

The UK's European university

CRedit where Credit is due

University of
Kent

Scholarly Communication Conference

#ScholComm19

3rd May 2019, Canterbury

Simon Kerridge
Director of Research Services



 orcid.org/0000-0003-4094-3719

 @SimonRKerridge #ScholComm19

raaapworldwide.wordpress.com

Immediate Past Chair



CASRAI
INFORMATION HARMONY

Immediate Past Chair, ARMA
The Association of Research
Managers and Administrators



The Presenter

- Simon Kerridge
 - Director, Research Services, University of Kent (UK)
 - Immediate Past Chair, CASRAI
 - Immediate Past Chair, ARMA



- Lead of INORMS RAAAP TaskForce
- Chair of the EARMA Awards Committee
- UK Government Open Standards Board
- *Metric Tide* report
- NCURA Global Faculty
- Johns Hopkins Adjunct Faculty
- ARMA Mentor



1. Origins of the Contributor Roles Taxonomy (CRediT)
2. Adoption & implementation
3. First insights into its value!
4. Where next ...



University of
Kent

Established problems with authorship: increasingly outdated

1. Authorship criteria doesn't reflect range of contributions ...
2. ... nor supports accountability

Authorship doesn't (often) reflect contribution ...

THE AUTHOR LIST: GIVING CREDIT WHERE CREDIT IS DUE

The first author
Senior grad student on the project. Made the figures.

The third author
First year student who actually did the experiments, performed the analysis and wrote the whole paper. Thinks being third author is "fair".

The second-to-last author
Ambitious assistant professor or post-doc who instigated the paper.

Michaels, C., Lee, E. F., Sap, P. S., Nichols, S. T., Oliveira, L., Smith, B. S.

The second author
Grad student in the lab that has nothing to do with this project, but was included because he/she hung around the group meetings (usually for the food).

The middle authors
Author names nobody really reads. Reserved for undergrads and technical staff.

The last author
The head honcho. Hasn't even read the paper but, hey, he got the funding, and his famous name will get the paper accepted.

www.phdcomics.com

JORGE CHAM © 2005

Article

August 20, 1997

The JAMA Network®

When Authorship Fails A Proposal to Make Contributors Accountable

Drummond Rennie, MD; Veronica Yank; Linda Emanuel, MD, PhD

» Author Affiliations

JAMA. 1997;278(7):579-585. doi:10.1001/jama.1997.03550070071041

thebmj

Research ▾

Education ▾

News & Views ▾

Campaigns ▾

Archive

Editorials

Authorship: time for a paradigm shift?

BMJ 1997 ; 314 doi: <https://doi.org/10.1136/bmj.314.7086.992> (Published 05 April 1997)

Cite this as: BMJ 1997;314:992

Established problems with authorship: increasingly outdated

1. Authorship criteria doesn't reflect range of contributions ...
2. ... nor supports accountability
3. **Demise of the lone author**

Demise of the lone author

University of

[Login](#) [Cart](#)

nature

International weekly journal of science

Search go [Advanced search](#)

Access

To read this story in full you will need to login or make a payment (see right).

[nature.com](#) > [Journal home](#) > [Table of Contents](#)

Essay

Nature 450, 1165 (20 December 2007) | doi:10.1038/4501165a; Published online 19 December 2007

The demise of the lone author

Mott Greene¹

1. Mott Greene is John Magee professor of science and values at the University of Puget Sound, Tacoma, Washington, USA.

As the average number of contributors to individual papers continues to rise, science's credit system is under pressure to evolve. [Top](#)

Any issue of *Nature* today has nearly the same number of Articles and Letters as one from 1950, but about four times as many authors. The lone author has all but disappeared.




To read this story in full you will need to login or make a payment (see right).

ARTICLE LINKS

SEE ALSO

- [Editor's Summary](#)

ARTICLE TOOLS

-  [Send to a friend](#)
-  [Export citation](#)
-  [Rights and permissions](#)
-  [Order commercial reprints](#)

SEARCH PUBMED FOR

- [Mott Greene](#)

I want to purchase this article

Price: \$18

In order to purchase this article you must be a registered user.

[Register now](#)

I want to buy this article via ReadCube

Rent: \$3.99*

Purchase: \$9.99*

*Printing and sharing restrictions apply

[Purchase now](#)

