Dear Dr. Jones and Dr. Richarson,

Thank you for your response and review of our paper. Following your recommendations, we submit here a revised version of our manuscript “*MeadoWatch: a long-term community-science database of wildflower phenology in Mount Rainier National Park”*, originally submitted with manuscript # SDATA-21-01109. We resubmit this version for your consideration after incorporating ideas and suggestions by editor and reviewers, which we found very positive and constructive. Find below our detailed response to the points raised (our response is highlighted in blue and italics). Finally, please note that some of the author names have been corrected (added a middle name in two cases, change spelling in one). We apologize for the confusion in this regard, we have double checked with all authors that both names and affiliations are correctly spelt now.

We also wanted to mention that we have been able to add more information on our volunteers to the dataset. This data has been anonymized (no personally identifying information is included but volunteer id is preserved). Specifically, we now provide for each hike the volunteer ID of all participants, which can be used to determine how many years volunteers contributed data, whether groups or individuals differed in their assessments and whether volunteers were trained in an ‘in-person’ orientation or in the ‘on-line only’ mode we had to implement since 2019. We believe this information may be valuable to those wishing to explore volunteer characteristics in community science projects.

All references to line numbers in this review correspond to the version with tracked changes ‘MW\_with\_tracked\_changes\_R1.docx’

Thanks for your consideration,

The authors.

Editor: Dear Dr HilleRisLambers,

Your manuscript entitled "MeadoWatch: a long-term community-science database of wildflower phenology in Mount Rainier National Park" has now been seen by the referee(s), whose comments are appended below. As you will see, the referees were supportive, but they raised important points and made suggestions for modifications, which they felt must be addressed before this work would be acceptable for publication at Scientific Data. Please note that Reviewer 2 provided some comments on an annotated pdf which I have attached to this letter - the word "redacted" in these comments refers to the removal of the reviewer's name.

Based on the recommendation from the handling Editorial Board member, we therefore invite you to revise and resubmit your manuscript, taking into account the points raised.

If you have not already done so, at this time, we ask you to use our metadata tool (https://scientificdata.metadata-creator.com) to submit key characteristics about the data described in SDATA-21-01109. Submitting your metadata at this point will result in a quicker publication process should your manuscript be accepted. Our in-house curation team uses the information submitted to finalise the machine-readable metadata for all accepted Data Descriptor manuscripts.

At the same time, we ask that you ensure your manuscript complies with our format requirements explained in full in our Submission Guidelines:

https://www.nature.com/sdata/publish/submission-guidelines

\* Please ensure that your references conform fully to the Nature style. See the examples at the link below:

\* Please add a data citation for the Dryad (and any other versions of) the dataset into your main 'References' section, as per our revised submission guidelines (https://www.nature.com/sdata/publish/submission-guidelines#data\_citations).

Response 1: *Thank you for your support and recommendations. We have double checked the references to ensure they follow the SDATA citation style. We have added a data citation for the dryad dataset in our reference section (new reference [22]).*

Editor: \* Figure 2 contains a recognizable likeness of an MW volunteer. Please confirm in the caption that the individual has provided permission for this image to be used.

Response 2: *We have checked with the portrayed volunteer (who is also one of the authors) to make sure they agree with their likeness being used. This was indeed acceptable.*

Editor: \* Please move "Data availability and use" in line 197 and "Applications" in line 182 to the Usage Notes section

Response 3: *Thank you. Both sections have been moved to the ‘Usage Notes’ section (L384 to 402).*

Editor: \* The Data Record section contains a detailed description of the file structure of the component csv (thank you for including this) but the indented paragraph formatting makes this difficult to read. Please revise this accordingly - I suggest either the idents are removed or reformat to a table.

Response 4: *Thank you, we agree and have removed the indented paragraph formatting for clarity.*

Editor: The data descriptor by Manzanedo and coauthors has been reviewed by two experts in phenological monitoring. They both note that the MeadoWatch dataset is important and valuable contribution, and that the descriptor is clear and well-written. I agree with these assessments and recommend acceptance of the descriptor following minor revisions to address the review comments (please be sure to see the editorial suggestions in the marked-up PDF provided by reviewer 2). One thing I would like to add is that I very much appreciate the efforts of this team with regard to the Technical Validation section — this is particularly well done.

