

Tropical Rainforest

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Where in the World . . . ?

- Tropical Rainforests are found around the equator, between the Tropic of Cancer and the Tropic of Capricorn.
- Some of the countries that fall in the Tropical Rainforest Biome include:
 - Brazil
 - Peru
 - Hawaii (United States)
 - Indonesia
 - New Zealand
 - Malaysia
 - Thailand
 - Madagascar
 - Dominican Republic of the Congo

What Is The Tropical Rainforest . . . ?

Strata of the rainforest



Animals



Climate

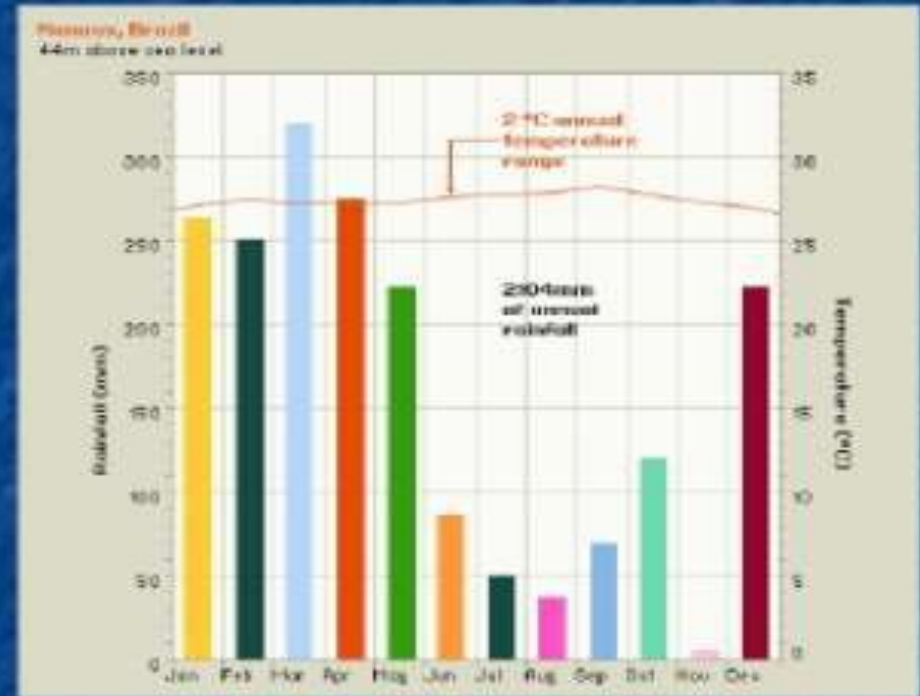


Climate

- falls within the Tropical Wet and Tropical Monsoon climate zones.
- there is either a short dry season with a long rainy summer season, or no dry season at all.
- areas of the Tropical Monsoon climate zone experience a lot of rain and monsoon winds during their summer season, and no rain during their short, dry season.

Climate

- annual rainfall between 2000 and 2250 millimeters, or about 78.75 to 88.58 inches.
- temperature usually no higher than 93 °F (34 °C) or below 68 °F (20 °C).
- average humidity is 77 and 88 percent.



Annual rainfall and temperature range of Brazil

Animals

- The number of animals that live in tropical rainforests is too great to count. Some of the animals that are found specifically in tropical rainforests include:
 - The Kinkajou
 - The Poison Dart Frog and
 - The Sloth

