

6.2.15

$\text{Gamma}(0.001, 0.001)$

$\text{Gamma}(0.001, 0.001)$

$\text{Gamma}(a, b)$

Owls

$\text{Poisson}(\lambda_i)$

$\text{Poisson}(\lambda_j)$

Clutches

X_i

Y_{i+1}

Y_{i+2}

Y_j

Y_{j+1}

Y_{j+2}

G.2.14

$$\text{Gamma}(a, b)$$

$$\text{mean} = \frac{a}{b} = w \quad \text{var} = \frac{a}{b^2} = s^2$$

$$\text{Gamma}(0.001, 0.001) \quad \text{Gamma}(0.001, 0.001)$$

$$\text{Gamma}\left(\frac{w^2}{s^2}, \frac{w}{s^2}\right)$$

$a + b$ in terms of mean w and var s^2

Owls

$$\text{Poisson}(\lambda_i)$$

$$\text{Poisson}(\lambda_j)$$

clutches

$$X_i$$

$$Y_{i+1}$$

$$Y_{i+2}$$

$$Y_j$$

$$Y_{j+1}$$

$$Y_{j+2}$$

$$w = a + b_1 x + b_2 x^2$$

where $x =$ age at first reproduction - age

$$\text{Gamma}(a, b)$$

$$\text{mean} = \frac{a}{b} = w \quad \text{var} = \frac{a}{b^2}$$

G.2.16

$$\text{Normal}(0, 100)$$

$$\text{Gamma}(0.001, 0.001)$$

$$\text{Gamma}\left(\frac{a + b_1 x + b_2 x^2}{\sigma_p^2}, \frac{[a + b_1 x + b_2 x^2]^2}{\sigma_p^2}\right)$$

σ_p^2

Owls

$$\text{Poisson}(\lambda_i)$$

$$\text{Poisson}(\lambda_j)$$

clutches

$$x_i$$

$$y_{i+1}$$

$$y_{i+2}$$

$$y_j$$

$$y_{j+1}$$

$$y_{j+2}$$



