ITEX Data Use & Authorship Policy

December 2025

Compiled and adopted by the ITEX Steering Committee

Here, we formalize a common data use, authorship and code policy for datasets and syntheses compiled as part of the International Tundra Experiment (ITEX) network. This policy should be used for analyses and resulting papers arising from the ITEX network.

After the data are archived, they are in the public domain; however, we ask that future authors adhere to the policies described here. We expect members of the ITEX network to adhere to these policies to maintain good standing in the network.

The guiding principles for these policies are to ensure that data contributors are recognized through the offer of authorship for data contributions. These policies are also intended to ensure fairness across data contributors, at different career stages, from different sites and nationalities.

What is the ITEX network?

ITEX is a collaborative network of researchers working on tundra ecosystem change topics, who share data collaboratively, leading to a number of multi-contributor datasets including, but not limited to: 1) open-top chamber experiments, 2) monitoring biological communities over time (e.g., plants and soil microbes), 3) plant phenology monitoring over time, 4) plant traits 5) soil nutrient and carbon fluxes, and 6) long-term monitoring of abiotic environmental variables (e.g., soil moisture, temperature, and other physical conditions). With the compilation of these collaborative datasets, we have developed data use, authorship and code sharing policies.

Goals for data use and authorship

The goal of these policies is to facilitate the use and growth of the ITEX datasets over time. The ITEX community strongly encourages the continued use of ITEX datasets and the creation of new collaborative datasets. High profile publications are the best way to ensure that ITEX sites are maintained and that future data sets will be available. In many cases, observations at these sites are maintained primarily as a contribution to the network; therefore, an inclusive authorship policy is necessary to justify their continuation. Including data contributors as authors assures that the data are used accurately and that the conclusions drawn from the analysis are valid and meaningful. Therefore, we believe including as many authors as is reasonable creates a win-win situation for the team spearheading the writing and analyses and for the data contributors.

Authorship

For papers using published data. We encourage external users to follow the 5% guideline or the procedures for using unpublished data whenever possible. At a minimum external users should reach out to the researchers who obtained the data to ensure that they are interpreted accurately. As stated elsewhere, *for many of the ITEX sites the continuation of measurement collection is contingent upon being included as author on subsequent papers*. The long-term success of ITEX is dependent on a favourable perception of the network among the research community and policy makers. Therefore, once a database is made public (after the initial publication) members of ITEX should encourage other groups to use the data in further synthesis activities (with or without authorship).

The 5% guideline

After the first publication, new syntheses will be encouraged to follow at least the 5% rule for authorship - in other words, anyone who contributed 5% or more of the data used in the final versions of analyses will be extended the opportunity of authorship on that paper. This is a guideline, and authors may decide to choose a lower threshold such as 1%. This guideline is an acknowledgment that very small data contributions (e.g., 10 or fewer trait records), may not warrant intellectual input on any given study. Other data contributors whose contributions amount to less than 5% could be extended authorship or thanked in the acknowledgements as deemed appropriate by the lead author of the paper. The database and/or data paper should always be cited in all manuscripts using the data, following the citation guidelines of TRY, DRYAD and other online data repositories (http://wiki.datadryad.org/Citing_Data).

For global or multi-biome analyses in which the ITEX dataset represents a small portion of the data (each data contributor is less than 5%), we recommend including some ITEX members (e.g. those with the largest data contributions or the lead authors of synthesis papers) to ensure that tundra expertise in general and ITEX data expertise in particular are represented.

For papers using unpublished data. People should be invited as co-authors if they contribute primary data used in the analyses and/or have an intellectual input on the development of the study. More specifically, everyone who contributes data used in the final analyses should be offered participation and authorship on at least the first publication that arises from those data. It is the responsibility of each person who submitted data to inform the lead authors who else should be invited to be an author on the final manuscript (see "**Data contacts and PIs**"). In addition to submitting data, every author will be sent a request to participate in the manuscript preparation, following standard academic publication expectations. By the time of publication, all authors should make an intellectual contribution.

Leaders of a synthesis should contact potential coauthors at least three times spread across six months, recognizing that members of ITEX could be in the field or on leave at the time of first

contact. If someone does not respond to the authorship invites or read and approve the final version of the manuscript, it will not be possible to include them as an author, as per publication guidelines. If anyone prefers to submit data for use and does not want to join in the analysis and writing effort, that person will be thanked in the acknowledgements and not included as an author, as per their preference.

Data contributors who, for whatever reason, do not agree to the ITEX authorship guidelines may have their data omitted from the analyses and the resulting database.

Data contacts and PIs

It is the responsibility of each data contributor (the person who sends data for synthesis) to inform the database manager of the data PIs (all people with academic ownership over the data). All data contributors and PIs will be asked to agree to the data use and authorship policy and will be invited to be authors on at least the first manuscript that will use this database (see above and below). The names of data contributors and PIs will be entered into the data and the contact information for the data contributors listed in the dataset, so that future data users know both the ownership of the data and can contact the data contributors.

Site PIs should consider extending authorship to early career researchers who have contributed significantly to long-term datasets, such as doing months to years of data compilation and cleaning of the full dataset (e.g., ITEX synthesis postdocs), collecting data across multiple years or starting a major new site-level data collection protocol (e.g., the Hidden Diversity protocol).

Data archival

In accordance with our belief that it is the responsibility of scientists to publicly archive their data for the future, after publication of the first manuscript resulting from a newly compiled database, we will submit the compiled database(s) used in the synthesis to a public data repository (e.g., the Polar Data Catalogue, https://www.polardata.ca/). At that time, the database will be in the public domain and available for future research without restriction; although, future data users are encouraged to also use these guidelines (either the 5% guideline or the guideline for unpublished data). This is the policy for many journals (and thus a requirement for publication) and it is the policy for the ITEX network.

Code repositories

ITEX syntheses are strongly encouraged to share their code at time of publication (or submission) through public repositories (e.g., GitHub; Zenodo). Ideally, these code repositories include scripts to link analyses directly to the currently hosted public version of the given ITEX dataset, or a study-specific subset that is made public through the repository or by another means at time of publication. This will facilitate future syntheses to build on previous work. Depending on the degree to which subsequent analyses leverage existing code, and the complexity of such code, it may be appropriate to include the code authors as co-authors. For more minor contributions, acknowledgements or citations of existing code are appropriate.

Communication of ongoing analyses

Communication of ongoing analyses is important to keep the networking thriving. Leaders of synthesis projects should contact data contributors and potential coauthors at the initiation of the project and they should send updates at least once a year until the completion of the process (typically the final publication).

Leaders of a synthesis should confirm that the synthesis is included on the ITEX webpage and that it has been communicated on the listserv (for assistance contact a member of the ITEX Steering Committee).

Building on previous ITEX research

The ITEX website is designed to keep the network apprised of ongoing activities to avoid duplication and maximize collaborations within our network.

Leaders of a new synthesis should engage with the content of previous syntheses and differentiate proposed projects from in-progress analyses found on the synthesis project list on the ITEX website. Leaders of a new synthesis are strongly encouraged to contact and collaborate with the lead authors of previous syntheses to make sure ITEX research builds on what is currently known and because former synthesis leaders will have detailed knowledge of the database. Many lead authors of synthesis projects are early career researchers, often at the postdoctoral stage, and may be new to long-term tundra research. ITEX is committed to welcoming and facilitating early career researchers within the ITEX network.

If you are interested in leading a synthesis activity, please reach out to the ITEX Steering Committee or send an email invitation to contribute to a synthesis effort on the ITEX listserv.