Peer Community In & Peer Community Journal

Denis Bourguet Benoit Facon Thomas Guillemaud Marjolaine Hamelin





From preprint recommendation to Diamond **Open Access publication**





We're facing several problems



Quality issues in published articles

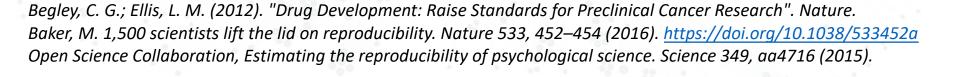
- low power of statistical analysis
- Harking (hypotheses after results are known)
- p-hacking ...



- 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



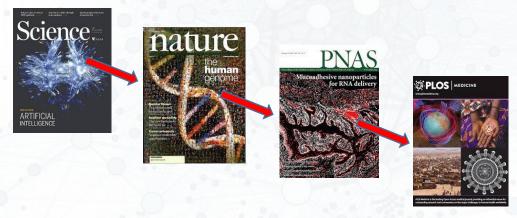


Inefficient Peer Review system

Peer Review = long process



Submissions/rejections in cascade

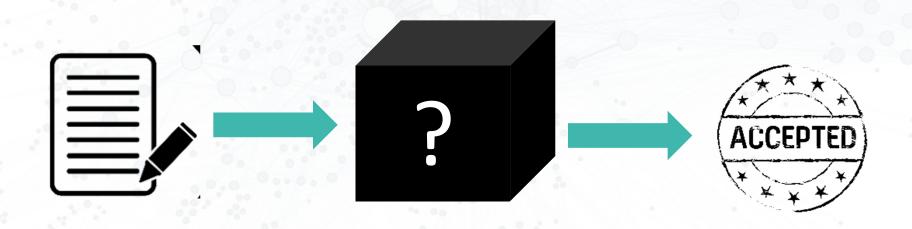


- → 1-2 years to read a paper
- → Waste of evaluation effort
- → Reviewers availability issue



Non transparent Peer Review system

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





Publication = A closed system

% 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

France: **44%** (2019)

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



Publication = Costly system & fantastic margin profit



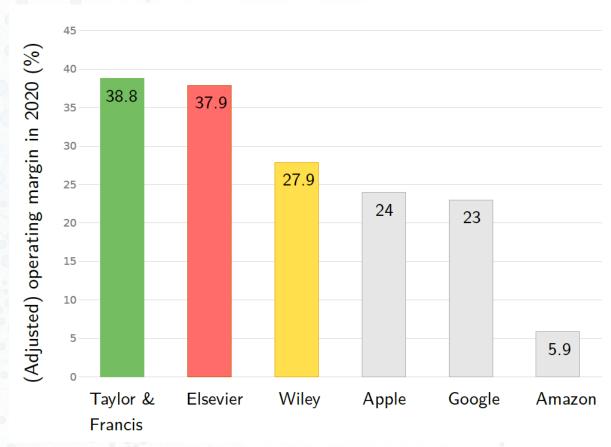
France: ~ €118 M/year

Europe: ~ €3 B/year

World: ~ €10 B/ year

for 3 millions articles published /year

→ cost of ~ €3000 /article



BRCP. Against Parasite Publishers: Making Journals Free. (2022). https://doi.org/10.5281/zenodo.7212922



Let's pay twice ...

APC-based
Open Access
Journals

Subscriptionbased journals

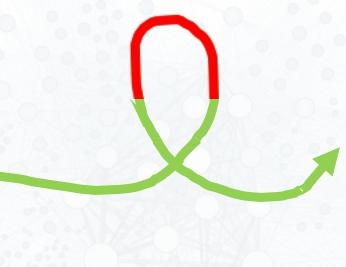
- 1- Libraries pay subscriptions
- 2- Laboratories pay APCs



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

Hybrid journals

Subscriptionbased journals



APC-based
Open Access
Journals



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





Researchers reclaim the scientific publication system:

