

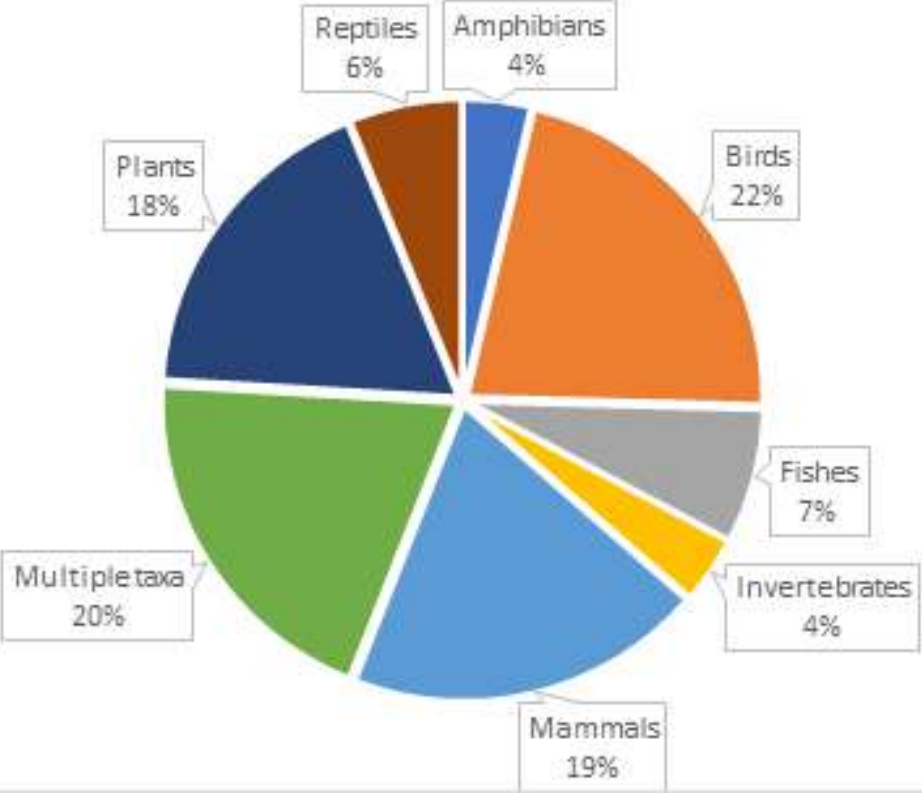
'Plant Blindness' – How to make plant conservation a hot topic?

