



PLOS

# Practical tips on managing paper mills:

*A publisher's  
perspective*

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# Polls – experiences with paper mill cases



# Various tactics can be used to manipulate the publication process

CONTENT



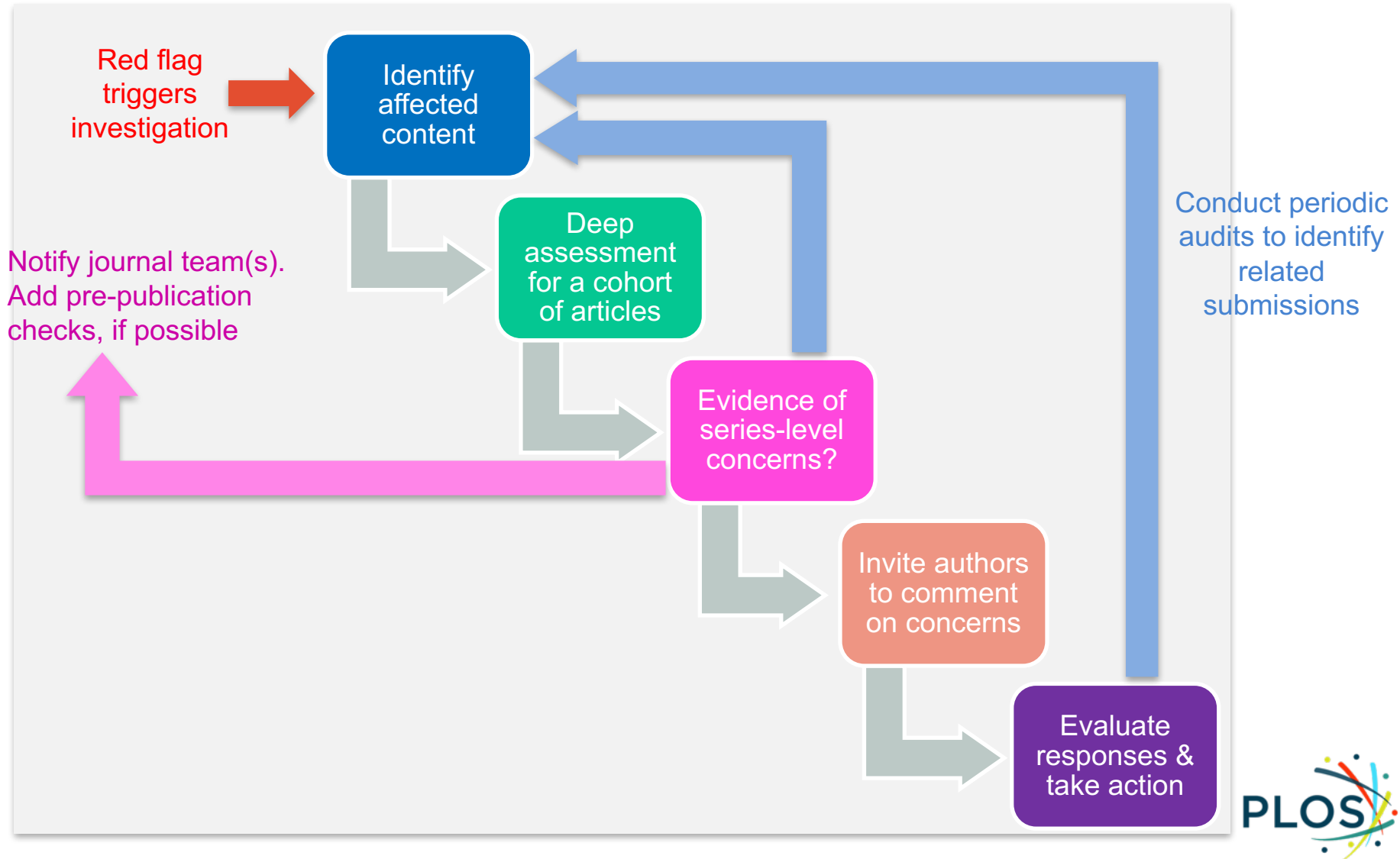
AUTHORSHIP



PEER REVIEW



# Identifying & investigating concerns about systematic manipulation of the publication process





# Evaluating whether there is evidence of potential paper mill activity

## CONTENT



- Recycled or plagiarized content
- Data/image integrity concerns
- Article structure & presentation
- Metadata & files

