

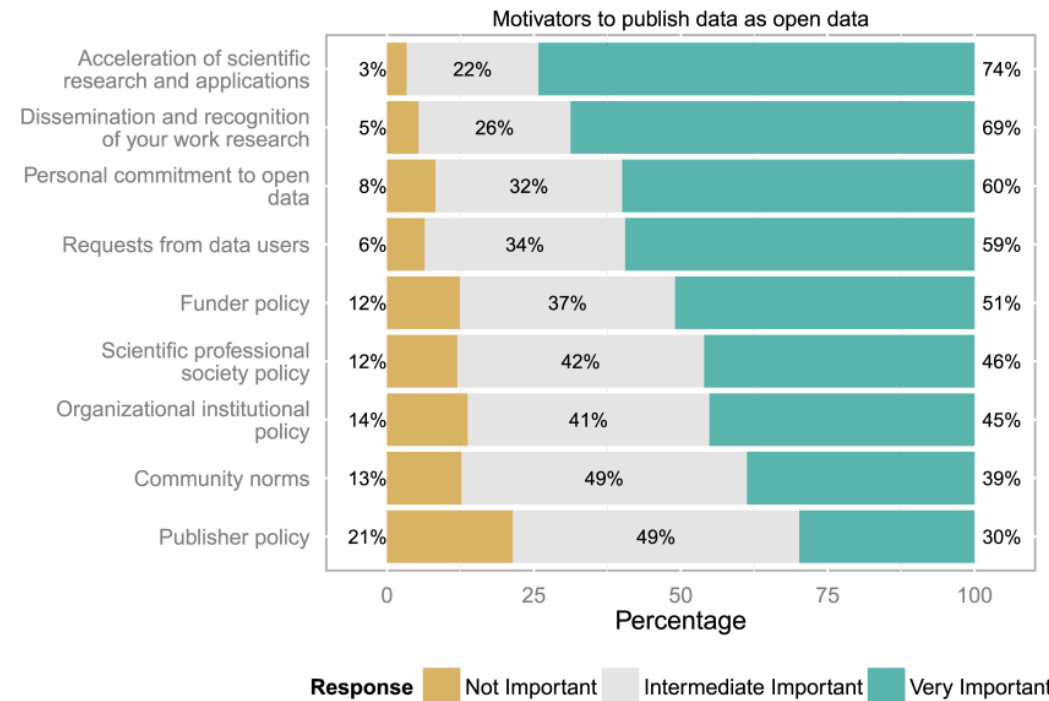
Introducing the Springer Nature Data Support Services

SPRINGER NATURE



What motivates researchers to share data?

- **97%** - to accelerate research and its applications¹
- **96%** - increased visibility and discovery of their research data^{1,2}
- **95%** - increased usability of their research data²
- **>90%** - credit mechanism for deposit of data^{1,2}
- **88%** - to comply with funder policy¹



1. Schmidt et al. (2016). PLoS ONE 11(1): e0146695. doi:10.1371/journal.pone.0146695 (n=1248) (& image credit, CC BY)

2. Nature Publishing Group (2014): Data publication survey - raw data. figshare. <http://dx.doi.org/10.6084/m9.figshare.1234052> (n=387)

Evidence of the benefits of data sharing

Data archiving can double the publication output of studies

A study of 7,000 NSF and NIH research projects in social sciences found that:

