

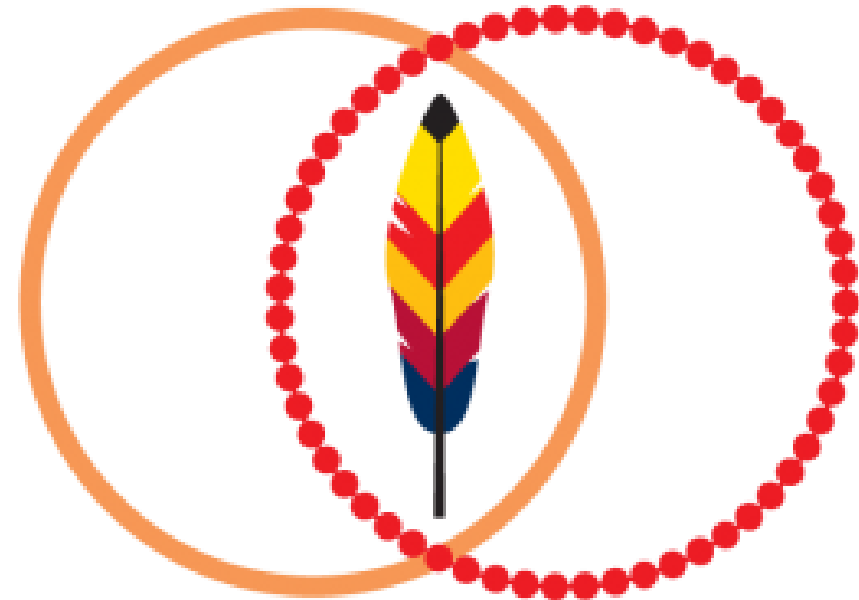
# Research Data Management (RDM) Brown Bag Information Series

## Session 3 – Depositing Your Research Data in a Repository

December 14, 2022

# Land acknowledgement

"To begin, I would like to acknowledge that Queen's University is situated on traditional Anishinaabe and Haudenosaunee Territory. I am grateful to live, learn and play on these lands. I acknowledge and respect, the Anishinaabe and Haudenosaunee peoples and I am committed to taking responsibility for redressing the injustices that enabled me to be here today."



# Hello! Meet the Queen's Data Champions



**Alicia Cappello**  
Research Data  
Librarian, Queen's  
University Library



**Meghan Goodchild**  
Research Data  
Management Systems Librarian,  
Queen's University Library



**Elise Degen**  
Communications &  
Relations, Centre for  
Advanced Computing



**Rebecca Pero**  
Information and Project  
Coordinator, Vice-Principal  
Research Portfolio



**Matt Clapp**  
Manager, Data Platform  
Services, Information  
Technology Services

## Featured Guest Presenter



**Robert Montgomerie**  
Professor Emeritus of Biology  
Queen's University

# Agenda

## 1. Recap:

- Overview of Research Data Management (RDM)
- Tri-Agency RDM policy
- Queen's institutional strategy

## 2. Data Deposit

- Data deposit and sharing landscape
- Queen's Dataverse Collection, part of Borealis, the Canadian Dataverse Repository

## 3. Disciplinary perspective – "The Sorry State of Data"

## 4. Resources

## 5. Q&A

# Overview of Research Data Management (RDM)

# What is research data management (RDM)?

Processes applied throughout the **lifecycle of a research project** to guide the collection, documentation, storage, sharing, and preservation of research data.



## Why is RDM important?

RDM practices are **integral to conducting responsible research** and can help you save resources by **ensuring your data are complete, understandable, and secure**.

(Source: [Portage RDM Primer](#))

# What are the benefits of RDM?

## For researchers

- **Efficiency** – minimizes waste and expense
- **Protection** – protect valuable data
- **Quality** – improves data excellence (e.g., reliability)
- **Impact** – increases visibility and effect of research
- **Compliance** – with ethics, journal requirements, funder policies, and legal, commercial and other obligations

## ...and beyond

- Accelerates research discovery and innovation
- Maximizes public investment
- Enhances collaboration and partnerships
- Increases ability to reproduce and validate research results



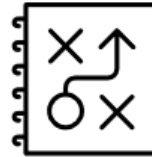
# Tri-Agency RDM Policy

# Tri-Agency RDM Policy Pillars



## Institutional Strategy

Completed by  
March 2023



## Data Management Plans

Implementation  
begins Spring 2022



## Data deposit

Phased  
implementation  
beginning March  
2023



Queen's University  
Dataverse Collection

# Queen's KHSC Institutional RDM Strategy



**Research  
excellence**



**Open dissemination  
of research results**



**Respect for  
Indigenous  
communities**



**Institutional support  
for researchers**



**Strong  
collaborations**

The first draft of Queen's Institutional Strategy is now available, and we invite feedback from the research community.

[www.queensu.ca/vpr/resources/RDM/strategy](http://www.queensu.ca/vpr/resources/RDM/strategy)

# Pillar 3: Data Deposit

# Data deposit – Part of the research lifecycle



- Data deposit intersects with the final stages of a research lifecycle where research data can be shared, preserved, and reused.
- “Research data are **valuable assets**, which when properly managed, have the potential to be **reused and recombined in innovative ways** to derive greater value and advance research and scholarship.” ([Current State of Research Data Management in Canada](#), 2020)
- In order to share, preserve, and reuse research data, appropriate steps must be built into the planning process (e.g., ethics approval, consent from participants, appropriate data management and storage).

# Data Deposit – Tri-Agency RDM Policy



*What is the Data Deposit requirement?*

- Grant recipients are required to **deposit into a digital repository** all digital research data, metadata and code that directly support the research conclusions in journal publications and pre-prints that arise from agency-supported research.

*Do I need to deposit everything?*

- Determining what counts as relevant research data ... is often highly contextual and should be guided by disciplinary norms.

*When do I need to deposit?*

- The deposit must be made by the **time of publication**.

*What is the timeline for this requirement?*

- **Phased implementation** beginning after March 2023

# Data Deposit – Tri-Agency RDM Policy



*Am I obligated to share my data?*

- Grant recipients are not required to share their data. However, the agencies expect researchers to provide appropriate access to the data where **ethical, cultural, legal and commercial requirements allow**, and in accordance with the FAIR principles and the standards of their disciplines.

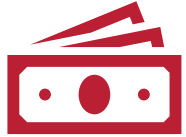
*Are there exceptions?*

- For research conducted by and with **First Nations, Métis and Inuit communities, collectives and organizations**, these communities, collectives or organizations will guide and ultimately determine how the data are collected, used and preserved, and have the right to repatriate the data. This could result in exceptions to the data deposit requirement.

# Data deposit and sharing landscape



# Policies and practices



## *Funder Policies*

- Funding agencies around the world developing policies to support access to publicly funded research:
  - Tri-Agency RDM Policy (2021); Tri-Agency Statement of Principles of Digital Data Management (2016)
  - International funders, including NIH, NSF, UK Research and Innovation Funders, Horizon 2020
- Mandates have been shown to strongly influence researcher behaviour



## *Journal policies and disciplinary practices*

- Mandated data archiving policies that require the inclusion of a **data availability statement** were found to significantly increase the likelihood of finding the data online
- Data sharing practices and data availability in journals **differ strongly by discipline**
- Reported results are not always fully reproducible from the shared data, often due to the lack of adequate dataset documentation and metadata

(Sources: Alliance RDM WG, 2020; Riesberg et al., 2021; Tendersoo et al., 2021; Vines et al., 2013)

# Data deposit – Why deposit in a repository?



Sharing data by request has many downfalls (discoverability, long-term storage, transfer mechanism, license/citation)



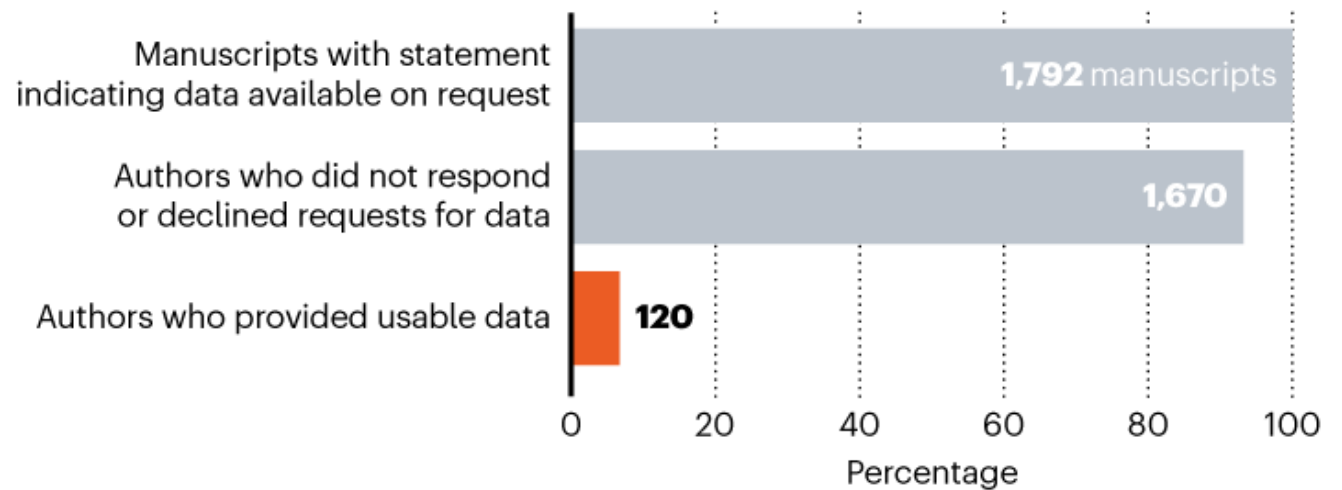
Personal websites are ephemeral



Journal supplementary material is not easily discoverable and can be paywalled

## DATA-SHARING BEHAVIOUR

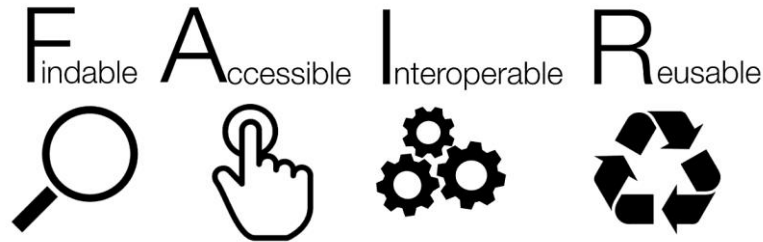
Of almost 1,800 manuscripts for which the authors stated they were willing to share their data, more than 90% of corresponding authors either declined or did not respond to requests for data. Only about 7% of authors actually handed over data.



