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Corresponding R scripts and data can be found at https://github.com/erwhite1/BodiePikaMetapop

Appendix S4 Parameter sensitivity

Although we have good estimates for dispersal propensity, birth rates, maximum dispersal distance, and over-winter mortality probability, it is still insightful to test the sensitivity of these different parameters. We also tested the sensitivity of the disperser mortality probability and weaning mortality probability. These parameters were particularly important to examine as we estimated them from the model itself as described above. Therefore, we systematically varied each parameter and reran our simulations. We then made various measurements of the simulation outputs.

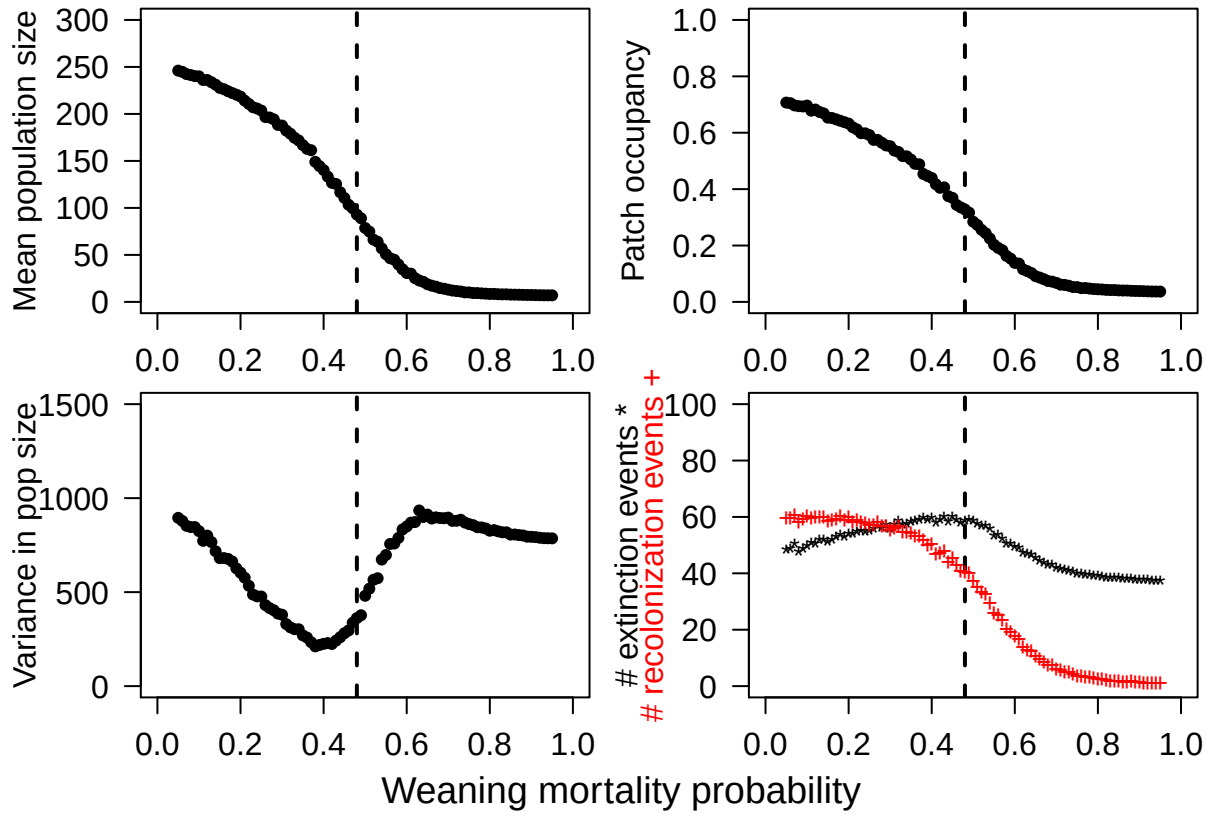

Figure S1: Sensitivity of various model outputs to changes in weaning mortality probability. The verticle, dashed line is the default parameter value (see Table 1).

