

Sharing and Archiving Research Data

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Outline

- Open Data imperative
- How to share data
- Data repositories
- Credit for publishing data

Open Data

- Research data are assets
- Increasingly recognized and valued research output
- Valuable to others, in research as well as industry
- Critical for reproducibility
- Mandates to open access publicly funded data
- Anyone free to use, reuse, and redistribute
- Possibly subject to attribution

Data Identification

- Persistent identification of data is important
- Idea is similar to identification of articles
- Provides an unambiguous reference to data
- Used to link or refer to data, e.g. in text
- Data are increasingly identified by DOI
 - ▶ e.g. 10.1594/PANGAEA.787617
- DataCite is the global provider of DOIs for research data

Data Citation

- Always cite data used in research
- Citing data is often very easy
- Data repositories support citation export




PANGAEA.


Data Publisher for Earth & Environmental Science



Citation:

Nürnberg, Dirk; Müller, A; Schneider, Ralph R (2000): Paleo-sea surface temperature calculations in the equatorial east Atlantic. *PANGAEA*,  <https://doi.org/10.1594/PANGAEA.787617>,

Supplement to: Nürnberg, D et al. (2000): Paleo-sea surface temperature calculations in the equatorial east Atlantik from Mg/Ca ratios in planktic foraminifera: A comparison to sea surface temperature estimates from U37K', oxygen isotopes, and foraminiferal transfer function. *Paleoceanography*, **15(1)**, 124-134,  <https://doi.org/10.1029/1999PA000370>

 **Always quote above citation when using data!** You can download the citation in several formats below.

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FAIR Principles

- Findable
 - ▶ Persistently identified, described, indexed
- Accessible
 - ▶ Retrievable by identifier, open protocol, accessible metadata
- Interoperable
 - ▶ Represented using formal, accessible, shared FAIR vocabulary
- Re-usable
 - ▶ Meet community standards, associated with provenance, usage license

Take aways