



condatis



Data requirements for Condatis

LYDIA COLE,
JENNY HODGSON
& KATH ALLEN

Key Conservation Questions

Which **species** need to move in this landscape?

Between which **sources and targets**?

What constitutes **habitat** for those species?

Where is **additional potential habitat**?



Case study example: movement of a large-winged invertebrate in response to climatic change, from a lowland Protected Area (PA) to higher elevation habitat in Mount Kinabalu National Park.

Species Data

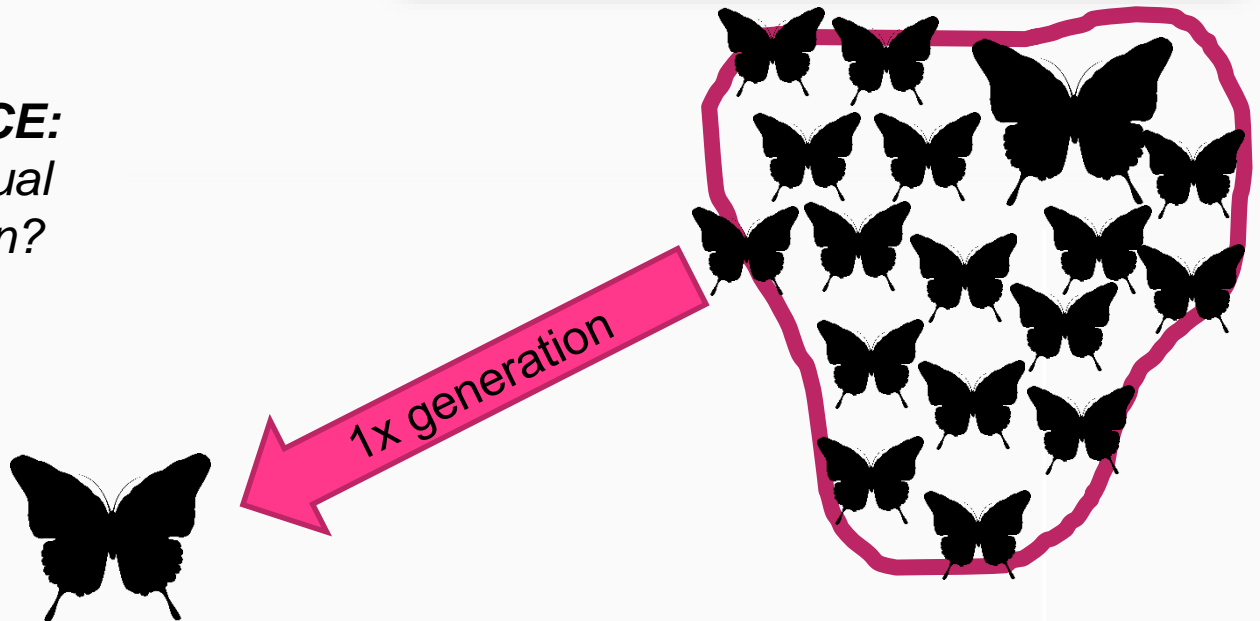
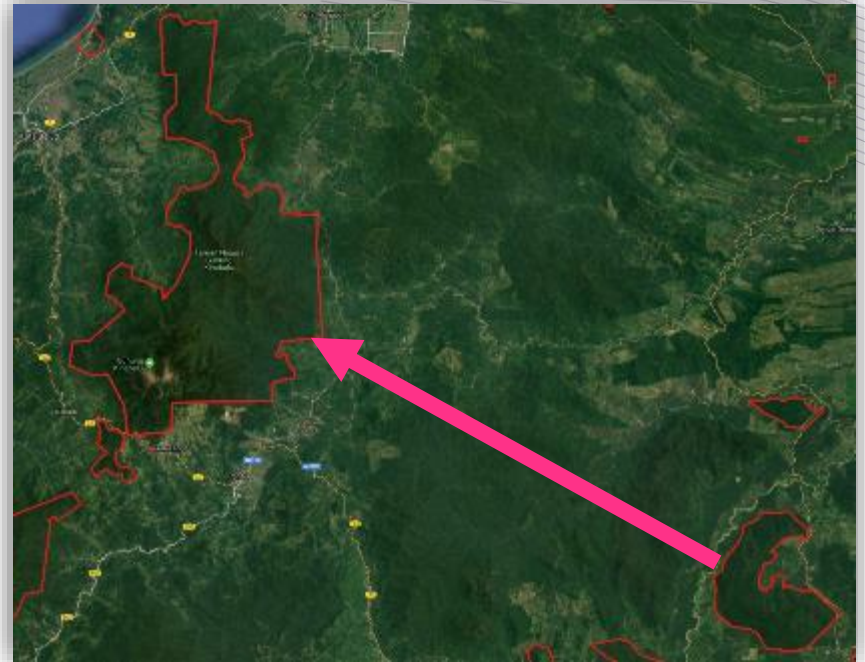
What is the **species/taxa of interest**?

