Meta-data for Cross-strain Growth Medium Reuse Experiment Datasets
Author: Sarah Loftus, sarah.e.loftus@gmail.com

In all datasets, 'NA' indicates data are not available.

Data1_Growth.csv
Growth-related variables for each experimental replicate culture. Units in parentheses. Ordered letters below represent CSV file columns, in order.

A. Round
    i. Round of experiment (indicates number of reuses of the medium for the recycled medium treatment).
    ii. Number 0 through 4.
B. Day
    i. Day of the experiment round.
    ii. Number 0 through 5.
C. Algae
    i. Identity of algae used in the experiment.
    ii. 'C323' = *Staurosira* sp. C323; 'D046' = *Chlorella* sp. D046; 'Navicula' = *Navicula* sp. SFP.
D. Treatment
    i. Experimental treatment.
    ii. 'F' indicates fresh medium treatment. 'R' indicates reused medium treatment.
E. Replicate
    i. Biological replicate per experimental treatment.
    ii. Letters A through F.
F. Chl
    i. In vivo chlorophyll concentration (arbitrary units).
    ii. Raw value (not blank-subtracted).
G. OD750
    i. Optical density of whole culture measured at 750 nm (arbitrary units).
    ii. Raw value (not blank-subtracted).
H. DOC
    i. Biologically-derived dissolved organic carbon concentration of 0.2-µm culture filtrate (µM C).
I. TDN
    i. Total dissolved nitrogen of 0.2-µm culture filtrate (µM N).
J. FvFm
    i. F_v/F_m, the quantum yield of photochemistry in Photosystem II (unitless).
K. pH
    i. pH of whole culture.
L. PO4
    i. Orthophosphate concentration in 0.2-µm culture filtrate (µM PO_4).
M. NH4
    i. Ammonium concentration in 0.2-µm culture filtrate (µM NH_4).
N. Si
    i. Reactive silica concentration in 0.2-µm culture filtrate (µM Si).

Data2_Daily.csv
Data common to all experimental replicate cultures.
Ordered letters below represent CSV file columns, in order.

A. Round
    i. Round of experiment.
    ii. Number 0 through 4.
B. Day
    i. Day of the experiment round.
    ii. Number 0 through 5.
C. Date
    i. Day of experiment sampling (MM/DD/YYYY).
D. Tstart
    i. Time of day (24-hour time) that experimental sampling began (HH:MM).
E. Tend
    i. Time of day (24-hour time) that experimental sampling ended (HH:MM).
F. Chl_medium
    i. In vivo chlorophyll concentration of the growth medium blank sample (arbitrary units).
G. OD750_medium
    i. Optical density at 750 nm of the growth medium blank sample (arbitrary units).

Data3_Absolute_OTUs.txt
OTU table with samples as columns and OTUs as rows.
Values in the dataset represent absolute OTU abundance. (Samples were rarefied three times each to 10998 sequences. The three rarefactions per sample were averaged to calculate the absolute abundances shown in this dataset.)

The first line of this file reads "# Constructed from biom file" and contains no data.

Ordered letters below represent txt file columns, in order.

A. #OTU ID
    - Operational taxonomic unit (OTU) identity.
    - Displayed as "OTU_" followed by a unique number.
B. SL1
    - Sample representing *Staurosira* sp. C323 inoculum culture on Day 0.
C. SL2
    - Sample representing *Staurosira* sp. C323 Fresh medium culture, Replicate A, on Day 8.
D. SL3
    - Sample representing *Staurosira* sp. C323 Fresh medium culture, Replicate B, on Day 8.
E. SL4
    - Sample representing *Staurosira* sp. C323 Fresh medium culture, Replicate C, on Day 8.
F. SL5
    - Sample representing *Staurosira* sp. C323 Reused medium culture, Replicate D, on Day 8.
G. SL6
    - Sample representing *Staurosira* sp. C323 Reused medium culture, Replicate E, on Day 8.
H. SL7
    - Sample representing *Staurosira* sp. C323 Reused medium culture, Replicate F, on Day 8.
I. SL8
    - Sample representing *Chlorella* sp. D046 inoculum culture on Day 0.
J. SL9
    - Sample representing *Chlorella* sp. D046 Fresh medium culture, Replicate A, on Day 8.
K. SL10
    - Sample representing *Chlorella* sp. D046 Fresh medium culture, Replicate B, on Day 8.
L. SL11
    - Sample representing *Chlorella* sp. D046 Fresh medium culture, Replicate C, on Day 8.
M. SL12
    - Sample representing *Chlorella* sp. D046 Reused medium culture, Replicate D, on Day 8.
N. SL13
    - Sample representing *Chlorella* sp. D046 Reused medium culture, Replicate E, on Day 8.

O. SL14
    - Sample representing *Chlorella* sp. D046 Reused medium culture, Replicate F, on Day 8.
P. SL15
    - Sample representing *Navicula* sp. SFP inoculum culture on Day 0.
Q. SL16
    - Sample representing *Navicula* sp. SFP Fresh medium culture, Replicate A, on Day 8.
R. SL17
    - Sample representing *Navicula* sp. SFP Fresh medium culture, Replicate B, on Day 8.
S. SL18
    - Sample representing *Navicula* sp. SFP Fresh medium culture, Replicate C, on Day 8.
T. SL19
    - Sample representing *Navicula* sp. SFP Reused medium culture, Replicate D, on Day 8.
U. SL20
    - Sample representing *Navicula* sp. SFP Reused medium culture, Replicate E, on Day 8.
V. SL21
    - Sample representing *Navicula* sp. SFP Reused medium culture, Replicate F, on Day 8.
W. taxonomy
    - OTU taxonomic assignment from RDP classifier.

Data4_Relative_OTUs.txt

Same as Data3_Absolute_OTUs.txt, except values in the dataset represent the relative abundances of OTUs within a sample. Relative abundances can range from 0 to 1, and were calculated by dividing the absolute abundance of a given OTU by the cumulative abundance of all OTUs within the sample.

The first line of this file reads "# Constructed from biom file" and contains no data.

Data5_Relative_OTUs_noSpiro.txt

Same as Data4_Relative_OTUs.txt, except all OTUs within the family Spirochaetacaceae (OTUs 16 and 27) were removed from the OTU table prior to calculating relative abundances.

The first line of this file reads "# Constructed from biom file" and contains no data.

RDP_OTU_family_key.txt

Key for bacteria OTU composition plot categorized at the family taxonomic level.
Ordered letters below represent txt file columns, in order.

A. OTU_ID
    i. OTU ID number, where each OTU has a unique number based on the sequence clustering algorithm.
    ii. Represented as "OTU_X" where X is a unique number for each OTU.
B. taxonomy
    i. Full taxonomic assignment from RDP classifier.
C. Family_Legend
    i. Family-level taxonomic classification, if available.
    ii. If family level classification is unavailable, taxonomic name is followed by a prefix and underscore, such as "Other_" or "Order_".