

# Peer Community In & Peer Community Journal



Denis Bourguet

Benoit Facon

Thomas Guillemaud

Marjolaine Hamelin

INRAE



From preprint recommendation to Diamond  
Open Access publication



PCI

A complex, abstract network diagram serves as the background. It consists of numerous small, light-blue circular nodes scattered across the frame, connected by thin, light-blue lines. Some nodes are larger and more prominent, acting as hubs. The overall effect is a sense of interconnectedness and complexity.

# We're facing several problems

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# Quality issues in published articles

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- low power of statistical analysis
- Harking (hypotheses after results are known)
- p-hacking ...



- Raw data not available
- Methods: no details – not complete
- Parameters not described
- Scripts and codes not available

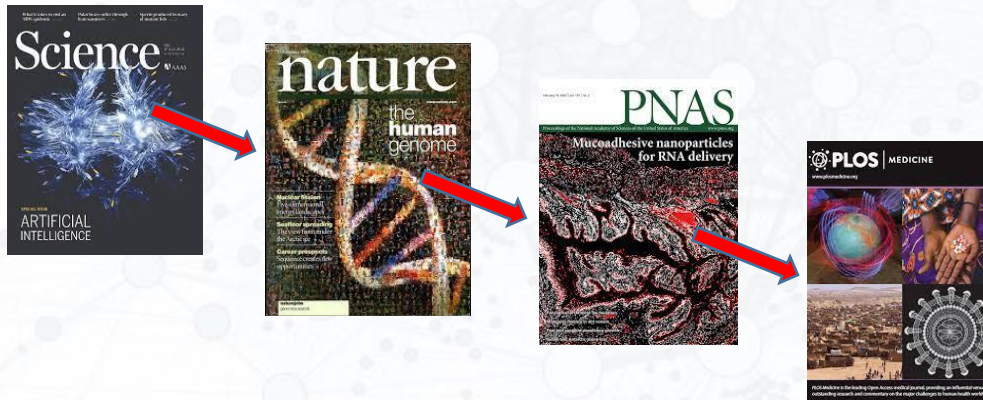


➔ 20-60% studies are non reproducible depending on the field

Begley, C. G.; Ellis, L. M. (2012). "Drug Development: Raise Standards for Preclinical Cancer Research". *Nature*.  
Baker, M. 1,500 scientists lift the lid on reproducibility. *Nature* 533, 452–454 (2016). <https://doi.org/10.1038/533452a>  
Open Science Collaboration, Estimating the reproducibility of psychological science. *Science* 349, aa4716 (2015).

# Inefficient Peer Review system

- Peer Review = long process
- Submissions/rejections in cascade

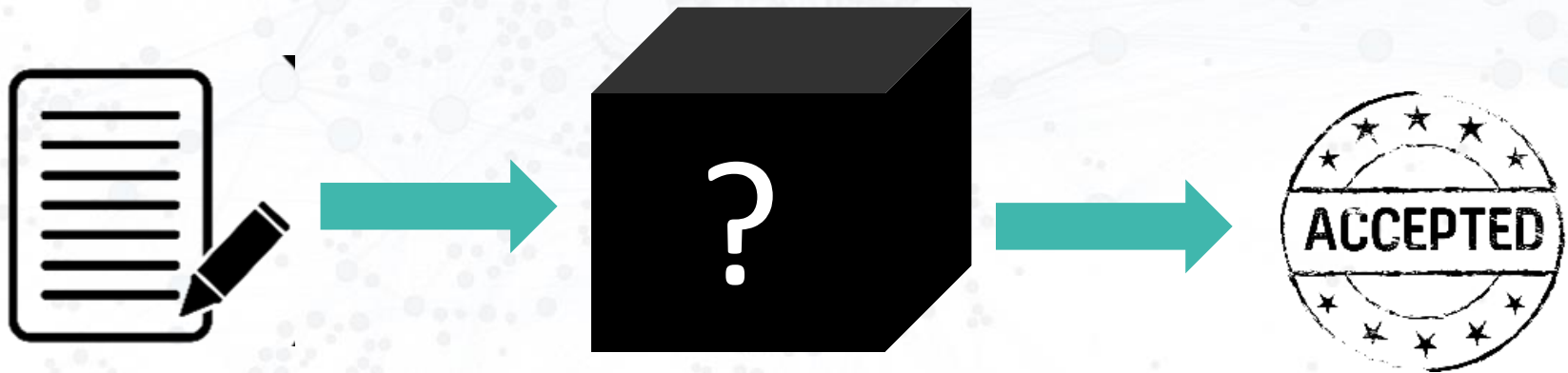


- ➔ 1-2 years to read a paper
- ➔ Waste of evaluation effort
- ➔ Reviewers availability issue