Response 5: *Thank you for your very positive assessment of our work and the inputs to improve the manuscript. Please note that the recommendations by Reviewer #2, included on the pdf (mostly concerning minor editorial revisions), have been incorporated directly on the manuscript. To note these changes, we submit both a version with tracked-changes and a cleaned-up version of the manuscript.*

Reviewer #1: This was a very clear, thorough and well-written description of the dataset. I have only a suggestions for improvements:

1. Include the basic definitions for the four phenophases in this manuscript. The link back to the website to see the full array of photos and materials is great, but links break and programs fold over time. Including as much info as it practical here ensures the data lives on. You could consider including the drawings and photos for each species as a supplemental document but I suggest at least including the following in the text of the ms, which I found in one of your pdfs:

Budding – The beginning growth of the flower. The bud will turn into a flower but hasn’t yet opened.

Flowering – Usually the showy part of the plant that holds the reproductive parts (stamens and pistils). A plant is flowering when the petals have opened, and the reproductive parts are visible and available for pollination and reproduction.

Ripening Fruit – A fruit develops from the female part of the flower. As the fruit ripens, the seeds within it develop. Fruits can take many forms, from a hard, fleshy capsule to a juicy berry to a feathery tuft on the end of a seed.

Releasing Seed – After the fruit ripens, the seeds are released to begin the next generation. Fruits can be carried away (or dispersed) by gravity, by wind, or by animals.

Response 6: *Thank you for your very kind words, and for this suggestion. We fully agree with the recommendation and have included the definitions of each phenophase in the manuscript in L143 to 154, in the “Data collection and volunteer training” section. We also added the informational brochures, which include illustrations and pictures of all species and phenophases as supplementary information (now Annex 1). A mention of Annex 1 has been included in L156-157.*

Reviewer #1: 2. Regarding the MW\_SDDall.csv file, there are fields for a calibration parameter and a PredSDD. Line 268 of the manuscript refers readers to "the topographical model described above" to understand these fields, but I saw no such thing described in the text.

Response 7: *Thank you, we apologize for this variables being unclear. The PredSDD metric was described and used in Kroiss & HilleRisLambers 2015 Ecology, but this was not stated explicitly. We have added a definition of this value in L326-328, which reads:*

*“using a linear model that included combination of site location (code) and year. For more information on this model see [16].”*

Reviewer #1: 3. The field for "Site\_Num" in a few of the files seems unnecessary as this number is part of the "Site\_Code".

Response 8: *That is correct. We have removed the ‘Site\_Num’ column from the dataset, to avoid any confusion.*

Reviewer #1: 4. I suggest renaming the "QA/QC" field as this is misleading. It only indicates whether the observer was a scientist or volunteer. As the manuscript states, many of the volunteers are more botanically trained than the scientists, so whether the observer of the record was a paid scientist or unpaid volunteer in itself is not a fair measure of QA/QC! ;)

Great job!

Response 9: *Thank you! That is a great point. We have changed the “QA/QC” field to “Scientist\_or\_volunteer”, also changing the variables from 1-0 (which were non-descriptive) to ‘Scientist’ and ‘Volunteer’, which are self-explanatory.*

Reviewer #2: The manuscript is well written and describes a valuable ongoing effort to record changes within and among years in phenology of a suite of wildflowers. It does a good job of describing the project, has good metadata, and is of interest as a project that makes good use of citizen scientists (and compares their data collection with that of scientists). The figures are good, and the appropriate literature is cited. The data will be of interest and use to a broad audience, and the authors should be commended for the thorough job in making them available.

I have made some minor editorial suggestions on the PDF.

Response 10: *Thank you for your very kind words and the value you see in our work, as well as the careful revision of the PDF. To avoid repeating here every note on the pdf, we have made the suggested changes directly on the manuscript. Changes to the text following the recommendations of the reviewer can be seen in the tracked-changes version of the manuscript. Also, thanks a lot for catching up the misspelling of some of the authors’ names, apologies for this oversight.*