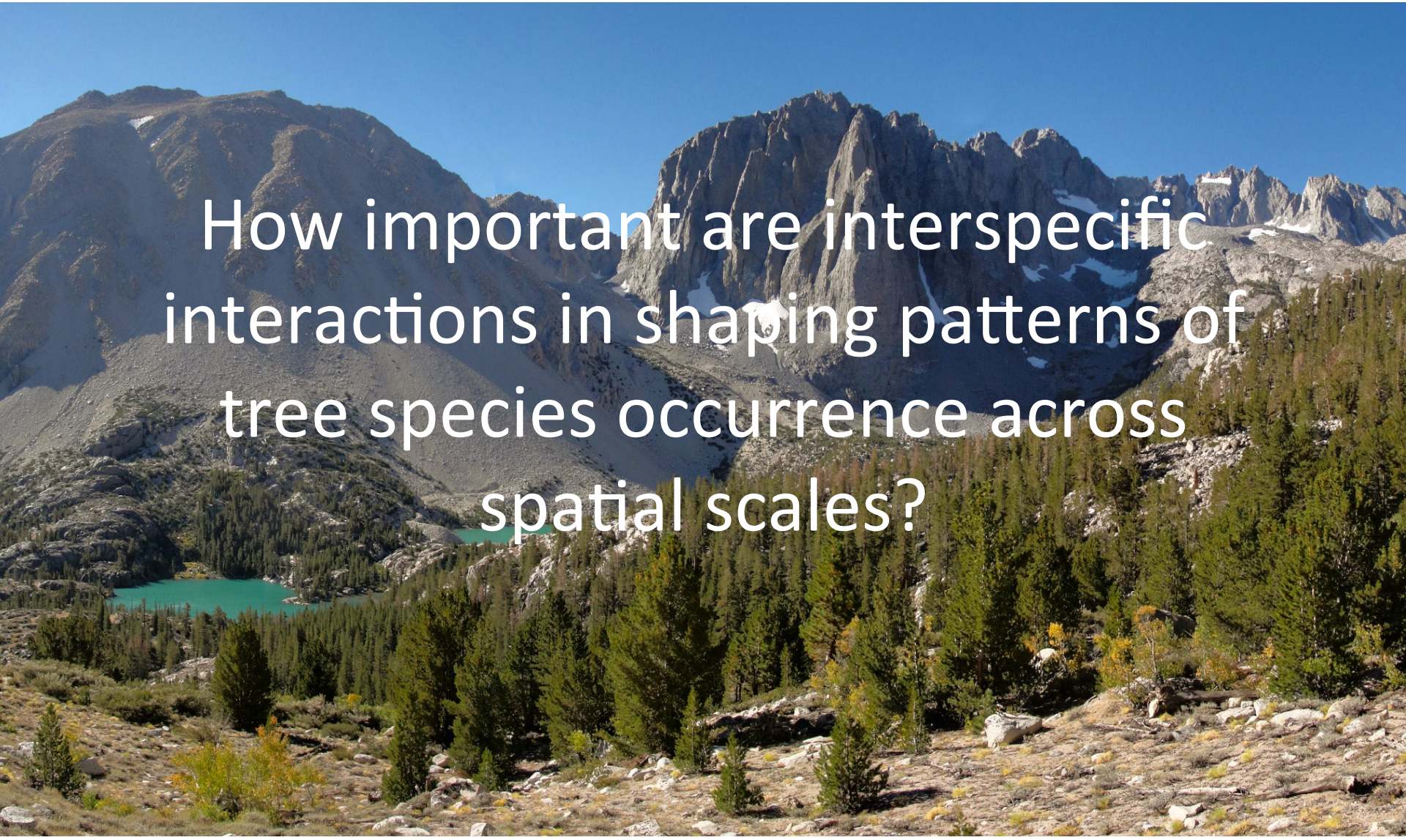