# Non transparent Peer Review system

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- Hidden Reviews
- Hidden Editorial Decisions
- Unknown Editor
- Hidden Conflicts of Interest





# Publication = A closed system

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% of publications behind paywalls

Worldwide: **70%** (2019)

Piwowar et al 2019. <https://doi.org/10.1101/795310>

Europe: **64%** (2018)

[https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/open-science-monitor/trends-open-access-publications\\_en](https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/open-science-monitor/trends-open-access-publications_en)

France: **44%** (2019)

<https://www.enseignementsup-recherche.gouv.fr/fr/barometre-francais-de-la-science-ouverte-47519>



# Publication = Costly system & fantastic margin profit



France: ~ €150 M/year

Europe: ~ €3 B/year

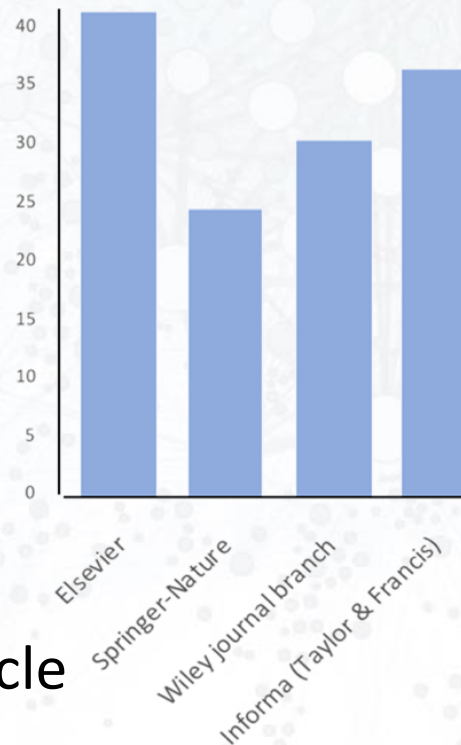
World: ~ €10 B/ year

for 3 millions articles  
published /year

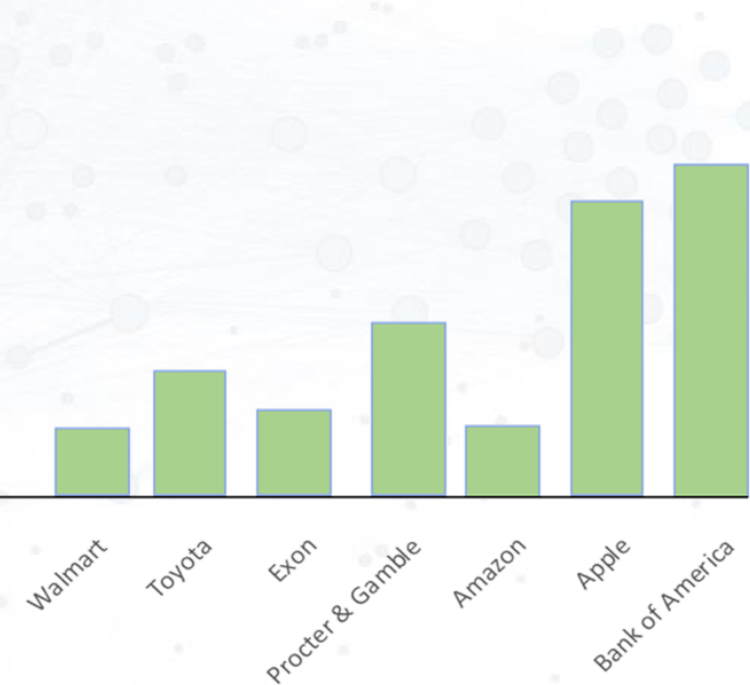
➔ cost of ~ €3000 /article

## Operating profit margin (% , 2019)

### Publishers



### Leading companies



Sources: [macro-trends.net](https://www.macro-trends.net), RELX annual report, bloomberg, SPARC, [marketscreener.com](https://www.marketscreener.com),

# Let's pay twice ... or even thrice!

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Hybrid journals

Subscription-based journals



APC-based  
Open Access  
Journals



- 1- Libraries pay subscriptions
- 2- Laboratories pay APCs
- 3- Research institutions pay researchers to write, evaluate, edit, proofread, format articles**





