Ch 46.2 Notes

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Vocab

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Fertilization: The process by which a sperm cell fuses with an egg cell to form a zygote, which develops into a new individual.

Gonads: The reproductive organs in animals that produce gametes (such as sperm or eggs). In males, the gonads are the testes, while in females, the gonads are the ovaries.

Spermathecae: A structure found in many female animals that stores and releases sperm from a male during copulation. In some species, such as insects and spiders, spermathecae are used to store sperm for extended periods of time.

Cloaca: An opening in many animals that serves as the endpoint for the digestive, urinary, and reproductive systems. In some animals, such as birds and reptiles, the cloaca is used for both excretion and reproduction, and sperm and eggs are released through this opening during copulation.

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Notes

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Fertilization depends on mechanisms that bring together sperm and eggs of the same species

Internal vs external fertilization

* External- water
  + spawning= synchronized
  + courtship if not synchronized

Internal- no water needed

* cooperative behavior and compatible structures

Pheromones- released by one, alters effect of another

* active at low concentrations

Ensuring the survival of offspring

Internal= fewer gametes than external

More protection

Gamete production and delivery

Gonads produce sex cells

* (Usually, but with exceptions)

Most female mammals have separate opening for reproductive/excretory

Fertilization= union of one egg and one cell

* Mechanisms to avoid polyspermy
* Usually, multiple partners