

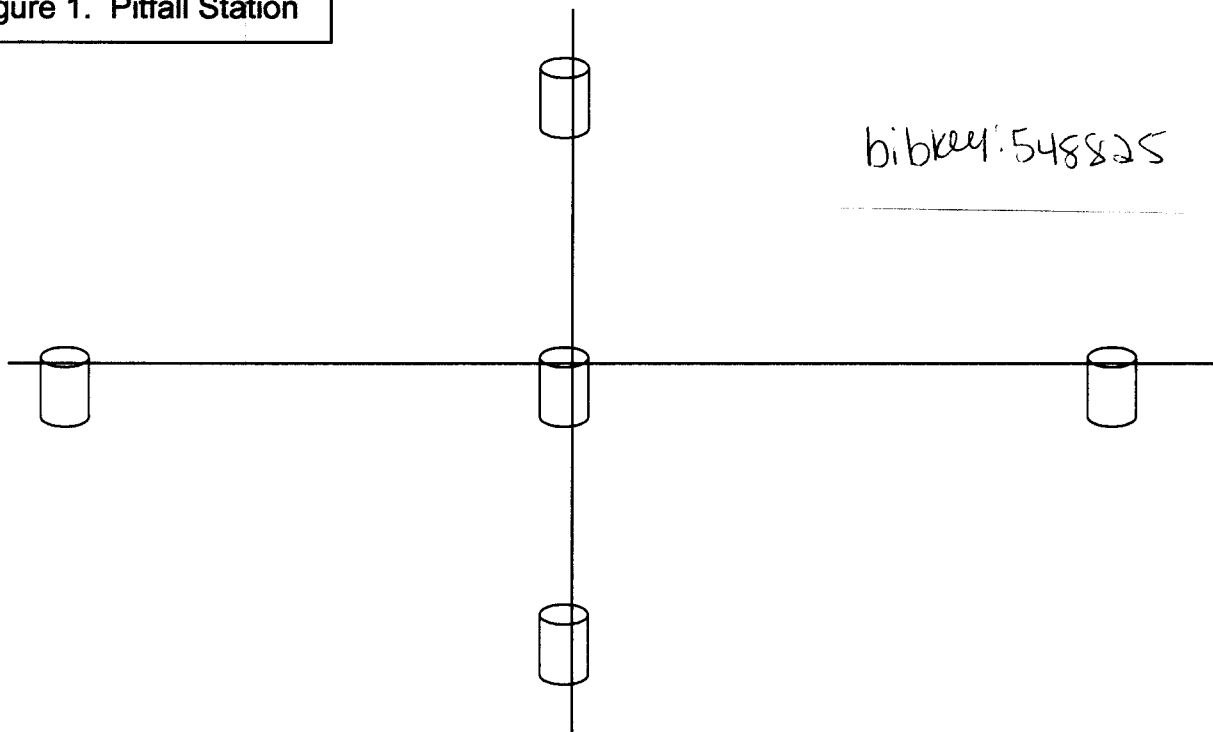
Post-Visit Report for DEVILS TOWER NATIONAL MONUMENT Mammal Inventory
Small Terrestrial Mammal Inventory – Summer 2002

Devils Tower was surveyed for small, terrestrial mammals during the period from Wednesday, 17 July to Monday, 22 July 2002. Three pitfall stations were set in each of the major habitat types (Ponderosa pine, riparian deciduous woodland, and grassland) as described in the inventory protocol, for a total of 9 pitfall stations. These stations were run for four consecutive nights, from 18 July through the night of 21 July. Sherman live trap transects were established in each of the primary habitats (ponderosa pine, grassland, riparian woodland) to provide a minimum of 500 trap nights per habitat (details below) with the exception of the riparian habitat. Traps along the Belle Fourche (riparian habitat) were retrieved one night early (resulting in only 400 trap nights) due to heavy rains and the threat of losing traps due to rising water. A transect of 40 traps was also placed in the prairie dog town.

Trapping Effort

Three pitfall stations (Figure 1), each consisting of five 4-gallon buckets and 20m of 10" fencing, were run in each habitat for 4 consecutive nights, providing a total of 60 trap nights per habitat for pitfalls.

Figure 1. Pitfall Station



Two Sherman live trap transects set in ponderosa pine (PP-1 and PP-2), both consisting of 40 stations (2 traps per station for a total of 80 traps), were run for 3 consecutive nights, while a third ponderosa pine transect of 20 stations (PP-3; 40 traps) was run for 2 consecutive nights. Total live trap nights in ponderosa pine was 560. PP-1 was located just south of the "end of road turnaround" on West road and ran parallel to the west park boundary, at a distance of about 100m from the fence. PP-2 was placed in a roughly north-south direction, proceeding upslope northeast of the Tower. This area had been hand-thinned and slash piles were present. PP-3 was placed to

the inside of the main road, between the road and the drainage in the area northwest of the tower (northern part of Graham Unit).

Two grassland transects, consisting of 40 and 80 traps (GRA-1 and GRA-2 respectively) were run for 3 nights, while 2 other grassland transects of 40 traps each (GRA-3 and GRA-4) were run for 2 consecutive nights. Total live trap nights in grassland habitat was 520. GRA-1 was in the grassland area on the south side of West road. GRA-2 was in the prairie area northeast of the Tower. GRA-3 was located in the sage shrubland area below the mesa in the southwest corner of the park. GRA-4 was located in the sage and cottonwood area close to the private campground next to the main entrance to the park.

