**9.20**  
**Class #20: Sociobiology topics**

*Study questions:*

1. Define “fitness” as the term is used by sociobiologists. What are fitness costs and fitness benefits? Give examples.

2. What are the misunderstandings of sociobiological thinking we can see in the statements of Derek Bickerton, Michael Rose and William Kimler, quoted by Alcock? (pp 25-27)

3. Contrast proximate mechanisms/causes and ultimate outcomes for a specific behavior.

4. What was the thesis of Wynne-Edwards in his 1962 book, which was forcefully countered in 1966 by George C. Williams? Describe Williams’ counter thesis, which is a key for understanding modern sociobiology (since 1975).

5. What is a “Darwinian puzzle”? Give an example, and also a solution to the puzzle.

*See Appendix, ch 2, three questions. Focus especially on Q2 and Q3:*

6. Which behavior of specific animals would challenge a Darwinian adaptationist (a sociobiologist) most? Study the four descriptions.

7. Why would evolutionary biologists (like sociobiologists) object to the speculative argument of Marvin Harris about the origins of human warfare?

In class, after these questions we will continue with a review of concepts from E.O. Wilson’s *Sociobiology.*