## AUTHORSHIP



- Author information
- Authorship changes
- Contributions & affiliations
- Publication history

## PEER REVIEW



- Competing interests
- Reviewer information
- Review timing, content, & quality
- Patterns of linked contributor activity

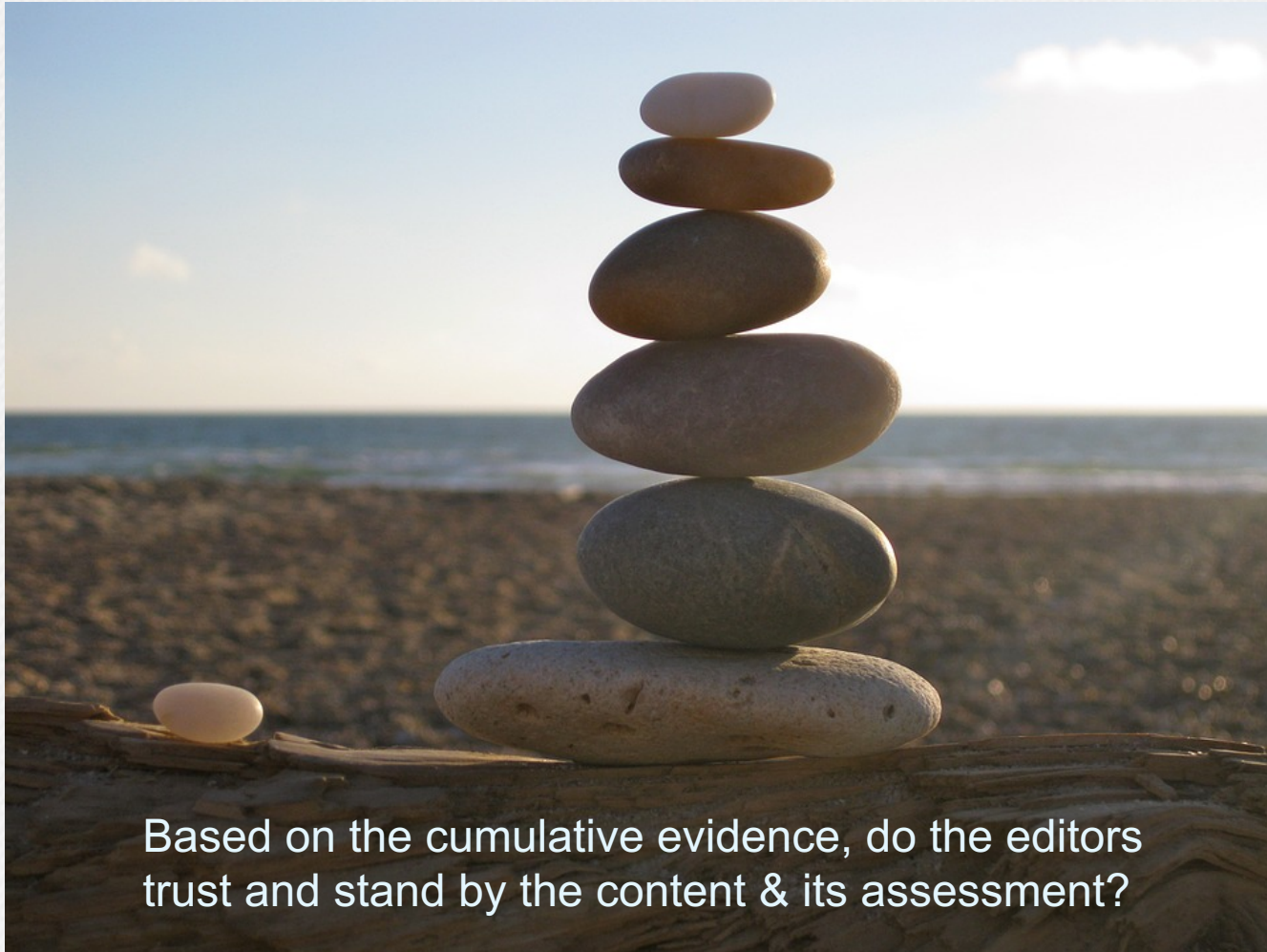


## **Paper mill series vs. article-specific concerns?**

Common concerns across a series of articles may indicate different underlying issues – and warrant different editorial action – than the same concerns noted for an isolated article.