Re-appropriate the publication  
system:

Peer Community In  
&  
Peer Community Journal

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# Peer Community In & Peer Community Journal

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A double publication system



Peer Community In  
“PCI”

Peer Reviewed and  
recommended preprints



Peer Community Journal  
“PCJ”

Diamond Open Access  
generalist journal

# The aim of PCI

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**Communities of researchers** handling the **evaluation** of (through peer review) and **recommending preprints** in their scientific field.

bioRxiv

arXiv.org

zenodo

HAL  
archives-ouvertes.fr

OSF PREPRINTS

etc ...

*PCI Ecology*

*PCI Evolutionary Biology*

*PCI Genomics*

*PCI Microbiology*

*etc..*

PCI

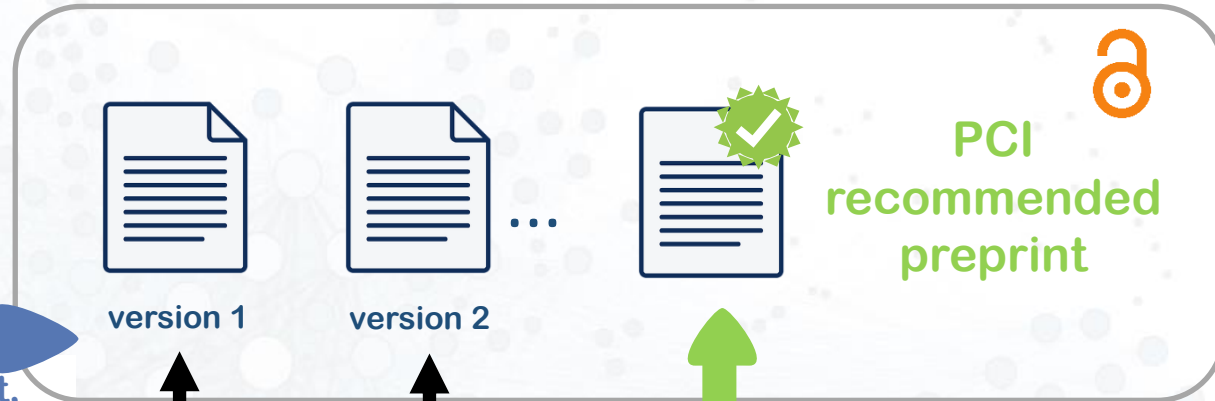
# How does work PCI?

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## Repository



## PREPRINT server



## PCI website



Not considered

Rejected

PCI

author deposits their manuscript,  
data and code


author submits  
the DOI/URL

**Recommendation  
&  
reviews**







# PCI-recommended preprint

# Recommendation text

 **Peer Community In**  
Evolutionary Biology

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RESEARCH ARTICLE

 Open Access  
 Open Data  
 Open Code  
 Open Peer-Review

**Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita***

Djampa KL Kozłowski<sup>1</sup>, Rahim Hassanaly-Goulamhoussen<sup>1</sup>, Martine Da Rocha<sup>1</sup>, Georgios D Koutsouvolos<sup>1</sup>, Marc Bailly-Bechet<sup>1\*</sup>, Etienne GJ Danchin<sup>1\*</sup>.

<sup>1</sup> Université Côte d'Azur, INRAE, CNRS, ISA – Sophia Antipolis, France  
\* equal contribution

Cite as: Kozłowski DK, Hassanaly-Goulamhoussen R, Da Rocha M, Koutsouvolos GD, Bailly-Bechet M, Danchin EG (2020) Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita*. *bioRxiv*, 2020.04.30.069948, ver. 4 peer-reviewed and recommended by PCI Evolutionary Biology. <https://doi.org/10.1101/2020.04.30.069948>

Posted: 03 Aug 2020

Recommender: Inés Alvarez

Reviewers: Daniel Vitales and two anonymous reviewers

Correspondence: [etienne.goulamhoussen@inrae.fr](mailto:etienne.goulamhoussen@inrae.fr)  
[etienne.goulamhoussen@inrae.fr](mailto:etienne.goulamhoussen@inrae.fr)

Peer Community In Evolutionary Biology

This article has been peer-reviewed and recommended by  
**Peer Community in Evolutionary Biology**  
<https://doi.org/10.24072/pci.evolbiol.100106>