©nature

(Source: [Watson, 2022](#))

# Data Deposit – Why deposit in a repository?



<https://www.go-fair.org/fair-principles/>

## Findable

- Digital Object Identifier (DOI)
- Indexed in a searchable resource

## Accessible

- Ensure controlled access, where appropriate

## Interoperable

- Integrate with other data (metadata standards)

## Reusable

- Clear and accessible data usage license
- Data are well-described

Repositories  
also offer  
secure  
storage and  
long-term  
stewardship

# Data Deposit – Which repository?

## Disciplinary Repository

- Built to handle specialized datasets
- Storage likely outside of Canada
- Eligibility, pricing, repository functionality vary
- May only accept certain file types



## Queen's Dataverse Collection

- Multi-disciplinary
- Canadian storage
- File size <3 GB
- Open to Queen's researchers
- File-level restrictions possible
- Supports versioning



**borealis**  
The Canadian Dataverse Repository  
Le dépôt Dataverse canadien

## Federated Research Data Repository (FRDR)

- Multi-disciplinary
- Canadian storage
- Big data support
- Open to faculty at Canadian institutions
- No file restrictions
- Limited versioning



# Considerations for data deposit and sharing

- Active data storage, data transfer tools, and repository storage to support specific disciplinary needs (e.g., big data, sensitive data)
- Availability of data curation support
  - Data quality review
  - Data documentation
  - Data transformation (e.g., clean-up, de-identification)
  - File formats (open vs. proprietary, standard tools and software within the discipline)
- Metadata standards for discovery and reuse
- Terms of access and licensing for reuse
- Data exploration and visualization tools



# What is Borealis?

- **Borealis, the Canadian Dataverse Repository**, is a bilingual, multidisciplinary, secure, Canadian research data repository
- Shared service provided in partnership with Canadian regional academic library consortia, institutions, research organizations, and the Digital Research Alliance of Canada
- 65+ subscribing institutions across Canada
- Technical infrastructure hosted by Scholars Portal and the University of Toronto Libraries.
- Data stored on the Ontario Library Research Cloud (OLRC)
- Indexed in Datacite search, Google dataset search, FRDR for discoverability



Production: <https://borealisdata.ca>  
Demo: <https://demo.borealisdata.ca>

# Queen's Dataverse Collection?

- **Queen's Dataverse Collection** is managed by your library!
- We provide data curation services to support dataset deposit and sharing to enhance datasets for discovery and reuse
- Check it out at <https://borealisdata.ca/dataverse/queens>

The screenshot shows the Borealis website interface for the Queen's University Dataverse Collection. At the top, the Borealis logo is on the left, and navigation links for Search, User Guide, Support, English, and Log In are on the right. Below the Borealis header is the Queen's University logo. The main heading is "Queen's University Collection (Queen's University)". A breadcrumb trail shows "Borealis >". On the right, there are links for "Contact" and "Share". The main text describes the Queen's University Dataverse as a research data repository, noting that files are held on Canadian servers and can be made publicly available, locked, or shared with specific individuals. It provides links to "Dataverse Data Deposit Guidelines" and a "Research Data Management guide". A "Contact us" link is also present. Below this is a carousel of featured datasets, including "Queen's University Biological Station Data Archive Dataverse", "Laboratoire sur les élections et la démocratie / Elections and Democracy Laboratory", "Culture and Cognition Lab", and "Environmental Fluid Dynamics Laboratory". At the bottom, there is a search bar with the placeholder "Search this dataverse...", an "Advanced Search" link, and an "Add Data" button. On the left side of the results area, there are filters for "Dataverses (21)", "Datasets (153)", and "Files (4,652)", as well as a "Dataverse Category" section with "Researcher (7)" and "Laboratory (3)". The main results area shows "1 to 10 of 174 Results" and a "Sort" dropdown. The first result is for the "Culture and Cognition Lab (Queen's University. Department of Psychology)", dated "Oct 7, 2022", with a brief description of its research focus.

borealis

Search User Guide Support English Log In

Queen's UNIVERSITY

Queen's University Collection (Queen's University)

Borealis >

Contact Share

The Queen's University Dataverse is a research data repository for our faculty, students, and staff. Files are held in a secure environment on Canadian servers. Researchers can choose to make content available publicly, to specific individuals, or to keep it locked.

Before starting, please review our [Dataverse Data Deposit Guidelines](#).

For more information on best practices for research data management, consult our [Research Data Management guide](#).

Need assistance? [Contact us](#).

Queen's University Biological Station Data Archive Dataverse

Laboratoire sur les élections et la démocratie / Elections and Democracy Laboratory

Culture and Cognition Lab

Environmental Fluid Dynamics Laboratory

Search this dataverse... Advanced Search Add Data

Dataverses (21) Datasets (153) Files (4,652)

Dataverse Category Researcher (7) Laboratory (3)

1 to 10 of 174 Results Sort

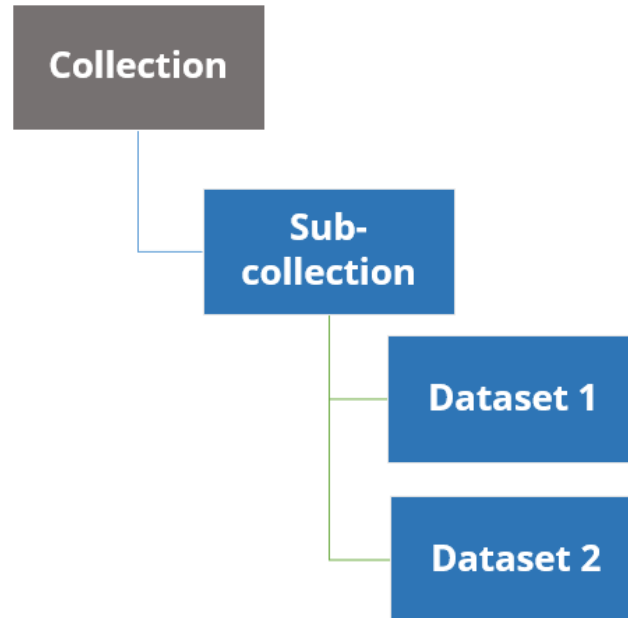
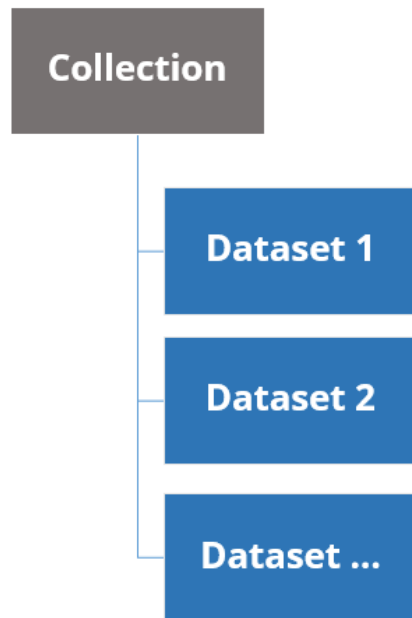
Culture and Cognition Lab (Queen's University. Department of Psychology) Oct 7, 2022

The Culture and Cognition Lab investigates cultural differences between European North Americans and East Asians in perception, memory, categorization, prediction, judgment and decision making. Current research focuses on cultural differences in lay theories of change, and their...

