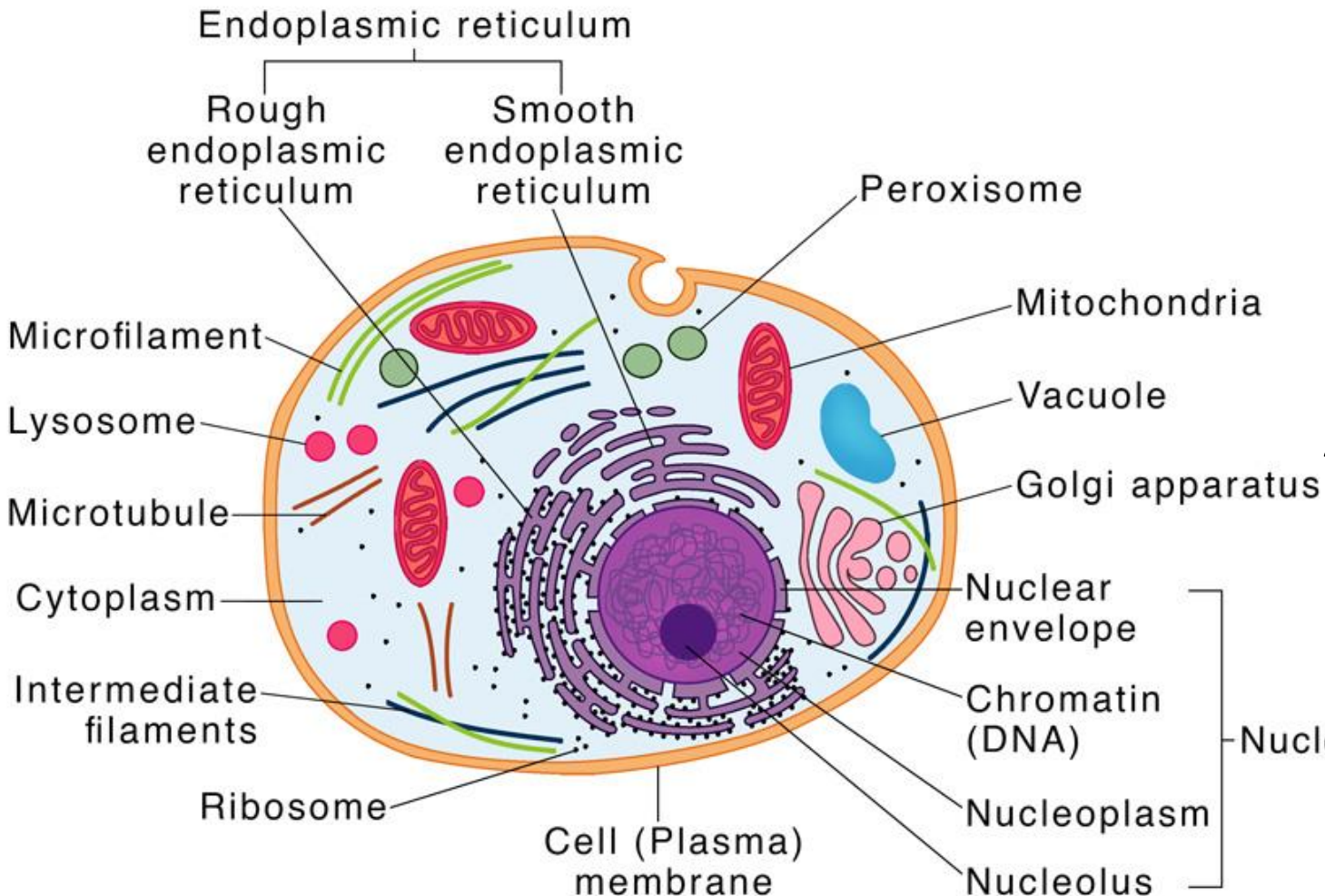
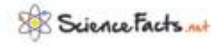


Cells and Organelles

Eukaryotic Cell



Nucleus-houses DNA.

Ribosomes-help to make proteins.

