

Microclimate Database (MDB): Data Access and Usage Policy

Version: 1.1 | Effective date: 23-10-2026 | Contact: meb-network@outlook.com

1. Purpose

The Microclimate Database (MDB) is an international repository for microclimate time-series and associated vegetation data, and the successor of the SoilTemp database. Its mission is to facilitate scientific research, education and environmental management by promoting the sharing, preservation and reuse of curated and documented microclimate observations, while respecting the rights and interests of data contributors.

Every dataset remains subject to the license selected by its owner at submission. Nothing in this policy alters the legal rights established by that license. Two kinds of conditions apply to MDB data: **license conditions**, set by the dataset license, and **MDB terms**, which are conditions of access to the MDB and apply to all categories. MDB terms are not license conditions.

By accessing or downloading data from the MDB, users accept this policy. The version in force at the time of access applies to that access.

2. Definitions

- **Data owner:** the person or institution that holds the rights to a dataset and submitted it to the MDB, or on whose behalf it was submitted.
- **Data user:** any person or organization that accesses or uses MDB data.
- **Dataset:** the data deposited in the MDB as one unit, under one DOI and one license or access category. A dataset may be one logger, one campaign or a whole project collection, as determined by the data owner at submission.
- **MDB Committee:** the body that manages the MDB, handles access requests for Controlled datasets and is the contact point for this policy.
- **Metadata:** descriptive information about a dataset, such as its title, data owner, site description, coordinates, measurement period, variables, sensors and measurement details, and its license or access category. Metadata does not include the time series or vegetation data themselves.
- **Controlled dataset:** a dataset submitted under the Controlled ("C") category.
- **Publication:** any article, report, thesis, preprint or other written work made public.
- **Product:** any output other than a publication that is derived from MDB data, including software, models, derived datasets, services and reports.
- **Commercial use:** as defined in Section 3.3.
- **Misuse:** use of MDB data in breach of the applicable dataset license, of conditions attached to an approval, of the redistribution rules in Section 8, or of Section 4.
- **Moratorium:** the period during which a dataset keeps the Controlled category, before it is released under CC BY (see Section 3.3).

3. Data Categories

The MDB hosts datasets under three categories: CC0, CC BY and Controlled ("C"). No other license variants (such as non-commercial or share-alike) are offered. Data owners choose the category for each submission.

3.1 Open Data (CC0)

Datasets released under the Creative Commons CC0 1.0 Public Domain Dedication (<https://creativecommons.org/publicdomain/zero/1.0/>) may be freely accessed, copied, modified, redistributed and used for commercial and non-commercial purposes, without permission from the data owner. CC0 requires no attribution. The citation rules in Section 5 are MDB terms, not conditions of the CC0 dedication.

3.2 Attribution License (CC BY)

Datasets distributed under the Creative Commons Attribution 4.0 license (CC BY 4.0, <https://creativecommons.org/licenses/by/4.0/deed.en>) may be freely reused, modified and redistributed, for commercial and non-commercial purposes, provided that users:

- appropriately credit the original data creators,
- cite the dataset,
- provide a reference to the license,
- indicate whether modifications were made.

3.3 Controlled Access ("C")

Access to Controlled datasets requires approval by the MDB Committee. The Committee consults the data owner(s) concerned on every request for their dataset.

Applicants must provide: project title, investigators, institution, intended use (stating explicitly whether it is commercial or non-commercial), requested datasets and expected outputs. The application and the approval notice, including any conditions, form the agreement for the approved use.

Non-commercial use. Data owners are contacted once and have five weeks to respond. If no response is received, the request is approved by default.

Commercial use. Commercial use of Controlled datasets is not permitted unless it was declared in the application and explicitly approved by each data owner concerned. Silence is never approval. Use is commercial if it is primarily intended for or directed toward commercial advantage or monetary compensation, including use by or on behalf of a for-profit entity to develop products or services, and paid consultancy. Approval for non-commercial use does not cover commercial use, and a change of intended use requires a new application.

Approval may include additional conditions specified by the data owner.