**ABSTRACT**  
Despite reproducing without sexual recombination, the root-knot nematode *Meloidogyne incognita* is adaptive and versatile. Indeed, this species displays a global distribution, is able to parasitize a large range of plants and can overcome plant resistance in a few generations. The mechanisms underlying this adaptability without sex remain poorly known and only low variation at the single nucleotide polymorphism level have been observed so far across different geographical isolates with distinct ranges of compatible hosts. Hence, other mechanisms than the accumulation of point mutations are probably involved in the genomic dynamics and plasticity necessary for adaptability. Transposable elements (TEs), by their repetitive nature and mobility, can passively and actively impact the genome dynamics. This is particularly expected in polyploid hybrid genomes such as the one of *M. incognita*. Here, we have annotated the TE content of *M. incognita*, analyzed the statistical properties of this TE content, and used population genomics approach to estimate the mobility of these TEs across 12 geographical isolates, presenting phenotypic variations. The TE content is more abundant in DNA transposons and the distribution of TE copies identify to their consensus sequence suggests they have been at least recently active. We have identified loci in the genome where the frequencies of presence of a TE showed variations across the different isolates. Compared to the *M. incognita* reference genome, we detected the insertion of some TEs either within genic regions or in the upstream regulatory regions. These predicted TE insertions might thus have a functional impact. We validated by PCR the insertion of some of these TEs, confirming TE movements probably play a role in the genome plasticity with possible functional impacts.

**Keywords:** transposons, genomic plasticity, evolution, agricultural pest, parthenogenesis, hybridization

 **Recommendation**

 Share  Tweet Printable page 

**Determinants of population genetic structure in co-occurring freshwater snails**  
*Trine Bilde and Matteo Fumagalli based on reviews by 3 anonymous reviewers*

A recommendation of:

**Connectivity and selfing drives population genetic structure in a patchy landscape: a comparative approach of four co-occurring freshwater snail species**  
Jarne P., Lozano del Campo A., Lamy T., Chapuis E., Dubart M., Segard A., Canard E., Pointier J.-P., David P.  
(2021), HAL, hal-03295242, ver. 4 peer-reviewed and recommended by Peer Community in Evolutionary Biology  
<https://hal.archives-ouvertes.fr/hal-03295242>

 **Abstract** 

Submitted: 11 February 2021, Recommended: 01 September 2021

## Recommendation

Genetic diversity is a key aspect of biodiversity and has important implications for evolutionary potential and thereby the persistence of species. Improving our understanding of the factors that drive genetic structure within and between populations is, therefore, a long-standing goal in evolutionary biology. However, this is a major challenge,

 Open Access  Open Peer-Review

 Open Data  Open Code



# Final, valid, findable and citable article

PCI



# Publication of PCI-recommended preprints & Peer Community Journal

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PCI-recommended  
preprint



**Peer Community Journal**

Direct publication in diamond open access

OR



**PCI-friendly** journals

OR



**Other journals**

# PCI-friendly journals

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## 3 categories

### 1. Accept without further reviews

- Peer Community Journal
- PeerJ
- PeerJ Computer Science
- Frontiers of Biogeography
- Rethinking Ecology
- Acarologia
- Belgium J of Zool
- J Lithic Studies
- OCL
- Theoretical Roman Archaeology Journal

### PCI RR

- |  |                                     |
|--|-------------------------------------|
| • <b>Addiction Research &amp; Theory</b>             | • <b>NeuroImage: Reports</b>        |
| • <b>Advances in Cognitive Psychology</b>            | • <b>Peer Community Journal</b>     |
| • <b>BMJ Open Science</b>                            | • <b>PeerJ</b>                      |
| • <b>Brain and Neuroscience Advances</b>             | • <b>PeerJ Computer Science</b>     |
| • <b>Cambridge Educational Research e-Journal</b>    | • <b>PeerJ Physical Chemistry</b>   |
| • <b>Cortex</b>                                      | • <b>PeerJ Organic Chemistry</b>    |
| • <b>Experimental Psychology</b>                     | • <b>PeerJ Inorganic Chemistry</b>  |
| • <b>F1000Research</b>                               | • <b>PeerJ Analytical Chemistry</b> |
| • <b>Infant and Child Development</b>                | • <b>PeerJ Materials Science</b>    |
| • <b>Journal for Reproducibility in Neuroscience</b> | • <b>Royal Society Open Science</b> |
| • <b>Journal of Cognition</b>                        | • <b>Swiss Psychology Open</b>      |
| • <b>Meta-Psychology</b>                             |                                     |

