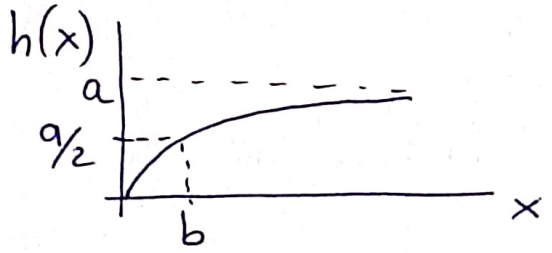
2. Modello di crescita logistica con sfruttamento

$$\dot{x} = rx\left(1-\frac{x}{k}\right) - h(x)\cdot E$$

crescita logistica — sfruttamento (extra-mortalità)

$h(x)$ = risposta funzionale.



$$h = \frac{ax}{b+x}$$

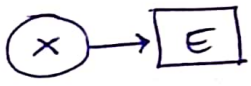
Holling di tipo II

a = massima capacità di sfruttamento

b = costante di semi-saturazione

E = costante di sfruttamento

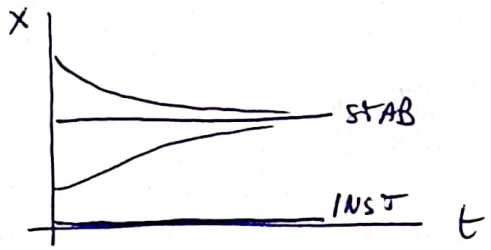
$$\Rightarrow \dot{x} = rx\left(1-\frac{x}{k}\right) - \frac{ax}{b+x}\cdot E$$



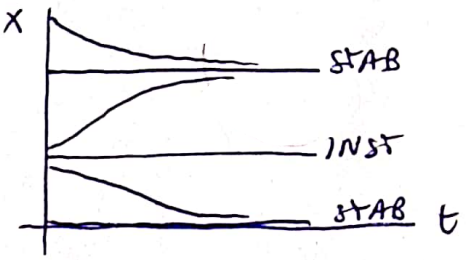
$r=1 \quad k=10 \quad a=0{,}1 \quad b=1$

($E=0$ → modello di crescita logistica ⟨ k stabile / o instabile ⟩)

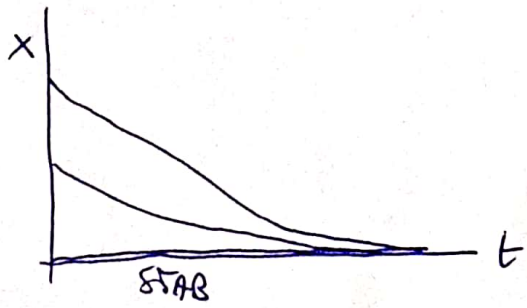
$E=5$



$E=25$



$E=35$



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