REPRODUCTIVE RATE:

How many emigrants could the species produce in one generation, in one km^2 of habitat?

DISPERSAL DISTANCE:

How far can an individual travel in one generation?



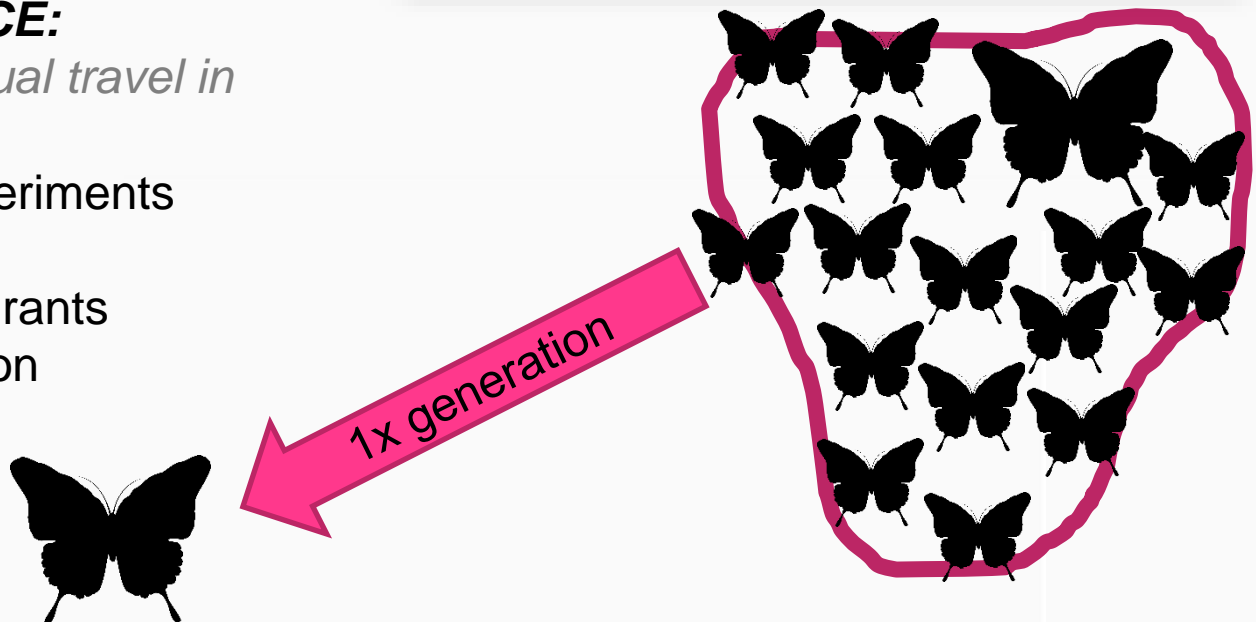
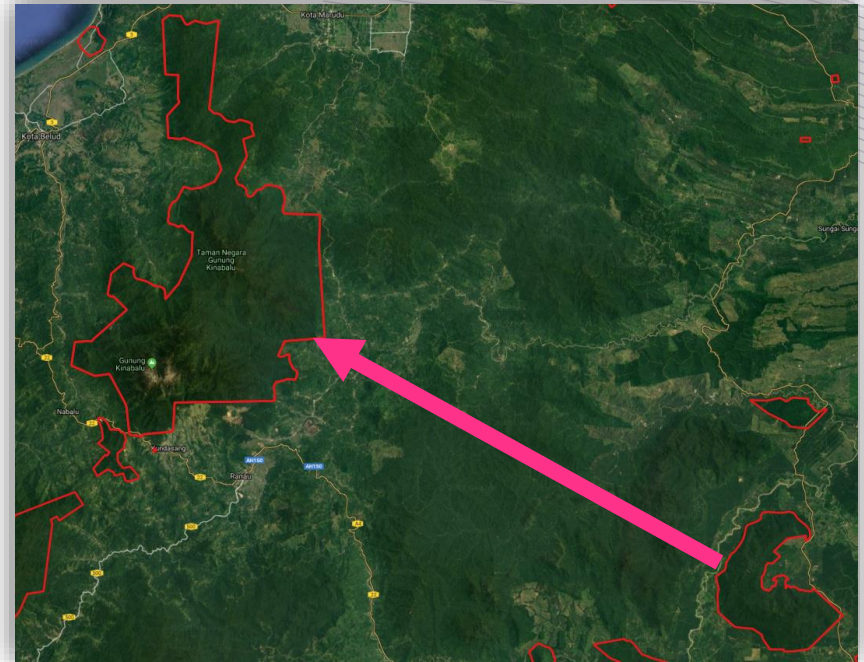
Generating Species Data

