

The World Archives of Species Perception (WASP) project



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23rd FishBase and SeaLifeBase Symposium

Royal Belgian Institute of Natural Sciences, Brussels

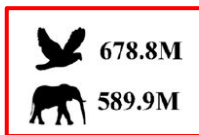
2-3 September 2025

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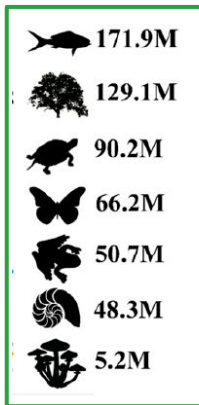
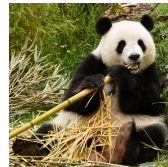
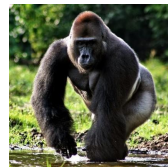
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Why do we care about public perception?

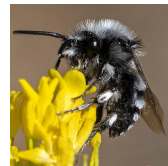
Limited and biased global conservation funding means most threatened species remain unsupported
Guénard et al. (2025)



1% species

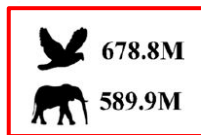


99% of biodiversity

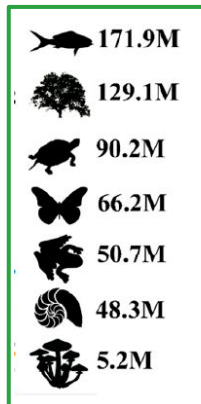
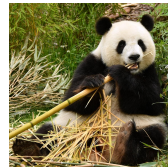
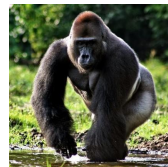


Why do we care about public perception?

Limited and biased global conservation funding means most threatened species remain unsupported
Guénard et al. (2025)



1% species



99% of biodiversity



Limited state of knowledge and data of public perception

→ A need for a database that maps public perception across a broad range of species



The WASP project

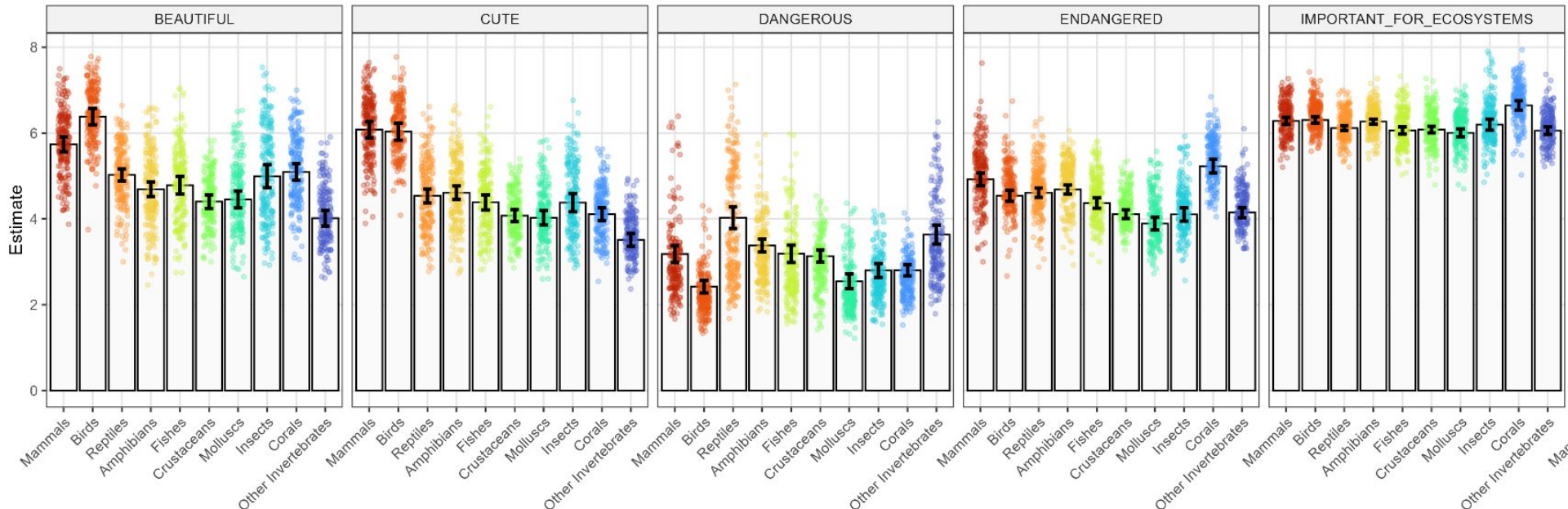
Effort to collect and systemize public perception data