Peer Community In &

Peer Community Journal



Peer Community In & Peer Community Journal

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

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

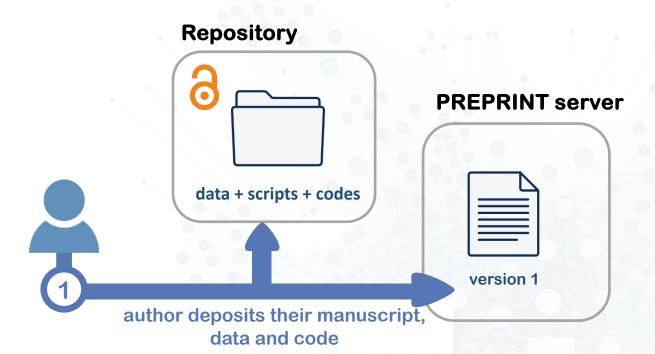


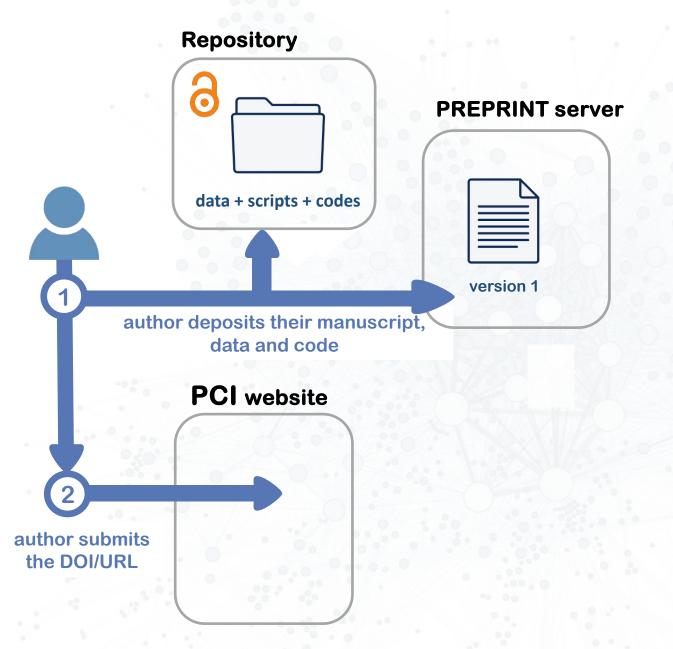
PCI Ecology
PCI Evolutionary Biology
PCI Genomics
PCI Microbiology
etc..



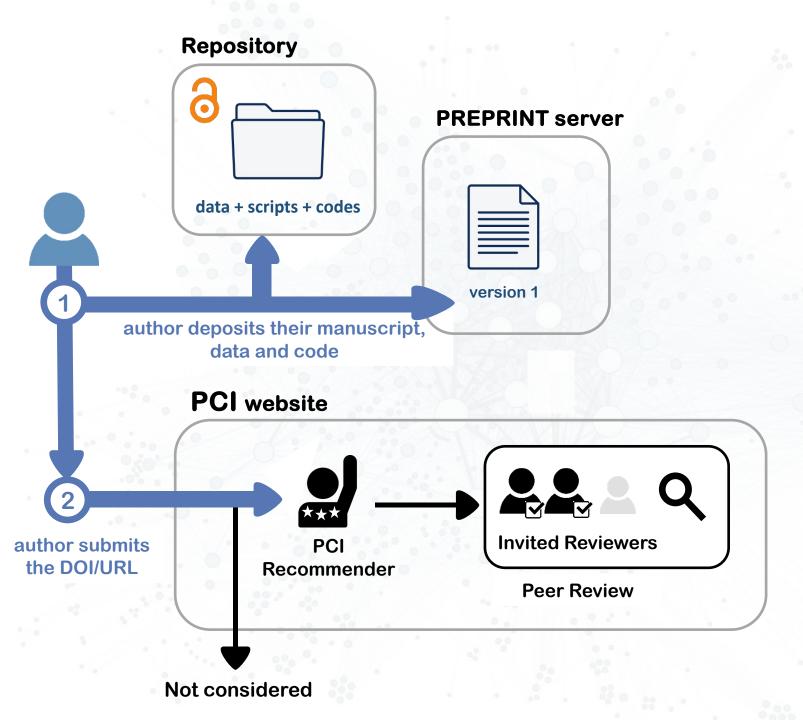
How does PCI work?