October 1st 2021

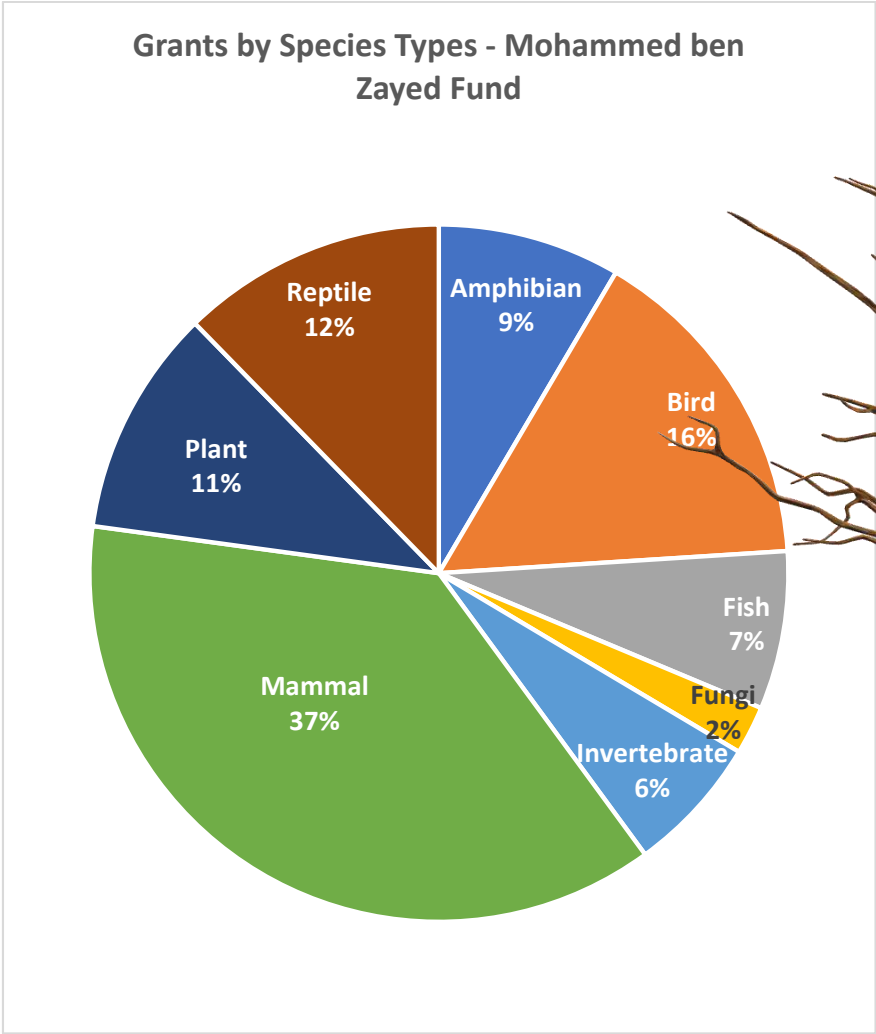


Are plants really the third wheel of conservation?

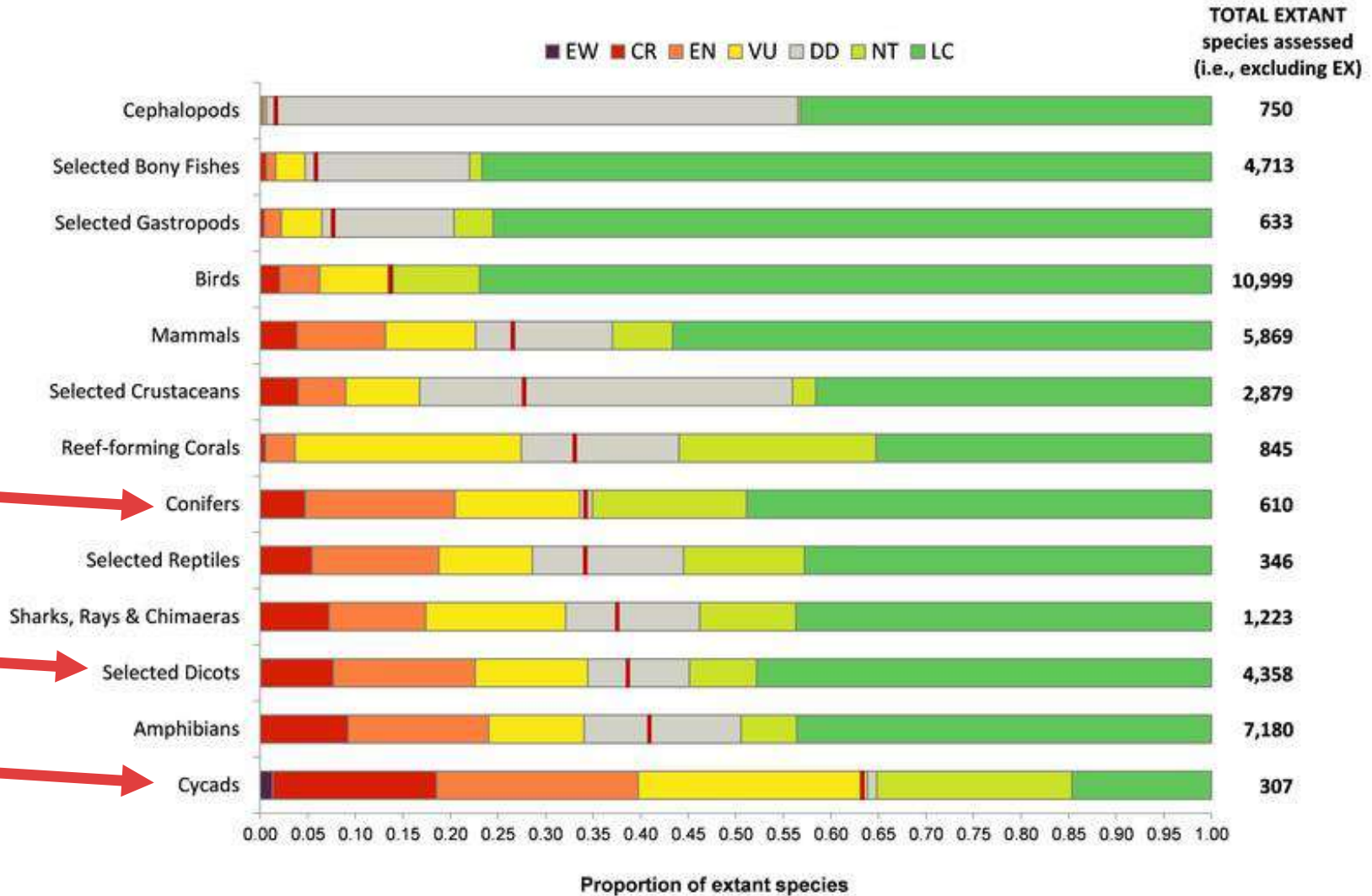
CEPF Projects with a Taxonomic Focus
N=1093 (Total # of projects=2,719)



