Data from: Predator-prey interactions between shell-boring beetle larvae and rock-dwelling land snails

Baalbergen, Els, Naturalis Biodiversity Center
Helwerda, Renate, Naturalis Biodiversity Center
Schelfhorst, Rense, Naturalis Biodiversity Center
Castillo Cajas, Ruth F., University of Würzburg
van Moorsel, Coline H. M., Leiden University
Kundrata, Robin, Palacký University, Olomouc
Welter-Schultes, Francisco W., University of Göttingen
Giokas, Sinos, University of Patras
Schilthuizen, Menno, Naturalis Biodiversity Center, Leiden University

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Abstract

Drilus beetle larvae (Coleoptera: Elateridae) are specialized predators of land snails. Here, we describe various aspects of the predator-prey interactions between multiple Drilus species attacking multiple Albinaria (Gastropoda: Clausiliidae) species in Greece. We observe that Drilus species may be facultative or obligate Albinaria-specialists. We map geographically varying predation rates in Crete, where on average 24% of empty shells carry fatal Drilus bore holes. We also provide first-hand observations and video-footage of prey entry and exit strategies of the Drilus larvae, and evaluate the potential mutual evolutionary impacts. We find

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limited evidence for an effect of shell features and snail behavioral traits on inter- and intraspecifically differing predation rates. We also find that Drilus predators adjust their predation behavior based on specific shell traits of the prey. In conclusion, we suggest that, with these baseline data, this interesting predator-prey system will be available for further, detailed more evolutionary ecology studies.

Usage Notes

Data Collection Codes

Collection details pertaining to the Albinaria samples, some containing Drilus laevae or adult, that were used in this study

Data Predation Crete

This file provides information on the Cretan Albinaria collection samples used for producing the map of Drilus predation pressure. The samples without taxon identifiers were studied by Francisco W. Welter-Schultes and derived from the Haus der Natur, Cismar. The other samples were studied by Ruth F. Castillo Cajas and derived from the collection of Naturalis Biodiversity Center, Leiden.

Appendix_PLOS ONE (herzien)- Voucher numbers - RMNH

This file contains all information relating to the Drilus specimens (adults, larvae, and exuviae) obtained from snail shells in the course of this study. Voucher numbers refer to the official collections in which the specimens were deposited.

References

This dataset is supplement to https://doi.org/10.1371/journal.pone.0100366

Location



🌐 Greece

Keywords

Recent, shell, predation, Drilus, Albinaria

Files

3 files for this dataset

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Appendix_PLOS ONEbers - RMNH.xlsx	42.02 kB	application/vnd.openxmlformats- officedocument.spreadsheetml.sheet
Data Collection Codes.docx	14.72 kB	application/vnd.openxmlformats-officedocument.wordprocessingml.document
Data Predation Crete.xls	207.87 kB	application/vnd.ms-excel

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