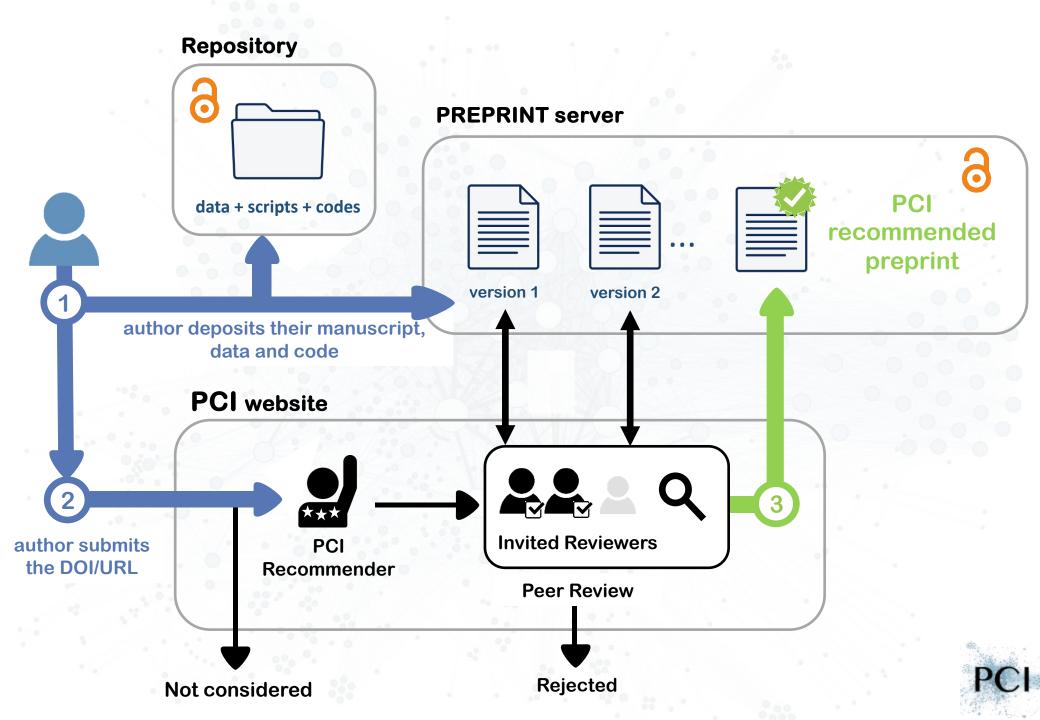


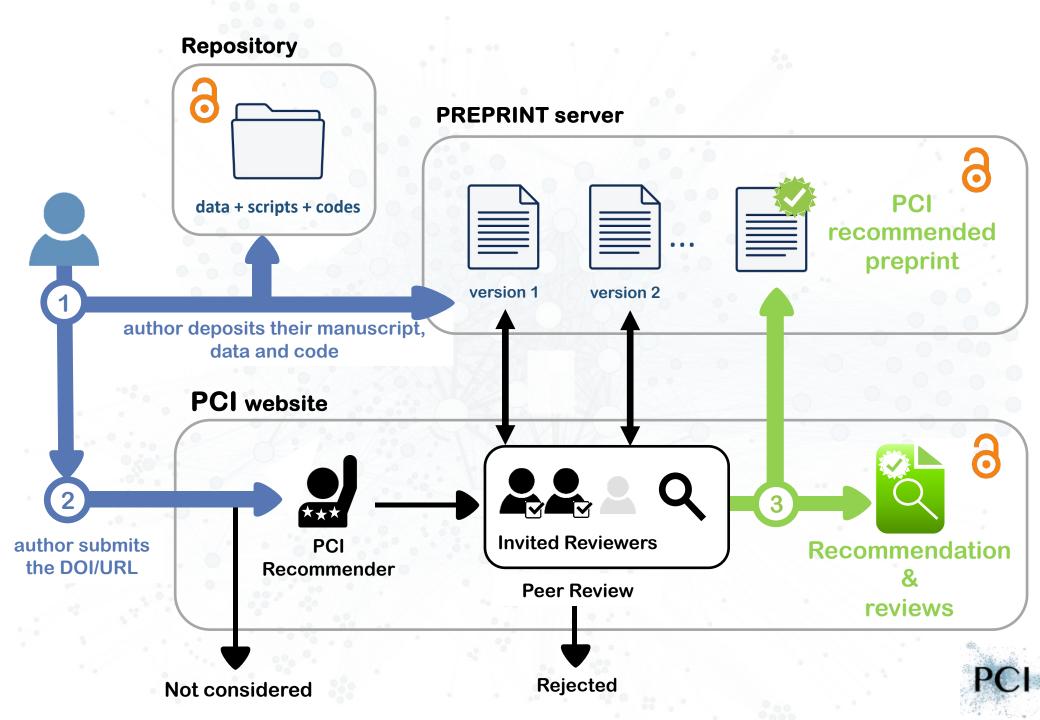














Recommendation





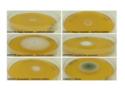


Printable page

Diverse outcomes in cheese fungi domestication

Christelle Fraïsse based on reviews by Delphine Sicard and 1 anonymous reviewer

A recommendation of:



