Ring-tailed lemurs use olfaction to locate distant fruit

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Video Byte

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Abstract

The abundant vegetation in forested areas can obstruct the view of potential food sources giving animals that can locate food with senses other than sight an advantage. While researchers hypothesize that fruit aromas evolved to attract primates to effectively disperse the seeds they contain, it's unclear whether primates can use odor cues to locate fruit outside of their visual range. A recent study tested whether ring-tailed lemurs could detect distant hidden fruit by scent alone. The researchers hid containers holding real and imitation cantaloupe 4-17 m away from a trail routinely used by lemurs. They found that the lemurs were able to locate the real cantaloupe when the wind blew its scent toward the trail but were unable to find the imitation cantaloupe. The lemurs also showed behaviors indicating that they were following the cantaloupe "odor plume." These results suggest that odor plume tracking may be a critical foraging skill among these and related primates and provide important insight into primate evolution.