There is not always a 'smoking gun'  
providing definitive evidence of paper mill activity



Based on the cumulative evidence, do the editors  
trust and stand by the content & its assessment?

# A recent case investigated by PLOS



## Author behavior outlier

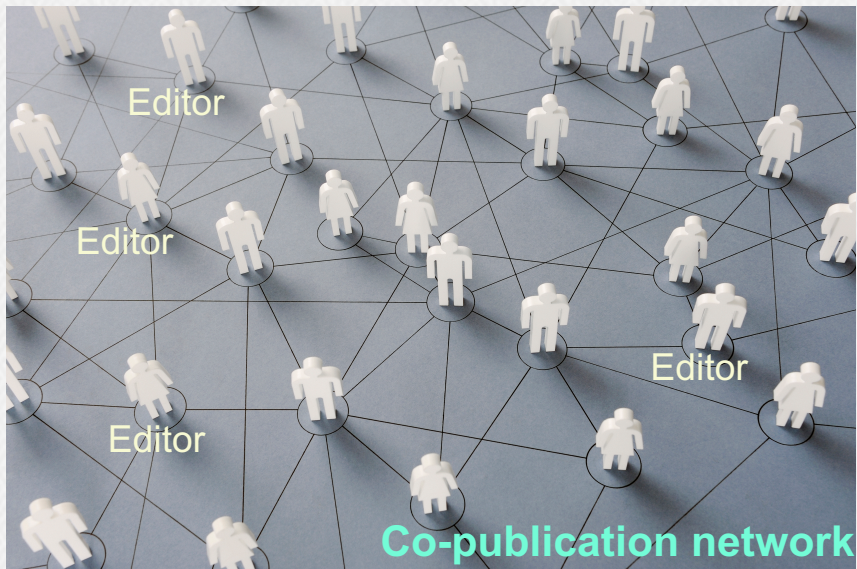
- High submission frequency
- High publication volume 2020-2022

This case has been discussed at:

- <https://theplosblog.plos.org/2022/08/safeguarding-peer-review-in-the-era-of-evolving-paper-mills/>
- <https://retractionwatch.com/2022/08/03/exclusive-plos-one-to-retract-more-than-100-papers-for-manipulated-peer-review/>



# Evaluation of a series of submissions linked to the author revealed a co-publication network involving authors and editors