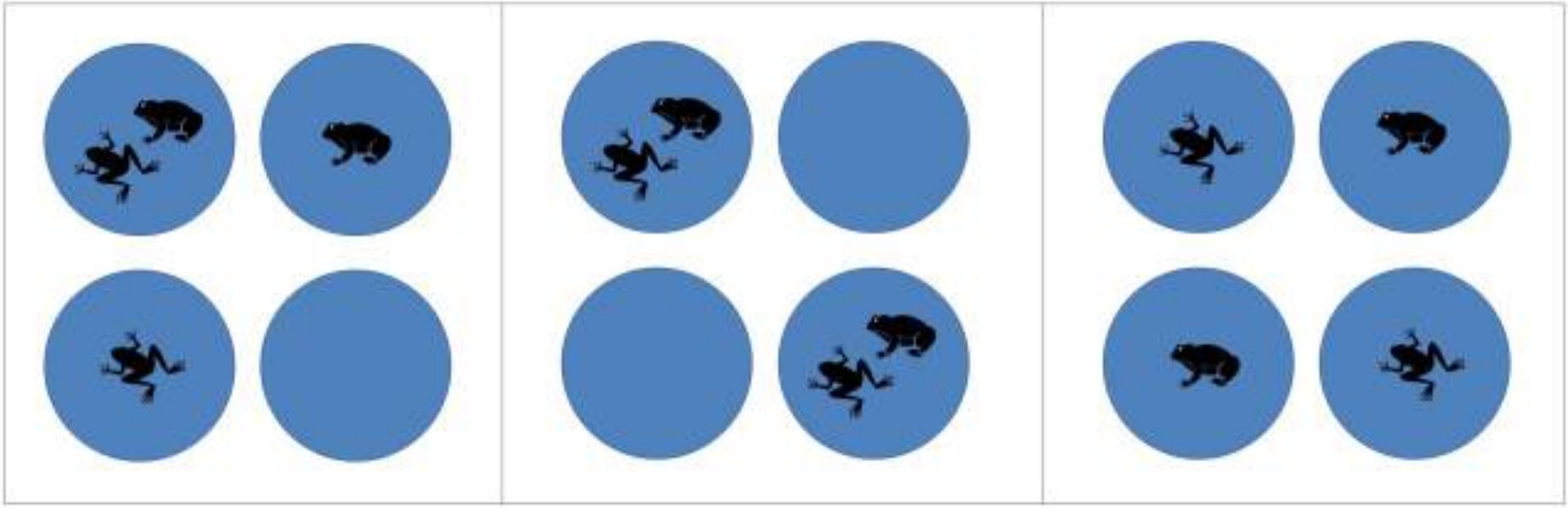
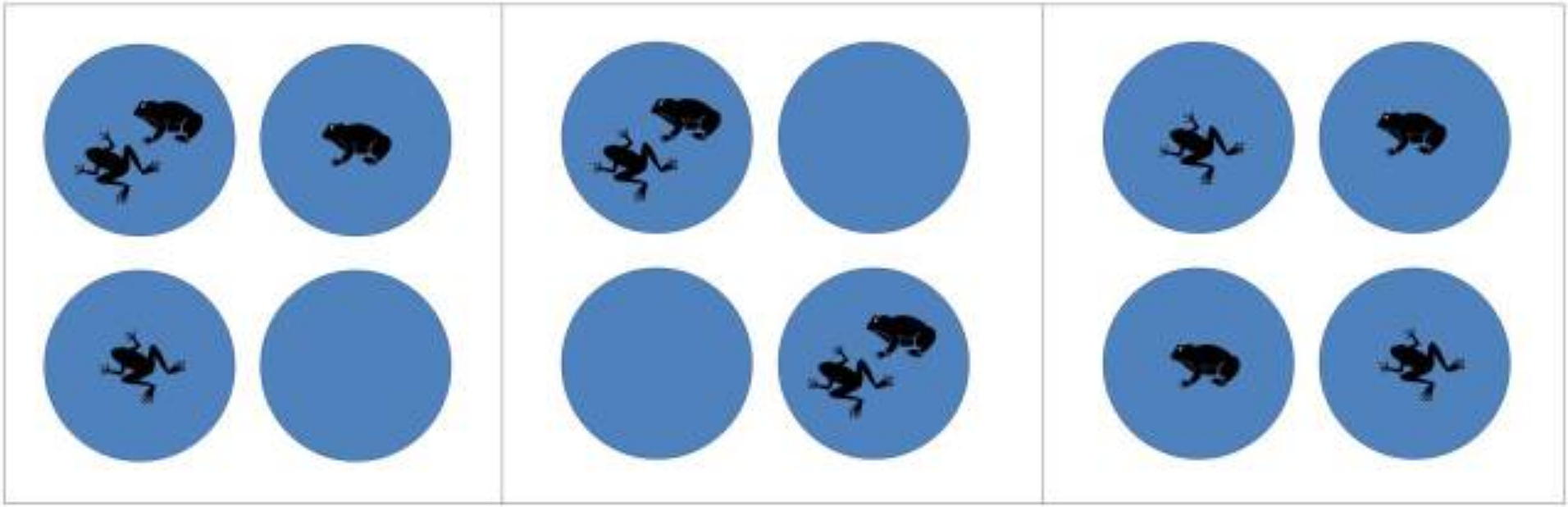
