

The background of the slide is a close-up photograph of vibrant green moss. The moss is growing in dense, rounded clumps on a dark, textured surface, likely a rock. The lighting is bright, highlighting the fine details of the moss's structure. A semi-transparent grey rectangular box is overlaid on the upper half of the image, containing the title text in a large, black, sans-serif font.

# 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