Domestication of different varieties in the cheese-making fungus Geotrichum candidum

Bastien Bennetot, Jean-Philippe Vernadet, Vincent Perkins, Sophie Hautefeuille, Ricardo C. Rodríguez de la Vega, Samuel O'Donnell, Alodie Snirc, Cécile Grondin, Marie-Hélène Lessard, Anne-Claire Peron, Steve Labrie, Sophie Landaud, Tatiana Giraud, Jeanne Ropars

(2023), bioRxiv, ver.4, peer-reviewed and recommended by PCI Evol Biol

https://doi.org/10.1101/2022.05.17.492043



Link to PCI-recommended preprint

Recommendation text









Submission: posted 12 August 2022 Recommendation: posted 23 March 2023, validated 24 March 2023

Recommendation

Domestication is a complex process that imprints the demography and the genomes of domesticated populations, enforcing strong selective pressures on traits favourable to humans, e.g. for food production [1]. Domestication has been quite intensely studied in plants and animals, but less so in micro-organisms such as fungi, despite their assets (e.g. their small genomes and tractability in the lab). This elegant study by Bennetot and collaborators [2] on the cheese-making fungus *Geotrichum candidum* adds to the mounting body of studies in the genomics of fungi, proving they are excellent models in evolutionary biology for studying adaptation and drift in eukaryotes [3].

Bennetot et al. newly showed with whole genome sequences that all *G. candidum* strains isolated from cheese form a monophyletic clade subdivided into three genetically differentiated populations with several admixed strains, while the wild strains sampled from diverse geographic locations form a sister clade. This suggests the wild progenitor was not sampled in the present study and calls for future exciting work on the domestication history of the *G. candidum* fungus. The authors scanned the genomes for footprints of adaptation to the cheese environment and identified promising candidates, such as a gene involved in iron uptake (this element is limiting in cheese). Their functional genome analysis also provides evidence for higher contents of transposable elements in cheese-making strains, likely due to relaxed selection during the domestication process.

This paper is particularly impressive in that the authors complemented the population genomic approach with the phenotypic characterization of the strains and tested their ability to outcompete common fungal food spoilers. The authors convincingly showed that cheese-making strains display phenotypic differences relative to wild relatives for multiple traits such as slower growth, lower proteolysis activity and a greater amount of volatiles attractive to consumers, these phenotypes being beneficial for cheese making.

Finally, this work is particularly inspiring because it thoroughly discusses convergent evolution during domestication in different cheese-associated fungi. Indeed, studying populations experiencing similar environmental pressures is fundamental to understanding whether evolution is repeatable [4]. For instance, all three cheese populations of *G. candidum* exhibit a lower genetic diversity than wild populations. However, only one population displays a stronger domestication syndrome, resembling the *Penicillium camemberti* situation [5]. Furthermore, different cheese-making practices may have led to varying situations with clonal lineages in non-Roquefort *P. roqueforti* and *P. camemberti* [5, 6], while the cheese-making *G. candidum* populations still harbour some diversity. In a nutshell, Bennetot's study makes an important contribution to evolutionary biology and highlights the value of diversifying our model organisms toward under-represented clades.

REFERENCES

[1] Diamond J (2002) Evolution, consequences and future of plant and animal domestication. Nature 418: 700–707. https://doi.org/10.1038/nature01019

[2] Bennetot B, Vernadet J-P, Perkins V, Hautefeuille S, Rodríguez de la Vega RC, O'Donnell S, Snirc A, Grondin C, Lessard M-H, Peron A-C, Labrie S, Landaud S, Giraud T, Ropars J (2023) Domestication of different varieties in the cheese-making fungus Geotrichum candidum. bioRxiv, 2022.05.17.492043, ver. 4 peer-reviewed and recommended by Peer Community in Evolutionary Biology. https://doi.org/10.1101/2022.05.17.492043

