ournal of Experimental Biolo

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Cover: A brown-throated three-toed sloth moving below-branch by suspensory walking. McKamy et al. (jeb245622) discovered that their long, modified forelimbs are used for propulsion, whereas their shorter, stronger hindlimbs apply large braking forces and provide greater body weight support when horizontally traversing branches. Tree sloths are one of only a few mammalian taxa that have obligate suspensory habits, and although occupation of this unusual arboreal niche is convergent with several species of primates and their two-toed cousins, all of these animals demonstrate variable locomotor kinetics when performing inverted quadrupedalism. Photo credit: Ignacio Moya, The Sloth Sanctuary of Costa Rica.

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