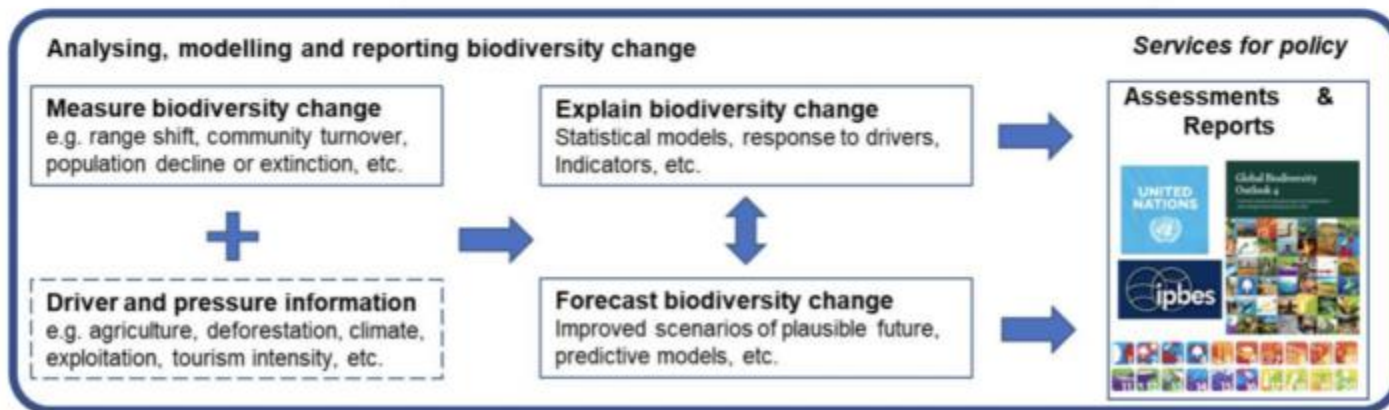
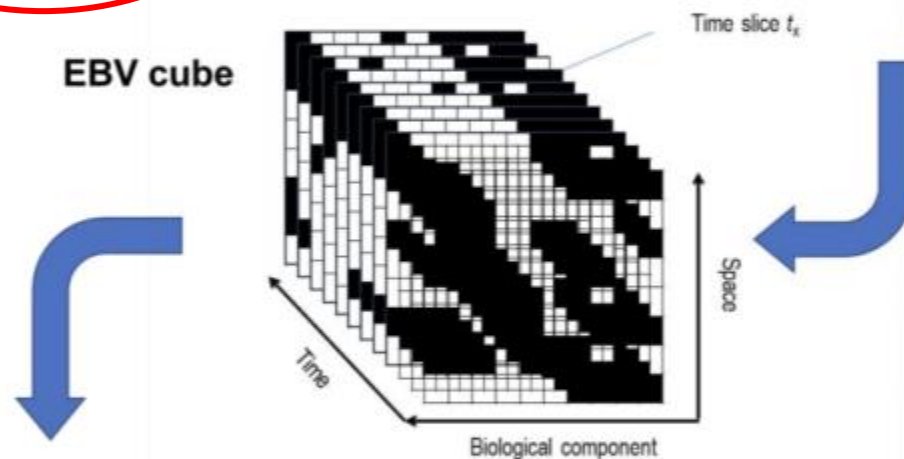
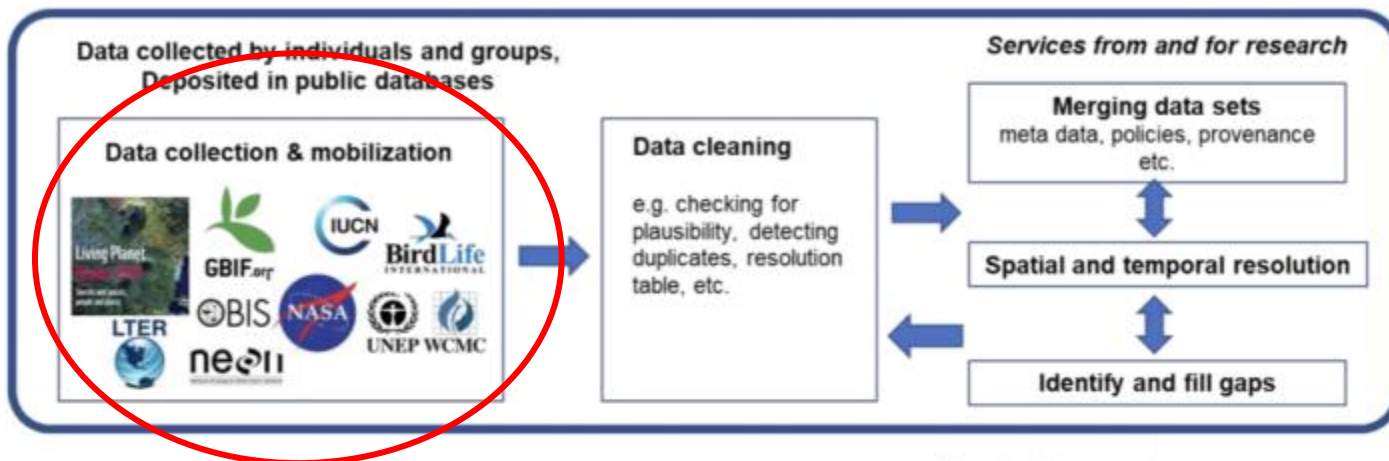


