

# Dysfunctional scientific publishing market and the DAFNEE initiative

<https://dafnee.isem-evolution.fr/>

<https://zenodo.org/record/6224306>

## **1. The problem**

Facts about the scientific publishing market

## **2. The reasons**

Demystifying the tyranny of bibliometry

## **3. The solutions**

Addressing a collective action problem

## Scientific publishing has a **cost** and a **price**

- Content acquisition
- Production
- Dissemination
- Indirect/fixed costs



**~ \$400 per article**

$$\frac{\text{Yearly publishing market size}}{\text{Total number of articles}}$$



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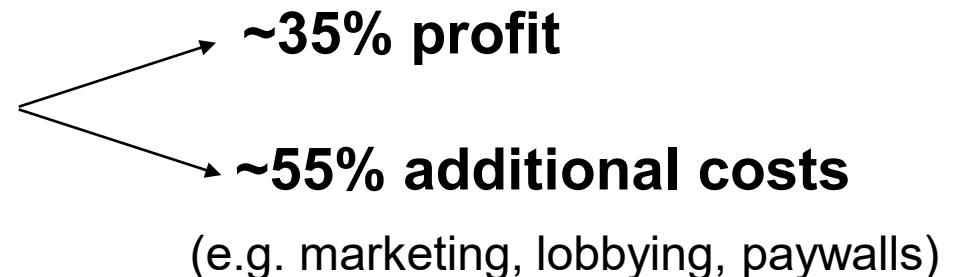
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**Where does the remaining 90% go?**



# The **price** of scientific publishing is not negligible

**World: \$  $10^{10}$**

→ salary and research cost of ~100,000 scientists

**France:  $2 \times 10^8$  €**

→ 40% ANR funding (AAPG)

→ 2000 PhD grants

## Why such an anomaly ?

- an oligopolistic situation
- costs often invisible to scientists
- **importance of bibliometry in the evaluation of research**

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## How to move on ?

- Universities, Research Institutes : negotiations
- Funding agencies: caps on eligible costs
- **Scientists: informed, responsible behaviour**



**Diamond Open Access**

*Peer Community Journal*

**Non-profit Golden OA**

*PLoS*

*eLife*

*Science Advances*

**Hybrid Society journals**

*Systematic Biology*

*Journal of Evolutionary Biology*

*Proceedings B*

*PNAS*

**Purely commercial journals**



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## Hybrid Society journals

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# DAFNEE

## a Database of Academia Friendly jourNals in Ecology and Evolution

*<https://dafnee.isem-evolution.fr/>*

### **Motivations:**

- inform scientists on journal business models in eco-evo
- promote academia-friendly journals

### **Content:**

- 400 society, univ/museum or non-profit journals
- business model, publisher, partnership, APC, IF...

### **Curation:**

- every 6 months, manually
- group of 10 scientists + staff from ISEM

# DAFNEE, a Database of Academia Friendly jourNals in Ecology and Evolution

[Browse DAFNEE](#) [Author usage index](#) [About](#)

300 non-profit, learned society, or university-associated journals relevant to the field of ecology and evolutionary biology [Download all surveyed journals](#)

[Copy](#) [CSV](#) [Excel](#) [PDF](#)