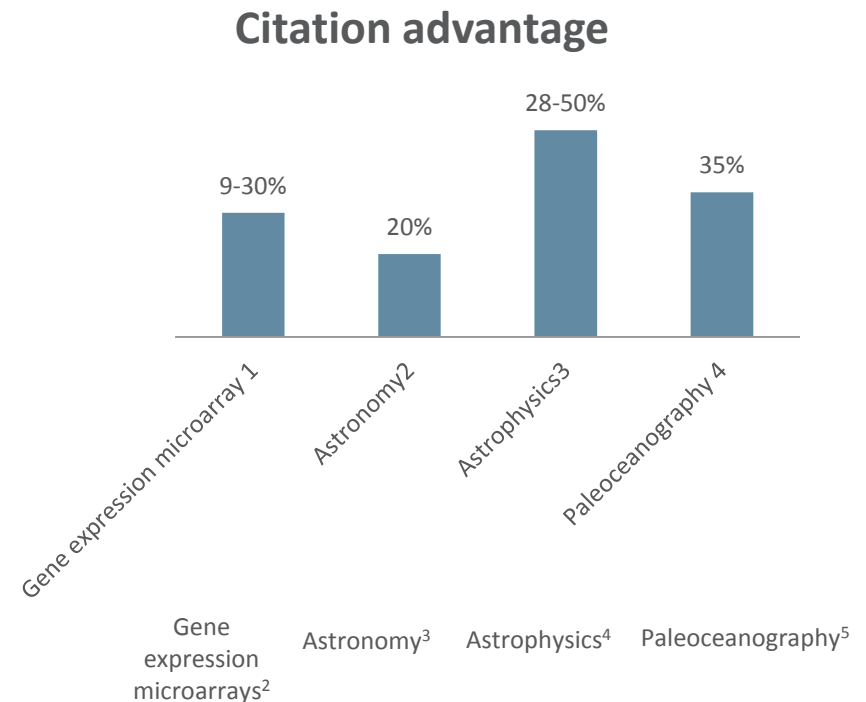
- Those with archived data resulted in 10 (median) publications;
- Those without archived data resulted in 5 publications¹

Principal investigators who archived their data were more likely to publish more articles per project, and to see others build on their work

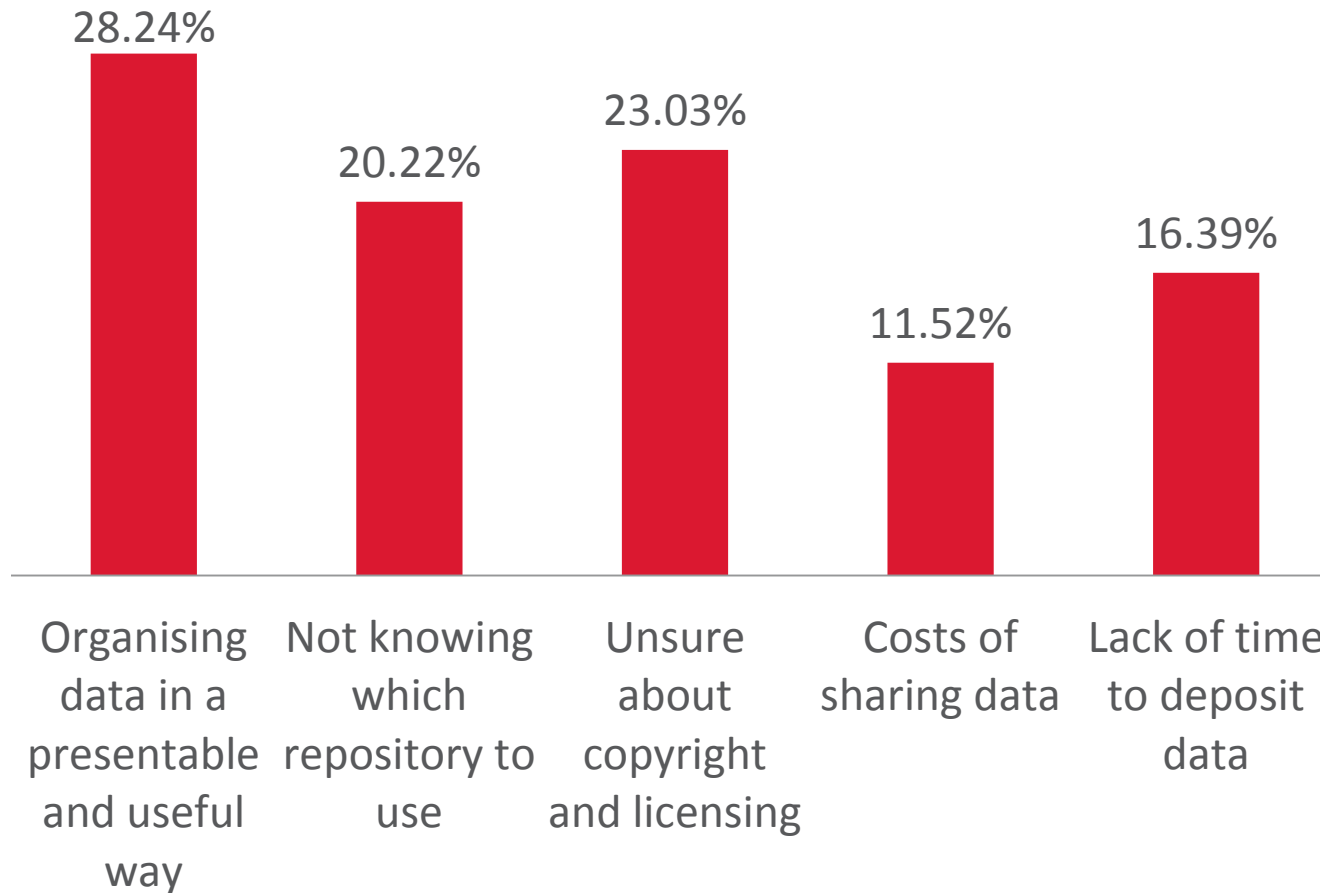
1. Pienta et al (2010) <https://deepblue.lib.umich.edu/handle/2027.42/78307>
2. Piwowar & Vision (2013) <https://doi.org/10.7717/peerj.175>
3. Henneken & Accomazzi (2011) <https://arxiv.org/abs/1111.3618>
4. Dorch et al (2015) <https://arxiv.org/abs/1511.02512>
5. Sears et al (2011) https://figshare.com/articles/Data_Sharing_Effect_on_Article_Citation_Rate_in_Paleoceanography/1222998/1

