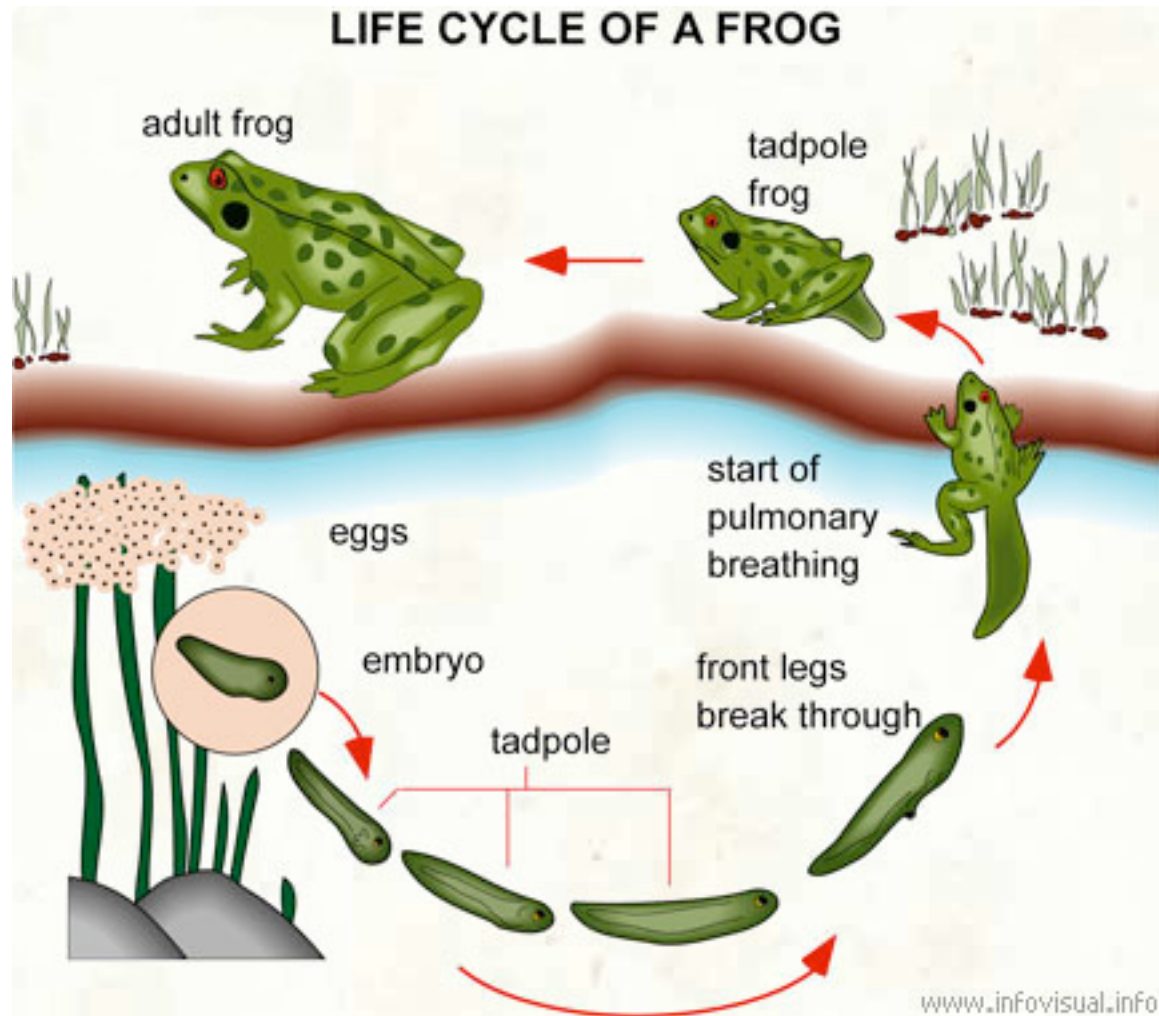


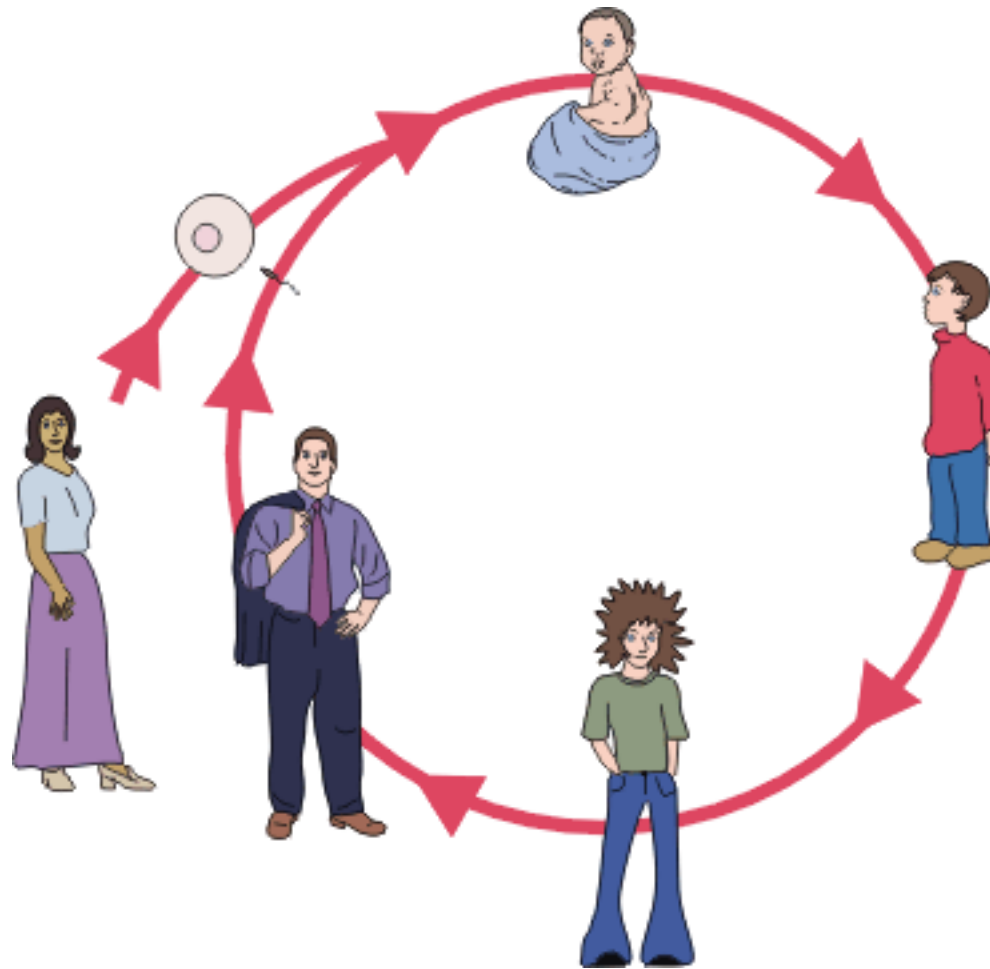
Sex and Mating!!!!

