Bryophytes community's evolution in Malagasy high mountain ecosystem : impact on ecological processes

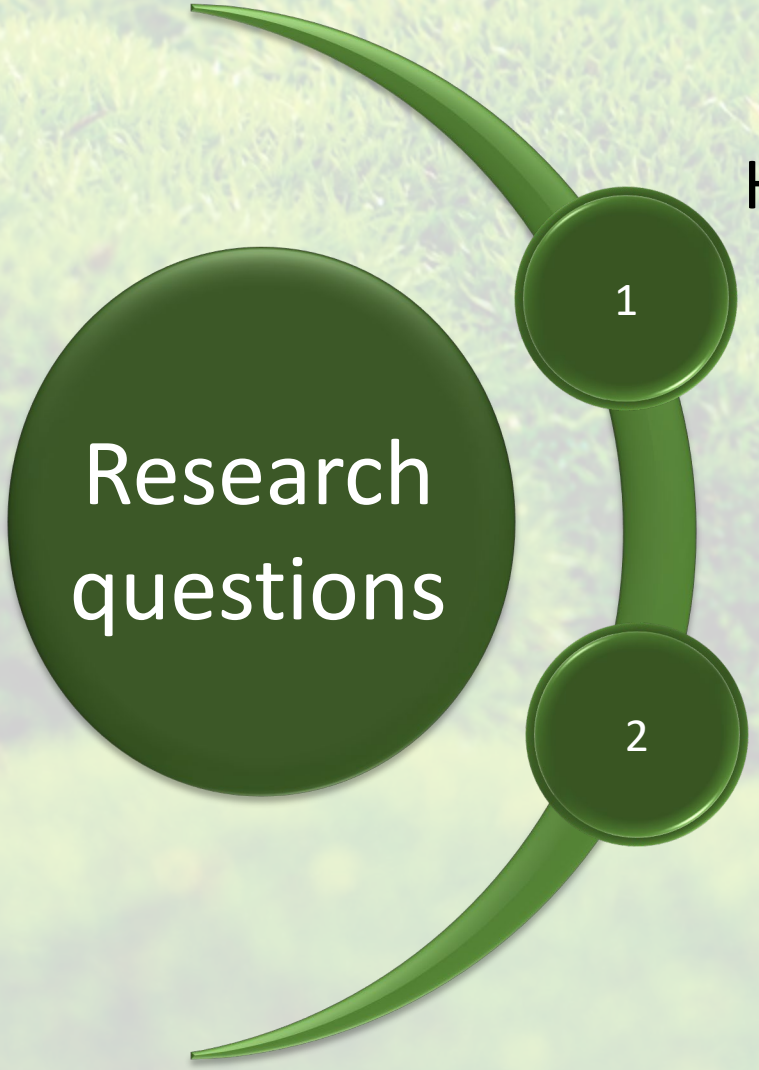
Why do Bryophytes matter?

Bryophytes are ecosystem engineer

Modify, maintain, and create habitats

- Soil stabilization and soil binder
- Humus formation
- Humidity control, water cycling, and nutrient cycling
- Suitable places for the invertebrates

Bryophytes are ecologically important, but woefully understudied



How Bryophytes communities develop over time under the environmental changes

How those changes may affect ecological processes

METHOD

COMMUNITY EVOLUTION MODEL

- COMMUNITY DYNAMIC MODEL
  - Demographic change of populations as a function of the current state of the community
- TRAIT-BASED EVOLUTION MODEL
  - Ecological processes depend on underlying traits that undergo evolutionary changes

Output

Bryophytes are expected to act as early warning systems of more general climate change and are good bioindicators of environmental changes

Information resources for sustainable conservation planning at the species and ecosystem level