TURNER INSTITUTE *of* Ecoagriculture

UNDERSTANDING PERSISTENCE OF *MYCOPLASMA BOVIS* IN BISON HERDS

Researchers.
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Rationale. *Mycoplasma bovis* is a primary bacterial pathogen of bison that expanded rapidly in both numbers of affected herds and geographic range in 2021. Herds can experience losses of 10-45% of adult cows, with lesser but still significant mortality in other sex and age classes. The bacterium is readily recovered from the nasal passages of clinically ill or dead animals but is rarely identified in healthy bison. Thus, research is needed to determine the most accurate and effective live-animal diagnostic techniques to detect the disease, as currently no validated test exists, nor do we understand what anatomic locations, tissues, or sampling equipment provide the best accuracy in detecting infected animals. Development of accurate live animal tests are also critical to advancing our understanding of where this disease is occurring on the landscape and how it is introduced to naïve herds. The goals for this project are to a) improve live animal diagnostic testing for *Mycoplasma bovis* in bison; b) determine biotic and abiotic risk factors for *Mycoplasma bovis*; c) understand the epidemiology and disease dynamics of both host and pathogen for *Mycoplasma bovis* in bison; and d) contribute to the development of disease management approaches, including understanding the role and efficacy vaccines.

Species:	bison
Topic:	health, mycoplasma
Researcher:	Buttke, Bragg, Sondegrath, May, Krus, Martin
University:	Colorado State
Year Completed:	Ongoing