

Peer Community In...

Denis Bourguet
Benoit Facon
Thomas Guillemaud



**A free recommendation process of unpublished
scientific papers based on peer reviews**



<https://peercommunityin.org>, @PeerCommunityIn

PCI

Scientific Publication

• What is the value of publishing scientific articles?

- Makes science public
- Ensures the quality of science
- Defines anteriority of results
- Makes articles searchable/findable
- Archives for the future



Tennant et al. *Publications* 2019, 7(2), 34

• Inefficient system

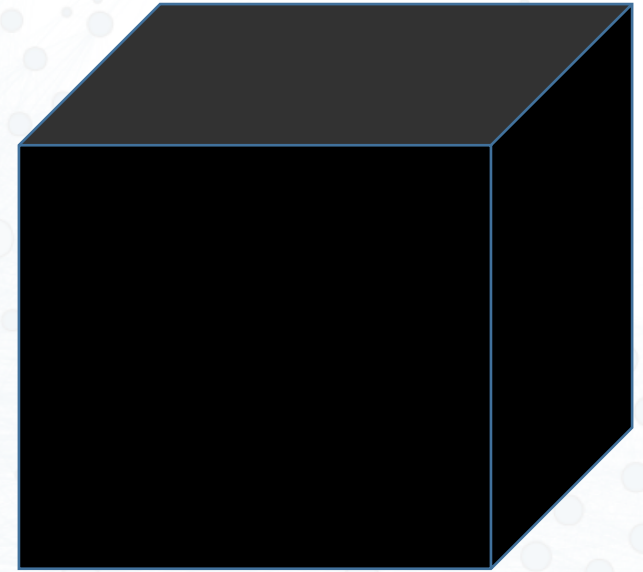
- Submissions/rejections in cascade
- 2 months to 1 year for an evaluation
- > 1-2 years to read a paper



Scientific Publication

- **Not transparent**

- unknown Reviews
- unknown Editor
- unstated Conflicts of interest
- unclear Methods
- unavailable Data
- unavailable Scripts, codes, parameters



Scientific Publication

- **New model of paid OA: A Vicious system**

- Paying OA: Every accepted article contributes to the publishers' turnover
- + Researchers are evaluated on their ability to publish
- = Conjunction of interest between researchers and publishers
- snowball effect, should decrease quality



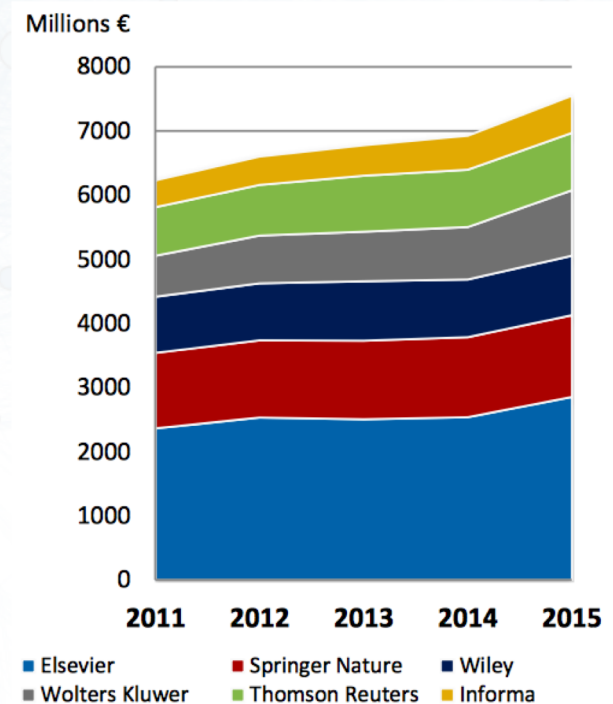
Expensive system held by 6 big publishers

- Big 6 publishers publish 54% of the scientific publications, 38% of the market
- France: ~ €150 M/year
- World: ~ €9 Billion / 3 millions articles
= 3000 € / articles