By Tim Revell

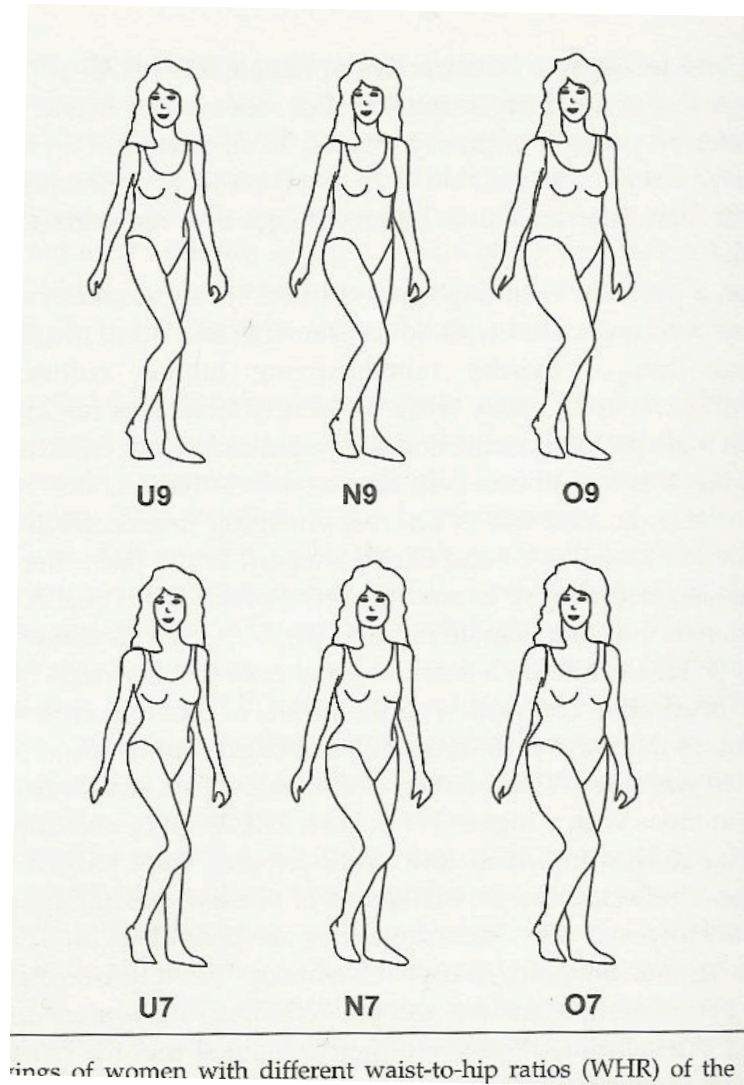
Life Cycle of an Animal



Another one....

