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Progress report on:
The Effects of Willow Condition on Small Mammal and Bird Abundance and Species Richness in Rocky Mountain National Park

Summary:

In summer 2012, I surveyed riparian willow ecosystems on the east side of Rocky Mountain National Park (RMNP) in the valleys for birds and small mammals. During May and June, I conducted bird point counts at fifteen sites of varying willow condition within the major valleys on the east side of the park including Hollowell Park, Moraine Park, Upper Beaver Meadows, and Horseshoe Park/EndoValley. I visited each site once per week during the dawn chorus and recorded all birds seen or heard during a five-minute count duration. In July and August, I conducted a mark-recapture study of small mammals at six of the fifteen sites. Each small mammal trapping grid included 128 Sherman live traps in a grid formation parallel to the river. Volunteers with a variety of interests and backgrounds assisted in bird and small mammal surveys, resulting in a worthwhile contribution to the research and a valuable experience for volunteers. We encountered a total of 32 bird species and six small mammals. Further data analysis will provide estimates of bird and small mammal abundance for species with sufficient observations, accounting for probability of detection or probability of capture. The abundance estimates will be compared to vegetation data collected at each site and analyzed for trends. This winter, I will conduct winter bird counts, scheduled for January-February 2013, to record winter resident species. My spring/summer 2013 sampling plan includes five additional bird point count sites. I hope to offer a field technician position to provide hands-on experience and mentoring for an undergraduate ecology student. In July 2013, I look forward to presenting a small mammal research seminar through Rocky Mountain Nature Association (RMNA) to help park visitors connect with nature.