Two surveys: Animals (WASP-A, ongoing) and Botany (WASP-B, start in 2026)

In WASP-A:

- 85,000 observations of ~2,000 species
- 6 attributes:
 - Visual/aesthetic: beauty, cuteness, dangerousness, intelligence
 - Knowledge/belief: perceived conservation status, perceived ecological importance

Overview of WASP-A dataset



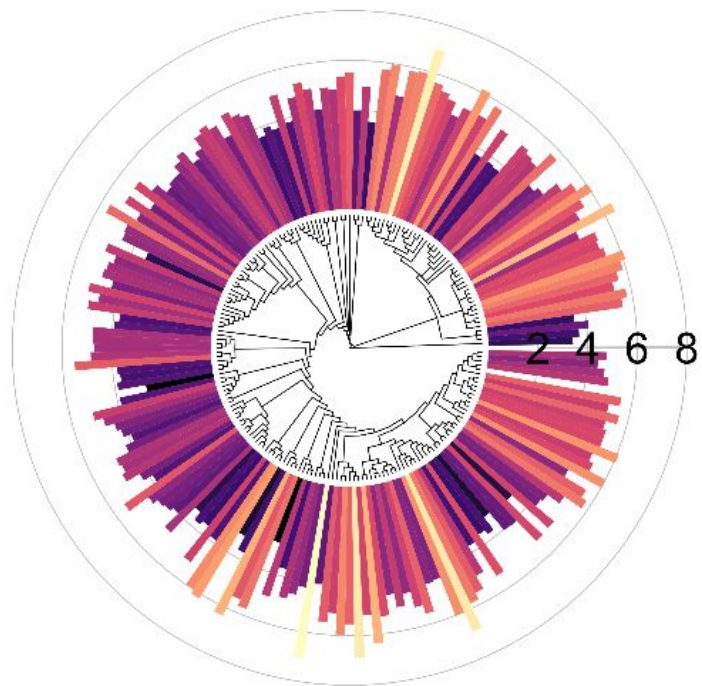
Diverse patterns

- E.g. Mammals and birds are the most beautiful and cutest groups
- E.g. Endangered and important corals
- E.g. Dangerous reptiles and other invertebrates (incl. spiders)

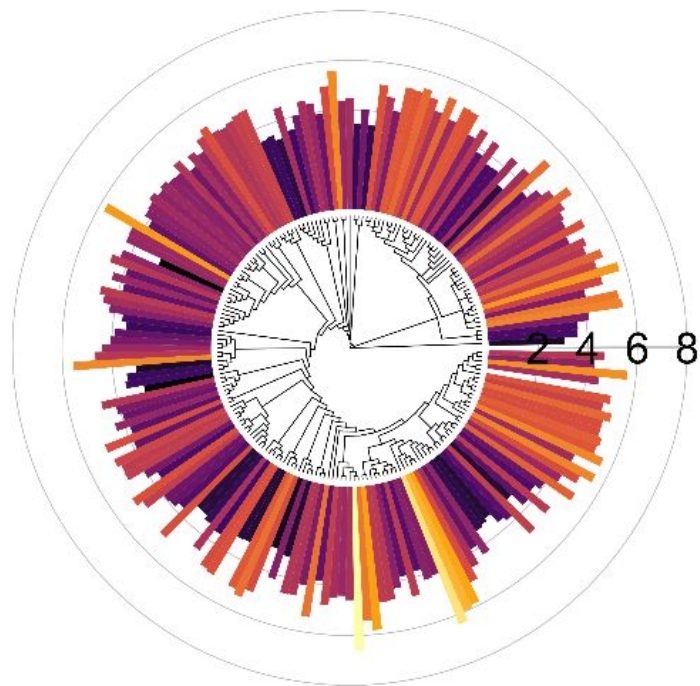
A focus on fish

200 species sampled from a pool of 7,000 species (IUCN x iNaturalist)

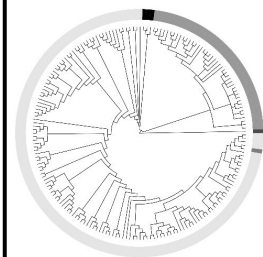
- Covers a wide taxonomic range, but low representativeness within taxa
- Species belong to 200 families, 64 orders, 4 classes
 - On average: 3 species/order, 1 species/family or genus
 - e.g., Perciformes (8), Beloniformes (6), Beryciformes (6), Characiformes (6), etc.