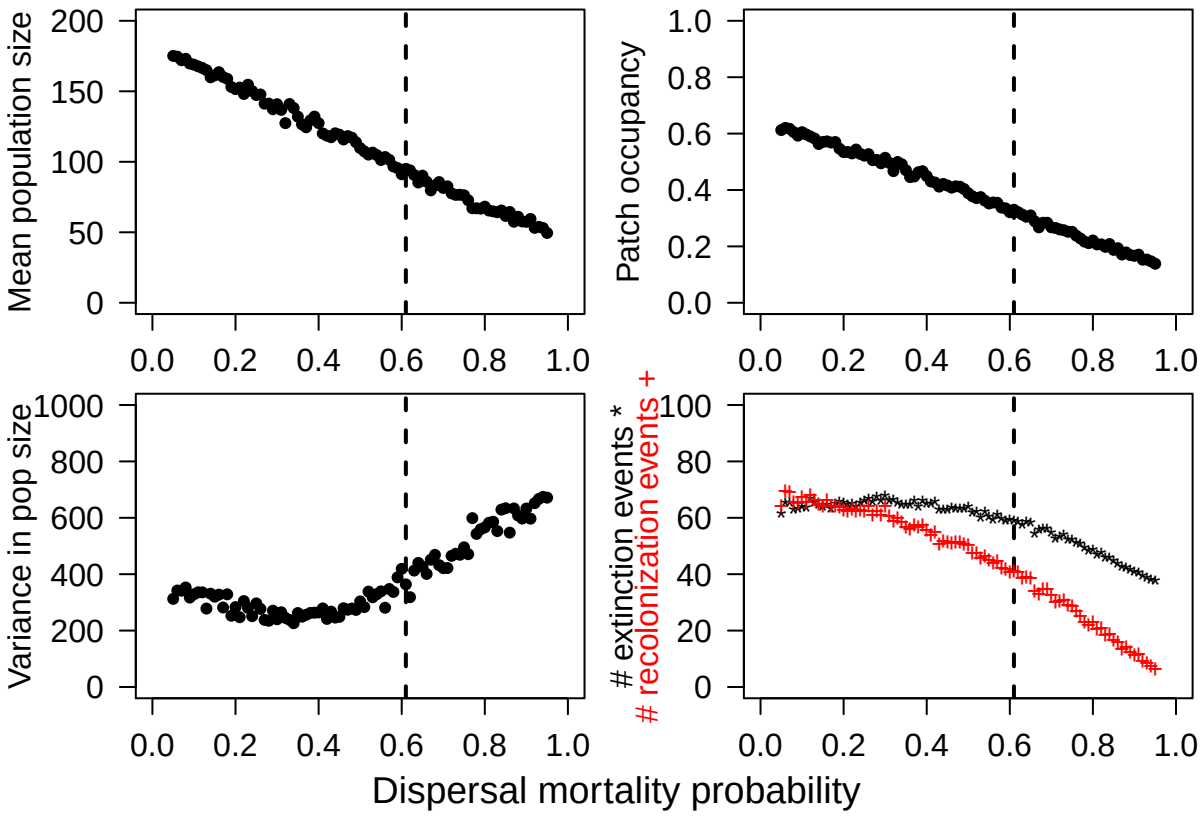

Figure S2: Sensitivity of various model measurements to changes in dispersal mortality probability. The verticle, dashed line is the default parameter value (see Table 1).

