Reply on RC1
Kelly-Anne Lawler et al.

The authors thank D. Boltovskoy for his prompt and helpful review. Our responses to the three points he raised in his review are outlined below.

- We agree that providing publication information for each site as an additional variable in the dataset would be of benefit to future users. The dataset, and this publication, will be updated accordingly.
- One of the benefits of the SO-RAD database is that the samples were counted by a small number of people who use similar taxonomic concepts regarding Southern Ocean radiolarians. We do envisage this database will be a community resource with future input from other radiolarian researchers. The authors of the database are open to the idea of re-counting existing slides to include census counts from additional sites and improve coverage of the dataset. For example, sites included in the Hollis & Neil (2005) study were re-counted for inclusion in Cortese & Prebble (2015) and were subsequently included in the SO-RAD dataset. The taxonomic concepts used in some of the past studies, such as CLIMAP (1997), Morley (1977) and so on, are now outdated and may not correspond with those used in SO-RAD. Converting existing census counts to the taxonomic concepts used in the SO-RAD database may introduce taxonomic biases. Ideally, one would need to recount the original slides before including the additional data. Locating, obtaining access to, and re-analysing fossil content of those slides would require a substantial amount of time.

- Reference/s for each species identified in the SO-RAD database is/are included in Supplement 1 to this paper. These references were chosen because they provide images and/or descriptions of radiolarian specimens included in our dataset and they correspond to our taxonomic concepts. Providing images for each species included in the SO-RAD database is outside of the scope of the SO-RAD database and this publication. Three PhD candidates (Lawler, Civel-Mazens and Lowe) are involved in the SO-RAD project and will likely be including images as part of their theses and/or publications. In this vein, a companion paper to our publication (Civel-Mazens et al., in prep), will include plates for 75 species/groups of species that are used for the authors’ SO-RAD-based transfer function. Additionally, the SO-RAD dataset can be modified in the future to provide links or references to images as they are published.

References

