

Yellow fever strikes monkey populations in South America

11 March 2010

A group of Argentine scientists, including health experts from the Wildlife Conservation Society, have announced that yellow fever is the culprit in a 2007-2008 die-off of howler monkeys in northeastern Argentina, a finding that underscores the importance of paying attention to the health of wildlife and how the health of people and wild nature are so closely linked.

The paper—appearing in a recent edition of the [American Journal of Primatology](#)—focuses on [yellow fever](#) outbreaks that were documented in several howler monkey populations of Misiones Province, Argentina. The epidemics, which caused the death of dozens of rare howler monkeys, signaled the need for a human vaccination program in the region to save lives.

The authors of the study include: Ingrid Holzmann and Mario S. Di Bitetti of the Argentine Council for Science and Technology (CONICET); Ilaria Agostini of the Universidad de Roma and CNR; Juan Ignacio Areta of Grupo FALCO; and Hebe Ferreyra and Pablo Beldomenico of the Wildlife Conservation Society.

"The outbreak has tragic conservation implications for the endangered brown howler monkey, one of the two species affected, which is highly threatened primarily by habitat destruction, hunting, and now disease," said Dr. Pablo Beldomenico. "The study also points out the importance of wildlife as a critically important indicator of health and disease processes which can help protect people too."

The authors of the paper initiated their research as an ecological study of two howler monkey species of El Piñalito Provincial Park in January 2005, a project that enabled them to detect the first occurrence of two yellow fever outbreaks between November 2007 and October 2008. After finding four of their study monkeys dead, the team of biologists, park rangers, and veterinarians

organized a search both within and outside of the study area to gauge the extent of mortality. The role of yellow fever in the events was confirmed at the Instituto Nacional de Enfermedades Virales Humanas in January 2008 with a number of tests. Argentina's National Health Authority was notified and launched a vaccination campaign in Misiones.

Researchers eventually located 59 dead monkeys from outbreaks during the spring and summer of 2007-2008 and 2008-2009.

Yellow fever is caused by a virus from Africa that was brought to the Americas by colonists and the slave trade and still affects people in tropical areas. All Neotropical primates are highly susceptible to the disease, as they have not co-evolved with the virus. Since most howlers suddenly die after becoming infected, researchers concluded that these populations do not serve as reservoirs for the disease-causing virus.

"This study shows the importance of wildlife monitoring as a means of early detection for pathogens that could affect both animals and humans," added Beldomenico. "Wildlife health is also an important component of conserving endangered species such as howler monkeys."

Other recommendations include: human vaccinations around areas affected by disease; prompting people to quickly report monkey mortalities; and education for people living near protected areas about wildlife and the disease risks of capturing animals for pets.

Provided by Wildlife Conservation Society

APA citation: Yellow fever strikes monkey populations in South America (2010, March 11) retrieved 20 September 2021 from <https://phys.org/news/2010-03-yellow-fever-monkey-populations-south.html>

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