Sources: Eprist, 2018 STM report

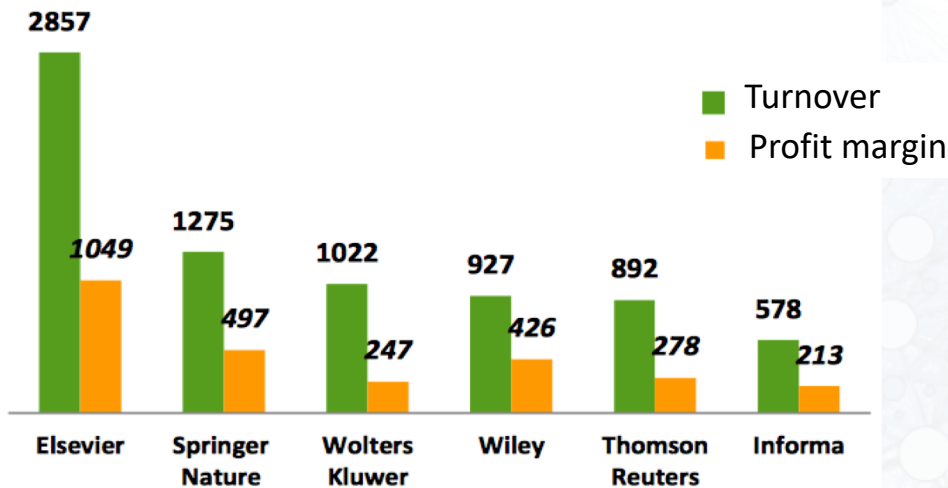
Evolution of their turnover



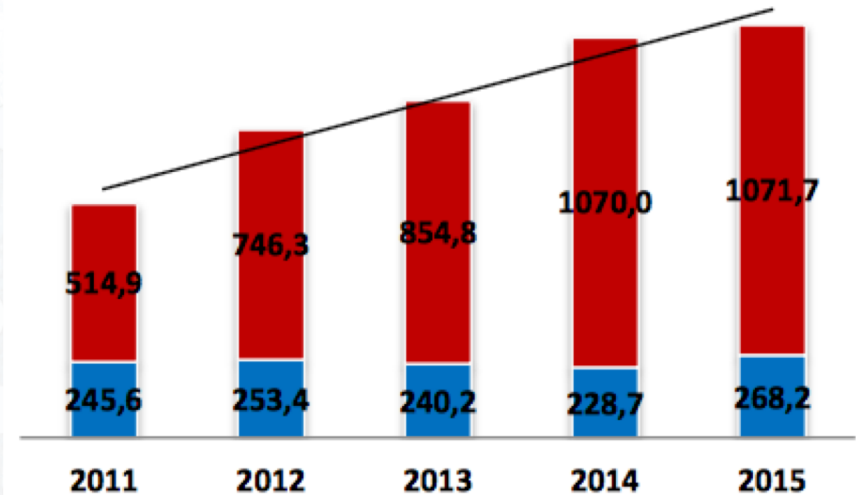
Non-standard profit margins

Millions €

Mean profit margin = **38%**



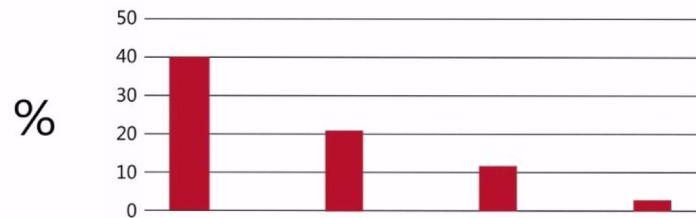
Sources: Eprist



Shareholder returns
Investments

Sources: Eprist

CORPORATE PROFIT MARGINS



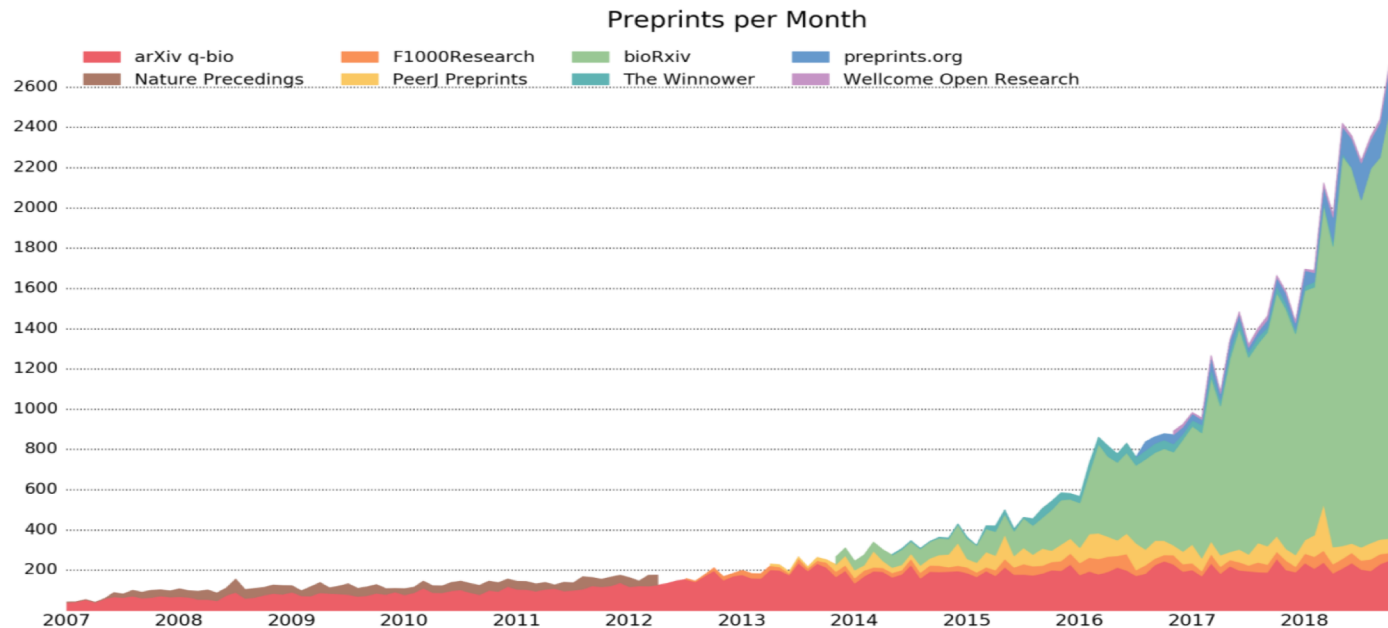
Source: paywall, the moovie

Researchers do almost everything:
write, evaluate, edit, proofread, format
→ **idea of re-appropriating the publication system**

<https://peercommunityin.org>, @PeerCommunityIn

Scientific publishing on the internet

- **Very low publishing costs** (arXiv: 800 000 \$ / yr / 120 000 art / yr ~ 7 \$ / art)
- **Free tools available**
- **A huge rise of preprints deposit**
in biology on open archives (mostly bioRxiv in a similar way than arxiv)