Mitochondria-produce ATP.

ATP powers all energy-requiring reactions.

Endoplasmic Reticulum-constructs proteins and lipids.

Golgi apparatus-prepares cell products to Exit the cell.

Maternal Effects
Maternal Diet

Milk (mammals)

Stress

Maternal Immune
System

Androgens

<https://www.nps.gov/yeil/learn/ys-24-1-motherhood-of-the-wolf.htm>

Figure 1a. Weight of female (kg)

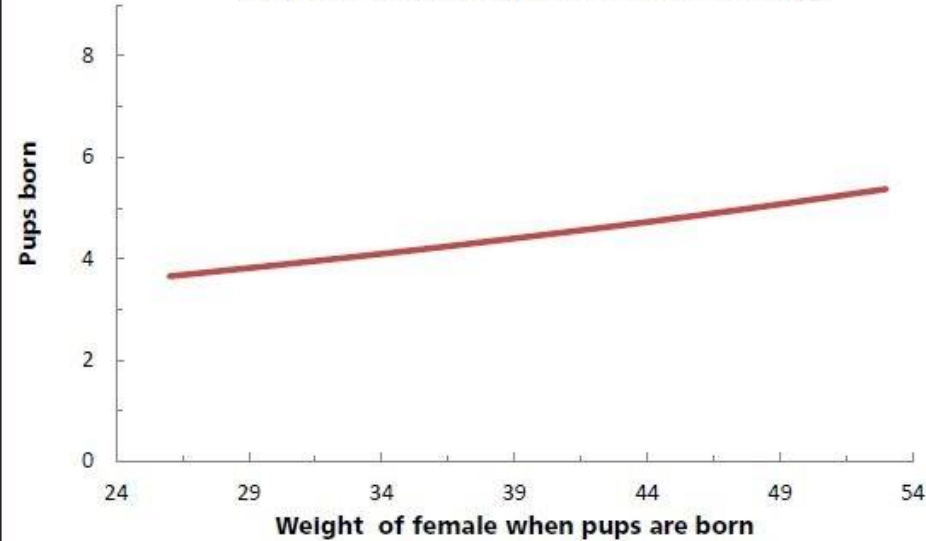


Figure 1b. Maternal Age (yr)

