

CO-AUTHORSHIP POLICY

Sources used NUTNET, Nature, and SNAPP guidelines for publications and authorship

SNAPP MORE (Monitoring Restoration) is a working group led by Jennifer Powers (University of Minnesota), Leland Werden (ETH Zurich), Laura Toro (Missouri Botanical Garden), and Manaswi Raghurama (University of Minnesota), and funded by SNAPP (Science for Nature and People Partnership). This working group aims to: 1) synthesize and analyze long-term data on multifaceted outcomes of tropical restoration, 2) review existing restoration monitoring standards/tools/frameworks/protocols, and 3) understand what restoration practitioners are monitoring.

Rationale: Our project will result in different products including (but not limited to) papers, policy briefs, databases, and websites. Our equitable co-authorship policy recognizes multiple ways all participants (working group participants, data contributors, and extended members) can contribute to these different products.

Our goals are to:

- a) **Ensure Fair Attribution:** Provide a consistent, accurate, and transparent process for attributing the contributions of each author of any product (manuscripts, policy briefs, databases, websites, etc.) that comes out of this working group.
- b) **Foster Collaboration:** Encourage participation of interested scientists, restoration practitioners, and other collaborators from diverse backgrounds and in different career stages (with junior team members being offered opportunities to lead over more senior team members).
- c) **Uphold Authorship Standards:** Ensure that each author has made sufficient contribution to the specific product to warrant authorship while recognizing that there are multiple ways to contribute.
- d) **Balance Inclusivity and Rigor:** Be inclusive while not diluting the value of authorship on a specific product.

Guidelines:

1. All working group participants and data contributors will be given the opportunity to opt-in to contribute to any of the products (manuscripts, policy briefs, databases, websites, etc.) that come out of the project.
 - a. Lead authors should circulate the product idea to all participants at early stages of development (ideally when outlines are being developed) to give participants the opportunity to opt into collaboration.
 - b. Co-authors will be invited to Zoom meetings, where they will have a chance to learn and provide feedback on the outlines and project results. In cases where participants cannot attend the meetings, a presentation of the outline will be shared with them.
 - c. Potential co-authors should signal interest to participate in writing or providing oral feedback by the stated deadline (generally within two weeks after the document has been shared).
2. Lead authors will communicate regularly with co-authors who stated interest in the product and should share drafts of analyses, figures, and text as often as is realistic and practical.
 - a. Google Drive will be used to facilitate everyone's contributions.
 - b. Ideally co-authors will use the track changes/suggest feature to include their comments, so the lead author can easily detect the suggestions made by the different co-authors.

- c. Lead authors are responsible for incorporating the feedback co-authors provide. In times of conflicting opinions among co-authors, the lead author will make the final decision.
3. An authorship rubric will be used to document the specific contributions of each individual to every product generated by the working group.
4. Co-authorship will be granted to contributors who fulfill at least two of the following criteria¹, and also approve the submitted version to be published and agree to be accountable for all aspects of the work product:
Individuals may contribute in several ways, including:
 - i. Conception, design, development and framing the project or question(s)
Originated idea for current analysis of the data; contributed significantly to framing the ideas in this analysis at early stage of the product development; participation in working group meetings
 - ii. Methodology design
 - iii. Acquisition of data
Provided a dataset being used in the product's analysis
 - iv. Data curation
 - v. Analysis and interpretation of data
Provided new code or specific suggestions for data analysis
 - vi. Data visualization
Generated models (conceptual, statistical and/or mathematical), figures, tables, maps, etc.
 - vii. Checking code
Checked code for core analyses
 - viii. Writing of the work product
 - *Writing of the majority of at least one section of the product*
 - *Writing a cover letter in the case of scientific manuscripts*
 - *Researching potential reviewers for scientific manuscripts*
 - *Creating tables from raw output from R or other statistical software*
 - *Checking citations to ensure that the summary of the literature matches the actual reference*
 - *Creating supplementary information such as tables, maps, or figures*
 - *Annotating or editing figures*
 - *Ensuring that all tables and figures are cited consistently*
 - *Checking and preparing the code for publication*
 - ix. Contributed to product writing
Edited text for clarity, provided suggestions such as restructuring ideas or logical flow, or text and citations linking to new literature areas
 - x. Funding acquisition

Contributors who do not meet at least two criteria for authorship should be listed in the Acknowledgements section. Data contributors will be invited to collaborate on products as co-authors if they also contribute in one or more of the ways listed above.

