Elk in The Ruby Mountains (Poster)

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Human recreation and wildlife overlap is a growing concern. The amount of people who visit public land grow in numbers every year, and it is important to understand how large visitor numbers are affecting the local ecosystem. Elk are particularly affected, since they need space to raise calves, find food, and sleep as a herd. With the largest elk population in the United States, the state of Colorado is investigating how humans that hike and camp affect where elk spend their time and raise their calves. To this end, study sites have been set up with trail cameras in Colorado and Montana. We calculated an abundance estimate for one of the few study sites outside of Colorado, the Ruby Mountains of Montana. We used trail camera photos collected from July and August of 2020 to estimate total elk, cow, and bull abundance over the entire study period. We also estimated total calf abundance over four two-week periods. Our estimates for total number of elk, cows, and bulls were reasonable when compared to existing FWP regional estimates. Calf abundance dropped significantly over the course of the study, though misclassification made our estimates lower than we expected. We calculated our estimates with the Space to Event (STE) model (Moeller et al. 2018, Moeller and Lukacs 2021). Although areas that experience heavy recreational use are obvious candidates for surveys, areas whose recreation are diffuse such as the Ruby Mountains are just as important to gain a complete understanding of the subject.