Research articles with open data are cited up to **50% more**

Analysis shows that articles with data available are cited 9-50% more, depending on the field



What problems do authors have in sharing datasets?



From a Springer Nature researcher survey. Total respondents: 7719

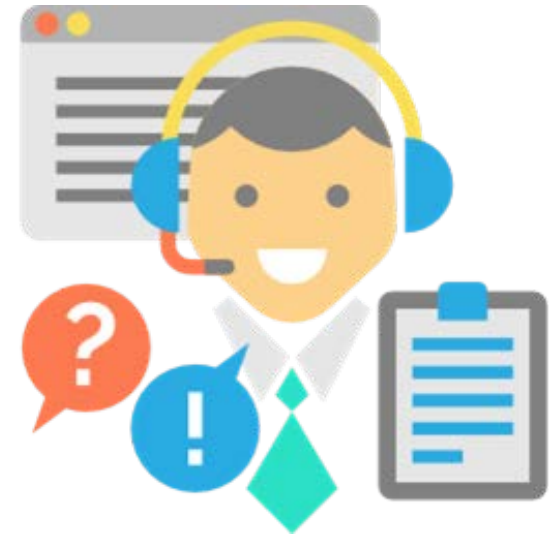
Research Data Support helpdesk @Springer Nature

Support for editors:

- Identifying and implementing a data policy
- Identifying data repositories for their audience(s)
- Dealing with peer review of sensitive/human data
- Good practice for data-literature integration

Support for authors:

- Information on the data policy of their target journal(s)
- Identifying and using data repositories
- Compliance with funders' and institutions' data sharing policies
- Data reporting standards



Authors and editors can email researchdata@springernature.com to receive advice and support free of charge

Introducing the Springer Nature Data Support Services

To help Springer Nature authors and journals follow good practice in sharing and archiving of research data, we're piloting optional data deposition and curation services.

