

## First Surveillance Results Bring No Evidence of SARS-CoV-2 Spillback in Bats of Central-Southern Italy

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**Abstract :** The question of the origin of SARS-CoV-2 and the cycle of transmission between humans and animals is still unanswered. One serious concern associated with the SARS-CoV-2 pandemic is that the virus might spill back from humans to wildlife, which would render some animal species reservoirs of the human virus. The aim of the present study is to monitor the potential risk of SARS-CoV-2 reverse infection from humans to bats, by performing bat surveillance from different sites in Central-Southern Italy. We collected 240 droppings or saliva from 129 bats and tested them using specific and general primers of SARS-COV-2 and coronaviruses respectively. All samples, including 127 nasal swabs and 113 fecal droppings resulted negative for SARS-COV-2, and these results were confirmed by testing the samples with the Droplet Digital PCR. Also, an end-point RT-PCR was performed and no sample showed specific bands. The absence of SARS-CoV-2 in the bats we surveyed is a first step towards a better understanding of reverse transmission to bats of this virus. We hope our first contribution will encourage the establishment of systematic surveillance of wildlife, and specifically bats, to help prevent reverse zoonotic episodes that would jeopardize human health as well as biodiversity conservation and management.

**Keywords :** coronaviruses, bats, zoonotic viruses, spillback, SARS-CoV-2

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