bioRxiv

arXiv.org

zenodo

OSF

HAL
archives-ouvertes.fr

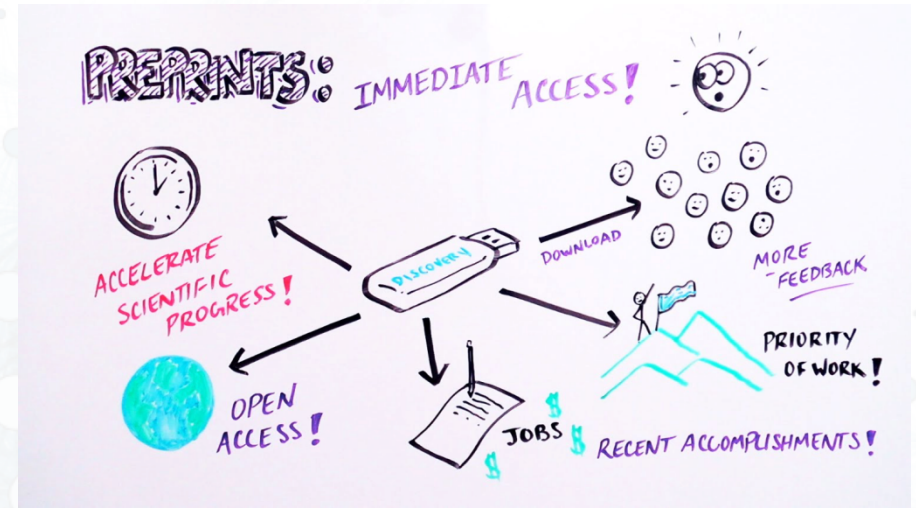
<https://peercommunityin.org>, @PeerCommunityIn

PCI

Preprints

- **Preprints are good...**

- 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**

- Evaluation could be disconnected from publication (open archives)
- Evaluation could be disconnected from the market
- Evaluation could be organized by the scientists themselves

The *Peer Community in* (PCI) project

- **Our goal**

Create several communities of researchers evaluating (through peer review) and recommending (highlighting) articles in their scientific field, e.g. *PCI Ecology*, *PCI Evolutionary Biology*, *PCI Paleontology*, etc..

