Supplementary Figures

Reconciling the Entomological Hazard and Disease Risk in the Lyme Disease System

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(a)

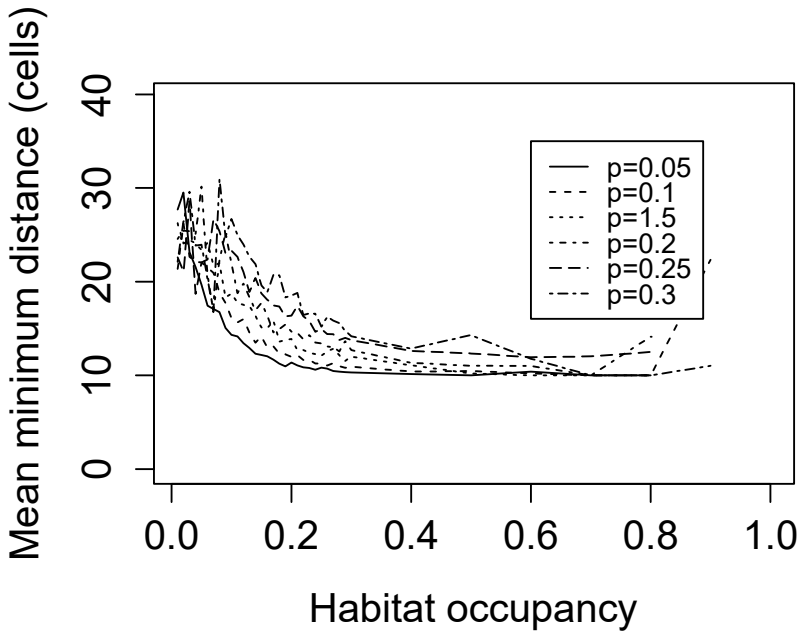
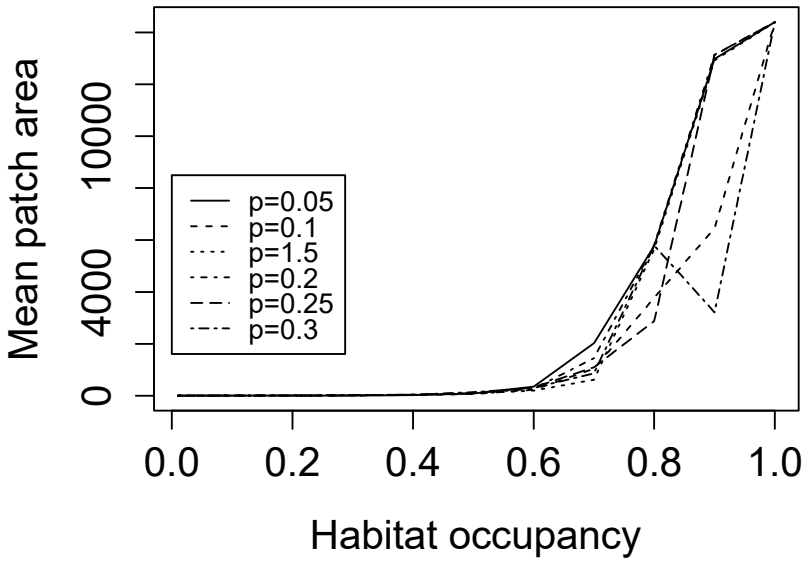


Figure S1. *Cont.*

(b)


Mean patch area
0
4000
10000
p=0.05
p=0.1
p=1.5
p=0.2
p=0.25
p=0.3
0.0
0.2
0.4
0.6
0.8
1.0
Habitat occupancy

(c)

