

Cowell Ranch Conservation Easement
2004 Small Mammal Trapping and Species Inventory Report
Montana Fish, Wildlife, and Parks (MFWP)
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The Cowell Ranch Conservation Easement is 4,489 acres and is located in Phillips County about 50 miles southeast of Malta along the north side of the Missouri River Breaks. Topography of the Cowell Ranch is variable and ranges from riparian, shrub dominant coulees, sagebrush-grassland rolling prairie, and ponderosa pine woodland. The riparian and coulee areas are the most productive and diverse on the easement property. The Cowell Easement lies in the transition zone between the rolling prairie and the Missouri River Breaks, making this a highly productive and diverse wildlife area. Big game such as elk, antelope and mule deer use the property yearlong, as do several species of upland game birds and a variety of small mammals and reptiles. Species of special interest or concern on the ranch include sage grouse, black-tailed prairie dog, burrowing owl, and ferruginous hawk.

Findings:

- Small Mammal Trapping Lines (Table 2)
 - 63 Captures of 7 Species
- Large Fox Cage Traps
 - 0 captures

Acknowledgements

MT FWP would like to thank John Cowell for his assistance in this small mammal survey effort.

Table 1. Trapping Locations and Habitat Types

<i>Trapline #</i>	<i>Name</i>	<i>Habitat</i>
1	Line 1	Mixed Coniferous
2	Line 2	Sagebrush Grassland
3	Line 3	Sagebrush Grassland
4	Line 4	Sagebrush Grassland
5	Line 5	Grassland Coulee
6	Line 6	Sagebrush Grassland
7	Line 7	Grassland Coulee
8	Line 8	Grassland Coulee
9	Line 9	Grassland Coulee
10	Line 10	Upland Grassland
11	Line 11	Sagebrush Grassland
13	Line 13	Sagebrush Grassland

Table 2. Species Captured Summary

Species Captured	Traplines													Total
	1	2	3	4	5	6	7	8	9	10	11	13		
Tiger Salamander			1											1
Woodhouse's Toad	1						1	1						3
Vesper Sparrow				1				1						2
Western Meadowlark		1											1	2
Deer Mouse	2	5	11	6		2			6	3	3	5		43
Prairie Vole					2		4	3	1					10
Unknown Shrew		1											1	2
Total Captures	3	7	12	7	2	2	5	5	7	3	3	7		63



Western Meadowlark



Deer Mouse

Photo: Kristi Dubois

Table 3. Trapping Summary

Trap Type	Trapline												Total Trap Nights	Captures	Captures/100 Trap Nights	Number of Species
	1	2	3	4	5	6	7	8	9	10	11	13				
Snap, small (victor)	45	41	47	48	45	49	46	46	47	38	40	150	642	12	1.87	2
Snap, med (museum special)	45	44	42	37	45	43	45	46	42	33	35	134	591	28	4.74	4
Snap, large (rat)	8	9	9	10	10	10	10	10	10	8	8		102	1	0.98	1
Cage, small (sherman)	45	45	50	49	50	50	50	50	50	39	36		514	10	1.95	1
Cage, med (skunk)	9	4	10	10	10	10	5	5	10	8	7	8	96	1	1.04	1
Cage, large		3	5	5	5	5	5			4	4		36	0	0	0
Pitfall	25	50	50	40	25	50	50	50	25	40	40	160	605	11	1.82	5
Total Trap Nights	177	196	213	199	190	217	211	207	184	170	170	452	2586			
Total Captures	3	7	12	7	2	2	5	5	7	3	3	7	63			
Captures/100 Trap Nights	1.7	3.6	5.6	3.5	1.1	0.9	2.4	2.4	3.8	1.8	1.8	1.6	2.4			
Number of Species	2	3	2	2	1	1	2	3	2	1	1	3				

Photos of Traplines 1-3 (Additional photos unavailable).



Trapline 1



Trapline 2



Trapline 3

Table 4. Miscellaneous Species Observed

Woodhouse's Toad
Pied-billed Grebe
American White Pelican
Swainson's Hawk
Golden Eagle
Sage Grouse
American Coot
Upland Sandpiper
Long-billed Curlew
Common Nighthawk
Eastern Kingbird
Tree Swallow
American Robin
Loggerhead Shrike
Spotted Towhee
Brewer's Sparrow
Vesper Sparrow
Red-winged Blackbird
Western Meadowlark
Mountain Cottontail
White-tailed Jack Rabbit
Bushy-tailed Woodrat
Common Porcupine
Pronghorn
Painted Turtle
Racer
Plains Garter Snake



Racer



Painted Turtle Digging Nest



Loggerhead Shrike

Photo: John Carlson

Photos: MFWP staff unless otherwise indicated.