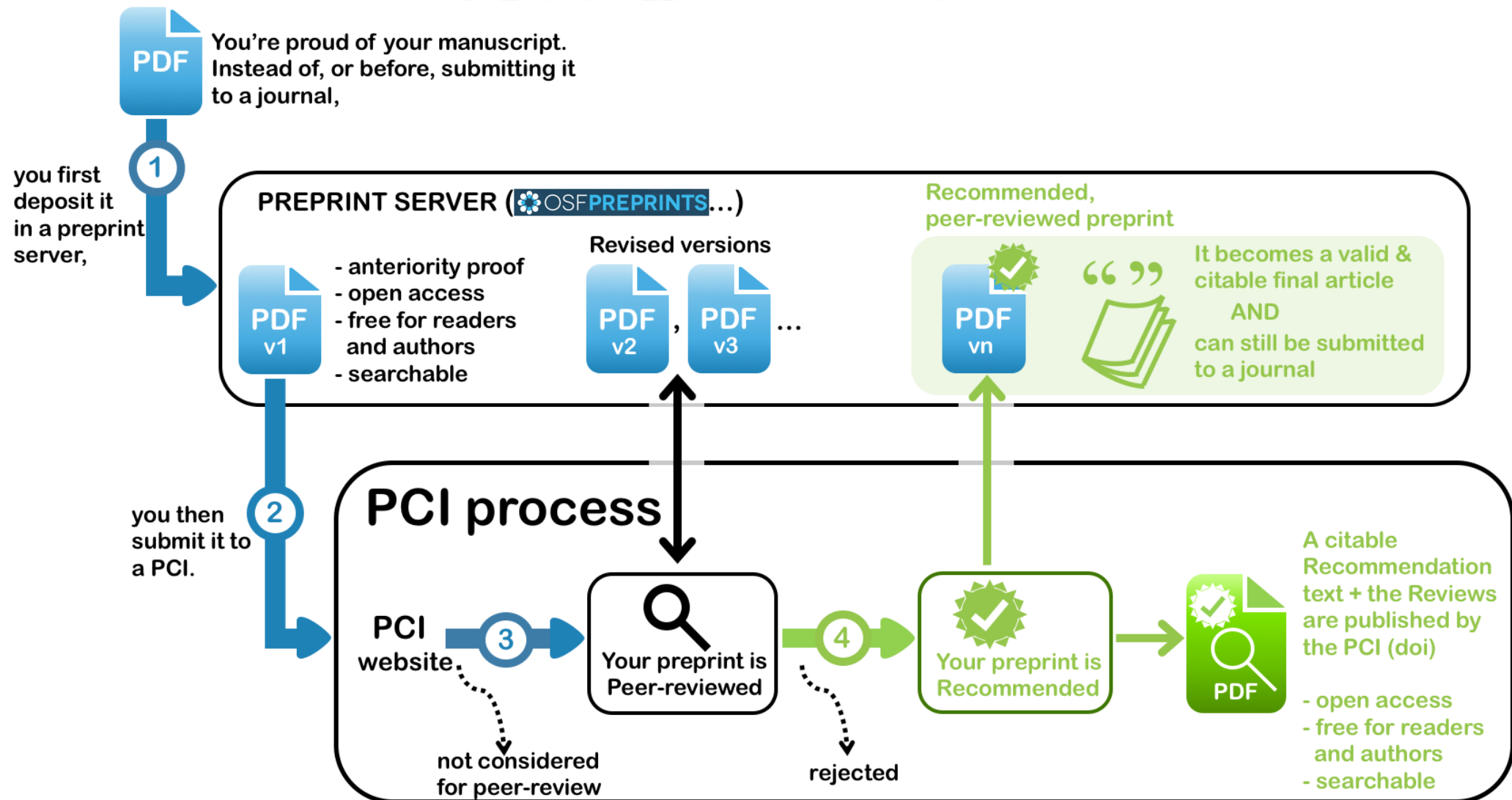
- **Recommended articles**

preprints    

- **Characteristics**

- Completely FREE (for authors as well as for readers)
- Publication of recommendation texts and reviews (not preprints)

How does this work?



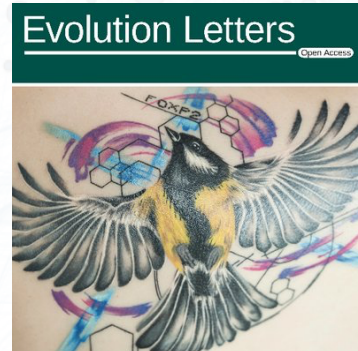
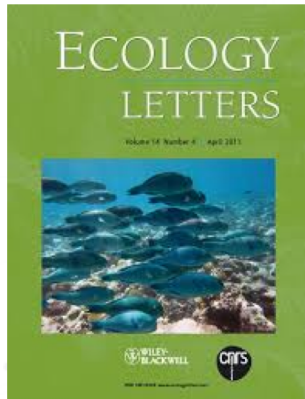
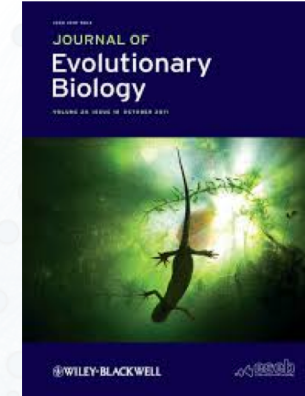
PCI and journals

Trends in Ecology & Evolution

Trends in Plant Science

PeerJ
Life & Environment

PLOS BIOLOGY



etc.

“We would value the recommendations seriously and may even use them for handling without further peer review (only peer review by handling editors)”

PCI

PCI and journals

ECOLOGY LETTERS

Letter |  Full Access

Using connectivity to identify climatic drivers of local adaptation

Stewart L. Macdonald , John Llewelyn, Ben L. Phillips

First published: 01 December 2017 | <https://doi.org/10.1111/ele.12883> | Cited by: 3

Services SFX pour l'INRA

Note: This manuscript has undergone open peer review, accessible here: <https://evolbiol.peercommunityin.org/public/rec?id=75>

 SECTIONS

 PDF  TOOLS  SHARE

EVOLUTION

INTERNATIONAL JOURNAL OF ORGANIC EVOLUTION



ORIGINAL ARTICLE |  Full Access

Parallel pattern of differentiation at a genomic island shared between clinal and mosaic hybrid zones in a complex of cryptic seahorse lineages

Florentine Riquet , Cathy Liautard-Haag, Lucy Woodall, Carmen Bouza, Patrick Louisy, Bojan Hamer, Francisco Otero-Ferrer, Philippe Aublanc ... [See all authors](#) 

First published: 11 March 2019 | <https://doi.org/10.1111/evo.13696> | Cited by: 2

Services SFX pour l'INRA

This preprint has been reviewed and recommended by Peer Community in Evolutionary Biology (<https://doi.org/10.24072/pci.evolbiol.100056>).