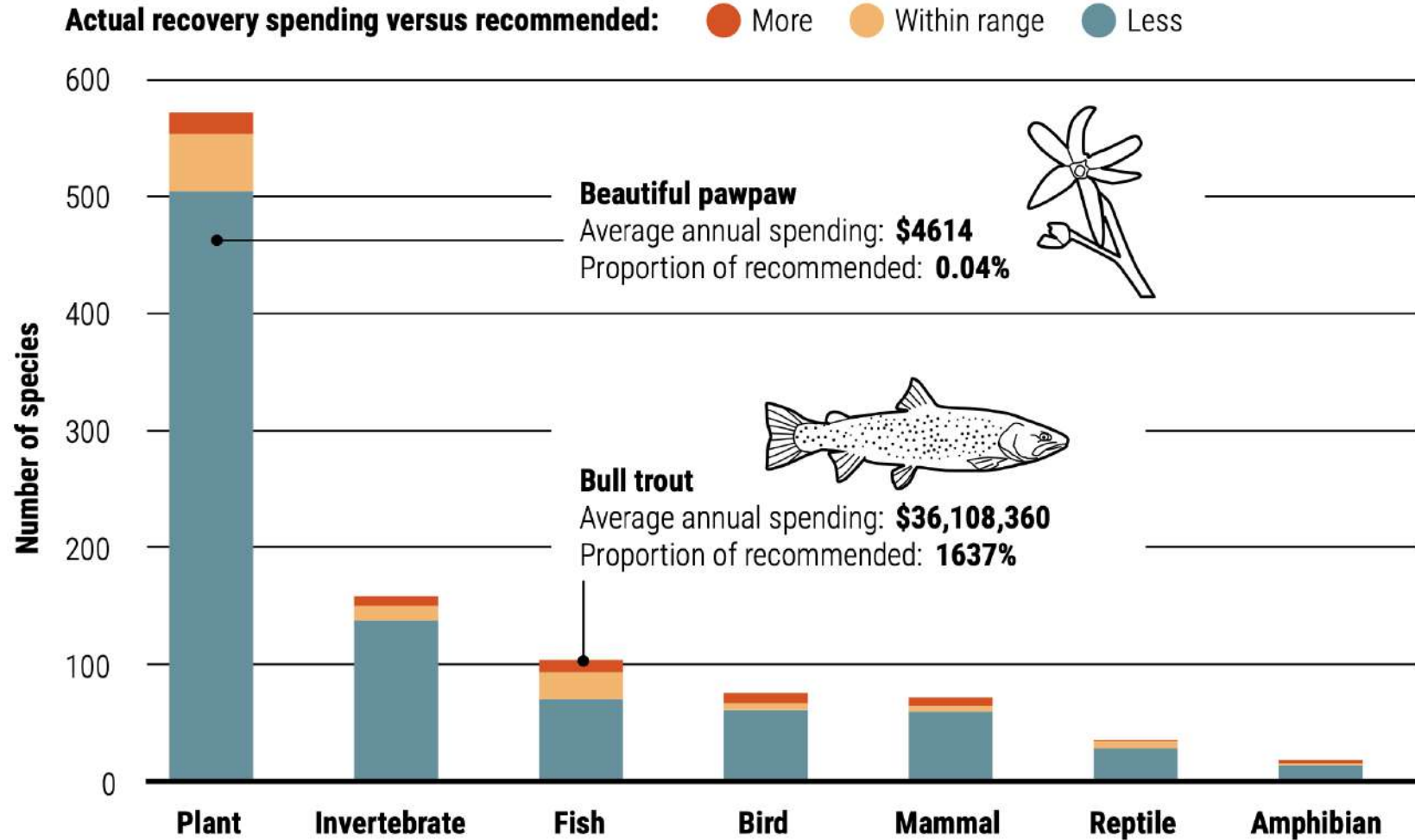
Are plants really the third wheel in conservation?



