

$$\begin{aligned}
y_t &\sim \text{Poisson}(\lambda_t) \\
\ln(\lambda_{t+1}) &= \ln(\lambda_t) + \delta_t + \epsilon_t, \quad \epsilon_t \sim \text{N}(0, \sigma_\epsilon^2) \\
\delta_{t+1} &= \delta_t + \eta_t, \quad \eta_t \sim \text{N}(0, \sigma_\eta^2)
\end{aligned}$$