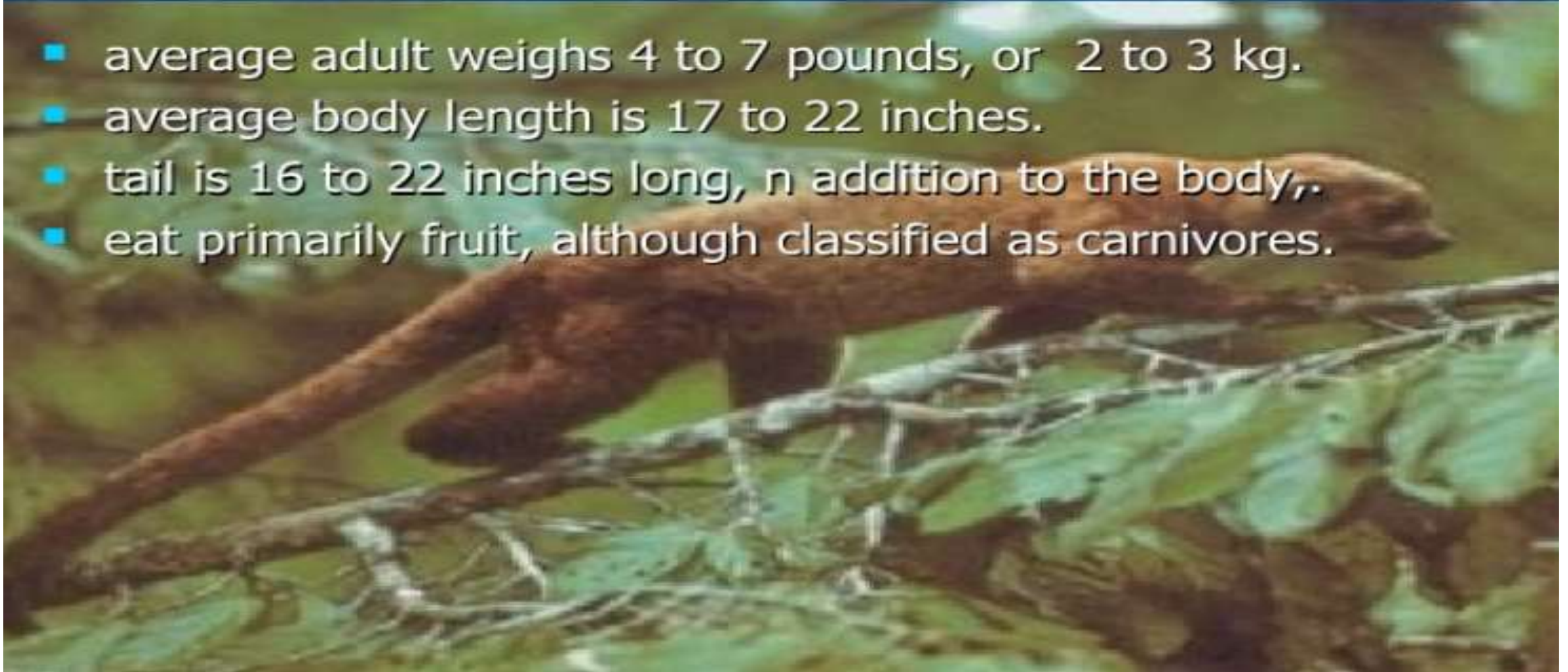
Kinkajou

- found in Mexico, Central America, and the Amazon Basin.
- live high in the forest canopy, nearly a hundred feet off the ground.
- use long tail and strong arms to swing from branches
- do not leap from tree to tree like monkeys, because not part of the monkey family
- more closely related to raccoons.



Kinkajou

- average adult weighs 4 to 7 pounds, or 2 to 3 kg.
- average body length is 17 to 22 inches.
- tail is 16 to 22 inches long, in addition to the body,.
- eat primarily fruit, although classified as carnivores.



Poison Dart Frogs

- native to Central and South America, where over 175 species of poison frog can be found.
- In Costa Rica alone, there are seven species, three that display bright colors as a warning for predators.
- If a predator bites, it will get a taste of the poison, and either die from it or learn to stay away.



Poison Dart Frogs

- dangerous animals, can be very hard to handle since they have so much poison in them.
- only animal in the world known to be able to kill a human by touch alone.
- can jump as far as 2 inches.
- mostly active during the day (not nocturnal).
- eat ants and termites, but will also eat other small insects.



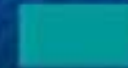
Sloth

- five species of the sloth, all which reside in tropical rainforests
- slowest mammal on Earth. It takes a month for a sloth to move one kilometer!
- even eat slow with a low metabolic rate
- do not require much water, because they do not use a lot of energy. It takes nearly a week for a sloth to digest one meal.
- sleep about 15 to 18 hours a day.



Sloth

- arboreal animals, spend most of their time in trees.
- eat, sleep, mate, and give birth all the while hanging upside down.
- live in the rainforest canopy, and basically disappear in it.
- camouflage consists of coloring, slow movement, and increase of algae growing on fur.
- herbivores, eat mostly leaves and fruit.



Strata of Tropical Rainforest

- Different animals and plants of the Tropical Rainforest reside in different strata, or zones, of the rainforest.
- The different strata include:
 - The Forest Floor
 - Understory
 - Canopy
 - Emergent

Forest Floor

- The forest floor is mostly completely shaded, except in cases where a canopy tree may have fallen and created an opening.
- Most areas of the forest floor receive so little light that few bushes or herbs can grow there.
- Because of the layout of the forest floor, a person can easily walk through most parts of a Tropical Rainforest



Forest Floor

- Less than 1 % of the light that strikes the top of the forest penetrates to the forest floor.
- top soil is very thin and of poor quality. A lot of litter falls to the ground where it is quickly broken down by decomposers like termites, earthworms and fungi.
- heat and humidity further help to break down the litter. This organic matter is then absorbed by the trees' roots.

Understory

- consists of 60 foot trees.
- made up of the trunks of canopy trees, shrubs, plants and small trees.
- little air movement, so the humidity is constantly high.
- in constant shade.



Understory

- Some animals include spiders, birds, white tail deer, wolves, squirrels, bees, snakes, frogs, jaguars, red-eye tree frogs and leopards.
- plants include tree trunks, saplings, small ground plants (such as dwarf palms) and vines.
- Due to the lack of sunshine, plants seldom grow to 12 feet, must grow larger leaves to reach any sunshine.



Canopy

- Most of all the rainforest's animals live in the canopy.
- includes trees 60 to 130 feet tall.
- Light is easily available at the top, but greatly reduced below it.
- so much food available at this level that some animals never go down to the forest floor.



Canopy

- leaves have "drip spouts" that allow rain to run off. This keeps them dry and prevents mold and mildew from forming in the humid environment.
- rain must run down the trunks of the trees or drip off the leaves because the canopy stops the rain from reaching the plants below.
- animals include monkeys, sloths, bats, treefrogs, ants, beetles, parrots, hummingbirds and snakes.



Emergent

- emergent trees are spaced wide apart, grow 100 to 240 feet tall with umbrella-shaped canopies that grow above the forest.
- giant trees have straight, smooth trunks with few branches. Root system is very shallow, to support their size they grow buttresses that can spread out to a distance of 30 feet.
- To hold onto water, leaves often have thick, waxy layers.



Emergent

- trees are exposed to drying winds, tend to have small, pointed leaves. Some lose their leaves during brief dry season in monsoon rainforests.
- may take advantage of the greater air movement above the canopy by developing winged seeds or fruits, which are dispersed to other parts of the forest by wind.
- Sunlight is plentiful, animals such as eagles, monkeys, butterflies, insect-eating bats and snakes inhabit this layer, and some never venture below it.



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