Researchers
submit their
data files
securely

The Research
Data team
curates the data
and metadata

The data are
published and
linked to the
author's paper

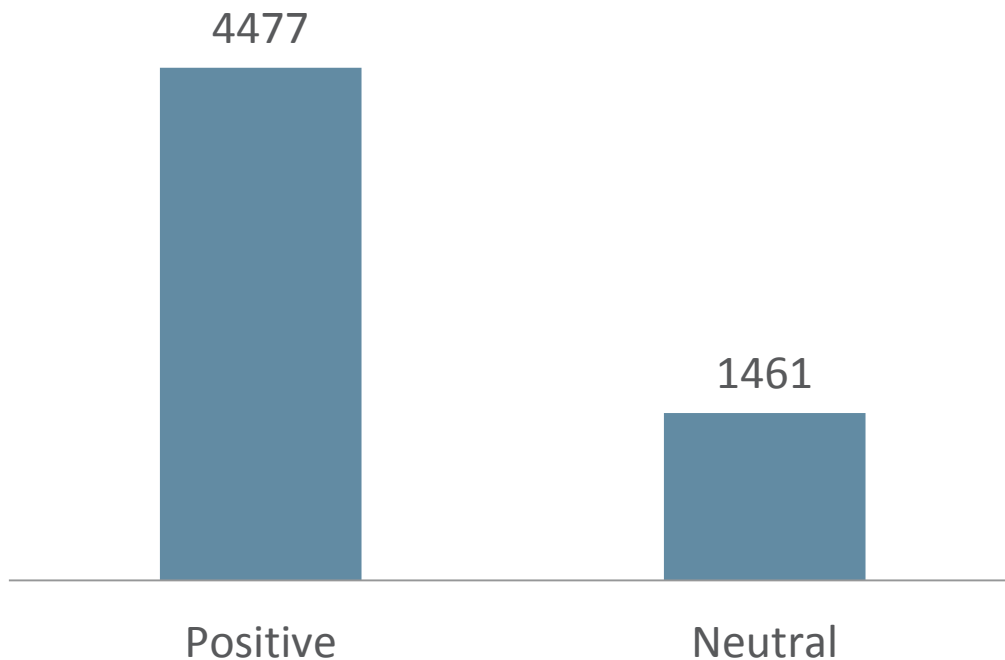
More information is available on our website here:

<http://www.springernature.com/gb/group/data-policy/data-support-services>

Responses from Springer Nature author survey

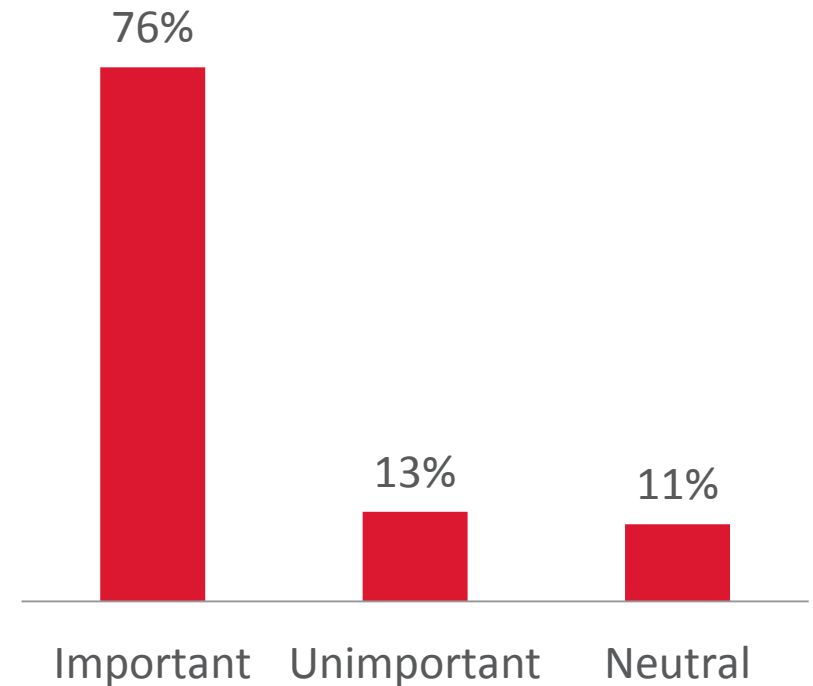
How interested are authors in a service that helps them to deposit their data in a repository?

Authors



How important is data discoverability to authors?

Authors



Total respondents = 7656

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Helpdesk and Data Support Services features

SERVICE FEATURES	Helpdesk	Data Discovery Service
Advice on finding repositories and complying with policies	●	●
Advice on writing data availability statements and data citation	●	●
Easy upload to Springer Nature figshare repository up to 50GB	○	●
Check for presence of sensitive information	○	●
Ensure accessibility of files for end users	○	●
Ensure files match metadata and associated publications	○	●
Organise files into a logical structure and collections	○	●
Copy edit submitted metadata including titles and dataset description	○	●
Content categorised according to industry standard definitions	○	●
Author lists matched to associated publications	○	●
Digital Object Identifier (DOI) generated for each dataset	○	●
Datasets embargoes with private, anonymous access enabled	○	●
Link and synchronize dataset release to associated publications	○	●
Assessment report and feedback from Research Data Editor	○	●
Extra data storage for files >50Gb available on request	○	●

