

An Excel Template Generator for Darwin Core

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Abstract

Scientific data is diverse and can be complex, potentially including biotic or abiotic measurements, material samples, DNA derived data and more. Especially for researchers who are new to the Darwin Core standard (Darwin Core Task Group 2009), it is not always obvious what the best practice is for creating a Darwin Core Archive (GBIF 2021) for their data. Which core and extensions should they select? Which Darwin Core terms^{*1} should they include? We present the 'Learnings from Nansen Legacy template generator' (Marsden and Schneider 2023), a spreadsheet template generator to simplify the creation of Darwin Core Archives. It enables users to create a single Microsoft Excel file that includes one sheet per core or extension using a graphical user interface. The user can select from a complete list Darwin Core terms to use as column headers. There are requirements and recommendations for which terms are selected for each core and extension. Descriptions for all terms are displayed when one hovers over a Darwin Core term, and are stored as notes in the template when one select a relevant cell. The generated template includes cell restrictions to prevent one from inputting data in an incorrect format. A separate configuration is also available to aid researchers in creating CF-NetCDF^{*2} files for physical data, which are also compliant with the FAIR (Findable, Accessible, Interoperable, Resuable)^{*3} data management principles.

The Learnings from Nansen Legacy template generator is published (Marsden and Schneider 2023) and can be installed for use on your website or computer by following the instructions on the software's GitHub repository^{*4}. The template generator can be tested where it is currently hosted, by SIOS^{*5} (Svalbard Integrated Arctic Earth Observing System). One can also refer to a YouTube tutorial^{*6} on how the template generator works.

Keywords

spreadsheet, research data, Nansen Legacy, FAIR principles

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Presented at

TDWG 2023

Conflicts of interest

The authors have declared that no competing interests exist.

References

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- GBIF (2021) Darwin Core Archives – How-to Guide, version 2.2. Copenhagen: GBIF Secretariat. URL: <https://ipt.gbif.org/manual/en/ipt/2.5/dwca-guide>
- Marsden L, Schneider O (2023) Learnings from Nansen Legacy template generator. 1.0. Zenodo. Release date: 2023-6-01. URL: <https://doi.org/10.5281/zenodo.7993323>

Endnotes

- *1 <https://dwc.tdwg.org/terms/>
- *2 <https://cfconventions.org/>
- *3 <https://www.go-fair.org/fair-principles/>
- *4 [https://github.com/SIOS-Svalbard/Learnings from AeN template generator](https://github.com/SIOS-Svalbard/Learnings_from_AeN_template_generator)
- *5 <https://sios-svalbard.org/aen/template-generator/>
- *6 <https://www.youtube.com/watch?v=DbvlwnYXuPU>