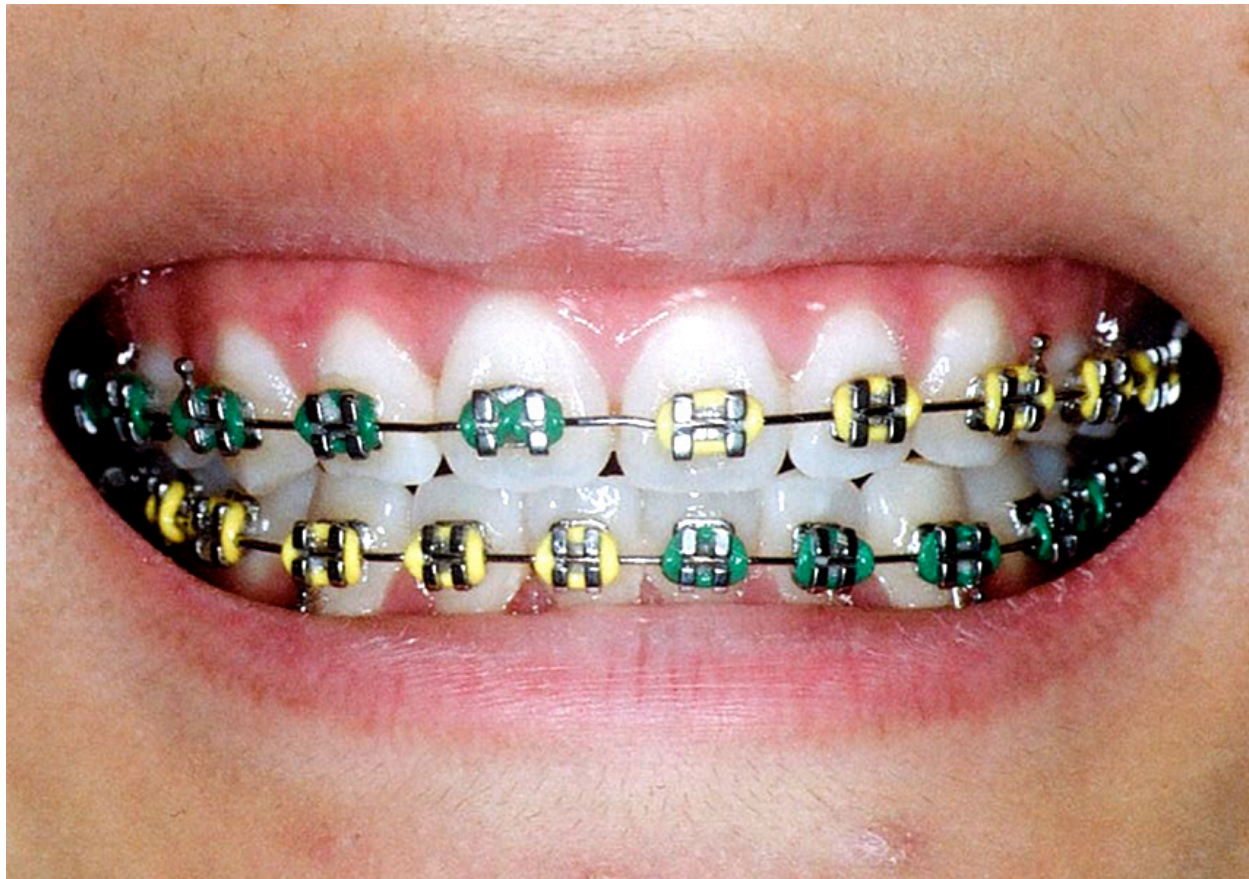


Decision?





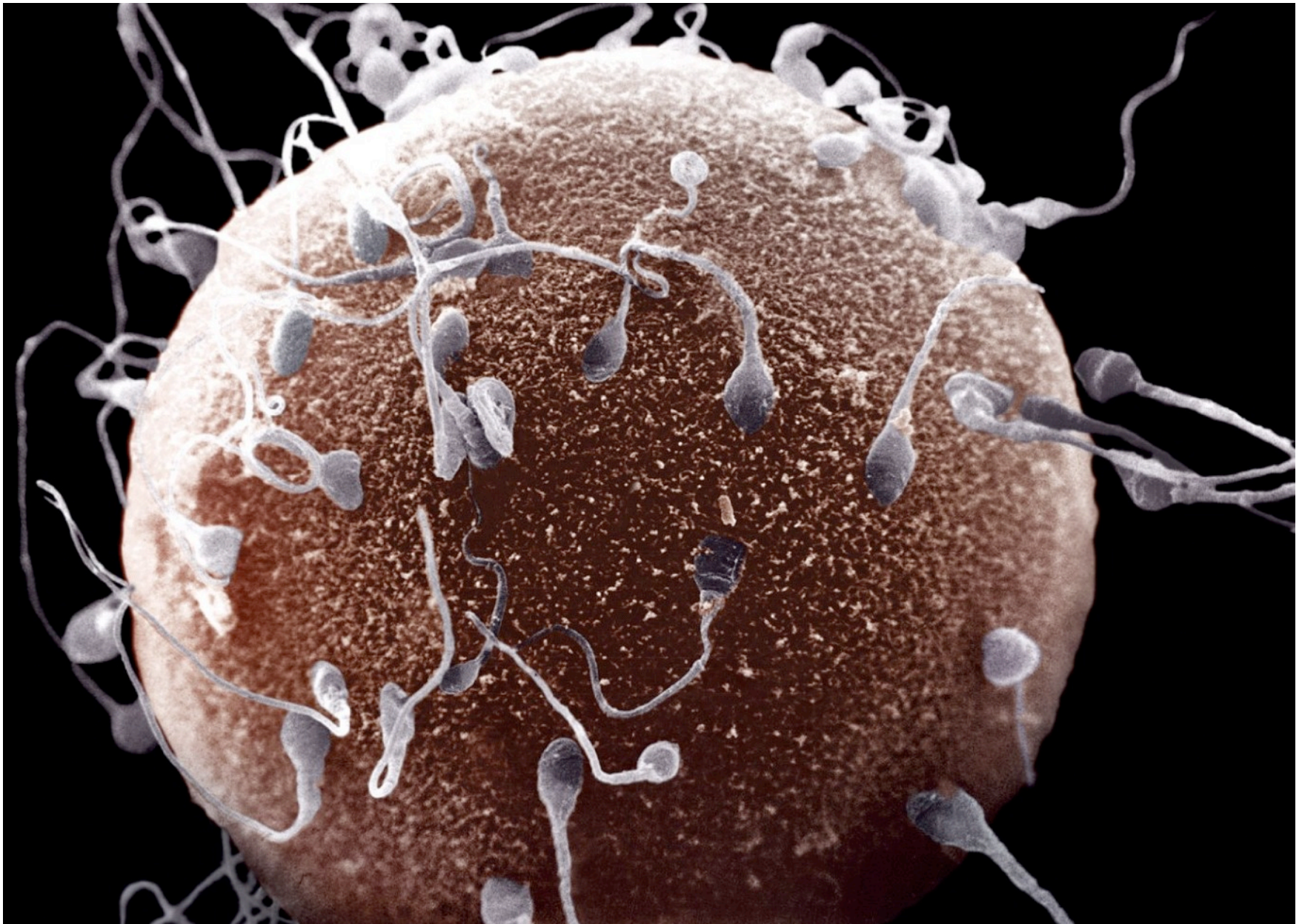
Honest Signals?



