Cattle Influence on Ungulate Habitat Use in Eastern Montana (Poster)

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Several studies have explored interactions between cattle and deer, speci ically those associated with disease transmission and direct and indirect competition. These interactions may be further exaggerated immediately surrounding shared, limiting resources. In semi-arid prairie ecosystems, where grazing is common and water is limited, riparian sites may increase interactions and ine scale competition between cattle and deer. Understanding spatiotemporal overlap may help inform these potential interactions. For example, past studies highlight behavioral changes in mule deer when cattle are present, suggesting that mule deer shift to a more nocturnal activity pattern. We will examine spatiotemporal partitioning around prairie streams where deer and cattle share habitat. We set 63 camera traps across 5 prairie streams in northeastern Montana from June through September to record crepuscular and nighttime activity, capturing activity from 7pm to 7am nightly. We captured cattle use at 18 sites across 4 streams and deer activity at 48 sites across 5 streams. Image data, including time and location of activity, will be analyzed to assess overlap and partitioning behavior between deer and cattle. Initial results suggest that deer shift their activity patterns in response to the presence of cows.