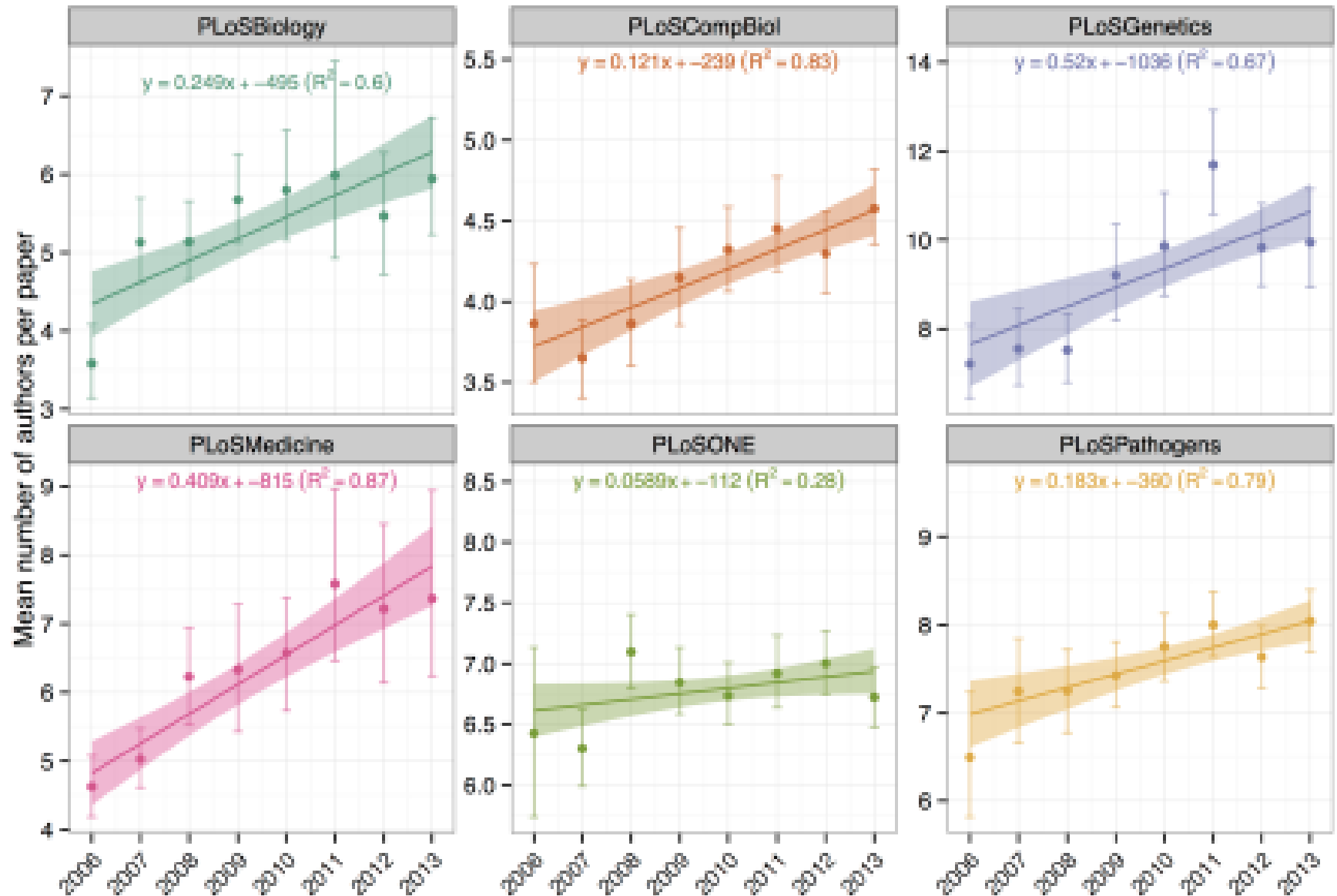
I want to subscribe to *Nature*

Price: US\$199

This includes a free subscription to *Nature News* together with *Nature Journal*.

[Subscribe now](#)

Demise of the lone author



Established problems with authorship: increasingly outdated

1. Authorship criteria doesn't reflect range of contributions ...
2. ... nor supports accountability
3. Demise of the lone author
4. **Team science – lots of 'authors'**

Extreme team science!

University of

IOPscience

Journals ▾

Books

Login ▾

Journal of Instrumentation

*2,926 authors from
169 research institutions!*

lookup ▾



Journal of Instrumentation > Volume 3 > August 2008

The ATLAS Collaboration *et al* 2008 *JINST* 3 S08003 doi:10.1088/1748-0221/3/08/S08003