# What is a collection? What is a dataset?

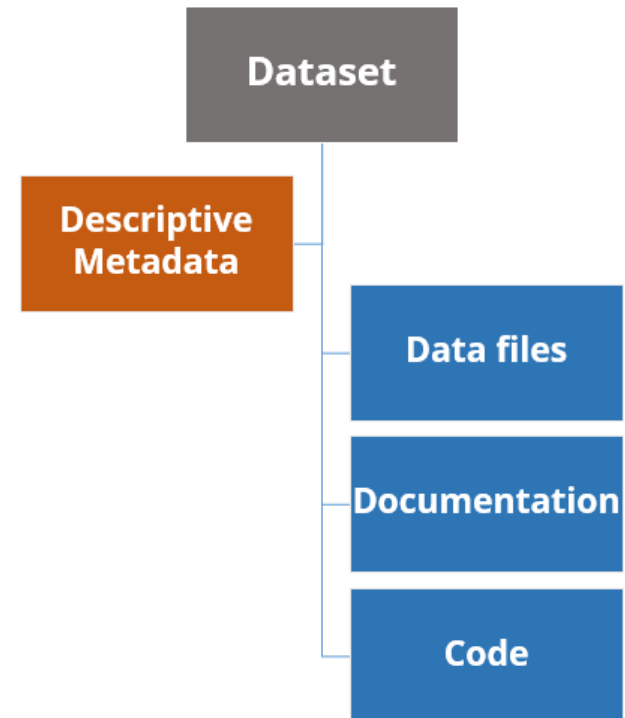
## Collection

- Container for datasets and/or sub-collections



## Dataset

- Container for your data files, documentation, and code with descriptive metadata





# What is a Data Citation?

- Automatic DataCite Canada DOI reservation and minting
- DOI used in standard data citations
- Cross-reference research outputs
  - Establish unbreakable links between scholarly output and associated data

Borealis > Toronto Metropolitan University Dataverse > Social Media Lab >

## The State of Social Media in Canada 2022

Version 1.0



The screenshot shows the Dataverse interface for the dataset 'The State of Social Media in Canada 2022'. On the left is a thumbnail of the dataset cover, which features a red maple leaf. To the right of the thumbnail, the text reads: 'Mai, Philip; Gruz, Anatoliy, 2022, "The State of Social Media in Canada 2022", https://doi.org/10.5683/SP3/BDFE 7S, Borealis, V1'. Below this text is a 'Cite Dataset' button with a dropdown arrow. A mouse cursor is clicking on the dropdown, which has opened to show three options: 'EndNote XML', 'RIS', and 'BibTeX'. To the right of the 'Cite Dataset' button, there is a link that says 'Learn about Data Citation Standards.'





**borealis** The Canadian Dataverse Repository  
Le dépôt Dataverse canadien

**Store, share, publish  
and discover research  
data!**

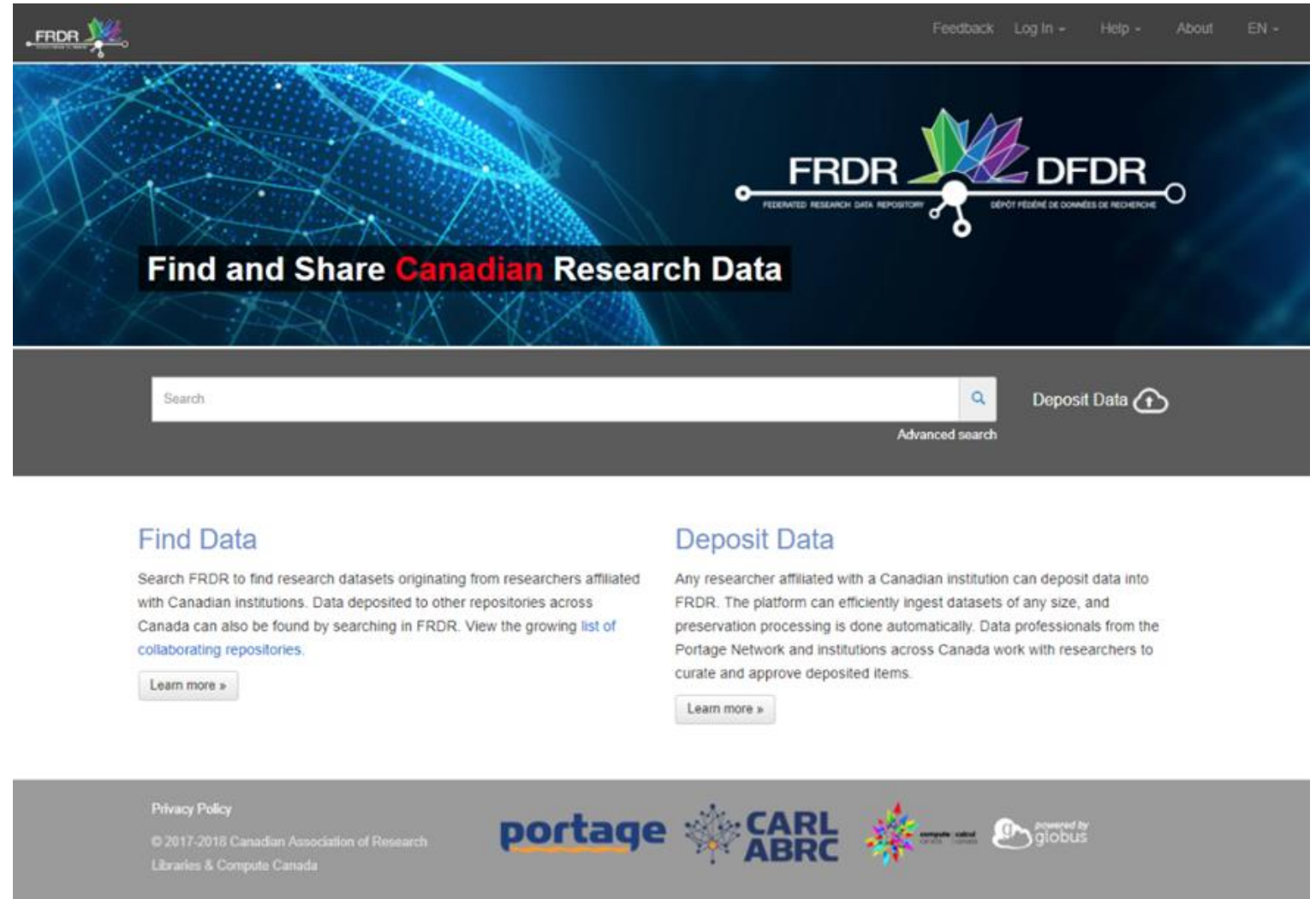
[EXPLORE BOREALIS](#)

[ABOUT US](#)

# How do I find research data?

## Search for data in the national discovery tool and repository

- Federated Research Data Repository (FRDR)
- Consult FRDR for an ever-expanding source of Canadian research data



<https://www.frdr-dfdr.ca/>

# The <sup>sorry</sup>State of Data

Bob Montgomerie  
Dept Biology, Queen's University  
Data Editor, American Naturalist



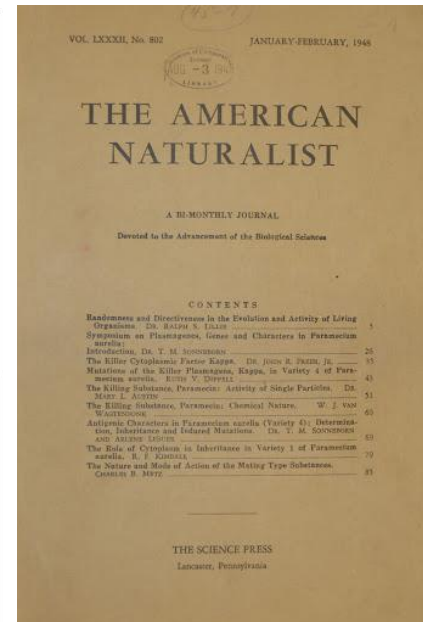
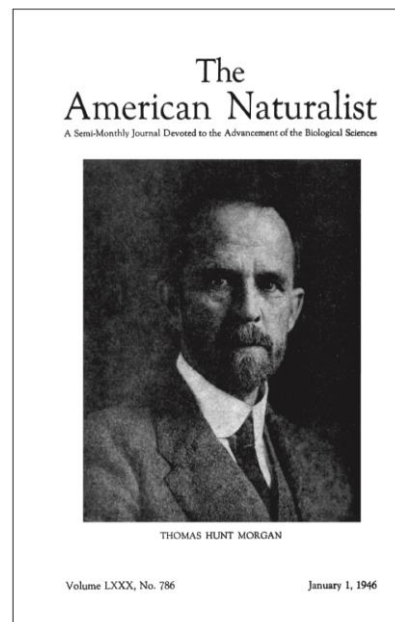
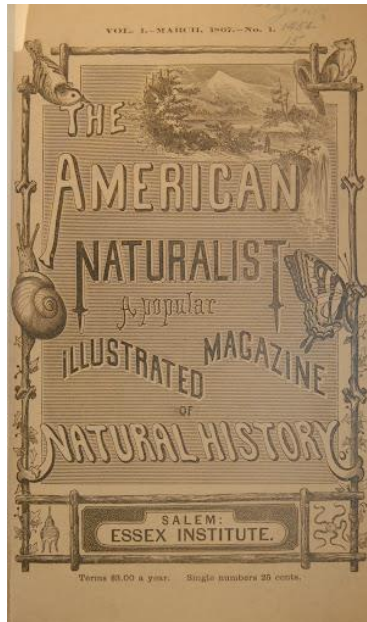
**DRYAD**



