Mammalogy: Review Questions Carnivora

1. For each of these taxa (orders, families, etc. know the zoogeographic region(s), diagnostic characters (what distinguishes this taxon from its close relatives), adaptations, behaviors, life history, etc.
   A. Carnivora
   B. Feliformia
   C. Herpestidae (mongooses, meerkats)
   D. Viverridae (civets, linsangs, genets, binturongs)
   E. Eupleridae (Madagascari carnivores including the fossa)
   F. Hyaenidae (Hyaeninae (hyenas) and Proteles (aardwolf))
   G. Felidae (cats)
   H. Caniformia
   I. Canidae (dogs, wolves, foxes, jackals)
   J. Procyonidae (raccoons, coati-mundis, ringtails, kinkajous)
   K. Ailuridae (red panda)
   L. Mephitidae (skunks, stink badgers)
   M. Mustelidae (weasels, river otters, sea otters, ferrets)
   N. Ursidae (bears, including the giant panda)
   O. Pinnipeds
   P. Odobenidae (walruses)
   Q. Otariidae (sea lions, eared seals, fur seals)
   R. Phocidae (true seals, earless seals)

2. Discuss the significance of the following to carnivore biology and give examples
   A. Madagascar
   B. female masculinization
   C. Induced Ovulation
   D. Obligate delayed Implantation
   E. postpartum estrus
   F. hibernation
   G. winter dormancy in bears
   H. Bergmann's "rule"
   I. Allen's rule
   J. Counter-current heat exchange
   K. Insulation in terrestrial and aquatic mammals
   L. plantigrade
   M. digitigrade

3. How are hyenas and aardwolves similar? Different?

4. What felid species commonly occur in Texas? Rarely?

5. Why is Puma concolor expanding its range in the United States?

6. Discuss the occurrence of Panthera onca in the United States.

7. Why is the sea otter considered a keystone species?

8. How are phocids and otariids similar? Different?

9. Explain the advantage of postpartum estrus and delayed implantation in seals and explain what would result if each did not occur.

10. What is Bergmann’s Rule. Give an example. Is it really a rule?

11. Why is large body size advantageous to mammal that live in cold climates?

12. Regarding winter dormancy in bats and bears: In what two ways are they similar to hibernation? How is it different in bears? What causes it to be different (or why can’t they be the same)?

13. Discuss the adaptations for cursoriality that are present in cheetahs.
2. What is the family of the species in the picture below? What are the most important characteristics of this family? What mammal(s) are ecomorphs (occupy similar niches)?

3. Identify and discuss the why this species of mammal pictured below is interesting (using information from mammalogy lecture or the textbook). If it is an ecomorph of another mammal name and discuss.

4. For each of these families, know the zoogeographic region(s), diagnostic characters (what distinguishes this family from its close relatives), adaptations, behaviors, life history, etc.

5. Identify the animals pictured below to order (1/2 point), family (1 point, common name 1/2 point), what zoogeographic region(s) (1/2 point) the family is found and write something about its natural history (behavior, ecology, diet, reproduction) that makes THE FAMILY of this animal interesting (to your professor, who will judge the quality of your answer) (4 pts)