



Dataset

Data set for paper "Interplay of community dynamics, temperature, and productivity on the hydrogen isotope signatures of lipid biomarkers"

Author(s):

Ladd, Sarah Nemiah; Dubois, Nathalie; Schubert, Carsten J.

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| Name | Description | Units | Missing data identifier |
|---|---|---|--------------------------------|
| Date (YYMMDD) | Day of year sampling occurred | 2 digit year, 2 digit month, 2 digit day | na |
| Water d2H (per mil VSMOW) | Surface water hydrogen isotope composition | ‰, relative to Vienna Standard Mean Ocean Water | na |
| Surface water temp (degrees C) | Temperature of surface water | °C | na |
| Conc nC14:0 (ug/L) | Concentration of <i>n</i> -C _{14:0} fatty acid in surface water | µg/L | na |
| Conc nC16:0 (ug/L) | Concentration of <i>n</i> -C _{16:0} fatty acid in surface water | µg/L | na |
| Conc nC16:1 (ug/L) | Concentration of <i>n</i> -C _{16:1} fatty acid in surface water | µg/L | na |
| Conc nC18:x (ug/L) | Concentration of unsaturated <i>n</i> -C ₁₈ fatty acids in surface water | µg/L | na |
| Conc brassicasterol (ug/L) | Concentration of brassicasterol in surface water | µg/L | na |
| Conc phytol (ug/L) | Concentration of phytol in surface water | µg/L | na |
| natural d13C nC14:0 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{14:0} fatty acid in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |
| labeled d13C nC14:0 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{14:0} fatty acid in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate nC14:0 (ug L ⁻¹ hr ⁻¹) | Production rate of <i>n</i> -C _{14:0} fatty acid | µg/(L*hour) | na |
| natural d13C nC16:0 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{16:0} fatty acid in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |

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| labeled d13C nC16:0 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{16:0} fatty acid in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate nC16:0 (ug L ⁻¹ hr ⁻¹) | Production rate of <i>n</i> -C _{16:0} fatty acid | μg/(L*hour) | na |
| natural d13C nC16:1 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{16:1} fatty acid in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |
| labeled d13C nC16:1 (per mil, VPDB) | Carbon isotopic composition of <i>n</i> -C _{16:1} fatty acid in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate nC16:1 (ug L ⁻¹ hr ⁻¹) | Production rate of <i>n</i> -C _{16:1} fatty acid | μg/(L*hour) | na |
| natural d13C nC18:1 (per mil, VPDB) | Carbon isotopic composition of unsaturated <i>n</i> -C ₁₈ fatty acid in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |
| labeled d13C nC18:1 (per mil, VPDB) | Carbon isotopic composition of unsaturated <i>n</i> -C ₁₈ fatty acid in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate nC18:1 (ug L ⁻¹ hr ⁻¹) | Production rate of unsaturated <i>n</i> - C ₁₈ fatty acids | μg/(L*hour) | na |
| natural d13C brassicasterol (per mil, VPDB) | Carbon isotopic composition of brassicasterol in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |
| labeled d13C brassicasterol (per mil, VPDB) | Carbon isotopic composition of brassicasterol in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate Brass (ug L ⁻¹ hr ⁻¹) | Production rate of brassicasterol | μg/(L*hour) | na |
| natural d13C phytol (per mil, VPDB) | Carbon isotopic composition of phytol in incubated, unlabeled surface water | ‰ relative to Vienna Pee Dee Belemnite | na |

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| labeled d13C phytol (per mil, VPDB) | Carbon isotopic composition of phytol in surface water incubated with 13C enriched sodium bicarbonate | ‰ relative to Vienna Pee Dee Belemnite | na |
| Prod rate phyt | Production rate of phytol | µg/(L*hour) | na |
| d2H nC14:0 (per mil, VSMOW) | Hydrogen isotope composition of <i>n</i> -C _{14:0} fatty acid filtered from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| d2H nC16:0 (per mil, VSMOW) | Hydrogen isotope composition of <i>n</i> -C _{16:0} fatty acid filtered from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| d2H nC16:1 (per mil, VSMOW) | Hydrogen isotope composition of <i>n</i> -C _{16:1} fatty acid filtered from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| d2H nC18:x (per mil, VSMOW) | Hydrogen isotope composition of unsaturated <i>n</i> -C ₁₈ fatty acids filtered from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| d2H Brass (per mil, VSMOW) | Hydrogen isotope composition of brassicasterol filtered from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| d2H phytol (per mil, VSMOW) | Hydrogen isotope composition of phytol from surface water | ‰, relative to Vienna Standard Mean Ocean Water | na |
| alpha nC14:0 | Apparent hydrogen isotope fractionation between <i>n</i> -C _{14:0} fatty acid and surface water | Unitless | na |
| alpha nC16:0 | Apparent hydrogen isotope fractionation between <i>n</i> -C _{16:0} fatty acid and surface water | Unitless | na |
| alpha nC16:1 | Apparent hydrogen isotope fractionation between <i>n</i> -C _{16:1} fatty acid and surface water | Unitless | na |
| alpha nC18:x | Apparent hydrogen isotope fractionation between unsaturated <i>n</i> -C ₁₈ fatty acids and surface water | Unitless | na |

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| alpha Brass | Apparent hydrogen isotope fractionation between brassicasterol and surface water | Unitless | na |
| alpha phytol | Apparent hydrogen isotope fractionation between phytol and surface water | Unitless | na |