

Sharkipedia: elasmobranch traits and trends global database

Holly K. Kindsvater^{*,1}, Christopher G. Mull², Sebastián A. Pardo², Nathan Pacoureau³ and Nicholas K. Dulvy³

Affiliations:

¹Department of Fish and Wildlife Conservation, Virginia Polytechnic Institute and State University, Blacksburg, VA, United States of America.

²Department of Biology, Dalhousie University, Halifax, Nova Scotia, Canada

³Department of Biological Sciences, Earth to Ocean Research Group, Simon Fraser University, Burnaby, British Columbia, Canada.

About [Sharkipedia](#)

Sharkipedia is an open source research initiative to make all published biological traits and population trends on sharks, rays, and chimaeras accessible to everyone. Originally inspired by [FishBase](#), our databases are modelled after [Coral Traits database](#) and the [RAM legacy database](#).

The key aspects of our initiative were established with the central tenet of facilitating research on chondrichthyans, and are built on three main principles: (1) being completely web-based open- access and queryable for use by all researchers, (2) quality control and assurance by experts in the field and traceability of every measurement to its original references, and (3) regular updates association with International Union for the Conservation of Nature (IUCN) Red List Assessment workshops of focal species.

Mission

- Assemble disparate information on life history traits of sharks, rays, and chimaeras
- Provide unrestricted, open-source and easy access to shark trait data
- Avoid redundant data-gathering efforts
- Facilitate and encourage the appropriate crediting (citation) of original data sources
- Engage the shark and ray research community in the collection and quality control of trait data
- Facilitate reproducible science
- Do the above with a sustainable future for the database in mind, in terms of management and longevity

Web-based open-access ensures consensus on the data used by researchers and managers. Data curation is an important component that assures data quality by evaluating the confidence in the data by experts. To this end we have recruited global leaders on the biology

and ecology of chondrichthyans to synthesize the available information and create a comprehensive open access resource. Incorporating data entry and updates with the IUCN Shark Specialist Group's (SSG) global and regional assessments will also facilitate future assessments by the IUCN and accuracy of the database. Together, these data will provide an invaluable and flexible tool understanding chondrichthyan biology and for managing populations in the face of changing threats across the globe.