

**BIO1300 The Human Animal**  
**Topic 5: Reproduction, mating and sex**

**Key Words**

External fertilization  
Amphibian  
Amphi + Bio "Double Life"  
Reproduction in water  
Dessication  
Gametes  
Eggs  
Scramble fertilization  
Clinging males  
Satellite males  
Salamanders  
Courtship  
Sexual stimulation  
Spermatophore  
Cloaca  
Internal fertilization  
Pangea  
Hot, dry climate  
Copulatory organs  
Hemi-penis  
Reptiles  
Inverted  
Everted upon excitement  
Internal deposit of sperm  
Birth on land  
Reptiles  
Shelled eggs  
Amniotic egg  
Protects embryo  
Yolk sac  
Nutrients  
Amnion  
Amniotic fluid  
Allantois  
Waste storage  
Protein digestion  
Ammonia  
Toxicity to tissues  
Chorion  
Vascularized  
Gas exchange

CO<sub>2</sub>  
O<sub>2</sub>  
Albumen  
Egg white  
Buffer from shock  
Osmoregulatory stress  
Mineralized shell  
Semi-permeable membrane  
Bury eggs  
Heat stress  
Avian incubation  
Egg cooling  
Pair bonds  
Bi-parental care  
Avian monogamy  
Nest building  
Temperature fluctuations  
Stable temperature  
Ideal temperature for development  
Male reproductive anatomy  
External testes  
Ancestral position of testes  
Internal in abdomen  
Associated with kidneys  
Endothermy  
Warm-bloodedness  
Ectothermy  
Cold-bloodedness  
Homeothermy  
Sperm development and survival  
Optimal temperature  
Ventral penis  
Detached penis  
Face to face copulation  
Female reproductive anatomy  
Ovule release into abdominal cavity  
Uptake by fallopian tubes  
Copulation  
Sperm migration from vagina  
Cervix  
Uterus  
Oviduct  
Embryo implantation  
Internal gestation  
Genital development  
Common embryonic origin

Genital tubercle  
Urethral groove  
Male penis  
Glans penis  
Penis shaft  
Female clitoris  
Labial folds  
Vagina  
Sexual pleasure  
Glans/clitoris sensitivity  
Placental gestation  
Uterus  
Embryo  
Amnion  
Chorion  
Chorionic villi  
Vascularization  
Placenta  
Umbilical cord  
Reduced yolk sac  
Live birth  
Unequal investments  
Gamete size  
Energetic costs  
Developmental costs  
Sex role reversals  
Mormon cricket  
Spermatophore  
Male contribution  
Nutrients  
Energy  
Somatic maintenance of female  
Reproductive success  
Genital plug  
Significant contribution  
25% of male body weight  
Parental investments  
Mouth brooding  
Protection  
Aeration  
Male role  
Inter-spawning intervals  
Female somatic maintenance  
Giant water bugs  
Eggs on male's back  
Protection

Aeration  
Feeding  
Birds at nest  
Foraging expeditions  
Increase offspring survivorship  
Indirect feeding  
Oviposition sites  
Carrion beetle  
Buried dung  
Larval feeding  
Reproductive asymmetry  
Costs of mating  
Female costs  
Incubation  
Gestation  
Birthing  
Lactation  
Offspring care  
Nurturing  
Male contribution just sperm  
Mating strategies  
Human contributions more equal  
Female physiological role  
Males as providers  
Increase offspring survivorship  
Generalized monogamy  
Costs of reproduction  
Costs of poor decision  
Unequal consequences  
Effect on mating strategies  
Choosy gender  
Promiscuous gender  
Male competition  
Female evaluation  
Generalized monogamy  
Extra-pair copulations  
Benefits of polyandry  
Indirect/genetic benefits  
Fertility insurance  
Variable fertility  
Fertilization success  
Good genes  
Genetic diversity of offspring  
Relative fitness  
Adaptability  
Good combinations

Genetic compatibility  
Direct/Material benefits  
Access to resources  
Better parental care  
Better protection  
Reduced infanticide  
Lion prides  
Hanuman langurs  
Male controlled harems  
Reproductive rights  
Ouster males  
Killing non-kin offspring  
Ensure paternity of next generation  
Female control over paternity  
Birds  
Sequential egg-production  
Extra-pair matings  
Number of sperm in reproductive tract  
Human female orgasm  
Historical mystery  
Unnecessary for conception  
Increases fertility success  
Uterine contractions  
Suction pump  
Incidence occurrence with male quality  
Assures paternity under female control  
Role of male masturbation  
Pleasure  
Practice  
Sperm viability  
Positioning in epididymis  
Seminiferous tubules  
Ensures fertility  
Spontaneous ejaculation  
Nocturnal emissions  
Sperm competition  
Polyandry  
Post-copulatory competition  
Male adaptations  
Damsel flies  
Penis barbs and brushes  
Sperm removal  
Primate sperm competition

Sperm abundance  
Testicle size  
Levels of polyandry  
Body size related to female control  
Harems  
Dominant males  
Testicle size related to sperm competition  
Penis size related to male messaging