Who gets to choose??



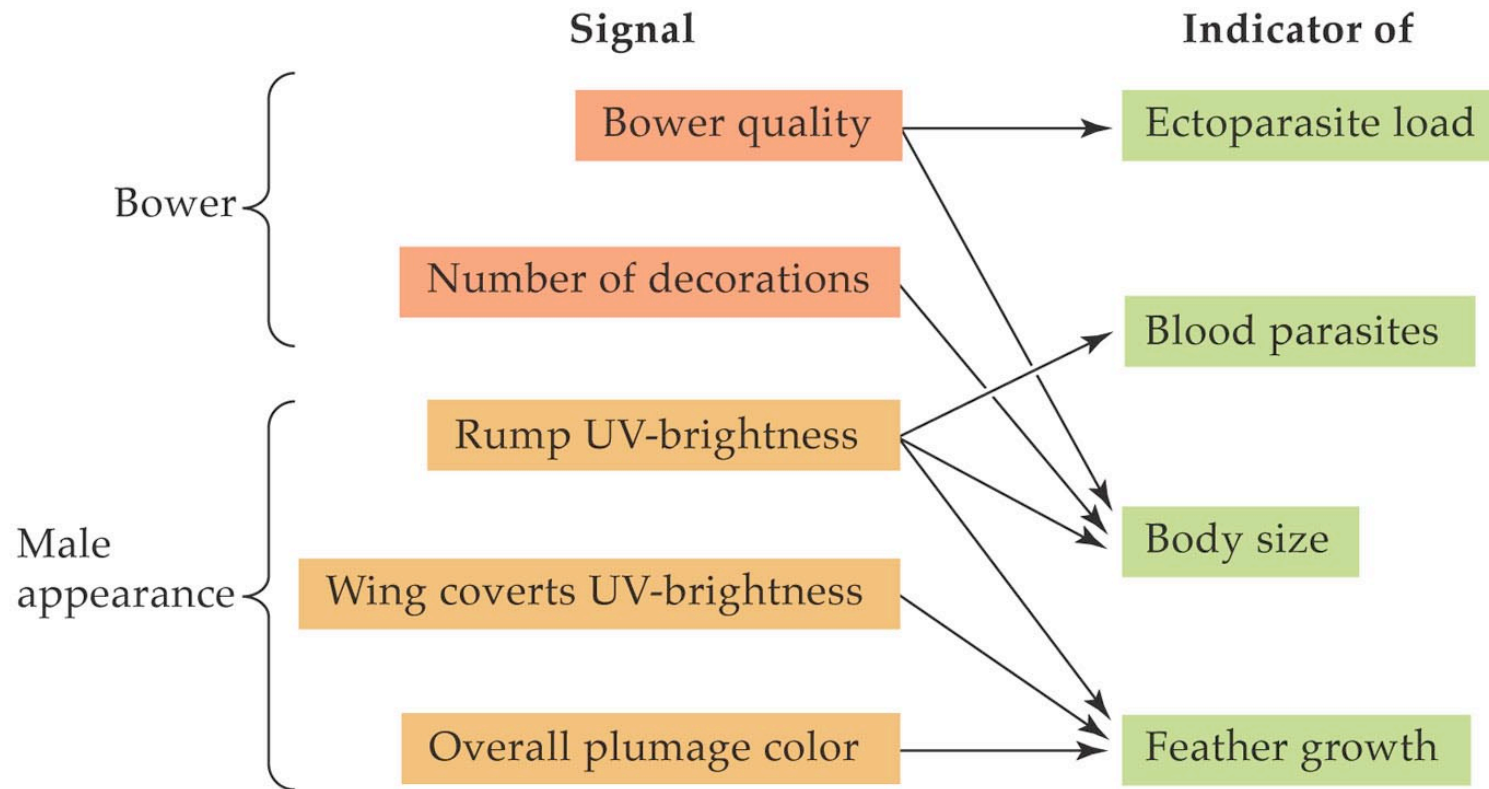
- Robert Trivers
- Parental investment
= higher, the more
“choosier” sex
- The other
hypothesis?
- Sex Ratio 1:1
- Operational Sex Ratio





ANIMAL BEHAVIOR, Eighth Edition, Figure 10.1 © 2005 Sinauer Associates, Inc.