REPRODUCTIVE RATE: *How many emigrants could the species produce in one generation, in one km² of habitat?*

- Number of offspring per individual
- Number of reproductive individuals per km²

DISPERSAL DISTANCE: *How far can an individual travel in one generation?*

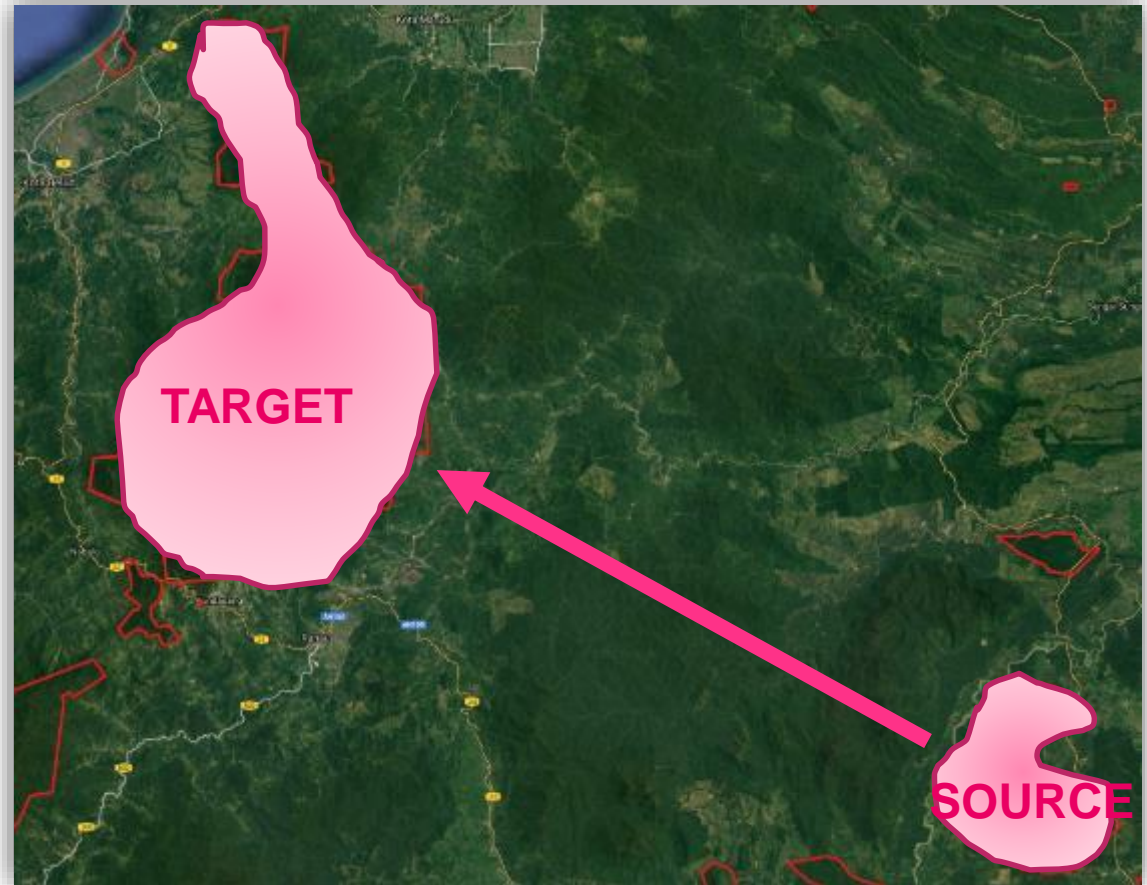
- Mark-recapture experiments
- Ecological surveys
- Observations of vagrants
- Anecdotal information

