |  |
| 13 | 9R1-I | 177 | FA(C10:0-24:0 C18:1 C15br-19br), DC(C6-18), APAA(C16-22), TMTD, pri, phy | Yes | 5.91 | 0.22 | 0.31 | 81 | -26.9 | -30.0 | -3.1 |  |  |  |
| 14 | 9R1-F | 540 | FA(C11:0-28:0 C18:1 C15br-17br), DC(C8-12), APAA(C16-20), pri, phy | Yes |  |  |  |  |  |  |  | 7.11 | -24.6 | 49.0 |
| 15 | 9R2a-I | 321 | FA(C6:0-24:0 C18:1-22:1 C15br-19br), DC(C6-13), APAA(C16-22), TMTD, phy, cholest | Yes |  | 0.55 | 0.35 | 78 | -28.3 | -29.7 | -1.4 |  |  |  |
| 16 | 9R2b-I | 23 | FA(C12:0-24:0 C18:1-22:1 C15br-17br), DC(C6-16,22), APAA(C16-22), TMTD, pri, phy, cholest, stig | Yes | 5.2 | 0.08 | 0.37 | 78 | -25.9 | -30.4 | -4.5 |  |  |  |
| 17 | 9R2c-I | 103 | FA(C8:0-28:0 C18:1,22:1-24:1 C13br-17br), DC(C8-12), TMTD, phy, cholest, stig | No |  |  |  |  | -29.0 | -30.1 |  |  |  |  |
| 18 | 9S2-I | 2 | FA(C12:0-26:0 C16:1-18:1,22:1 C15br-17br) | N/A |  |  |  |  |  |  |  |  |  |  |
| 19 | 9S3b-I | 52 | FA(C9:0-20:0 C16:1-18:1 C13br-17br), DC(C7-13), APAA(C16-22), TMTD, pri, phy | Yes | 2.28 | 0.14 | 0.55 | 78 | -25.5 | -25.6 | -0.1 |  |  |  |
| 20 | 9S3b-F | 285 | FA(C12:0-24:0 C16:1-18:1 C15br-17br), DC(C8-16), APAA(C16-22), pri, phy | Yes |  |  |  |  |  |  |  | 6.4 | -20.6 | 14.4 |
| 21 | 9S3c-I | 8 | FA(C10:0-26:0 C16:1-22:1 C15br-17br), DC(C8-11), APAA(C16-22), TMTD, pri, phy | Yes | 3.66 | 0.14 | 0.24 | 60 | -24.9 | -24.3 | 0.6 |  |  |  |
| 22 | 9S3c-F | 68 | FA(C14:0-28:0 C16:1-18:1 C15br-17br), DC(C9-16), APAA(C16-20), phy | N/A |  |  |  |  |  |  |  | 8.7 | -17.8 | 8.7 |
| 23 | 9S3d-I | 60 | FA(C10:0-26:0 C16:1-22:1 C13br-17br), DC(C7-13), APAA(C16-22), TMTD, pri, phy | Yes | 1.54 | 0.23 | 0.27 | 88 | -27.9 | -27.6 | 0.4 |  |  |  |
| 24 | 9S3d-F | 276 | FA(C10:0-26:0 C16:1-18:1 C15br-17br), DC(C8-13,18), APAA(C16-22), phy | Yes |  |  |  |  |  |  |  | 6.5 | -22.5 | 14.5 |
| 25 | 9S3a-I | 221 | FA(C10:0-28:0 C18:1-20:1 C13br-17br), DC(C6-16), APAA(C16-22), TMTD, pri, phy | Yes | 2.22 | 0.16 | 0.55 | 88 | -27.8 | -28.7 | -0.9 |  |  |  |
| 26 | 9S3a-F | 353 | FA(C10:0-26:0 C16:1-18:1 C15br-17br), DC(C7-13), APAA(C16-22), TMTD, pri, phy | Yes |  |  |  |  |  |  |  | 6.9 | -20.2 | 15.1 |
| 27 | 9T3a-I | 241 | FA(C8:0-26:0 C18:1 C13br-19br), DC(C6-13), APAA(C16-20), TMTD, pri, phy | Yes | 2.46 | 0.13 | 0.19 | 63 | -30.9 | -31.9 | -1.0 |  |  |  |