[3] Gladieux P, Ropars J, Badouin H, Branca A, Aguileta G, de Vienne DM, Rodríguez de la Vega RC, Branco S, Giraud T (2014) Fungal evolutionary genomics provides insight into the mechanisms of adaptive divergence in eukaryotes. Mol. Ecol. 23: 753–773. https://doi.org/10.1111/mec.12631

[4] Bolnick DI, Barrett RD, Oke KB, Rennison DJ, Stuart YE (2018) (Non)Parallel evolution. Ann. Rev. Ecol. Evol. Syst. 49: 303–330. https://doi.org/10.1146/annurev-ecolsys-110617-062240

[5] Ropars J, Didiot E, Rodríguez de la Vega RC, Bennetot B, Coton M, Poirier E, Coton E, Snirc A, Le Prieur S, Giraud T (2020) Domestication of the Emblematic White Cheese-Making Fungus Penicillium camemberti and Its Diversification into Two Varieties. Current Biol. 30: 4441–4453.e4. https://doi.org/10.1016/j.cub.2020.08.082

[6] Dumas, E, Feurtey, A, Rodríguez de la Vega, RC, Le Prieur S, Snirc A, Coton M, Thierry A, Coton E, Le Piver M, Roueyre D, Ropars J, Branca A, Giraud T (2020) Independent domestication events in the blue-cheese fungus Penicillium roqueforti. Mol Ecol. 29: 2639–2660. https://doi.org/10.1111/mec.15359



Recommendation

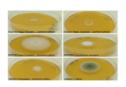




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Link to PCI-recommended preprint

Final, valid, findable and citable article









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Published, citable and argued editorial decision

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Recognition by evaluation committees

Finland:



Julkaisufoorumi Recognition of PCI Evol Biol

France:



Sections 29, 30 and 52 of the National Committee for Scientific Research



Section 67 and 74 of the Conseil National des Universités



Commissions Scientifiques Spécialisées (CSS) of the French National Institute for Agricultural Research



Commission Scientifique Sectorielle 3 (CSS3) of the French National Research Institute for Development



Recognition by funders



Peer Reviewed preprints are considered by most cOAlition S organisations to be of equivalent merit and status as peer-reviewed publications that are published in a recognised journal or on a platform























































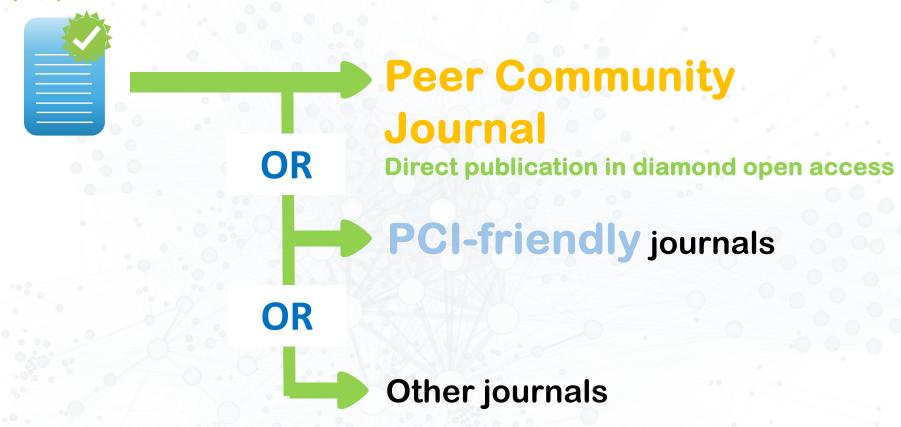




Publication of PCI-recommended preprints & Peer Community Journal



PCI-recommended preprint





PCI-friendly journals

3 categories

1. Accept without further reviews (14)

- Acarologia
- Advances in Cognitive Psychology
- Belgian Journal of Zoology
- Cadernos de Linguística
- Frontiers of Biogeography
- International Journal of Limnology
- Journal of Lithic Studies

- OCL Oilseeds and fats, Crops and Lipids
- Peer Community Journal
- Peer J
- PeerJ Computer Science
- Rethinking Ecology
- Theoretical Roman Archaeology Journal
- Tropical and Subtropical Agroecosystems



PCI RR-friendly journals

- Addiction Research & Theory
- Advances in Cognitive Psychology
- Advances in Methods and Practices in Psychological Science
- Brain and Neuroscience Advances
- Cambridge Educational Research e-Journal
- Communications in Kinesiology
- Cortex