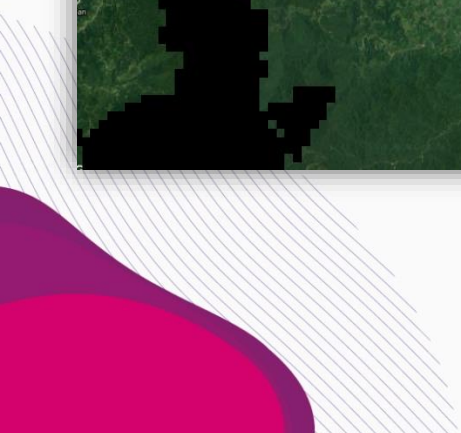


Movement direction – Source/Target

*Where is the species of interest moving from, i.e. the **source**?*

*Where is it moving to, i.e. the **target**?*





Habitat Data

What is the **habitat** of the species of interest?

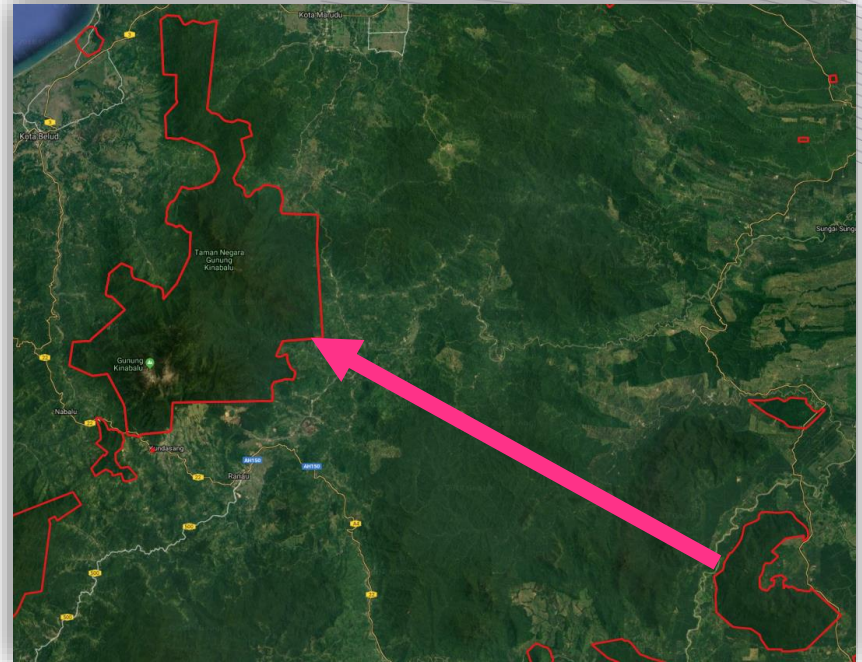
What **proportion** of each grid cell does that habitat cover?