Honest signals?



But not always the female...

- Male Frog



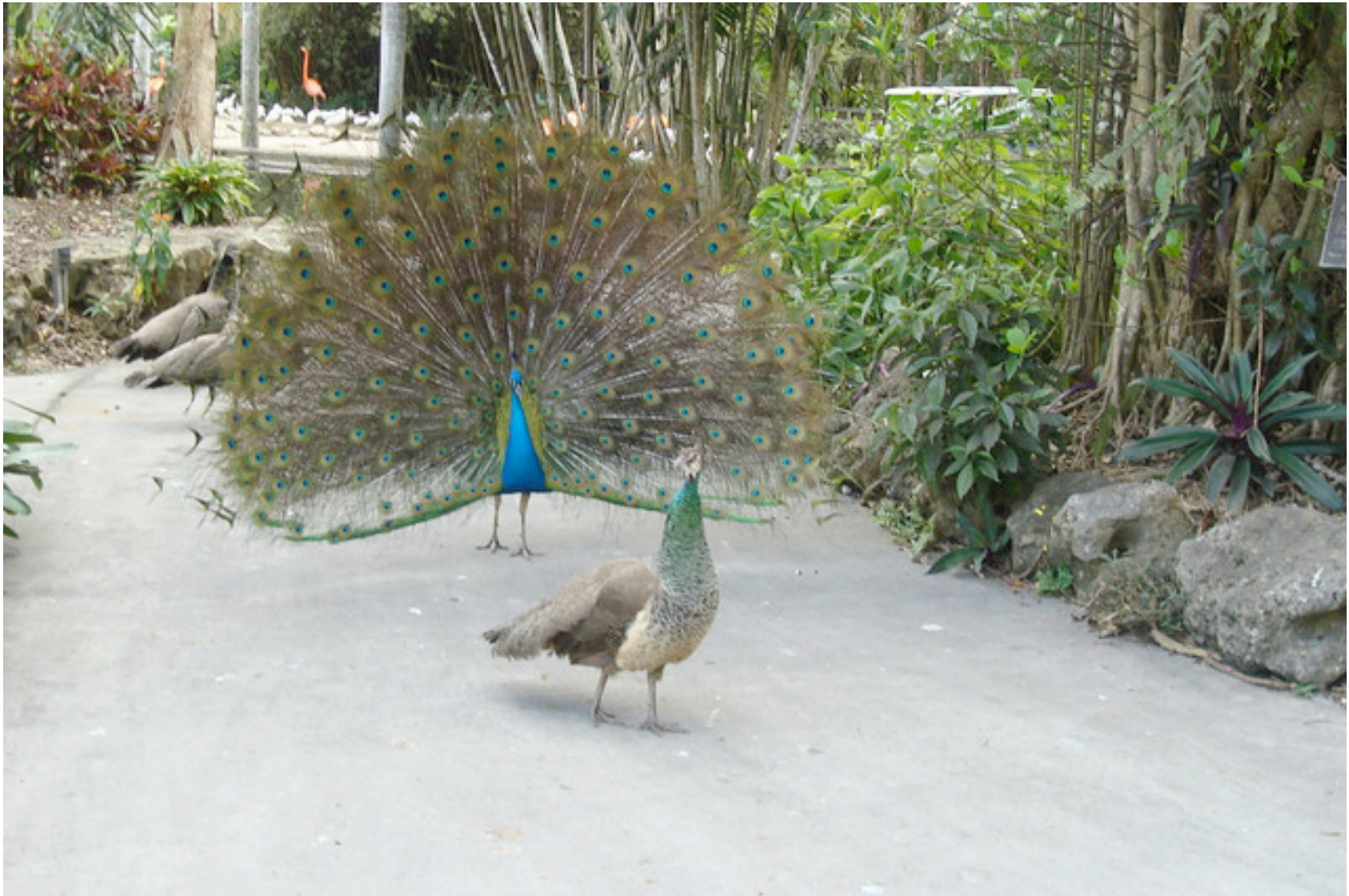
- Male Katydid -
spermatophore



- Females



But can things get out of control?