The ATLAS Experiment at the CERN Large Hadron Collider

OPEN ACCESS THE CERN LARGE HADRON COLLIDER: ACCELERATOR AND EXPERIMENTS

The ATLAS Collaboration, G Aad⁸¹, E Abat¹⁸, J Abdallah¹⁶², A A Abdelalim⁴⁶, A Abdesselam¹¹⁶, O Abdinov¹⁰, B A Abi¹¹¹, M Abolins⁸⁶, H Abramowicz¹⁵⁰, E Acerbi⁸⁷, B S Acharya¹⁵⁹, R Achenbach⁵⁵, M Ackers²⁰, D L Adams²³, F Adamyan¹⁶⁹, T N Addy⁵³, M Aderholz⁹⁸, C Adorisio³⁵, P Adragna⁷², M Aharrouche⁷⁸, S P Ahlen²¹, F Ahles⁴⁵, A Ahmad¹⁴⁶, H Ahmed², G Aielli¹³³, P F Åkesson²⁸, T P A Åkesson⁷⁶, A V Akimov⁹³, S M Alam¹, J Albert¹⁶⁴, S Albrand⁵², M Aleksa²⁸, I N Aleksandrov⁶², M Aleppo⁸⁷, F Alessandria⁸⁷, C Alexa²⁴, G Alexander¹⁵⁰, T Alexopoulos⁹, G Alimonti⁸⁷, M Aliyev¹⁰, P P Allport⁷⁰, S E Allwood-Spiers⁵⁰, A Aloisio¹⁰¹, J Alonso¹⁴, R Alves¹²², M G Alvigi¹⁰¹, K Amako⁶³, P Amaral²⁸, S P Amaral²⁸, G Ambrosini¹⁶, G Ambrosio⁸⁷, C Amelung²⁸, V V Ammosov¹²⁶, A Amorim¹²², N Amram¹⁵⁰, C Anastopoulos¹⁵¹, B Anderson⁷⁴, K J Anderson²⁹, E C Anderssen¹⁴, A Andreazza⁸⁷, V Andrei⁵⁵, L Andricek⁹⁸, M-L Andrieux⁵², X S Anduaga⁶⁷, F Anghinolfi²⁸, A Antonaki⁸, M Antonelli⁴⁴, S Antonelli¹⁹, R Apsimon¹²⁷, G Arabidze⁸, I Aracena¹⁴², Y Arai⁶³, A T H Arce¹⁴, J P Archambault²⁷, J-F Arguin¹⁴, E Arik¹⁸, M Arik¹⁸, K E Arms¹⁰⁸, S R Armstrong²³, M Arnaud¹³⁵, C Arnault¹¹³, A Artamonov⁹⁴, S Asai¹⁵², S Ask⁷⁹, B Asman¹⁴⁴, D Asner²⁷, L Asquith⁷⁴, K Assamagan²³, A Astbury¹⁶⁴, B Athar¹, T Atkinson⁸⁴, B Aubert⁴, B Auerbach¹⁶⁸, E Auge¹¹³, K Augsten¹²⁵, V M Aulchenko¹⁰⁶, N Austin⁷⁰, G Avolio²⁸, R Avramidou⁹, A Axen¹⁶³, C Ay⁵¹, G Azuelos⁹¹, G Baccaglioni⁸⁷, C Bacci¹³⁴, H Bachacou¹³⁵, K Bachas¹⁵¹, G Bachy²⁸, E Badesco²⁴, P Bagnaia¹³², D C Bailey¹⁵⁴, J T Baines¹²⁷, O K Baker¹⁶⁸, F Ballester¹⁶², F Baltasar Dos Santos Pedrosa²⁸, E Banas³⁷, D Banfi⁸⁷, A Bangert⁹⁸, V Bansal¹²¹, S P Baranov⁹³, S Baranov⁵, A Barashkou⁶², E L Barberio⁸⁴, D Barberis⁴⁷, G Barbier⁴⁶, P Barclay¹²⁷, D Y Bardin⁶², P Bargassa¹¹⁶, T Barillari⁹⁸, M Barisonzi³⁹, B M Barnett¹²⁷, R M Barnett¹⁴, S Baron²⁸, A Baroncelli¹³⁴, M Barone⁴⁴, A J Barr¹¹⁶, F Barreiro⁷⁷, J Barreiro Guimarães da Costa⁵⁴, P Barrillon¹¹³, A Barriuso Poy²⁸, N Barros¹²², V Bartheld⁹⁸, H Bartko⁹⁸, R Bartoldus¹⁴², S Basiladze⁹⁶, J Bastos¹²², L E Batchelor¹²⁷, R L Bates⁵⁰, J R Batley²⁶, S Batraneanu²⁸, M Battistin²⁸, G Battistoni⁸⁷, V Batusov⁶², F Bauer¹³⁵, B Bauss⁷⁸, D E Baynham¹²⁷, M Bazalova¹²³, A Bazan⁴, P H Beauchemin⁹¹, B Beaupre⁴, R B Beccherle⁴⁷, G A Beck⁷², H P Beck¹⁶, K H Becks¹⁶⁷, I Bedajane¹²⁵, A J Beddall¹⁸, A Beddall¹⁸, P Bednár¹⁴³, V A Bednyakov⁶², C Bee⁸¹, S Behar Harpaz¹⁴⁹, G A N Belanger²⁷, C Belanger-Champagne¹⁶⁰, B Belhorma⁵², P J Bell⁷⁹, W H Bell⁵⁰, G Bella¹⁵⁰, F Bellachia⁴, L Bellagamba¹⁹, F Bellina¹⁶⁷, G Bellomo⁸⁷, M Bellomo¹¹⁷, O Beltramel²⁸, A Belyam⁷², S Ben Ami¹⁴⁹, M Ben Moshe¹⁵⁰, O Benary¹⁵⁰, D Benchekroun⁹², C Benchouk⁸¹, M Bendel⁷⁸, B H

Related Articles

1. The integration and engineering of the ATLAS SemiConductor Tracker Barrel
2. Combined performance tests before installation of the ATLAS Semiconductor and Transition Radiation Tracking Detectors
3. Combined performance studies for electrons at the 2004 ATLAS combined test-beam

[More](#)

Related Review Articles

1. Liquid noble gas detectors for low energy particle physics
2. Comparative analysis of SN1987A antineutrino fluence
3. Particle identification using time of flight

Share

[Post to CiteUlike](#)



#ScholComm19
@SimonRKerridge

Demand to support & incentivise team science



Included recommendations for

Key Stakeholders



1. Open, transparent, standardized and structured **contribution** information.
2. Open and transparent research information infrastructure which links all **research inputs** and outputs to **individual contributors**
3. Minimise researchers' **administrative burden** and should be interoperable.

<https://acmedsci.ac.uk/policy/policy-projects/team-science>

Established problems with authorship: increasingly outdated

1. Authorship criteria doesn't reflect range of contributions ...
2. ... nor supports accountability
3. Demise of the lone authors
4. Team science – lots of 'authors'
5. **More information needed to support research/researcher assessment**
6. **Systematic drivers to 'publish' – games & incentives ...**
7. **Recognising & finding expertise**
8. **Space limitations gone away**

COMMENT

Writing

Study
conception

Credit where credit is due

Liz Allen, Amy Brand, Jo Scott, Micah Altman and Marjorie Hlava are trialling digital taxonomies to help researchers to identify their contributions to collaborative projects.

Investigation

Formal
analysis

Research today is rarely a one-person job. Original research papers with a single author are — particularly in the life sciences — a vanishing breed. Partly, the inflation of author numbers on papers has

Through the endorsement of individuals' contributions, researchers can start to move beyond 'authorship' as the dominant measure of esteem. For funding agencies, better information about the contributions of grant applicants would aid the decision-making

journal articles could be classified using a 14-role taxonomy (see "Who did what?"). The survey was sent to 1,200 corresponding authors of work published in PLOS journals, Nature Publishing Group journals, Elsevier journals, Science and eLife. Corresponding authors were asked to indicate the contribu-

Nature **508**, 312–313 (17 April 2014) doi:10.1038/508312a

Term	Definition
Conceptualization	<i>Ideas; formulation or evolution of overarching research goals and aims.</i>
Methodology	<i>Development or design of methodology; creation of models.</i>
Software	<i>Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</i>
Validation	<i>Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.</i>
Formal Analysis	<i>Application of statistical, mathematical, computational, or other formal techniques to analyse or synthesize study data.</i>
Investigation	<i>Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.</i>
Resources	<i>Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.</i>
Data Curation	<i>Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.</i>
Writing – Original Draft	<i>Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).</i>
Writing – Review & Editing	<i>Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.</i>
Visualization	<i>Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.</i>
Supervision	<i>Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.</i>
Project Administration	<i>Management and coordination responsibility for the research activity planning and execution.</i>
Funding Acquisition	<i>Acquisition of the financial support for the project leading to this publication.</i>

What I am going to talk about

1. Origins of the Contributor Roles Taxonomy (CRediT)

2. Adoption & implementation





CRedit

CRedit is high-level taxonomy, including 14 roles, that can be used to represent the roles typically played by contributors to scientific scholarly output. The roles describe each contributor's specific contribution to the scholarly output.