Maybe is it because plants are better off than other taxa?

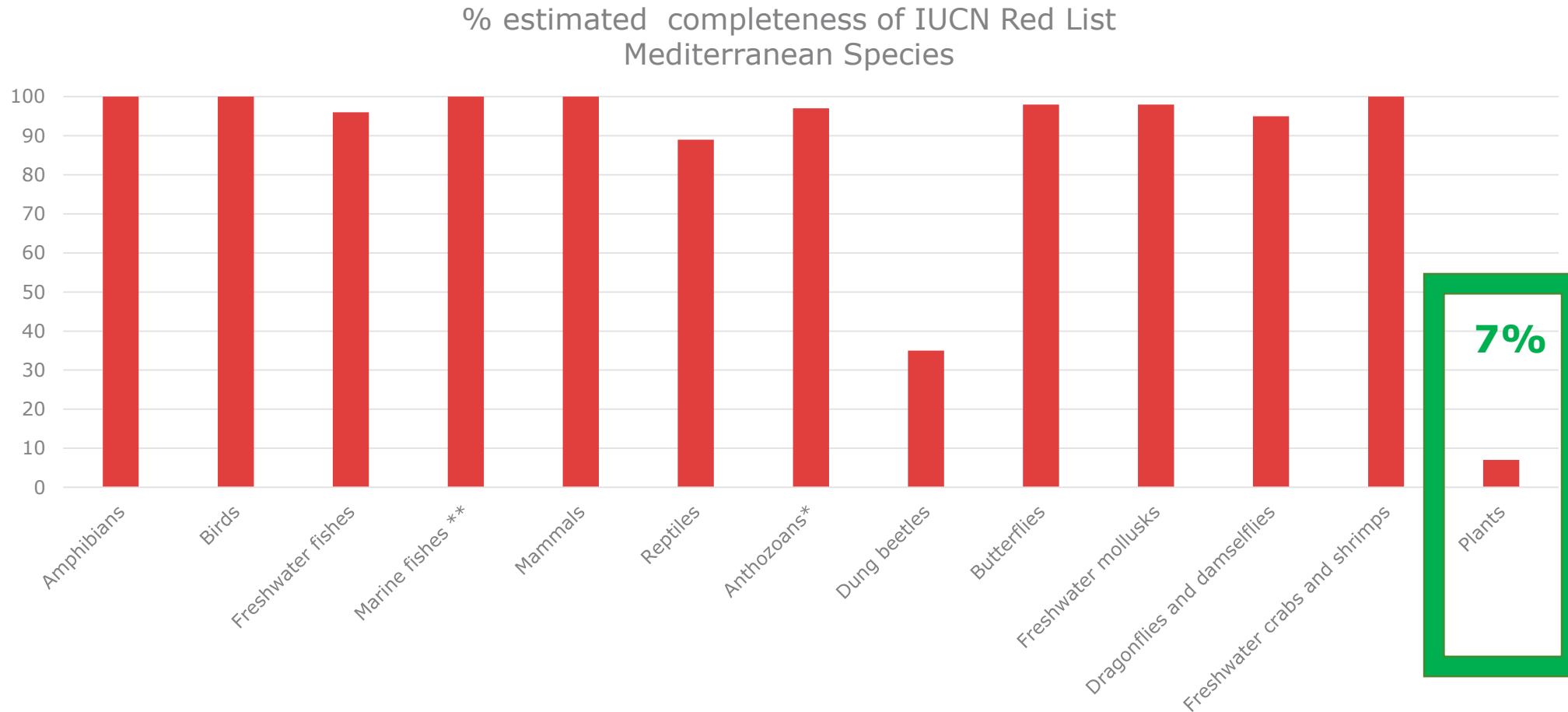


Or maybe because plant conservation requires less funds?



L. Gerber / PNAS 2016

Is there a knowledge gap to be filled ?