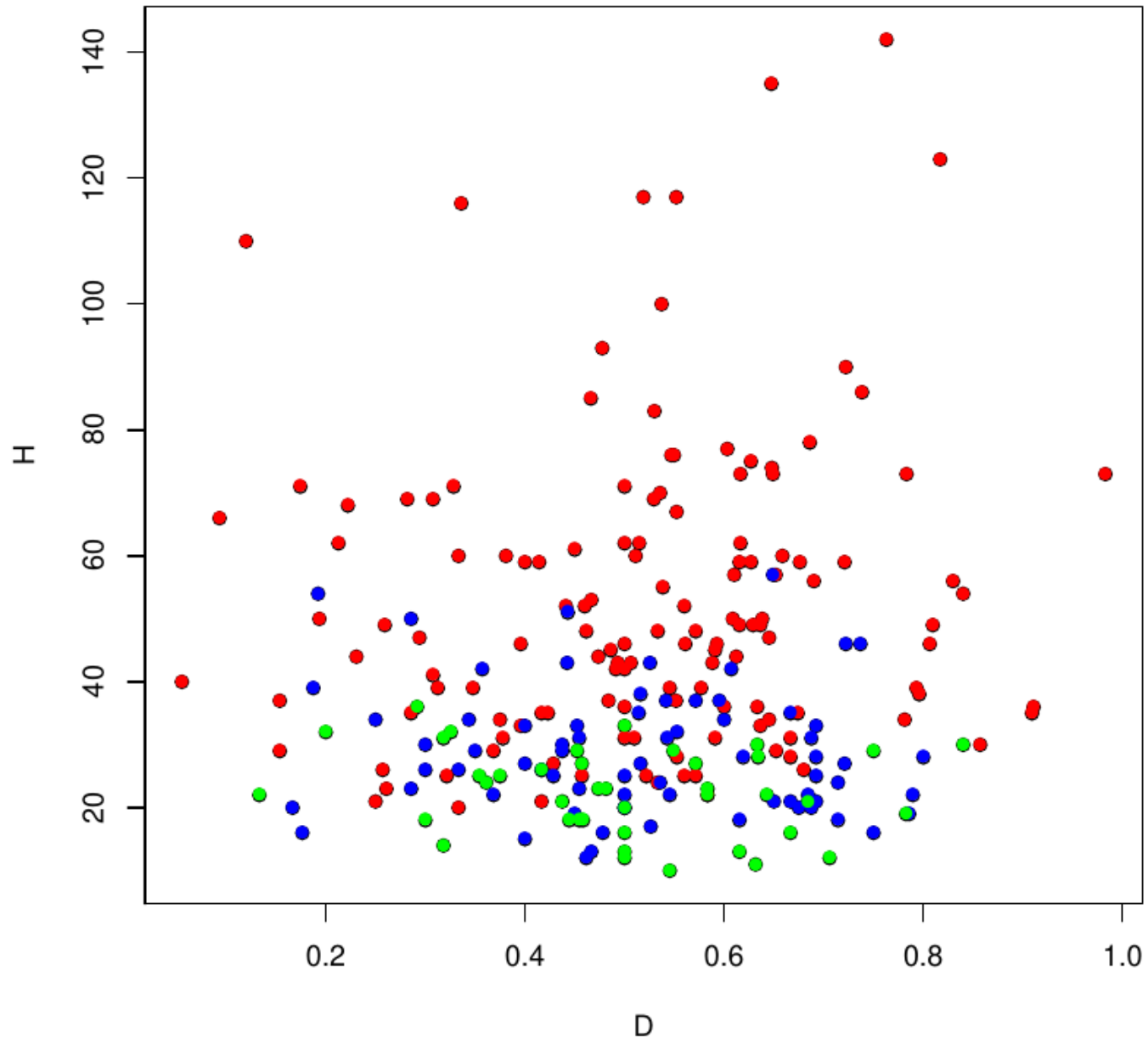
Search:

Click on a journal name to get its publications lag times from pubmed data (if available) since 2005

Journal	Field	Publisher	Business model	Institution	Institution type	Website	APC Euros	Impact Factor	PCI partnership
<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>	<a href="#">All</a>
<a href="#">Animal Behaviour</a>	ecology	Elsevier	hybrid	Association for the Study of Animal Behaviour	Society	<a href="https://www.journals.elsevier.com/animal-behaviour">https://www.journals.elsevier.com/animal-behaviour</a>	2600	2.689	none
<a href="#">Aquatic Living Resources</a>	ecology	EDP Science	OA	Institut de Recherche pour le Développement	Uni/Gouv	<a href="https://www.alr-journal.org/">https://www.alr-journal.org/</a>	0	1.026	none
<a href="#">Archives of Sexual Behavior</a>	ecology	Springer	hybrid	International Academy of Sex Research	Society	<a href="https://www.springer.com/journal/10508">https://www.springer.com/journal/10508</a>	2190	3.131	none
<a href="#">Austral Ecology</a>	ecology	Wiley	hybrid	Ecological Society of Australia	Society	<a href="https://onlinelibrary.wiley.com/journal/14429993">https://onlinelibrary.wiley.com/journal/14429993</a>	2583	1.551	none
<a href="#">Behavior Genetics</a>	ecology	Springer	hybrid	Behavior Genetics Association	Society	<a href="https://www.springer.com/journal/10519">https://www.springer.com/journal/10519</a>	2190	2.231	none
<a href="#">Behavioral Ecology</a>	ecology	Oxford University Press	hybrid	International Society for Behavioral Ecology	Society	<a href="https://academic-oup.com.inee.bib.cnrs.fr/beheco">https://academic-oup-com.inee.bib.cnrs.fr/beheco</a>	2809	2.761	none
<a href="#">Biota Neotropica</a>	ecology	Scielo	OA	Program BIOTA/FAPESP: The Virtual Institute of Biodiversity	other	<a href="https://www.biotaneotropica.org.br/v20n1/pt/">https://www.biotaneotropica.org.br/v20n1/pt/</a>	327	0.33	none
<a href="#">Biotropica</a>	ecology	Wiley	hybrid	Association for Tropical Biology & Conservation	Society	<a href="https://onlinelibrary.wiley.com/journal">https://onlinelibrary.wiley.com/journal</a>	2000	2.09	none

