

## Diagnosis and implications of *Mycobacterium bovis* in a black rhinoceros (*Diceros bicornis minor*) in South Africa

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We report a first case of tuberculosis due to infection with *Mycobacterium bovis* in an elderly male black rhinoceros (*Diceros bicornis minor*) from the Limpopo Province in South Africa. Necropsy examination revealed two small non-encapsulated granulomas (~40 mm diameter) in the dorsocaudal lobe of the left lung. Sequencing of isolated crude lung tissue PCR product and boiled lung culture samples confirmed that the causative organism was *M. bovis*. Genotyping revealed limited similarities with *M. bovis* strains isolated thus far from South African cattle or wildlife. The source of the infection could not be determined. This case illustrates that *M. bovis* could affect zoo and free-ranging rare and endangered species. Effective diagnostics are urgently needed to certify rhinos and other wildlife species free of Tb when being translocated from known infected areas. This paper will further discuss the significance of other species with similar infections and the impact on conservation of species.

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