Background

CRedit grew from a practical realization that bibliographic conventions for describing and listing authors on scholarly outputs are increasingly outdated and fail to represent the range of contributions that researchers make to published output.

Furthermore, there is growing interest among researchers, funding agencies, academic institutions, editors, and publishers in increasing both the transparency and accessibility of research contributions.

<https://casrai.org/credit/>

CRedit implemented across increasing number of outlets

Publishers

American Association of Petroleum Geologists
BMJ Open Science
British Psychological Society
Cell Press
Dartmouth Journal Services
De Gruyter Open
Duke University Press
eLife
Elsevier
Evidence Based Communications
F1000 Research
Geological Society of London
Health & Medical Publishing Group
International Centre of Insect Physiology and Ecology
The Journal of Bone & Joint Surgery
KAMJE Press
Lippincott Williams & Wilkins
MA Healthcare
MIT Press
Oman Medical Specialty Board
Oxford University Press
Public Library of Science (Plos)
SAE International
SLACK Incorporated
Springer
Springer Publishing Company
Wiley VCH
Wolters Kluwer

Kent

Integrators

Allen Press/ Peer Track
Aries Systems/ Editorial Manager
Coko Foundation/ xPub
River Valley/ ReView

Publishing Outlets

Gates Open Research
HRB Open Research
Wellcome Open Research



CRedit taxonomy at PLOS

University of
Kent

Implementation June 2016 – requirement

Author interface:

- Replacement of 5-term contributions list
- Each author must have at least one contribution
- Assigned by corresponding author
- For PLOS Medicine: mapping to ICMJE criteria

Human- **and** machine-readable:

- JATS draft


<https://casrai.org/credit/>

Source: Veronique Kiermer, PLOS 2018



OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann , Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Müller, Hubert Sumser, Thomas Hörrén, Dave Goulson, Hans de Kroon

Published: October 18, 2017 • <https://doi.org/10.1371/journal.pone.0185809>

 In Library 

827
Save

20
Citation

479,490
View

1,854
Share

Article


Authors

Metrics

Comments

Related Content



Download PDF 

Print

Share

 Check for updates

Abstract

Introduction

Materials and methods

Results

Discussion

Supporting information

Acknowledgments

Abstract

Global declines in insects have sparked wide interest among scientists, politicians, and the general public. Loss of insect diversity and abundance is expected to provoke cascading effects on food webs and to jeopardize ecosystem services. Our understanding of the extent and underlying causes of this decline is based on the abundance of single species or taxonomic groups only, rather than changes in insect biomass which is more relevant for ecological functioning. Here, we used a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (96 unique

Included in the
Following Collection

PLOS ONE 10 Year
Anniversary Collection:
Editorial Board Favorites

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Möller, Hubert Sumser, Thomas Hörrén, Dave Goulson, Hans de Kroon

Published: October 18, 2017 • <https://doi.org/10.1371/journal.pone.0185809>

In Library

827
Save

20
Citation

479,490
View

1,854
Share

Article

Authors

Metrics

Comments

Related Content

Download PDF

Print

Share

Check for updates

Abstract

Introduction

Materials and methods

Results

Discussion

Supporting information

Acknowledgments

Abstract

Global declines in insects have sparked wide interest among scientists, politicians, and the general public. Loss of insect diversity and abundance is expected to provoke cascading effects on food webs and to jeopardize ecosystem services. Our understanding of the extent and underlying causes of this decline is based on the abundance of single species or taxonomic groups only, rather than changes in insect biomass which is more relevant for ecological functioning. Here, we used a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (96 unique

Included in the
Following Collection

PLOS ONE 10 Year
Anniversary Collection:
Editorial Board Favorites

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hoffand, Heinz Schwan, Werner Stenmans,

Roles: Conceptualization, Formal analysis, Investigation, Methodology, Software, Validation, Visualization, Writing – original draft, Writing – review & editing

c.hallmann@science.ru.nl

Affiliation: Radboud University, Institute for Water and Wetland Research, Animal Ecology and Physiology & Experimental Plant Ecology, PO Box 9100, 6500 GL Nijmegen, The Netherlands

<http://orcid.org/0000-0002-4630-0522>

Supporting information

Acknowledgments

References

underlying causes of this decline is based on the abundance of single species or taxonomic groups only, rather than changes in insect biomass which is more relevant for ecological functioning. Here, we used a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (96 unique location-year combinations) to infer on the status and trend of local extant faunas. Our analysis

827
Save

20
Citation

479,490
View

1,854
Share

In Library

Comments

Related Content

Download PDF

Print

Share

Check for updates

Included in the
Following Collection

PLOS ONE 10 Year
Anniversary Collection:
Editorial Board Favorites

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Müller, Hubert Sumser, Thomas Hörrén, Dave Goulson, Ha

Published: October 18, 2017 • <https://doi.org/10.1371/journal.pone.0>

827
Save

20
Citation

479,490
View

1,854
Share

Article

Authors

Metrics

Roles: Formal analysis, Resources, Software, Validation

Affiliation: Radboud University, Institute for Water and Wetland Research, Animal Ecology and Physiology & Experimental Plant Ecology, PO Box 9100, 6500 GL Nijmegen, The Netherlands

Download PDF

Share

Check for updates

Abstract

Introduction

Materials and methods

Results

Discussion

Supporting information

Acknowledgments

Abstract

Global declines in insects have sparked wide interest among scientists, politicians, and the general public. Loss of insect diversity and abundance is expected to provoke cascading effects on food webs and to jeopardize ecosystem services. Our understanding of the extent and underlying causes of this decline is based on the abundance of single species or taxonomic groups only, rather than changes in insect biomass which is more relevant for ecological functioning. Here, we used a standardized protocol to measure total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas in Germany (96 unique