A photograph of a river flowing through a deep, dark canyon. The canyon walls are steep and covered in dense, dark vegetation. In the distance, a layer of white mist or smoke hangs over the river valley, partially obscuring the far side of the canyon. The sky above the canyon is a pale, clear blue. The overall mood is mysterious and dramatic.

Data for Asia- what do we know, what do we need to know?

Alice. C. Hughes
University of Hong Kong



What do we need to know?

EBV class	EBV name
Genetic composition	Genetic diversity (richness and heterozygosity)
	Genetic differentiation (number of genetic units and genetic distance)
	Effective population size
	Inbreeding
Species populations	Species distributions
	Species abundances
Species traits	Morphology
	Physiology
	Phenology
	Movement
	Reproduction
Community composition	Community abundance
	Taxonomic/phylogenetic diversity
	Trait diversity
	Interaction diversity
Ecosystem functioning	Primary productivity
	Ecosystem phenology
	Ecosystem disturbances
Ecosystem structure	Live cover fraction
	Ecosystem distribution
	Ecosystem Vertical Profile



Taxonomic Species

792

Studies

648

Matrix Population Models

8994

Taxonomic Species

429

Studies

415

Matrix Population Models

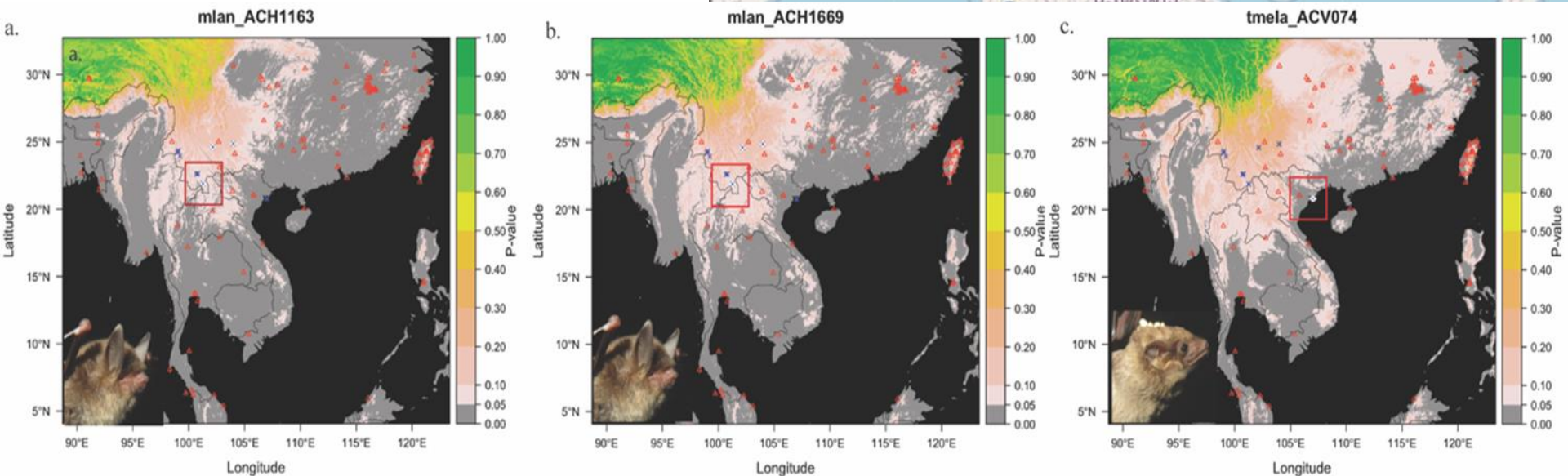
3488

Species Map



Movement and migration

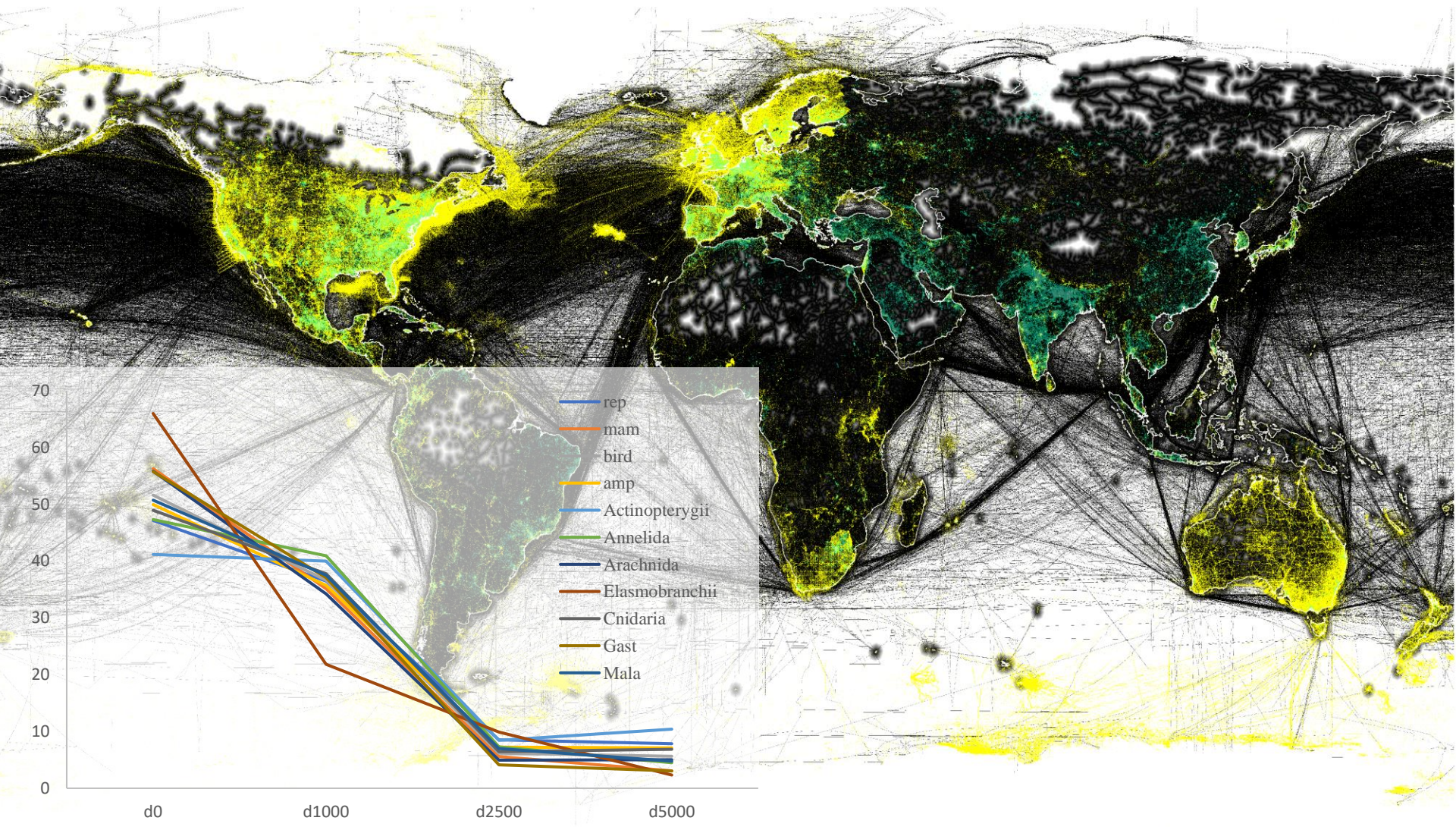
- Limited trait data
- Very limited movement data
- Phenology is via GIS
- But there are alternatives

