Sloths are medium-sized South American mammals belonging to the families Megalonychidae and Bradypodidae, part of the order Pilosa. Most scientists call these two families the Folivora suborder, while some call it Phyllophaga. Sloths are herbivores, eating very little other than leaves.

Sloths have made extraordinary adaptations to an arboreal browsing lifestyle. Leaves, their main food source, provide very little energy or nutrition and do not digest easily: sloths have very large, specialized, slow-acting stomachs with multiple compartments in which symbiotic bacteria break down the tough leaves. Sloths may also eat insects and small lizards and carrion. As much as two-thirds of a well-fed sloth's body-weight consists of the contents of its stomach, and the digestive process can take as long as a month or more to complete. Even so, leaves provide little energy, and sloths deal with this by a range of economy measures: they have very low metabolic rates (less than half of that expected for a creature of their size), and maintain low body temperatures when active (30 to 34 degrees Celsius), and still lower temperatures when resting.

Sloth fur also exhibits specialized functions: the outer hairs grow in the opposite direction to that of other mammals, pointing away from their extremities (so as to provide protection from the elements despite living legs-uppermost), and in moist conditions host two species of symbiotic cyanobacteria, which may provide camouflage. Their outer fur coat is usually a thick brown, but occasionally wild sloths appear to have a green tinge to their fur because of the presence of these bacteria. The bacteria provide nutrients to the sloth, and are licked. Sloths have short, flat heads, big eyes, a short snout, long legs, and tiny ears.

Their claws serve as their only natural defense. A cornered sloth may swipe at its attackers in an effort to scare them away or wound them. Despite sloths' apparent defenselessness, predators do not pose special problems: in the trees sloths have good camouflage and, moving only slowly, do not attract attention. Only during their infrequent visits to ground level do they become vulnerable. The main predators of sloths are the jaguar, the harpy eagle, and humans. The majority of sloth deaths in Costa Rica are from sloths getting into electrical lines and from poachers. Despite their adaptation to living in trees, sloths make competent swimmers. Their claws also provide a further unexpected defense from human hunters - when hanging upside-down in a tree they are held in place by the claws themselves and do not fall down even if shot from below, thus making them not worth shooting in the first place.

Sloths move only when necessary and then very slowly; they have about half as much muscle tissue as other animals of similar weight. They can move at a marginally higher speed if they are in immediate danger from a predator, but they burn large amounts of energy doing so. Their specialized hands and feet have long, curved claws to allow them to hang upside-down from branches without effort. While they sometimes sit on top of branches, they usually eat, sleep, and even give birth hanging from limbs.
Sloths are herbivores, and generally eat leaves, especially those of the cecropia tree. Fruit flies are in their diet as well. Sloths have a very low metabolism and a low body temperature so their food and water needs are minimal. A sloth's stomach has many different compartments to help digest the tough plants they eat. In terms of their sleep, sloths are one of the most somnolent animals ever, sleeping from 15 to 18 hours each day. They are particularly partial to nesting in the crowns of palm trees where they can camouflage as a coconut. They come to the ground, to urinate and defecate, only about once a week.

Infant sloths normally cling to their mother's fur, but occasionally fall off. Sloths are very sturdily built and very few die from the fall. Females reproduce one baby every year, but sometimes sloths lack of movement actually keep females from finding males for longer than one year.

The living sloths belong to one of two families, known as the two-toed (Bradypodidae) and three-toed sloths (Megalonychidae). Both families have three toes: the "two-toed" sloths, however, have only two fingers. Two-toed sloths are generally faster moving than three-toed sloths. Both types tend to occupy the same forests. In most areas, a particular single species of three-toed sloth and a single species of the larger two-toed type will jointly predominate.

Although unable to survive outside the tropical rainforests of South and Central America, within that environment sloths are outstandingly successful creatures. They can account for as much as half the total energy consumption and two-thirds of the total terrestrial mammalian biomass in some areas. Of the five species, only one, the Maned Three-toed Sloth, has a classification of "endangered" at present. The ongoing destruction of South America's forests, however, may soon prove a threat to the others.

MANED THREE-TOED SLOTH:
The Maned Three-toed Sloth, also known as an Ai, Bradypus torquatus, is a species of three-toed South American sloth that has a small head, tiny eyes and ears, and a small tail hidden in its fur. It is about 50 cm long and weighs up to 4.5 kg. Its coarse outer coat is usually inhabited by algae, mites, ticks, beetles, and moths. The coat is dark, long, and mane-like around its head, neck, and shoulders. Its underfur is fine, dense, and pale. The Maned Three-toed Sloth eats the leaves, buds, and soft twigs of a few forest trees, especially those of the Cecropia. It rarely descends to the ground because, when it is on a level surface, it is unable to stand and walk. On the ground the sloth can only drag itself along by its longer, stronger front legs and claws. The Maned Three-toed Sloth is a solitary animal. By 1955, the Maned Three-toed Sloth occurred only in Bahia, Espirito Santo and Rio de Janeiro in eastern Brazil, in the Atlantic coastal forests. It has declined since then as these forests have dwindled. The major threat to the maned three-toed sloth is the loss of its forest habitat as a result of lumber extraction, charcoal production, and clearance for plantations and cattle pastures. Excessive hunting is also a threat.

PALE-THROATED THREE-TOED SLOTH:
The Pale-throated Three-toed Sloth (Bradypus tridactylus) is a three-toed sloth that inhabits tropical rainforests from southern Central America to north-eastern Argentina. This sloth lives high in the canopy. It has almost no tail or external ears, and its head is slightly rounded with a blunt nose. Male sloths have a bright yellow or orange patch on the back. The females have two mammae in the chest region. The three-toed sloth is armed with long, compressed, arched, hollowed claws, of which the middle claw is the largest. Bradypus tridactylus grows to a length of between 1.5 and 2.5 feet.

BROWN-THROATED THREE-TOED SLOTH:
The Brown-throated Three-toed Sloth, Bradypus variegatus, is a species of sloth from Central and South America. It is the most widespread and common species of the group, being found in many different kinds of environments, including evergreen and dry forests and in highly perturbed natural areas. It is a solitary, nocturnal and diurnal animal, feeding on leaves of many species of trees.

LINNAEUS'S TWO-TOED SLOTH:
Linnaeus's Two-toed Sloth (Choloepus didactylus), also known as the Southern Two-toed Sloth, is a species of sloth from South America. It occurs in Venezuela, the Guianas and Brazil north of the Amazon River. It is a solitary, diurnal and arboreal animal, found in mature, disturbed and secondary rainforests. It is able to swim, making it possible to cross rivers and creeks. The two-toed sloth's main enemies are man, large birds of prey like the Harpy Eagle and Crested Eagle, and cats like the Ocelot.

HOFFMANN'S TWO-TOED SLOTH:
The Hoffmann's Two-toed Sloth, Choloepus hoffmanni, is a species of sloth from Central and South America. It is a solitary nocturnal and arboreal animal, found in mature and secondary rainforests and deciduous forests. The name of this animal commemorates the German naturalist Karl Hoffmann.