= 0.76 =

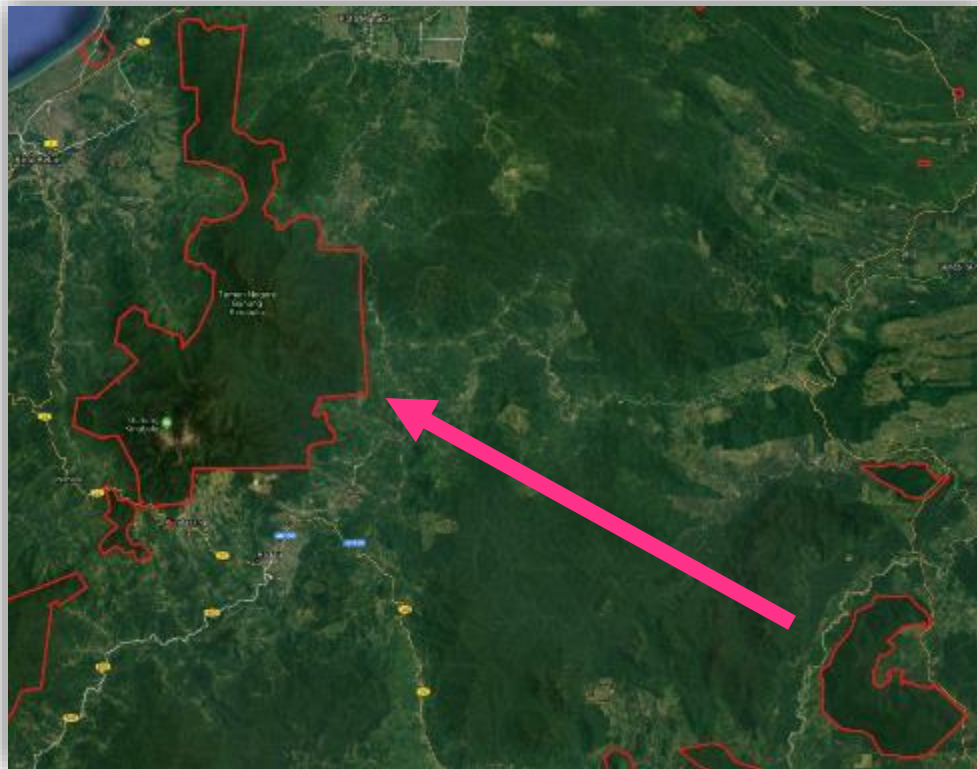


What is the **quality** of the habitat in that cell?



****Ensure *all* raster layers have the same pixel/cell size & geospatial extent****

Prioritisation Layer



Prioritisation Layer

*CONSERVATION: Where is **additional habitat** that your species could move through, e.g. unprotected forest?*

*Which of these potential habitat patches are a **conservation priority** to ensure future connectivity as species shift their ranges?*



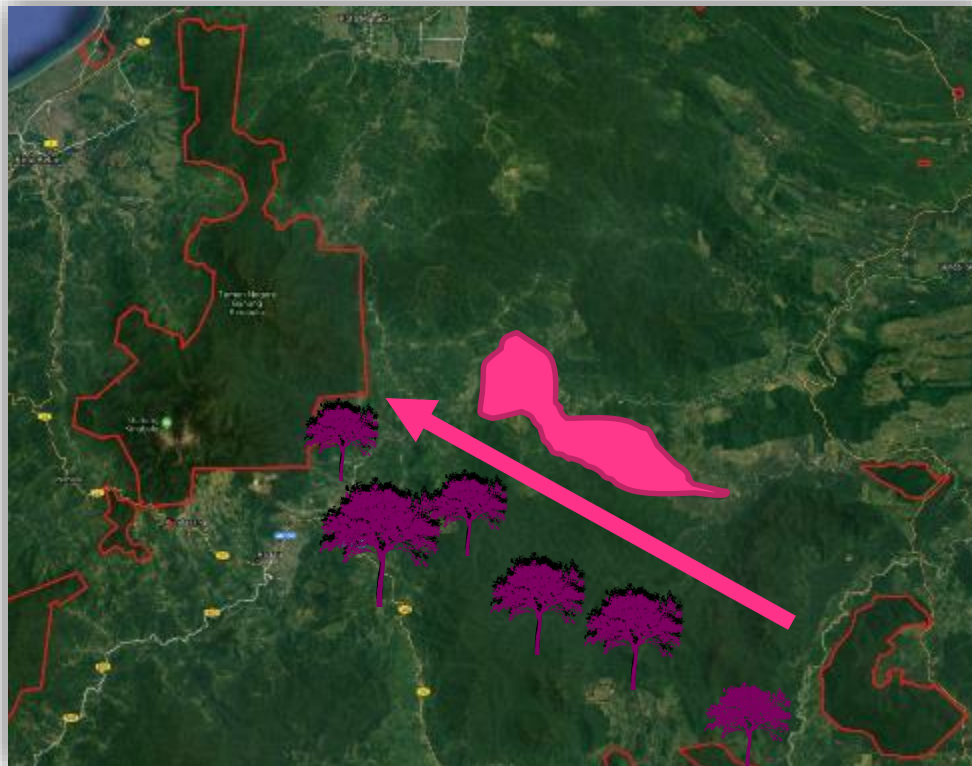
Prioritisation Layer

*CONSERVATION: Where is **additional habitat** that your species could move through, e.g. unprotected forest?*