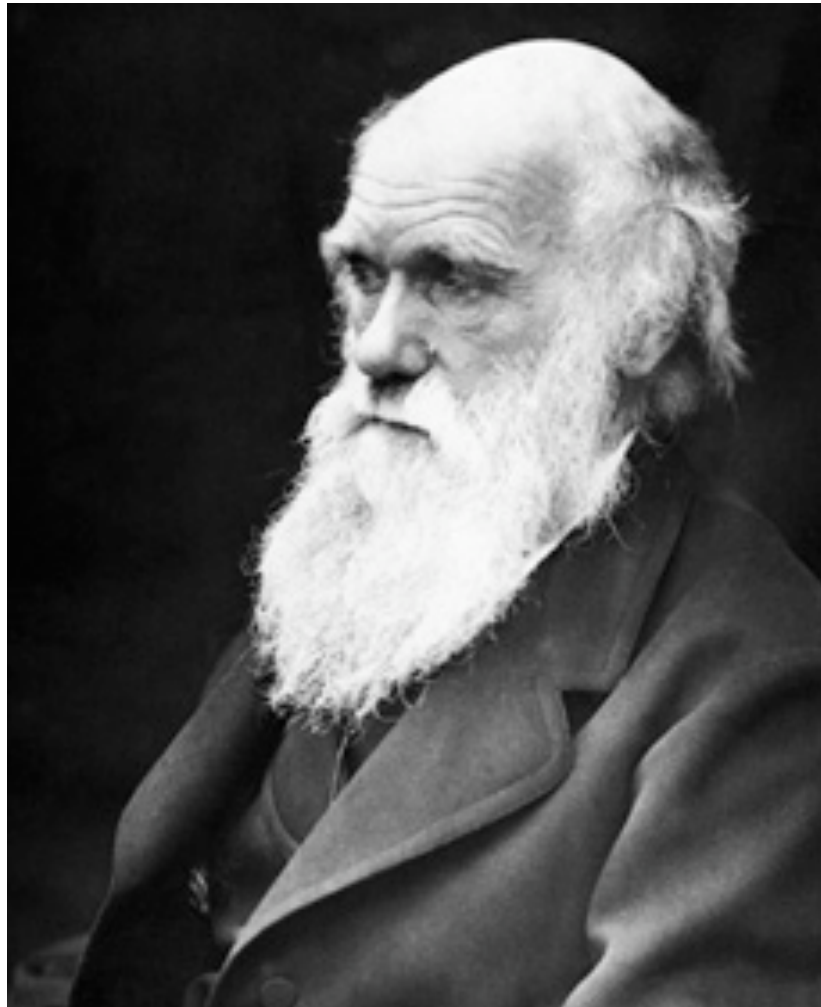


Theories to explain extreme traits..

TABLE 10.4 *Four theories on why extreme male ornamentation and striking courtship displays have evolved in species in which males provide no material benefits to their mates*

Theory	Females prefer trait that is	Primary adaptive value to choosy females
Healthy mate	Indicative of male health	Females (and offspring) avoid contagious diseases and parasites
Good genes	Indicative of male viability	Offspring may inherit the viability advantages of their father
Runaway selection	Sexually attractive	Sons inherit trait that makes them sexually attractive; daughters inherit the majority mate preference
Chase-away selection	Exploitative of preexisting sensory biases	No benefit received by female

Sexual Selection



Mating Systems

- Result from the strategies that males should do vs. those females should do

Mating Systems (Basics)..

- **Monogamy** = Basically one male with one one female
- **Polygamy**: Multiple mates....
- **Polygyny** = One male tries to mate with multiple females (males generally compete for access to females).
- **Polyandry** = One female attempts to mate with multiple males (females generally compete for access to males).