# PCI-friendly journals

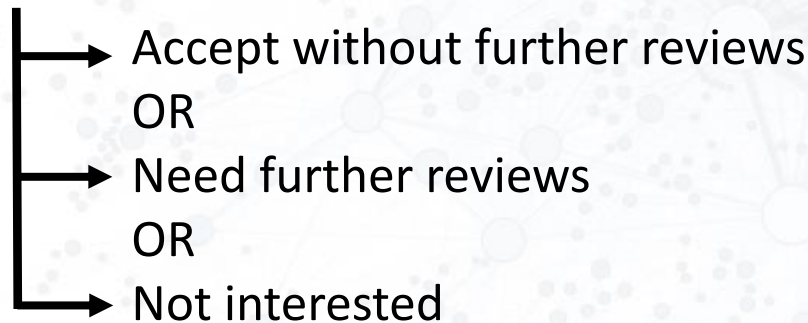
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## 3 categories

### 1. Accept without further reviews

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### 2. Fast response ( $\leq 5$ days) to presubmission enquiry



- Ecology Letters
- PLOS Biology
- Evolution
- OIKOS
- Journal of Evolutionary Biology
- Evolution Letters
- Journal of Biogeography
- GigaByte
- GigaScience
- Ecology and Evolution
- Animal Welfare
- Annals of Forest Science
- Bulletin of the History of Archaeology
- Bulletins et Mémoires de la Société d'Anthropologie de Paris (BMSAP)
- Collabra: Psychology
- European zoological journal
- Evolutionary Applications
- Evolutionary Ecology
- Heritage
- Journal of Applied Entomology
- Journal of Avian Biology
- Journal of Computer Applications in Archaeology
- Journal of Neolithic Archaeology
- Journal of Open Archaeology Data
- Journal of the Israel Prehistoric Society
- Molecular Ecology
- Veterinary Research



# PCI-friendly journals

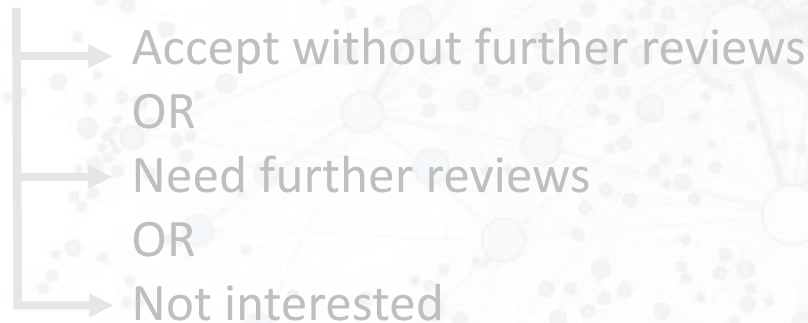
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## 3 categories

### 1. Accept without further reviews

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### 2. Fast response ( $\leq 5$ days) to presubmission enquiry



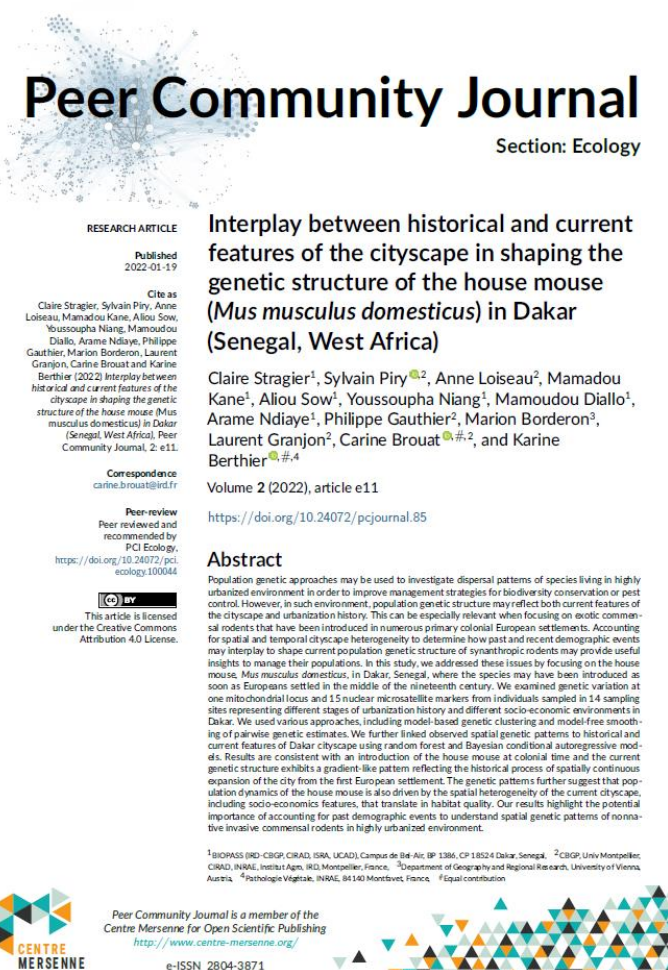
### 3. May use the evaluations of PCI if adequate

