

What is the ultimate goal of reproductive behavior?

Pregnancy, successful embryogenesis, and parturition

Estrogen released in the female influences her reproductive behavior. How?

Brain: increase in lordosis (mating posture=arching of back), in phonation (vocal noises), and in locomotion

Repro tract: increase in blood flow, tissue edema, mucous secretion, leukocytes (WBC), smooth muscle contraction, uterine gland growth

Describe the stages of male behavior:

Precopulatory:

Search for sexual partner → Courtship (sniffing of vulva, flehmen behavior) → Sexual arousal (female lordosis triggers this= causes erection) → Erection (increase in arterial blood flow and decrease in venous outflow= more penile pressure from neural response) → Penile Protrusion (sigmoid flexure straightens from relaxation of retractor penis muscle or musculovascular penis becomes enlarged with blood)

- Olfactory/Vomeronasal System: Pheromone= substance released outside of body- picked up by olfactory (smell from vomeronasal organ) response (=flehmen response) which secretes OT within the male to get him ready to breed (OT causes smooth muscle contraction in epididymis to transport sperm)
- Visual Signals: he can see female's lordosis
- Auditory Signals: he picks up on a cow's bellowing/ a sow's grunts closer to estrus
- Tactile Stimulation: Final step! Male and Female touch

Copulatory:

Mounting (female won't move) → Intromission (penis entering vagina) → Ejaculation

- Intromission is species dependent:
 - Bull/Ram/Buck= takes seconds to ejaculate and is stimulated by warmth
 - Stallion= takes 30 seconds-1 minute and is stimulated by pressure
 - Boar= takes up to 30 minutes and is stimulated by pressure

Postcopulatory:

Dismount→ Refractory Period (period of time between ejaculations) → Memory (important to provide a positive experience or it could decrease his sex drive)

What is the refractory period influenced by?

Satiation and exhaustion

What elemental compound is essential for erection to occur?

Nitric Oxide (NO)= causes vasodilation

Match the following definitions to their correct term:

- | (A) Attractivity | (B) Proceptivity | (C) Receptivity |
|--|------------------|-----------------|
| a. Behavior and other signals that attract males (posture, pheromones, phonation) | | |
| b. Stimulate males to copulate or re-initiate sexual behavior (female-female mounting) | | |
| c. Copulatory behavior (standing response, tail deviation, backing up towards male) | | |

Describe the difference in a male's and female's sexual activity

Females (after puberty) can typically only breed during estrus whereas males can potentially breed at any point after puberty

Initiation of sex is generally determined by the female

Sexual Stimulation must occur to achieve mounting and ejaculation

This can be achieved by

- Introducing novel (familiar) females
- Changing location
- Or using both a change in novel female and location

Semen can be collected for what purposes?

A.I. and diagnostic testing

What are some ways semen can be collected?

Artificial vagina

Electrical stimulation

There are methods to increase frequency of sexual excitement. Name some and describe what the purpose is for doing this

- Purpose: to have a greater number of ejaculations
- Sexual preparation can be done in 3 ways:
 1. False mounting: not allowing intromission to occur
 2. Restraint: not allowing male to mount
 3. A combination of both