Research Data Support Services

Benefits to researchers

- Easy compliance with funder and institution policy
- Promotes citation and reuse of their data – by themselves and the community
- Speeds repository selection and deposition
- Enhances their publications with large datasets via figshare




Benefits to journals/editors

- Well managed, coordinated release of data supporting publications & reviewer access
- Tailored, consistent approach to preparing Data availability statements
- Enables strengthening of data availability policies
- Saves time, promotes reproducibility
- Reduces production costs potentially – easily hosts 50Gb files and larger

Benefits to funders and institutions

- Less need to establish research data management services
- Consistent approaches to data sharing and linking and compliance
- Quality, sustainable curation and archiving
- Consistent editorial standards

Before editing – researcher's electronic lab notebook



labarchives BioMed Central Edition anonymous user   

DOI Viewer


DOI :10.6070/H4W37T8Q
Title :banded mongoose close calls
Created by :Jansen, David
Published by :LabArchives
Published on :Nov 14, 2012

- ▶ banded mongoose close calls
 - ▶ Experimental Data
 - ▶ call recordings

call recordings

Page Tools  

· David Jansen · Nov 13, 2012 @07:03 PM GMT



call_recordings.zip(13 MB) ----- David Jansen PhD student in Vocal communication in banded mongoose Institute of Evolutionary Biology and Environmental Studies University of Zurich Winterthurerstr. 190 8057 Zurich Switzerland tel. : +41 (0)44 635 52 81 (office) mobile: +41 (0)76 760 74 88 (mobile) e-mail: david.jansen@ieu.uzh.ch e-mail: david.awam.jansen@gmail.com

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After data curation

Download all (15.96 MB) Share Cite Embed + Collect (you need to log in first) 495 files 1/31 < > ☰

Single syllable close-call vocalisations of wild banded mongoose (*Mungos mungo*) population

28.02.2017, 11:41 by David AWAM Jansen, Michael A Cant, Marta B Manser

Acoustic analysis from well-habituated adult (≤ 1 year) banded mongooses, recorded at a distance of approximately 1 to 2 m.

Abstract: All animals are anatomically constrained in the number of discrete call types they can produce. Recent studies suggest that by combining existing calls into meaningful sequences, animals can increase the information content of their vocal repertoire despite these constraints. Additionally, signalers can use vocal signatures or cues correlated to other individual traits or contexts to increase the information encoded in their vocalizations. However, encoding multiple vocal signatures or cues using the same components of vocalizations usually reduces the signals' reliability. Segregation of information could effectively circumvent this trade-off. In this study we investigate how banded mongooses (*Mungos mungo*) encode multiple vocal signatures or cues in their frequently emitted graded single syllable close calls.

1,024-point fast Fourier transformation (Hamming window; time step: 0.07 ms; overlap: 98.87%; frequency range: 44.1 kHz; frequency resolution: 43 Hz) was conducted for all calls, using Avisoft.

REFERENCES
 • <https://dx.doi.org/10.1186/1741-7007-10-97>

KEYWORD(S)
 Vocalisation Vocalization mammal Animal Behaviours herpessidae Interaction vocal cue syllable close call segregation of information graded calls banded mongoose mungos mungo wild population segmental concatenation social structure voice

LICENCE
 CC BY

Now includes

- Link to associated, peer-reviewed publication
- Consistent titles and author names
- Clear citation information
- Files preview-able in browser
- Metadata for each file in the archive
- Contextual information
- Clear license/terms of use
- Dataset description/abstract
- Rich usage statistics

Example output of the Data Discovery Service

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video | For Authors

Research > Letters > Article

NATURE | LETTER

Early members of 'living fossil' lineage imply later origin of modern ray-finned fishes

Sam Giles, Guang-Hui Xu, Thomas J. Near & Matt Friedman

Affiliations | Contributions | Corresponding author

Nature (2017) | doi:10.1038/nature23654
Received 05 December 2016 | Accepted 18 July 2017 | Published online 30 August 2017

PDF | Citation | Rights & permissions | Article metrics

Modern ray-finned fishes (Actinopterygii) comprise half of extant vertebrate species and

are widely distributed (around 20% of all vertebrates) and have the earliest appearance in the fossil record (around 250 million years ago). Cretaceous fossils from the Middle Triassic show that important primitive features of modern ray-finned fishes were already present roughly 250 million years ago, about 25 million years before the first appearance of modern ray-finned fishes (3, 4). The discovery of these fossils and their close relationship to modern ray-finned fishes diversification. A shift in the actinopterygian lineage is

Data availability

The CT data that support the findings of this study, as well as the surface meshes, are available in figshare⁴³ with the identifier <https://doi.org/10.6084/m9.figshare.c.3814360>. All other data are available in Supplementary Information.

