

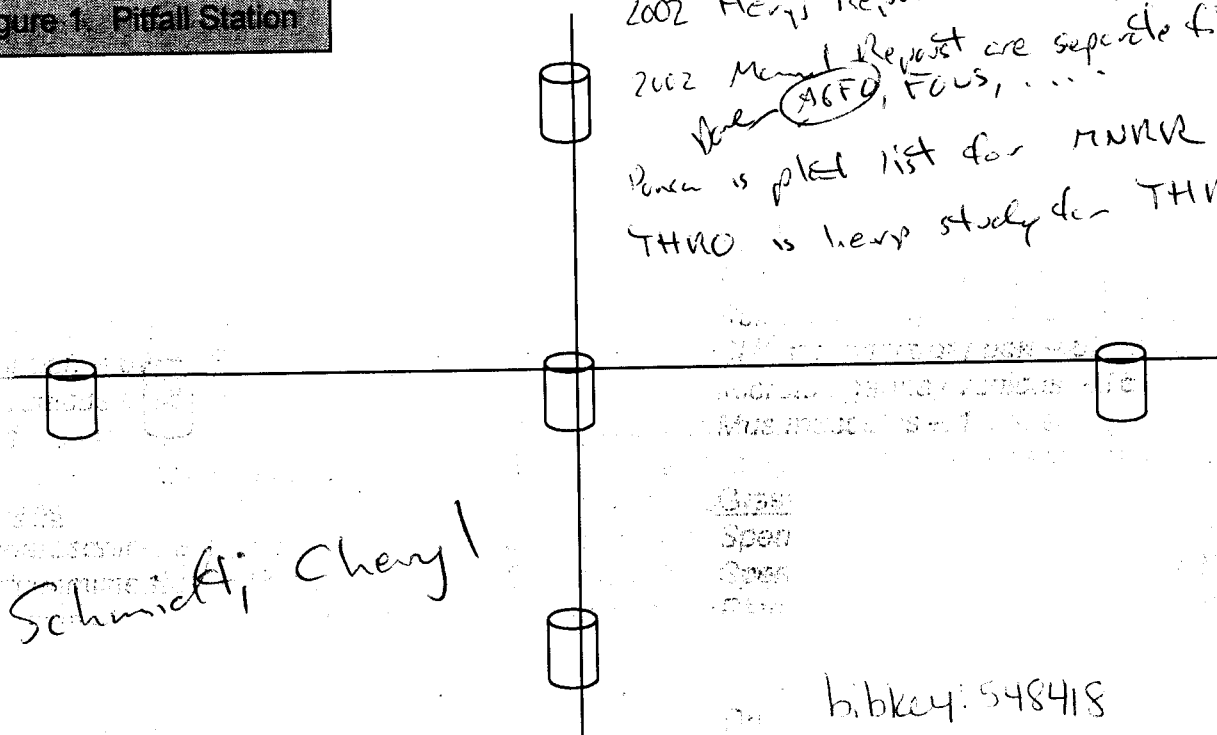
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 Post-Visit Report for FORT UNION TRADING POST NHS Mammal Inventory
 Small Terrestrial Mammal Inventory – Summer 2002

Fort Union National Trading Post National Historic Site was surveyed for small, terrestrial mammals during the period from Monday, 5 August 2002 to Friday, 9 August 2002. Three pitfall stations were set in each of the major habitat types (riparian deciduous woodland and grassland) as described in the inventory protocol, for a total of 6 pitfall stations. These stations were run for four consecutive nights, from 5 August through the night of 8 August. Sherman live trap transects were established in each of the habitats to provide a minimum of 1000 trap nights across the site.

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



Three Sherman live trap transects were set in riparian deciduous woods. RIP-1, which was located along the willows of the old river channel that is southeast of the maintenance building, comprised 40 traps. RIP-2 (80 traps) and RIP-3 (40 traps) were located in later successional woodlands west of the Fort. These three transects were run for 3 nights, producing 480 total live trap nights in riparian woodland.

Six grassland transects were ultimately run, five for three nights, and the sixth (Bodmer Overlook) for two nights. G-1, was located in the rushes of the old river channel southeast of the maintenance building, and comprised 30 traps. G-2 (30 traps) was located in the brome/alfalfa on the first tier north of the old river channel (north of G-1). G-3 (30 traps) was placed in the crested wheatgrass on the second tier above the old river channel (north of G-2); and G-4 (30 traps) was in the brome along the north edge of this same tier. G-5 (40 traps) ran parallel to the highway in the restored prairie area northeast of the Fort. G-1 through G-5 were run for 3 nights. G-6 (40 traps)

Grassland Pitfalls

Sorex cinereus/haydeni -- 4
Perognathus fasciatus -- 1
Peromyscus maniculatus -- 2
Microtus pennsylvanicus -- 1
Northern Leopard Frog -- 1

Other Observations / Collections

Porcupines (*Erethizon dorsatum*) were observed primarily west of the visitor's parking lot. Pocket gopher mounds were observed throughout the grassland areas of the park. Subsequent trapping with gopher live traps will be used to verify species identity. Spadefoot toads were observed crossing the road from the parking lot to the Fort. A Western Plains Garter Snake was photographed close to Riparian transect #2 (below visitor's parking lot in riparian woodland).