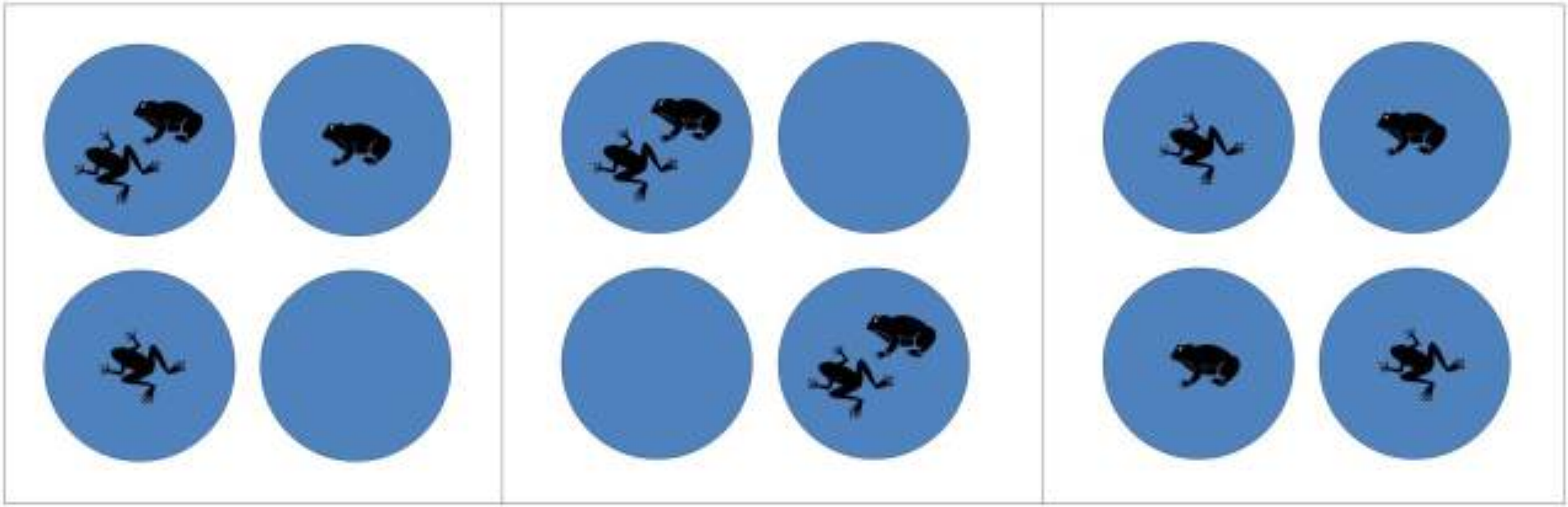