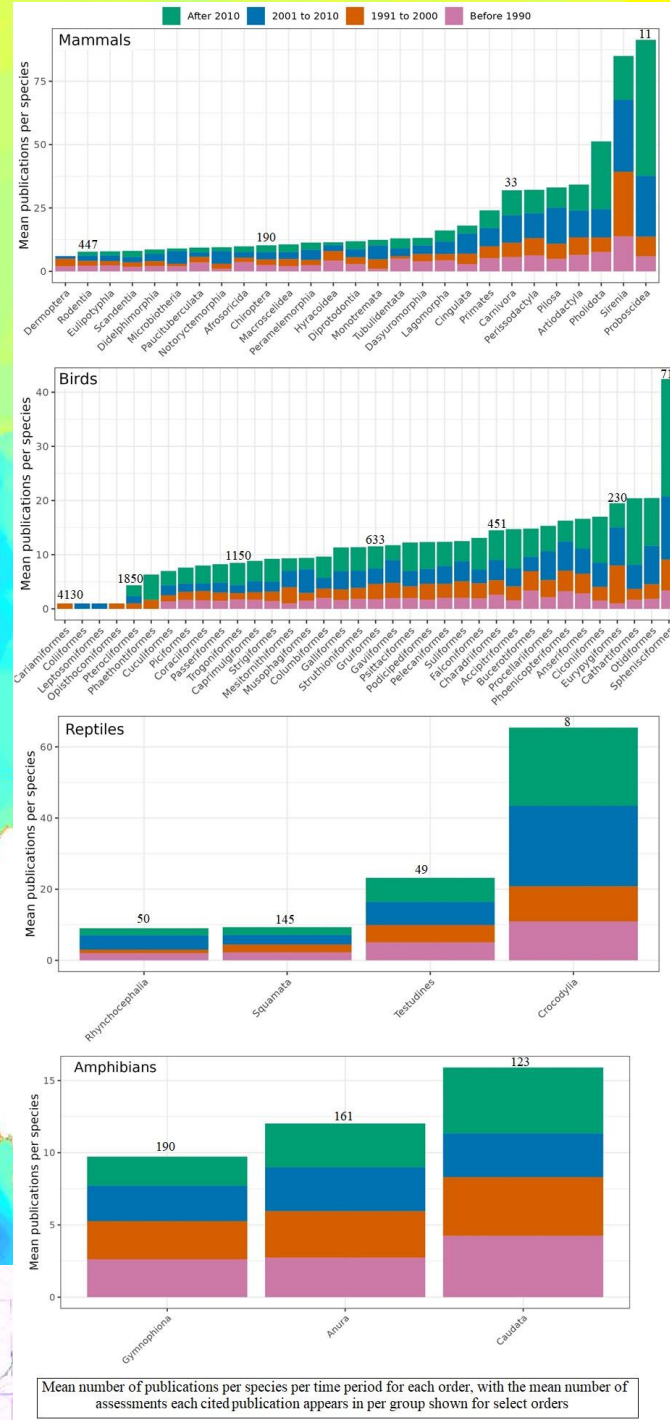
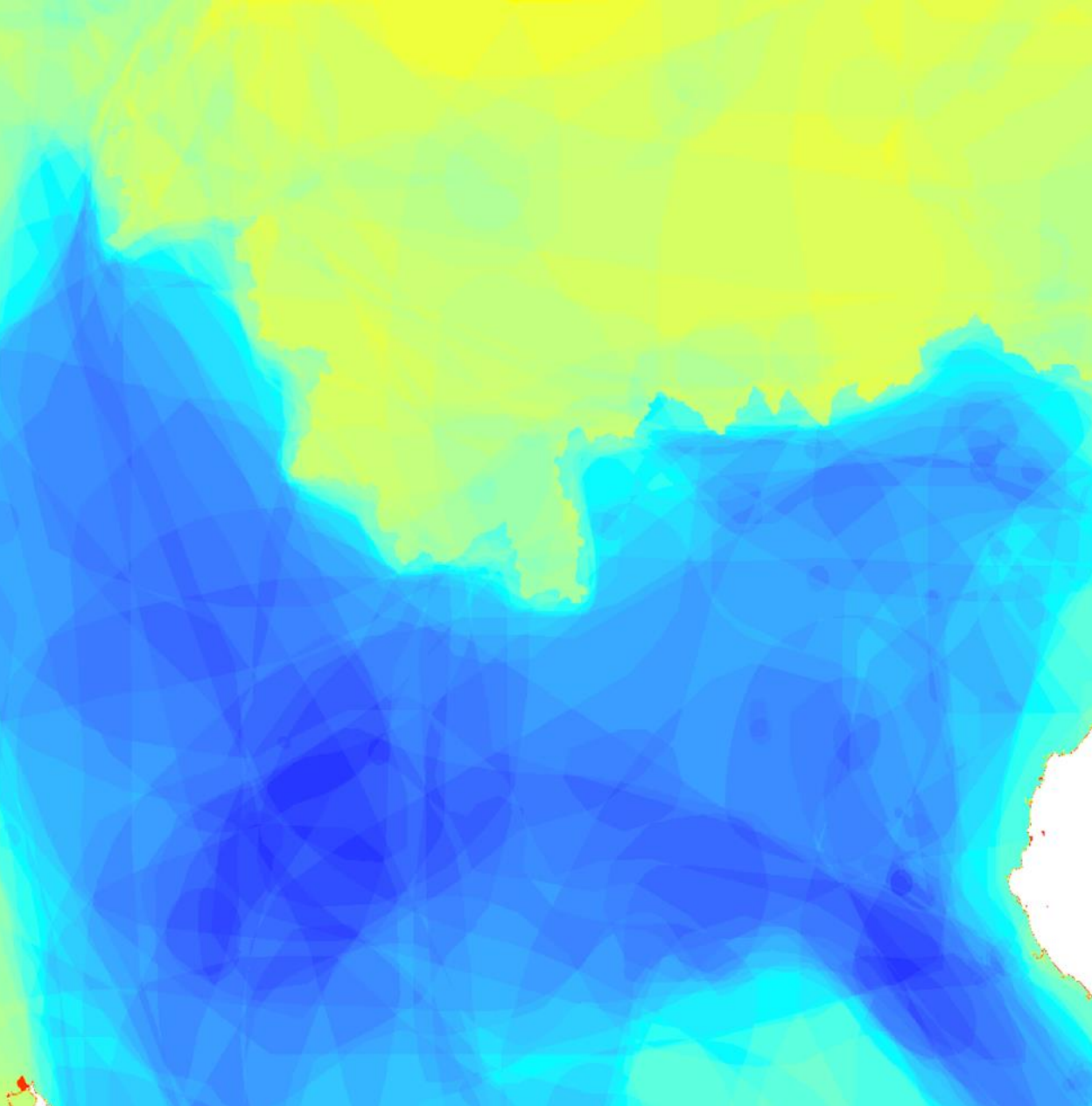