References

Main • Methods • References • Acknowledgements • Author information • Extended data figures and tables • Supplementary information • Comments

1. Hurley, I. A. *et al.* A new time-scale for ray-finned fish evolution. *Proc. R. Soc. Lond. B* 274, 1031–1036 (2007)

Read a blog post on the first two datasets to be published by the services here: <https://blogs.biomedcentral.com/bmcblog/2017/09/01/fishy-fossils-and-lemur-survival-cases-studies-in-data-curation/>

figshare

search on figshare

Browse Upload Sign up Log in

Fukangichthys: CT scan data and surface files from middle Triassic fossil scanilepiform fish

77 views | 1 citations

Published on 30 Aug 2017 - 17:30

This collection includes: CT scan data (.vol files) and associated metadata (.xtekcct) files for reconstructing the specimens Fukangichthys IVPP V4096.6 and Fukangichthys IVPP V4096.13; a reconstructed Mimics file (.mcs file) for Fukangichthys IVPP V4096.6 and 3D surface files (.ply) for each specimen.

X-ray computed microtomography scanning for these specimens was performed at IVPP, Chinese Academy of Sciences (CAS), Beijing, China, using a 225 kV microCT. After scanning, data were segmented in Mimics (biomedical.materialise.com/mimics; Materialise, Leuven, Belgium). Surface meshes were then exported into and imaged in Blender (blender.org; Stitching Blender Foundation, Amsterdam, the Netherlands).

Most scanilepiform fossils are heavily compressed, limiting investigations to external anatomy. The Middle Triassic Fukangichthys represents an important exception. High-resolution micro computed tomography (μ CT) of three-dimensionally preserved skulls

Read more

CITE THIS COLLECTION

Giles, Sam; Xu, Guang-Hui; Near, Thomas J.; Friedman, Matt (2017): Fukangichthys: CT scan data and surface files from middle Triassic fossil scanilepiform fish. figshare.
<https://doi.org/10.6084/m9.figshare.c.3814360>
Retrieved: 09:28, Sep 07, 2017 (GMT)

READ THE PEER-REVIEWED ARTICLE:
Early members of 'living fossil' lineage imply later origin of modern ray-finned fishes

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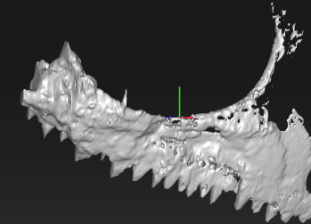
AUTHORS
Sam Giles
Guang-Hui Xu
Thomas J. Near
Matt Friedman

CATEGORIES

- Paleontology
- Palaeontology (incl. Palynology)
- Animal Systematics and Taxonomy
- Phylogeny and Comparative Analysis
- Evolutionary Biology

KEYWORD(S)

living fossil ray-finned fishes
Ray-finned fish Actinopterygii
Palaeozoic taxa taxonomy evolution
paleontology paleontology
paleontology Paleozoic ray-finned



Author feedback on the Data Support Services

I had a really great experience using the Springer Nature Data Support Service. The process was straightforward, and the team were very helpful at guiding me through the process and dealing with my enquiries. The resultant data package is very easy to access and navigate. I opted to use the service because I wanted to make sure that the data accompanying my paper are as accessible as possible, and this presents an ideal way of facilitating access.

Dr Samantha Giles, Research Fellow, University of Oxford
(<https://doi.org/10.1038/nature23654>)

The Data Support Services provided an uncomplicated yet highly efficient way to share and archive my data. The whole process went smoothly and the team was always available and helpful. I really enjoyed the minimal effort and time I spent on the data submission, which resulted in high quality outputs.

Dr Hasina Josué Rakotoniaina, University of Göttingen
(<https://doi.org/10.1186/s12898-017-0140-1>)

For more information on the Data Support Services and Research Data support activities at Springer Nature:

Email: researchdata@springernature.com

Website: <http://go.nature.com/ResearchDataServices>

Community portal: <https://researchdata.springernature.com/>