# EVOLUTION OF A JOURNAL: Stage 1

American Naturalist  
begins publishing in print

1867



American Naturalist  
begins publishing  
online version

1999

2000

First set of raw data  
published in print as an  
Appendix

## Appendix

Table A1: Data for the "all data" data set

Species	No. males	No. females	No. immatures	Metabolic needs	Home range size (ha)
<i>Lemur catta</i>	5.9	6.4	5	27.54	14.4
<i>Eulemur fulvus</i>	3.2	3.5	2.2	13.68	48.6
<i>Eulemur macaco</i>	4	3.1	2.5	15.02	5.3
<i>Haplemur griseus</i>	1	1	2	2.77	11.3
<i>Varecia variegata</i>	2.5	3	1	15.7	110.2
<i>Avahi laniger</i>	1	1	1	2.57	1.9
<i>Propithecus verreauxi</i>	3	2.8	1.7	17.54	5.3
<i>Indri indri</i>	1	1	2.5	13.92	22.5
<i>Daubentonina madagascarensis</i>	1	1	1	5.24	35.6

# EVOLUTION OF A JOURNAL: Stage 2

**GitHub**

GitHub established

2007

All authors required to  
publish their raw data

2011

2009

DRYAD established



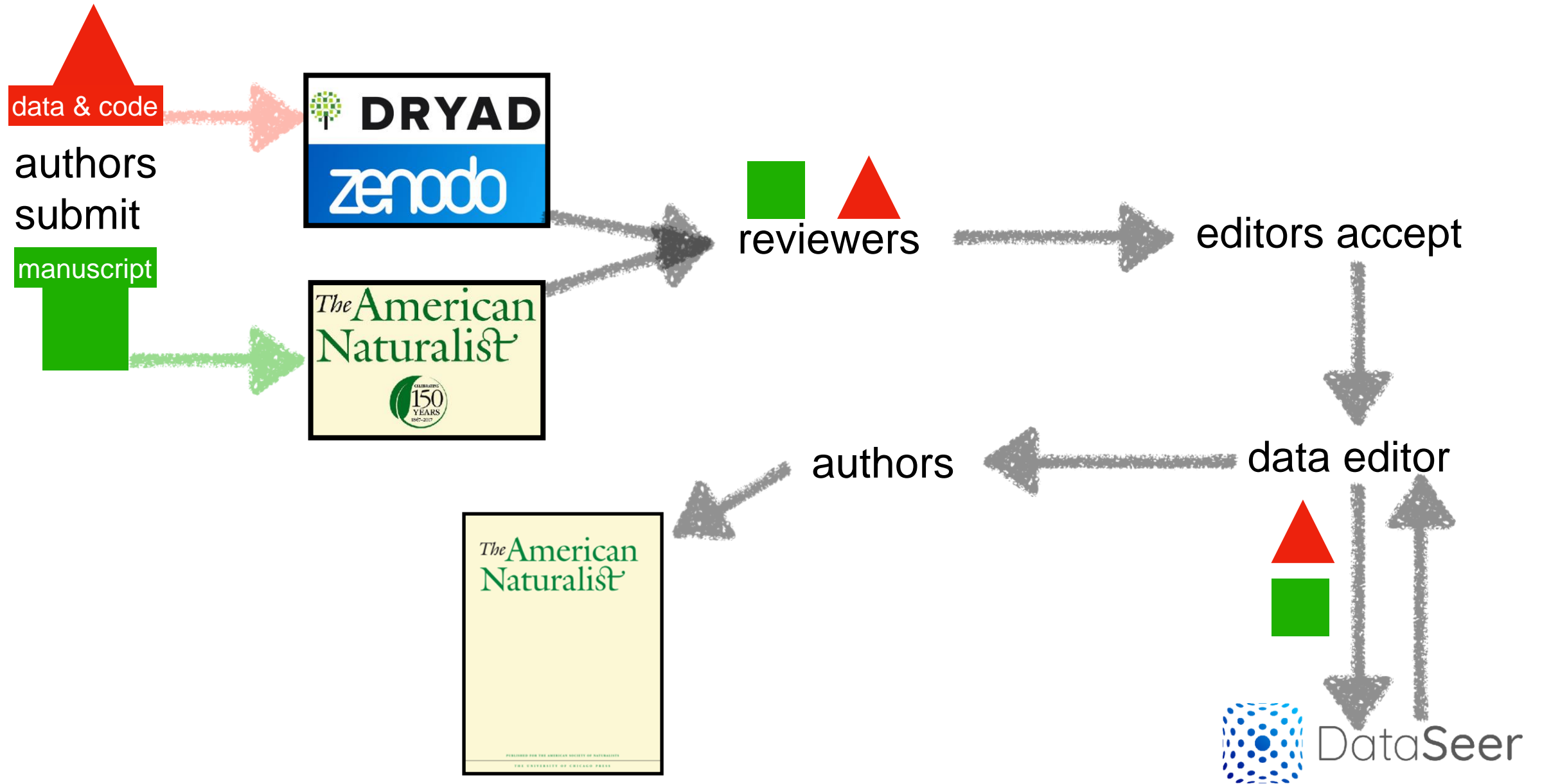
**DRYAD**

DRYAD chosen by  
American Naturalist as  
preferred repository at  
no charge to authors

2021

Data editors evaluate  
each accepted ms to  
ensure minimal  
standards of  
completeness and  
usability

# WORKFLOW



# The American Naturalist



VOL. 158, NO. 6 THE AMERICAN NATURALIST DECEMBER 2021

E-ARTICLE

## The Shapes of Birds' Eggs: Evolutionary Constraints and Adaptations

Robert Montgomerie,<sup>1,\*</sup> Nicola Hemmings,<sup>2</sup> Jamie E. Thompson,<sup>2</sup> and Tim R. Birkhead<sup>2</sup>

<sup>1</sup> Department of Biology, Queen's University, Kingston, Ontario K7L 3N6, Canada; <sup>2</sup> School of Biosciences, University of Sheffield, Sheffield S10 2TN, United Kingdom

Submitted August 26, 2020; Accepted June 29, 2021; Electronically published October 26, 2021

Online enhancement: supplemental PDF. Dryad data: <https://doi.org/10.5061/dryad.sj3tx9648>.

**ABSTRACT:** We studied the shapes of eggs from 955 extant bird species across the avian phylogeny, including 39 of 40 orders and 78% of 249 families. We show that the elongation component of egg shape (length relative to width) is largely the result of constraints imposed by the female's anatomy during egg formation, whereas asymmetry (pointedness) is mainly an adaptation to conditions during the incubation period. Thus, egg elongation is associated with the size of the egg in relation to both the size of the female's oviduct and her general body conformation and mode of locomotion correlated with pelvic shape. Egg asymmetry is related mainly to clutch size and the structure of the incubation site, factors that influence thermal efficiency during incubation and the risk of breakage. Importantly, general patterns across the avian phylogeny do not always reflect the trends within lower taxonomic levels. We argue that the analysis of avian egg shape is most profitably conducted within taxa where all species share similar life histories and ecologies, as there is no single factor that influences egg shape in the same way in all bird species.

**Keywords:** birds, egg shape, oviduct, pelvic shape, clutch size, relative egg size.

### Introduction

For centuries, naturalists have marveled at the diversity of sizes, colors, and shapes of what Thomas Wentworth Higginson, in 1862, called the most perfect things in the universe (Birkhead 2016)—the eggs of birds. The diversity of egg size—spanning five orders of magnitude from the eggs of *Melospiza helena* (bee hummingbird, at 0.5 g) to those of *Aepyornis maximus* (elephant bird, at 8 kg)—is largely explained by life histories and body size allometries (Lack 1968). The colors and shapes of birds' eggs also vary among orders, families, genera, species, populations, and even in-

\* Corresponding author; email: [mont@queensu.ca](mailto:mont@queensu.ca).  
ORCID: Montgomerie, <https://orcid.org/0000-0003-4701-4125>; Hemmings, <https://orcid.org/0000-0003-2418-3625>; Thompson, <https://orcid.org/0000-0003-0008-7880>; Birkhead, <https://orcid.org/0000-0003-2016-4076>.

*American Naturalist*, volume 198, number 6, December 2021. © 2021 The University of Chicago. All rights reserved. Published by The University of Chicago Press for The American Society of Naturalists. <https://doi.org/10.1093/aes/198.6.1029>

# IN THEORY



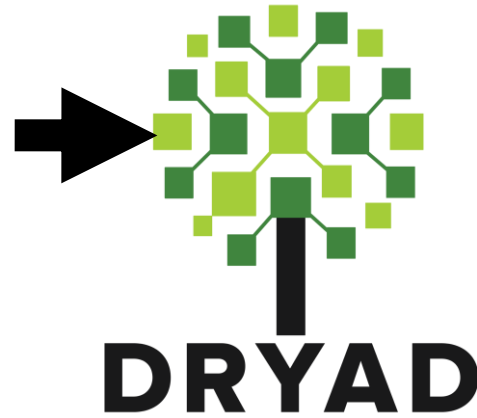
data  
code  
metadata

researchers  
reuse  
reproduce  
evaluate

Online enhancements: supplemental PDF. Dryad data: <https://doi.org/10.5061/dryad.sj3tx9648>.



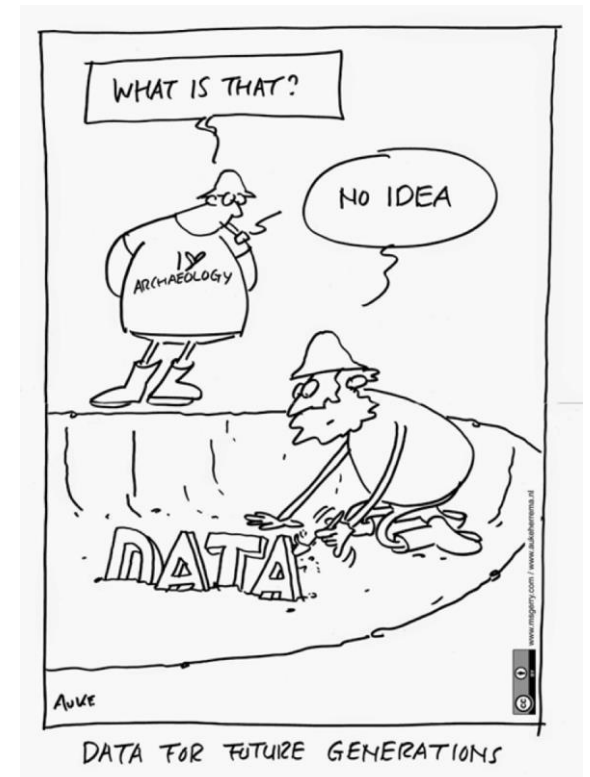
# IN PRACTICE



Sample-Data-Sheet.htm

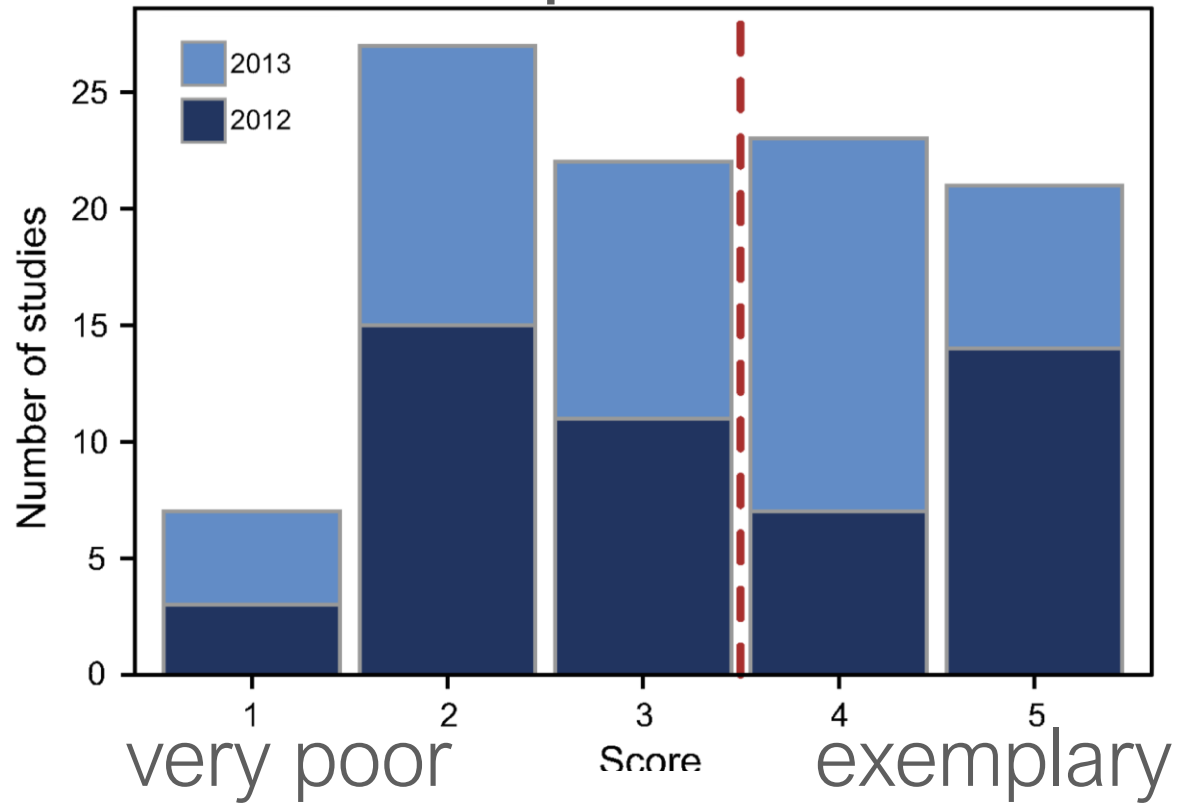
Latest Headlines Getting Started Latest Headlines Most Visited Getting Started Latest Headlines

No.	Time	Sex	SVL	Wt.	T <sub>1</sub>	T <sub>2</sub>	No.	Time	Sex	SVL	Wt.	T <sub>1</sub>	T <sub>2</sub>
01	08:05	F	74	34.1	29.4	30.1	01	11:55	M	69	8.4	37.1	39.1
02	08:10	F	64	24.1	27.8	31.7	02	12:05	F	68	10.2	27.8	37.8
03	08:24	M	59	16.8	28.4	29.3	03	12:08	F	72	14.2	36.1	39.8
04	09:20	M	58	16.2	29.1	29.3	04	12:40	F	69	10.4	28.1	38.2
05	09:28	F	64	25.0	30.1	31.6	05	12:44	M	65	7.1	36.1	39.1
06	09:35	M	60	19.1	31.2	31.6	06	12:46	M	58	5.8	28.6	38.4
07	09:38	M	59	19.3	30.2	34.6	07	13:00	F	70	13.6	31.4	36.2
08	09:45	F	66	27.2	31.4	34.2	08	13:05	M	67	7.9	29.0	38.2
09	10:06	M	52	14.9	32.6	33.1	09	13:10	M	64	6.4	33.7	33.2
10	10:15	F	66	28.4	32.6	34.0	10	13:28	F	69	10.5	29.2	36.2
11	10:44	M	63	23.6	33.1	35.2	11	13:35	M	66	8.7	29.0	37.1
12	11:12	F	71	33.6	33.2	33.2	12	13:40	F	68	7.9	34.1	35.1
13	11:24	M	51	14.1	33.2	34.3	13	13:44	M	66	8.8	36.6	38.3
14	11:55	F	62	21.4	33.5	35.1	14	13:55	M	64	8.8	40.1	37.1
15	15:22	F	64	26.3	33.7	33.4	15	14:04	M	66	7.0	31.3	35.4
16	15:38	M	58	15.1	33.8	34.2	16	14:10	M	64	7.9	39.6	41.6
17	15:46	F	67	28.2	33.9	36.3	17	14:15	F	70	12.8	34.1	37.4
18	16:04	F	70	32.4	34.1	34.6	18	14:22	F	71	9.5	38.2	36.5
19	16:20	F	64	25.1	35.1	35.4	19	14:34	F	71	13.4	26.8	37.2
20	16:20	F	69	30.2	35.2	35.1	20	14:40	F	66	8.4	34.8	37.4

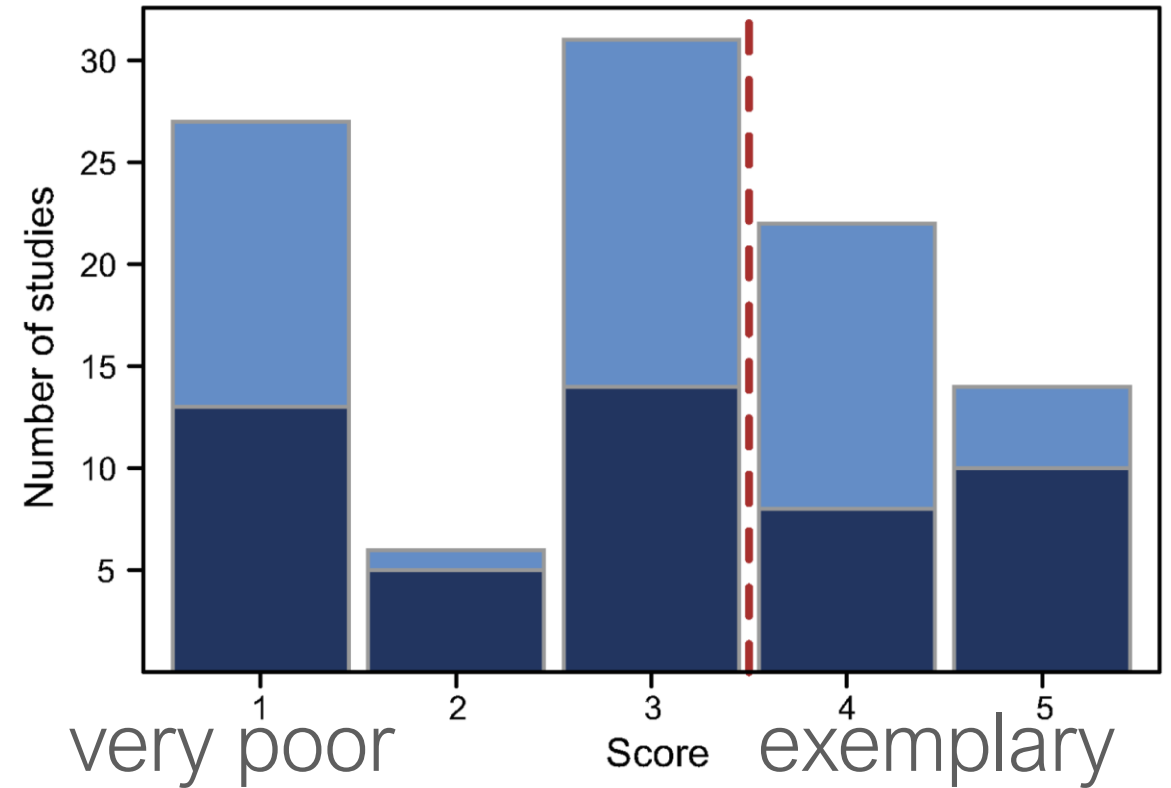


# DRYAD repositories 2012-2013

## completeness



## reusability



# My experience

## **SUPPLEMENTARY MATERIALS**

[www.sciencemag.org/content/356/6344/1249/suppl/DC1](http://www.sciencemag.org/content/356/6344/1249/suppl/DC1)

Paper says:

Materials and Methods

Figs. S1 to S16

Tables S1 to S5

Data S1 and S2

References (33–63)

Instructions to authors says:

- Specification of where all data underlying the study are available, or will be deposited, and whether there are any restrictions on data availability such as an MTA.

