

# Habitat heterogeneity (HH)

More negative  $\beta_1$  and  $\beta_6$  across demographic rates in S1 and S2 (and more positive for S3)

## Interspecific interaction strength (IS)

- 1 – higher  $\beta_4$  across demographic rates in S2 (higher speciation on S1)
- 2 – 1 + higher  $\beta_4$  and  $\beta_5$  (more negative) for summer survival in S1
- 3 – 2 + higher  $\beta_5$  (more negative) for summer survival in S2 and S3

## Higher seasonality (HS)

Higher differences in  $\beta_0$  for adult survival between unproductive and productive season

**Baseline** (example: adult summer survival)

$$\begin{aligned}\text{Logit}(S_R) = & \beta_0\text{SiteA} + \beta_1\text{SiteB} + \beta_2E + \beta_3N \\ & + \beta_4N_{B1} + \beta_5N_{B2} + \beta_6E \times \text{SiteB} \\ & + \beta_7E \times N + \beta_8N_F \times N_{B1} + \beta_9\text{SiteB} \times N_{B1}\end{aligned}$$

## Higher life-history differences ( $\Delta LH$ )

- 1 Higher  $\beta_0$  for adult survival in P1  
Lower  $\beta_0$  for recruitment in P1
- 2 Higher  $\beta_0$  for recruitment in F