

Unit 3 Review:

Year	Mid-year population	Live births	Deaths	Growth			Crude rates (per 1,000)			
				Natural increase	Net migration	Total	Birth rate	Death rate	Growth	
									Natural incr.	Total
1985	55,284	768	552	+ 216	+ 38	+ 254	13.9	10.0	+ 3.9	+ 4.6
1990	56,735	762	526	+ 236	+ 80	+ 316	13.4	9.3	+ 4.1	+ 5.6
1995	57,844	730	532	+ 198	+ 40	+ 238	12.6	9.2	+ 3.4	+ 4.1
2000	59,063	775	531	+ 244	+ 70	+ 314	13.1	9.0	+ 4.1	+ 5.3
2001	59,477	771	531	+ 240	+ 85	+ 325	13.0	8.9	+ 4.0	+ 5.5
2002	59,894	762	535	+ 226	+ 95	+ 321	12.7	8.9	+ 3.8	+ 5.4
2003	60,304	761	552	+ 209	+ 100	+ 309	12.6	9.2	+ 3.5	+ 5.2
2004	60,735	768	509	+ 259	+ 105	+ 364	12.7	8.4	+ 4.3	+ 6.0
2005	60,182	774	528	+ 247	+ 95	+ 342	12.7	8.6	+ 4.0	+ 5.6
2006	61,586	797	516	+ 281	+ 91	+ 372	12.9	8.4	+ 4.6	+ 6.0
2007*	61,939	786	521	+ 265	+ 70	+ 335	12.7	8.4	+ 4.3	+ 5.4
2008*	62,275	796	534	+ 262	+ 75	+ 337	12.8	8.6	+ 4.2	+ 5.4

(*) Population and rates revised after the census surveys 2004-2008.
*Provisional.
Population: Metropolitan France.
Source: INSEE, Division of Demographic Surveys and Studies.

1. Looking at this chart, describe the trend for mid-year population from 1985 – 2008

Increase

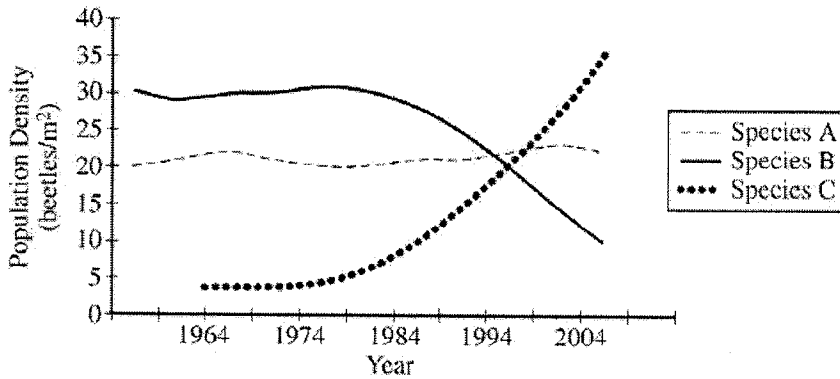
2. What year had the lowest number of live births?

