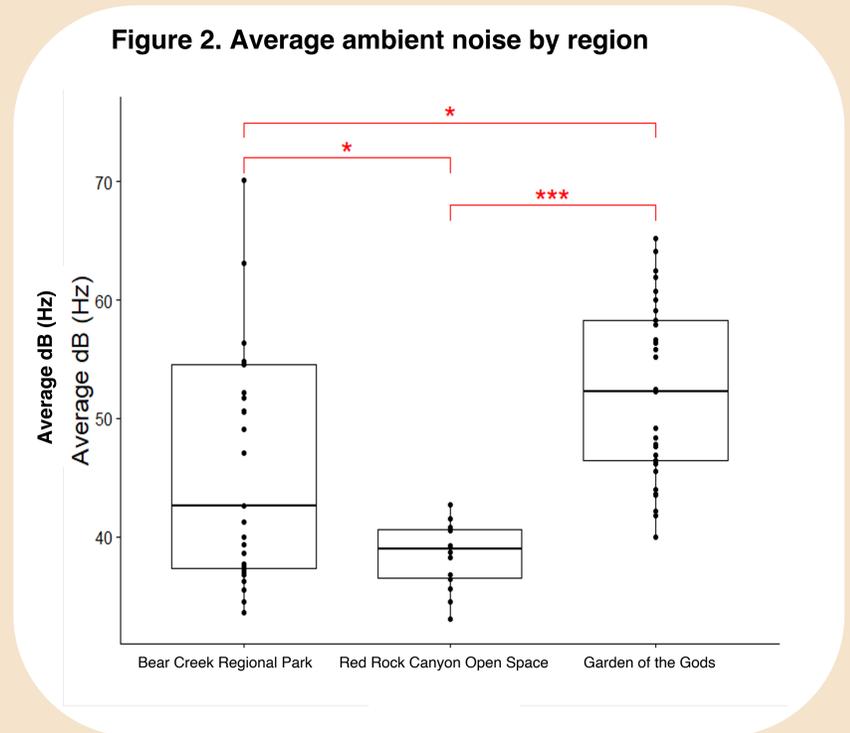
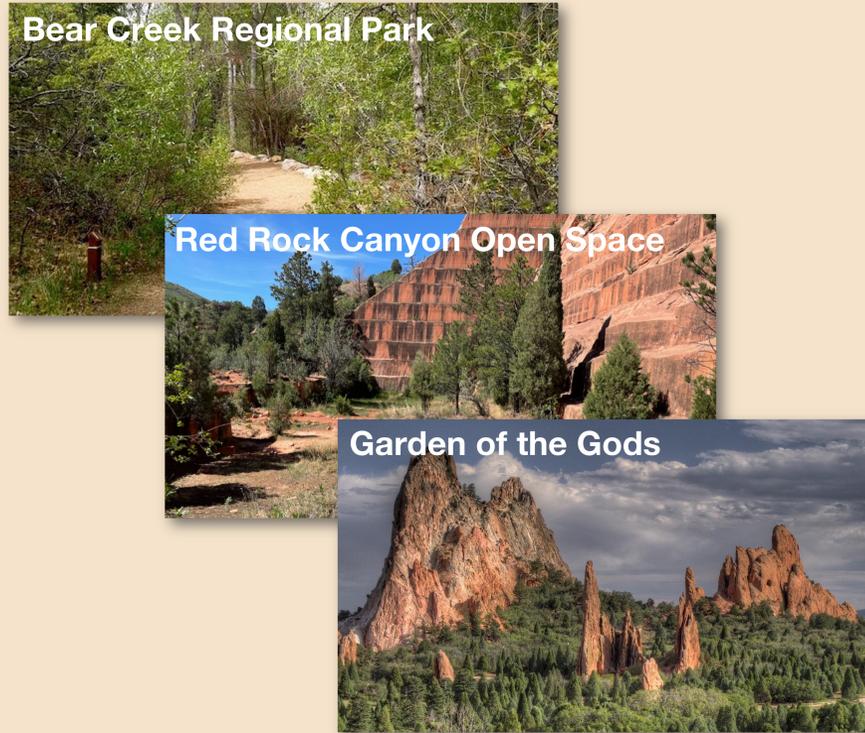




Preliminary studies suggest that Spotted Towhees (*Pipilo maculatus*) in regions with varying levels of anthropogenic activity do not significantly differ in song characteristics

Previous research has found an increase in bird song trill rate and maximum frequency due to anthropogenic noises.¹ However, songs with low frequency are preferred during mating.² Little is known about how human recreation affects breeding behavior in birds. Spotted Towhees (*Pipilo maculatus*) are widespread in the Colorado Springs area and readily breed in recreational areas. Here, we assess the relationship between Spotted Towhees song characteristics (frequency and trill rate; Fig. 1) and anthropogenic activity.