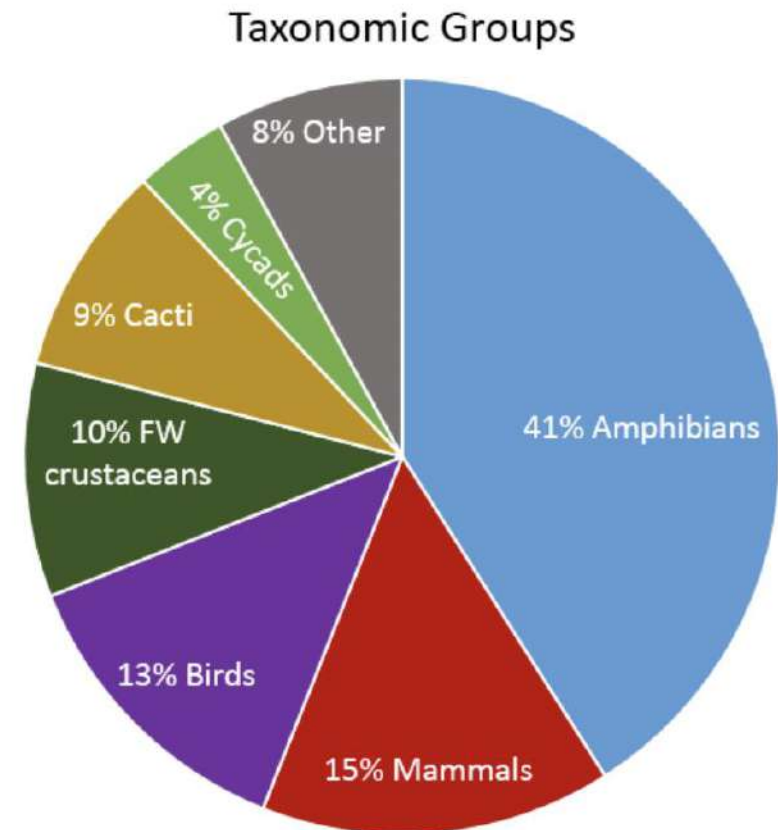


Source: CEPF Ecosystem Profile / Mediterranean Hotspot (2017). Note: data for invertebrates: Mediterranean Red List assessment. Others: Global

Leading to a problem in priority setting ?

AZE BY THE NUMBERS

- **853 AZE sites globally.**
- **1,483 CR and EN species restricted to just one site.**
- The 2018 AZE map update **removed 107 species** that previously triggered AZE sites. Many of these species were removed due to successful conservation actions and improved AZE site management.
- **43% of AZE sites remain unprotected**, providing a blueprint to stem further species extinctions by focusing conservation efforts on these indispensable global sites.





What do you remember?

“Plant Blindness” ?

- **A form of cognitive bias, which in its broadest meaning, is a human tendency to ignore plant species.** ((1999) J. H. Wandersee and E. E. Schussler, *Preventing plant blindness. The American Biology Teacher*, 61, 82–86)
- Why this bias?
 - Human eye attracted by “moving” things, as an adaptation?
 - “Plant Literacy” in decline: in biology textbooks in the US, less than 15% of pages relate to plants...
 - Anthropomorphism: we want to act for species that are closer to ours, that we can “identify with” : hence more focus on species with spine and eyes...

It's a Real Scandal, isn't it?

BRIEF COMMUNICATION

<https://doi.org/10.1038/s41477-021-00912-2>

nature
plants

 Check for updates

Plant scientists' research attention is skewed towards colourful, conspicuous and broadly distributed flowers

Martino Adamo ¹✉, Matteo Chialva ¹, Jacopo Calevo ^{2,3}, Filippo Bertoni⁴, Kingsley Dixon³ and Stefano Mammola^{5,6}

Scientists' research interests are often skewed toward charismatic organisms, but quantifying research biases is challenging. By combining bibliometric data with trait-based approaches and using a well-studied alpine flora as a case study, we demonstrate that morphological and colour traits, as well as range size, have significantly more impact on species choice for wild flowering plants than traits related to ecology and rarity. These biases should be taken into account to inform more objective plant conservation efforts.

history of human cognition and the effect of cultural, scientific and educational tendencies, this disparity translates into serious real-life impacts, as it affects the knowledge base of conservation and its policies. As addressing this bias is urgent but also often outside the scope of plant sciences, we want to identify more specific biases that can be addressed from within the scientific community dedicated to plants, thereby informing better research practices.

With this goal in mind, we chose a well-defined case study in which to consider specific traits and factors that could influence the

But what is the situation in our own community?