Included in the
Following Collection

PLOS ONE 10 Year
Anniversary Collection:
Editorial Board Favorites

More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann , Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Müller, Hubert Sumser, Thomas Hören, Dave Goulson, Hans de Kroon

Published: October 18, 2017 • <https://doi.org/10.1371/journal.pone.0185809>

 In Library 

827
Save

20
Citation

479,487
View

1,854
Share


Article

Authors

Metrics

Comments

Related Content

Download PDF 

Print

Share

 Check for updates

About the Authors

Caspar A. Hallmann

Roles: Conceptualization, Formal analysis, Investigation, Methodology, Software, Validation, Visualization, Writing – original draft, Writing – review & editing

* E-mail: c.hallmann@science.ru.nl

Affiliation: Radboud University, Institute for Water and Wetland Research, Animal Ecology and Physiology & Experimental Plant Ecology, PO Box 9100, 6500 GL Nijmegen, The Netherlands

ORCID: <http://orcid.org/0000-0002-4630-0522>

Martin Sorg

Roles: Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Resources, Writing – review & editing

Affiliation: Entomological Society Krefeld e.V., Entomological Collections Krefeld, Marktstrasse 159, 47798 Krefeld, Germany

Eelke Jongejans

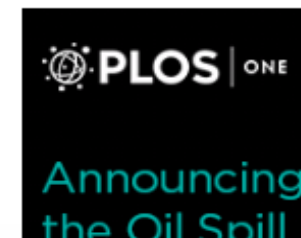
Roles: Conceptualization, Funding acquisition, Investigation, Supervision, Writing – review & editing

Affiliation: Radboud University, Institute for Water and Wetland Research, Animal Ecology and Physiology & Experimental Plant Ecology, PO Box 9100, 6500 GL Nijmegen, The Netherlands

Included in the
Following Collection

[PLOS ONE 10 Year Anniversary Collection:](#)
[Editorial Board Favorites](#)

ADVERTISEMENT





CRedit taxonomy at F1000

Implementation across all F1000 Open Research Platforms since 2017

Author interface:

- Within submission process
- Each author must have at least one contribution
- Assigned by corresponding author

Human- **and** machine-readable:

- JATS draft

<https://casrai.org/credit/>

Source: Veronique Kiermer, PLOS 2018

Wellcome Open Research

BROWSE GATEWAYS HOW TO PUBLISH ABOUT BLOG MY ACCOUNT SIGN IN

W
wellcome

Wellcome Open Research

A new way for Wellcome-funded researchers to rapidly publish any results they think are worth sharing.

SUBMIT YOUR RESEARCH

Browse Articles →

04 SEPTEMBER 2017 Safety and effectiveness of mass drug administration to accelerate elimination ...

05 SEPTEMBER 2017 Evaluation of the Luminex xTAG Respiratory Viral Panel FAST v2 assay fo...

05 SEPTEMBER 2017 Geographic-genetic an Plasmodium falciparur

Health Research Board

COMING SOON

HRB Open Research

A platform for HRB-funded researchers to publish their research outputs in an open and accessible way

STAY UPDATED **READ MORE IN THIS BLOG →**

HRB Health Research Board

COMING SOON

MNI Open Research

Tanenbaum Open Science Institute

A platform for rapid, author-led publication and open peer review of any research conducted at the Montreal Neurological Institute and Hospital.

STAY UPDATED **READ MORE IN THIS BLOG →**

neuro
INSTITUTE OF NEUROSCIENCE
UNIVERSITY OF TORONTO

Powered by F1000

COMING SOON

AMRC Open Research

A platform for rapid author-led publication and open peer review of research funded by AMRC member charities

STAY UPDATED **READ MORE IN THIS BLOG →**

Powered by F1000

amrc	Alzheimer's Research UK	ATAXIA	AUTISTICA Autism Research Foundation	BRACE Brain Research for Advancing Cognitive Excellence	Children's Cancer and Paralysis Group
epilepsy research uk	WE ARE MACMILLAN. CANCER SUPPORT	Marie Curie	Meningitis Research Foundation	MQ Meningitis Research Foundation	MS Society
national eye research institute	National Osteoporosis Society	Pancreatic Cancer UK	HAWKINSONS CHANGE ATTITUDES. FIND A CURE. JOIN US.	Pharmacy Research UK	Royal Hospital for Neuro-disability
spinal research	Stroke	TARGET OUSAN CANCER	THE BRAIN TUMOUR CHARITY	The Cure Parkinson's Trust	The Lottery Trust
THE SIBERT FEE FOUNDATION					

Powered by F1000

BILL & MELINDA GATES foundation

ARTICLE GUIDELINES FQA


COMING SOON

GATES OPEN RESEARCH

A platform for rapid author-led publication and open peer review of research funded by Bill & Melinda Gates Foundation

READ MORE IN THIS BLOG →

STAY UPDATED **HOW TO SUBMIT**




AAS Open Research

BROWSE HOW TO PUBLISH ABOUT BLOG MY ACCOUNT SIGN IN

Immediate & Transparent Publishing

AAS Open Research is a platform for rapid publication and open peer review for researchers supported by AAS and programs supported through its funding platform, AESA.

SUBMIT YOUR RESEARCH **BROWSE ARTICLES**



Recent Articles | Source all →

21 JUN 2018 The Collaborative African Genomics Network (CAGEN): Applying Genomic tr...

17 MAY 2018 Characterization of culturable airborne bacteria and antibiotic susceptibility prof...

10 MAY 2018 Physiologically-based pharmacokinetic modelling of infant exposure to flavonoids...

COMING SOON

UCL Child Health Open Research

A platform for rapid, author-led publication and open peer review of any research focusing on child health from UCL Great Ormond Street Institute of Child Health.

