

Monitoring peccaries in Brazil benefits wildlife, local communities and food security

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Veterinarians from the Wildlife Conservation Society and the State Institute of Animal Health (IAGRO) in Mato Grosso do Sul, Brazil have conducted one of the first health assessments of white-lipped peccaries (medium-sized pig-like animals) in Brazil's Pantanal. The study was an effort to gauge the impact of *Leptospirosis*—a zoonotic bacteria that affects a wide range of animals as well as humans—on wildlife and livestock.

The study—conducted between 2003 and 2005 in a region of the Pantanal undergoing increasing land-use change and habitat fragmentation —has shed light on the prevalence of *Leptospirosis* in free-ranging populations of white-lipped peccaries, an important step in understanding the risks to wildlife and livestock.

The study appears in a recent issue of *Tropical Animal Health and Production*. The authors include: Tatiana P. Tavares de Freitas, Alexine Keuroghlian, Donald P. Eaton, Flavia Miranda, and José Virgilio B. Lima of the [Wildlife Conservation Society](#); L. Nakazato, and V. Dutra of Universidade Federal de Mato Grosso; E.B. de Freitas, A. Figueiredo, J.M. de Oliveira, R.C.S. Paes, L.A.R.C. Monteiro, and A.A. da C. Neto of Agencia Estadual de Defesa Sanitaria Animal e Vegetal de Mato Grosso do Sul (IAGRO); and J.C. de Freitas of Departamento de Medicina Veterinaria Preventiva, Universidade Estadual de Londrina.

Transmission of *Leptospirosis* and other diseases from wild to domestic animals can threaten the integrity of food safety and human health. Conversely, the movement of pathogens from domestic animals to wildlife such as peccaries may adversely impact the health of that species and the ecosystem it shapes. In cattle, the disease can cause miscarriages, reduce milk output, induce weight loss, and cause death. Humans can also contract the disease through water contaminated by the urine of infected animals.

Researchers found that 55 white-lipped peccaries (70 percent of the animals in the study) tested positive for *Leptospirosis*. Among older animals, 80 to 100 percent tested positive, and additional analyses showed that they were exposed to a greater variety (called serovars) of *Leptospirosis* infections.

"The detection of *Leptospirosis* antibodies in white-lipped peccaries points to the need for further studies on how diseases move between

livestock and wildlife, which creates risk for local economics as well as ecological health," said Dr. Marcela Uhart, WCS veterinarian and Associate Director for Latin America—Global Health Program.

The ongoing white-lipped peccary project is now one of several health projects supported by a \$1.5 million gift from Cargill, an international producer and marketer of food, agricultural, financial, and industrial products and services. "We partnered with WCS because we believe the health of wildlife and livestock are interconnected," said Mike Robach, Cargill vice president of corporate food safety and regulatory affairs. "Food safety and security are top priorities at Cargill, and findings WCS is generating from research such as this helps to develop safer and more secure food systems."

WCS's peccary health project also includes a public awareness effort that combines conservation education with sponsorship of a local women's soccer team in the village of Taboco. Soccer is the most popular sport in the region, so by attending games and providing team uniforms, project team members have opportunities to teach local residents, school children, and neighboring communities about the role peccaries play in shaping forest environments. The program has been carried out in partnership with Cargill, a local grassroots NGO called "Quinta do Sol", and the Mohamed bin Zayed Species Conservation Fund.

Describing the public awareness effort, WCS conservation biologist, Alexine Keuroghlian, said: "Team members teach local residents about the important role that peccaries play in maintaining regional biodiversity, for example as seed dispersers, forest engineers, and as prey of jaguar and mountain lions. We strongly discourage hunting of the animals and show how losses of local peccary populations degrade forest environments and cause declines of other forest species."

"As an encouraging sign of the success of the outreach program, we have received several reports from community members of peccary sightings in forest fragments," added Keuroghlian. "By educating young community members, like the soccer players, we're hoping that kids will influence their parents and grandparents, and pass on a conservation ethic that will help maintain wildlife populations in the region."

Cargill has contributed to a number of WCS's health initiatives in Latin America and Asia over the past three years, including in Brazil: a project focused on detecting diseases such as Newcastle and avian influenza in wild birds near commercial poultry farms; a study assessing zoonotic disease in indigenous communities; and an evaluation of wildlife reservoirs of tick-borne diseases.

Provided by Wildlife Conservation Society

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