



Article Living on the Edge: Variation in the Abundance and Demography of a Kelp Forest Epibiont

Supplementary Information

Table S1. Model selection results for occurrence and percent cover of *Membranipora* on kelp blades. "Within-forest" refers to the effect of edge versus interior. ML is maximum likelihood.

| Fixed Effects | Random Effects | Estimation Method | Occurrence ∆AIC | Percent Cover ∆AIC |
|---------------|----------------------------|----------------------|-----------------|-----------------------|
| NA | Intercept site | ML | 108 | 17182 |
| Within-forest | Intercept site | ML | 15 | 13760 |
| Within-forest | Intercept site, slope site | ML | 0 | 13029 |

Table S2. Parameter estimates for final models of occurrence and percent cover. "Within-forest" refers to the effect of edge versus interior. Significance codes: *** <0.001 **<0.01 *<0.05.

| Parameter | Occurrence | Occurrence | Percent Cover | Percent Cover |
|----------------|------------|------------|---------------|---------------|
| i ulumeter | Estimate | Error | Estimate | Error |
| Fixed effects | 2 20 ** | SE | 2 () * | SE |
| Within-forest | 5.20 | 1.25 | 3.02 | 1.68 |
| Variance term | Std. dev. | | Std. dev. | |
| Intercept site | 1.82 | | 2.52 | |
| Slope site | 1.90 | 2.87 | | |

Table S3. Model selection results for occurrence of recruits, density of recruits, and density of colonieson kelp blades. "Within-forest" refers to the effect of edge versus interior. ML is maximum likelihood.

| Fixed Effects | Random Effects | Estimation Method | Occurrence Recruits ∆AIC | Recruit Density ΔAIC | Colony Density ΔAIC |
|-------------------|-------------------------------|----------------------|-----------------------------|----------------------------|---------------------------|
| NA | Intercept site | ML | 0 | 33 | 37 |
| Within- forest | Intercept site | ML | 0 | 0 | 5 |
| Within- forest | Intercept site, slope site | ML | 3 | NA | 0 |

Table S4. Parameter estimates for final models of recruit density and colony density. "Within-forest" refers to the effect of edge versus interior. Significance codes: *** <0.001 **<0.01 *<0.05.

| Demonster | Recruit Density | Recruit Density | Colony Density | Colony Density |
|----------------|------------------------|------------------------|----------------|----------------|
| rarameter | Estimate | Error | Estimate | Error |
| Fixed effects | 1 (1*** | SE | 1.47*** | SE |
| Within-forest | 1.61 | 0.25 | | 0.24 |
| Variance term | Std. dev. | | Std. dev. | |
| Intercept site | 0.94 | | 0.31 | |
| Slope site | NA | | NA | |

| Fixed Effects | Random Effects | Estimation Method | Colony Specific Growth ΔAIC |
|---------------|----------------------------|----------------------|--------------------------------------|
| NA | Intercept site | ML | 89 |
| Within-forest | Intercept site | ML | 3 |
| Within-forest | Intercept site, slope site | ML | 0 |

Table S5. Model selection results for colony specific growth rate. "Within-forest" refers to the effect of edge versus interior. ML is maximum likelihood.

Table S6. Parameter estimates for final model of colony specific growth rate. "Within-forest" refers to the effect of edge versus interior. Significance codes: *** <0.001 **<0.01 *<0.05.

| Parameter | Colony Specific Growth Estimate | Colony Specific Growth Error |
|----------------|------------------------------------|---------------------------------|
| Fixed effects | 0.06*** | SE |
| Within-forest | 0.08 | 0.006 |
| Variance term | Std. dev. | |
| Intercept site | 0.05 | |
| Slope site | NA | |