



# Key themes and summary of issues

## — Bayesianism as Remedy?

- Bayesian methods have been argued as a cure to QRPs, particularly p-hacking problems:

“many of us believe that other ways of summarizing the data, such as Bayes factors or other posterior summaries based on clearly articulated model assumptions, are preferable to P values” (Benjamin et al. 2018)

- Bayesian confidence intervals and Bayes factors are equally susceptible and invalidated to the same degree by “p-hacking” practices as their frequentist inference equivalents. (Simonsohn 2014).
- Jury’s not out, but QAECCO discussion group findings lend weight to Bayesian methods being susceptible to Researcher Degrees of Freedom

Benjamin, Daniel J, James O Berger, Magnus Johannesson, Brian A Nosek, E J Wagenmakers, Richard Berk, Kenneth A Bollen, et al. 2018. "Redefine statistical significance." *Nature Human Behaviour*, January. Springer US, 1–5. doi:[10.1038/s41562-017-0189-z](https://doi.org/10.1038/s41562-017-0189-z).

Simon, D. 2014. 'Posterior-hacking: Selective reporting invalidates Bayesian results also.' SSRN *Electronic Journal*. doi:10.2139/ssrn.2374040

# What's next? QRP survey

## Aims

1. Estimate the prevalence of questionable research practices for non hypothetico-deductive research in ecology and conservation (Decision Support).
2. Elicit researcher judgments about the impact of QRPs on ecological / conservation decisions and their underlying models

**How to frame questions?**

# Key themes and summary of issues

## — Bayesianism as Remedy?

- Bayesian methods have been argued as a cure to QRPs, particularly p-hacking problems:

“many of us believe that other ways of summarizing the data, such as Bayes factors or other posterior summaries based on clearly articulated model assumptions, are preferable to P values” (Benjamin et al. 2018)

- Bayesian confidence intervals and Bayes factors are equally susceptible and invalidated to the same degree by “p-hacking” practices as their frequentist inference equivalents. (Simonsohn 2014).
- Jury’s not out, but QAECCO discussion group findings lend weight to Bayesian methods being susceptible to Researcher Degrees of Freedom