AMERICAN MARTEN SURVEY REPORT

FOR SHARE WITH WILDLIFE, NMDGF

BRIAN LONG

MAY, 2009

INTRODUCTION:

This project was conceived as a joint effort between GIS Specialists, Kurt Menke, Travis Perry, and myself, a field biologist. There were two phases to the project. The first phase was for the GIS team to assemble a predictive American marten habitat model for New Mexico based on historic and recent verified marten locations, as well as from other geographic and biological data from other sources. This was completed in December 2008. After that I conducted field surveys and camera trap surveys in order to identify new marten locations that would be used to refine the predictive map. Between December 29, 2008 and May 15, 2009 I conducted 15 field surveys, which included 15 days of snow tracking and 10 camera trap visits. Total time (camera nights) covered with camera traps was 176 nights.
In spite of considerable effort expended, no additional positive marten locations were identified.

FIELDWORK: (Chronological listing)
All GPS locations are in Zone 13S Datum NAD 83.

Dec. 29, 2008
Snow tracking survey near Cowles. Snow conditions soft and melting, but good enough to find tracks. Hiked east from main road along north facing slope of valley, then south to top of ridge, then back to west. Tracks seen include, mountain cottontail, red squirrel, long and short-tailed weasel, coyote, bobcat, mule deer, elk, and mountain lion.
Habitat is mixed conifer; Douglas fir, Engelmann spruce, and aspen. DWD (down woody debris) not abundant.
Start Loc. 13S 0440525
UTM 3963117
Farthest point reached; 0443043
3966086

Dec. 30, 2008
Snow tracking survey on road to San Antonio Hot Springs, Jemez Mountains. Snow conditions recent snow melting but good enough to see tracks of red squirrel, mountain cottontail, bobcat, long-tailed weasel, coyote, and deer.
Habitat mixed conifer/aspen/oak with some steep east facing slopes with abundant DWD.

Start Loc. 0349855
3972109
Farthest point reached; 0350266
3976130

Jan. 25, 2009
Hauling elk bait from Cowles to Johnson Mesa with J. Klingel for bait station. Snow conditions fair with wet snow.
Habitat mixed conifer/oak/aspen.
Start Loc. 0440101
3963172
Farthest point reached; 0441920
3967807 El. 9835 ft.

Jan. 28, 2009
Trip to Pajarito Peak, Nacimiento Range with S. Tanner, to locate area where a marten was reported in June 2008. Couldn't locate it, and attempted to go in from the East side of the range, but USFS gate was locked. Continued on to Seven Springs Hatchery, and put up bait station and camera trap nearby.
Habitat – mixed conifer, abundant DWD.
Camera Loc. 0345710
3977163 El. 8150 ft.

Feb. 11, 2009 (13 nights since last visit)
Returned to Seven Springs camera trap. Bait undisturbed. No photos taken. Moved camera and bait to another spot up Rio Cebolla canyon from the hatchery.
Habitat – mixed conifer, abundant DWD.
Camera Loc. 0347561
3977332 El. 8131 ft

Feb. 23, 2009 (12 nights since last visit)
Returned to Seven Springs/Rio Cebolla camera trap. Bait mostly undisturbed. 2 pictures taken. Replaced batteries and lure.
Put up another camera and bait on the NE side of Rabbit Mtn. In Valles Caldera National Preserve.
Habitat – Mixed conifer, abundant DWD.
VCNP camera #1 Loc. 0369116

3968041 Elev. 9030 ft

Mar. 2, 2009
Trip to San Pedro Parks, met with David Allen in Forest Service office in Cuba. Snowshoed in from Forest Service gate on FR 70 to trail head to San Gregorio Lake. Set up camera trap and bait near San Gregorio Creek, about .5 mi. below the lake.
Habitat- Mixed conifer/riparian, abundant DWD.
Camera Loc. 0333535
3989217 Elev. 9541 ft

Mar. 3, 2009
Met Mark Peyton, VCNP Biologist, at Rabbit Mountain, and replaced camera card and reset camera. Set up second camera near E border of VCNP.
VCNP camera #2 Loc. 0370626
3968180 Elev. 9152 ft

Mar. 17, 2009
Checking Rabbit Mountain camera, found it swung upside down, aiming at sky. Bait undisturbed. Fixed camera upright and rebaited.
No marten tracks seen.
At Seven Springs/Rio Cebolla, one new picture taken, bait mostly undisturbed. Took camera down.