- Experimental Psychology
- F1000Research
- Human Population Genetics and Genomics
- In&Vertebrates
- Infant and Child Development
- Journal for Reproducibility in Neuroscience
- Journal of Cognition
- Meta-Psychology
- Neurolmage: Reports
- Peer Community Journal
- PeerJ

- PeerJ Computer Science
- PeerJ Physical Chemistry
- PeerJ Organic Chemistry
- PeerJ Inorganic Chemistry
- PeerJ Analytical Chemistry
- PeerJ Materials Science
- Psychology of Consciousness: Theory, Research, and Practice
- Royal Society Open Science
- Swiss Psychology Open
- WiderScreen



PCI-friendly journals

3 categories

- 1. Accept without further reviews
- 2. Fast response (≤ 5 days) to presubmission enquiry (36)

Accept without further reviews OR Need further reviews OR Not interested

- Animal Welfare
- Annals of Forest Science
- Bulletins et Mémoires de la Société d'Anthropologie de Paris (BMSAP)
- Bulletin of the History of Archaeology
- Collabra: Psychology
- Communications in Kinesiology
- Ecology and Evolution
- Ecology Letters
- European Rehabilitation Journal
- European Scientific Journal
- European zoological journal
- Evolution

- Evolution Letters
- Evolutionary Applications
- Evolutionary Ecology
- FEMS Yeast Research
- GigaByte
- GigaScience
- Heritage
- Journal of Applied Entomology
- Journal of Applied Microbiology
- Journal of Avian Biology
- Journal of Biogeography
- Applications in Archaeology
- Journal of Evolutionary Biology

- Journal of Iran National
 Museum
- Journal of Neolithic Archaeology
- Journal of Open
 Archaeology Data
- Journal of the Israel Prehistoric Society
- Letters in Applied Microbiology
- Molecular Ecology
- Oikos
- PLOS Biology
- Préhistoires méditerranéennes -Mediterranean Prehistories
- Quaternaire
- Veterinary Research



PCI-friendly journals

3 categories

- 1. Accept without further reviews
- 2. Fast response (≤ 5 days) to presubmission enquiry
- 3. May use the evaluations of PCI if adequate (31)
- Adansonia
- Agronomy for Sustainable Development
- Animal
- Animal microbiome
- Anthropozoologica
- Archäologische Informationen
- Botany
- Botany Letters
- Brazilian Journal of Motor Behavior
- Canadian Journal of Animal Science
- Canadian Journal of Fisheries and Aquatic Sciences

- Canadian Journal of Forest Research
- Canadian Journal of Zoology
- Comptes Rendus Palevol
- Cryptogamie, Algologie
- Cryptogamie, Bryologie
- Cryptogamie, Mycologie
- EXARC Journal
- FACETS
- G3: Genes, Genomes, Genetics
- Genetics
- Genome
- Geodiversitas
- Global Ecology and Biogeography

- Internet Archaeology
- Journal of Pollination Ecology
- M@n@gement
- Mathematical Modelling of Natural Phenomena
- Naturae
- Neuroanatomy and Behaviour
- Zoosystema



Peer Community Journal



- Launched in November 2021
- Accepts "as is" any and only recommended articles
- Free for readers and authors
- Already 252 articles published
- 17 sections
- **CC-BY Licence**
- Indexed in **IDOAJ**













https://peercommunityjournal.org/

e-ISSN 2804-3871

Peer Community Journal

Section: Ecology

RESEARCH ARTICLE

Claire Stragier, Sylvain Piry, Ann seau, Mamadou Kane, Aliou Sow, Youssoupha Niang, Mamoudou Diallo, Arame Ndiaye, Philippe Sauthier, Marion Borderon, Laurent Granjon, Carine Brouat and Karine Berthier (2022) Interplay between historical and current features of the cityscape in shaping the genetic tructure of the house mouse (Mus musculus domesticus) in Dakar (Senegal, West Africa), Peer Community Journal, 2: e11.

eer reviewed and

Interplay between historical and current features of the cityscape in shaping the genetic structure of the house mouse (Mus musculus domesticus) in Dakar (Senegal, West Africa)

Claire Stragier¹, Sylvain Piry^{0,2}, Anne Loiseau², Mamadou Kane¹, Aliou Sow¹, Youssoupha Niang¹, Mamoudou Diallo¹, Arame Ndiaye1, Philippe Gauthier2, Marion Borderon3, Laurent Granjon², Carine Brouat ^{0,#,2}, and Karine Berthier^{®,#,4}

