research highlights



PROTECTED AREAS Lockdown fires

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The effects of lockdowns in response to COVID-19 have been far-reaching — as far as interfering with forest conservation efforts. Writing in Nature Sustainability, Eklund et al. show that a lack of on-site management around the time of lockdowns was associated with a 5-month surge of fires inside protected areas in Madagascar. To assess this, the authors used a variation of the excess-mortality approach that has been used to assess human deaths in the pandemic. Using remotely sensed data of precipitation and fire activity in each month from 2012 to 2020, the authors built a climate-adjusted predictive model of the number of fires in protected areas, accounting for biome type. The approach revealed more fires were observed than predicted when protected-area management was shut down in 2020, followed by a rapid return to model-predicted fire activity when lockdown was lifted. It also revealed smaller spikes in 2013 and 2018 during short periods of political unrest associated with presidential elections in Madagascar. Fire prevalence is used as an indicator of land conversion, and the authors argue that their findings bolster evidence that effective protected-area management, including fire prevention, depends on active, on-site engagement.

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