Distributing resources in FoodWorld

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1 Definitions

1. Grid is $m \times m$.

2. There are k distinct food types.

3. Food type i has P_i units of protein and C_i units of calories.

4. At the beginning, n food items are drawn from a multinomial distribution $(p_1, \ldots, p_k)$ where p_j is the probability of food type j.

5. Expected total protein is $P_{tot} = \Sigma n \cdot P_i \cdot p_i$ and expected calories $C_{tot} = \Sigma n \cdot C_i \cdot p_i$