



Sexual Reproduction

Aspects of Zoology

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Most vertebrates reproduce sexually using meiosis. The exact mechanics vary somewhat but the end result is the same; male and female gametes interact, resulting in a fertilized egg.

Evolutionary success is defined by the ability to pass ones genes on to the next generation. This means that there is often competition among individuals to attract the best mate. Which success is in competition depends on the species, but the species that needs to attract the mate tends to develop a wide array of displays, courtship behaviors, and other adaptations that advertise their fitness as a mate.

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Courtship Displays

Birds are well known for their very elaborate courtship displays in an attempt to attract a mate. They may adopt a variety of postures, sing, or decorate nests to attract a mate.

In mammals, courtship is more likely to involve pheromones, occasional displays, and sometimes songs or noises.

There can also be intra-species competition between males vying for the right to breed the female. In some snake species, mating is done in a mating ball with one female at the centre and all the males vying for the chance to breed her.

The flatworm is a hermaphroditic species, which means they have both male and female sexual organs. Flatworms battle one another with their penises. The winner is the one that stabs the other with his penis. He injects his sperm into the loser's body. The loser then gets to be the female and has to carry the eggs to term. Their penises are so strong, they sometimes use them to hunt prey.

Penile Morphology

Nature has developed a wide diversity in reproductive organs. While the flatworm has his ultra-strong penis, he is not alone.

The elephant has a penis that can knock a grown man to the ground if he is accidentally swatted with it. Male elephants also use it to swat flies and occasionally as a leaning post, kind of like a fifth leg. The dolphin sports a more hand-like penis that can be used to grab things.

Some reptiles, including the python, have a hemi-penis that has two heads. They alternate which head they use throughout intercourse with a single female.

The leatherhead turtle takes it a step further. The adult male turtle is approximately 8 feet long and has a penis that is four feet long. The penis has five heads which can shoot sperm in four directions at once.

Sexual Danger

In some species, mating is a life threatening act.

This is particularly true of many insect species, the best known of which is the praying mantis. While it is not true that all praying mantis females eat the males, it does occur in nature and in captivity. It may be related to hunger, well fed mantids seem less likely to eat their mates than ones that have been starved. Motherhood requires lots of energy and the male is convenient, so it may just be a hungry mom taking advantage of the situation.

For the male, it is a no-win-situation. If he doesn't mate, he doesn't pass his genes on. If he does mate, he may lose his life. However, the sacrifice may be worth it. If he dies while having sex, his body will continue to copulate. This may result in a prolonged period of copulation that allows the male to fertilize more eggs than he would otherwise get to fertilize.

Consumption of a sexual partner is not exclusively a mantis event though. Many other species, particularly spiders, have similar practises. The orb spider male routinely detaches his penis while copulating and tries to make a run for it to avoid being eaten by the female. He often doesn't succeed in avoiding her.

While the sexual practises of many species would make great late night reading, they have evolved for far less salacious reasons. The goal is always what will ensure that the most genes get passed on to future genes.

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