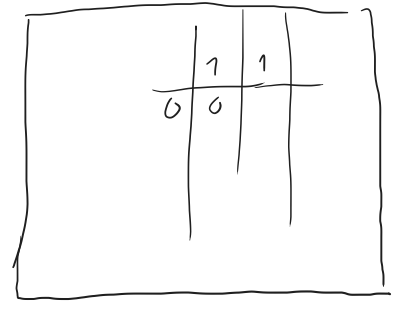
CO-OCCURRENCE MATRIX

1: IS THERE
0: IS NOT THERE

SPECIES ↓

LOCATIONS →



⊗ CHECKERBOARD MATRICES:

$$\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix} \leftrightarrow \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

LET $C(M)$ BE NUMBER OF CHECKERBOARDS

USING MCMC, SIMULATE: USE A PROPOSAL FUNCTION WHICH SWITCH A CHECKERBOARD

$$\rho = MIN\left(1, \frac{\pi(M_{NOW})\,q(M \mid M_{NOW})}{\pi(M)\,q(M_{NOW} \mid M)}\right) = MIN\left(1, \frac{1/C(M_{NOW})}{1/C(M)}\right) = MIN\left(1, \frac{C(M)}{C(M_{NOW})}\right)$$