```
1  beta = LogNormal(tf.zeros(3), tf.ones(3))
2  x1 = []   # prey population
3  x2 = []   # predator population
4  for t in range(1000):
5      x1[t+1] = beta[0] * x1[t] - beta[1] * x1[t] * x2[t] + Normal(0.0, 10.0)
6      x2[t+1] = -beta[1] * x2[t] + beta[1] * x1[t] * x2[t] + Normal(0.0, 10.0)
```

**Figure 1**