## Fine-scale source-sink dynamics

No direct evidence without geneflow or dispersal data, but variation in  $\ln(\lambda)$  across space (as tested in "Spatial Asynchrony") is a necessary pre-requisite.

### Spatial asynchrony

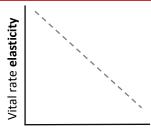
Correlation of  $\ln(\lambda)$  between two sub-pops.

Distance between

Distance between two sub-pops.

## sub-

#### Vital rate buffering



Vital rate parameter coefficient of variation

## Demographic compensation

**Correlation Matrix** of environmental covariate effect sizes in different vital rate models

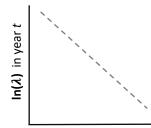
	Growth model	Surv. model	Repro. model
Growth model	1	< 0* (P<0.05)	< 0* (P<0.05)
Surv. model		1	< 0* (P<0.05)
Repro. model			1

\* At least one significant negative correlation

# Long-term persistence of *O. coloradensis* populations



## Negative density dependence



**Pop. size** in year t-1