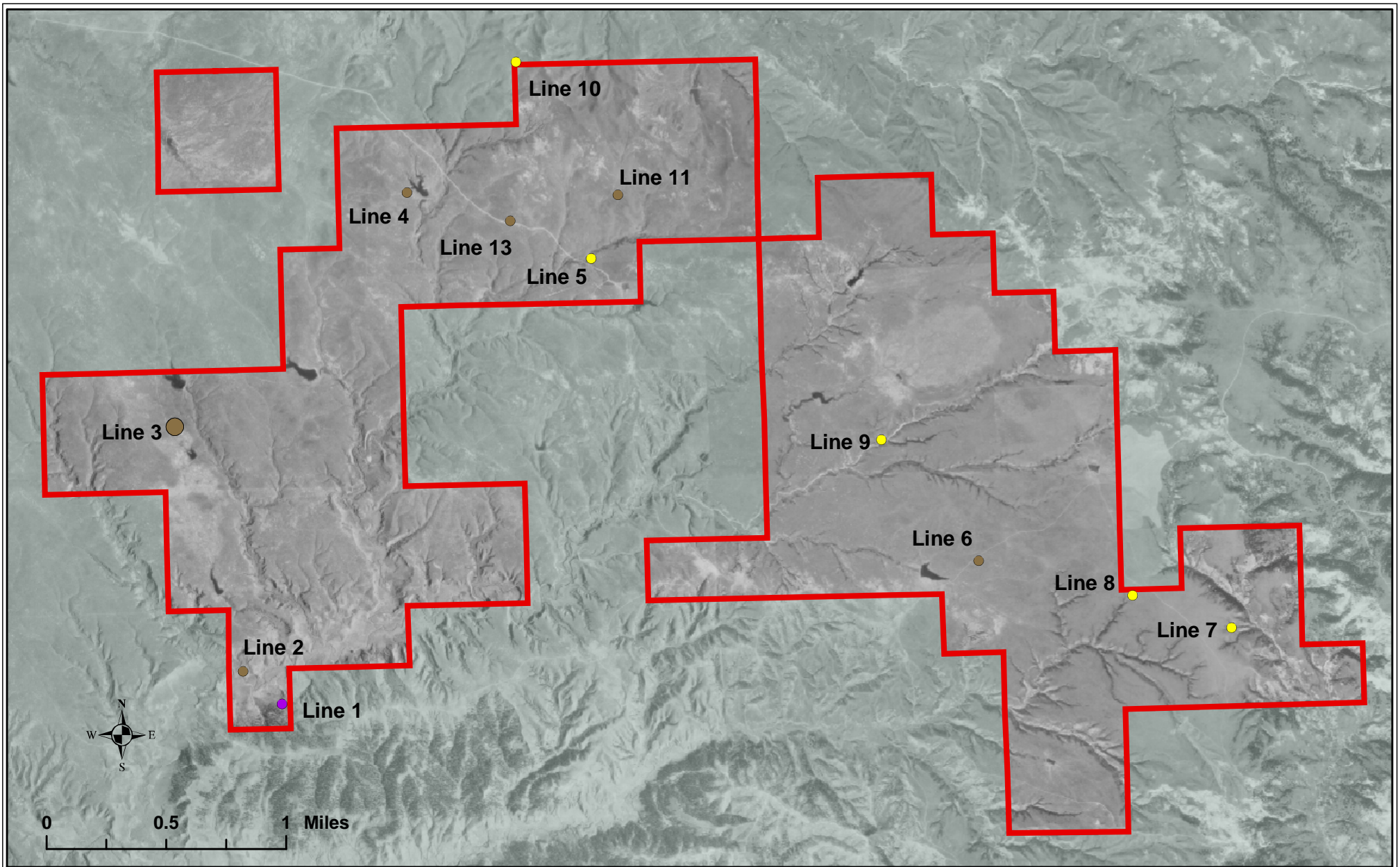


Figure 1:

Cowell CE

Small Mammal Survey Site



**Montana Fish,
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Trapping Locations

General Landcover (Symbol color)

- | | | |
|-------------------|--|-----------------|
| Agriculture | Conifer Forest | Riparian |
| Barren / Badlands | Grassland | Shrub Grassland |
| Broadleaf Forest | * Not all landcover types were sampled at all sites. | |

Captures/100 trapnights (Symbol size)
* only calculated for trap lines

- | | | |
|-------|---------|-----|
| 0 - 5 | >5 - 15 | >15 |
|-------|---------|-----|

