

1. Figure 1. depicts the geographic distribution of deaths from vector-borne diseases around the world.

1. What is striking about this distribution pattern?
2. Because deaths are reported by country, why should we not expect that the deaths are evenly distributed throughout the country?
3. Who (what populations) are most at risk? Explain why.
4. Who (what populations) are not most at risk? Explain why

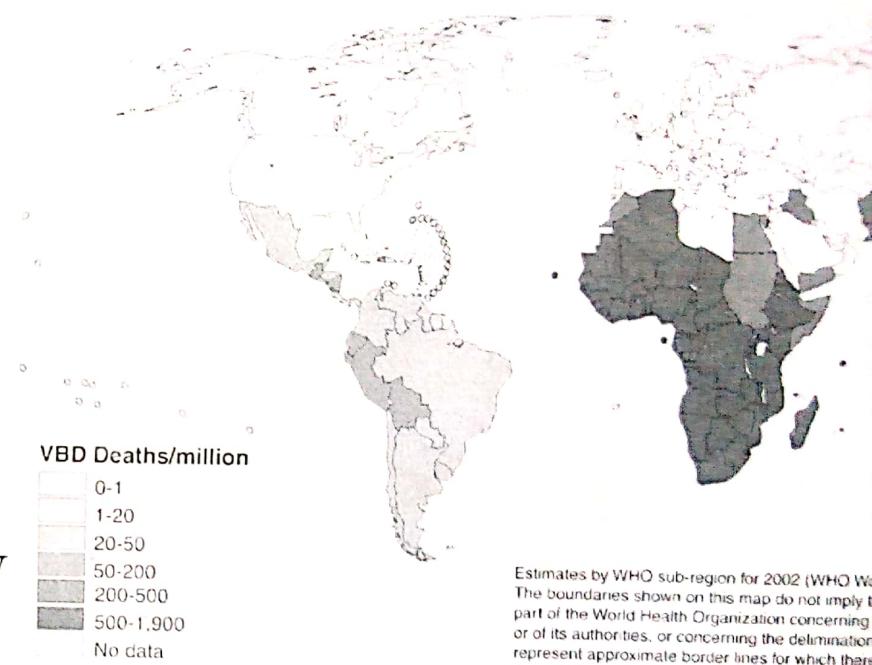


FIGURE SA-1 Deaths from vector-borne diseases.

SOURCE: Reprinted with permission from the World Health Organization (2004c).

Fig 1.

5.

- Malaria is thought to have killed up to one-third of the population of Europe in the mid-14th century.
- Describe the life cycle of malaria.
- How is it spread?
- Why was Malaria so destructive in Europe?
- And, what has changed in the intervening years to make outbreaks either more or less likely to occur today than in the past?
- Finally, if such an outbreak is unlikely in Europe, why should they be concerned about this medieval disease today and spend so much money? Support your answer.

6.

A rare form of the AIDS virus has recently mutated into a new biotype that is extremely pathogenic to all insect vectors. This disease is spreading rapidly across the continent of Africa and is expected to eliminate all insect life within two years! Describe at least five major biological consequences that such a mass extinction will have on human life.

7.

Illustrate with
diagrams the life
cycle of yellow fever.

8.

In your opinion, what is the most important biological question about insects that remains to be answered and why

why ^{insect vectors} are mosquitoes not affected by the pathogen
carry? —

9.

How to identify Culex,
Anopheles and Aedes
mosquitoes and their
larvae?

QUIZ 1

ENTOMOLOGY II

BIOL 356

Quiz 2

1. What is Integrated Pest Management
2. After conducting a study on a plantation, you identify a new pest affecting the leaves of the tobacco. Opine a possible way by which this infestation can be controlled.
3. The use of antifeedants is a novel approach in insect pest control. What disadvantage is associated with this approach?
4. Give an account on how cultural practices can substantially reduce pest numbers and their impact on crops.
5. With a specific example, elucidate how the classical biological control of pest technique is implemented
6. Compare and contrast inundation and inoculation.
7. A plant species is known to drive away pests from its environment. Under what method of control will you place it and why?