- Adansonia
- Agronomy for Sustainable Development
- Anthropolozologica
- Archäologische Informationen
- Comptes Rendus Palevol
- Cryptogamie, Algologie
- Cryptogamie, Bryologie
- Cryptogamie, Mycologie
- eLife
- European Journal of Taxonomy
- EXARC Journal
- G3: Genes, Genomes, Genetics
- Genetics
- Geodiversitas
- Global Ecology and Biogeography
- Internet Archaeology
- Journal of Pollination Ecology
- Naturae
- Neuroanatomy and Behaviour
- Zoosystema
- Animal
- Animal microbiome
- Anthropologica et Praehistorica
- Arqueologia
- BMC Ecology and Evolution
- Botany Letters
- Genetica
- Integrative Organismal Biology
- Molecular Ecology Resources
- Nordic Journal of Botany
- Open Quaternary
- PLOS One
- Quaternary
- Trends in Plant Science



- Launched in November 2021
- Accepts “as is” any and only recommended articles
- Free for readers and authors
- Already 128 articles published
- 15 sections
- CC-BY Licence
- Indexed in DOAJ Plan S CAB ABSTRACT Google Scholar Dimensions Crossref

- Applications for indexation in WEB OF SCIENCE PubMed



<sup>1</sup>BIOPASS (IRD-CIRAD, ISRA, UCAD), Campus de l'Air, BP 1386, CP 18524 Dakar, Senegal. <sup>2</sup>CIRAD, Université Montpellier, CIRAD, INRAE, Institut Agr. IRD, Montpellier, France. <sup>3</sup>Department of Geography and Regional Research, University of Vienna, Austria. <sup>4</sup>Pathologie Végétale, INRAE, IR4140 Montpellier, France. <sup>5</sup>Equal contribution

# In summary

PCI-recommended  
article

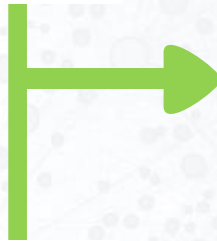


Final, citable  
article hosted  
by preprint  
server

Author's  
choice to  
submit to



OR



OR



**Peer Community Journal**

Direct publication in diamond open access

**PCI-friendly journals**

- accept with no further peer review

OR

- fast response ( $\leq 5$  days) to presubmission enquiry

OR

- use of PCI evaluation if appropriate

**Other journals**

If not satisfied by  
the decision

If not satisfied by  
the decision

PCI

# Authors of PCI-recommended preprints

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- **... can know** within a few days **if one or more PCI-friendly journals**
  - are interested
  - will request or not further peer-review
- **... get 100% chance to publish rapidly** in an indexed and free open access journal (Peer Community Journal)



# Consequences

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- **Big savings for research** agencies (150 €/paper instead of 3000 € on average)
- **Results accessible** to all and right away because preprints
- **Transparency** of data, methods, scripts, codes, ideas, hypotheses
- **Transparency** of evaluations
- The editorial policy of a journal is replaced by a **clear and argued recommendation** text
- **A single evaluation for many journals**
- A mean to break the publishers' business (diamond OA)
- recognition of reviewers' and recommenders' work



# PCI in figures & Current PCIs

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# PCI in figures



16

PEER  
COMMUNITIES



615

SUBMITTED  
ARTICLES



315

RECOMMENDED  
ARTICLES



54

MEDIAN TIME TO  
1ST DECISION (DAYS)