 SECTIONS

 PDF  TOOLS  SHARE



Peer Community In Evolutionary Biology

Free and transparent preprint and postprint
recommendations in evolutionary biology

[SUBMIT A PREPRINT](#) [LOG IN](#) or [REGISTER](#)

The PCI project is supported by



Latest recommendations



2019-06-11



A bird's white-eye view on neosex chromosome evolution

Thibault Leroy, Yoann Anselmetti, Marie-Ka Tilak, Séverine Bérard, Laura Csukonyi, Maëva Gabrielli, Céline Scornavacca, Borja Milá, Christophe Thébaud, Benoit Nabholz
[10.1101/505610](https://doi.org/10.1101/505610)

Recommended by [Kateryna Makova](#) based on reviews by [Gabriel Marais](#), [Melissa Wilson](#) and 1 anonymous reviewer

Young sex chromosomes discovered in white-eye birds

Recent advances in next-generation sequencing are allowing us to uncover the evolution of sex chromosomes in non-model organisms. This study [1] represents an example of this application to birds of two Sylvioidea species from the genus *Zosterops* (commonly known as white-eyes). The study is exemplary in the amount and types of data generated and in the thoroughness of the analysis applied. Both male and female genomes were sequenced to allow the authors to identify sex-chromosome specific scaf...

[MORE](#)

2019-06-06



Multi-model inference of non-random mating from an information theoretic approach

Antonio Carvajal-Rodríguez
[10.1101/305730](https://doi.org/10.1101/305730)

Recommended by [Sara Magalhaes](#) and [Alexandre Courtiol](#) based on reviews by [Alexandre Courtiol](#) and 2 anonymous reviewers

Tell me who you mate with, I'll tell you what's going on

The study of sexual selection goes as far as Darwin himself. Since then, elaborate theories concerning both intra- and inter-sexual sexual have been developed, and elegant experiments have been designed to test this body of theory. It may thus come as a surprise that the community is still debating on the correct way to measure simple components of sexual selection, such as the Bateman gradient (i.e., the covariance between the number of matings and the number of offspring)[1,2], or to quantify ...

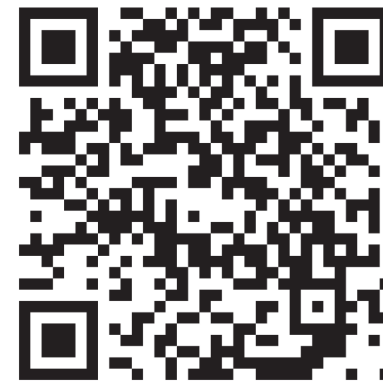
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2019-06-04



Thermal regimes, but not mean temperatures, drive patterns of rapid climate adaptation at a continent-scale: evidence from the introduced European earwig across North America

Jean-Claude Tourneur, Joël Meunier
[10.1101/550319](https://doi.org/10.1101/550319)

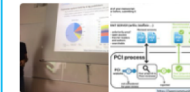


Tweets by
[@PCIevolBiol](#)

[PeerComInEvolBiol](#)
Retweeted

[Yannick Wurm](#)
[@yannick_](#)

#Disrupt science publishing! Great overview of [@PCIevolBiol](#) and the [@PeerCommunityIn](#) approach by [@ThomasGuillem](#) and [@BourquetD](#) at [@QM_SBCS](#) peercommunityin.org



12h

[PeerComInEvol](#)
[@PCIevolBiol](#)

An article by [@PeerCommunityIn](#) in [@anglejournal](#) Taking back control over academic publishing How Plan S can improve scholarly communication by avoiding paid journalstiny.cc/jx4t8y

Taki...
To b...
angl...