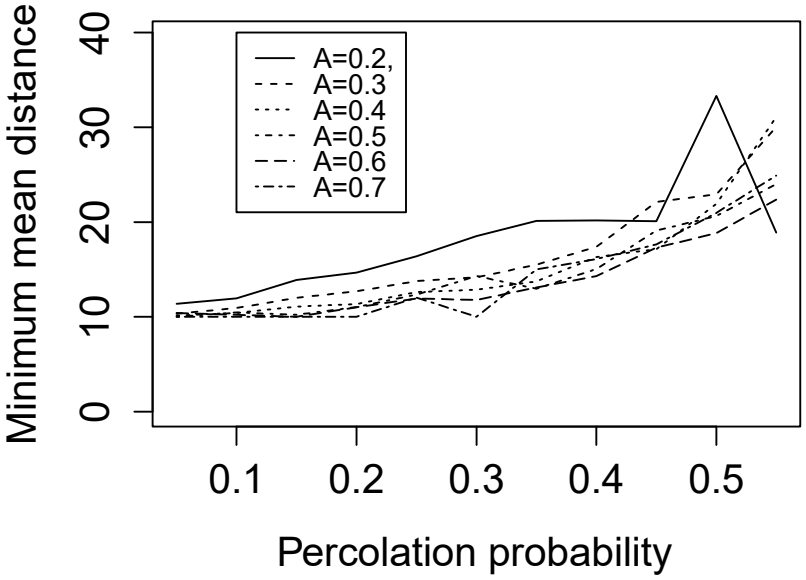
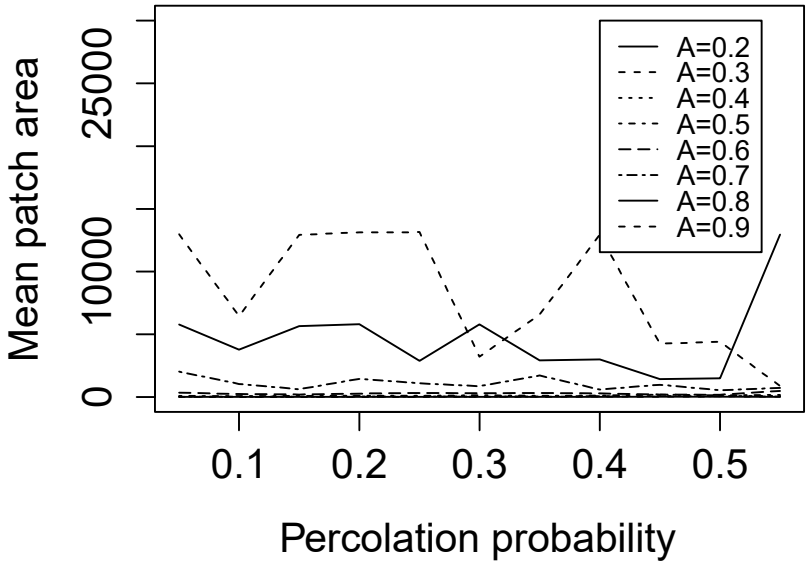

Minimum mean distance
0
10
20
30
40
A=0.2,
A=0.3
A=0.4
A=0.5
A=0.6
A=0.7
0.1
0.2
0.3
0.4
0.5
Percolation probability

Figure S1. *Cont.*

(d)



(e)

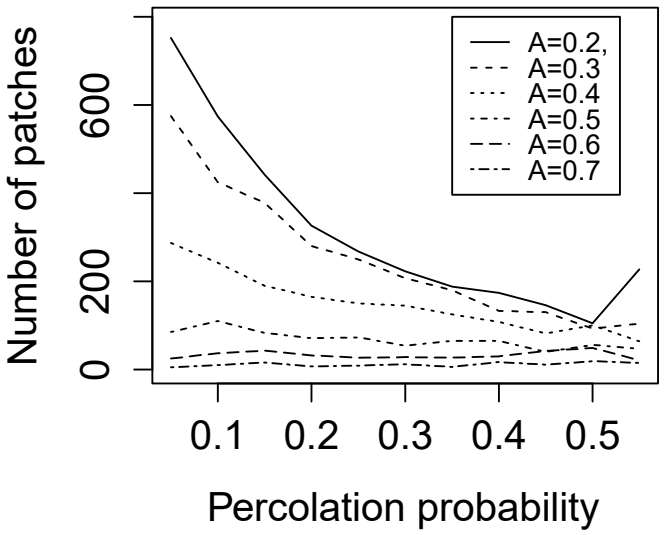


Figure S1. *Cont.*

(f)