4200

TWITTER  
FOLLOWERS



>5600

REGISTERED  
USERS



>1900

RECOMMENDERS



130

MANAGING BOARD  
MEMBERS



997

REVIEWERS



92

FRIENDLY  
JOURNALS



>12000

VISITORS TO  
PCI WEBSITES



130

SUPPORTING  
ORGANISATIONS

# Current PCIs

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## 2017

PCI Evolutionary Biology

## 2018

PCI Ecology

PCI Paleontology

## 2019

PCI Animal -Science

PCI Zoology

## 2020

PCI Mathematical and Computational Biology

PCI Forest & Wood Science

PCI Network Science

PCI Genomics

PCI Archaeology

PCI Circuit Neuroscience

## 2021

### ***PCI Registered Reports***

PCI Ecotoxicology and Environmental Chemistry

PCI Infections

## 2022

PCI Microbiology

PCI Health & Movement Sciences

# Supports, awards and recognition

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# Supports (univ. and research institutes)

INRAE

cnrs

KU LEUVEN

ULB

LIÈGE université

UCLouvain

Iowa State University

UMBC

IRD  
Institut de Recherche  
pour le Développement  
FRANCE

Inria

université  
PARIS-SACLAY

UNIVERSITÉ DE  
MONTPELLIER

UNIVERSITÉ  
CÔTE D'AZUR

SupAgro  
Montpellier

École Pratique  
des Hautes Études

UNIVERSITÉ  
DE LORRAINE

AgroParisTech

Université  
de Poitiers

Université  
Fédérale  
Toulouse  
Midi-Pyrénées

Inrap

Université  
de Limoges

UNIVERSITÉ  
Clermont  
Auvergne

Aix-Marseille  
université

SORBONNE  
UNIVERSITÉ  
CRÉATEURS DE FUTURS  
DEPUIS 1257

université  
de BORDEAUX

Université  
de Lille

cnrs  
INEE

Institut Pasteur

UVSQ  
UNIVERSITÉ PARIS-SACLAY

Université  
de Guyane

Ifremer

UFR  
Lyon 1

Inserm

UNIVERSITÉ DE  
RENNES 1

Université  
de Strasbourg

UNIVERSITÉ  
PERPIGNAN  
VIA  
DOMITIA

université  
de TOURS

Université  
de BORDEAUX  
MONTAIGNE

VU  
VRIJE  
UNIVERSITEIT  
AMSTERDAM

SIB  
Swiss Institute of  
Bioinformatics

CSIC  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

SDU  
University of  
Southern Denmark

UNIVERSIDAD NACIONAL DEL COMAHUE  
1972

isem  
Institut des Sciences de l'Évolution-Montpellier

PALEOVOPRIM  
Centre de Recherche pour  
l'Évolution et la Paléontologie

AGROBIOTECH

CBGP  
Centre de Biologie pour  
le Contrôle des Épidémies

UNIVERSITY  
of York

US  
UNIVERSITY  
OF SUSSEX

Imperial College  
London

The University  
Of Sheffield.

BODLEIAN  
LIBRARIES

UNIVERSITY OF  
OXFORD

UNIVERSITY OF  
SURREY

UNIVERSITY OF  
BRISTOL

University of  
BRISTOL

MAX-PLANCK INSTITUTE  
FOR EVOLUTIONARY BIOLOGY

Max Planck Institute  
for Evolutionary Anthropology

PCI



# Supports (libraries, societies and others)

## Libraries



## Learned Societies



## Other



PCI

# Grants, awards and projects

## French National Open Science Fund (2020)



## Pilote project « Notify » with



## 2020 LIBER Award for Library Innovation

Winner of the

**LIBER Award for Library Innovation**  
supported by



**OCLC**



**08**

Jun 2020

[www.liberconference.eu](http://www.liberconference.eu)  
@LIBERconference | #LIBER2020



**ARCADIA**

A CHARITABLE FUND OF  
LISBET RAUSING & PETER BALDWIN

# How to participate?

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# Sign and share the **#PCIManifesto**

<https://peercommunityin.org/pci-manifesto/>

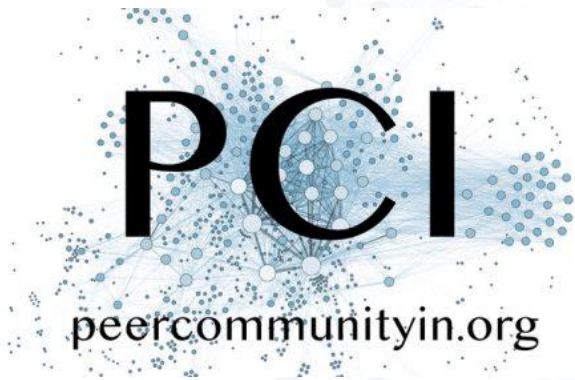


“

1. I agree to submit at least one of my best articles to a PCI for peer review before the end of 2023 and, if recommended, to publish it in Peer Community Journal.
2. “I will be bound by this promise only if at least 500 other researchers make the same commitment.”

