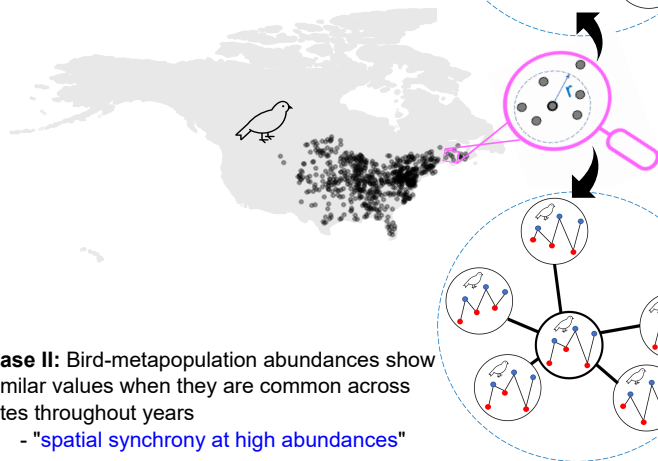


**Q1:** Do species show particular dependence pattern in spatial synchrony ?  
(i.e., metapopulations across sites becoming rare or becoming common simultaneously throughout the years)

**Case I:** Bird-metapopulation abundances show similar values when they are rare across sites throughout years

- "spatial synchrony at low abundances"

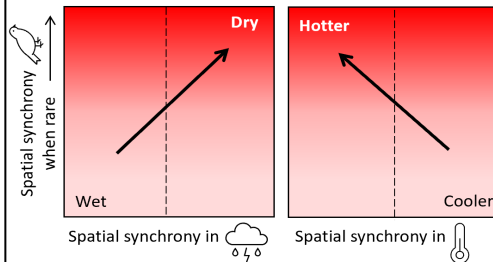


**Case II:** Bird-metapopulation abundances show similar values when they are common across sites throughout years

- "spatial synchrony at high abundances"

**Q2:** Does dependence pattern in spatial synchrony for climate drive dependence pattern in spatial synchrony for abundance?

**H1:** Limited resource/ stressed conditions (climatic catastrophes) across sites make some species synchronously rare



**H2:** Limited resource/ stressed conditions (climatic catastrophes) across sites benefit other species making synchronously common