How important are interspecific interactions in shaping patterns of tree species occurrence across spatial scales?

Species distributions and species interactions





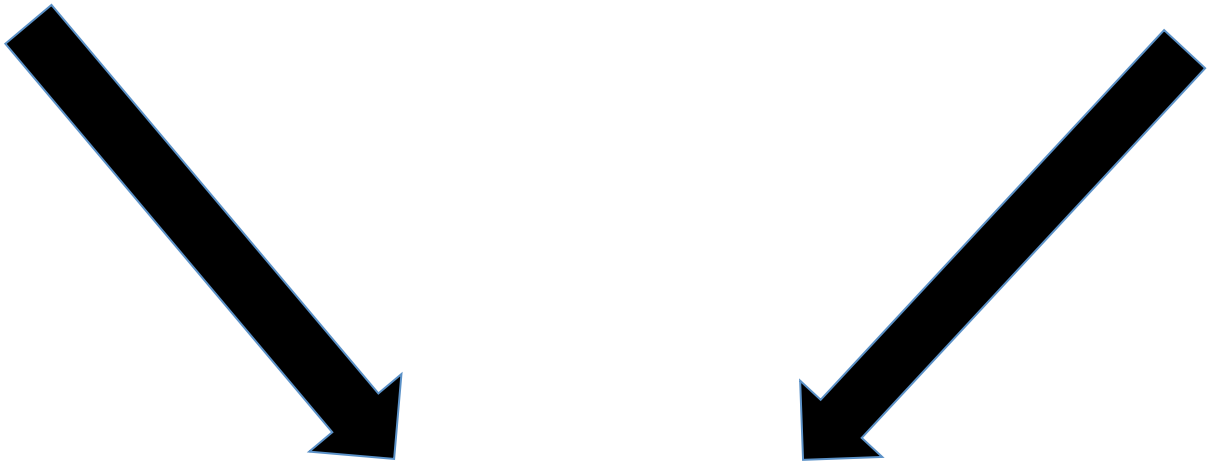
