

PhD Dissertation
Department of Environmental Science and Policy
College of Science
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Title: Identifying the relationship between the gut bacteria, host health and environmental factors in red and maned wolf

Dissertation Director: Dr. Elizabeth Freeman (chair)/ Dr. Lorelei Crerar (co-chair)

Committee: Dr. Nucharin Songsasen, Dr. Carly Muletz-Wolz, Dr. Haw Chuan Lim

ABSTRACT

Various factors threaten canid species globally, emphasizing the importance of zoo populations. However, zoo management is challenging, and individuals commonly display diseases that are not described in the wild. The red and the maned wolf are both impacted by gastrointestinal (GI) diseases from an unknown cause living under human care. This dissertation will i) address the link between fecal glucocorticoid metabolites (FGMs), gut bacteria and environmental factors in the red wolf, ii) identify relationship between FGMs and gut bacteria in the red wolf and iii) assess the relationship between gut bacteria, GI health and environmental factors in the maned wolf.