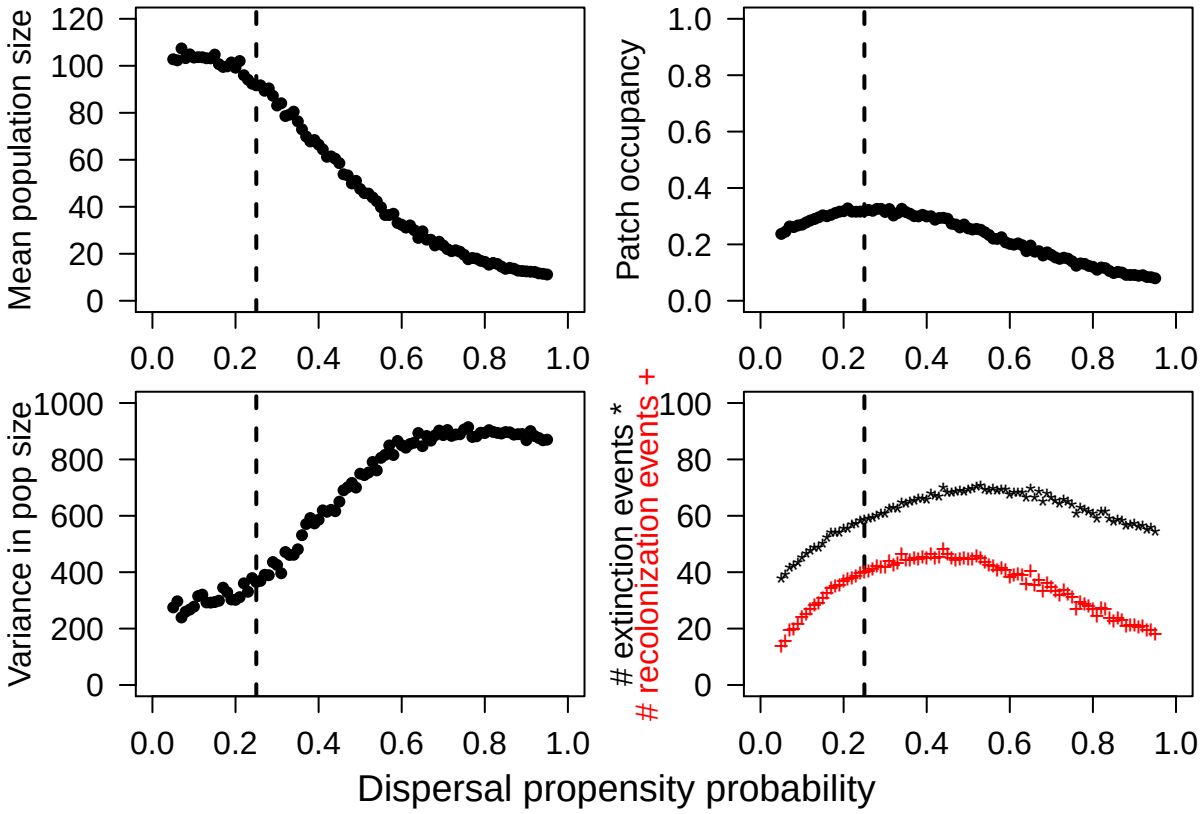

Figure S3: Sensitivity of various model measurements to changes in dispersal propensity probability. The verticle, dashed line is the default parameter value (see Table 1).