STAY UPDATED **READ MORE IN THIS BLOG**

UCL
GREAT ORMOND STREET
INSTITUTE OF CHILD HEALTH

Powered by F1000





RESEARCH ARTICLE

REVISED The age of heterozygous *telomerase* mutant parents influences the adult phenotype of their offspring irrespective of genotype in zebrafish [version 2; referees: 2 approved]

Catherine M. Scahill¹, Zsolia Digby^{1,2}, Ian M. Sealy¹, Richard J. White ¹, Neha Wali¹, John E. Collins¹, Derek L. Stemple¹, Elisabeth M. Busch-Nentwich ^{1,3}

[Author details](#)

¹ Wellcome Trust Sanger Institute, Wellcome Genome Campus, Hinxton, UK

² Department of Veterinary Medicine, University of Cambridge, Cambridge, UK

³ Department of Medicine, University of Cambridge, Cambridge, UK

Catherine M. Scahill

Roles: Conceptualization, Investigation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing

Zsolia Digby

Roles: Investigation, Visualization

Ian M. Sealy

Roles: Data Curation, Formal Analysis, Visualization

Richard J. White

Roles: Data Curation, Formal Analysis, Visualization

Neha Wali

Roles: Investigation

John E. Collins

Roles: Conceptualization

Derek L. Stemple

Roles: Funding Acquisition, Resources

Elisabeth M. Busch-Nentwich

Roles: Conceptualization, Funding Acquisition, Resources, Supervision, Writing – Original Draft Preparation, Writing – Review & Editing

[Grant information](#)

METRICS

338

VIEWS

125

DOWNLOADS

Get PDF

Get XML

Cite

Export

Track

Email

Share

Open Peer Review

Referee Status:

Version(s)	Invited Referees	
	1	2
REVISED Version 2 published 22 Feb 2018	 read report	 read report
Version 1 published 04 Sep 2017	 read report	 read report

1 **Noriyoshi Sakai** , National Institute of Genetics, Japan

2 **Karl-Lenhard Rudolph**, Leibniz Institute For Age Research, Germany

[All reports \(4\)](#), [Responses and comments \(2\)](#)

Comments on this article

[All comments \(0\)](#)

[Add a Comment](#)

Subscribe to Table of Content Alert

Your email address

SUBSCRIBE



PERSPECTIVE

Transparency in authors' contributions and responsibilities to promote integrity in scientific publication

Marcia K. McNutt^{a,1}, Monica Bradford^b, Jeffrey M. Drazen^c, Brooks Hanson^d, Bob Howard^e, Kathleen Hall Jamieson^f, Véronique Kiermer^g, Emilie Marcus^h, Barbara Kline Pope^{i,2}, Randy Schekman^{j,k}, Sowmya Swaminathan^l, Peter J. Stang^m, and Inder M. Vermaⁿ

Edited by Karen S. Cook, Stanford University, Stanford, CA, and approved January 18, 2018 (received for review August 30, 2017)

In keeping with the growing movement in scientific publishing toward transparency in data and methods, we propose changes to journal authorship policies and procedures to provide insight into which author is responsible for which contributions, better assurance that the list is complete, and clearly articulated standards to justify earning authorship credit. To accomplish these goals, we recommend that journals adopt common and transparent standards for authorship, outline responsibilities for corresponding authors, adopt the Contributor Roles Taxonomy (CRediT) (docs.casrai.org/CRediT) methodology for attributing contributions, include this information in article metadata, and require authors to use the ORCID persistent digital identifier (<https://orcid.org>). Additionally, we recommend that universities and research institutions articulate expectations about author roles and responsibilities to provide a point of common understanding for discussion of authorship across research teams. Furthermore, we propose that funding agencies adopt the ORCID identifier and accept the CRediT taxonomy. We encourage scientific societies to further authorship transparency by signing on to these recommendations and promoting them through their meetings and publications programs.