Species distribution data

- Distribution data provides the fundamental basis for any higher resolution analysis
- Understanding what data exists and how accessible it is a key first step to any further work
- So what data is there, and how representative is it?

Setting targets-do we have the data?

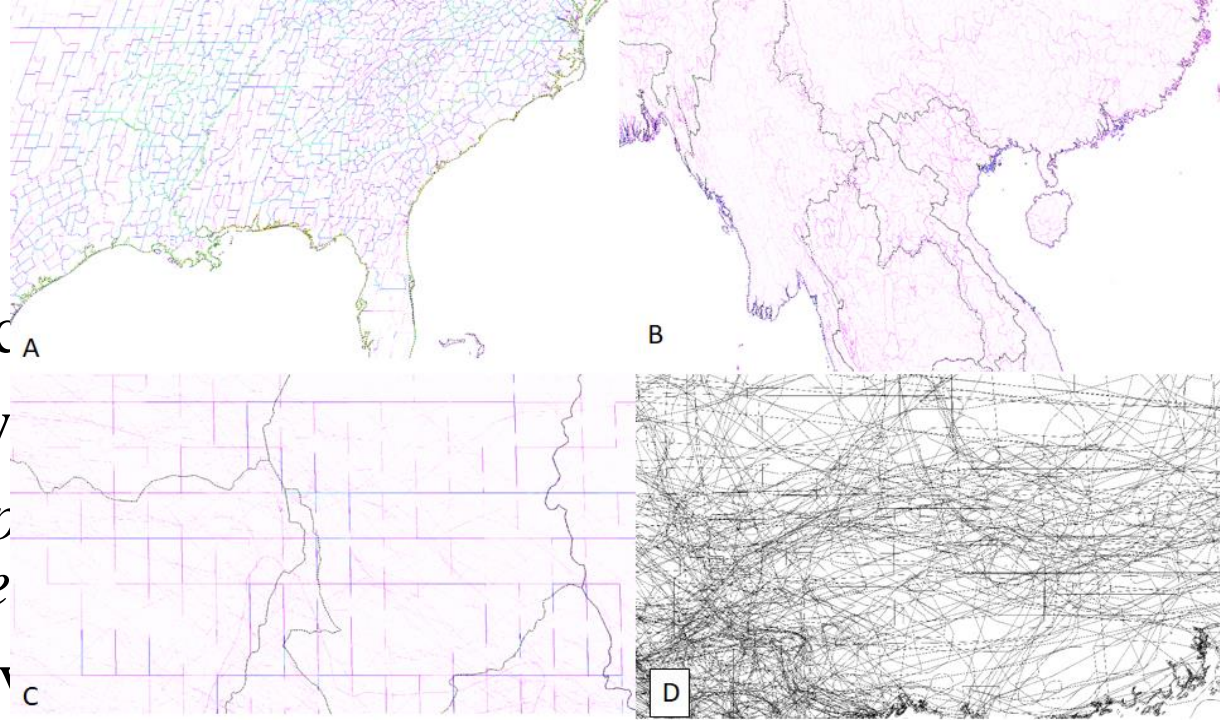




Hughes, A.C., Orr, M.C., Qinmin, Y., Qiao,
biodiversity patterns for different regions and c

