



Letter to the Editor

A reply to "A response to Welden et al. (2020) The contributions of EAZA zoos and aquaria to peer-reviewed scientific research. Journal of Zoo and Aquarium Research 8(2): 133-138.

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With Welden et al. we aspired to quantify and document the substantial scientific impact made by EAZA member institutions, not to compare individual zoos and aquaria. Across the $^{\sim}300$ EAZA zoos and aquaria there is a great diversity in terms of organizational setups, with some being more complex with constellations involving close collaboration or staff-overlap between zoos and universities or similar entities. We were concerned that including research output from such complex organizations could be perceived as erroneously boosting the contribution of "zoos", and deliberately chose a conservative approach only including contributions directly attributable to zoos and aquaria. This approach was in line with a previous study characterizing the scientific impact of AZA institutions (Loh et al. 2018). As our aim was for the number of publications to reflect the research produced by staff employed and paid by EAZA zoos and aquaria, we consulted ZSL for guidance on which organizational branches of ZSL best reflected this, and followed the advice provided at the time (2018).

Also, as alluded to in our paper, it is likely that many zoos included in the study would be able to list more contributions than those tallied, by conducting more specific searches and by including papers authored by zoo staff without indication of their affiliation. We chose a reproducible methodology not requiring inside knowledge, and in doing so undoubtedly have left out a considerable number of papers. The inevitable consequence of being conservative in both regards is an underestimation of the total research output. The authors of Welden et al. have no intent to devalue the great work being done at ZSL or other institutions, and we can only commend an attempt to highlight these contributions further.