Alphabetical List of Mammals Captured/Observed at Fort Union

- ~~Blarina brevicauda~~ -- Short-tailed shrew
- ~~Clethrionomys gapperi~~ -- Red-backed vole
- ~~Erethizon dorsatum~~ -- Porcupine
- ✓ *Geomys bursarius* / *Thomomys talpoides* * -- Plains Pocket Gopher / Northern Pocket Gopher
- ~~Microtus pennsylvanicus~~ -- Meadow Vole
- ~~Mus musculus~~ -- house mouse
- ~~Onychomys leucogaster~~ -- Grasshopper mouse
- ~~Perognathus fasciatus~~ -- Olive-backed pocket mouse
- ~~Peromyscus leucopus~~ -- White-footed Mouse
- ~~Peromyscus maniculatus~~ -- Deer Mouse
- ~~Reithrodontomys megalotis~~ -- Western Harvest Mouse
- ~~Sorex cinereus / haydeni~~ ** -- shrew
- ~~Spermophilus tridecemlineatus~~ -- Thirteen-lined Ground Squirrel
- ~~Spermophilus richardsonii~~ -- Richardson's Ground Squirrel
- ✓ *Thomomys talpoides* / *Geomys bursarius* * -- Northern Pocket Gopher
- ~~Zapus hudsonius~~ -- Meadow Jumping Mouse

*Identity to be confirmed in second trapping session.

** Identity to be confirmed after skull is cleaned.

Amphibians Captured/Observed

Unidentified frog submitted as voucher

- ~~Northern Leopard Frog~~ -- *Rana pipiens*
- Plains Spadefoot Toad ~~Namophonius~~ *Scaphiopus* 173425
- ~~Western Chorus Frog~~ -- *Pseudacris triseriata*
- ~~Western Plains Garter Snake~~ *Thamnophis radix*

COORDINATES

Trapping Location	Zone	UTM Easting	Northing
GRA - PF1	13 T	0572286	5316367
GRA - PF2	13 T	0572424	5316215
GRA - PF4	13 T	0572170	5316836
GRA - PF3	13 T	0572425	5316171
GRA - PF5	13 T	0571141	5316769
GRA - PF6	13 T	0571151	5316725
GRA - 1	13 T	0572424	5316214
GRA - 2	13 T	0572402	5316299
GRA - 3	13 T	0572379	5316366
GRA - 4	13 T	0572268	5316478
GRA - 5	13 T	0572170	5316836
GRA - 6	13 T	0571827	5317802
RIP - 1	13 T	0572425	5316171
RIP - 2	13 T	0571151	5316725
RIP - 3	13 T	0571151	5316725

was established on the Bodmer Outlook which is north of the railroad tracks, and was run for two nights. Total live trap nights in grassland habitats was 560.

Total live trap nights for the entire site was 1040.

Pitfall stations were proximal to transects as follows:

<u>Pitfall Station</u>	<u>Sherman Transect</u>
PF-1 (grassland)	G-2
PF-2 (grassland)	G-1
PF-3 (riparian woodland)	RIP-1
PF-4 (grassland)	G-5
PF-5 (riparian woodland)	RIP-3
PF-6 (riparian woodland)	RIP-2

Trapping Results

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

Riparian Woodland Shermans

~~Blarina brevicauda~~ -- 4
~~Sorex cinereus/haydeni~~ -- 5
Peromyscus leucopus— 58
Peromyscus maniculatus—88
Reithrodontomys megalotis -- 5
Clethrionomys gapperi -- 62
Microtus pennsylvanicus -- 16
~~Mus musculus~~ -- 1

Grassland Shermans

Spermophilus richardsonii -- 2
Spermophilus tridecemlineatus -- 23
Perognathus fasciatus -- 1
Peromyscus leucopus—4
Peromyscus maniculatus—49
Onychomys leucogaster -- 4
Reithrodontomys megalotis—2
Clethrionomys gapperi - 1
Microtus pennsylvanicus -- 4

Riparian Woodland Pitfalls

Sorex cinereus / haydeni—16
Blarina brevicauda -- 1
Peromyscus maniculatus—2
Clethrionomys gapperi -- 10
Microtus pennsylvanicus -- 11
Mus musculus -- 2
Unidentified frog (voucher submitted) -- 1
Plains Spadefoot Toad -- 1
Western Chorus Frog -- 1
Northern Leopard Frog -- 1