

6. Modello di Ricker → Salmoni dell'Oceano Pacifico
(1954) $x(t) =$ individui

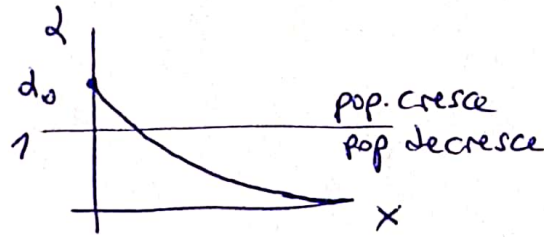
$$x(t+1) = a x(t)$$

$$a > 1$$

$$x(t) = a^t x(0)$$



$$\Rightarrow a = a(x) = d_0 e^{-\beta x}$$



$$\Rightarrow \boxed{x(t+1) = d_0 x(t) \cdot e^{-\beta x(t)}}$$

$$\beta = 1 \quad x(0) = 0,2$$

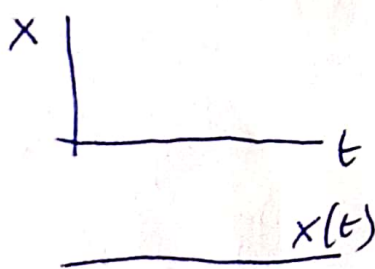
$$d_0 = 6 \rightarrow \text{equilibrio}$$

$$d_0 = 10 \rightarrow \text{ciclo di periodo 2}$$

$$d_0 = 13 \rightarrow \quad \quad \quad 4$$

$$d_0 = 14,5 \rightarrow \quad \quad \quad 8$$

$$d_0 = 20 \rightarrow \text{caos}$$



→ Diagrammi di Moran

aprire il file
ricker e copiare il comando (corrispondente a
un opportuno valore di a) al prompt
les esempi, per il caos: `[stato]=ricker(20,1,0,2,50)`