1995

3. What are some (3-4) of the negative impacts to the environment as a result of the human population growth rate?

*Fragmented habitats
Deforestation
CO₂ ↑
Pollution*

VARIATION IN POPULATION DENSITY OF BEETLES

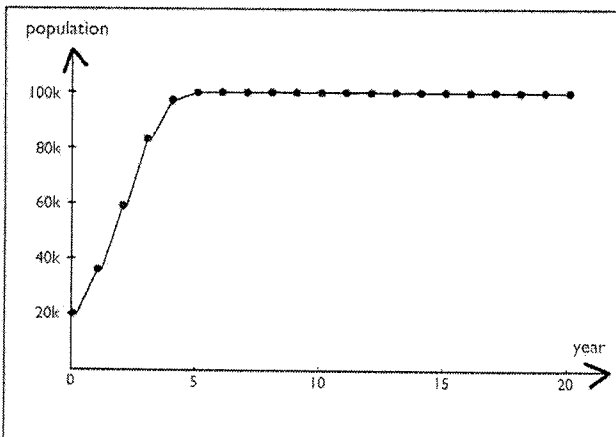


4. What are some reasons why species C grew in the number of organisms and species B decreased in organisms?

*Competition for resources B larger needed more
C survived*

5. Species A was introduced to this habitat. Why type of species is Species A if it disrupted the ecosystem?

invasive

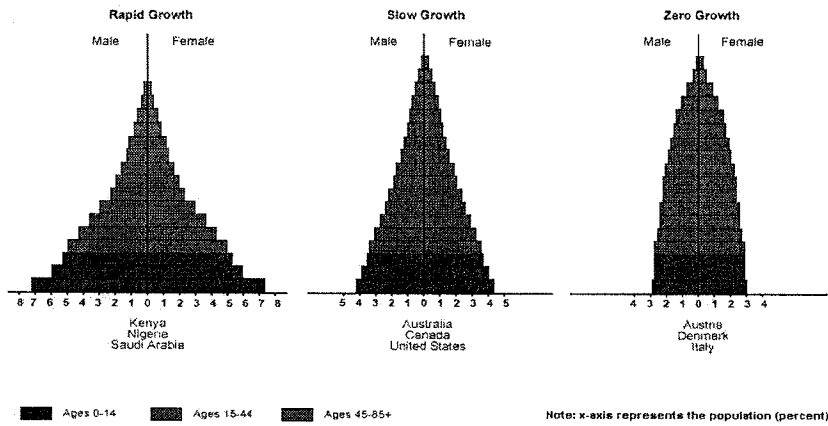


6. What year (0-20) did the population reach carrying capacity? How do you know this?

5 - leveled off

7. During years 0-5, how would you describe the growth of the population?

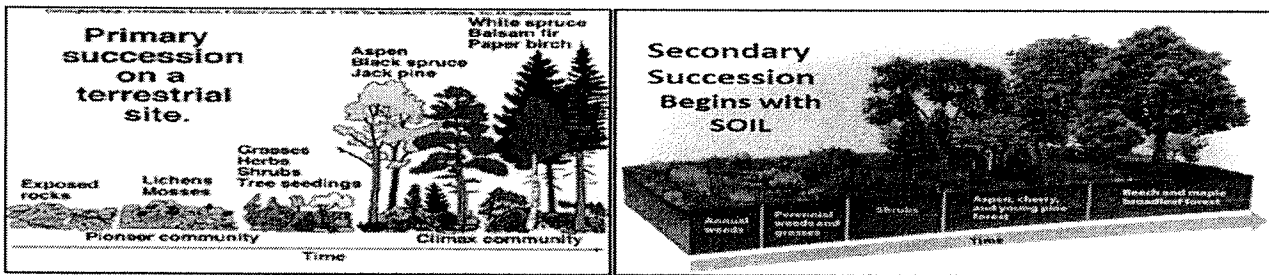
increase exponential growth



8. Which diagram represents exponential growth? How do you know?
 Kenya Nigeria S.A. more people in reproductive ages

A.

B.



9. Which diagram represents an ecosystem that has experienced a volcanic eruption?

A.

10. Explain the difference between diagrams A and B.

A Primary - Start from rock
 B Secondary - Start from soil

11. List and describe the 3 symbiotic relationships that exist within ecosystems.

Mutualism
 Commensalism
 Parasitism

12. What gases contribute to the greenhouse effect? Why?

Water vapor, O_2 , Methan, Nitrous oxide, CFC because excess CO_2 diminishes ozone, warms earth

13. How can humans reduce the greenhouse effect?

Reduce CFC emissions

14. What is the relationship between CO₂ and air temperature?

CO₂ ↑ temp ↑

15. How are the Arctic Ice Caps affected by global warming?

melting

16. What was DDT used for? How did it affect bird populations?

Pesticide; thin shells low birth rates

17. Describe the difference between density dependent and density independent limiting factors. Give an example of each.

dependent size of population - disease, crowding
independent size doesn't matter - Natural disaster

18. Typically, when a predator population crashes what has happened to the prey population?

It has diminished - because ^{too} predators prey