Gunnison Basin Common Raven Survey Number 1
5 August 2013
Results

Site #	Site Name	Raven Point Counts		
		Morning	Mid-Day	Evening
1	Cabin Creek -- Reference	No data	0	121*
2	Long Gulch -- Reference	0	0	0
3	Gunnison County Landfill	139	0	193
4	Lost Miner Ranch (Ag)	4	0	0
5	U.S. Highway 50 (MM 161-162)	0	1	0
6	Western State Colorado University	0	0	0
7	City Market Parking Lot	5	0	2
8	Gunnison Residential (WS & 14th)	3	0	1
9	Gunnison County Airport	0	0	0
10	Dos Rios Golf Club	0	2	2
11	Gunnison Wastewater Treatment Plant	2	2	2
12	McCabe's Lane -- Reference	0	0	0
Proportion of sites with ravens present		5/11 (0.45)	3/12 (0.25)	6/12 (0.50)

I conducted the first of 24 raven point counts on Monday 5 August 2013. I started the morning survey using 10 minute point counts but switched at mid-day to 6 minute point counts so I would have time to survey the 12th site (Cabin Creek reference). No data were collected at Cabin Creek in the morning survey as I reached the 10 am cut-off. More sites is preferable to longer count periods.

I counted 139 ravens from my official count location at the landfill, but from other vantages I estimated at least 174 ravens present in the morning. No ravens were present at the landfill at mid-day (the ravens seem to leave the landfill once operations begin and customers arrive. In the evening, the official raven count at the landfill was 193, but I estimated at least 242 ravens from various vantage points.

The last count of the day was at the Cabin Creek reference site. Just as I was about to load up in my truck I heard a raven. I scanned the sky and saw several black dots at fairly high altitude. I counted 121 ravens flying northeast over Cabin Creek on their way to a night roost location. The ravens flew in circles, with lots of vocalizations. They appear to be using a fairly distant roost site – my prediction is they are roosting in forested habitat north of Highway 50. This must be a minimum of 6-7 miles (probably more) from the landfill.

I went back to the landfill this morning (August 6) and counted 463 ravens return to the landfill in a 30 minute time period. The first ravens arrived just before 6 am. They all arrived from the same location north and east of the landfill, somewhere beyond my count point in Cabin Creek. From the point I could first detect them in the sky, they flew for 2 minutes and 45 seconds to arrive at the landfill. Their flight was much more direct in the morning to the landfill than it was in the evening to the roost. Ravens were highly concentrated around the trash pile this morning. In the evening and later in the morning they seem to disperse somewhat. I saw many ravens secure a large piece of food and fly a short distance into the sagebrush, land and consume it. My first ground count of ravens this morning (6:33 am) resulted in a high count of 228 ravens, which is less than half the total flight count I made. The flight count (463) was a conservative count and the ground counts are likely to underestimate raven numbers. Some

ravens are likely on the north facing slope behind the landfill and others are out of view in the complex topography of the trash heap. Also, the ravens move around a lot and precise counts are difficult to make.

Interestingly, ravens do not appear to use the landfill throughout the day (I have visited the landfill at least three times recently and counted 0 ravens at mid-day). I think many are using the cottonwoods along Tomichi Creek for day roost sites, but it is unlikely that all 400-500 ravens that arrive at the landfill are roosting in the cottonwoods – I have counted dozens, but not hundreds.

During the mid-day survey on 5 August, I only detected ravens at three of the 12 sites. They seem to day roost in cottonwood trees and during summer they are well hidden in the canopy. At most sites, raven detections are likely to be underestimated when foliage is dense. Another popular day roost is open bare ground.

I took photos of all the count sites yesterday. I will start doing a road kill inventory on Highway 50 on each count day.

Let me know if you have thoughts on this initial data and observations.

Thanks,

Pat!