Baselines

- Understanding the c
- Does the data allow
- No, data is full of gaps*
- exist it's biased to afe*
- Is there an alternative c

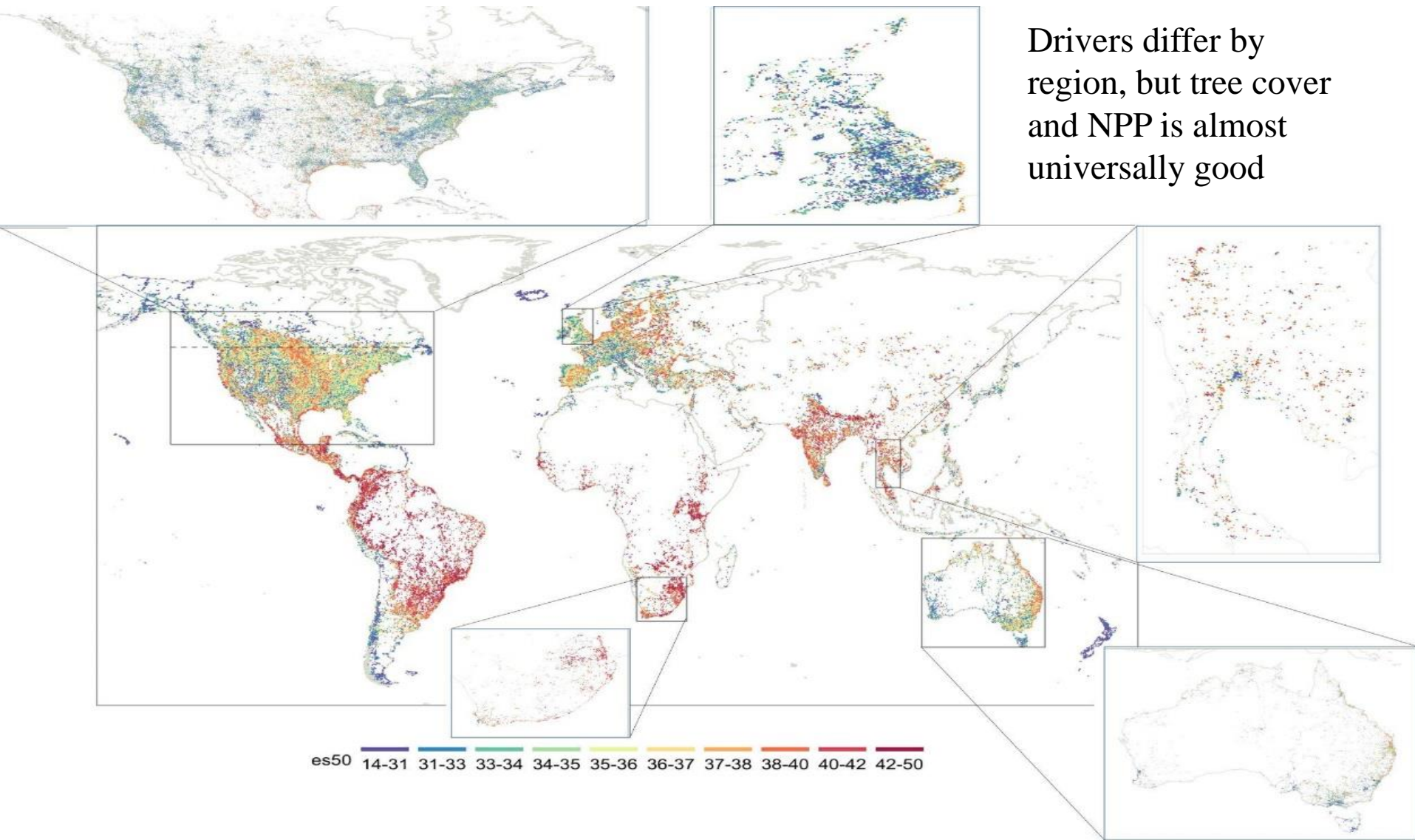


Not really, range maps are not always representative, and have demonstrable biases