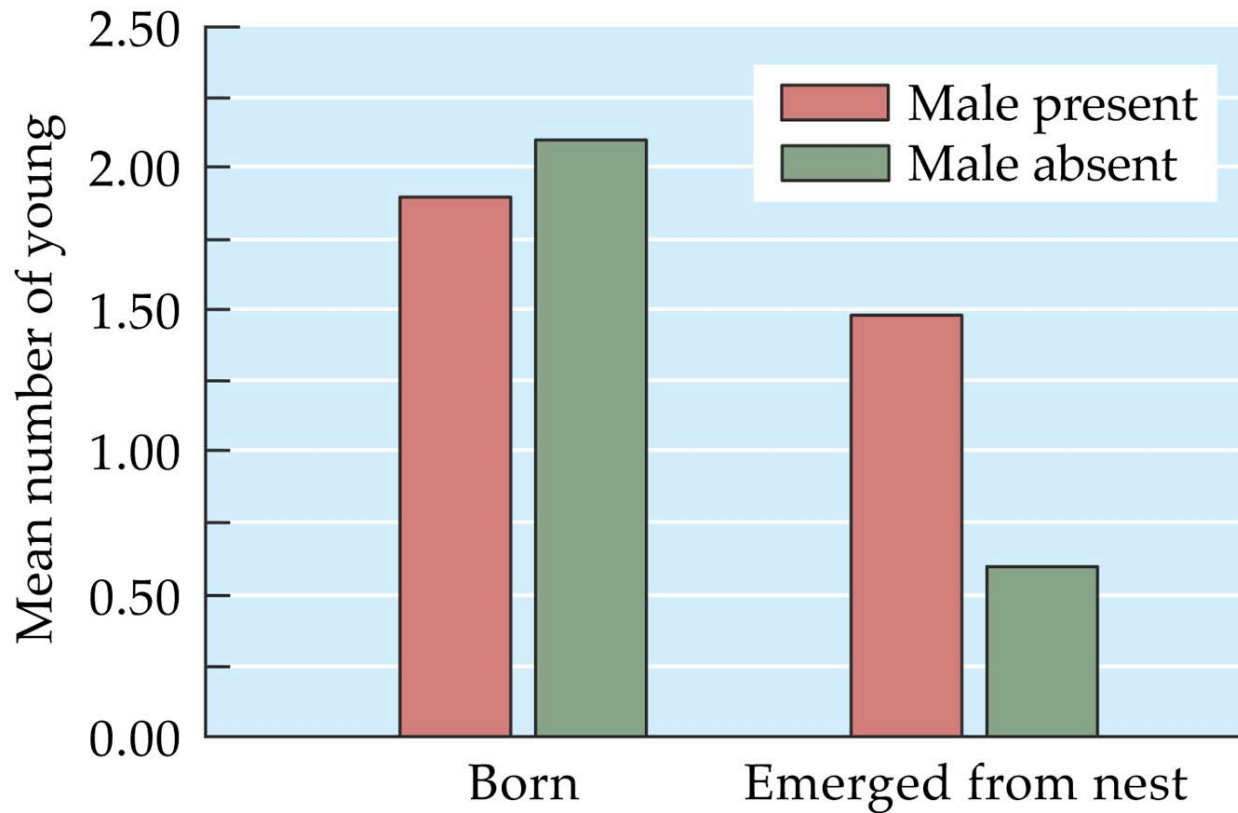
Examples of Mating Systems

- **Monogamy-Mate-guarding** = rare to find a mate (Clown Shrimp)



Examples of Mating Systems

- **Monogamy – Female assistance** (California mouse) helps keep the pups warm



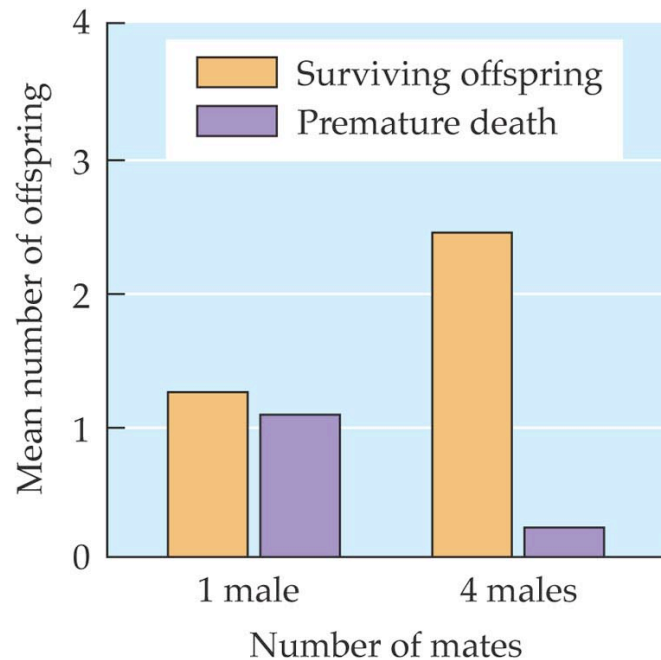
Examples of Mating Systems

- Polyandry – Good Genes or Fertility Insurance with EPC (Male Yellow Toothed Cavy)

(A)

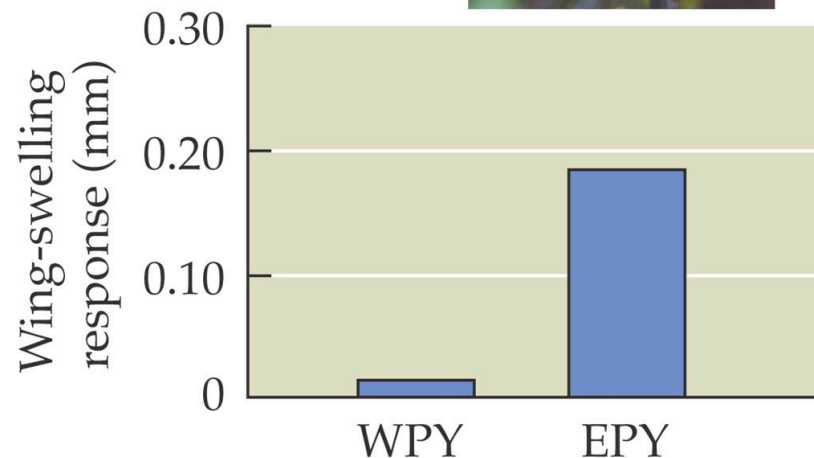


(B)