Mar. 31, 2009
Redondo Peak, VCNP. Set up my film camera trap on La Jara Creek about half way up the mountain. Continued up on snowshoes to ridge N of Redondito Peak, checking for tracks.
Drove up Sulfur Springs Rd to 2nd gate. Too muddy to go further.
Habitat – Mixed conifer, abundant DWD.
VCNP Camera #3 Loc. 0361731
3971055 Elev. 9574 ft
Start Loc. 0362873
3970045 Elev. 8980 ft
Farthest point reached; 0361932
3971766

April 1, 2009
San Pedro Parks. FR 70 is snow-packed but open, I park close to trailhead. At camera bait is gone, just bones on ground, coyote tracks. Rebait and lure. I continue up to lake San Gregorio and up the trail to N. Snow conditions are good for tracking. At Damian I follow the Las Vacas trail to N, then climb east over the ridge, continue E, then loop back W and rejoin the trail I came up.
Habitat – Mixed conifer/aspen. DWD fairly abundant.
Start Loc. 0333662
3988410 El. 9245 ft
Farthest point reached: 0333735
3991427

April 6-11 2009 - Trip to Beatty's cabin.
4/6 - Hike/snowshoe in to Beatty's from Jack's Creek trailhead.
4/7 – Hike N and NE along upper Pecos River on N-facing side.
First snowshoe hare tracks found at 10,310 ft. Habitat is mixed conifer/aspen in beginning then spruce/fir. I loop S, SE and back W. No marten tracks seen.
4/8 – Hike to NW. First snowshoe hare tracks found at 10,250 ft. Snow is ~4 ft deep in spruce/fir. I reach a small knob on ridge then head N towards Trailriders wall. At N end of wall I glissade down to frozen lake to E, then drop down through thick spruce/fir towards Beatty's, via Rito Azul. No marten tracks seen.
4/9 – Hike south to cliffs, then west up steep slope in spruce/fir forest. First snowshoe hare tracks at 10,220 ft. then to N, and back NE to cabin.
No marten tracks seen.
4/10 – Hike north up ridge north of old Beatty's cabin site. Through mixed conifer/aspen, open meadows, then spruce/fir. I continue to NW towards Rito del Padre drainage and the Pecos divide. I cross some large open meadows then into thick spruce/fir, then come across what look like old marten tracks. I follow them until I lose them descending toward Maestas Creek, then climb back up E, searching for fresh tracks. I find only snowshoe hare, red squirrel, and long-tailed weasel, coyote, and grouse tracks. I continue N to the Santa Barbara divide above tree-line, then W and drop down into the upper Rito del Padre drainage, and back to Beatty's. Tracking conditions good. One possible set of marten tracks seen.
4/11- Leave cabin and head down trail towards the truck. Snowing. Fresh long-tailed weasel tracks.

April 14, 2009
Rechecked La Jara camera. Bait undisturbed. No pictures taken. Camera removed.

April 21, 2009
San Pedro Parks. Revisit San Gregorio camera. Bait stripped to bone. Memory card full. Camera removed.

April 23, 2009
Met Jo Wargo, Wildlife Biologist, Jemez Ranger District, in San Ysidro to try to find the marten sighting location via Pajarito Peak Rd. Very little of the habitat in the area looks like it could support marten, only patches of mixed conifer in canyons, and N facing slopes. Descended E side of range past the best looking habitat where Deer creek flows north. Snow tracking conditions fair, but patchy.

CAMERA TRAP RESULTS:

Seven Springs – In small side canyon on W side of FR ~.5 mi NW of entrance to 7 Springs Hatchery. Film camera. Set on night setting only.
1/28 – 2/11/09 set up.
Total nights set up – 13
No pictures taken, bait undisturbed.
No marten detected.

Seven Springs/Cebolla Canyon – At mouth of small side canyon about .6 mi NE of the hatchery, on E side of Rio Cebolla. Film camera. Set on night setting only.
2/1 – 3/17/09 set up (2 pictures taken when checked 2/23)
Total nights set up – 34
3 pictures taken of small birds, bait undisturbed.
No marten detected.

