



# Comparative digestive physiology

Marcus Clauss

*Clinic for Zoo Animals, Exotic Pets and Wildlife, Vetsuisse Faculty, University of  
Zurich, Switzerland*

*Wildlife Digestive Physiology Course Vienna 2013*



**University of  
Zurich**<sup>UZH</sup>



**Clinic**  
of Zoo Animals, Exotic Pets and Wildlife



# Course layout

- Day 1
  - Introduction I: physiology, digestive physiology - and a study example
  - Introduction II: metabolic allometry (0.67 or 0.75 ?)
  - Carnivores (predator-prey size relationships ?)
  - Herbivores: general morphology and plant characteristics
  - Herbivores: coprophagy
- Day 2
  - Herbivores: foreguts & hindguts (why rumination is not the same as foregut fermentation)
  - Herbivores: browsers & grazers (nasty details from the 'browser war' trenchlines)
- Day 3
  - Herbivores: digestive allometry (why the Jarman-Bell-Principle is obsolete)
  - Evolutionary physiology
  - Applications for research and captive wild animals
- Practical demonstration of gastrointestinal tracts
- Discussion
- Informal contacts (*if desired talk on science business*)



## *Aims beyond the subjects ...*

- Science is about debate and about the development of (clashing) concepts
  - Use your own brain, do not believe anything you hear or read (if you care for the topic)
  - Perform your own tests - the amount of insight you can generate by just using literature data in an intelligent way is amazing
  - Always ask about the picture that is bigger than the one you are presented with
  - Be honest in presenting ideas and in applying logic
- The amount of intellectual stimulation you can get from science is infinite. Good science is a terrific plot based on a true story.*