Ideas to allow collaborators to opt-in and contribute meaningfully

¹ Following the International Committee of Medical Journal Editors (ICMJE) Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals.
<https://icmje.org/recommendations/>

The first 'opt-in' email is intended to inform the entire working group and data contributors of a product that is being worked upon, and to identify who would like to contribute intellectually.

Who receives the opt-in email? For almost all products, the lead author should circulate the opt-in email to the working group and data contributors listserv. This allows all participants, even those not interested in a topic or ineligible for co-authorship, to stay informed about SNAPP MORE projects.

The opt-in email should contain the following information (see example from the NutNet network here):

1. The concept as a storyboard, including:
 - a. An abstract and outline of the framing, including questions/hypotheses, the general approach, and an outline of the introduction to illustrate concepts and linkages.
 - b. Provide just enough detail that potential co-authors can see where the product fits intellectually.
 - c. Figures and tables to illustrate the main take-home messages. These are intended to provide a thumbnail sketch of the main predictor and response variables.
2. The lead author should communicate a clear and direct request that draws on the knowledge and expertise of the co-authors and will help the lead author. Examples include asking co-authors to propose alternative hypotheses for an observed pattern, describe links to other relevant bodies of literature and add citations, or provide ideas for complementary or alternative statistical analyses. If there are confusing results or technical issues that make data difficult to interpret, an assignment could be asking co-authors to consider and respond to these. A link to a shared online spreadsheet with the authorship rubric. Those signing up to contribute to the product will add their contact information and check the areas in which they intend to contribute.
3. A final version of this spreadsheet will be published as supplementary material of scientific manuscripts detailing each author's personal contribution, for transparency of contributions ([Sauermann and Haeussler 2017](#)).
4. A two week deadline for signing up and providing the first contribution.
5. Send a reminder to working group participants before the two week deadline is approaching to ensure all participants have a chance to opt-in.

Develop products with co-authors who have opted-in

After collaborators indicate their intention to contribute to a product ("opt-in"), subsequent emails are generally sent only to the subset who have opted in. The goal of each contact should be to provide effective communication with, and solicit specific feedback from, a large group of busy co-authors. Generally, 2-3 whole-group emails are sent by the lead author through the development of a product. Standard emails during the product development include:

1. Because this process involves the lead author considering many, sometimes conflicting, perspectives, in such instances, the lead author will give their reasoning on which perspective or suggestion was accepted and why through comments in Google docs, where the manuscript would be collaboratively worked upon.
2. A new, targeted assignment and deadline. Assignments at each step depend on the needs of the lead author, but generally follow a similar recipe that includes sharing only the information necessary for co-authors to complete their assigned tasks by clearly soliciting key conceptual feedback. For example:
 - a. A first contact to the co-authors may include a summary of the first round of co-author feedback and changes made, plus a draft abstract, introduction, figures, and tables with brief text describing key results. This would then be paired with an assignment and a reasonable deadline. Example assignments include: provide thoughts on points to highlight in the discussion, provide key papers to cite, and recommend a journal to which to submit scientific manuscripts.
 - b. A second contact may include a draft manuscript and instructions to read but not text-edit, to suggest a title, and assess whether the key hypotheses and figures tell the story well.
 - c. A third contact may request reviewer suggestions, assistance with formatting, editing, and creating the author and affiliation list.

All co-authors must approve of the final version of the manuscript before it is submitted for publication.

Confirm author contributions

Before publication, the lead author should carefully review the authorship contribution table to ensure that all authors have contributed at a level that warrants authorship and that contributions are consistently attributed among authors. Has each author made contributions in at least two areas in the authorship rubric? Did each author provide thoughtful, detailed feedback on the manuscript? Authors are encouraged to contact the working group PIs about any confusion or conflicts.

Acknowledgment text

This work resulted from the Science for Nature and People Partnership (SNAPP) Monitoring Restoration Effectiveness Working Group. SNAPP is a partnership of The Nature Conservancy and the Wildlife Conservation Society.

In addition, all co-authors will be invited to provide the information from their own funding sources that either covered data collection and/or their participation in the product. A Google Sheet will be circulated to collect this information.

When SNAPP logos are required, please use the following [options](#). If logos of *The Nature Conservancy*, *Wildlife Conservation Society*, and *Conservation International* are required, we will request approval from the specific organization(s).

Co-author order

Once the co-authorship rubric has been finalized, the co-authors with the highest contributions will go after the first author in alphabetical order.