

Mammal Order: Pilosa

By Joshua Kohler

<https://www.nytimes.com/2014/01/28/science/the-sloths-busy-inner-life.html>



Scientific Classification

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia

Superorder: Xenarthra

Order: Pilosa

Suborders of Pilosa (Extant):

- Folivora
- Vermilingua

Characteristics of Animals Within Pilosa

Presence of Xenarthrales (“strange joints”)

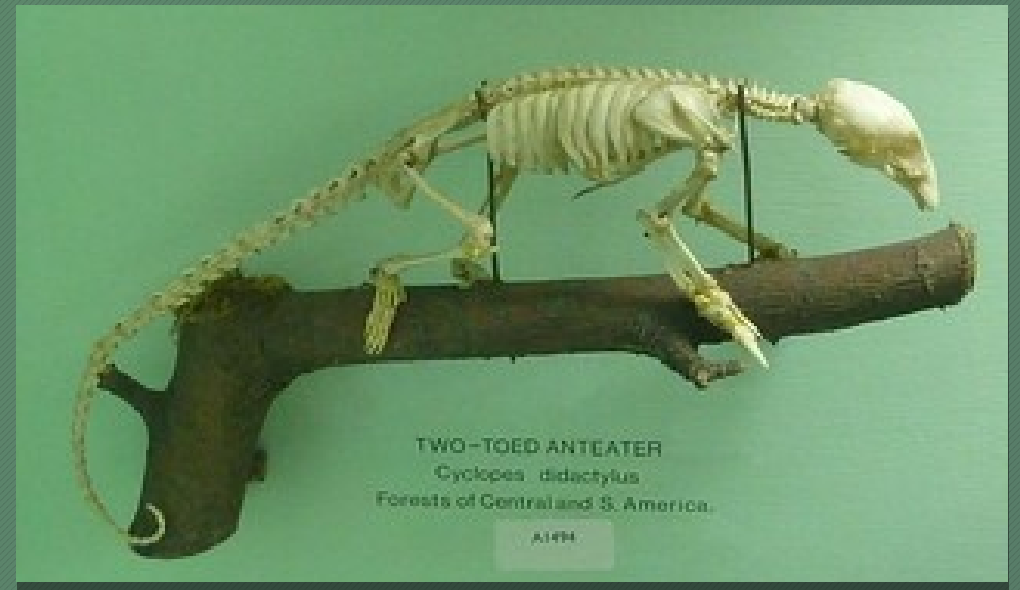
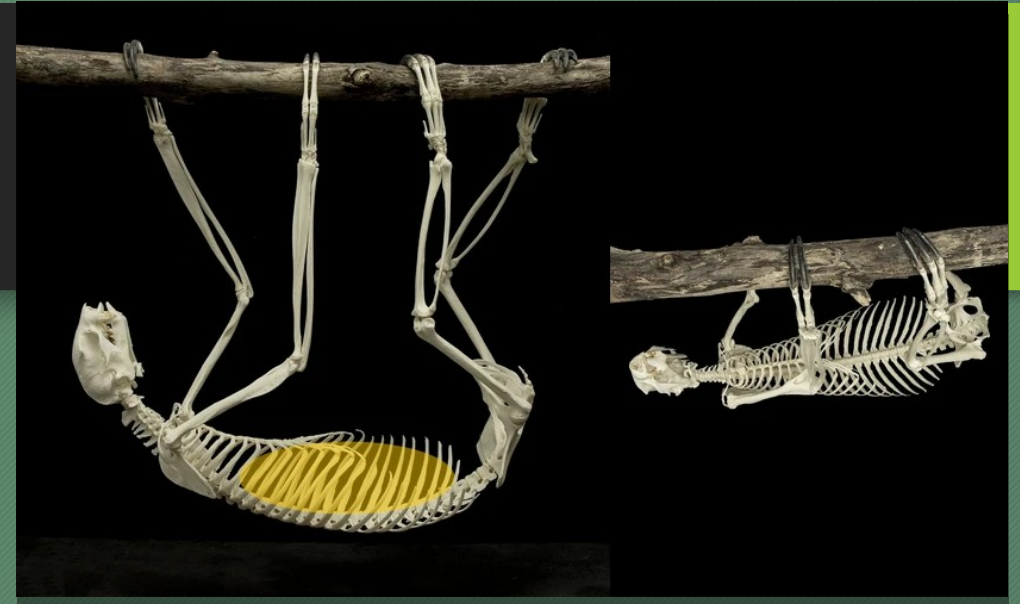
- Extra articulations between each lumbar vertebrae
- Helps with tasks such as grabbing/handling

