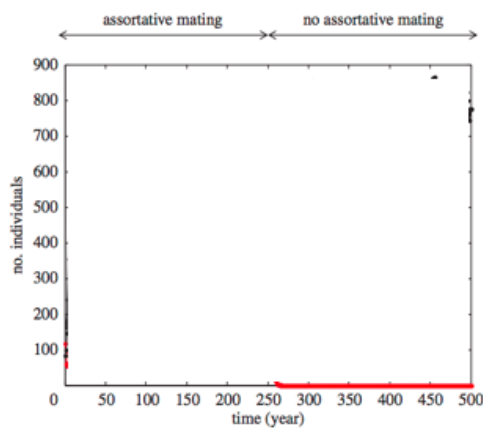
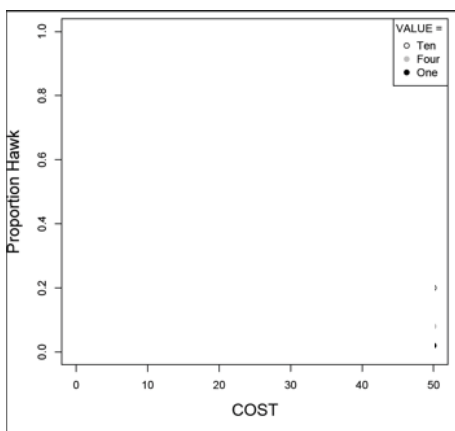


HELPFUL FIGURES & NOTES:

(All PowerPoint files will be available on the courses server after lecture. The subset of figures and notes here are meant to assist your note taking or studying.)

	Hawk (p)	Dove (1-p)
	$(V-C)/2$	V
	0	V/2



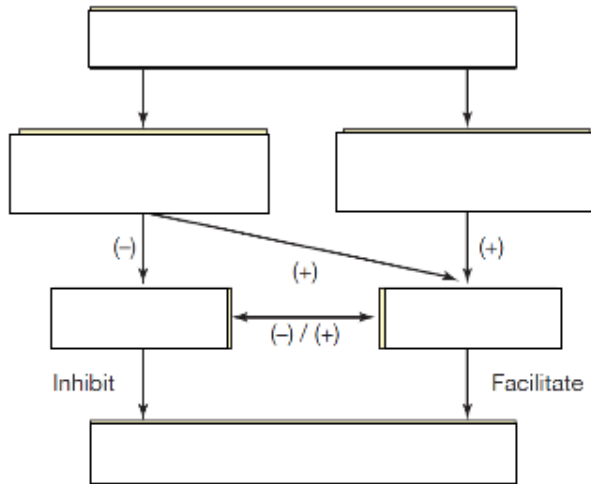
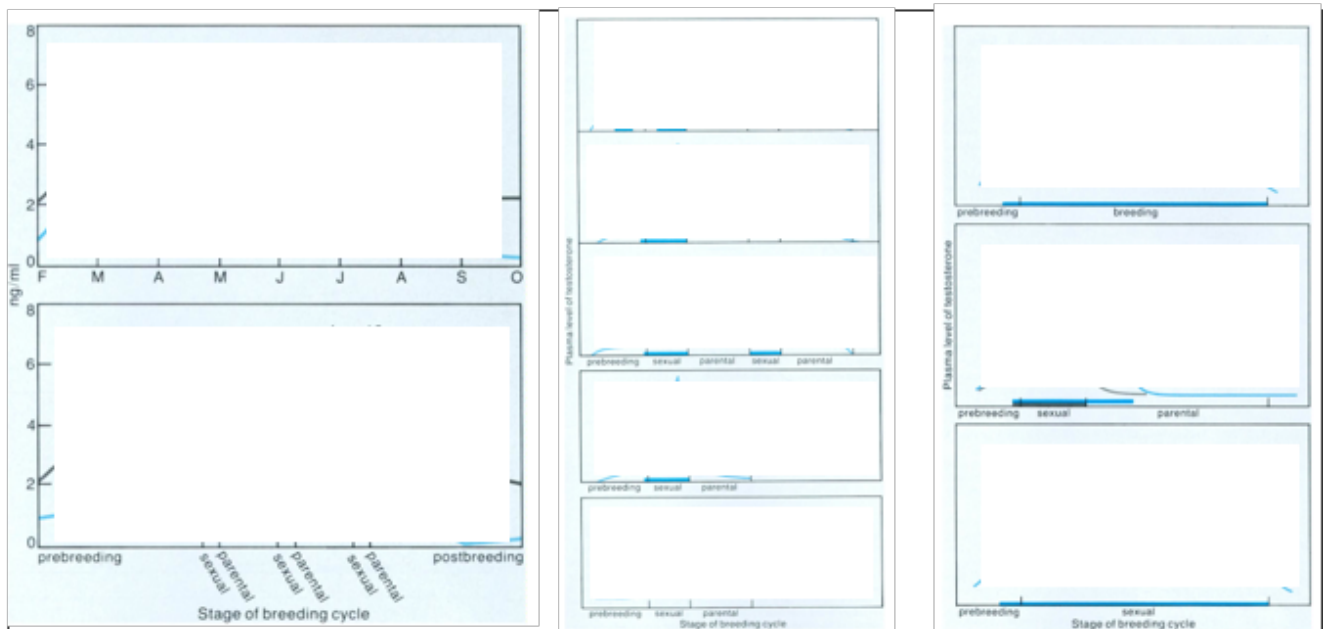
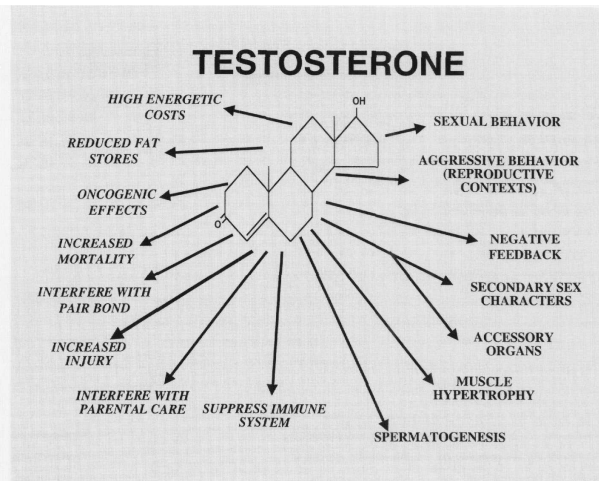