22h

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[Mattias Björnholm](#)
[@bearore](#)

New article on the future of scholarly publishing just out in [@anglejournal](#)! Written by the founders of the [@PeerCommunityIn](#)

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MAGALHAES Sara



- , CE3C: Centre for Ecology, Evolution and Environmental Changes, Lisboa, Portugal
- Adaptation, Evolutionary Ecology, Experimental Evolution, Reproduction and Sex
- **recommender**

3 recommendations

2019-06-06



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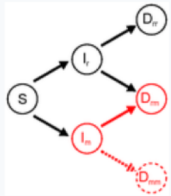
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[MORE](#)

2017-12-18



Co-evolution of virulence and immunosuppression in multiple infections

Tsukushi Kamiya, Nicole Mideo, Samuel Alizon

<https://www.biorxiv.org/content/early/2017/12/15/149211.full.pdf>

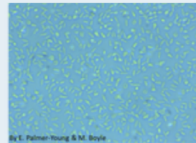
Recommended by [Sara Magalhaes](#) based on reviews by 2 anonymous reviewers

Two parasites, virulence and immunosuppression: how does the whole thing evolve?

How parasite virulence evolves is arguably the most important question in both the applied and fundamental study of host-parasite interactions. Typically, this research area has been progressing through the formalization of the problem via mathematical modelling. This is because the question is a complex one, as virulence is both affected and affects several aspects of the host-parasite interaction. Moreover, the evolution of virulence is a problem in which ecology (epidemiology) and evolution (...)

[MORE](#)

2016-12-14



Evolution of resistance to single and combined floral phytochemicals by a bumble bee parasite

Palmer-Young EC, Sadd BM, Adler LS

[10.1111/jeb.13002](https://doi.org/10.1111/jeb.13002)

Recommended by [Alison Duncan](#) and [Sara Magalhaes](#)

The medicinal value of phytochemicals is hindered by pathogen evolution of resistance

As plants cannot run from their enemies, natural selection has favoured the evolution of diverse chemical compounds (phytochemicals) to protect them against herbivores and pathogens. This provides an opportunity for plant feeders to exploit these compounds to combat their own enemies. Indeed, it is widely known that herbivores use such compounds as protection against predators [1]. Recently, this reasoning has been extended to pathogens, and elegant studies have shown that some herbivores feed o...

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RESEARCH ARTICLE



This article has been peer-reviewed and recommended by: *Peer Community in Evolutionary Biology* (DOI: 10.24072/pci.evolbiol.100074)

Cite as: Tourneur J.C. and Meunier J. Thermal regimes, but not mean temperatures, drive patterns of rapid climate adaptation at a continent-scale: evidence from the introduced European earwig across North America. *bioRxiv* 550319, ver. 4. Peer-reviewed and recommended by *PCI Evolutionary Biology* (2019). DOI: 10.24072/pci.evolbiol.100074

Posted: 3rd June 2019

Recommender:
Fabien Aubret

Reviewers:
Eric Gangloff and Ben Phillips

Correspondence:
joel.meunier@univ-tours.fr

Thermal regimes, but not mean temperatures, drive patterns of rapid climate adaptation at a continent-scale: evidence from the introduced European earwig across North America

Jean-Claude Tourneur¹, Joël Meunier²

¹ Département des Sciences biologiques, Université du Québec à Montréal 141. Avenue du Président-Kennedy, Montréal, Québec, H2X 1Y4, Canada.

² Institut de Recherche sur la Biologie de l'Insecte (IRBI), UMR 7261, CNRS, University of Tours, Tours, France.

