

Xenarthrans

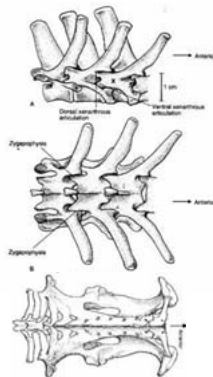
1. anteaters, sloths, and armadillos
2. Neotropical (mainly) to Nearctic
 - A. Paleocene of South America
 - B. To North America in the late Miocene.
3. Long separate history from other mammals.

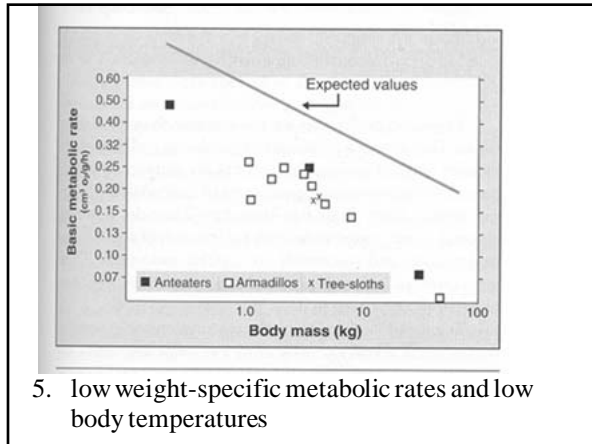
Xenarthrans are divided into two orders

1. Order CINGULATA
 - A. Dasypodidae (9, 21) Armadillos
 - B. Glyptodontidae the extinct glyptodonts
2. Order PILOSA
 - A. Suborder Folivora (Tardigrada)
 - a. Bradypodidae (1, 4) Three-toed sloths
 - b. Megalonychidae (1, 2) Two-toed sloths
 - B. Suborder Vermilingua
 - a. Myrmecophagidae (2, 3) True anteaters
 - b. Cyclopedidae (1,1) Silky anteater

Xenarthran traits

1. xenarthrous vertebrae
2. Fused vertebrae: incorporation of caudal vertebrae into sacrum
3. reduced to absent dentition, without enamel
4. Limbs modified for digging





- Megalonychidae & Bradypodidae
1. Two and Three Toed Sloths
 2. Neotropical (Central and South America)
 3. no tail
 4. blocky skull
 5. symbiotic relationships algae
 6. Folivores with multi-chambered stomachs
 7. Low Metabolic Rate
 - A. variable body temperature

- Tree Sloths are Arboreal
- 1.
 - 2.
 - 3.
 - 4.

Two Toed Sloths -Megalonychidae

1. *Choloepus* is closely related to the extinct, giant ground sloth *Megalonyx*
2. Two toes on front, three on hind foot
3. Caniniform front premolar
4. 5 to 8 cervical vertebrae
5. more active and broader range of food habits than three-toed sloths

Bradypodidae

1. three-toed tree sloths, a.s.
2. 3 toes on front and hind limb
3. 8 or 9 cervical vertebrae give neck greater flexibility

Myrmecophagidae - Anteaters

1. Neotropical.
2. myrmecophagy
3. Elongate skull
4. no teeth
5. thickened pylorus
6. vermiform tongue
7. Large salivary glands

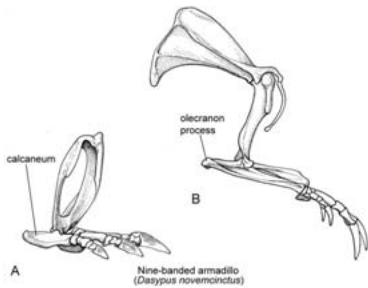
Anteaters

1. clawed forelimbs
2. range in size from *Cyclopes* (250 gms) to *Myrmecophaga* (30+ kg)
3. *Tamandua* and *Cyclopes* (Now placed in its own family Cyclopedidae) are arboreal

Dasypodidae - armadillos

1. Carapace of bony scutes
2. Neotropical, Nearctic
3. homodont
4. diet is insects, worms, other invertebrates, carrion, plant material

Dasypodidae Limbs



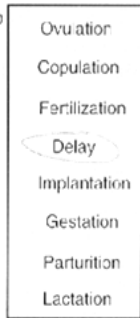
1. powerful diggers, live in burrows

pictures

1. Three-banded armadillo (*Tolypeutes tricinctus*)
2. Nine-banded armadillo (*Dasypus novemcinctus*, the Texas small mammal)
3. *Priodontes maximus*
4. *Chlamyphorus*

Daypodid Reproduction

1. Delayed implantation
2. Monozygotic polyembryony



Dasypus novemcinctus has expanded its range

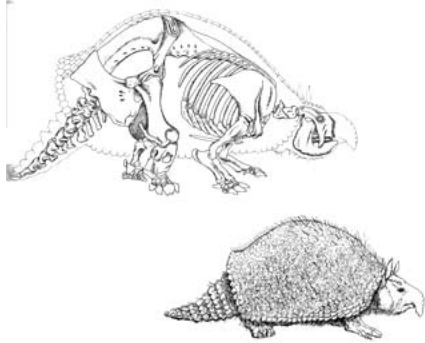


columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/Dasypus_novemcinctus.html
msu.edu/%7Enixonjos/armadillo/expansion.html

Leprosy Research

1. Hansen's disease.
2. Armadillos
3. armadillos and humans
4. Crossing Rivers
A. www.nsrl.ttu.edu/tmot1/dasynove.htm

Glyptotherium



Order Pholidota

1. pangolins: "scaly anteaters" (fig 14.10)
2. monotypic order
3. 1 family (Manidae), 1 genus (*Manis*, 7 species)
4. Formerly grouped with xenarthrans as Edentata.
5. Molecular evidence shows they are most closely related to carnivorans

Order Pholidota

1. Oriental and Ethiopian (tropical)
2. ants and termites
3. edentate
4. long tongue
5. overlapping, keratinous scales
6. furred belly
7. Nocturnal
8. arboreal and terrestrial

Convergence of Myrmecophagous Mammals

