

# Introduction to Conservation Biogeography

Duncan Gollcher

23/01/2024

# What is this unit about?

- ▶ A key concern: How can we conserve global biodiversity?
- ▶ What do we need to know?
  - ▶ How is biodiversity distributed around the world?
  - ▶ How well is it protected from anthropogenic loss?
  - ▶ Where is loss occurring?
  - ▶ Why is loss occurring?

## Evolution of the unit

- ▶ The unit has evolved over time from previous units.
- ▶ Landscape ecology -> Landscape patterns and processes.  
Emphasis mainly on the UK
- ▶ Last year the unit was known as Applied Biogeography
- ▶ The title “Conservation Biogeography” describes the content and aims of the unit more clearly.
- ▶ Material from the Applied Biogeography unit will still be used in a modified form
- ▶ Past papers from Applied Biogeography may provide a guide to questions asked on the unit

## Why focus on terrestrial biodiversity?

- ▶ Terrestrial biodiversity can be (partially) visualised through remote sensing (satellite images)
- ▶ Patterns that are related to biodiversity can be detected and monitored.
- ▶ Terrestrial biodiversity is naturally fragmented (islands) and anthropogenically fragmented.
- ▶ Loss and fragmentation can be tracked over time.

## Why focus on tropical biodiversity?

- ▶ In general, terrestrial biodiversity is highest in the tropics
- ▶ Biodiversity is particularly high in moist tropical forests
- ▶ Why is this the case? This is a question to be analysed and discussed on this unit?

## Unit intended learning outcomes.

- ▶ An ability to assess land cover change using appropriate methods such as remote sensing and GIS.
- ▶ A critical understanding of the relationship between biogeographical patterns and the key ecological processes
- ▶ A critical understanding of how human activities influence biogeographical patterns, land cover change and ecological processes operating at a regional and landscape scale.
- ▶ An understanding of the spatial dynamics of landscape patterns and processes and how these relate to human society.
- ▶ A critical awareness of relevant research methods and sources.

## How is the unit assessed?

- ▶ Exam. In person exam. Questions drawn from the material delivered in the lectures, seminars and workshops (50%)
- ▶ Coursework consisting of a report of around 2000 words (50%)

# Assignment

- ▶ The assignment involves the **original** evaluation and interpretation of spatially explicit data within a real world conservation context.
- ▶ Analysis and discussion supported by citations of both theoretical and empirical research into Conservation Biogeography.



## Is the assignment an essay?

- ▶ **No.** The assignment will require original research using GIS based tools.
- ▶ You do not need to have studied GIS to conduct the research (tools are provided online)

## When do we start work on the assignment?

- ▶ Straight away!
- ▶ Each week there is a two hour computer lab session on the timetable
- ▶ In the lab sessions we will work on the assignment
- ▶ You will look at spatial data and be provided with tools to analyse it