One riparian transect of 200 traps along the park side of the Belle Fourche River was run for two consecutive nights before being pulled due to the threat of rising waters. Total live trap nights in riparian habitat was 400.

A 40-trap transect was run in the prairie dog town for three nights. Total Sherman live trap nights for the site was 1600.

Pitfall stations were associated with Sherman trap transects, or located separately, as follows:

<u>Pitfall Station</u>	<u>Sherman Transect</u>
PON-PF1	PP-1
PON-PF2	In slash area W/NW of Tower; north of Red Beds Trail
PON-PF3	PP-3
RIP-PF1	5m south of deer exclosure in drainage just west of West Road
RIP-PF2	In trees on south side of bridge over the Belle Fourche; west side of river.
RIP-PF3	Tarpot drainage; ~ 100m from road
GRA-PF1	~150m south of hiking trail leading from parking lot on West Road; 320° radial from Tower.
GRA-PF2	GRA-4
GRA-PF3	GRA-3

Trapping Results

A Habitat / Trap Type Summary is provided below. Table 1 (a separate Excel attachment) provides detailed information about species and capture locations.

Ponderosa Pine Shermans

Peromyscus leucopus—12

Peromyscus maniculatus—18

Neotoma cinerea—12

Grassland Shermans

Peromyscus leucopus—2

Peromyscus maniculatus—20

Tamias minimus—1

Microtus ochrogaster—3

Reithrodontomys megalotis—1

Riparian Shermans

Spermophilus tridecemlineatus—5

Peromyscus leucopus—8

Peromyscus maniculatus—3

Microtus ochrogaster—1

Microtus pennsylvanicus—4

Prairie Dog Town Shermans

Peromyscus maniculatus—3

Ponderosa Pine Pitfalls

Sorex cinereus / haydeni—1

Peromyscus maniculatus—1

Grassland Pitfalls

Peromyscus maniculatus—2

Tiger salamander—1

Plains spadefoot toad—1

Riparian Pitfalls

Zapus hudsonius—2

Sorex cinereus / haydeni—5

Peromyscus leucopus—2

Milksnake—1

Other Observations / Collections

A skull of a mink, *Mustela vison*, was found near the Sherman transect in the sagebrush/grasslands at the base of the plateau in the southwest corner of the park (GRA-3). A bobcat (*Lynx rufus*) was observed along the Belle Fourche just south of the prairie dog town. A red squirrel, *Tamiasciurus hudsonicus*, was photographed near the NPS apartment complex. Nuttall's cottontail rabbits, *Sylvilagus nuttalli*, were observed at the NPS apartment complex and near the entrance to the park. Mounds produced by pocket gophers, *Geomys bursarius* or *Thomomys talpoides* (probably the latter), were observed throughout much of the park. A second trapping session at Devils Tower will include gopher live traps to confirm the identity of the pocket gophers at this site. White-tailed deer (*Odocoileus virginianus*) were observed throughout the park.

Alphabetical List of Mammals Captured/Observed at Devils Tower

- ✓ Geomys bursarius* *✓ Thomomys talpoides* * -- Plains Pocket Gopher / Northern Pocket Gopher
✓ Lynx rufus -- Bobcat
✓ Microtus ochrogaster -- Prairie Vole
✓ Microtus pennsylvanicus -- Meadow Vole
✓ Mustela vison -- Mink
✓ Neotoma cinerea -- Bushy-tailed Woodrat ✓
✓ Peromyscus leucopus -- White-footed Mouse
✓ Peromyscus maniculatus -- Deer Mouse
✓ Reithrodontomys megalotis -- Western Harvest Mouse ✓

- ✓ *Sorex cinereus / haydeni* ** – shrew
- ✓ *Spermophilus tridecemlineatus* – Thirteen-lined Ground Squirrel ✓
- ✓ *Sylvilagus nuttalli* – Nuttall's Cottontail Rabbit
- ✓ *Tamiasciurus hudsonicus* – Red Squirrel ✓
- ✓ *Tamias minimus* -- Least Chipmunk ✓
- ✓ *Thomomys talpoides* * -- Northern Pocket Gopher ✓
- ✓ *Zapus hudsonius* – Meadow Jumping Mouse

* Identity to be confirmed in second trapping session.

** Identity to be confirmed by after skull is cleaned.

Amphibians Captured/Observed

- Milksnake -- *Lampropeltis triangulum*
- ✓ Tiger Salamander – *Ambystoma tigrinus* ✓
- Northern Leopard Frog – *Rana pipiens*

to be
skull cleaned yet

Trapping Location

Coordinates

PON-PF3	13T	0521895	4937760
PP-3	13T	0521895	4937760
PON-PF2	13T	0522416	4937970
PP-1	13T	0521479	4938318
PON-PF1	13T	0521479	4938318
GRA-1	13T	0521559	4938344
RIP-PF1	13T	0521859	4938033
PP-2	13T	0522823	4938354
GRA-2	13T	0522819	4938400
GRA-PF1	13T	0522102	4938360
GRA-PF2	13T	0523690	4937491
GRA-4	13T	0523690	4937491
RIP-PF2	to be acquired during subsequent visit		
GRA-PF3	13T	0522013	4936410
GRA-3	13T	0522013	4936410
RIP-PF3	to be acquired during subsequent visit		