

Case study

Authorship, contributorship and group coauthorship in citizen science

SOURCE: Ward-Fear, G., Pauly, G. B., Vendetti, J. E., & Shine, R. (2020). Authorship protocols must change to credit citizen scientists. *Trends in Ecology & Evolution*, 35(3), 187-190.

“To mitigate the impact of invasive cane toads on apex predators in northern Australia, we [...] trialed a novel conservation intervention called Conditioned Taste Aversion. We worked closely with the Balanggarra Rangers (representatives of the indigenous traditional owners of that region). This kind of arrangement is increasingly common in Australia. Our research teams comprised equal numbers of scientists and Balanggarra Rangers and without their participation the study would have failed. However, acknowledging that critical role was not simple. Many Balanggarra people contributed to the study – some frequently, others occasionally– and to have selected a few for authorship would have been arbitrary and culturally insensitive. Proud of their collective cultural identity, the Rangers were delighted when we added the ‘Balanggarra Rangers’ to the authorship of two papers. Appreciation for the scientific value of Traditional Ecological Knowledge and skills is rapidly growing, but exploitative historical practices render engagement between science and First Nations peoples particularly sensitive.

The Balanggarra team unquestionably warranted group coauthorship, but adding ‘the Balanggarra Rangers’ to the authorship list was difficult. We had to negotiate with editors and editorial staff to achieve that result with *Biology Letters* and *Conservation Letters*. Even then, the group name was abbreviated in citations as ‘B. Rangers’, an unintended (but culturally insensitive) consequence of citation software. In other publications, we were unable to include the Rangers as coauthors; for example, in the journal *Ecosphere* (group authors not allowed) and *The Conversation* (official academic affiliation required). Failing to recognize indigenous traditional owners because they cannot qualify for academic authorship under ICMJE rules (despite playing a pivotal role in the research) could be perceived as discriminatory.”

*International Committee of Medical Journal Editors (ICMJE) recommends that **authorship** should be based on the following four criteria:*

- 1) *“Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND*
- 2) *Drafting the work or revising it critically for important intellectual content; AND*
- 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 the accuracy or integrity of any part of the work are appropriately investigated and resolved.”¹*

According to these criteria an individual can be considered as an author only on the condition if he/she fulfils all four conditions mentioned above. Persons who have contributed to the paper

¹See <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

*but whose contribution doesn't justify authorship may be considered as contributors and their role should be described in the **contributorship** statement or acknowledgements.*

Questions for discussion:

1. Please discuss in the small group what are the pro and contra arguments for using each type of acknowledging the contribution of citizen scientists in this case. Fill in the table with pro and contra arguments.

	Pro	Contra
Authorship (according to ICMJE criteria)		
Contributorship		
Group coauthorship		
Including in acknowledgments		
<i>Other ...</i>		