GENERAL INFORMATION

1. Title of Dataset:

Coordination of leaf economics spectrum within the family of the world's fastest growing plants (Lemnaceae)

2. Author Information

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4. Faculty of Social and Environmental Studies, Tokoha Univ.

3. Date of data collection (single date, range, approximate date)

2018-2019

4. Geographic location of data collection <latitude, longiute, or city/region, State, Country, as appropriate>:

Osaka University, Japan

5. Information about funding sources that supported the collection of the data:

- Advanced Low Carbon Technology Research and Development Program (ALCA) JPMJAL1108 of the Japan Science and Technology Agency (JST)
- Japan Society for the Promotion of Science KAKENHI JP18J10181
- Japan Society for the Promotion of Science KAKENHI JP20J00210

DATA & FILE OVERVIEW

1. File List:

Dataset_to_be_archived.xlsx

2. Relationship between files, if important:

Not applicable.

3. Additional related data collected that was not included in the current data package:

Not applicable.

4. Are there multiple versions of the dataset? yes/no

No.

METHODOLOGICAL INFORMATION

1. Description of methods used for collection/generation of data:

Ishizawa et al. (2021) Coordination of leaf economics traits within the family of the world's fastest growing plants. *Journal of Ecology* (JEcol-2020-1244).

2. Methods for processing the data:

Principal component analysis was performed using "prcomp" function of R. Details are described in aforementioned manuscript.

3. Instrument- or software-specific information needed to interpret the data:

Not applicable.

4. Standards and calibration information, if appropriate:

Not applicable.

5. Environmental/experimental conditions:

Experimental

6. Describe any quality-assurance procedures performed on the data:

Not applicable.

7. People involved with sample collection, processing, analysis and/or submission:

Hidehiro Ishizawa, Yusuke Onoda, Kaoru Kitajima, Masashi Kuroda, Daisuke Inoue, Michihiko Ike

DATA-SPECIFIC INFORMATION FOR: [FILENAME]

1. Number of variables:

13

2. Number of cases/rows:

15

3. Variable List:

RGR; relative growth rate [frond frond⁻¹ d⁻¹], growth rate of duckweeds Area; frond area [cm²], average frond area of duckweeds Weight; frond weight [mg], average dry weight of duckweeds LMA; leaf mass per area [g m⁻²], frond dry weight per specific frond area NAR; net assimilation rate [g m⁻² d⁻¹], net assimilation rate of duckweeds Chl_{mass}; chlorophyll content [mg g⁻¹], chlorophyll content of duckweeds Chl a/b; chlorophyll a/b ratio, chlorophyll a/b ratio of duckweeds Starch; starch content [%], starch cntent of duckweeds

 N_{mass} ; nitrogen content [mg g⁻¹], nitrogen content of duckweeds

Lifespan; lifespan [d], average lifespan of duckweed fronds

Offspring num; offspring number, number of daughter fronds yielded by individual frond A_{area} ; photosynthetic rate per area [µmol-CO₂ m⁻² s⁻¹], area-based CO₂ assimilation rate of duckweeds

 A_{mass} ; photosynthetic rate per mass [µmol-CO₂ m⁻² g⁻¹], mass-based CO₂ assimilation rate of duckweeds

4. Missing data codes:

Not applicable

5. Specialized formats or other abbreviations used:

Row names indicate duckweed species analyzed. Names of species and stock numbers are shown below.

Sp, Spirodela polyrhiza UY0001 LAp, Landoltia punctata RDSC9387 La, Lemna aequinoctialis OYA0001 Lg, Lemna gibba RDSC7741 Lj, Lemna japonica RDSC8695 Lmo, Lemna minor RDSC5512 Lmu, Lemna minuta RDSC9476 WEc, Wolffiella caudata RDSC9139 WEh, Wolffiella hyalina RDSC8640 WEr, Wolffiella repanda RDSC9122 Wan, Wolffia angusta RDSC7476 War, Wolffia arrhizal RDSC8872 Wb, Wolffia brasilensis RDSC8743 Wg, Wolffia globosa RDSC8152 Wn, Wolffia neglecta RDSC9149