| 28 | 9T3a-F | 593 | FA(C10:0-26:0 C16:1-18:1 C15br-17br), DC(C8-16), APAA(C18-20), TMTD, pri, phy | Yes |  |  |  |  |  |  |  | 7.4 | -17.3 | 17.7 |
| 29 | 9T3b-I | 256 | FA(C8:0-28:0 C18:1 C13br-17br), DC(C6-16), APAA(C16-20), TMTD, pri, phy | Yes | 3.11 | 0.09 | 0.46 | 70 | -26.5 | -29.2 | -2.7 |  |  |  |
| 30 | 9T3b-F | 590 | FA(C9:0-26:0 C16:1-20:1 C13br-19br), DC(C6-18), APAA(C16-20), TMTD, pri, phy | Yes |  |  |  |  |  |  |  | 7.2 | -19.9 | 16.8 |
| 31 | 9T3c-I | 3 | FA(C12:0-26:0 C16:1-18:1.22:1 C15br-19br) | N/A |  |  |  |  |  |  |  |  |  |  |
| 32 | 9T3d-I | 93 | FA(C9:0-28:0 C16:1-20:1,24:1 C13br-19br), DC(C6-16), APAA(C16-22), TMTD, pri, phy, cholest | Yes | 1.83 | 0.15 | 0.38 | 78 | -24.4 | -24.8 | -0.5 |  |  |  |
| 33 | 9T3e-I | 261 | FA(C8:0-28:0 C18:1 C13br-17br), DC(C6-16), APAA(C16-20), TMTD, pri, phy | Yes | 4.27 | 0.16 | 0.29 | 59 | -28.1 | -30.5 | -2.4 |  |  |  |
| 34 | 9T3e-F | 581 | FA(C10:0-26:0 C18:1,22:1 C13br-19br), DC(C7-18), APAA(C16-20), pri, phy, stig | Yes |  |  |  |  |  |  |  | 7.9 | -21.2 | 28.4 |
| 35 | 9T3f-I | 2 | FA(C14:0-30:0 C16:1-18:1,22:1 C15br-19br), DC(C11,16) | N/A |  |  |  |  |  |  |  |  |  |  |
| 36 | D239-I | 103 | FA(C9:0-30:0 C16:1-18:1,22:1 C15br-17br), DC(C8-9), cholest | No |  |  |  |  |  |  |  |  |  |  |
| 37 | 9T3g-I | 228 | FA(C11:0-28:0 C18:1 C15br-17br), DC(C6-16), APAA(C16-22), TMTD, pri, phy | Yes | 3.03 | 0.21 | 1.23 | 56 | -28.0 | -28.1 | -0.1 |  |  |  |
| 38 | 9T3g-F | 384 | FA(C11:0-26:0 C16:1-18:1,22:1 C15br-19br), DC(C7-16), APAA(C16-22), pri, phy | Yes |  |  |  |  |  |  |  | 6.2 | -20.4 | 14.6 |
| 39 | 9W1-I | 30 | FA(C11:0-26:0 C16:1-22:1 C13br-19br), DC(C7-13), APAA(C16-22), TMTD, pri, phy | Yes | 6.25 | 0.20 | 0.06 | 90 | -24.9 | -23.9 | 1.0 |  |  |  |
| 40 | 9W1-F | 181 | FA(C12:0-24:0 C16:1-18:1 C15br-17br), DC(C8-13), APAA(C16-22) | Yes |  |  |  |  |  |  |  | ind2 | -24.4 |  |
| 41 | 9Z4-I | 54 | FA(C10:0-30:0 C18:1-22:1 C13br-19br), DC(C7-16), APAA(C16-22), TMTD, pri, phy | Yes |  | 0.35 | 0.3 | 64 | -25.5 | -25.6 | -0.1 |  |  |  |
| 42 | DA24u2I | 21 | FA(C12:0-26:0 C16:1-18:1), DC(C9-11) | No |  |  |  |  |  |  |  |  |  |  |
| 43 | DA24u2F | 27 | FA (C12:0-20:0 C18:1), DC(C9-11) | N/A |  |  |  |  |  |  |  |  |  |  |

1-In red are unreliable data for which the difference between the values from the reference and the unknown/reference peaks is greater than 1 per mil.

2-Both samples of 9W1 did not have nitrogen peak