authorship principles | research transparency | scientific integrity



What I am going to talk about

1. Origins of the Contributor Roles Taxonomy (CRediT)
2. Adoption & implementation
3. First insights into its value!



First insights into CRediT value

Vincent Larivière, Université de Montréal

Cassidy R. Sugimoto, Indiana University Bloomington

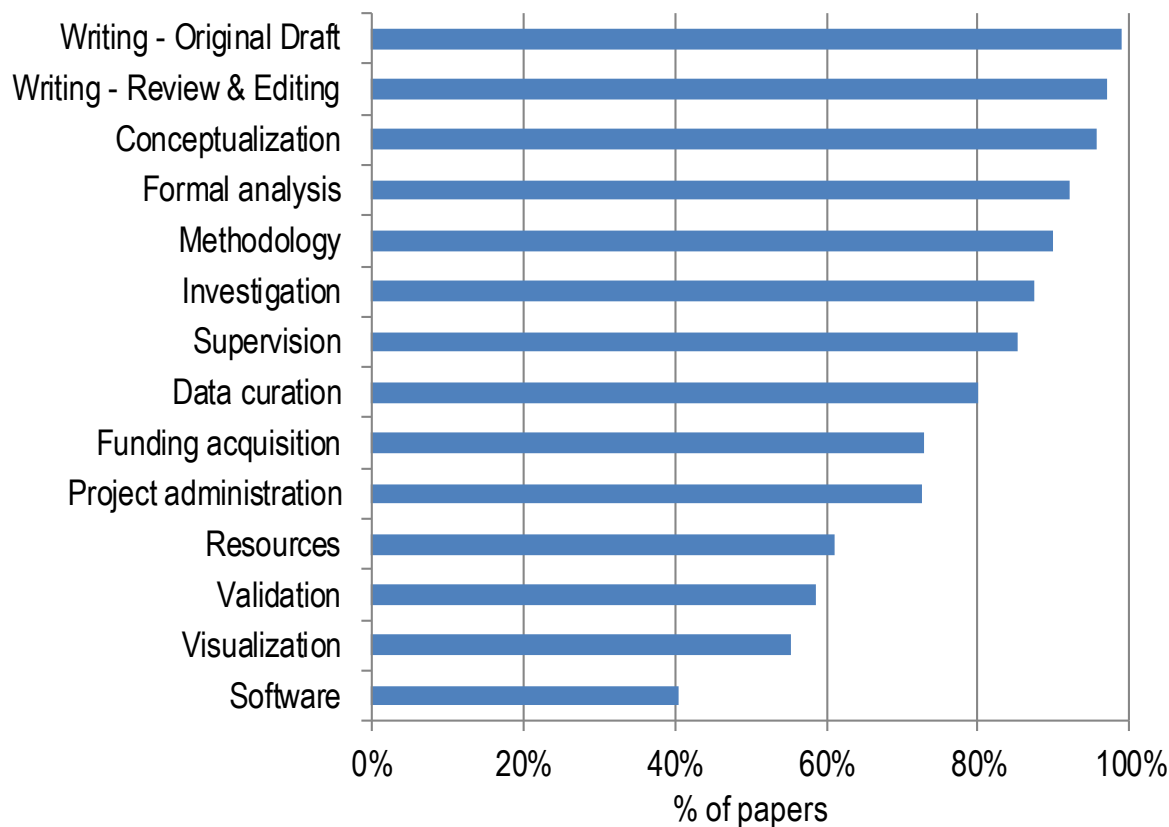


Dataset: PLOS contributions July 2017-June 2018

Journal	N. papers	Mean N. of CRediT Contributions per paper	Mean N. of authors per paper
PLOS Biology	1	14.0	1.0
PLOS Computational Biology	376	11.1	5.2
PLOS Genetics	375	11.2	9.1
PLOS Medicine	129	10.9	15.5
PLOS Neglected Tropical Diseases	607	11.3	10.0
PLOS One	13,667	10.8	7.2
PLOS Pathogens	411	11.2	10.1
All PLOS Journals	15,566	10.9	7.5

Vincent Larivière, Cassidy Sugimoto, preliminary results

Percentage of papers with specific CRediT role

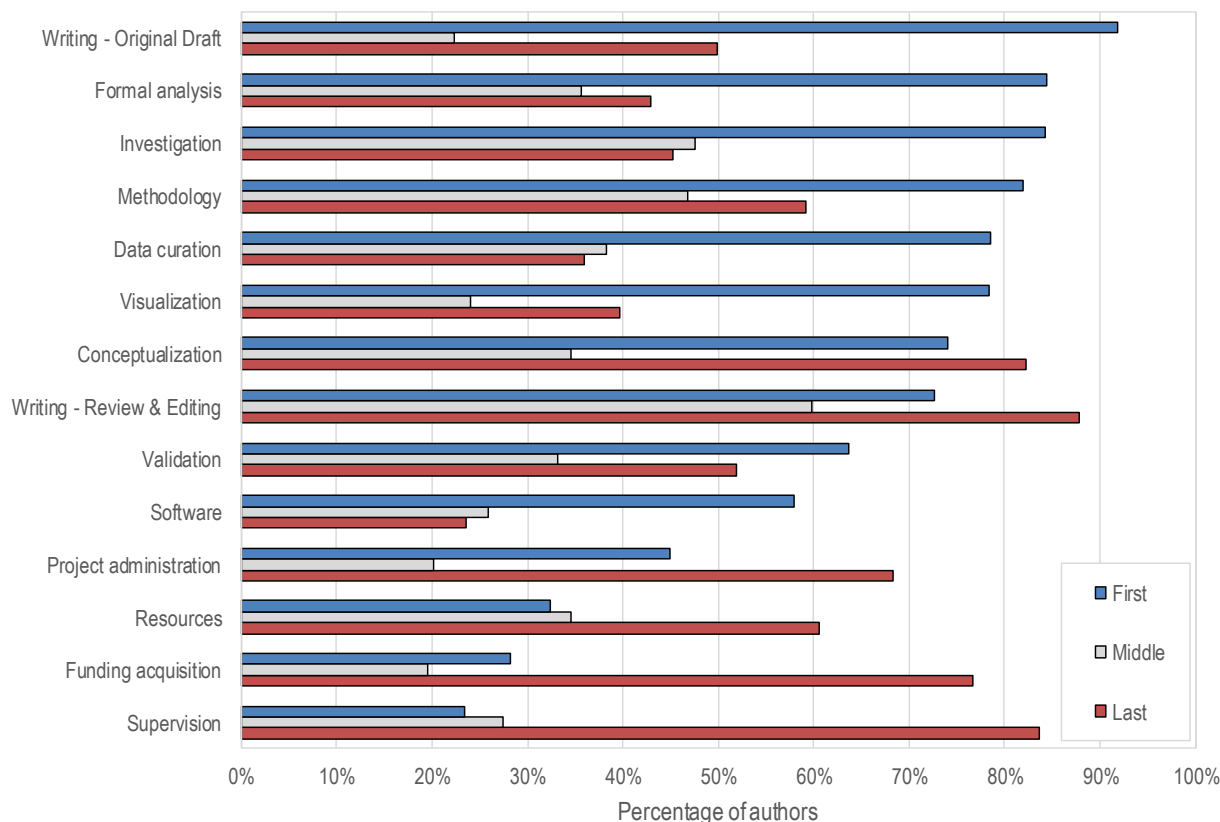


Each role reported in >50% articles (except software 40%)

Vincent Larivière, Cassidy Sugimoto, preliminary results

What do 'middle authors' do?

