

Preliminary Research results on the Slugs and Semi-slugs of Rwanda

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Introduction

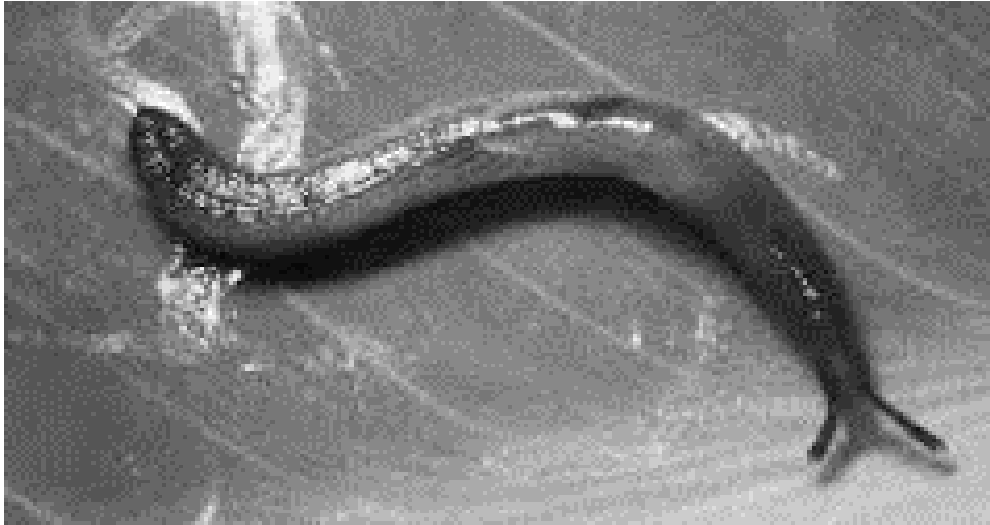
- Animals are classified into two principal groups: invertebrates and vertebrate.
- Invertebrate are the most abundant organism on earth in which the class Gastropoda belongs.
- The gastropods are more commonly known as snails (any Gastropoda with adequate shell to retract into completely).
- Slugs (snails with an internal shell) and semi-slugs (a type of gastropod that is intermediate between a slug and a snail).

Research Problem

- Until to date, a detailed assessment of semi-slugs and slugs in Rwanda is undertaken.
- This is particularly not valid for semi-slugs and slugs only.
- But for the terrestrial snail fauna for the entire country.
- Except for the studies of Van Goethem, 1987; Van Mol, 1970.
- Little is known on the slugs and semi-slugs of Rwanda.

Objectives

- To compile relevant information of the land snails of Rwanda.
- To compare our previously determined shells and fresh individuals of semi-slugs.
- To learn new identification techniques.



Methodology



- Sampled individuals were identified, and grouped into their respective families, genera and species.
- Subsequently, compared with all species of their respective genus known from Rwanda

Methodology...

Or neighboring countries, mainly based on compilations of (Van Goethem, 1987; Van Mol, 1970).



Importance of Slugs and Semi-slugs

- Land snails recycle forest nutrients
- They are prey for a number of vertebrate animals as well as other invertebrates including carnivorous snails.
- Their dietary preference for fungi may also be a factor in fungal spore dispersal.
- The slugs are used by humans for consumption.
- Their slime is used for healing wounds and treatments of warts.

Results

- Overall 450 individuals , assigned to 19 species.
- They were dominated by *Chylamydarion congoensis* (Van Mol, 1969), accounted for 14%.
- Seven new species were recorded for Rwanda.
- One of the seven species was confirmed as an introduced species.



Results....

- This result will be helpful for our planned publications for our land snail studies in the Kahuzi-Biega National Park, DRC and Rwanda .
- Two publications in preparation:
- 1) Annotated Checklist of the terrestrial gastropods of Rwanda.
 - 2) The first record of an introduced land snail in Rwanda.

The acquired abilities and knowledge encouraged me to start PhD study for the next academic year.

Conclusion

- Overall 450 specimens , assigned to 19 species.
- Seven new species records for Rwanda.
- One of the seven species was confirmed as an introduced species.
- Two publications in preparation.



Recommendations

- Other study of this kind should be done in different vegetation types and altitudinal ranges in and outside of protected areas of Rwanda.
- Molecular analysis of the 4 semi-slugs species and further anatomical aspects (radula and internal shell).
- Further studies on the introduced species to document its coverage area and impacts on human health and agricultural production sector.



Acknowledgements



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- I also acknowledge University of Rwanda; CoEB and RBINS.
- Special thanks go to my supervisors, CEBioS team.

An aerial, black and white photograph of a savanna landscape. The terrain is characterized by rolling hills and a sparse distribution of trees and shrubs. The text "Thank you" is overlaid in the center in a bright yellow font.

Thank you