Joint species distribution model



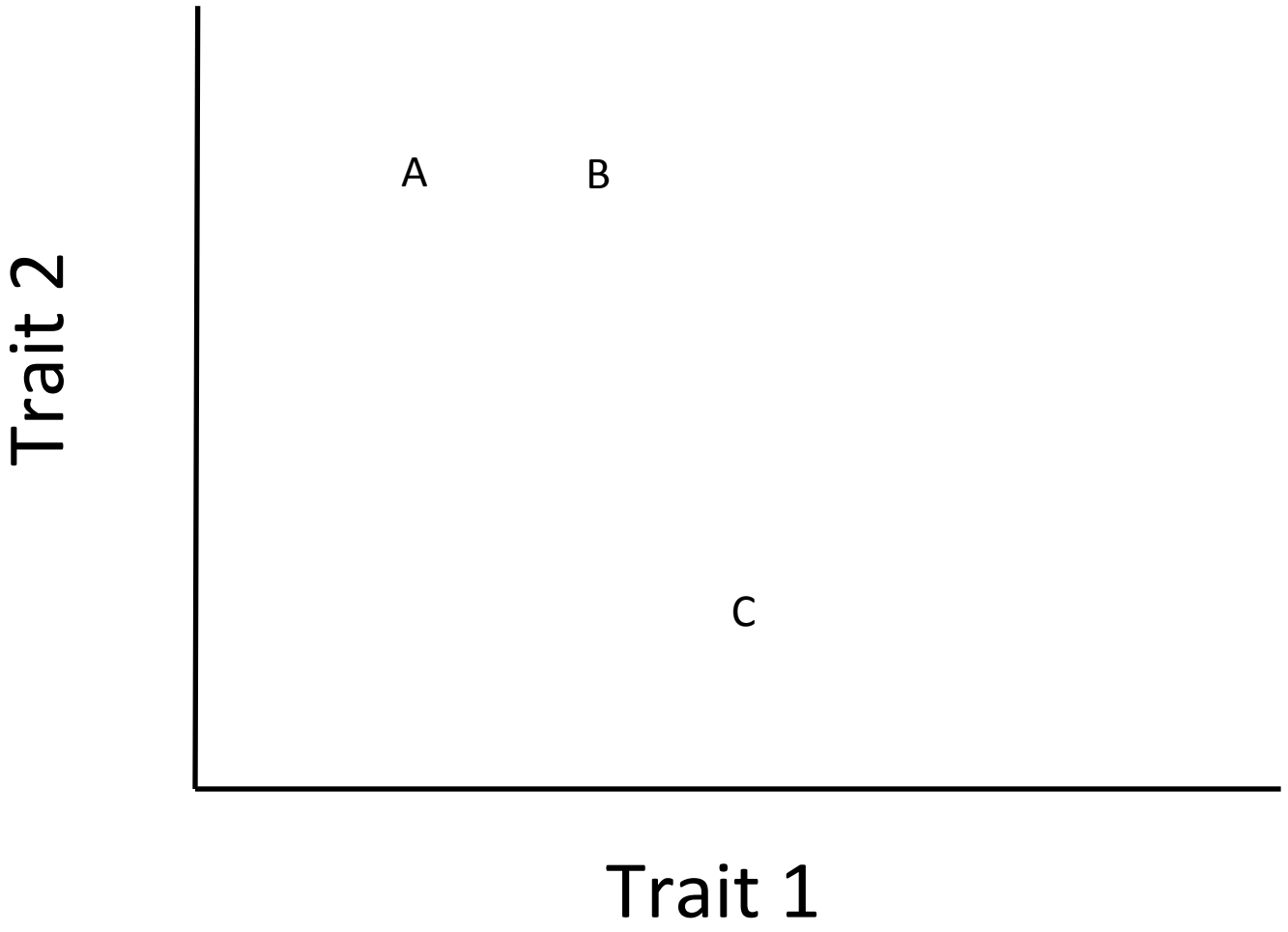
0 + -

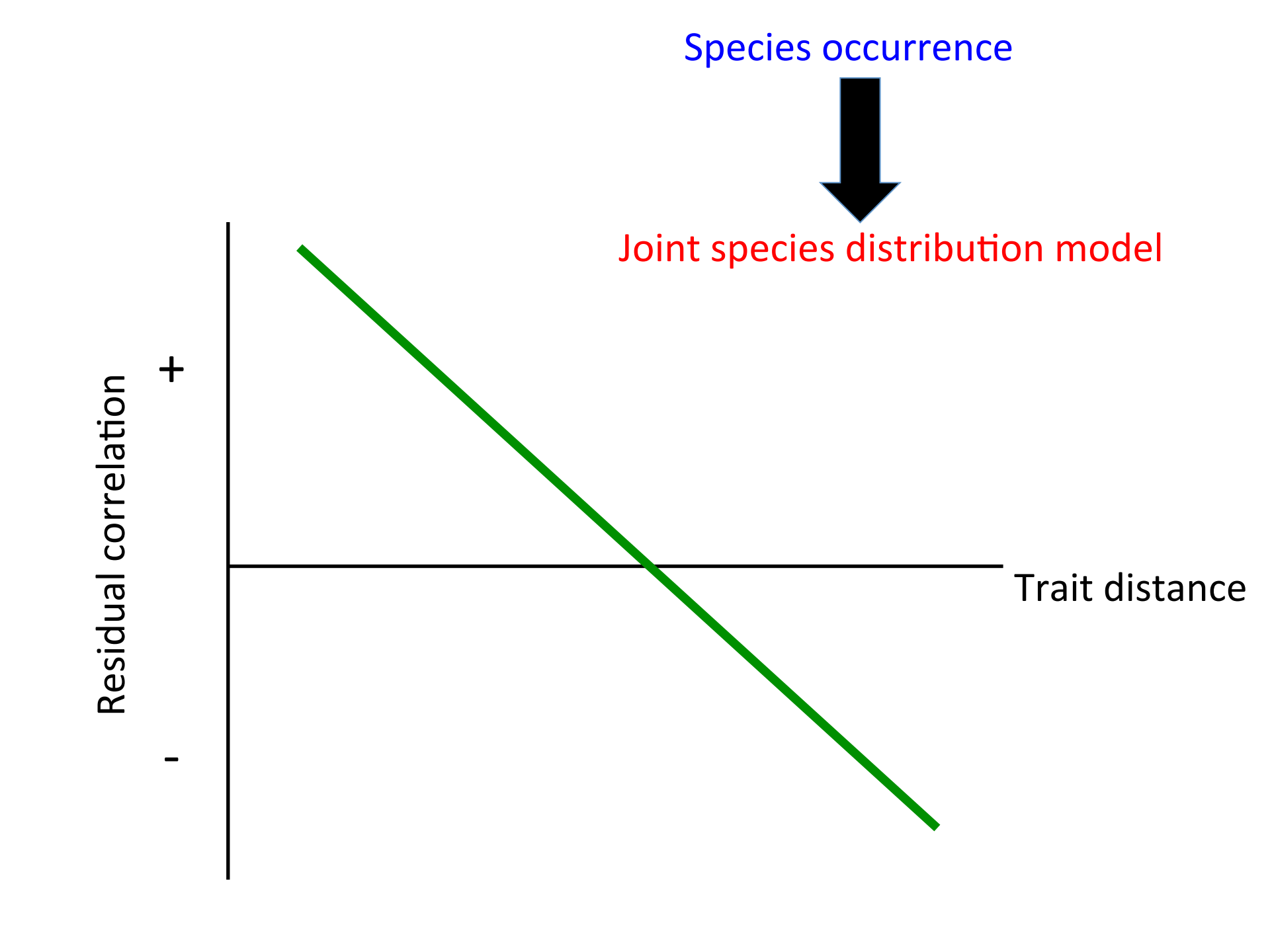
Species occurrence

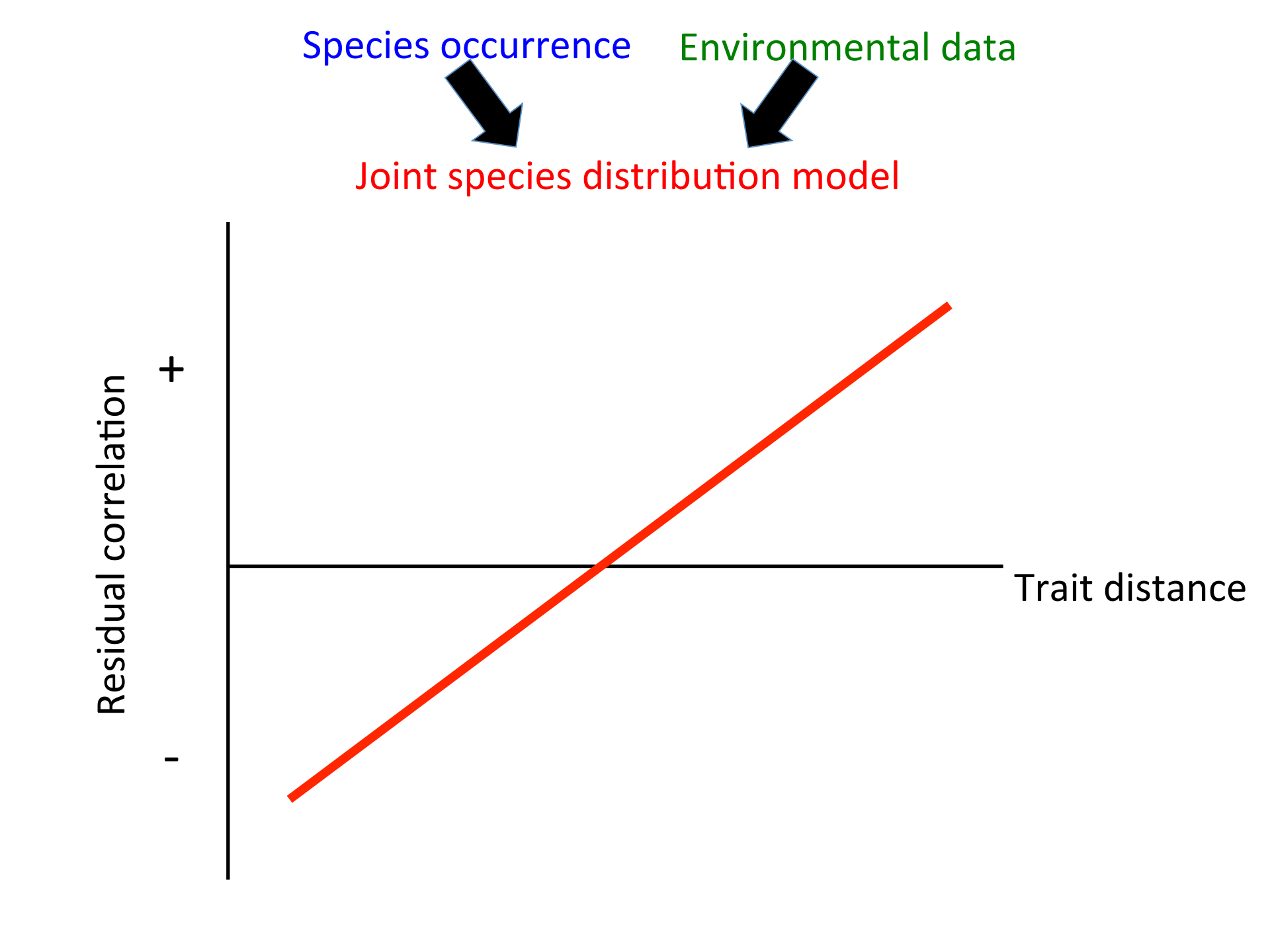
Environmental data