**A**

	A	B	C
	<b>MVZ Specimen ID</b>		
	MVZ Egg 10000		
1	MVZ Egg 10001		
2	MVZ Egg 10002		
3	MVZ Egg 10003		
4	MVZ Egg 10004		
5	MVZ Egg 10005		
6	MVZ Egg 10006		
7	MVZ Egg 10007		
8	MVZ Egg 10008		
9	MVZ Egg 10009		
10	Z Egg 1000		
11	Z Egg 10010		
12	Z Egg 10011		

?

model

Intercept

**Clutch Size**

Nest - Plate

Nest - Cup

Nest - Elevated

Nest - Cavity

HWI

**Body Mass**

Latitude

Temperature

Precipitation

**Diet**

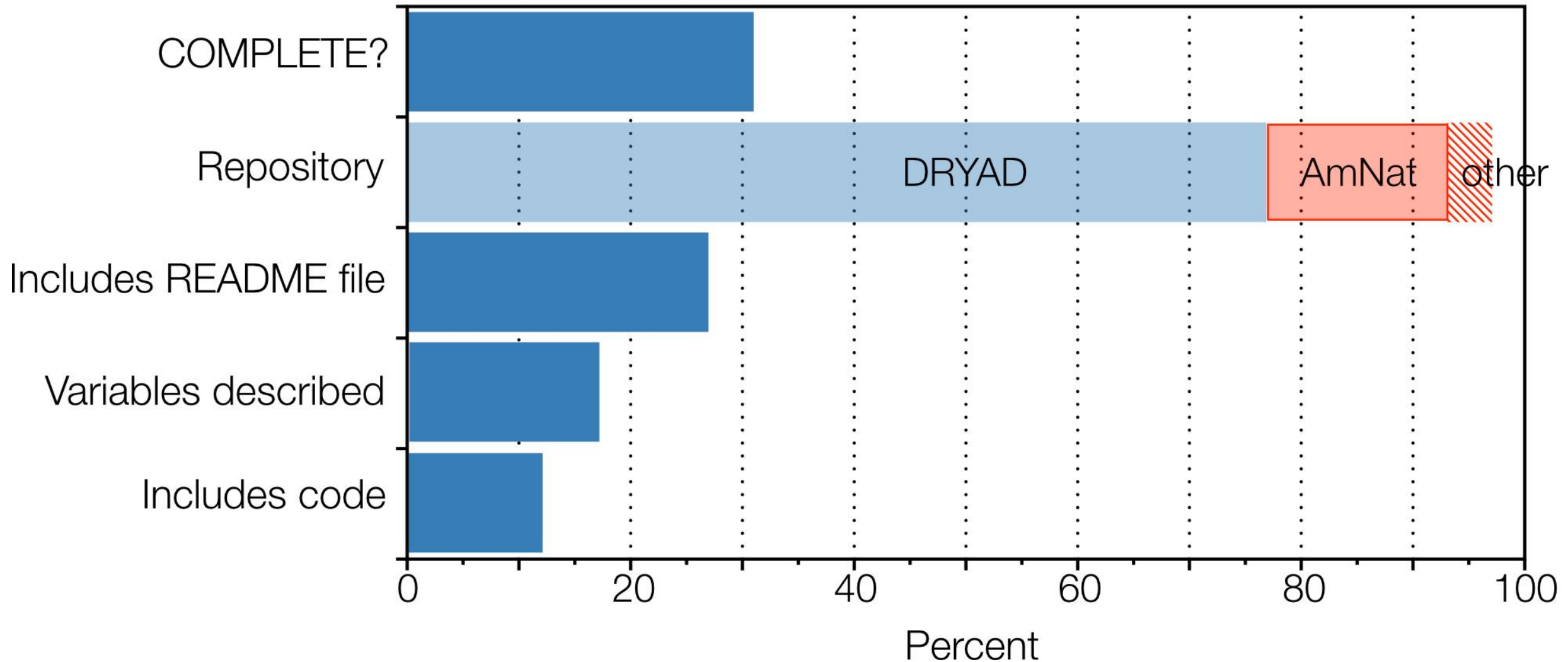
Constrained

**Development**

**B**

Order	Family	MVZDatabase	Species	Asymmetry	Ellipticity	AvgLength (cm)	Number of images	Number of eggs
ACCIPITRIFORMES	Accipitridae	Accipiter badius	Accipiter badius	0.1378	0.3435	3.8642	1	2
ACCIPITRIFORMES	Accipitridae	Accipiter cooperii	Accipiter cooperii	0.0937	0.2715	4.9008	27	103
ACCIPITRIFORMES	Accipitridae	Accipiter gentilis	Accipiter gentilis	0.1114	0.3186	5.9863	7	18
ACCIPITRIFORMES	Accipitridae	Accipiter nisus	Accipiter nisus	0.0808	0.2391	4.0355	13	61
ACCIPITRIFORMES	Accipitridae	Accipiter striatus	Accipiter striatus	0.0749	0.2543	3.8700	15	57
ACCIPITRIFORMES	Accipitridae	Aegypius monachus	Aegypius monachus	0.0700	0.3476	8.9076	1	1
ACCIPITRIFORMES	Accipitridae	Aquila chrysaetos	Aquila chrysaetos	0.1192	0.3058	7.7318	191	391
ACCIPITRIFORMES	Accipitridae	Aquila rapax	Aquila rapax	0.1250	0.3518	6.8420	1	2
PITRIFORMES	Accipitridae	Buteo albicaudatus	Buteo albicaudatus	0.0818	0.2840	5.8095	7	17
PITRIFORMES	Accipitridae	Buteo brachyurus	Buteo brachyurus	0.1396	0.2371	5.5972	2	4
PITRIFORMES	Accipitridae	Buteo buteo	Buteo buteo	0.0704	0.2610	5.6364	5	12

# AM NAT data repositories 2020 (n = 58)



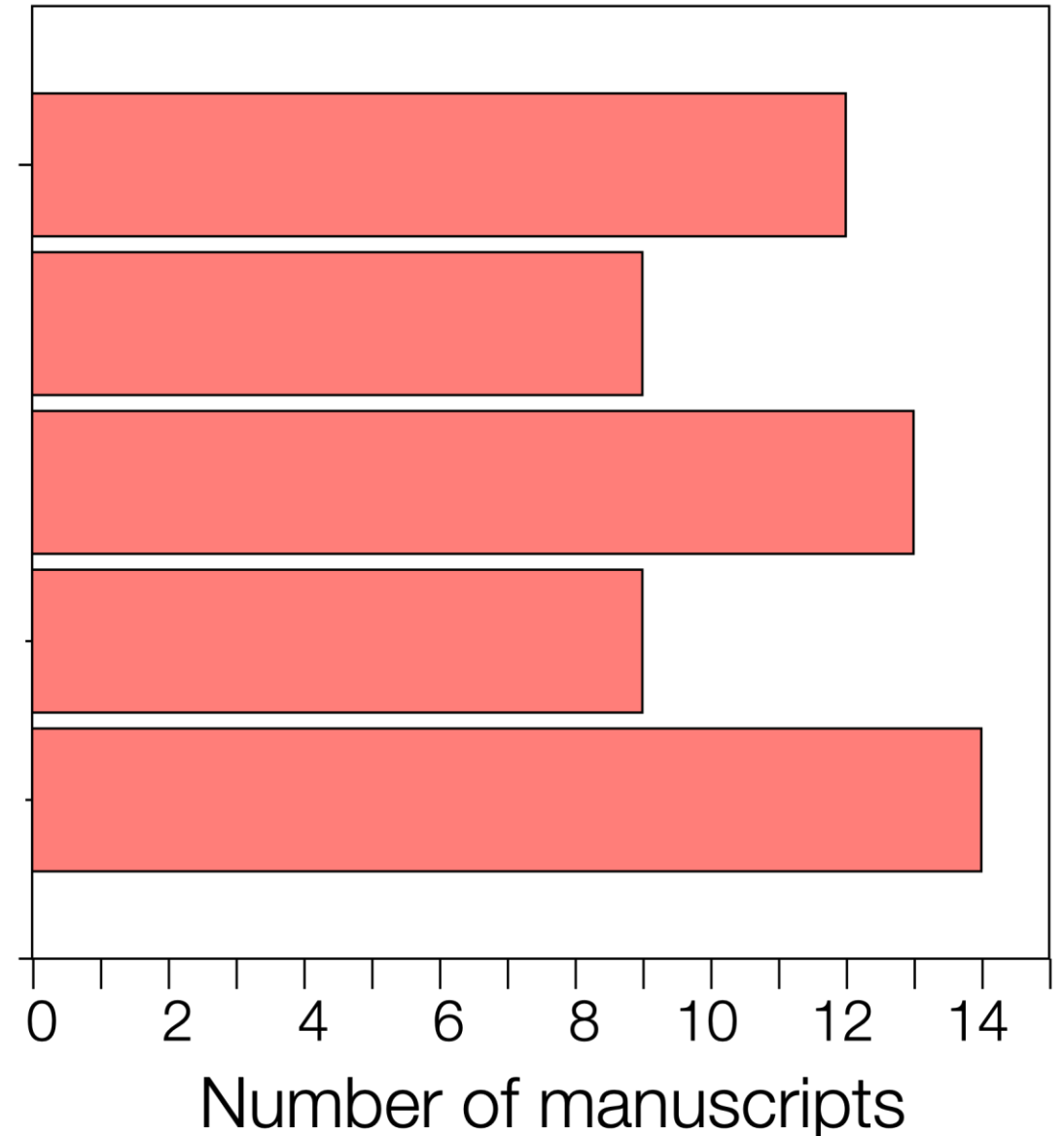
# AM NAT data repositories 2021 (n = 58)