Martin Adamo *et al.* looked at the factors that could explain choice of focus species, based on 280 papers published on Southwestern Alps plant ecology between 1975 and 2020

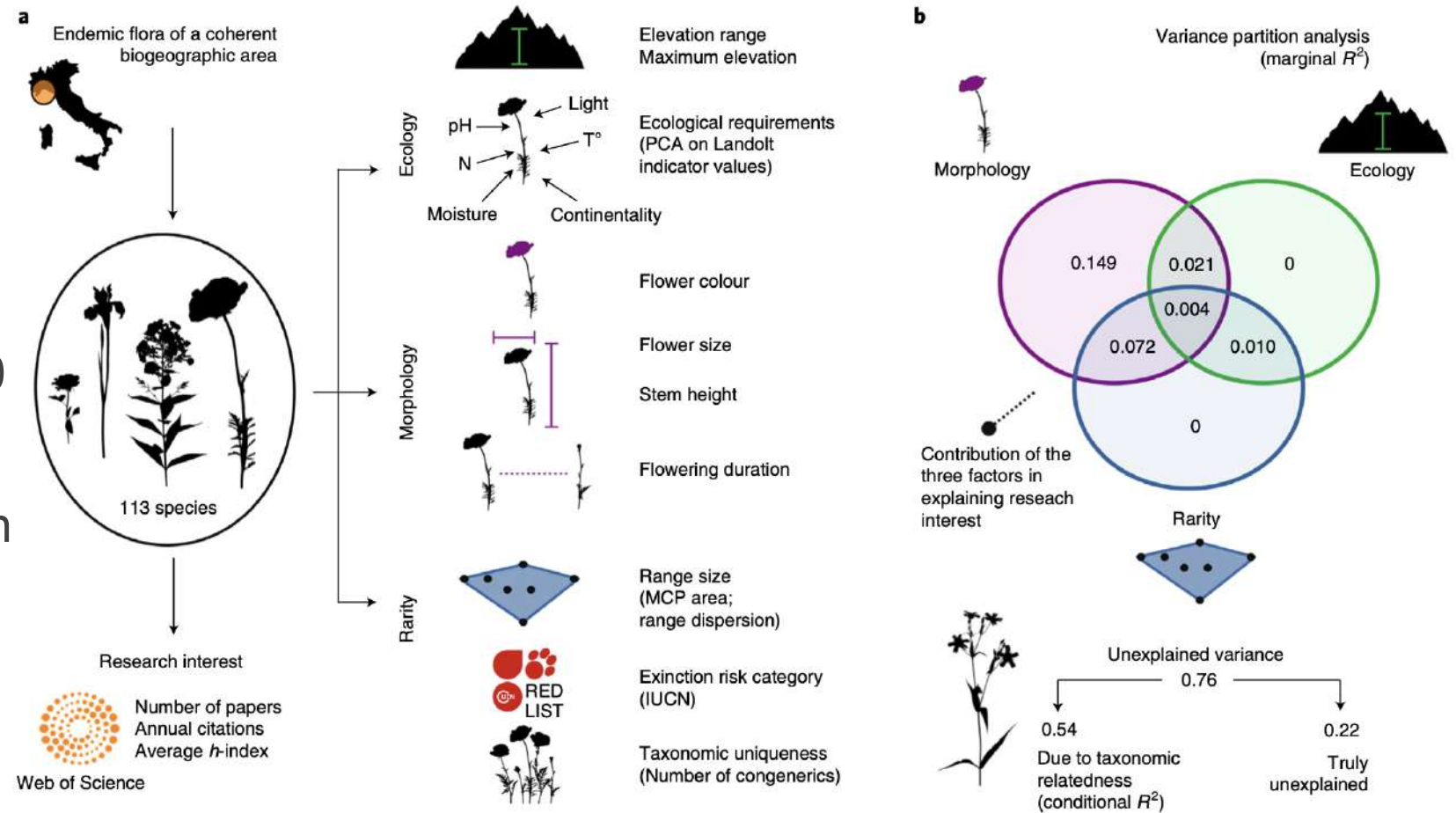
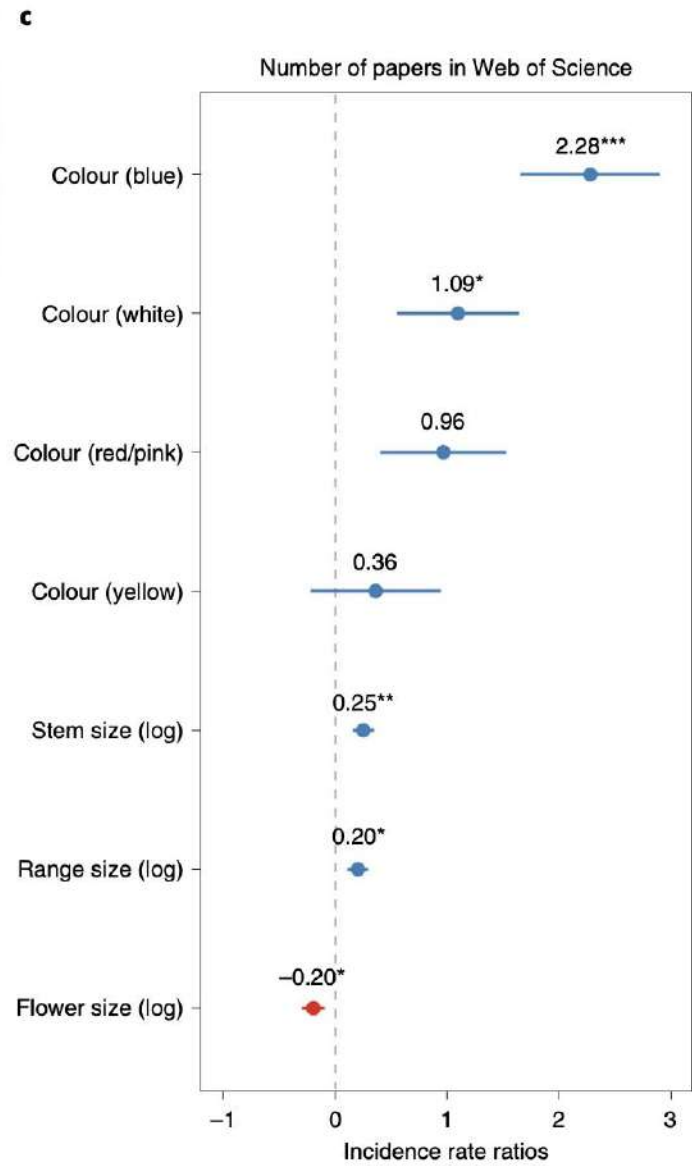
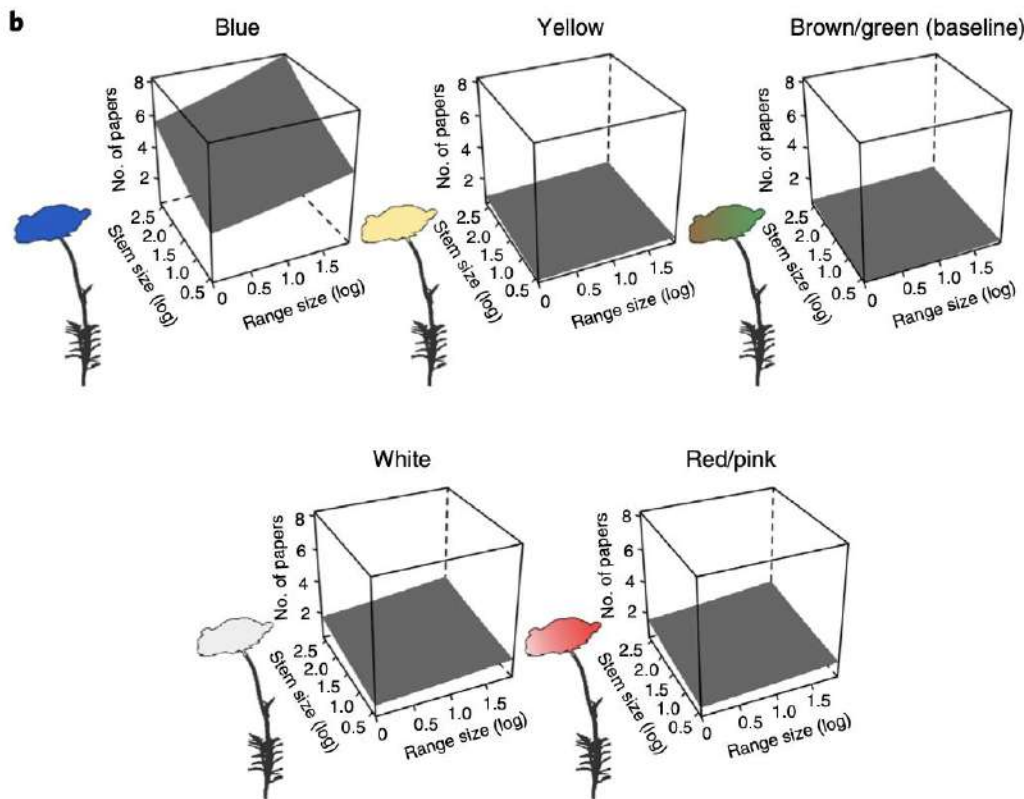