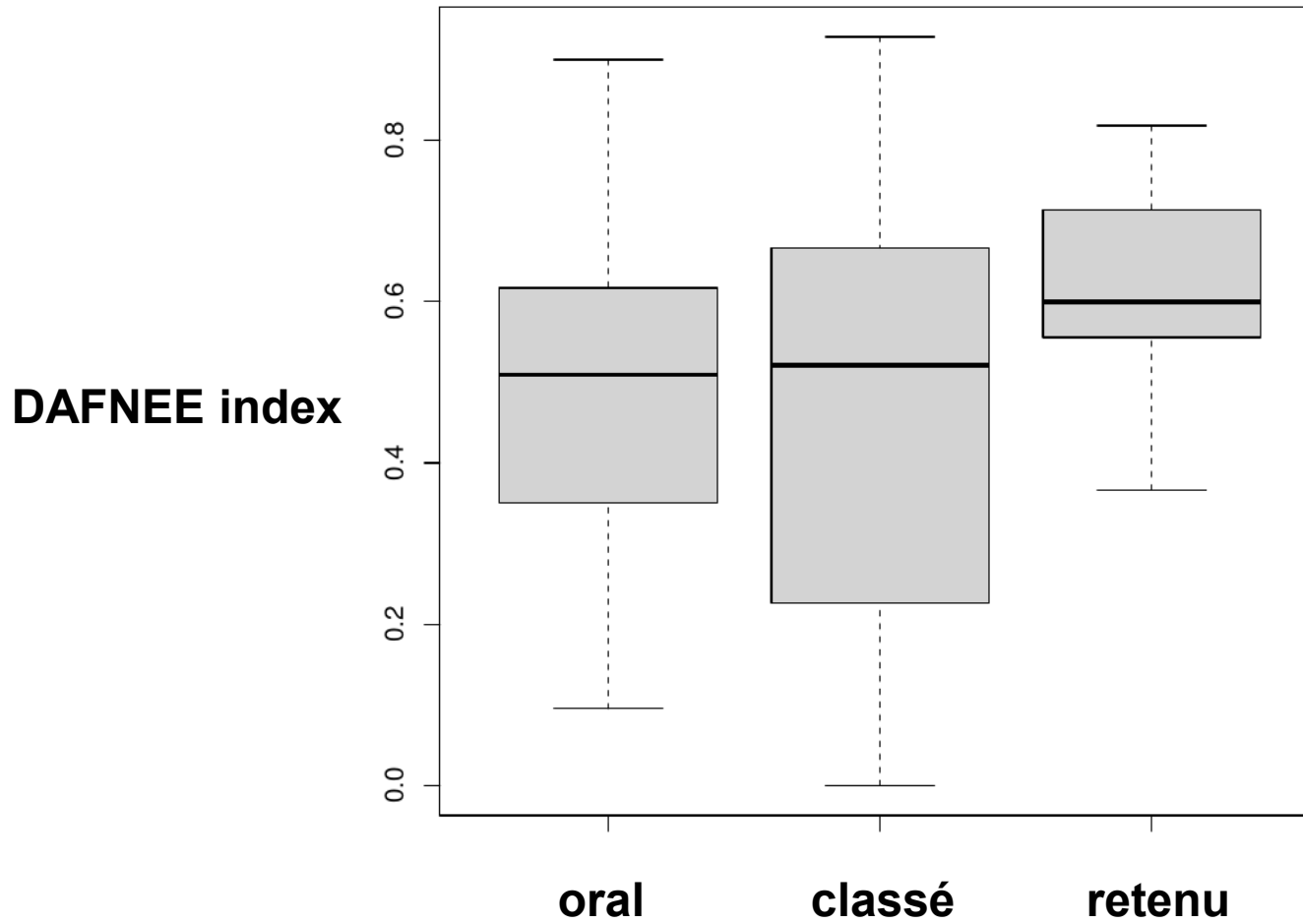


Favoring academia-friendly journals does **not** negatively affect a scientist's citation rate



247 scientists from 9 Universities

# Favoring academia-friendly journals does **not** negatively affect a scientist's hiring probability



# Addressing a collective action problem

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- include economical model **as a criterion** for choosing a journal
- favour **ethical journals**
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## 4. as an applicant (grants, jobs)

- include in CV a section on **publication ethics** explaining journal choices
- **summarize the content** of key papers + your contribution

# Addressing a collective action problem

## 5. as a regular scientist

- be aware that to spend public money for the sake of CV optimization is **not what tax payers are expecting from us**
- **discuss about publication ethics** with your friends, colleagues, advisors, students, employers, committee fellows, etc...