QUALITY

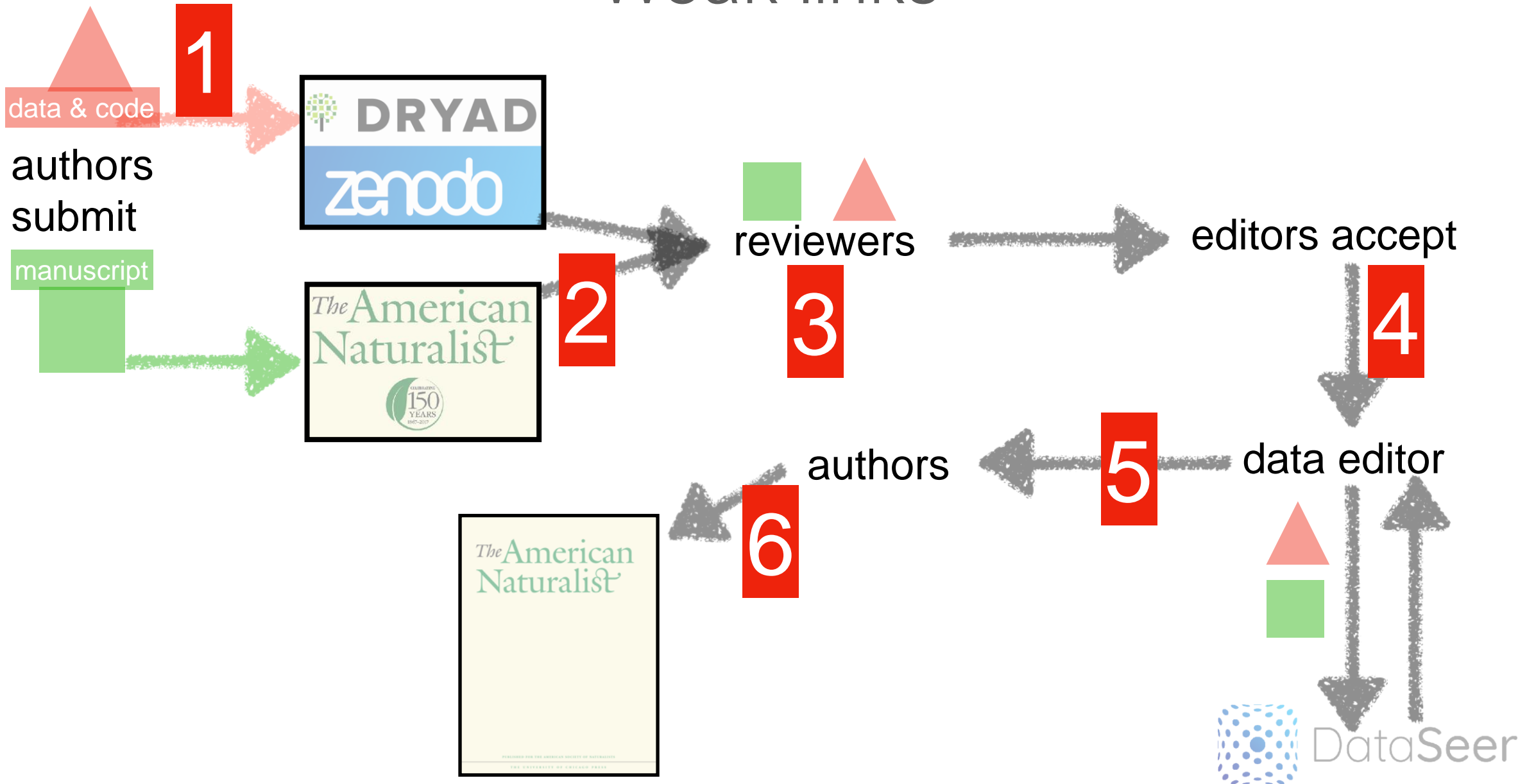
Excellent, complete  
and usable

Usable but  
incomplete and  
confusing

Useless, incomplete  
or absent, no raw  
data, no metadata



# Weak links



# WHY NOT?

- I still want to do more analyses and write more papers using this dataset.
- Competitors might scoop me with my own data
- Making a data repository is time consuming
- Someone might find fault with my data or analyses

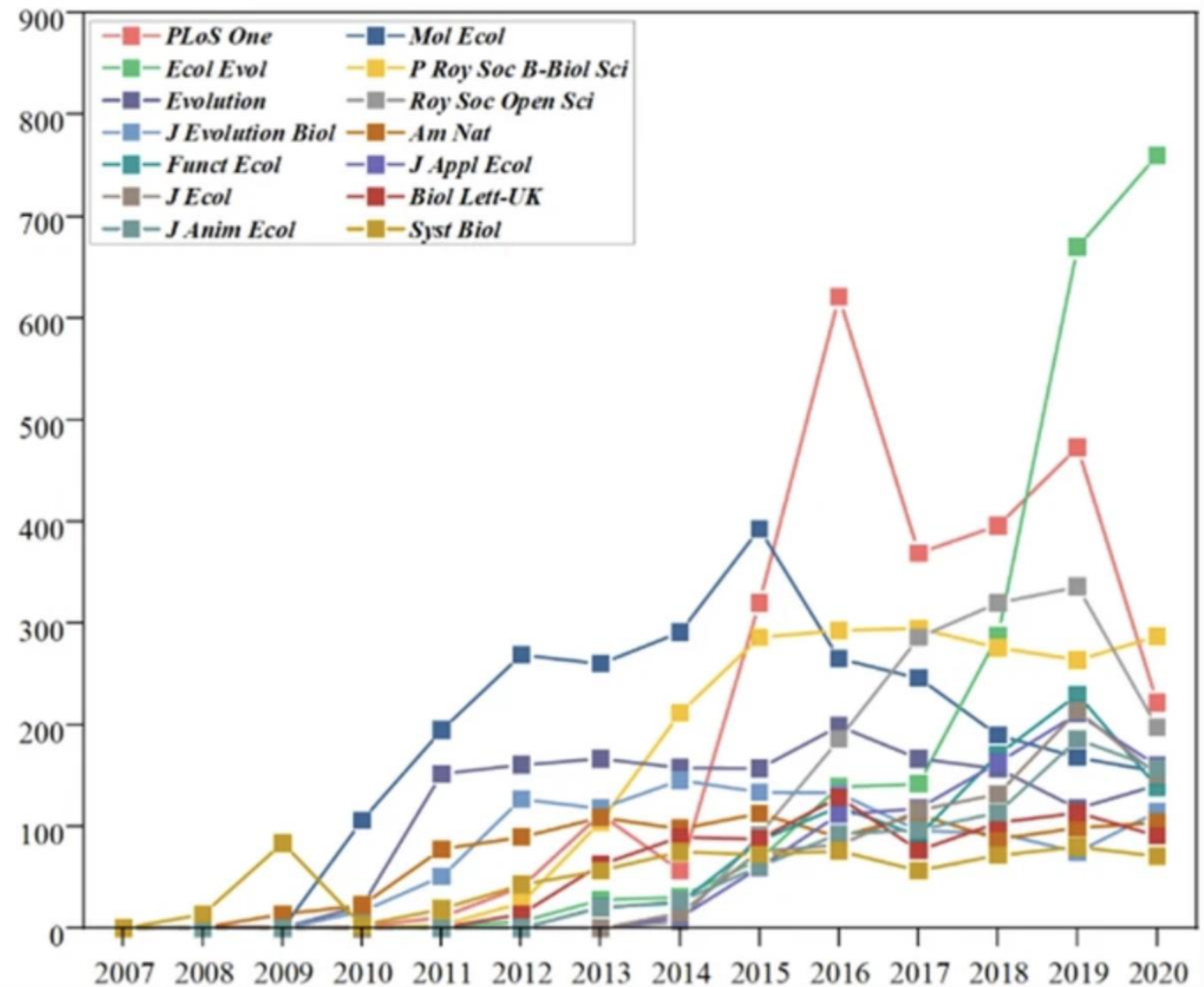


# WHY?

- can be used in meta-analyses
- enhances collaborations (current & future)
- paid for with public funds
- transparency of analyses; allows re-analysis
- easy access (even for you)
- reduces fraud



