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Moving with extant and extinct primates



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Modern humans and the extinct members of our lineage are considered habitual bipeds, or even permanent bipeds. However, the evolutionary transition from occasional to habitual bipedalism remains highly debated. Our musculoskeletal system is part of the long evolutionary history of primates, hence it shares the same constraints. These constraints, related to locomotor performance and the eco-functional context, must be considered in order to fully understand the origin of our locomotor system. Therefore, a broad framework, including more distant (adaptive) processes, is required to better understand our evolution. Considering the locomotor repertoires and the relationships that exist between (occasional) bipedalism and the other locomotor modes could provide keys to understand the processes that allowed the transition toward habitual bipedalism. One of the main objectives of my research project is to develop an evolutionary model for bipedalism that will integrate the evolution of the different postural and locomotor modes as well as the various biomechanical constraints related to movements in the trees and on the ground.



***François Druelle** completed his PhD in Biology at the University of Antwerp (completed in 2017) on the locomotion of olive baboons, following a master in ethology. He was hired by the CNRS in 2020, within the laboratory Natural History of Prehistoric Humans. His work combines anatomy, biomechanics and behaviour. For a large part, they are developed at the CNRS Station of Primatology at Rousset-sur-Arc. He is vice-president of the Société Francophone de Primatologie.*