

First Report of Positive Serological Response to the Hemoparasite, *Babesia caballi*, in Mountain Tapir

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Six mountain tapir (*Tapirus pinchaque*) were captured and fitted with Iridium / GPS collars for ecological research in Cayambe National Park, Ecuador (Castellanos, 2011). One of the wild tapirs captured in this study, named Dante, tested positive results for antibodies specific to the *Babesia caballi*, identified by Laboratorios Livex (Quito, Ecuador). This is the first report of positive serological response to this hemoparasite in the blood of this tapir species. This hemoparasite could have been transmitted by one of a great diversity of tick species identified by Pesquera *et al.* (2013) in the study area. It appears that Dante overcame the piroplasmiasis caused by this hemoparasite and apparently has maintained a healthy condition; his movements were monitored for 259 days after taking the blood sample. A rescued semi captive mountain tapir calf, named Leo, in the Antisana Ecological Reserve (Gomez *et al.*, 2013) was found to be infected with *Babesia sp.* hemoparasites (Fig 1). A second examination confirmed this infection and also identified the presence of *Anaplasma sp.* (Ortega, 2013). The University of Chiapas veterinarian Dr. Dario Marcelino Güiris (pers comm), however,



Figure 1. Microscopic image of the blood sample obtained from Leo, the young Andean tapir (below left). On the right, some red blood cells infected with *Babesia sp.* (see yellow arrow).

believes that the diagnosis of anaplasmosis could actually be the presence of Howell-Jolly bodies in the bloodstream, for which he has recommended further analysis for confirmation.

As both animals in which the parasite was identified are still alive and purportedly doing well, perhaps the tapir serves as an asymptomatic host carrier for *Babesia spp.* and only immunosuppressed animals succumb from infection with these hemoparasites.

Transmission of diseases between tapirs and cattle has been previously documented (Medici *et al.*, 2007). Pesquera (2013) identified bacteria of the genus *Anaplasma* and *Rickettsia* in our study area that pose a potential risk of transmission of diseases with important veterinary and public health consequences. Jessica Amanzo (pers comm) reported two episodes of foot and mouth disease in the north of Peru that killed mountain tapirs between 25 and 50 years ago. The likelihood of cross-infection is greatly increased by the encroachment of livestock grazing areas into tapir habitat, which could lead to increased mortality rates in tapirs.

The lack of information about diseases, parasites, vectors and microorganisms affecting the mountain tapir is alarming and requires further research to understand their effect on the tapir's health and population viability and contribute to management strategies.

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