

# Digestion Papers (Directory)

Marguerite Butler

2023-10-11

Copies of these papers are located in the **shared google drive** > DigestionPapers <https://drive.google.com/drive/u/0/folders/1M8ygipZEd9OUdd45C4BGgfJw2KWUKYk>

## Important resources

Searchable database of Nutrient content of foods from USDA <https://fdc.nal.usda.gov/fdc-app.html#/> – legacy foods tab is most helpful. Choose raw forms of foods

Chapters from: **Robbins, C.T. (1993)** Wildlife Feeding and Nutrition, Academic Press, Sand Diego, CA

- Chapter 12: Food Composition.
- Chapter 13: GI Anatomy and Function.
- Chapter 14: Digestion and Nutrient Metabolism.
- Chapter 15: Food Intake and Regulation.
- Some key tables from Robbins 1993.

**Stevens and Hume 1998.** A great review paper on the digestive system of many vertebrates, with info on gut morphology, passage rates, retention time, fermentation, and microbes. Lots of **gut diameter data**. A must read!

**Wilmer et al 2005.** Assimilation efficiency and some nutrient contents.

## Herbivores

(may be in HerbivoreNutrCont folder)

**Bergman 1990** Energy contributions of volatile fatty acids from the gastrointestinal tract in various species

**Clauss et al. 2003** The maximum attainable body size of herbivorous mammals: morpho-physiological constraints on foregut, and adaptations of hindgut fermentors

**Dement and Van Soest 1995** A very influential paper that describes foregut and hindgut digestive strategies and provides a model for energy extraction, volume, and retention time.

**Rogers et al 1990** Gorilla diet with nutritional info and water content of plants

**Stoddard 1935** Osmotic pressure and water content of prairie plants

**Dierenfeld, Mueller and Hall 2002** Duikers: native food composition, micronutrient assessment, and implications for improving captive diets.

**Randolph 1991** Dietary choice of a generalist grassland herbivore, *Sigmodon hispidus* (rat)

**Bjorndal 1979** Green sea turtle digestion

**Bjorndal 1987** Tortoise digestion

**Swarm, et al 2006.** Digestion studies in hippos

**Water content of plants can be hard to find.** There is good information in Stoddard 1935, Rogers et al 1990, and Dement and Van Soest 85.

## Carnivores

**Magara et al. 2020.** Edible crickets (Orthoptera) around the world.... [[link](#)]

**Krause and Leeson 1974.** The gastric mucosa of two monotremes: the duck-billed platypus and echidna

**Saadoun and Cabrera 2008** Nutritional content of indigenous sources of meat in South America (lizard, rhea, peccary, alpaca, etc.)

**Fish, Bostoc, Nicastro, and Beneski 2007.** Death roll of the alligator: mechanics of twist feeding in water. (under Feeding)

## Body composition papers

(Body Composition Folder, mainly agriculture papers)

Horse: **Webb and Weaver 1979** Body composition of the horse.

Horse: **Znamirowska 2004** Prediction of horse carcass composition using linear measurements.

Cow: **Gresham, Holloway, Butts, and McCurely 1986.** Prediction of mature cow carcass composition from live animal measurements.

Kangaroo: **Tribe and Peel 1963.** Body composition of the kangaroo (*Macropus sp*).

Pig: **Bee, Guex, and Herzog 2012** Free-range rearing of pigs during the winter: Adaptations in muscle fiber characteristics and effects on adipose tissue composition and meat quality traits.

[\[Back to the Design 2 FAQs and Assignment\]](#)

[\[Shared google drive\]](#)