Fig. 2. Actions and 'costs' of the steroid hormone testosterone. On the right hand side and lower part of the figure are morphological, physiological and behavioral actions of testosterone that are essential for reproductive function in males. If testosterone is secreted outside of the breeding LHS then many of these actions would be inappropriate. On the left hand side (in italics) are potential costs of prolonged high levels of testosterone. Thus the secretion of testosterone, and the trade-offs of costs and benefits may have had a profound influence on hormone-behavior mechanisms associated with testosterone and territorial aggression. Compiled from Wingfield et al. [1990, 1997, 2000].



LECTURE GOALS:

The evolution of aggression is driven by the same fitness considerations that underlie evolution of other behaviors.

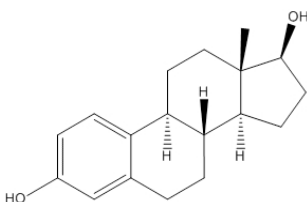
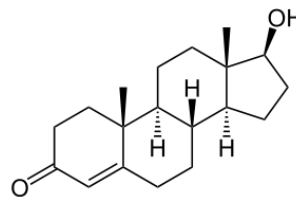
The mechanisms that underlie aggression are shared with mechanisms that underlie reproduction.

LECTURE OUTLINE:

Aggression is a carefully titrated behavior

Dominant individuals are those that monopolize or control access to resources.

Dominance hierarchies reduce the cost of aggression for both dominant and subordinate individuals.



VOCABULARY:

(Practice writing interesting, informative sentences that include, and capture the meaning of, 4-5 words from this list. To simply memorize a definition, is not sufficient.)

Territory
Home range

Lek

PRACTICE EXAM QUESTIONS:

1. What is the difference between home range, territory, a lek?
2. Ryan and Wilczynski say that “aggression is a carefully titrated behavior.” Why does this make sense from an evolutionary stand point? Give one example (from chapter or elsewhere) to demonstrate the point.
3. In what way is a dominance hierarchy different than alternative reproductive strategies?

READING FOR TODAY:

R&W chapter 9

Wingfield et al 2005 .pdf

Oliveira et al 2009 .pdf

READING FOR THURSDAY:

Weaver et al 2004 .pdf

Meaney & Szyf (review of above) .pdf

Solomon-lane et al 2018 .pdf

Ledon-Retig et al 2012 .pdf

NAME _____

FOR THURSDAY:

Each student must find an example of a Behavioral Genetic Study

First Author _____ year: _____

Title: _____

Journal _____ Vol. _____ pages _____

Organism: _____

Description of the behavioral phenotype(s): (2-3 sentences)

What approaches did they use (quantitative, candidate gene, forward, reverse etc.):

Description of the genetic findings:

