

Digestion Papers (Directory)

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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.

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