Fig. 1 | Study workflow and most important factors in explaining research interest. **a**, Schematic representation of the data collection and the subdivision of the plant traits in three categories of ecology, morphology and rarity. **b**, Outcomes of the variance partitioning analysis, whereby the relative contribution of traits related to ecology, morphology and rarity is ruled out, as well as the random effect of species' taxonomic relatedness at family level. T°, temperature.

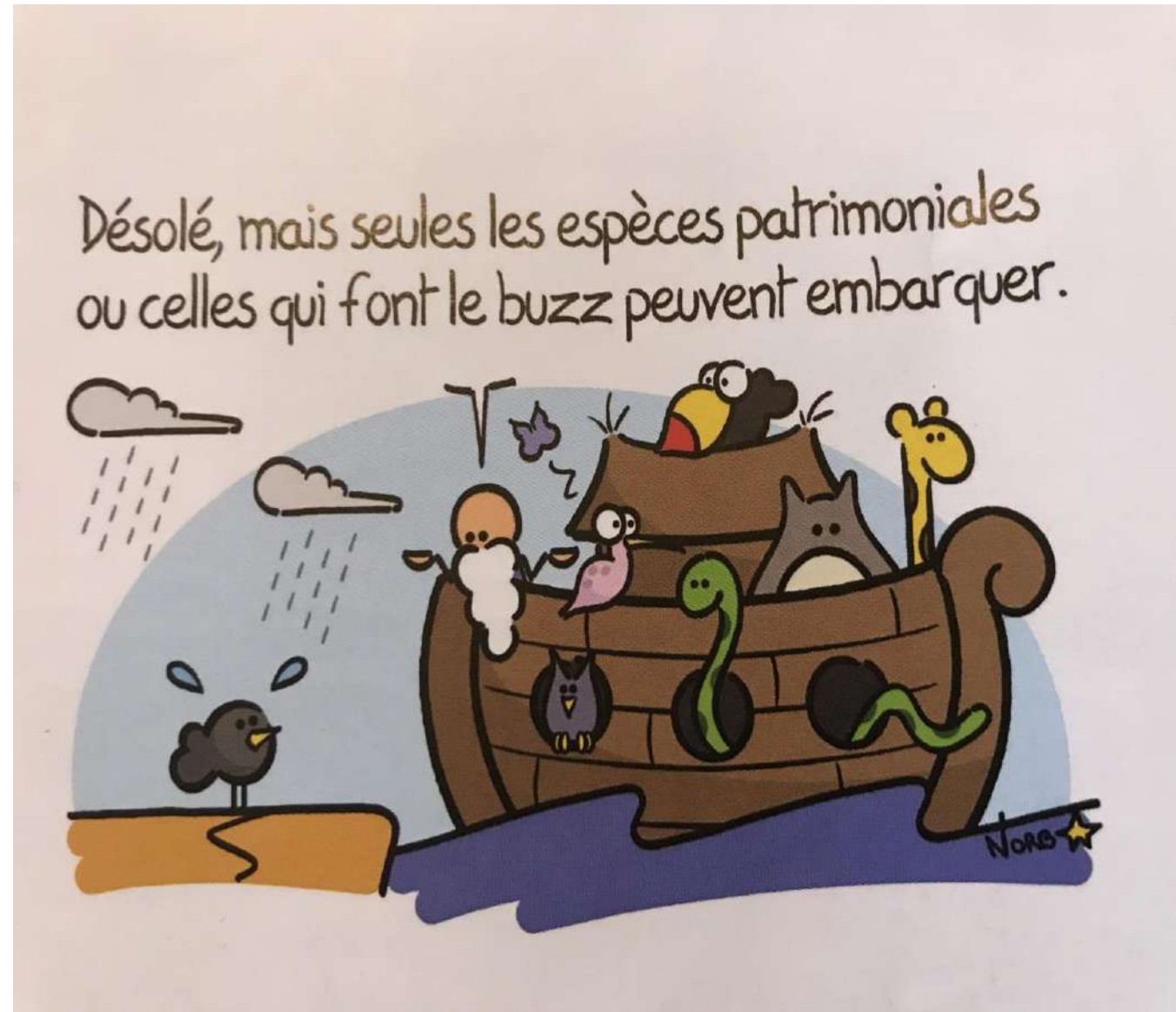
If you want to attract the attention of researchers, better be a tall plant with large, blue flowers...

Than a rare Cyperacea from a monospecific gender...



So: how to Make Plants A Hotter Topic ??

- Discussion -





THANK
YOU !

CRITICAL | **ECOSYSTEM**
PARTNERSHIP FUND