Beauty



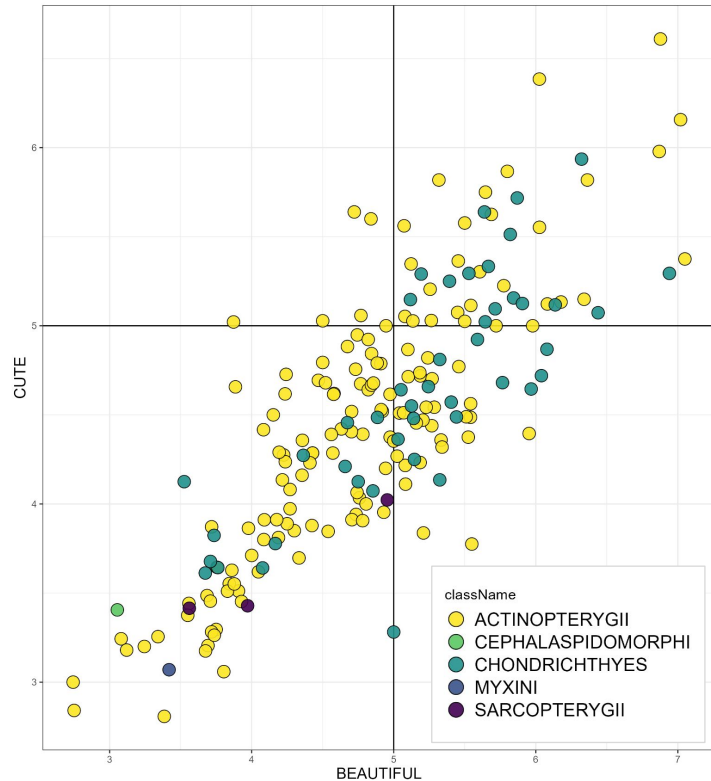
Cuteness



Class

- ACTINOPTERYGII
- CHONDRICHTHYES
- MYXINI
- SARCOPTERYGII
- NA

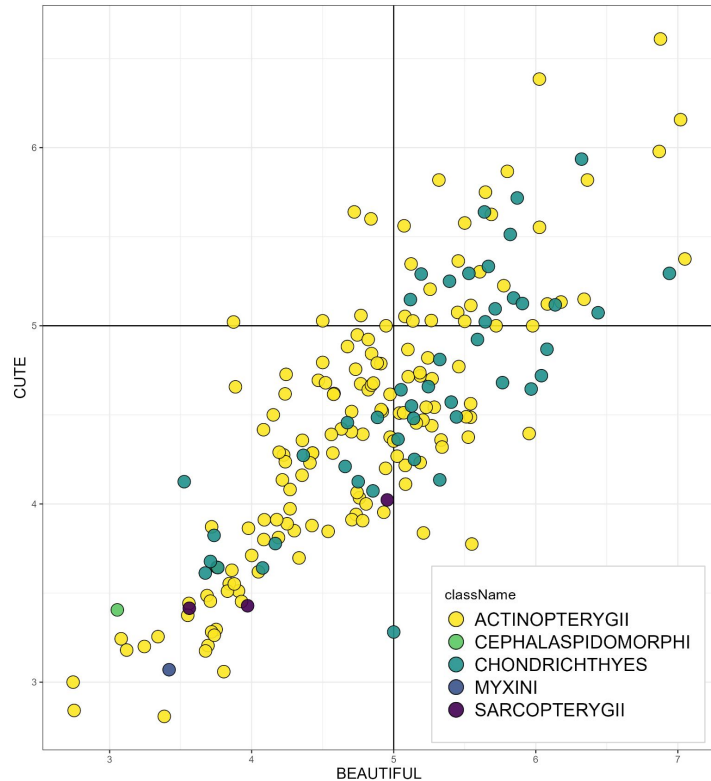
Top and bottom 10 species in beauty and cuteness (among 200 species)



Top 10



Top and bottom 10 species in beauty and cuteness (among 200 species)



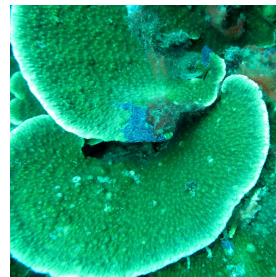
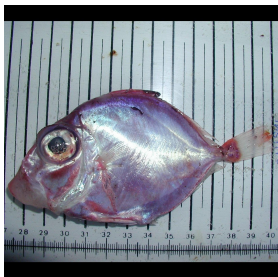
Top 10



Bottom 10



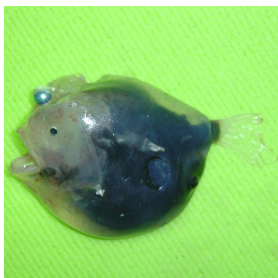
Best available iNaturalist images of some aquatic taxa