*Which of these potential habitat patches are a **conservation priority** to ensure future connectivity as species shift their ranges?*

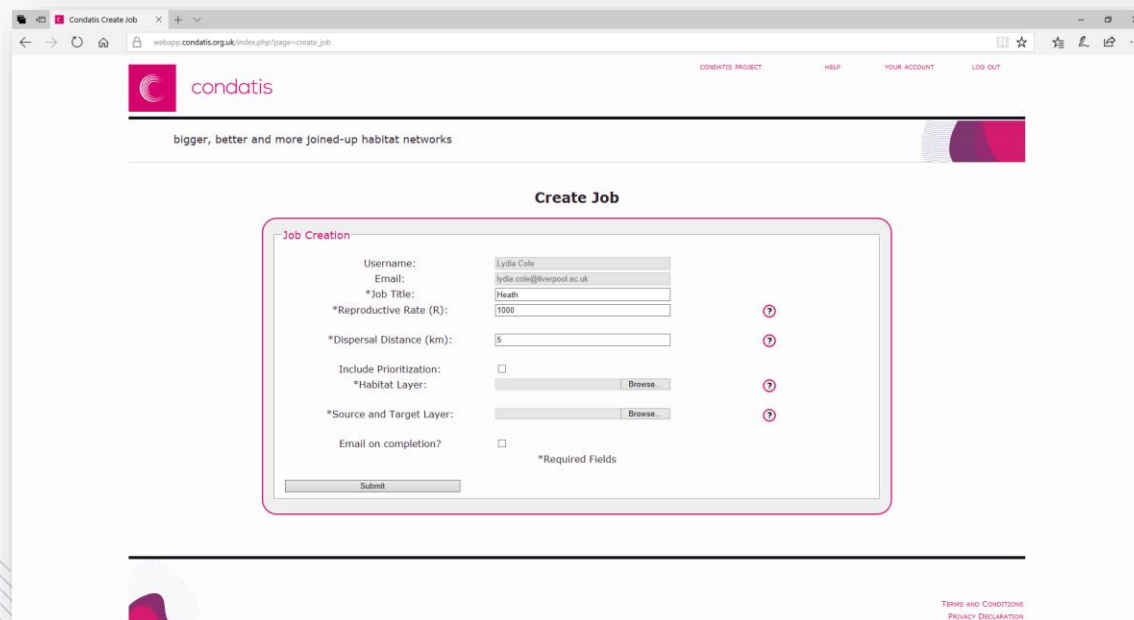
...OR...

*RESTORATION: Where could habitat be **restored** in order to enhance movement pathways along key routes?*



Data inputs for Condatis

Data/files	Name
Reproductive rate	Number of individuals per km ² per generation
Dispersal distance	km travelled per individual per generation
Source/target raster	Source cells labelled 1; target cells labelled 2
Habitat raster	Proportion of habitat per grid cell (0-1)
Prioritisation raster	Proportion of habitat per grid cell (0-1)



The screenshot shows a web browser window with the URL `webapp.condatis.org.uk/index.php?page=create_job`. The page features the Condatis logo and navigation links: CONDATIS PROJECT, HELP, YOUR ACCOUNT, and LOG OUT. Below the header, a banner reads "bigger, better and more joined-up habitat networks". The main content area is titled "Create Job" and contains a "Job Creation" form. The form includes the following fields and options:

- Username: Lydia Cole
- Email: lydia.cole@liverpool.ac.uk
- *Job Title: Heath
- *Reproductive Rate (R): 1000
- *Dispersal Distance (km): 5
- Include Prioritization: ☐
- *Habitat Layer: [Browse]
- *Source and Target Layer: [Browse]
- Email on completion? ☐

A "Submit" button is located at the bottom of the form. A legend indicates that fields with an asterisk (*) are required. The browser's address bar and standard navigation icons are visible at the top.



condatis



Now ready to go.....

Condatis – www.webapp.condatis.org.uk