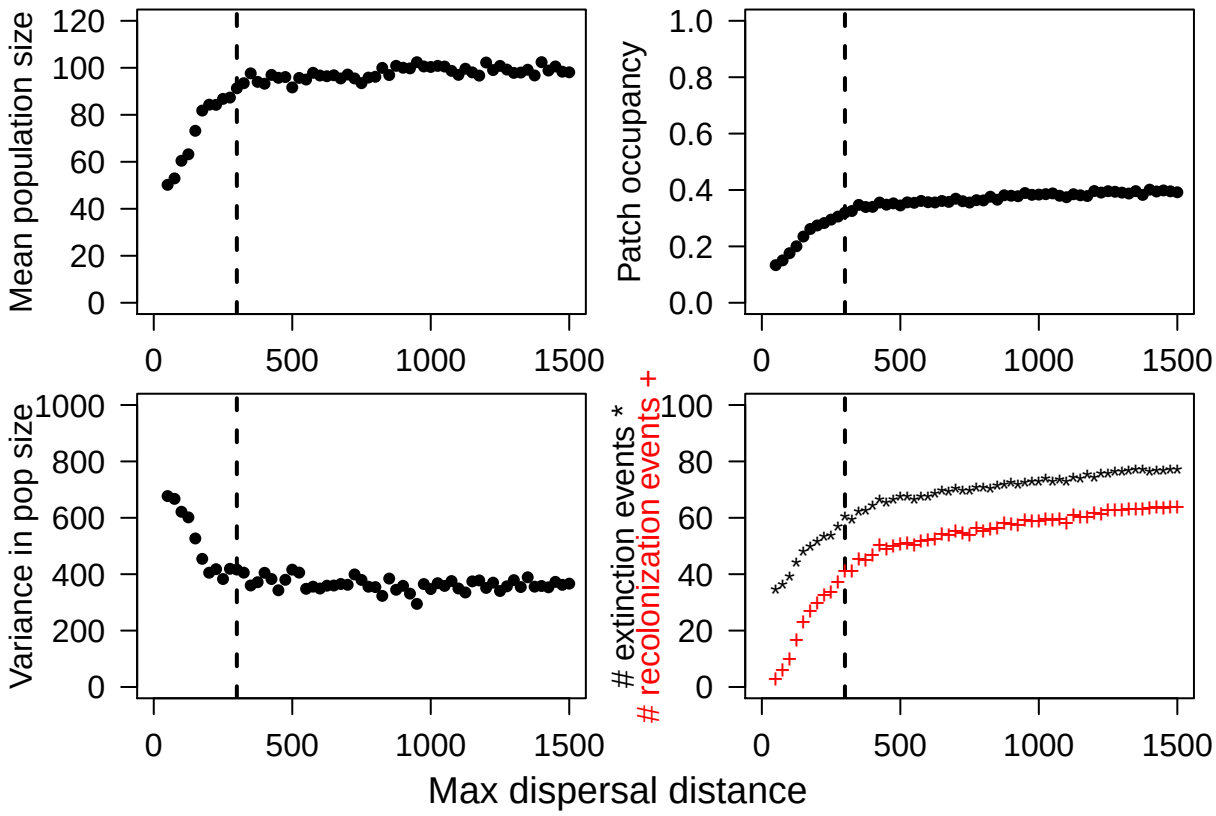

Figure S4: Sensitivity of various model measurements to changes in maximum dispersal radius. The verticle, dashed line is the default parameter value (see Table 1).

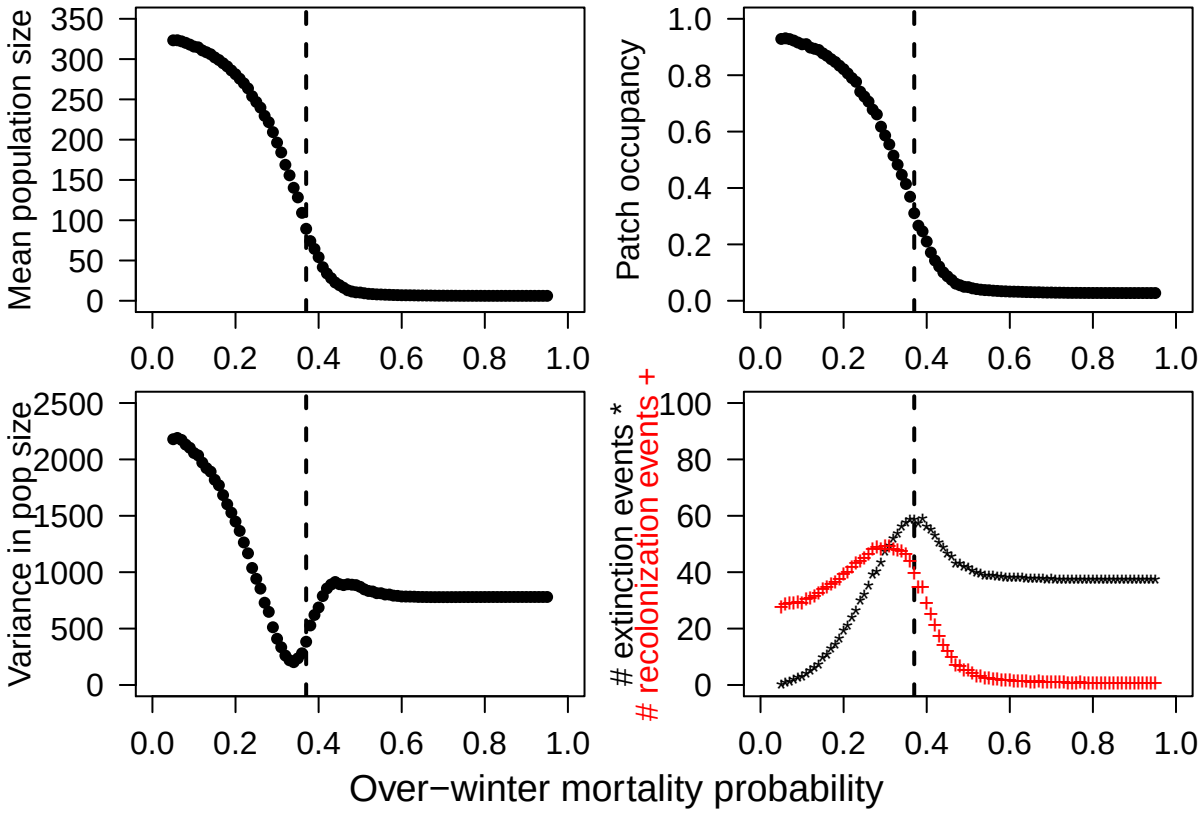

Figure S5: Sensitivity of various model measurements to changes in over-winter mortality probability. The verticle, dashed line is the default parameter value (see Table 1).