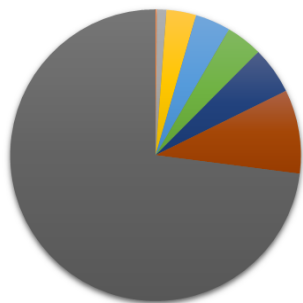
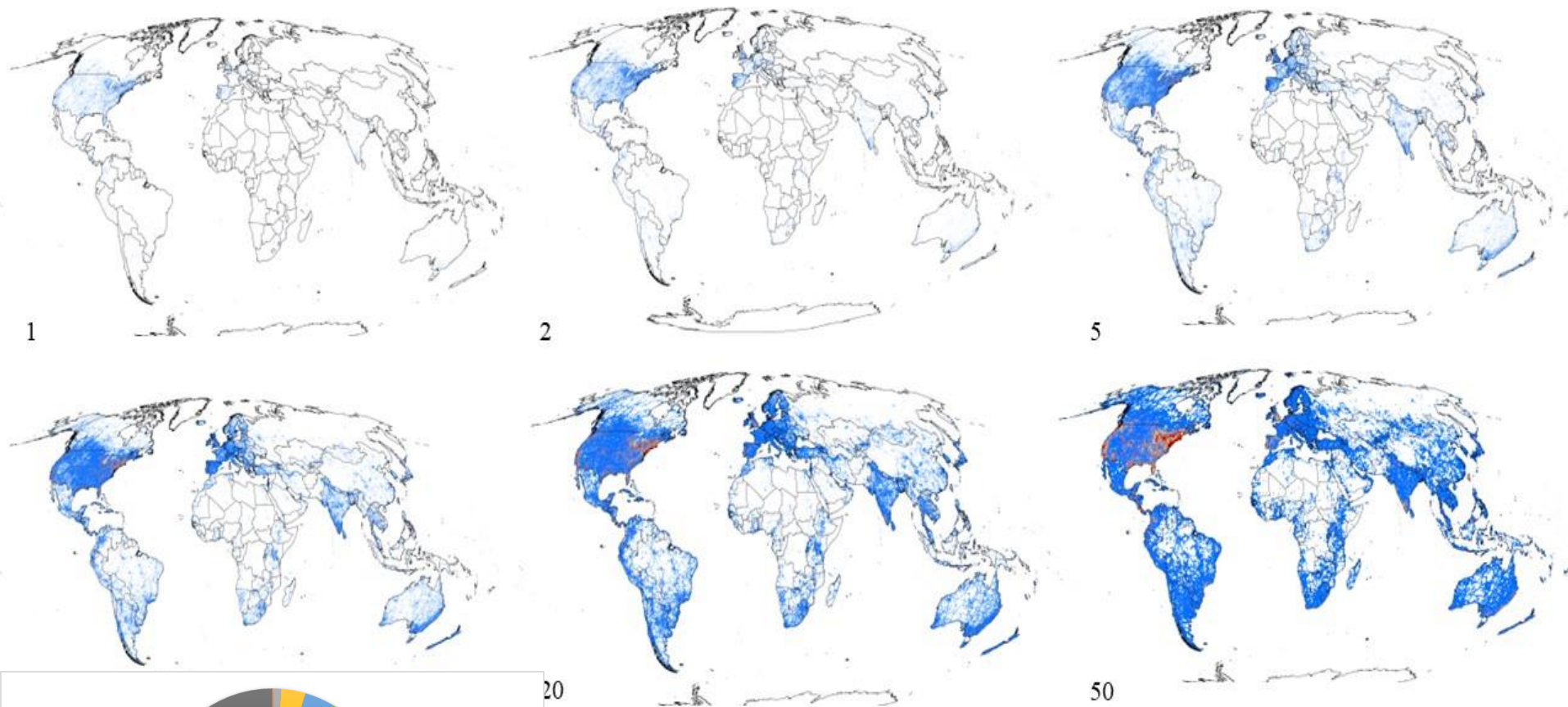
- How about those impressive numbers in global reports
- *Unfortunately these are based on non-standardized*

Group	dd	inredlist	%dd	described	estimate	% described species	%estimated species
Fungi	22	285	7.72	120000	12000000	0.22	0.0022
Plantae	2774	40468	6.85	390900	7000000	9.64	0.5385
Arthropoda	3735	13170	28.36	1000000	7000000	0.94	0.1348