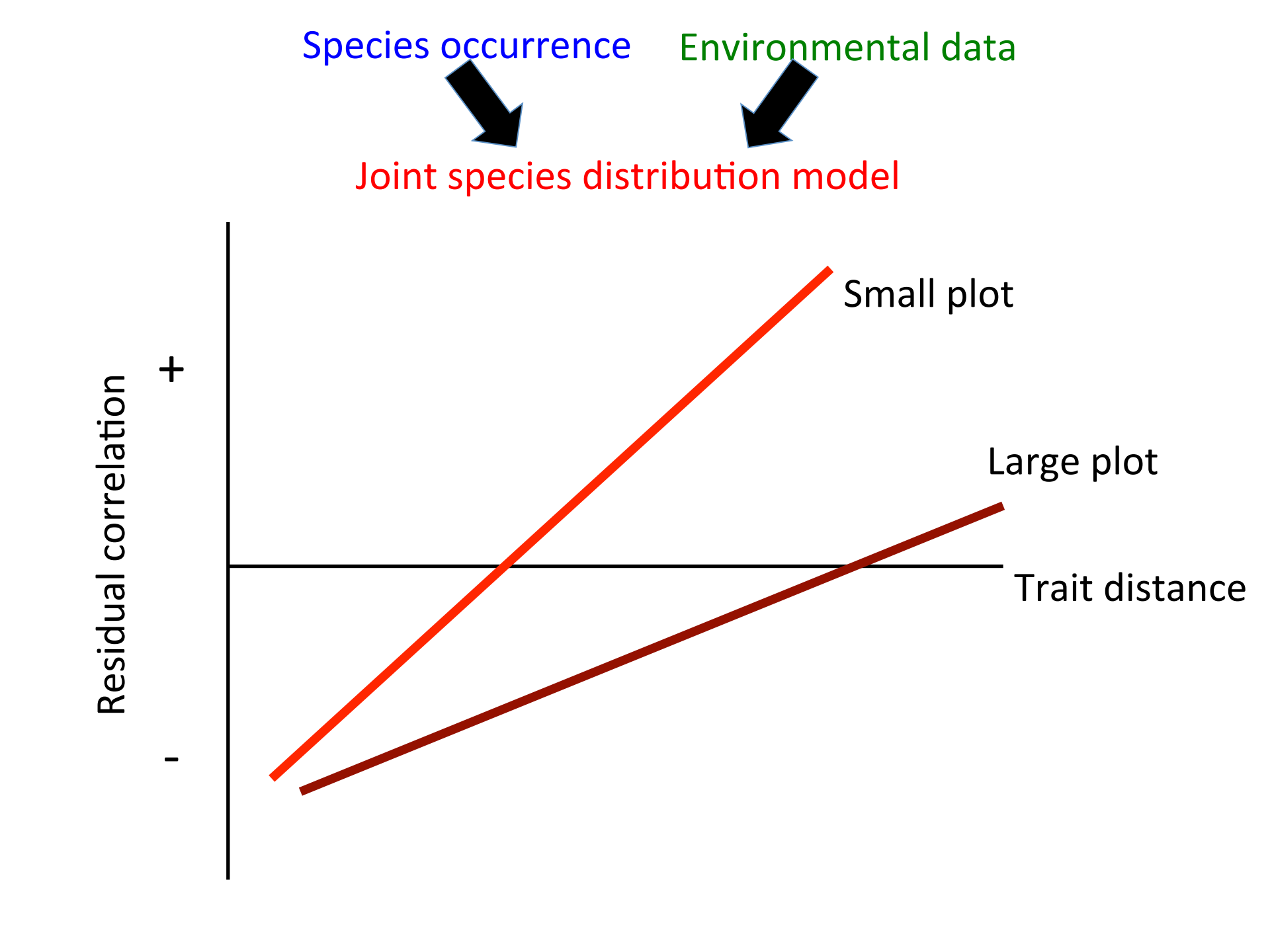


Joint species distribution model


A
B
C
Trait 2
Trait 1


Species occurrence
Joint species distribution model
Residual correlation
+
-
Trait distance


Species occurrence
Environmental data
Joint species distribution model
Residual correlation
+
-
Trait distance


Species occurrence
Environmental data
Joint species distribution model
Residual correlation
+
-
Small plot
Large plot
Trait distance

