

10-14-05

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## Reminders

Test 2 Next Fri  
Ch 5, 6 ~~21~~ Sample Tests on  
Calendar.

HW Ch 5/6 Due  
Today Cl 312 by 1PM  
Put Lab # (21?) on  
paper

Reading Questions (Moodle)  
Ch 5, Ch 6 by Sunday

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## Chapter 5 Main Themes

### \* Malthus' Model

- ① Pop. grows "geometrically"  
(exponentially)
- ② Food grows "arithmetically"  
(linearly)
- So ③ Food per capita falls → misery

②

\* Modern Malthusianism

Any situation where Food per capita falls.

\* Moving Averages - To smooth data (Food, Stocks) to see pattern. Average runs of data repeatedly

\* Indexing Compare data to a fixed base:  $\frac{\text{data}}{\text{base}} \times 100$

Chapter 6

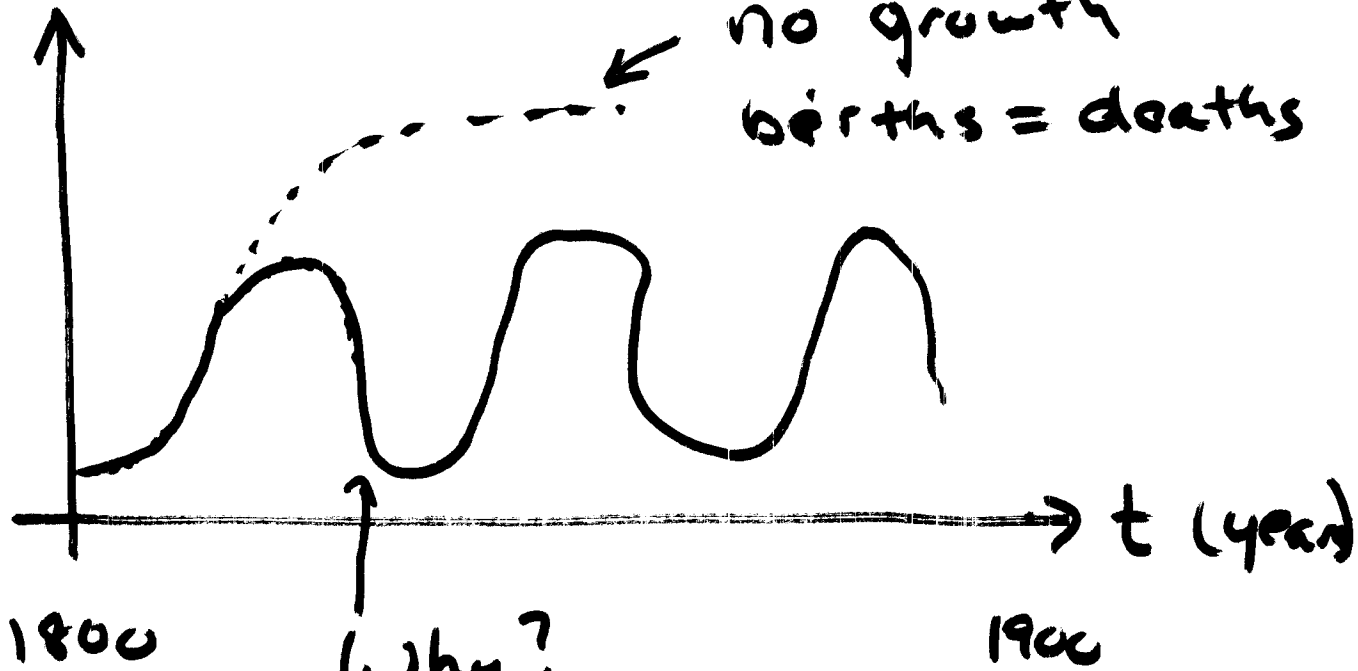
\* Logistic Model

See page 120.

\* Demographic Transitions  
Stages 1, 2, 3.

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# Lynxes



Not because of trapping!