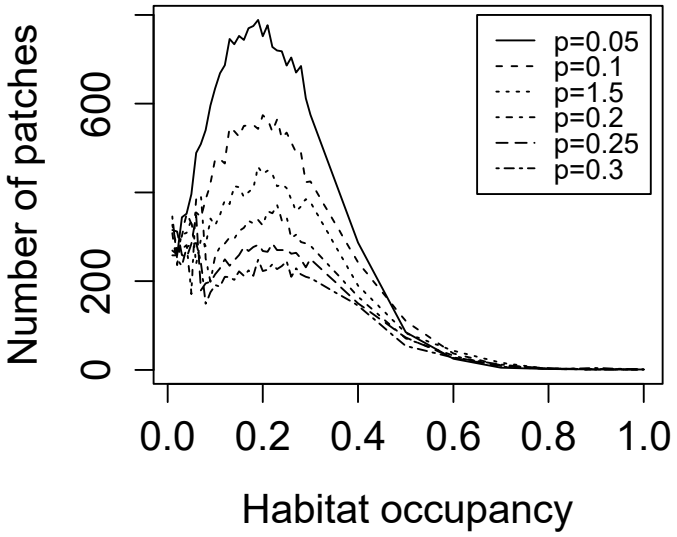


Figure S1. Relations between Modified Random Clusters parameters (habitat occupancy and percolation probability) and traditional fragmentation statistics in simulated landscapes. **(a)** Patch isolation as a function of habitat occupancy *A*. **(b)** Patch isolation as a function of percolation probability *p*. **(c)** Mean patch area as a function of *A*. **(d)** Mean patch area as a function of *p*. **(e)** Number of patches as a function of *p*. **(f)** Number of patches as a function of *A*.

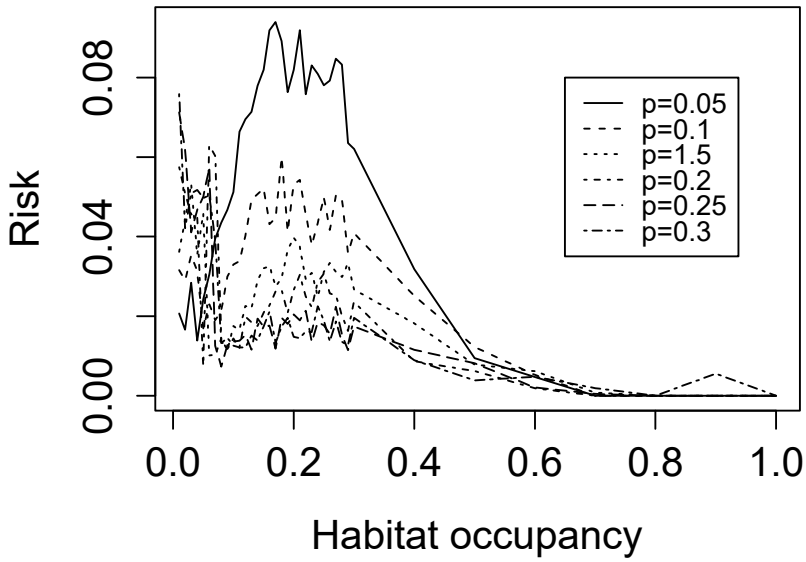


Figure S2. Predicted LD risk of simulated landscapes (excluding one-cell forest patches) as a function of habitat occupancy (forest cover). Each curve is evaluated for a landscape with a different percolation probability *p*.