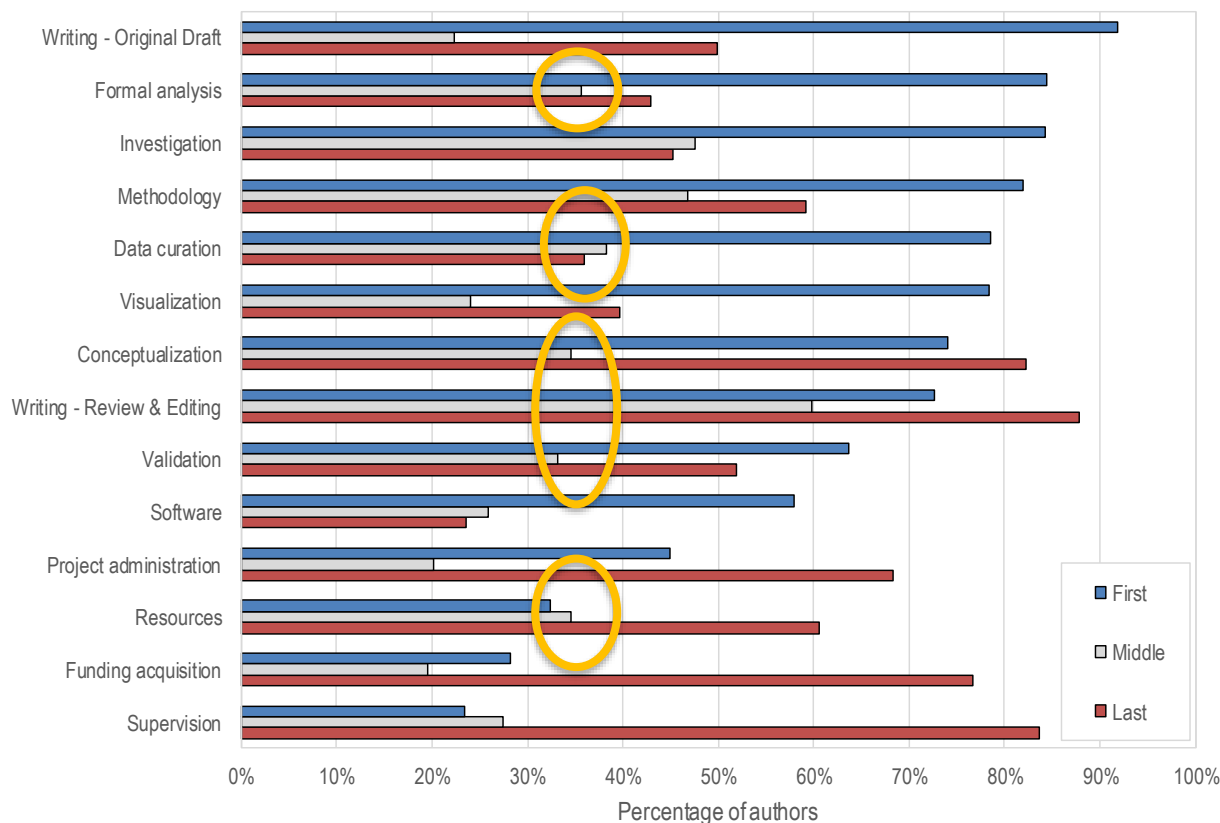
% authors performing contribution by author's order



Vincent Larivière, Cassidy Sugimoto, preliminary results; subset data: n=11k

What do 'middle authors' do?

% authors performing contribution by author's order



1/3 contribute to:

Formal analysis
Data curation
Conceptualization
Validation
Resources

Vincent Larivière, Cassidy Sugimoto, preliminary results; subset data: n=11k

Where next ...

- Building awareness of CRediT – significant interest
 - Community manager?
- Lyris/CASRAI supporting implementations of CRediT
- Feedback routes – working to future versions/keeping CRediT current (while practical)
- More analysis & usage
- Links to ORCID & Crossref – metadata
- At Kent - incorporate into KAR (Eprints)
- <https://casrai.org/credit/>



DORA 2.0

University of
Kent



[SIGN DORA](#) [READ THE DECLARATION](#) [SIGNERS](#) [BLOG](#) [GOOD PRACTICES](#) [CONTACT US](#)

Follow us on [twitter](#)

Improving how research is assessed

Join the organizations and individuals who have signed the Declaration on Research Assessment.

[Sign the declaration](#)

[Read the full declaration >](#)

Latest news



Assessing scientists for hiring,
promotion, and tenure

PLOS BIOLOGY

Improving How We Evaluate Research:
How We're Implementing DORA

CANCER RESEARCH UK

Few UK universities have adopted rules
against impact-factor abuse

NATURE

If you authorize Crossref
and DataCite to update
your ORCID record



ORCID



CrossRef ORCID auto- update

University of
Kent



and you add your ORCID
to your paper or
dataset submission

when your
publication
gets a DOI,
your ORCID
record will
get updated



AUTOMATICALLY!



- International Research Data Management Glossary (IRiDiuM)
- Open Access Glossary
- Research Impact Glossary
- Career Levels Glossary / Taxonomy
- Notice of Award Definition
- CVs
- <https://casrai.org/>

Overall CASRAI INFORMATION HARMONY areas

- Notice of Opportunity
- Proposal
- Budget
- CV
- Notice of Award
- Compliance Reporting
- Financial/Progress Reporting
- Data Management Plans
- Impacts
- Metrics
- <https://casrai.org/>

Questions / Discussion

With thanks to CRediT Co-Chairs

Liz Allen

Director of Strategic Initiatives, F1000

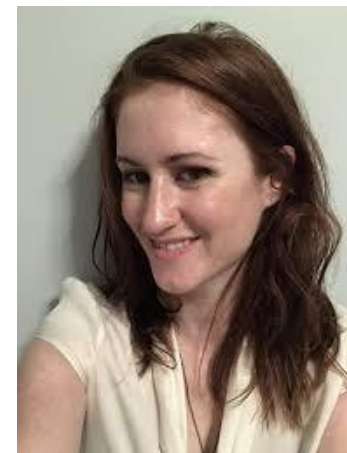
@allen_liz

and

Alison McGonagle-O'Connell

Editoria Community Manager, CoKo Foundation

@Alisoconagle



University of
Kent

#ScholComm19

<https://casrai.org/credit/>

/ THE UK'S EUROPEAN UNIVERSITY



www.kent.ac.uk