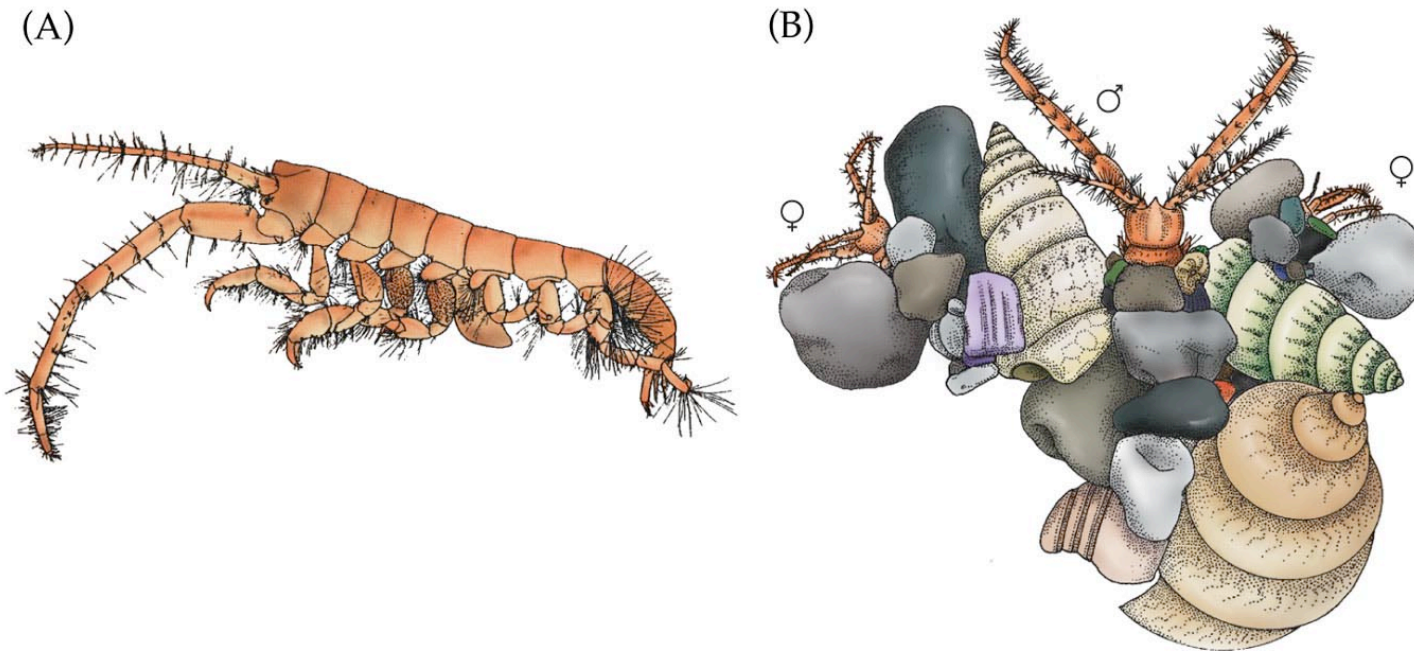
Examples of Mating Systems

- Polyandry – Good Genes or Fertility Insurance with EPC (blue throat)



Examples of Mating Systems

- **Polygyny - Female Defense** (Marine amphipod)
 - “apartment complex” of females



Examples of Mating Systems

- Polygyny - Resource Defense (African cichlid)



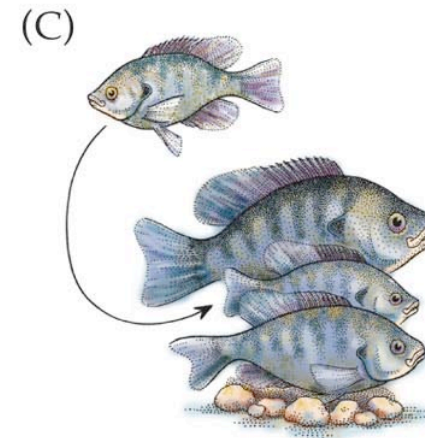
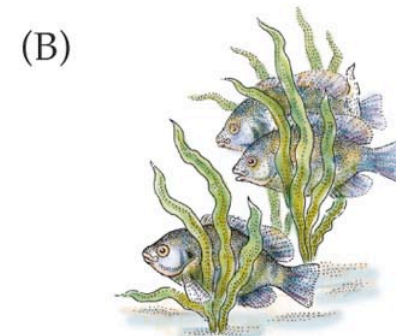
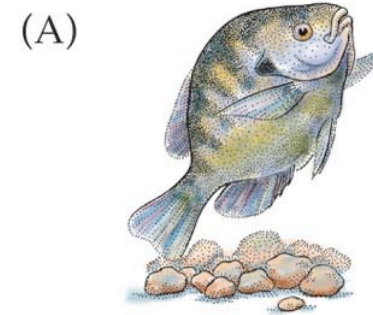
Examples of Mating Systems

- **Polygyny - Lek** (No Resources = Marine Iguana and Sage Grouse)



But What if you are not the best...

- Sperm Competition...
Satelite males and
female mimicry
- Bluegill sunfish – 3
different egg
fertilization behaviors

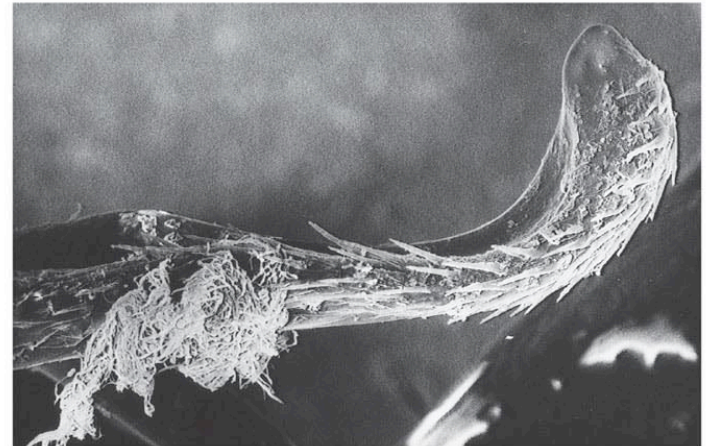


But what if you are not the best...

- Sperm
Competition...
sperm removal
- Black-winged
damselfly



But what if you are not the best...



But what if you are not the best...

- Sperm Competition...
Sperm injection
- Bed Bugs

(A)



(B)