Although we found spotted towhees occupy parks with significantly different levels of anthropogenic noise (Fig. 2; above) and activity (Table 1; left), we found no significant difference in trill rate (Fig. 3; below) and maximum frequency (Fig. 4; below) among males in parks with varying levels of anthropogenic noise and activity.



Scan to observe a male Spotted Towhee sing!



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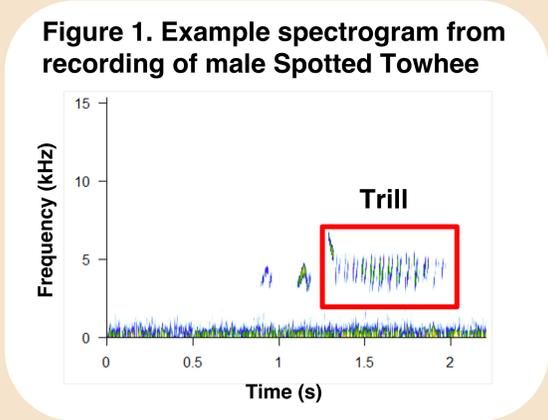
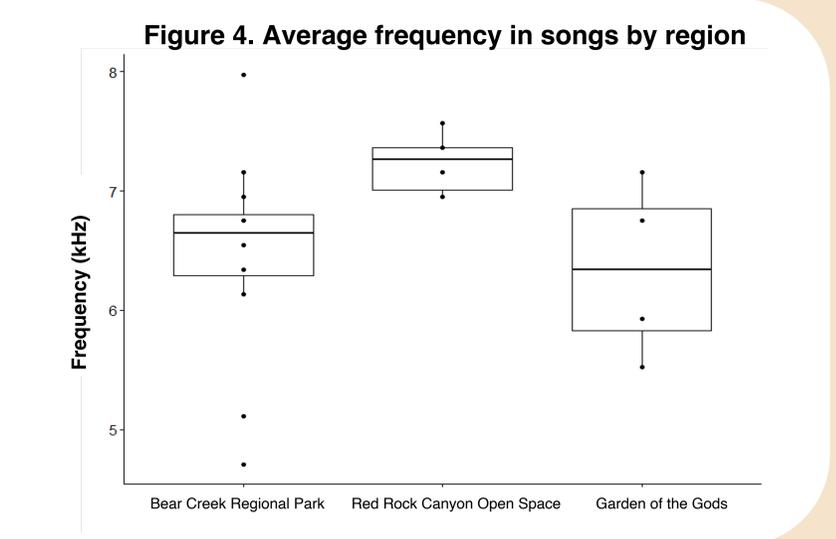
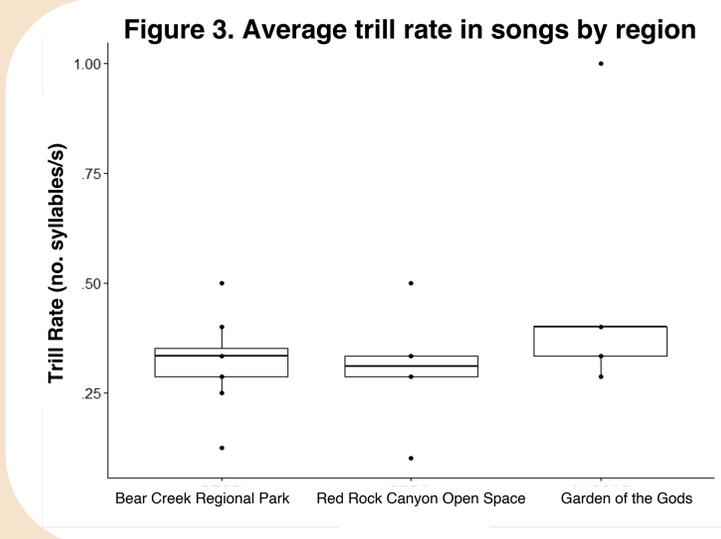


Table 1. No. of disturbances per site

	Bear Creek Reg. Park	Red Rock Canyon OP	Garden of the Gods
Hikers	14	28	316
Joggers	23	10	7
Bikers	8	4	0
Dogs	12	6	26
Vehicles	1	0	3



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Scan to see References & Acknowledgements



We aim to expand this research in the future by determining whether dog presence and activity affects Spotted Towhee nest placement and aggression.