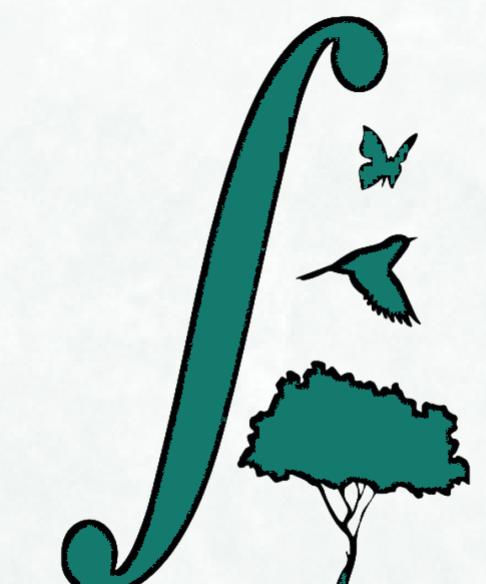


EXPLORING DIVERSITY DIMENSIONS TO PROTECT EURO-MEDITERRANEAN FORESTS

Camille Magneville¹, Jens-Christian Svenning¹, Kent Olsen², Alejandro Ordóñez¹

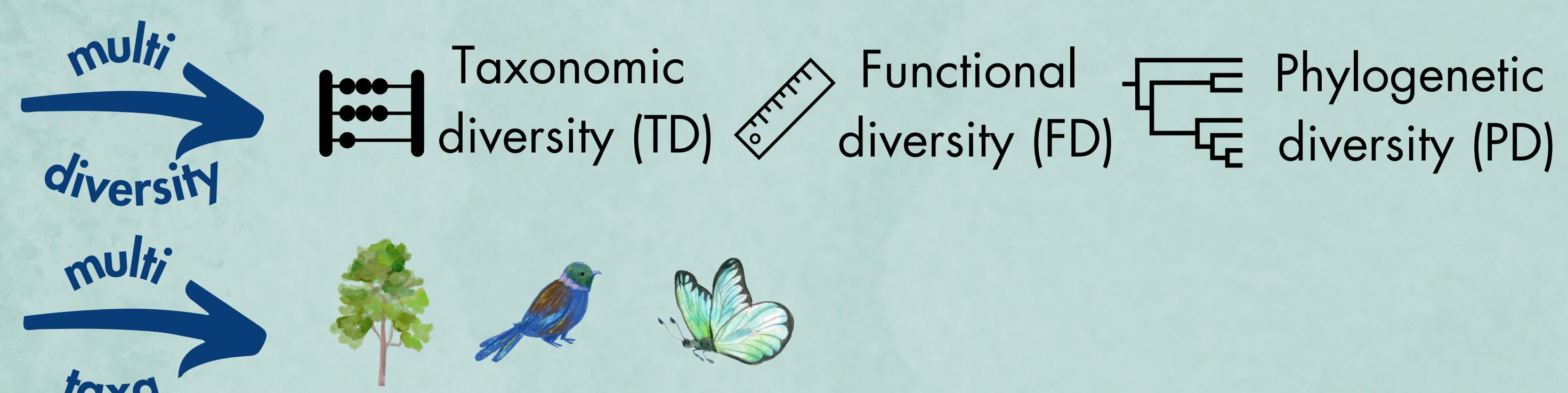


1 - Center for Ecological Dynamics in a Novel Biosphere (ECONOVO), Aarhus, Denmark

2 - Department of Research & Collections, Natural History Museum Aarhus, Denmark

Introduction

- Mediterranean biome** is highly threatened by land use & climate change and is a priority area for conservation efforts
- Most conservation strategies focus on species richness (TD), thus **not taking into account diversity in traits (FD) and evolutionary heritage (PD)**
- Species interactions** shape species assemblages & can affect species response to climate change: importance of **considering several taxa** while developing conservation strategies



Objectives

1

What are the **drivers of current patterns** of biodiversity:
past/current environmental conditions, biotic associations, human activity?