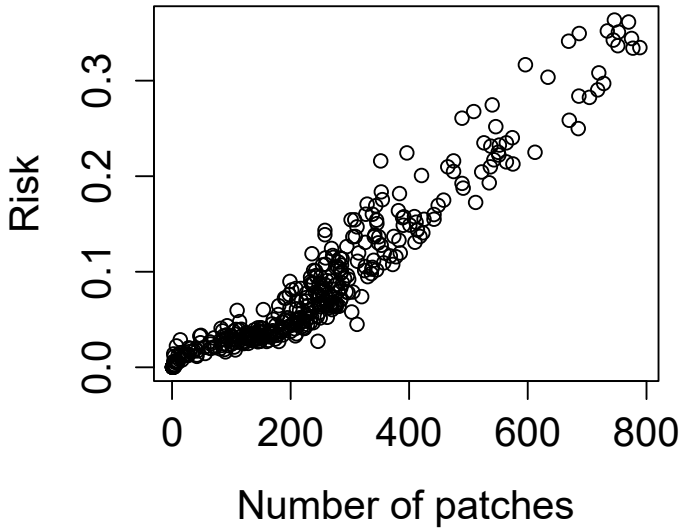


Figure S3. Predicted LD risk as a function of number of forest patches.

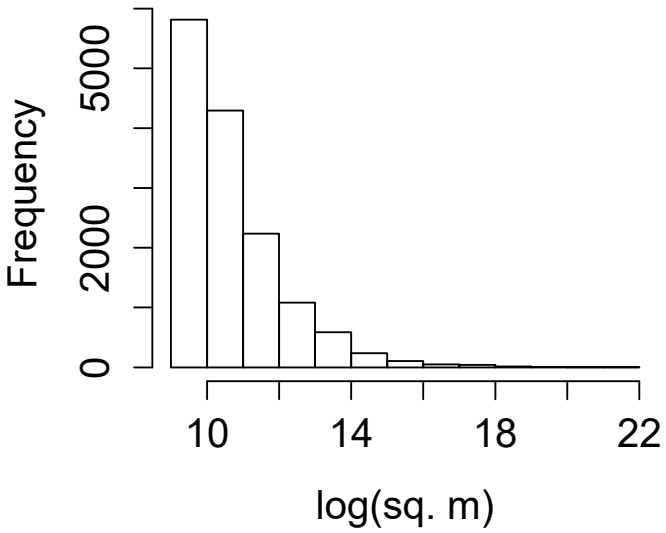


Figure S4. Frequency distribution of log-transformed deciduous and mixed forest patch areas.

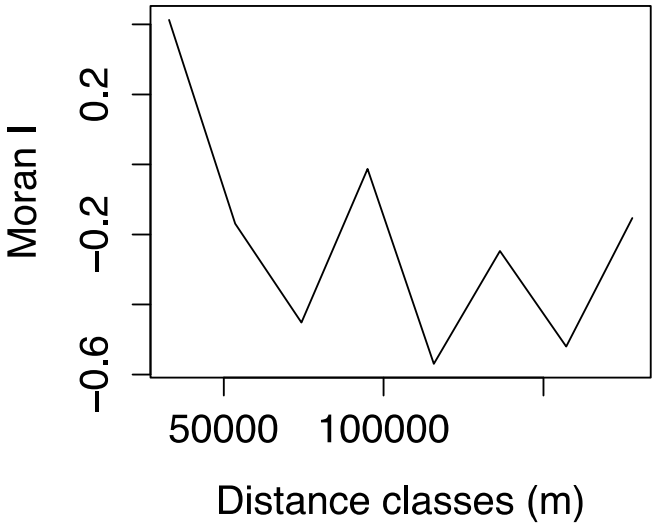


Figure S5. Lyme disease incidence (LDI) correlogram. Plot of Moran's I for LDI as a function of distance class within study region.