# Data paper template

**Scope Guidelines**

**Data paper** submitted to***Journal of Resources and Ecology*** should provide detailed descriptions of valuable research datasets, including the methods used to collect the data and technical analyses supporting the quality of the measurements. Data paper focus on helping others reuse data, rather than testing hypotheses, or presenting new interpretations, methods or in-depth analyses. Relevant datasets must be deposited in an appropriate public repository (Recommended repository: <http://ecodb.cern.ac.cn/>) prior to Data paper submission, and their completeness will be considered during editorial evaluation and peer review. The data must be made publicly available without restriction in the event that the Data paper is accepted for publication (excepting reasonable controls related to human privacy issues or public safety).

### Title

Be as concise as possible Times New Roman, 18-pt, bold

### Authors

Lastname Firstname 1, Lastname Firstname 2,\*

Arial, 10-pt, the letters in firstname should be capitalized.

**Affiliations**

1. Institution, City, Province (post code), Country;

2. Institution, City, Province (post code) ,Country;

3.

Foundation:

First author: Lastname Firstname , E-mail: address

\*Corresponding author(s): Lastname Firstname , E-mail: address

Times New Roman, 8-pt

### Abstract and Key words

*450 words maximum*

The Abstract should succinctly describe the study, the assay(s) performed, the resulting data, and their reuse potential, but be careful to make any claims regarding new scientific findings.

### Arial, 9-pt

### [The author also need to provide a Chinese version of Title、Authors、Affiliations、Abstract and Key words ]

### 1 Introduction/Overview [Arial, 11-pt, bold]

The Introduction/Overview should provide an overview of the study design, the assay(s) performed, and the data generated, including any background information of previous work and the literature, and should cite literature as needed. The section should also briefly outline the broader goals that motivated collection of the data, as well as their potential reuse value. We also encourage authors to include a Table that provides a schematic overview of the study and assay(s) design like below.

### [Times New Roman, 10-pt, this format applies to the rest of the article]

**Table 1 Database/Dataset Profile** [Arial, 9-pt; fields in red are optional]

|  |  |  |  |
| --- | --- | --- | --- |
| **English title** | (e.g., A suspended solids concentration inversion dataset for Poyang Lake, China 2000 – 2013) | | |
| **First author** | Lastname Firstname (E-mail: [author@mail.cn](mailto:author@mail.cn)) | | |
| **Corresponding author** | Lastname Firstname (E-mail: [author@mail.cn](mailto:author@mail.cn)) | | |
| **Data author(s)** | 1st Author, 2nd Author ...  (Data authors may differ from authors of the manuscript. All names should be listed in an agreed order) | | |
| **Foundation** | Foundation with grant number | | |
| **Time range** | A specific time period (e.g., 2010; 2000 – 2013) | | |
| **Geographical scope** | Longitude & latitude; Geographical scope; Specific areas | | |
| **Spatial resolution** | (e.g., 500 m) | **Data volume** | (e.g., 10 MB, 20000 entries) |
| **Data format** | (e.g., \*.exl,\*.shp, \*.kmz, \*.zip) | | |
| **Data service system** | Website (e.g., <http://ecodb.cern.ac.cn/>) | | |
| **Dataset/Database composition** | Dataset composition should be succinctly described here. | | |

Times New Roman, 9-pt

**2 Methods (Data collection and processing**)

The Methods should include detailed text describing all steps or procedures used in producing the data, including full descriptions of the experimental design, data acquisition assays, and any computational processing (e.g. normalization, image feature extraction). Related methods should be grouped under corresponding subheadings where possible (2.1, 2.2……), and methods should be described in enough detail to allow other researchers to interpret and repeat.

### Authors should cite previous descriptions of the methods under use, but ideally the method descriptions should be complete enough for others to understand and reproduce the methods and processing steps without referring to associated publications.

### In this Section, it is encouraged to provide figures such as flowchart for illustration purposes, it is not recommended to derive new findings from the datasets or organize arguments for novel research methods.