DATA

Data Tables

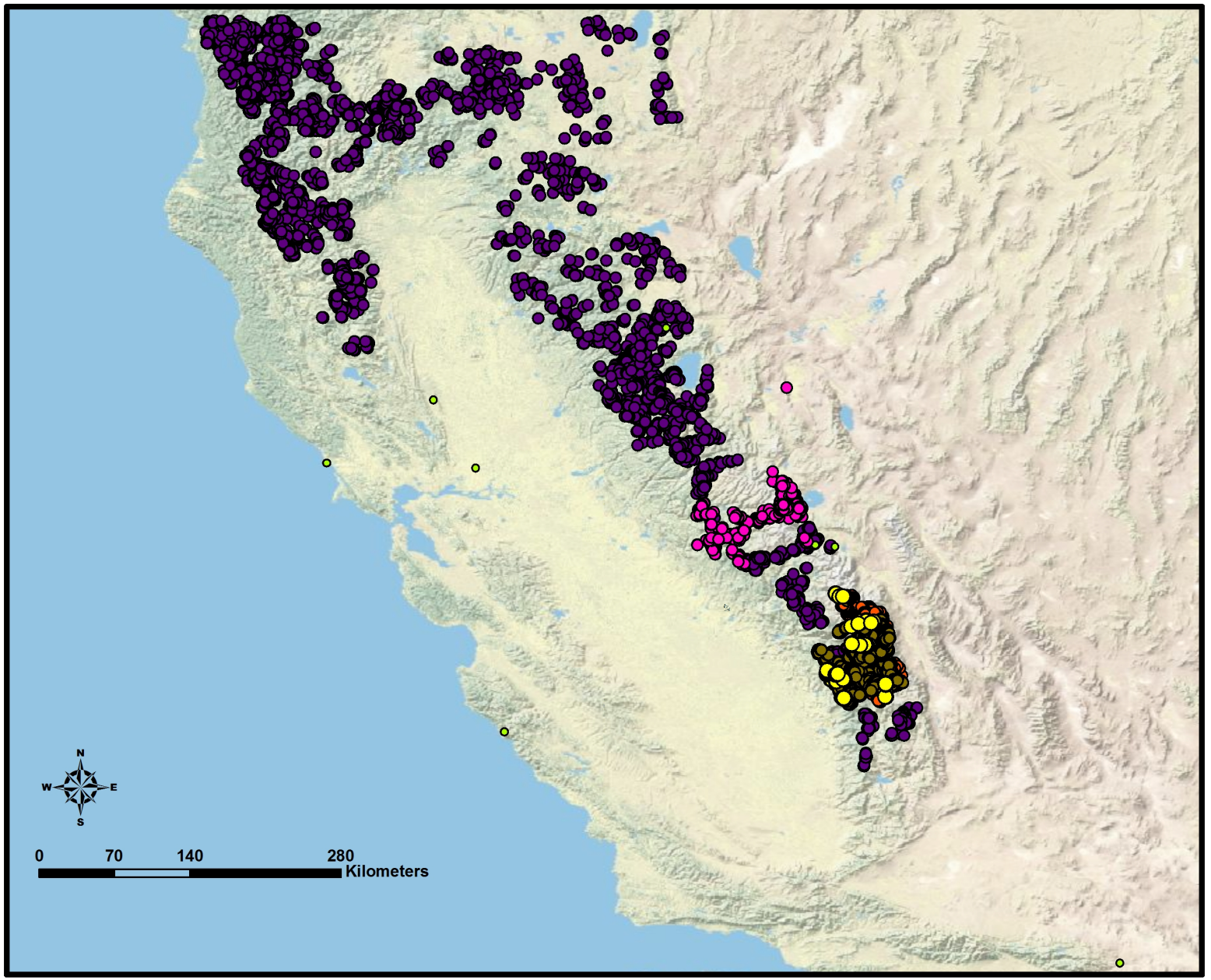
- Plot Data
  - Temp
  - Soil
  - Precip
  - Disturbance

- Species Obs
  - Plot
  - Pres/Abs

- Species Traits
  - SLA, LA, RGR…
  - Height
  - Life orm

- Species Info
  - Taxon
  - Authority

Dataset	SARE A code	Old plot survey count # plots		Survey Notes	Data notes	Survey
PCT plots - McGrann	**PCTM**	5,380		McGrann's transect of the entire Pacific Crest Trail		2008
SEKI RAP	**SNPRA**	123		Sequoia Kings Canyon Rapid plots		
Sierra Foothills RAP	**SFHRA**	648				
Potter Data	**POTT**	847		John Potter's revisits of 847 USFS Sierra Nevada Ecopolots	many unreferenced plots (no lat/lon); 724 spp codes; 699 matched	2005
SEKI NRI	**SNPNR**	627			Sequoia Kings Canyon Natural Resource Inventory plots	
SEKI NRI??	**SNPNRI**					
SEKI VMPlots	**SNPVM**	423			Sequoia Kings Canyon Veg Mapping	
Sierra Foothills Relevees	**SFHREL**	295			From Todd Keillor-Wolf at CA DFG	
USFS No Cal Ecoplots ("USFSN")	**USFSN**	5,643				
Yosemite - Cameron	**YOSE**	607		Susan Cameron's revisits of official Yosemite NP-surveyed plots	595 plots with good XY coords	2007
Yosemite - NRI	**YNRI**	362			Yosemite Natural Resource Inventory survey	2006


N
W
E
S
0
70
140
280
Kilometers

Trait Databases and Sources

- **TRY Plant Trait Database**
  - Max Planck Institute for Biogeochemistry
- **The Botanical Information and Ecology Network (BIEN):**
  - NCEAS and the iPlant Collaborative.
- **Wright *et al.* Nature 2004**
  - "The worldwide leaf economics spectrum"
- **Seed Information Database — SID**
  - Kew (Seed size and germination, etc.)