

Central Arizona-Phoenix Long-Term Ecological Research Program

Guidelines for Authoring CAP Publications

Version: 13 October 2025

Authorship of research publications can be a sensitive issue for any large collaborative research program, even as expectations for collegiality and mutual respect are generally met. This CAP authorship policy presents some general principles, criteria, and procedures for determining authorship of CAP-generated publications. Integrity and responsible conduct in the reporting of research are essential for maintaining trust in the findings and products of any research enterprise. Authorship provides credit for all researchers' contributions to a project, but it also carries responsibility and accountability. An overarching consideration is that CAP is a diverse, collaborative, and interdisciplinary research endeavor where considerable effort goes into gathering, analyzing, and managing data, and writing papers, but where the disciplinary traditions about authorship often vary. This policy aims to provide guidance on general expectations for authorship of publications generated by all CAP researchers. In some isolated cases, modifications to this guidance may be necessary to accommodate unique dimensions of some research activities. In such cases, these modifications should be explained to participants and documented with the CAP Director at the outset of the project to avoid misunderstandings.

General Principles:

1. Publication quality is very important to all CAP researchers and to the integrity of the CAP program.
2. The encouragement of junior scientists and scholars (i.e., pre-tenured faculty, postdoctoral scholars, and students) is a priority in publication and authorship.
3. The underlying philosophy is one of freely sharing ideas, data, and skills, of encouraging multi-authored collaborative papers, and of fairness in authorship.
4. The long-term observational datasets and experiments that are the foundation of CAP as a research platform, as listed in the most recent renewal proposal and as shown on the CAP website, are an open resource and regulated by Creative Commons licenses. They are not "owned" by any CAP participant, nor do they carry any guarantees of authorship on publications that use these resources. Exceptions to this include situations where researchers develop specific experiments and wish to be given the opportunity to publish the data from the experiments before the data are released after the two-year embargo period. Exceptions should be documented in writing and approved by the CAP Director.
5. Each long-term project is primarily directed by a different CAP scientist (see below), with field and lab efforts led by the CAP LTER Site Manager ([Quincy Stewart](#)), Lab Manager ([Gray Shaffer](#)), and technician team. The Data User should be aware that others may also be actively using these data for their own research, so coordination is essential to prevent duplicate efforts. The Data User is advised to contact the data authors and consider, when appropriate, collaboration or co-authorship with the authors. As such, investigators working with the dataset should contact the associated staff and dataset authors to (1) ensure proper understanding of the data; (2) be linked to other team members who have expressed interests or plans in working with those data (i.e., to ensure the efficient coordination and avoid repetition in data analyses); and (3) acknowledge the time, effort, and dedication of colleagues who have served as lead investigators. Contacts associated with core datasets are:

Bird communities – Susannah Lerman & Paige Warren

DesFert – Becky Ball

ESCA – Stevan Earl

Ground-dwelling arthropods – Kevin McCluney

Herpetofauna communities – Heather Bateman
Land Use/Land Cover – Fabio Suzart de Albuquerque
PASS – Kelli Larson
Stormwater – Nancy Grimm
Tempe Town Lake – Hillary Hartnett
Tres Rios – Dan Childers

6. Co-authorship requires having made significant intellectual contributions to the paper, including but not limited to:
 - Developing and framing the research questions, theoretical approaches, or central ideas
 - Leadership and/or extensive participation in data generation or actual research upon which a paper is based
 - Contributions to the analysis of the resulting data
 - Written contributions to the paper itself

Investigators who have led the design of core datasets (as detailed above) should be contacted (as per the previous item), but automatic authorship is not guaranteed. In many cases, co-authorship may be warranted given intellectual contributions to the dataset and related expertise. Thus, individuals who have led or contributed substantively to project design, data collection, database design, or data analysis should be given every opportunity to contribute in a significant way to publications, with co-authorship based on each individual's contributions. For further information, please check the "Best Practices for Co-Authorship" section at the end of this document.