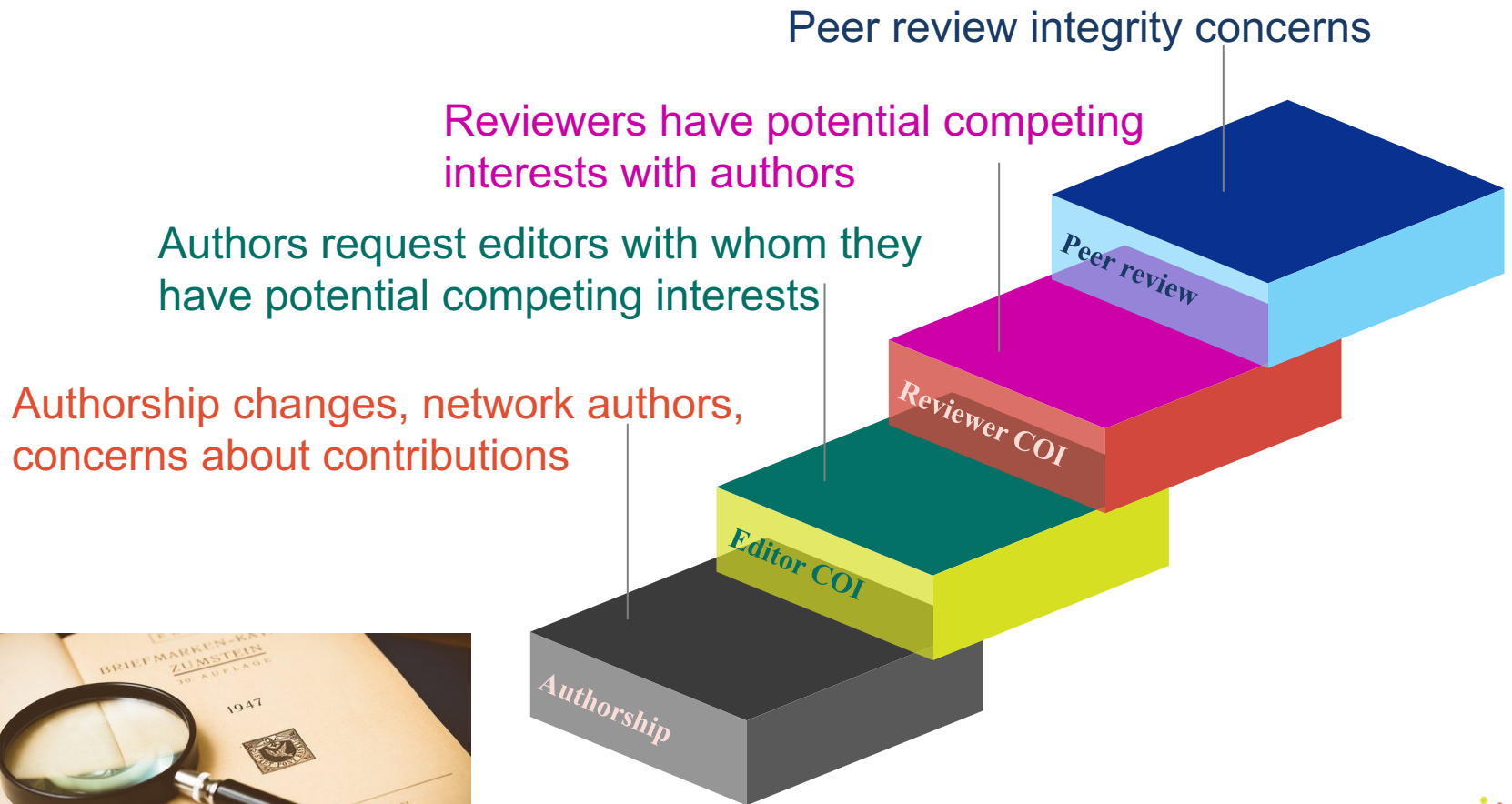
- Highly prolific authors and editors connected via co-publications
- Most editors tied to the network recently joined the editorial board
- Submissions typically include a couple of network authors, along with authors from other institutions.

Author 1\*, Author 2, Author 3, Author 4, Author 5, Author 6

*Network authors*

*Authors from other institutions*

# Editorial assessment revealed common issues across the series pertaining to authorship, competing interests, and peer review integrity



PLOS concluded that retraction was warranted for most articles with links to the prolific author-editor network

“

**Editors should consider retracting a publication if: ...**

- It has been published solely on the basis of a **compromised or manipulated peer review process**
- The author(s) **failed to disclose a major competing interest** (aka, conflict of interest) that, in the view of the editor, would have unduly affected interpretations of the work or recommendations by editors and peer reviewers.

”

*COPE Retraction guidelines – English (<https://publicationethics.org/files/retraction-guidelines-cope.pdf>)*



## Common language in retraction notices links the series and specifies series-level concerns

“The *PLOS ONE* Editors retract this article [1] because **it was identified as one of a series of submissions for which we have concerns about authorship, competing interests, and peer review.** We regret that the issues were not addressed prior to the article’s publication.”





Collaboration across publishers is essential in effectively combating these issues.

*Multiple publishers may be affected by the same large-scale issue.*



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**Thank  
you!!**

Questions?

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