Volume 2 (2022), article e11

https://doi.org/10.24072/pcjournal.85

Abstract

urbanized environment in order to improve management strategies for biodiversity conservation or pes the cityscape and urbanization history. This can be especially relevant when focusing on exotic commer sal rodents that have been introduced in numerous primary colonial European settlements. Accounti for spatial and temporal cityscape heterogeneity to determine how past and recent demographic event insights to manage their populations. In this study, we addressed these issues by focusing on the house mouse, Mus musculus domesticus, in Dakar, Senegal, where the species may have been introduced a soon as Europeans settled in the middle of the nineteenth century. We examined genetic variation a one mito chondrial locus and 15 nuclear microsatellite markers from individuals sampled in 14 samplini Dakar, We used various approaches, including model-based genetic clustering and model-free smooth urrent features of Dakar cityscape using random forest and Bayesian conditional autoregressive mod genetic structure exhibits a gradient-like pattern reflecting the historical process of spatially continuou expansion of the city from the first European settlement. The genetic patterns further suggest that population dynamics of the house mouse is also driven by the spatial heterogeneity of the current cityscape including socio-economics features, that translate in habitat quality. Our results highlight the notential importance of accounting for past demographic events to understand spatial genetic patterns of nonna tive invasive commensal rodents in highly urbanized environment

BIOPASS (IRD-CBGP, CIRAD, ISRA, UCAD), Campus de Bel-Air, BP 1386, CP 18524 Dakar, Senegal, 2CBGP, Univ CIRAD, INRAE, Institut Agro, IRD, Montpellier, France. 3Depart







Applications for indexation in



1 recommended preprint, 4 options!



Stop there!

The recommended article on the open archive is findable, accessible, citable



Publish the article directly in Peer Community Journal



The recommended article becomes a diamond open access journal article

- 3 Submit the article to one of the PCI-friendly journals
 - These journals either 1. Accept the article without further reviews if in the scope (14)
 - 2. Give a fast response (≤ 5 days) to presubmission enquiry (36)
 - 3. May use the evaluations of PCI if adequate (31)
- Submit the article to other journals



The 10 benefits of the PCI model

- 1. Big savings for research agencies: 300 €/paper vs 3000 € (on average)
- 2. Promotion of reproducible research: data, scripts, codes available
- 3. Transparency: published evaluations, decisions, sources of fundings
- 4. Valuing reviewers' effort: recommendation usable by any journal
- 5. Shared workload: community of recommenders
- 6. Valorisation of researchers' editorial work: citable recommendations
- 7. Independence: fully operated by researchers only
- 8. No economic publication bias: diamond open-access model/preprints
- 9. Collective decisions: community-based organisation
- 10. Multidisciplinarity: applicable to all research fields



PCI in figures & Current PCIs

PCI in figures





Current PCIs

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

2023

PCI Organization Studies



Increasing activity





Supports, awards and recognition



Supports







































































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Harvard Library

Iowa State University







Faculté des sciences de la santé Faculty of Health Sciences





UNITED KINGDOM

















UNIVERSITY^{OF} BIRMINGHAM









EUROPE











































Supports (societies and others)

Societies & networks

































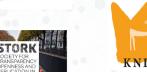














Other























Open archives



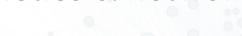












Awards and projects

2020 LIBER Award for Library Innovation



Pilote project « Notify » with









How to get involved?



Sign and share the #PCIManifesto

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





I commit to submitting, within 15 months following the signing of this manifesto, at least one of my best articles to a PCI for peer review and, if recommended, to publish it in the Peer Community Journal



1062 researchers from 54 countries have signed so far



- Submit your articles to a PCI
- Publish in Peer Community Journal

- peercommunityin.org
- Join us as reviewers and recommenders
- Create a new PCI:

https://peercommunityin.org/2019/05/21/steps-in-the-creation-of-a-new-pci/

- Attend the PCI Webinars:

 https://poorcommunityip.org/pci.wobinar.corios
 - https://peercommunityin.org/pci-webinar-series/
- More generally participate in real open science (Diamond OA, society/university journals, ...)
- Follow us on social media



Thanks!



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https://peercommunityjournal.org



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