Dead

Preserved specimen

Low resolution



Blurry

Difficult to spot



Poor color

First attempt to cluster perception

Clusters

0 - The slightly beautiful

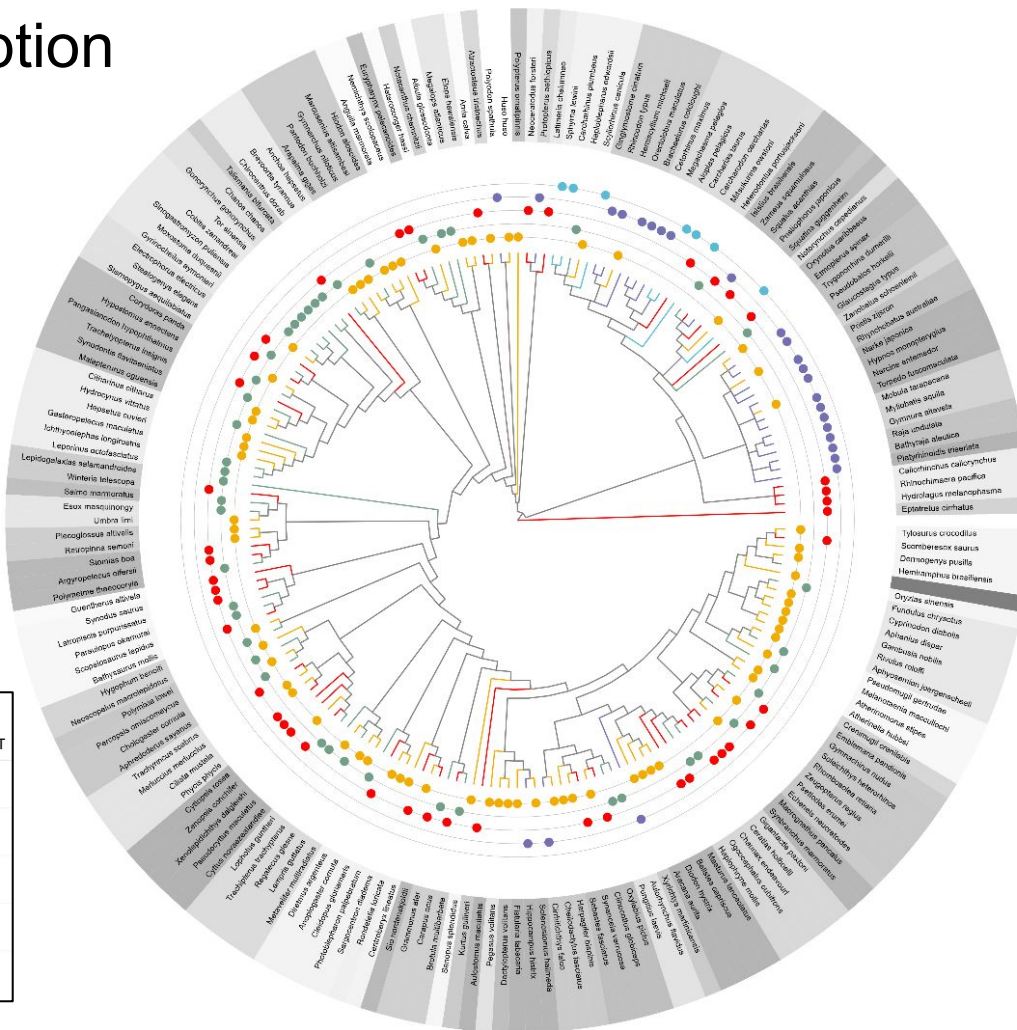
1 - The unattractive

2 - The unattractive and dangerous

3 - The beautiful and cute

4 - The beautiful, dangerous, and important

Cluster	BEAUTIFUL	CUTE	DANGEROUS	ENDANGERED	IMPORTANT FOR ECOSYSTEMS	INTELLIGENT
0	5.26	4.89	2.63	4.49	6.26	3.51
1	4.31	4.01	2.33	3.96	5.94	2.99
2	4.06	3.73	3.47	4.52	5.78	3.54
3	5.64	5.13	3.88	5.23	6.49	4.58
4	5.61	4.82	5.35	5.38	6.87	5.39

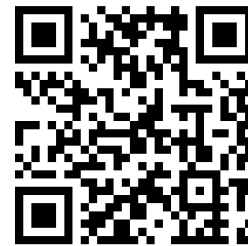


Thank you for your attention !



This presentation is based on the work of: Tuan Nguyen, Maarten P. M. Vanhove, Diogo Veríssimo, Luc Janssens de Bisthoven, Robert Malina

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WASP survey
webpage



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