2

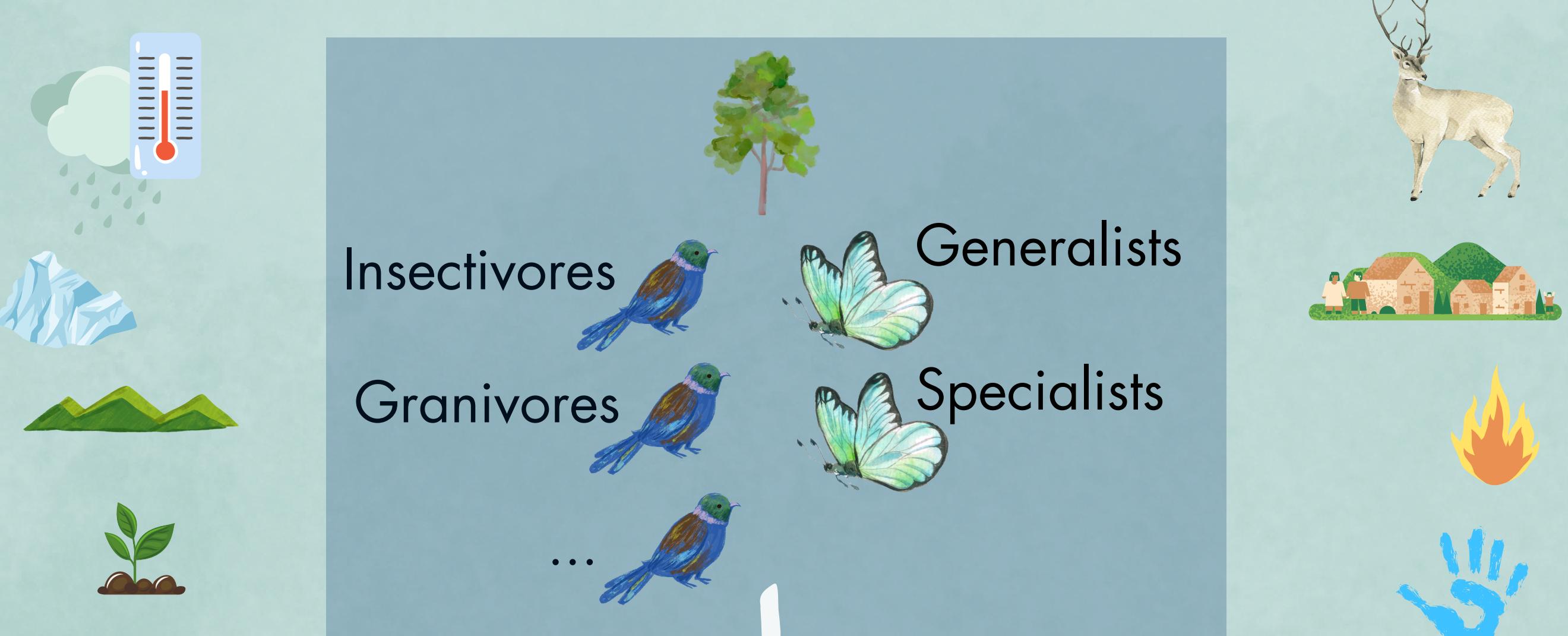
How is the Mediterranean diversity **expected to change** in a near future? How will it impact **forests C sequestration**?

Methods - Using Structural Equation Models (SEM)

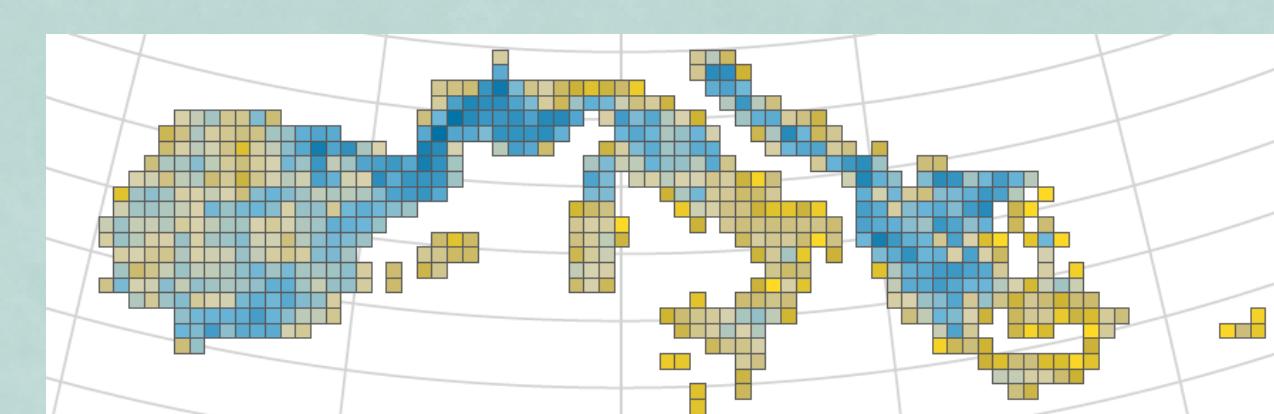
- a - Define components of a network linking diversity metrics computed for each taxa & drivers:



- b - Define & test links between the components of this network

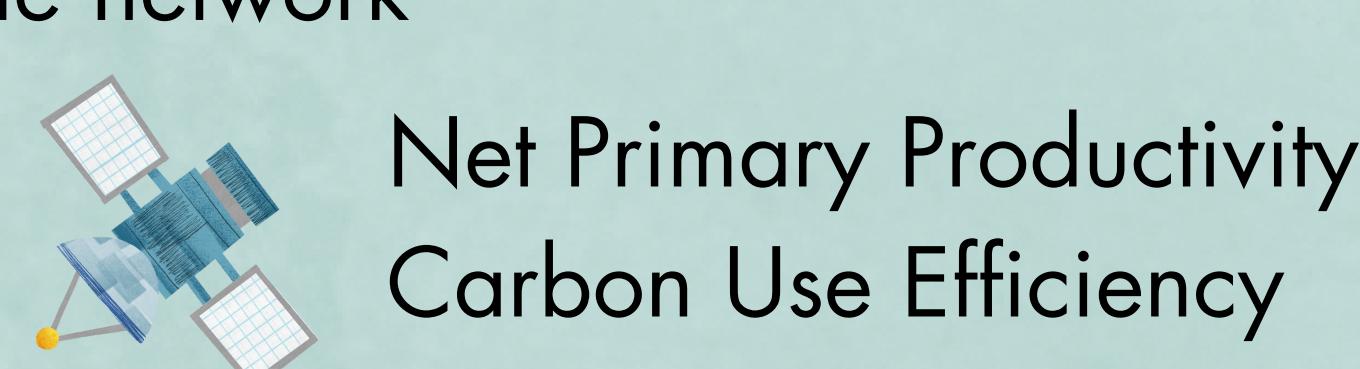


- d - Use future environmental values (RCP, land use) in the SEM

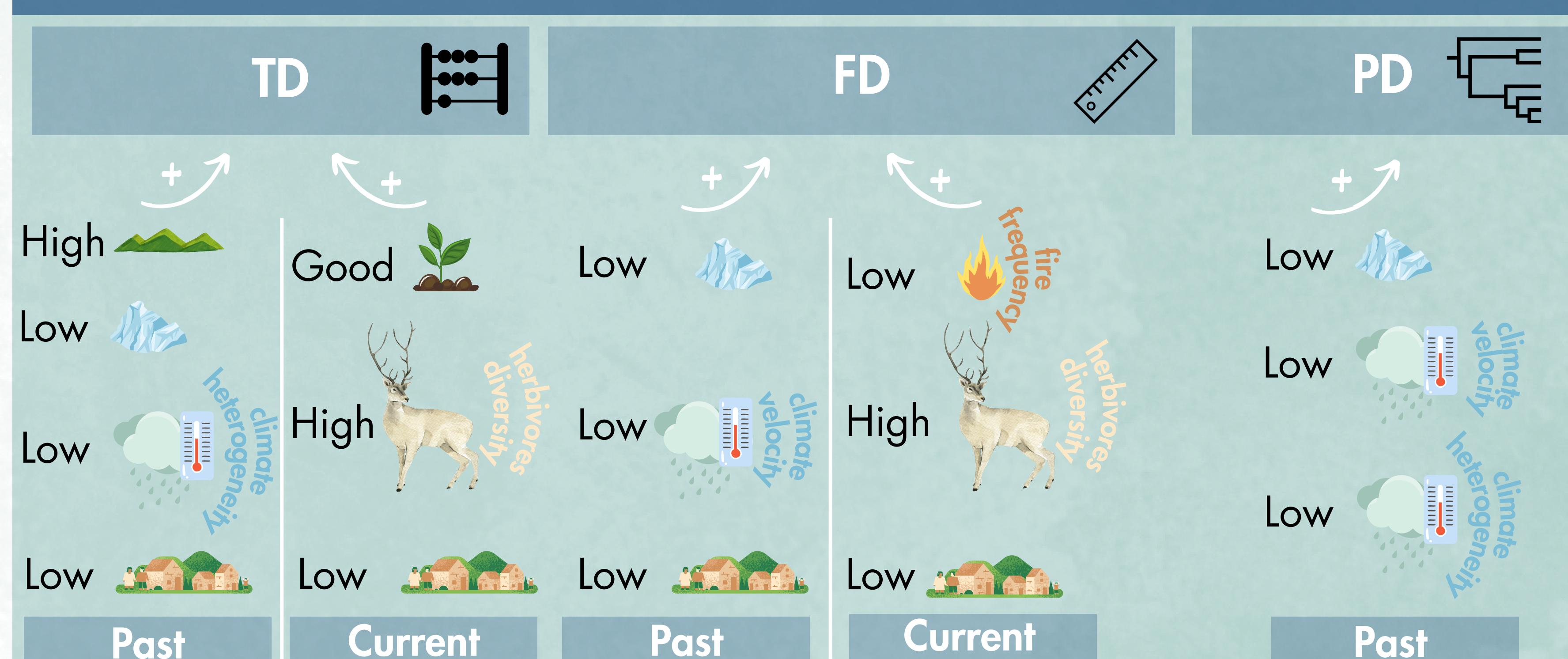


Maps of TD, FD, PD & C sequestration under different socio-economical scenarios

- c - Include remotely sensed metrics of C sequestration in the network



Hypotheses



Applications

- Interactive maps for stakeholders:

Future distribution of TD, FD, PD

Comparison with current Protected Areas

Areas of high FD and PD rarity values

Highlight the importance of different diversity facets and taxa

Contact:

camille.magneville@bio.au.dk
@Cml_Magneville

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