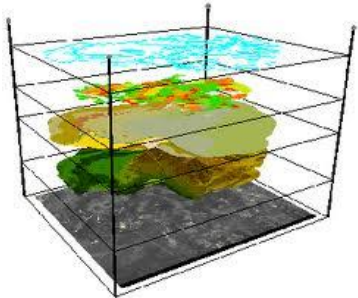# Luis Carrasco Tornero

Remote Sensing and Spatial Ecologist
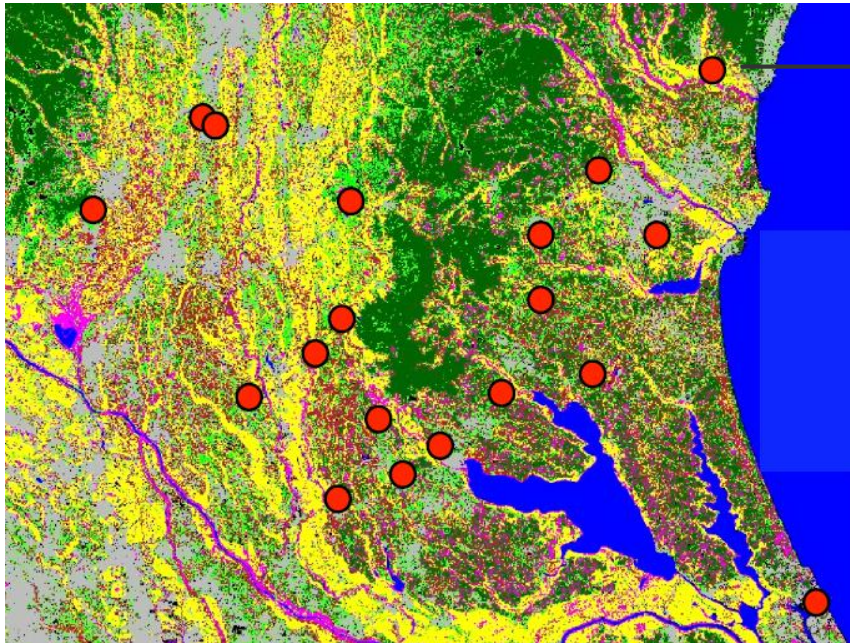## NERC Centre for Ecology and Hydrology

PhD (University of Tsukuba, Japan) in Avian Ecology

Distribution of Herons and Egrets Colonies in agricultural landscapes of central Japan
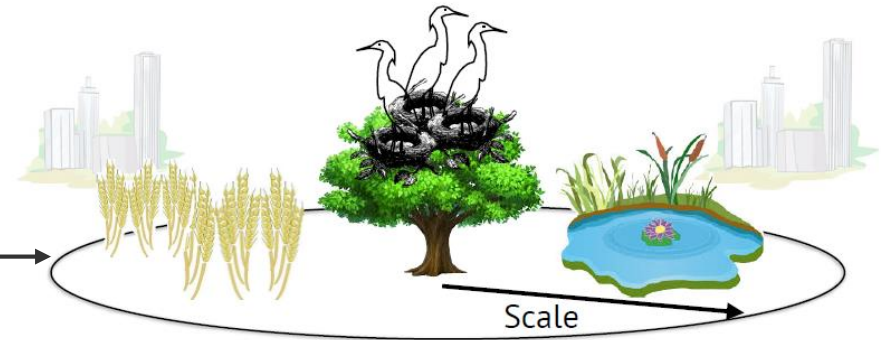
Predictive models of species distribution

Land cover maps
+ Animal distribution data

Machine learning algorithms
(Random Forests / Neural Networks)

**Predictions of future
distribution under changes**
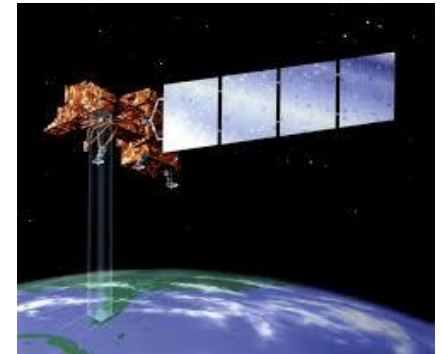
Japan JAXA Land Cover Map 2011
● Colonies

PhD Results: Scale of selection was a key feature; Fragmentation affected selection

Businesses will need accurate ecosystem services and biodiversity loss predictions
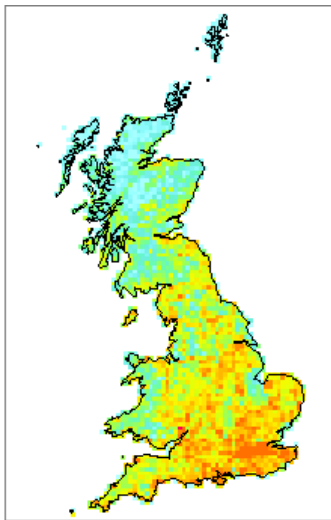
1) **Remote sensing** expertise:

Businesses need to know **what can be obtained** from satellite data

Accurate mapping adapted to necessities

landsat.gsfc.nasa.gov

2) Ecological **prediction**:

Predicting of **ecosystem services under** climate **change**, landscape changes

Business affecting landscapes? Fragmentation? How will this **affect biodiversity**?

UK Biodiversity richness score prediction (nhm.ac.uk)

Attending BIS: how to include business scenario into predictive ecosystem models

How nature affects business decisions?
(economic importance of nature!)

↓

Including ecosystems services (as a way to value nature) into my models (inputs/outputs)

Also… What are business interests on satellite data? (specialization?)