ABSTRACT

The recent development of human societies has led to major, rapid and often inexorable changes in the environment of most animal species. Over the last decades, a growing number of studies formulated predictions on the modalities of animal adaptation to climate change, questioning how and at what speed animals should adapt to such changes, discussing the levels of risks imposed by changes in the mean and/or variance of temperatures on animal performance, and exploring the underlying roles of phenotypic plasticity and genetic inheritance. These fundamental predictions, however, remain poorly tested using field data. Here, we tested these predictions using a unique continental-scale data set in the European earwig *Forficula auricularia* L., a univoltine insect introduced in North America one century ago. We conducted a common garden experiment, in which we measured 13 life-history traits in 4158 field-sampled earwigs originating from 19 populations across North America. Our results first demonstrate that in less than 100 generations, this species modified 10 of the 13 measured life-history traits in response to the encountered thermal regimes, defined as a variation of temperatures between seasons or months (here winter-summer and autumn-spring temperatures). We found, however, no response to the overall mean monthly temperatures of the invaded locations. Furthermore, our use of a common garden setup reveals that the observed changes in earwigs' life-history traits are not mere plastic responses to their current environment, but are either due to their genetic background and/or to the environmental conditions they experienced during early life development. Overall, these findings provide continent-scale support to the claims that adaptation to thermal changes occurs quickly, even in insects with long life cycles, and emphasize the importance of thermal regimes over mean population temperatures in climate adaptation.

Keywords: Temperature, Adaptation, Reproductive strategy, Climate change, Invasion, Dermaptera

PCI already fonctionnal

January 2017



Peer Community In
Evolutionary
Biology

January 2018



Peer Community In
Paleontology

Free and transparent preprint
peer-review in paleontology



Peer Community In
Ecology

Free and transparent preprint and postprint
recommendations in ecology

June 2019



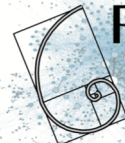
Peer Community In
Animal
Science

Free and transparent preprint and postprint
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Peer Community In
Entomology

2020



Peer Community In
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Computational
Biology

Free and transparent preprint and
postprint recommendations in
Math Comp Biol



Peer Community In
Genomics

Free and transparent preprint and postprint
recommendations in genomics



Peer Community In
Circuit Neuroscience



Peer Community In
Forest & Wood
Sciences

Free and transparent preprint and postprint
recommendations in forest & wood sciences



Peer Community In
Archaeology



Peer Community In
Research

Publisher independent peer review
in meta-research

➔ **257 submissions ; 130 recommandations of preprints**

PCI

Future PCIs

Already validated

Peer Community in **Registered Reports**

(Corina Logan, Chris Chambers, Benoit Pujol, Zoltan Dienes)



Free and transparent pre- and post-study recommendations across research fields

PCI project under discussion

Ecotoxicology

Science education

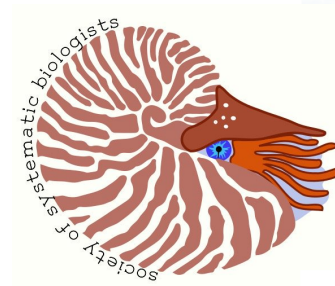
Complex networks

Virology

Plant Sciences

Infectious diseases

Scientific societies



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TERRESTRE



Institutions

KU LEUVEN



INRAE



PCI

Doctoral Schools

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

Evaluation committees

Finland : Recognition of PCI Evol Biol

France: Recognition of PCI and Public Motion of Ecology and evolution committees of

-CNRS, sections 29-30-52

-Universities, CNU67

-Inrae, CSS BPE

-IRD, CSS3

-Prise en compte dans Hceres STU (livret guide)

« During all its work (evaluations, promotions, competitions...), Section 29 [of the National Committee of the Scientific Research] will consider the articles recommended by PCI Evol Biol, PCI Ecology and PCI Paleo in the same way as an article published in an indexed scientific journal. This measure will be extended to any other variations of PCI that may emerge.' »

A complex network graph with numerous nodes of varying sizes and colors (light blue, white, grey) connected by thin lines, forming a dense web. The nodes are distributed across the entire page, with a higher concentration in the center.

Thanks!