”

**843** colleagues have signed so far



- **Submit your articles to a PCI**
- **Publish in Peer Community Journal**
- **Join us as reviewers and recommenders**
- **Follow us on twitter @PeerCommunityIn**
- **Create new PCIs**
- **More generally participate in real open science (Diamond OA, society/university journals, ...)**



# Thanks!

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@PeerCommunityIn

<https://peercommunityin.org>

# Recognition by Doctoral Schools

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**Doctoral Programme in Biodiversity, Genetics and Evolution (BIODIV)** – Univ. Porto & Univ Lisbon, Portugal

**Programa de Doctorado en Biología Integrada** – Univ. de Sevilla, Spain

**ED Sciences de la Vie et de la Santé** – Univ. Nice, France

**ED SEVAB** – Univ. Toulouse, France

**ED Science de l'Environnement** – Univ Aix Marseille, France

**ED Gaïa** – Univ Montpellier, France

**ED Sciences, Technologies et Santé** – Univ. La Réunion, France

**ED Écologie, Géosciences, Agronomie, ALimentation** – Univ. Rennes, France

**ED Energie et Environnement** – Univ. Perpignan, France

**ED Sciences de la Mer et du Littoral** – Univ. Brest, Nantes, , France

**ED Theodore Monod** – Univ Poitiers, France

**ED ABIES** – Univ. Saclay, France

**ED Environnements-Santé** – Univ. Bourgogne Franche-Comté, France

**ED E2M2** – Univ Lyon, France

**ED Sciences de la Nature et de l'Homme : écologie & évolution** – MNHN, France

**ED Sciences du végétal : du gène à l'écosystème** – Univ. Orsay, France

**ED SMRE** – Univ. Lille, France

**ED Structure et Dynamique des Systèmes Vivants** – Univ. Saclay, France

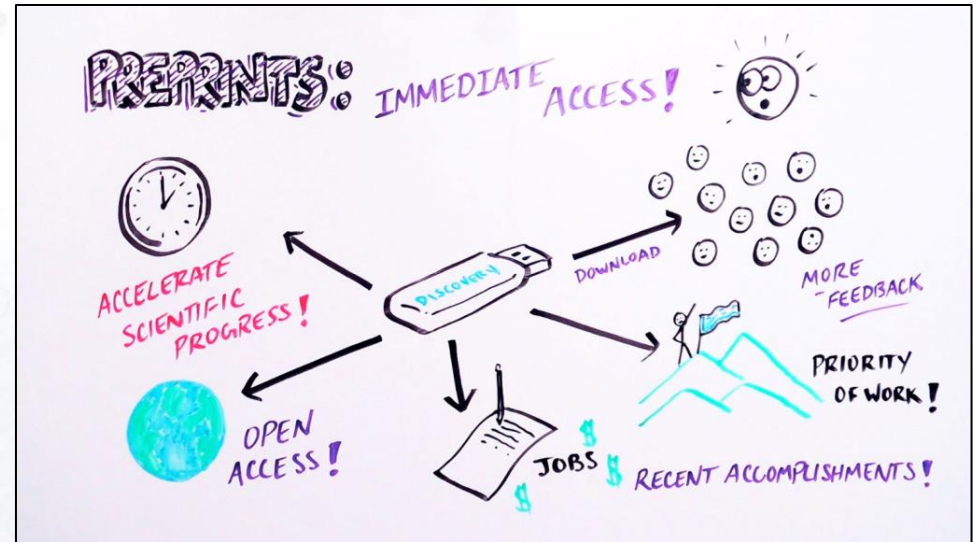
**ED Sciences et Environnement** – Univ. Bordeaux, France

**ED Sciences Exactes et Applications** – Univ. Pau et Pays de l'Adour, France

**ED SVSAE** – Univ. Clermont Auvergne, France

## Preprints are good...

- Low cost
- Free for authors and readers
- Available immediately
- Archive
- Proof of anteriority
- Searchable/Findable



## But putative quality problem...

- No formal evaluation – no peer-review
- Everything can be found in open archives including preprints of very bad quality



**We therefore need preprint evaluation**