

VCR LTER Policy on Authorship

January, 2023

Introduction:

Authorship of scientific products is a critical currency in academia, influencing job, salary and tenure decisions. Despite its importance, there is wide variation across how authorship is awarded across and within scientific disciplines. This document is designed to provide a guide to factors to be considered in deciding who should, or should not be, considered authors for a scientific product supported by the VCR/LTER site.

The University of Virginia has “Guidelines for Authorship and Avoiding Authorship Disputes” (<https://research.virginia.edu/sites/vpr/files/2020-02/UVAauthorshipGuidelines.pdf>). It states:

“Authorship at UVA should be based on the following four criteria: (1) significant contribution to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; (2) drafting the work or revising it critically for important intellectual content; (3) final approval of the version to be published; and (4) agreement to be accountable for all aspects of the work in ensuring that questions related to accuracy or integrity of any part of the work are appropriately investigated.”

Here we amplify those guidelines within the context of the Virginia Coast Reserve Long-Term Ecological Research project.

Osborne and Holland (2009 <https://doi.org/10.7275/25pe-ba85>) reviewed guidelines for a variety of scientific societies and recommended that organizations should develop authorship policies. Their “best practices” emphasized early communication regarding authorship, order of authorship, and the critical role that senior researchers need to play in protecting the interests of less powerful members of the research team, particularly students. They also identified a list of roles that should be acknowledged, but not justify authorship, including administrative or funding roles, and editing or reviewing the manuscript. Some roles, such as the “manual collection of gathering data” were also included in that list, but with caveats indicating that “exceptional circumstances can alter this.”

Since 2009, there has been a growing recognition of the role that data can play in the scientific process. Duke and Porter (2013, <https://doi.org/10.1525/bio.2013.63.6.10>) provided more clarity regarding what those “exceptional circumstances” might be, including (1) How integral are the data to the manuscript? Would the manuscript be publishable without it? (2) How novel are the data? (3) Did their collection demonstrate intellectual contributions in the form of experimental design or methodology? and (4) Are the the originators of published data willing and able to participate in all aspects of the manuscript preparation?

Guidelines:

1. Communication plays a key role in avoiding potential conflicts regarding authorship. Discuss issues of authorship, including order of authorship and expectations early in the process. If circumstances change, decisions may be revisited through additional communication, but they should not be changed unilaterally by the lead author.

2. Order of names should be part of the discussion of authorship. Different disciplines may have different norms for authorship order. The UVA guidelines state:

“A primary author role should be assigned to the individual who has the greatest understanding of the project, did most of the work, and takes responsibility for the integrity of the work as a whole. “

3. Be sensitive in discussions of authorship to differences in power among researchers. It is the responsibility of the senior researcher to help protect the interests of the less powerful (e.g., students). Papers where the first author is a student are encouraged when contributions justify it.
4. When considering who should be authors, extending the recommendations of Osborne and Holland (2009), we recommend that authors make a “substantial contribution” in two or more of the following areas:
 - a. Conception or design,
 - b. Data collection and processing
 - c. Analysis and interpretation of the data, and
 - d. Writing substantial sections of the paper
5. The “data collection and processing” may include use of formally-published (online) datasets. These should always be cited, but if the criteria listed by Duke and Porter (2013) are met, we recommend an offer of co-authorship to the data authors, provided that they are able to contribute in additional areas. Often the inclusion in the writing group of someone intimately knowledgeable about all aspects of the data is very valuable.
6. Avoid “ghost” or “honorary” authors, where the contribution is in terms of providing funding or administrative oversight. Authorship should be linked to actual contributions.
7. All authors take responsibility for the accuracy of the paper, therefore submissions should not take place before all authors have agreed. They should all be able to defend and explain the final product.
8. Individuals whose contributions do not rise to the level of authorship should be listed in an Acknowledgements section, along with a description of their contributions. Published datasets should be cited if the journal permits data citations (most now do) otherwise they may be acknowledged.