Fish

Sharks

Hare

Lynxes

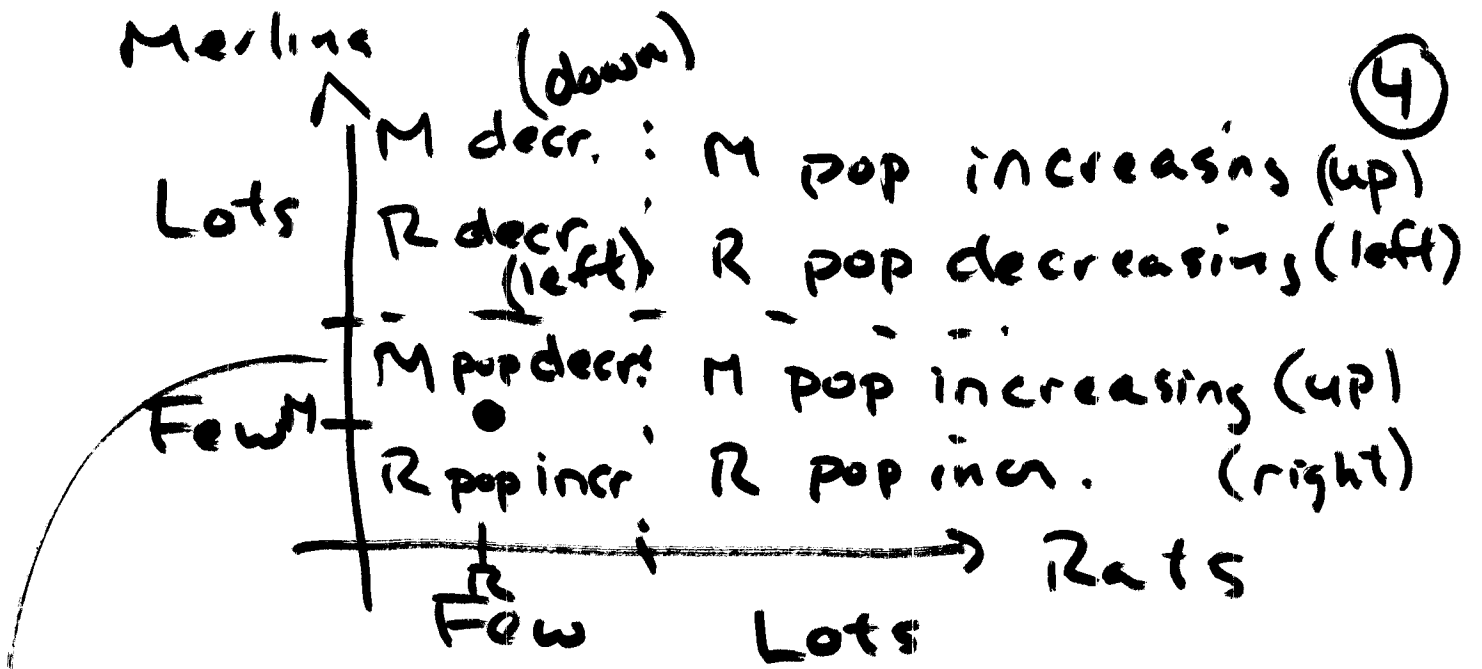
Prey

Predator

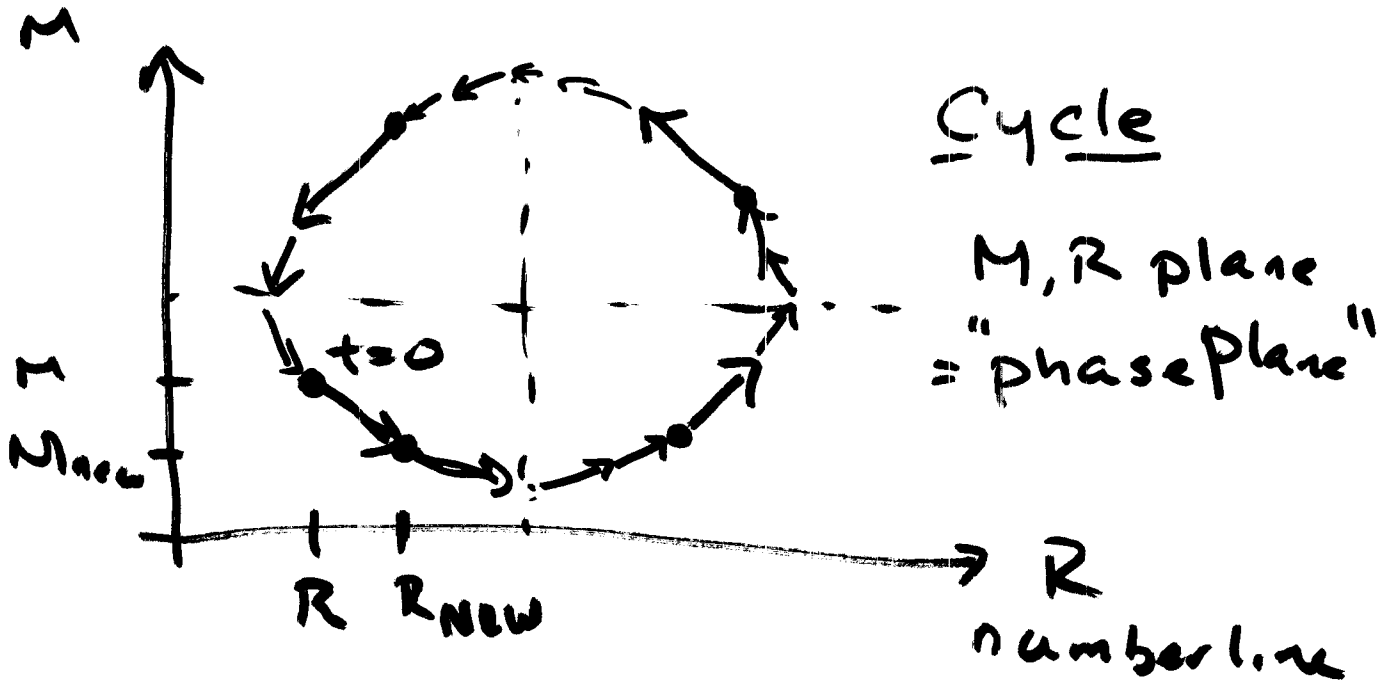
Rats

Merlins

What is the relationship between Rats & Merlins



~~(R, M)~~ Merlin Population Decreasing



$(R, M) = (\# \text{ rats}, \# \text{ merlins})$  this month

R pop increasing so  $R_{\text{New}}$  to right

M pop decreasing so  $M_{\text{New}}$  is down

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