### If the study is to process existing datasets, authors should provide accessible data sources, such as a web link for online material.

### 3 Data records

The Data records section should be used to explain each data record associated with this work, including the repository where this information is stored (Recommended repository: http://ecodb.cern.ac.cn/), and to provide an overview of the data files and their formats. Each external data record should be cited as described below. A data citation should also be placed in the subsection of the Methods containing the data-collection or analytical procedure(s) used to derive the corresponding record.

Tables should be used to support the data records, and should clearly indicate the samples and subjects (study inputs), their provenance, and the experimental manipulations performed on each. They should also specify the data output resulting from each data-collection or analytical step, should these form part of the archived record.

### 4 Technical validation

The Technical validation section should present any experiments or analyses that are needed to support the technical quality of the dataset. Authors must provide information to justify the reliability of their data. This section should be supported by figures and tables, as needed. *This is a required section*.

Possible content **may include:**

* Experiments that support or validate the data-collection procedure(s) (e.g. Negative controls, or an analysis of standards to confirm measurement linearity).
* Statistical analyses of experimental error and variation.
* General discussions of any procedures used to ensure reliable and unbiased data production, such as blinding and randomization, sample tracking systems, etc.
* Any other information needed for assessment of technical rigour by the referees.

Generally, this **should not include:**

* Follow-up experiments aimed at testing or supporting an interpretation of the data.
* Statistical hypothesis testing (e.g. Tests of statistical significance, trend analysis, etc.).

### 5 Usage notes

The Usage notes should contain brief instructions to assist other researchers with reuse of the data. This may include discussion of software packages that are suitable for analysing the assay data files, suggested downstream processing steps (e.g. normalization, etc.), or tips for

integrating or comparing the data records with other datasets. Authors are encouraged to provide code, programs or data-processing workflows if they may help others understand or use the data.

For studies involving privacy or safety controls on public access to the data, this section should describe in detail these controls, including how authors can apply to access the data, what criteria will be used to determine who may access the data, and any limitations on data use.

### 5.1(2.3……) Code availability

*This section is optional*

For all studies using custom code in the generation or processing of datasets, a statement must be included under the subheading "Code availability", indicating whether and how the code can be accessed, including any restrictions to access. This section should also include information on the versions of any software used, if relevant, and any specific variables or parameters used to generate, test, or process the current dataset.

### 6 Discusion

The Discusion section should discuss the main content of the article.

### 7 Conclusions

The Conclusions section should summarize the article, and highlight the important issues.

### Acknowledgements

*This section is optional*

The Acknowledgements should contain text acknowledging non-author contributors. Acknowledgements should be brief, and should not include thanks to anonymous referees and editors or effusive comments. Grant with contribution numbers should not be acknowledged here (They should be listed in the Foundation section at the first page).

### Author contributions

Each author’s contribution (e.g., database maintenance) to the work should be described briefly here.

### Competing interests

A competing interest statement is required for all papers accepted and published in *Journal of Resources and Ecology*. If there is no conflict of interest, a statement declaring this must still be included in the manuscript in the end.

**Depositing your data to an appropriate repository**

Your ***JRE*** Data paper manuscript will not be sent to review unless the dataset(s) described therein have been deposited in an appropriate public repository (Recommended repository: http://ecodb.cern.ac.cn/).

## Citing data

An author list and title for the dataset should be included in the data citation, and should reflect the author(s) and dataset title recorded at the repository. If author or title is not recorded by the repository, these should not be included in the data citation. The name of the data-hosting repository, URL to the dataset and year the data were made available are required for all data citations. For DOI-based (e.g. figshare or Dryad) repositories the DOI URL should be used (http://ecodb.cern.ac.cn/). For first submissions, authors may choose to include just the accession number. ***JRE*** staff will provide further guidance after peer-review.

