

= Pygmy three @-@ toed sloth =

The pygmy three @-@ toed sloth (*Bradypus pygmaeus*) , also known as the monk sloth or dwarf sloth , is a sloth endemic to Isla Escudo de Veraguas , a small island off the coast of Panama . The species was first described by Robert P. Anderson of the University of Kansas and Charles O. Handley Jr . , of the Smithsonian Institution in 2001 . The pygmy three @-@ toed sloth is significantly smaller than the other three members of its genus , but otherwise resembles the brown @-@ throated three @-@ toed sloth . According to Anderson and Handley Jr . , the head @-@ and @-@ body length is between 48 and 53 centimetres (19 and 21 in) , and the body mass ranges from 2 @.@ 5 to 3 @.@ 5 kg (5 @.@ 5 to 7 @.@ 7 lb) .

This sloth , like other sloths , is arboreal (tree @-@ living) and feeds on leaves . It is symbiotically associated with green algae , that can provide it with a camouflage . Details of mating behavior and reproduction have not been documented . The pygmy three @-@ toed sloth is found exclusively in the red mangroves of Isla Escudos de Veraguas , restricted to an area of 4 @.@ 3 square kilometres (1 @.@ 7 sq mi) . A 2012 census of pygmy three @-@ toed sloths estimated the total population at 79 . The IUCN lists the pygmy three @-@ toed sloth as critically endangered .

= = Discovery and taxonomy = =

The pygmy three @-@ toed sloth was first described by Robert P. Anderson of the University of Kansas and Charles O. Handley Jr . , of the Smithsonian Institution in 2001 . The researchers noted that the three @-@ toed sloths endemic to Isla Escudo de Veraguas , a small island off the coast of Panama , are significantly smaller than those that occur on the nearby outer islands of Bocas del Toro Province . Moreover , they differ from other populations in terms of pelage and cranial characteristics . Hence , they considered the three @-@ toed sloths in Isla Escudo de Veraguas to be an independent species and formally described it from the skin and skull of an adult female . The researchers further pointed out that Isla Escudos de Veraguas is the oldest island and located farthest from the mainland , that began breaking up into small islands due to rises in sea levels 10 @,@ 000 years ago . They proposed that this species evolved from an isolated population that had originated from the mainland population of brown @-@ throated three @-@ toed sloths ; it gradually differentiated enough to become an independent species through insular dwarfism . In another study the following year , the researchers observed that the mean body size of three @-@ toed sloths on an island decreases linearly as the age of the island increases ; the area of the island and the distance from the mainland , however , do not appear to significantly affect dwarfing .

The pygmy three @-@ toed sloth is one of the four members of the genus *Bradypus* , and is classified under the family *Bradypodidae* . A 2004 phylogenetic analysis suggested that *Bradypus* is sister to all other folivorans . The generic name *Bradypus* is the combination of two Greek words : *brady* (" slow ") and *pous* (" foot ") . The specific name *pygmaeus* comes from the Greek *pugmaios* (" as small as a fist ") . ' Monk sloth ' and ' dwarf sloth ' are two other names for this sloth .

= = Characteristics = =

The pygmy three @-@ toed sloth is significantly smaller than the other members of its genus , but otherwise resembles the brown @-@ throated sloth . According to Anderson and Handley Jr . , the head @-@ and @-@ body length is between 48 and 53 centimetres (19 and 21 in) , and the body mass ranges from 2 @.@ 5 to 3 @.@ 5 kg (5 @.@ 5 to 7 @.@ 7 lb) . The brown @-@ throated sloth is nearly 40 % heavier and 15 % smaller in head @-@ and @-@ body length than the pygmy three @-@ toed sloth . Moreover , the brown @-@ throated sloth is lighter on the crown . The face is buff to tan ; a dark band runs across the brow , surrounded by an orange patch . The throat is gray to brown , lighter than the underbelly ; the dark brown back is spotted and has a dark stripe along the midline . Facial hair is short , while the long , rough hair on the crown and shoulders forms a hood . The grayish limbs have three claws each . The tail is 4 @.@ 5 to 6 centimetres (1 @.@ 8

to 2 @. @ 4 in) long .

They have a relatively small and slender skull , with a large external auditory meatus , narrow squamosal and mandibular processes , a minuscule stylomastoid foramen , and usually lack foramina for the external carotid artery and anterodorsal (meaning in front and toward the back) nasopharynx . The dental formula of three @-@ toed sloths is : 54 ? 5 Two of the teeth in each jaw are incisor @-@ like , although those in the upper jaw are small or may be absent . Many of the features found in pygmy sloths are thought to be indicative of a relatively rapid evolution of a new species in an isolated , island habitat .

= = Distribution and status = =

The pygmy three @-@ toed sloth is unique in that it is found exclusively in the red mangroves of Isla Escudos de Veraguas ; it is confined to a small area of approximately 4 @. @ 3 square kilometres (1 @. @ 7 sq mi) . A 2012 census of pygmy three @-@ toed sloths estimated the total population at 79 ? of which 70 occurred on mangroves and 9 in the surroundings . The population density was calculated as 5 @. @ 8 per hectare . The total area occupied by mangroves on the island was estimated to be around 10 @. @ 67 hectares (0 @. @ 0412 sq mi) . While their population has presumably always been low due to their restricted range , the 2012 census found far lower numbers than had been estimated (less than 500) by the IUCN in 2010 .

The IUCN lists the pygmy three @-@ toed sloth as critically endangered ; it is also listed in CITES Appendix II . According to the IUCN , conservation efforts are being hampered by conflict between locals and the government . Threats to the sloth 's survival include timber harvesting and human settlement , that might lead to habitat degradation . Studies in 2010 and 2013 suggested a recent population bottleneck and decline in genetic variability .

= = Ecology and behavior = =

The pygmy three @-@ toed sloth , like others in its genus , is an arboreal (tree @-@ living) animal . This sloth can spend as many as 15 to 20 hours on trees . It moves at an extremely slow speed of 0 @. @ 24 kilometres per hour (0 @. @ 15 mph) , making it one of the slowest animals . The pygmy three @-@ toed sloth is symbiotically related to green algae ; a 2010 study investigated this in detail . Different sloths harbour different types of algae ? only *Tricophilus* species were found on the brown @-@ throated and pygmy three @-@ toed sloths . These algae discolor the fur of the sloth , giving it a greenish hue ? this serves as an efficient camouflage . Some of these algae might be transferred to offspring through the mother , others may be picked up from the surroundings over time . The smaller size of pygmy sloths reduces their energy requirements for survival and reproduction , making them an apparent example of insular dwarfism . A BBC documentary , in which English naturalist Chris Packham recognizes the pygmy three @-@ toed sloth as the first in his list of the top ten discoveries in the 2000s , shows a rare clip of a swimming pygmy three @-@ toed sloth .

Like other sloths , the pygmy three @-@ toed sloth feeds on leaves . It feeds on red mangrove leaves , which are relatively poor in nutrients and coarser than the tender leaves of *Cecropia* species eaten by brown @-@ throated sloths on the mainland . Details of mating behavior and reproduction have not been documented .