Moratorium. A Controlled dataset remains in this category for five years from its publication in the MDB. The data owner may extend this period by five years, repeatedly, following the procedure on the submission platform before it ends. If no extension is requested, the dataset is released under CC BY 4.0

when the moratorium ends, from which point Section 3.2 applies. Access approved before the end of the moratorium remains valid for the approved project.

3.4 Metadata (all categories)

The metadata of every dataset in the MDB is publicly available at any time, whatever the license or access category, and can be explored in the MDB's online metadata viewer, so that potential data users can find out which data exist. Metadata is released under CC0. Coordinates in the public metadata are rounded to two decimal places. Exploring metadata gives no access to the data themselves: access to Controlled datasets still requires an application under Section 3.3.

3.5 Dataset-specific analyses (all categories)

Where a planned analysis relies predominantly on the dataset of a single data owner, or addresses a question specific to that dataset, the MDB Committee assesses whether the data owner should be invited as a collaborator. The Committee applies the criteria listed in Section 6. Committee members who own the dataset concerned do not take part in the assessment.

CC0 and CC BY datasets. Before starting such an analysis, users are expected to send the Committee a short description of it. The Committee advises whether an invitation to collaborate is appropriate and contacts the data owner where needed. This is an MDB term and a community norm, not a license condition, and it does not restrict the use permitted by the license.

Controlled datasets. During the consultation under Section 3.3, the data owner may suggest to the Committee that the request is dataset-specific. The Committee decides. If it finds the condition met, access is granted only if the data owner is invited as a collaborator, unless the owner waives this in writing.

4. Responsibilities of Data Users

Data users must:

- use data responsibly and ethically, and not selectively omit, truncate or alter data in ways that misrepresent the original observations or the conclusions they support;
- comply with the applicable dataset license and with any conditions attached to an approval;
- cite datasets, the data paper and the MDB as set out in Section 5;
- not use Controlled datasets for any purpose other than the one approved.

Data users remain responsible for verifying the suitability and quality of data for their intended applications, and are welcome to report issues with the data to the MDB Committee.

5. Citation and Versions

License condition (CC BY and Controlled): cite the original dataset(s) as required by the license. For CC0 datasets, citing the dataset is recommended but not required.

MDB terms (all categories): all publications and products using MDB data must also cite the data paper (Beugnon et al., 2026) and the Microclimate Database (MDB). Users are encouraged to additionally cite the original SoilTemp paper (Lembrechts et al., 2020).

Each version of a dataset has its own DOI, and users must cite the version they used. The MDB is a continuously updated database without a DOI of its own, so users must also state the date on which they accessed or downloaded the data.

Example in-text citation: *Data were obtained from the Microclimate Database (MDB, Beugnon et al., 2026; originally SoilTemp, Lembrechts et al., 2020). Individual datasets are cited in the reference list according to their DOI.*

Reference-list entries:

- Beugnon, R., [co-authors] (2026). [Title of the data paper]. [Journal], [volume], [pages]. [https://doi.org/\[DOI\]](https://doi.org/[DOI])
- Lembrechts, J. J., et al. (2020). SoilTemp: a global database of near-surface temperature. *Global Change Biology*, 26(11), 6616-6629. <https://doi.org/10.1111/gcb.15123>

6. Scientific Collaboration and Co-authorship

The MDB promotes collaboration between data users and data owners. Data users are strongly encouraged to contact data owners early in the research process, particularly when datasets are a major component or a substantial proportion of the analysis, are unique or difficult to obtain, or require specialist knowledge for correct interpretation.

See section 3.5 for further details for analyses relying heavily on a single or a few datasets.

Contributions by data owners may include interpretation of site characteristics, quality assurance, methodological advice, ecological interpretation, review of analyses and manuscript preparation. Co-authorship should follow internationally accepted guidelines (e.g. ICMJE or CRediT) and reflect substantial intellectual contributions rather than data provision alone.

7. Publications

Data users must:

- notify the MDB Committee and the data owners before publishing work that uses Controlled datasets;
- send the MDB Committee (mdb-network@outlook.com) the reference or DOI of resulting publications, or a short description of resulting products if there is no publication, whatever the category of the data used.