### Figures and Tables

### Figures, including photographs, should be referred in the article text as Fig. 1, Figs. 2–4. References to tables should not be abbreviated, i.e. Table 1. Supplementary Information (e.g. Supplementary Table 1, or Supplementary File 2, etc.). All lettering and symbols must be clear and easy to read. Legends should provide enough details for the figure or table to be understood without reference to the main text. Information (e.g., keys) that appears in the figure should not be duplicated in the legend. Figures and Tables should be presented in the manuscript file with their legends and embedded in a relevant position in the main text. Full instructions on preparing your figures and tables see below.

### Figures

### High-quality color graphics and high-resolution, high-quality color photos are strongly encouraged for JRE papers. The following are notes on styles and fonts required for figures appearing in JRE.

### • Always use Arial or Helvetica as the font for all in-figure text, keys, and axis labels, etc.

### • Graphics should be in color wherever possible, on a white background. Colors should represent the same thing across all figures (e.g., if red represents temperature in Fig. 1, the same color should be used in other figures in the paper).

### • If possible, please use color schemes that are distinguishable by those with color-blindness (e.g., avoid using reds and greens of the same intensity).

### • Photos must be high resolution (300 dpi for color, 600 dpi for grayscale and 1200 dpi for line art; original file size at least 1.5–2 MB or more).

### • For multipart figures, label each part using parentheses and lowercase lettering, preferably in the top-left corner (but always in the same position in each panel) – e.g. (a) (b) (c) – these should be in black or white font, to aid visibility; do not include opaque circles or squares under these panel designators.

### • For all in-figure text, keys, and axis labels, capitalize the first letter of the first word only – the rest should be lowercase, unless a place name or proper name, which would normally be capitalized.

### • Use SI units throughout; selected exceptions and examples: hectares (ha), degrees Celsius (°C), metric tons (t), liters (L), seconds (s), minutes (min), hours (h), years (yr).

### • Except for accepted unit abbreviations such as above, spell out all words if there is space (e.g. ‘Agriculture’, not ‘Agric’).

### • Use scientific notation for very large or very small value, replace “2e-05” with “2×10–5”.

### • Follow journal style conventions for units in axis labels (e.g. replace “square kilometers per year” with “km2 yr–1”).

### • Individual panels within figures should not be set off by boxes or other edging.

### • Don’t forget to add axis labels and units to graphs. For maps, add scale bars and compass roses. For aerial, macro, or micro photographic images, add scale bars as appropriate.

### • Do not use grid lines in graphs unless absolutely necessary.

### • Use minus signs (–), not hyphens (-), to indicate negative numbers, including those in sub/superscripts. Use the minus sign also to separate ranges (e.g., 15–25 days; March–May)

### • Each photo and figure should be submitted as a separate electronic file in editable format (AI, jpg or TIFF files preferred).

### • Use of color for the graphic elements (lines, symbols, etc.) is welcomed, particularly where this helps readers to understand what is being illustrated.

### • Use solid symbols for plotting data if possible, unless data overlap or there are multiple symbols; make symbols large enough that they will be distinguishable when the figure is reduced.

### • Do not use three-dimensional graphics unless absolutely necessary.

### • Scales or axes should not extend beyond the range of the data plotted.

### • Standard line weight (thickness) is 0.5 points for boxes, graphs, etc., but this can be increased to up to 2 points for line graphs.

### • Each figure needs an explanatory caption; all captions should be listed at the bottom of the graph.

### • Each caption should be under 80 words, and preferably under 40. Be clear and concise. Information in overlong captions should be integrated as a note after the caption.

### • All the maps of China should be based on the standard map.

### Tables

### Authors are encouraged to provide one or more tables that provide basic information on the main ‘inputs’ to the study (e.g. samples, participants, or information sources) and the main data outputs of the study. Tables in the manuscript should generally not be used to present primary data (i.e. measurements). Tables containing primary data should be submitted to an appropriate data repository (Recommended repository: http://ecodb.cern.ac.cn/).

### Authors may provide tables within the Word document. Legends, where needed, should be included in the Word document. Generally, a Data Descriptor should have fewer than ten tables, but more may be allowed when needed. Tables may be of any size, but only tables that fit onto a single printed page will be included in the PDF version of the article (up to a maximum of three).

