

LIFE-HISTORY AND DISEASE ECOLOGY OF THE BROWN-NOSED COATI (*NASUA NASUA*) AND THE CRAB-EATING FOX (*CERDOCYON THOUS*) IN THE BRAZILIAN PANTANAL

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ABSTRACT

Infectious diseases can be significant threats to public health and wildlife. Yet, there is still a relatively poor understanding of the impact parasites have on the health and demography of wild hosts. Understanding the effects of parasites on hosts requires not only knowledge about the parasites themselves, but also about the ecology of their hosts. This dissertation was developed with this aim in mind. The first and second chapters regard, respectively, the development of a tool for aging coatis (*Nasua nasua*; Linnaeus, 1766) and the crab-eating fox (*Cerdocyon thous*; Linnaeus, 1766) and the collection of basic information on the life-history of these species in the Brazilian Pantanal. In the third chapter, I focus on ectoparasites of coatis and foxes, particularly on ticks. I investigate how abiotic factors and the host attributes influence tick abundance and prevalence on hosts. This chapter can be considered a model for investigating the relative importance of biotic and abiotic factors in parasite dynamics. Finally, in chapter 4 I focus on how hemoparasites and gastro-intestinal parasites affect coati health. There are few studies which have investigated the effects of multiple parasites on direct measures of the health parameters of free-ranging hosts. In this sense, this last chapter can also be viewed as a model for future studies focusing in the interplay between parasites and health of wild, free-ranging mammals.