For CC0 and CC BY data, notification is requested under the MDB terms. Publications using MDB data may be listed on the MDB website to document the impact of the data; users are encouraged to send a link as soon as their work is published. The MDB Committee may ask about progress of analyses.

8. Redistribution

Data users must not redistribute Controlled datasets to third parties unless the approval explicitly permits it; third parties must obtain the data through the MDB. CC0 and CC BY datasets may be redistributed according to their licenses, including in commercial products and services. Before starting a new project with MDB data, users are encouraged to contact the MDB Committee (see 3.5).

9. Intellectual Property, Contributions and Withdrawal

Ownership of submitted datasets remains with the data owners. By submitting, data owners grant the MDB Committee a non-exclusive right to archive, preserve, index and distribute the dataset under the selected license and this policy.

By submitting a dataset, the data owner confirms that they hold the rights required to submit and license it; that the data were collected and are shared in compliance with applicable law, permits and permissions; that they agree to the public release of the dataset's metadata under CC0, as described in Section 3.4, and, for Controlled datasets, to the release of the data under CC BY 4.0 at the end of the moratorium (Section 3.3). Where the dataset contains personal data (for example from citizen science), they are responsible for compliance with data protection law, including the GDPR.

Data owners may submit corrected or extended data as a new version, which receives its own DOI. Earlier versions remain accessible and are marked as superseded. Data owners may also request withdrawal or relicensing at any time. Such changes apply only to access and use after the change and do not affect copies already obtained under CC0 or CC BY. For Controlled datasets, approved projects may be completed unless the data owner shows serious grounds, such as errors in the data or a legal obligation.

10. Disclaimer and Limitation of Liability

The MDB provides all data "as is" and "as available", without warranty of any kind, including regarding completeness, accuracy, representativeness or quality, fitness for a particular purpose and uninterrupted availability. Datasets are checked for basic submission requirements, but time series are not checked for noise or general quality.

To the fullest extent permitted by applicable law, neither the MDB, the MDB Committee, its host institutions nor the data owners are liable for any damages, losses or other consequences arising from access to or use of the data, whether direct or indirect, including economic or financial losses, loss of profit, misinterpretation of the data, errors or omissions in the data, decisions taken on the basis of the data, and any commercial, scientific, legal or management outcomes. This applies regardless of the legal ground of the claim and whether the use is commercial or non-commercial.

The MDB, the MDB Committee and its host institutions are not responsible for any failure of data owners to hold the rights, permits or consents required to collect or distribute the data, or to comply with data protection law.

Users use the data at their own risk and are solely responsible for verifying their suitability, interpreting them correctly, and for all conclusions, products, services and decisions derived from them. Nothing in this section excludes or limits liability that cannot be excluded or limited under applicable law.

11. Misuse

In cases of misuse as defined in Section 2, or other violations of this policy, the MDB may suspend access, deny future access requests and report the misuse to the relevant institutions.

12. Changes to this Policy

The MDB may revise this policy. The current version and a changelog are available at <https://meb-network.com/access-to-the-database/>. The version in force at the time of access applies to that access. [Governing law and jurisdiction: to be determined.]

13. References

- Beugnon, R., et al. (2026). [Full reference of the data paper.]
- Lembrechts, J. J., Aalto, J., Ashcroft, M. B., De Frenne, P., Kopecky, M., Lenoir, J., ... & Rocha, A. (2020). SoilTemp: a global database of near-surface temperature. *Global Change Biology*, 26(11), 6616-6629. <https://doi.org/10.1111/gcb.15123>

Appendix: Summary of User Obligations

Category	Access	Dataset citation (license)	MDB and data paper citation (MDB term)	Permission required	Commercial use	Co-authorship
CC0	Open	Recommended	Required	No	Yes	Recommended when datasets are scientifically central
CC BY	Open	Required	Required	No	Yes	Recommended when datasets are scientifically central
Controlled (C)	Upon approval	Required	Required	Yes (MDB Committee)	Only with explicit owner approval	Recommended when datasets are scientifically central

Controlled datasets are released under CC BY 4.0 after the moratorium (five years, extendable).