7. Individuals responsible for data analysis and write-up should complete products in a timely manner, as defined by the project coordinator, to avoid delays in disseminating CAP LTER research. Co-authors should equally review prepared materials in a timely manner, returning feedback to the lead author within 30 days of receipt at the latest, though the program coordinator should communicate the desired timeline for feedback.
8. Co-authorship by practitioner partners is encouraged, with recognition that their time constraints in contributing to publications may at times create barriers to their inclusion. Every effort should be made to minimize those barriers. Diverse contributions of practitioners—such as local expertise, cultural knowledge, and the ability to build trust and facilitate access—should be recognized equitably in authorship. Individuals whose contributions are important but do not meet the threshold for authorship should be formally acknowledged. Academic partners should support practitioner partners in understanding authorship norms (e.g., journal guidelines, open access options). Practitioner authors may have special requirements, such as the need to have publications reviewed within their organizations. Collaborators should be sensitive to these needs and make adjustments where needed. For practitioners, the value of a publication may often lie in its visibility within their community or sector, policy influence, or recognition of organizational contributions rather than citation counts. Negotiating these differing motivations is critical. For instance, sometimes practitioners may prefer open-access or practitioner-oriented outlets (policy briefs, community reports, blogs) that can increase accessibility and relevance. Authorship discussions should begin early in the project and be revisited regularly.
9. The CAP grant and NSF support should always be acknowledged using the following statement: This material is based upon work supported by the National Science Foundation under grant number(s) DEB-2224662, Central Arizona-Phoenix Long-Term Ecological Research Program (CAP LTER). This is necessary when any of the following are true:
 - CAP funding of any kind (grad grants, research assistance, faculty summer salary,

REU, etc.) was used in research design, data collection, analysis, and manuscript preparation.

- Any CAP staff or post-docs are authors on the publication (and you would be surprised how many of these folks under our employ have forgotten to cite CAP!).
- The research made use of other CAP resources, such as CAP vehicles, datasets, laboratory facilities, lab/field technicians, staff research time, GIS/remote sensing support, etc.
- CAP funded the publication charges.
- The paper was result of intellectual effort supported by CAP, such as in the case of CAP research synthesis.
- This was research undertaken specifically to achieve research objectives stated under the CAP proposal.
- The current paper is based on past research supported by CAP in any of the ways stated above.

Acknowledging CAP in publications is critical because it is the criteria used to demonstrate publication productivity. For example, listing the NSF award number allows publications to be automatically pulled into the LTER Network Office's [Zotero](#) account).

10. When CAP data are used, the relevant data package should be cited in the References of the paper AND the data availability statement if applicable. Relevant data policies and long-term data storage and accessibility are overseen by the Information Manager ([Stevan Earl](#)).

Best Practices for Co-Authorship:

1. All co-authors should have made substantial and direct intellectual contributions to the work, according to the list above. All others who made substantial contributions should at least be acknowledged, including the lead personnel of the above datasets.
2. Although authorship of published datasets does not inherently warrant co-authorship, lead authors should communicate with the dataset leads (above) as they work with CAP datasets to ensure coordination of our research activities.
3. All authors should participate in writing the manuscript by reviewing drafts, assisting with revisions, and approving the final version. Investigators who have intellectually led the development of core datasets (noted above) should further contribute to the development and revisions of related manuscripts to warrant co-authorship, as collaboratively deemed appropriate. Non-substantive contributions to the manuscript (e.g., minor edits) do not warrant co-authorship.
4. All authors should be able to explain and or defend the general methods and results in the paper.
5. The lead author should take primary responsibility for the publication even if s/he does not have an in-depth understanding of every part of the work.
6. The lead author should invite co-authors according to these criteria and decide the order of authors in a collaborative way.
7. Recognizing significant time constraints for practitioner partners that may prevent written contributions to publications, these collaborators should be invited to co-author publications if their contributions warrant such. Alternatively, they might otherwise be acknowledged as collaborators.