



Lefebvre Théodore is currently a Doctor. Working on Plant-mammal interactions, he is interested in Mammal bark feeding ecology and its influence on vegetation using both observational and evolutive approaches.

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Boulevard de la Lironde

Trunk spines in woody species: insights into historical mammal food stress events and implications of mammal bark feeding in influencing vegetation

presented by

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ABSTRACT

Plant spines are widely recognized for their role in defending leaves against mammalian herbivores. However, certain woody species possess spines on their trunks, where the common edible plant parts are absent. This raises the question of the function of trunk spines and their ecological significance. In the context of this PhD research, it was found that trunk spines may serve as a defense mechanism against mammalian bark feeding. Moreover, bark feeding may have played a crucial role in shaping past vegetation establishment, particularly in sub-tropical and tropical dry seasonal environments. The study also suggested that significant earth events, such as climate shifts, may have led to periods of increased food stress for mammals, leading to an increase in fallback bark resources consumption. The findings of this research emphasize the importance of fallback resources in influencing the ecology and evolution of mammal and plant communities, particularly under bottleneck conditions.

KEY WORDS

Trunk spine; Bark feeding; Fallback resource; Climate; Vegetation evolution

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