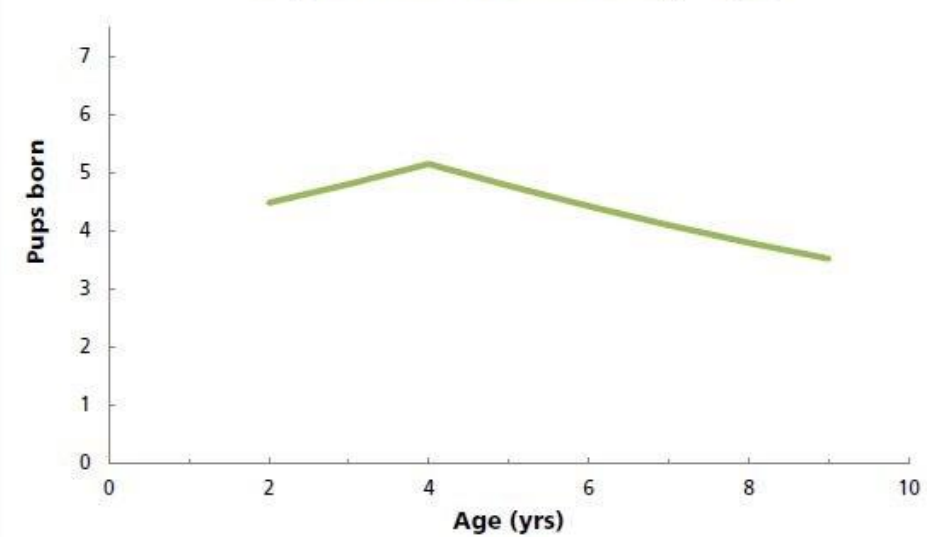


Figure 2a. Pack Size

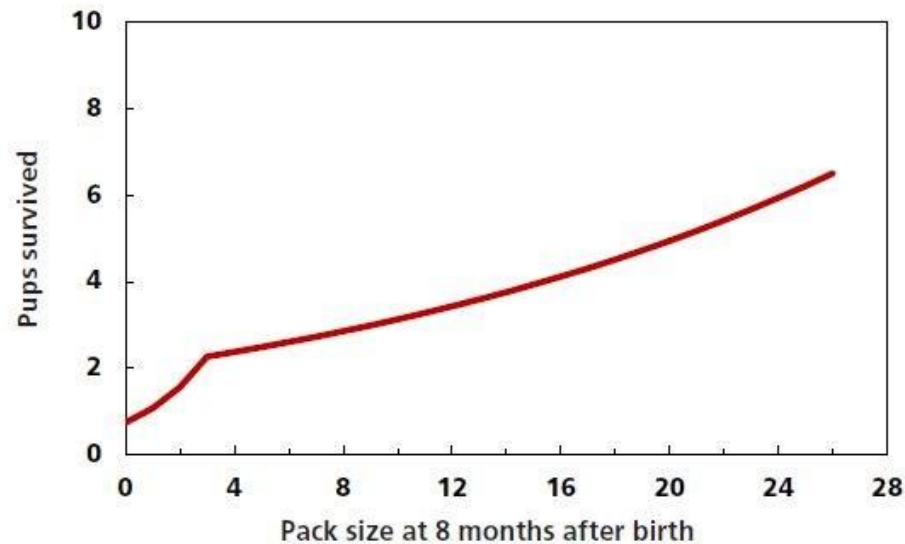
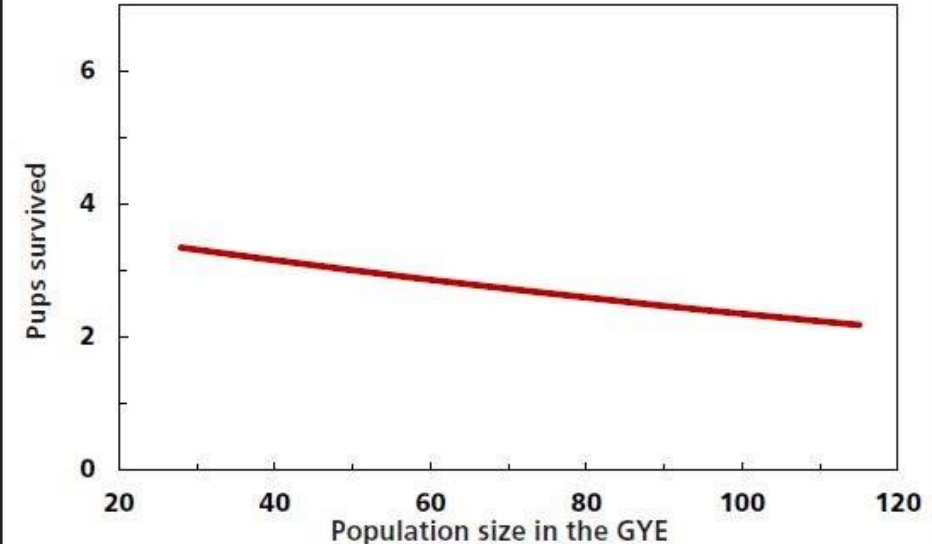


Figure 2b. Wolf Population Size



More Lessons from Yellowstone...

- Pack size alone does not fully predict reproductive success.

More males than females increase reproductive success likely because of reduced competition with other females.

- Reproduction within a pack is more fluid than a single breeding pair.

In Yellowstone, 25% of the packs did not exhibit monogamous behavior.

- Maternal body mass and pack size were identified as the most important factors in female reproductive success.

Figure 2. List of carnivore species reported to be consumed by wolves worldwide according to the number of sampling sites for each species in the three continents.

Martins, Inês, Miha Krofel, Paulo G. Mota, and Francisco Álvares. "Consumption of carnivores by wolves: A worldwide analysis of patterns and drivers." Diversity 12, no. 12 (2020): 470