Females have divided womb

- Female Marsupials also have divided wombs

Double posterior vena cava vein

- Other mammals only have one



Sloths within Order Pilosa



Maned Sloth (*Bradypus torquatus*)



Linnaeus's Two-Toed Sloth (*Choloepus didactylus*)



Hoffmann's Two-Toed Sloth
(*Choloepus hoffmanni*)

Sloths within Order Pilosa



Pygmy Three-Toed Sloth
(*Bradypus pygmaeus*)



Pale-Throated Three-Toed Sloth
(*Bradypus tridactylus*)



Brown-Throated Three-Toed Sloth
(*Bradypus variegatus*)

Anteaters within Order Pilosa



Giant Anteater (*Myrmecophaga tridactyla*)



Silky Anteater (*Cyclopes didactylus*)

Anteaters within Order Pilosa



Northern Tamandua (*Tamandua mexicana*)



Southern tamandua (*Tamandua tetradactyla*)

Suborder Folivora (Sloths)



- Spend about 90% of their lives in trees (Lax, 2017)
- Some sloths mistake their own arms for tree branches, causing many to fall to their death 😞
- Have symbiotic relationship with algae; algae gives sloth camouflage while the sloth gives algae water and protection (Lax, 2017)
- Usually eats leaves and roots, as well as birds and insects
- Conservation Status:
 - The Pygmy Three-Toed Sloth (Critically Endangered)
 - Maned Three-Toed Sloth (Vulnerable)

Suborder Vermilingua (Anteaters)



- Eat insects (ants, bees, worms), bird eggs, and fruit
- Out of all mammals, they have the lowest body temperature
- They are surprisingly fast; can reach 30 mph (Davis, 2021)
- Live in South and Central America
- Conservation Status:
 - Giant Anteater (IUCN lists them as vulnerable, but is believed to be extinct in places such as Costa Rica and Guatemala)

Behavior of Sloths and Anteaters

Sloths:

- Two-Toed Sloth: Nocturnal
Three-Toed Sloth: Active during day and night
- Two-Toed Sloths are more aggressive than Three-Toed Sloths
- The females look for mates when ready
- Sleep around 15 hours/day

Anteaters:

- Nocturnal
- Usually very quiet
- Sleeps around 15 hours/day
- Not aggressive (unless threatened)
- Females Giant Anteaters can tolerate other females as neighbors, unlike males (Shaw et al., 1987)
- Activity of these anteaters varies depending on location

Reproduction

Sloths:

- Gestational Period: 120-378 days (Rezende et al., 2013)
- Give birth to one offspring (livebirth)
- All species reach sexual maturity at 2-5 years old
- Ex. *Choloepus didactylus* young become independent at roughly 12 months (Taube et al., 2008)

Anteaters:

- Gestational Period: 85-190 days (Rezende et al., 2013)
- Give birth to one offspring (livebirth)
- Giant Anteaters reach sexual maturity at 3-4 years old
- Giant Anteaters become independent after 2 years

Extinct Pilosa: *Megatherium americanum*

- Height: 7 meters
- Weight: 7 tons (14,000 lbs.)
- Found in South America
- Lived 35 million to 11,000 years ago
- Diet: Omnivore; ate leaves and twigs, but bladed teeth suggests that it did feast on meat (Bargo, 2001)



Extinct Pilosa: *Megalonyx jeffersoni*

- Height: 10 ft
- Weight: 2-3 tons (4,000-6,000 lbs.)
- Found in North and South America
- Lived 5 million to 11,000 years ago
- Diet: Primarily herbivores, may have also consumed small amounts of meat



Importance of Animals within Order Pilosa

- The algae that lives within the fur of sloths has been linked to curing breast cancer
- Sloths fertilize trees when they defecate
- Sloths are sources of food for predators (eagles and jaguars)
- Anteaters help control insect populations (can eat up to 30,000 in one day)
- Anteaters are sources of food for predators (pumas, jaguars and snakes)

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