

Supporting Table

TableS1: Prior distributions for model parameters. Prior distributions were uniform on a transformed scale.

| Parameter | Description | Prior range | Transformation |
|------------|---|-------------|----------------|
| γ_1 | the baseline probability of parasite establishment | (-1,5) | inverse logit |
| γ_2 | the effect of cumulative exposure on parasite establishment | (-20,5) | exponential |
| γ_3 | the effect of adult intensity on parasite establishment | (-20,5) | exponential |
| β_1 | the baseline probability of parasite clearance | (-7,1) | inverse logit |
| β_2 | the effect of cumulative exposure on parasite clearance | (-20,5) | exponential |
| β_3 | the effect of adult intensity on parasite clearance | (-20,5) | exponential |
| μ_L | the mean final length of adult parasite | (7,11) | none |
| σ_L | the variance of parasite length at age t days | (-2,0) | exponential |
| α | parasite growth rate | (-1,0) | inverse logit |