### Tables of reasonable size and sidebars (panels) are welcomed; very large tables may have to be displayed as supplementary materials of the paper.

### References (examples)

### Article in Journal

### Mathews R, Richter B D. 2007. Application of the indicators of hydrologic alteration software in environmental flow setting. *Journal of the American Water Resources Association*, 43(6): 1400–1413.

### Romme W H, Allen C D, Bailey J D, et al. 2009. Historical and modern disturbance regimes, stand structures, and landscape dynamics in pinyon–juniper vegetation of the western United States. *Rangeland Ecology & Management*, 62(3): 203–222.

### Cao W, Liu L L, Wu D. 2018. Soil erosion changes and driving factors in the Three-River Headwaters region. *Acta Prataculturae Sinica*, 27(6): 10–22. (in Chinese)

### Book

### Ehrhart L M, Bagley D A, Redfoot W E. 2003. Loggerhead turtles in the Atlantic Ocean: Geographic distribution, abundance, and population status. Washington DC, USA: Smithsonian Books.

### Chapter in Book

### Lambers H, Chapin III F S, Pons T L. 2008. Life cycles: Environmental influences and adaptations. In: Lambers H (ed.). Plant physiological ecology. New York, USA: Springer.

### Conference Proceedings

### Schaefer M. 1975. Experimental studies on the importance of interspecies competition for the lycosid spiders in a salt marsh. Proceedings of the 6th International Arachnological Congress, 19–20 Mar 1974, Amsterdam. Amsterdam, The Netherlands: Nederlandse Entomologische Vereniging.

### Scientific and Technical Reports and their Parts

### IPCC (Intergovernmental Panel on Climate Change). 2007. Climate change 2007: Synthesis report. Contribution of Working Groups I, II, and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva, Switzerland: IPCC.

### Grant G E, Lewis S L, Swanson F, et al. 2008. Effects of forest practices on peak flows and consequent channel response: A state-of-science report for western Oregon and Washington. Portland, USA: US Department of Agriculture.

### Conference Presentations (Papers) and Abstracts

### Smith R D.1992. Little brown birds are really interesting. In: Jones X (ed.). Interesting birds of North America. Proceedings of the symposium at the 112th meeting of the American Birding Society, 1992 Mar 2-4, Los Angeles, CA. Washington DC, USA: American Birding Society.

### Dissertations, Theses, and Their Parts

### Feth J A. 1947. The geology of Northern Canelo Hills. Diss., Tucson, USA: University of Arizona.

### Websites

### IUCN (International Union for Conservation of Nature). 2007. Why is biodiversity in crisis? www.iucn.org/iyb/about/biodiversity\_crisis. Viewed 28 Oct 2015.

### NSF (US National Science Foundation). 2015. National Science Foundation Research

### Traineeship Program. Washington DC: NSF. www.nsf.gov/publications/pub\_summ.jsp?ods\_key=nsf16503. Viewed 30 Nov 2015.

### Xiong J, Li W. 2014. Tourism is booming in Shiyan. Beijing, China: South-to-North Water Diversion Office. www.nsbd.gov.cn/zx/zj/2014zxgcqxts/9/201411/t20141119\_361499.html. Viewed 4 Dec 2015.

### Poole A. 2005. The birds of North America online. Ithaca, NY: Cornell Laboratory of Ornithology. http://bna.birds.cornell.edu/BNA. Viewed 16 Sep 2009.

### Newspaper Articles

### Baker J K. 1999. Switch to dollar bodes ill for Ecuador. Washington Post, Sep 12.

## Citing Data

Zhang Q L, Chen J Y, Lin L B, et al. 2018. Characterization of ladybird Henosepilachna vigintioctopunctata transcriptomes across various life stages. Figshare. [DOI.org/10.6084/m9.figshare.c.4064768.v3](https://doi.org/10.6084/m9.figshare.c.4064768.v3).