Instructions for Contributing Synthesis Projects to the World Data Service for Paleoclimatology

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We consider your contribution a synthesis project if the data is (1) a compilation of datasets generated by other scientists or (2) a reconstruction based on pre-existing public or non-public data sources. Additional metadata is necessary for synthesis projects to ensure that credit is given to the original data generators. If this does not apply to your data contribution, refer to the WDS-Paleo general contribution instructions.

Step 1 - Consult WDS-Paleo Data Manager

Leaders of data compilation efforts should contact WDS-Paleo staff (paleo@noaa.gov) early in their research and development process to discuss appropriate data formats and the use of standard controlled vocabularies for defining terms. This step is essential to ensure that all relevant metadata are captured and that the finished compilation can be contributed seamlessly to the WDS-Paleo.

Step 2 - Prepare Non-Public Data

Any datasets in a compilation that are not publicly-available at either the WDS-Paleo or another repository will be archived as a new individual contribution in addition to being included in the synthesis study. Please provide each non-public dataset in a template appropriate to its data type: International Tree Ring Data Bank (ITRDB), International Multiproxy Paleo-Fire Database (IMPD), or all other contributions. If it is not feasible to provide individual templates, contact WDS-Paleo staff (paleo@noaa.gov) to discuss alternative methods of providing structured metadata and data. The WDS-Paleo will assume you have received permission from the original data generator to contribute the dataset.

Step 3 - Prepare Synthesis Data

Download and complete the synthesis Excel template file. There are 3 tabs (Metadata, RecordsUsed_Metadata and Data) in the Excel template.

- In the **Metadata tab**, fill out all of the sections to provide information about the overall compilation or reconstruction. Note that the "Species Info" section is relevant only to tree ring contributions.
- Also in the metadata tab, choose a data license to specify the terms for reuse, either Creative Commons CC0 (preferred) or CC BY 4.0. The general rule is that data compilations must be licensed under the most restrictive license of all the constituent data sets.
- The **RecordsUsed_Metadata tab** is for metadata about the individual records that either compose the data compilation or have been used to generate the reconstruction. For data compilations, each dataID value will be a column header in the "Data" tab, thus tying the metadata to its corresponding data. Refer to the "Example-RecordsUsed_Metadata" and "Example-Data" tabs.
- In the **Data tab**, you will fill out the variable and data section. Each variable term (data format, data type, detail, error, material, method, seasonality, unit, what) should be standardized to the PaST Thesaurus. Refer to the Variable Naming Guide for more detailed instructions on variables. The data section should contain either a compilation of the individual datasets listed in the RecordsUsed_Metadata tab, or else a reconstruction generated from the datasets listed in the RecordsUsed_Metadata tab. The synthesis template includes an additional Data tab, named Data2, in case two separate data tables relevant to the RecordsUsed_Metadata are contributed.

Step 4 - Submit Data

- Please send completed Excel contribution template and data file(s) as email attachments to paleo@noaa.gov. If you do not receive confirmation of receipt of your contribution within three business days, please phone +1 828-271-4800. Please contact us at either the phone number or email address above for any questions or further assistance.
- **Note: Given the overhead associated with small updates, we request that you contribute only stable, permanent versions of datasets. Once a dataset has been archived, we can correct any errors that are discovered. Please accumulate other changes, including reformatting and adding metadata or data, and contribute these together in a new major version (e.g., version 2.0) of the complete dataset.**