Number of  
papers  
with open data

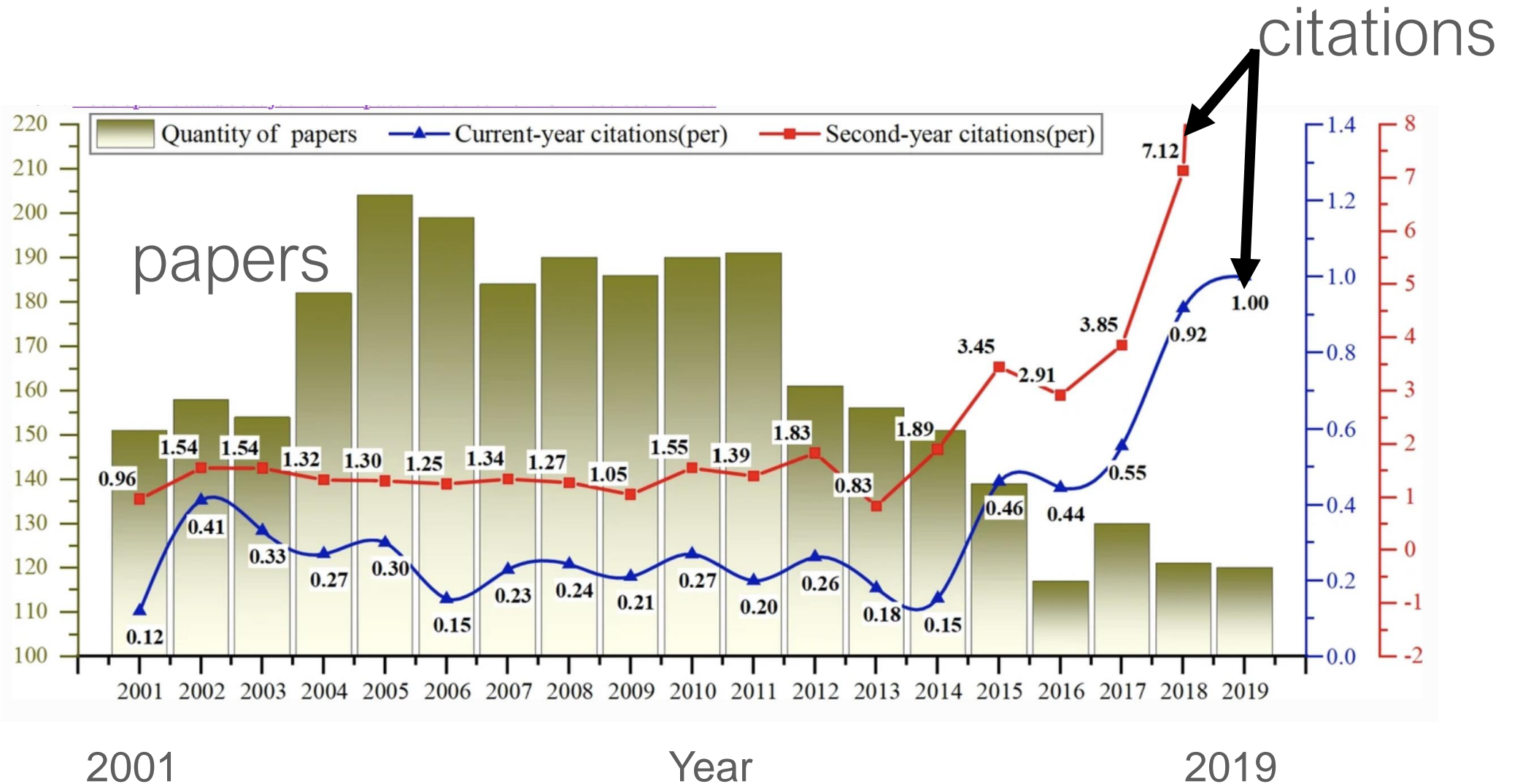


2007

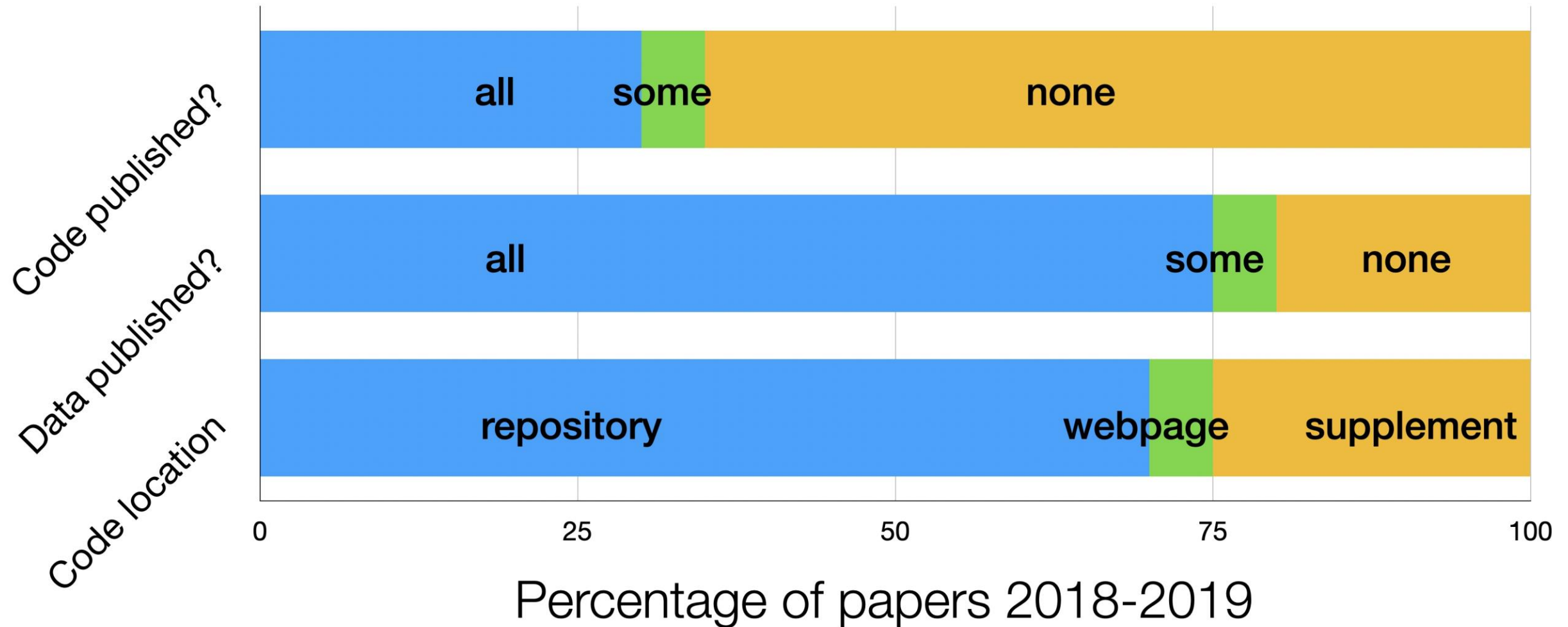
Year

2020

# Open Data Improves Impact



# What about sharing code?



*data from Culina et al. 2020 PLoS BIOLOGY*

and code

DATA MANAGEMENT

should not be an

AFTERTHOUGHT

The open data community needs to shift focus from mass data publication towards an understanding of good data quality. Yet, there is no shared definition what constitutes 'good' data quality.



# Questions, Feedback & Resources

# Questions?



Please feel free to contact us if you have additional questions

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# Feedback form

<https://tinyurl.com/qDC-RDM>



# RDM Resources @ Queen's

Policies	Tools	Resources
<ul style="list-style-type: none"><li>• Tri-Agency <a href="#">Research Data Management Policy</a> (2021)</li><li>• Tri-Agency <a href="#">RDM Policy FAQs</a></li><li>• Tri-Agency <a href="#">Statement of Principles on Digital Data Management</a> (2016)</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">DMP Assistant</a></li><li>• <a href="#">re3data.org</a></li><li>• <a href="#">Queen's Dataverse Collection</a> in <a href="#">Borealis</a></li><li>• <a href="#">Borealis Demo</a>– Try it out!</li><li>• <a href="#">FRDR</a></li></ul>	<ul style="list-style-type: none"><li>• Queen's Library RDM <a href="#">Guide</a></li><li>• <a href="#">FAIR principles</a></li><li>• The First Nations <a href="#">Principles of OCAP®</a></li><li>• The <a href="#">CARE Principles</a> for Indigenous Data Governance</li><li>• <a href="#">CARL YouTube Channel</a></li></ul>

Summary resource document:  
<https://guides.library.queensu.ca/rdm/>

## Next in series...

Tell your colleagues to join the [Queen's Data Champions](#) (qDC) for the second installment of the [Research Data Management \(RDM\) Brown Bag Information Series](#) sessions 1– 3 in 2023!

**Hold these dates (registration open soon):**

**Session 1:** [Developing a Data Management Plan](#) (January 18, 12:00-1:00PM)

*Get the tools and knowledge you will need to create and maintain a data management plan.*

**Session 2:** [Developing a Data Management Plan](#) (February 15, 12:00-1:00PM)

*Get the tools and knowledge you will need to create and maintain a data management plan.*

**Session 3:** [Deposit Your Research Data in a Repository](#) (March 22, 12:00-1:00PM)

*Learn about the benefits and considerations around depositing your research data into a repository.*

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**Digital Research  
Alliance** of Canada

**Alliance de recherche  
numérique** du Canada

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