Converting data into policy



How representative is the data

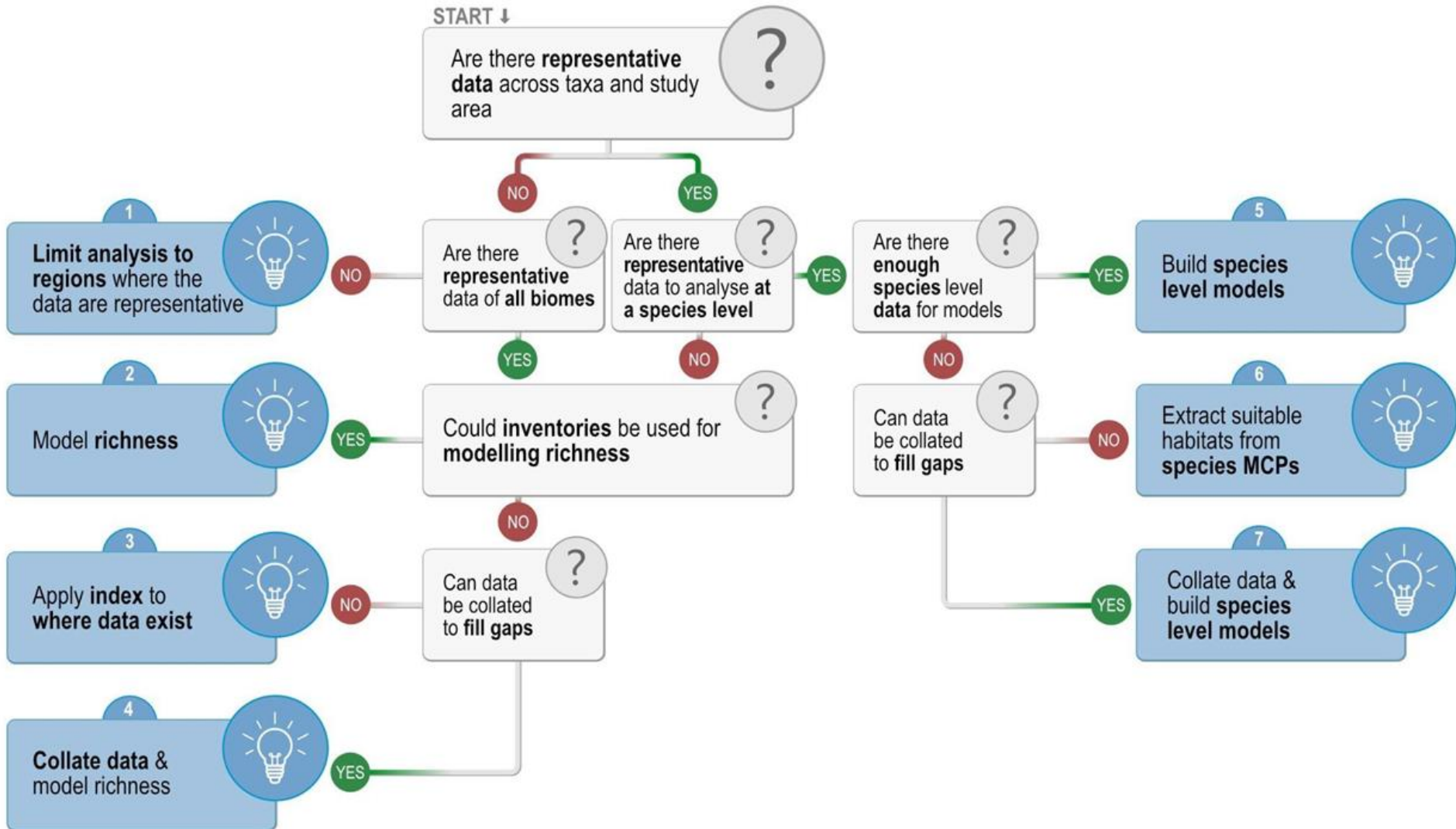


Sampling

Most data is near roads, yet despite this some species have most of their records away from roads

Overcoming bias: testing metrics

- Various metrics have become popular approaches to



Situation in Asia

- Many datasets exist
- BUT
- Most are private or government
- We need to work harder to liberate data, or find ways to create data products to reflect the biodiversity status of the region
- Asia also lacks the equivalent data mobilisation approaches which have been developed elsewhere in the world

Where too next

- Most EBVs cannot be implemented in Asia
- Even the most basic (distributions) are very patchy
- At an ecosystem level the representativeness of data is even lower
- We need to work to mobilise data from across the region
- Meeting the goals of the GBF will also require further work to better monitor the region, and provide data for countries to fulfil their NBSAPs

Thank you

