

# ***Interactive comment on “KRILLBASE: a circumpolar database of Antarctic krill and salp numerical densities, 1926–2016” by Angus Atkinson et al.***

## **Anonymous Referee #2**

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The manuscript is an excellent and unique data set, compiling large-scale abundance and distribution data of krill and salps from the last 90 years. It is a great initiative bringing important data sets together which were previously only available on paper log-sheets and distributed across library archives available to the science. KRILLBASE was first published in Atkinson et al. 2004 (Nature) and the current version has 50% more data. With this manuscript, the authors provide a clear link to data and metadata for those for wishing access to the krill and salp data set and provide a single, citable reference for this combined data set, which is of highly significance. The manuscript illustrates in detail the scope and coverage, with examples of potential uses of the data. The authors' have outlined the limitations of the data set and explain in detail its struc-

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ture, with caveats and guidelines on how data can be used. The material and methods used to set up the database are outlined in detail and according to the guidelines the data set is easy to use. The spatial component of KRILLBASE has already been used widely as a context and validation for various models and analysis including biogeochemical carbon cycling, krill and climate change, population connectivity, predator foraging etc. and will be of high value in the future. The initiative to compile and add a large data set of length frequency, sex and maturity stage data from scientific surveys and the fishery to KRILLBASE in parallel to the expansion of the abundance component makes this database even more valuable in the future. Combining the length frequency and abundance components provides insights into biomass and production at large scales, allowing a degree of scaling-up of acoustic-derived biomass surveys. The comprehensive data description in this paper allow potential users to understand the breath of the database and the main caveats that need to be considered to ensure that interpretations are realistic and valid.

In summary the data set and the manuscript is of high significance and quality and usable in its current format and size (rating 1-excellent)

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