

# TAKE THE PREREGISTRATION CHALLENGE ECOLOGY & EVOLUTION



Transparency into the research workflow is a core value of **science**. Preregistration adds transparency by specifying *in advance* how data will be collected and analyzed.

## PREREGISTRATION ADDS CLARITY & CREDIBILITY

Preregistration distinguishes hypothesis testing from hypothesis generating research. Both are important. However, the same data cannot be used to generate and test a hypothesis, as often happens unintentionally.

### HYPOTHESIS TESTING

Statistical tests are specified in advance  
Goal is to minimize false discoveries

VS.

### HYPOTHESIS GENERATING

Exploring through data is encouraged  
Goal is to avoid missing serendipitous findings

Presenting exploratory outcomes as confirmatory makes results seem tidier, but reduces credibility and rigor.

## WHY PREREGISTER?

- 1 It increases the credibility of your results.
- 2 It allows you to stake a claim to your ideas sooner.
- 3 It improves your design by encouraging earlier planning.
- 4 You can win \$1,000 for publishing the results.

## PUBLISH IN THESE ELIGIBLE JOURNALS

- Behavioral Ecology
  - Biotropica
  - BMC Ecology
  - Conservation Biology
  - Ecology
  - Ecology and Evolution
  - Ecology Letters
  - Evolution
  - Evolutionary Ecology
  - Nature
  - Nature Ecology & Evolution
  - Oikos
  - Plant Ecology
  - PLOS
  - Population Ecology
  - Science
  - The American Naturalist
  - The Auk: Ornithological Advances
- And more. . .

*Preregistering your study does not guarantee publication in any journal.*

## LEARN MORE AT [COS.IO/PREREG](https://cos.io/prereg)



The Center for Open Science is a non-profit company with the mission of improving the openness, integrity, and reproducibility of scientific research.

COS: [cos.io](https://cos.io) | OSF: [osf.io](https://osf.io) | Email: [contact@cos.io](mailto:contact@cos.io)