

## Study questions for Dugatkin. Chapter 14 Aggression

Ethology and Behavioral Ecology  
Spring 2008

1. Are benefits and costs in animal contests (and simulation of the same) necessarily the same for all contestants? What does condition and motivation have to do with costs and benefits? You should be able to explain this in some detail.
2. The Hawk-Dove game will be explained in great detail in class and on the game theory website. Read this over regardless as it will help you get the idea. Be sure you learn what an evolutionarily stable strategy is.
3. Compare and contrast the idea of a bourgeois and anti-bourgeois strategies. When will one or the other likely be an ESS?
4. What is a war of attrition in general usage? Why are dove vs. dove contests wars of attrition? What (and why) is the only unbeatable strategy in war of attrition? How does this compare with the unbeatable (note – not un-lose-able) strategy in rock paper scissors? When might wars of attrition be contests that actually settle disputes?
5. Contrast the war of attrition with sequential assessment. Relate sequential assessment to what we learned about cooperative communication and "unfake-able" signals in the communication unit of the course.
6. What are winner and loser effects? What does this have to do with communication? What is a consistent loser to do? What is RHP (resource holding potential)?
7. What are bystander effects? – and relate these to communication and contests.
8. Does testosterone cause aggression? Explain this hormone's role in aggression.
9. What does Maynard Smith say about the advantage of mathematical over verbal models? Do you agree?