

A biomechanical approach to infer size-based functional response in aquatic and terrestrial systems

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The present file provides explanations for all the variables in the two databases used in the main text and supplementary material, as well as references for the data.

File: Portalier_et_al_2021_Species_Speeds.csv

This database contains data used to test the species-speed computed by the model presented in the main text. Data comes from a meta-analysis [Hirt et al.(2017)Hirt, Jetz, Rall, and Brose].

Each entry includes:

- **species.name**: species taxonomic name
- **taxonomic.group**: species taxonomic group
- **locomotion.mode**: locomotion mode¹
- **body.mass.kg**: body mass (in kg)
- **speed.m.s⁻¹**: species-speed (in m.s⁻¹)
- **references**: reference link to studies where each entry was found²

Notes

¹ some species may exhibit different locomotion modes, but only the measured mode is mentioned here

² references link to the meta-analysis where each entry was found. Therefore the present database does not refer to the original study where the data point was measured.

File: Portalier_et_al_2021_Predator_Prey_Interactions.csv

This database contains data used to test the model presented in the main text. Data comes from several sources.

Each entry includes:

- **habitat:** habitat¹
- **predator.species:** predator taxonomic name
- **predator.mass.kg:** predator mass (in kg)
- **prey species:** prey taxonomic name
- **prey.mass.kg:** prey mass (in kg)
- **predation.trait:** trait measured²
- **trait.value:** trait value
- **trait.unit:** trait unit
- **references:** reference link to studies where each entry was found³

Notes

¹ "habitat" refers to the habitat where the measured was done, which may differ from the living habitat of one of the species

² the measured traits are "attack.rate" for attack rate, "handling.time" for handling time, and "capture.probability" for capture probability.

³ references link to studies where each entry was found. Some of these studies are meta-analysis; therefore the present database does not necessarily refer to the original study where the data point was measured. The full reference list is available at the end of the present document.

References

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