

# Sloth truly deserves its name, biologists say

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A sloth is being weighed during the annual inventory of the zoo in Dresden, eastern Germany, on January 16, 2014

Imagine a creature so slothful that it snacks off its own fur and budes only once a week for a bowel movement.

Well, there is one, say scientists, and it is a type of sloth.

Having carefully studied the full extent of the animal's idleness, a team of biologists revealed Wednesday that the sloth truly deserves its adjectival name.

The three-toed variety in particular has perfected the art of inertia through a carefully choreographed slowdance with a particular species of moth.

The [sloths](#) dwell in the [forest canopy](#), where they live mainly on [tree leaves](#).

Once a week, however, the animal will descend from its tree to defecate on the ground—a risky endeavour that makes it vulnerable to predators, according to a study published in the *Proceedings of the Royal Society B*.

Why does it bother?

When the sloth descends, the scientists found, the moths that live in its fur lay their eggs in its dung, where the larvae develop before emerging as adults and flying up into the tree to join the rest of the colony in the languid animal's coat.



A cameraman films a sloth at the zoo in Dresden, eastern Germany, on January 16, 2014

The moths act as a type of fertiliser and boost nitrogen levels in sloth fur, which in turn boosts [algae growth](#). The source could be tiny amounts of dung that are brought up from by the ground by the insects.

The sloth's individual hairs have cracks that fill with rainwater in which algae grow hydroponically.

This creates algae-gardens that sloths consume to augment their limited, leaf-based diet, said the researchers.

"This complex (symbiosis)... reinforces fundamental aspects of the sloth's behaviour and life history, and may reinforce the slothfulness of sloths," said a study summary.

**More information:** A syndrome of mutualism reinforces the lifestyle of a sloth, [rspb.royalsocietypublishing.org ... .1098/rspb.2013.3006](https://rspb.royalsocietypublishing.org/doi/10.1098/rspb.2013.3006)

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