VCNP camera #1 East side of Rabbit Mtn. ~ 250 yards S of Highway 4. Recconnix digital.
2/23 - 4/21/09 set up
Total nights set up. –56 (but malfunction stopped camera 3/8 and camera found upside down 3/17)

Hundreds of pictures taken/ picture taken every 5 minutes.
Nothing but wind-blown branches in photos.
No marten detected.

VCNP camera #2 Near E border of the preserve, ~ 250 yards S of Highway 4. Recconnix digital.
3/3 - 4/21/09 set up
Total nights set up – 51
Hundreds of pictures taken, picture taken every 5 minutes. Bait stripped to bone).
Some coyotes detected, red squirrels, some birds and voles.
No marten detected.

San Gregorio Creek, San Pedro Parks.
Moultrie digital. 24 hour setting.
3/2 – 4/21/09 set up
Total nights set up – 50
Camera memory full, bait stripped from bones.
1787 photos taken, hundreds of pictures of ravens, red squirrel, and small birds.
No marten detected

La Jara Creek, Redondo Peak, VCNP
Film camera. Set on night setting only.
3/31- 4/14/09 set up
Total nights set up. – 14
No pictures taken, bait undisturbed.
No marten detected.

A total of 176 camera nights(excluding malfunctions), between Jan 28, and April 21, 2009.

SNOW-TRACKING SURVEY RESULTS:

No definite marten sign was found during the survey. Although snow conditions were not always ideal, all other expected species' tracks were visible on most field days. Only marten tracks were conspicuously absent. The lack of any marten sign in the upper Pecos was the most surprising of my findings.

DISCUSSION

Although I conducted 10 snow-tracking surveys on days with generally good tracking conditions, I failed to find a single definite set of marten tracks. Additional time was spent searching for tracks during placement and checking of camera traps and bait stations (5 field days).

A total of 176 camera nights from 6 different locations yielded no marten detections.

All of the camera trap locations were in the Jemez Mountains, where numerous unverified marten sightings have been reported over the years. Although the areas chosen for camera trap locations appeared to be suitable for martens, the area is vast and many suitable habitat locations were not visited. The vagaries of weather, snow conditions, distance, and problems of access all contribute to the difficulty of winter surveys. Camera malfunctions were also a problem when using unfamiliar cameras.

The most unexpected finding was that during an intensive 6-day snow-tracking survey for marten in the upper Pecos river drainage not one positive marten track was found. The single set of tracks found were old, and appeared to be snowshoe hare tracks when the photos were viewed later. Beatty's cabin was my base camp in the Pecos and I had expected to find marten sign throughout the area. Although the cabin itself is in the Pecos valley at 9,668 ft., the surrounding higher elevation area is predominantly spruce/fir habitat that I thought was prime marten habitat. I surveyed these higher elevation areas to the north, northeast, southwest, west, and northwest from Beatty's and did not find any marten sign. Snow tracking conditions were generally good, and all other expected species sign were observed. These included red squirrel, snowshoe hare, long-tailed and short-tailed weasel, coyote, bobcat, deer, elk, turkey, and grouse.

Possible reasons for this finding include natural cycles such as a prey decline which has caused a decline in marten populations, global warming, and lack of data on previously occupied habitat. More intensive surveys are needed to determine actual occupied marten habitat.

The results of the camera trap survey in the Jemez were disappointing but not unexpected. During all the years that marten have been reported in the Jemez, no actual evidence has been obtained. No road kills, no photos of animals, or even their tracks, have, to my knowledge, ever been reported. If there are marten in the Jemez range I would expect them to be in the San Pedro Parks area. Although my single camera location there did not provide any evidence of them, a more extensive survey will be necessary to determine if they are present or not.

RECOMMENDATIONS

The current status of marten in the Jemez and Pecos ranges is unknown. A strategic placement of camera traps is the most feasible way to determine their current distribution.

In the Jemez Range, efforts should be concentrated in the San Pedro Parks Wilderness where the largest block of undisturbed high elevation habitat exists.

Extensive snow-tracking surveys in both these areas would help determine relative abundance.

ACKNOWLEDGEMENTS:

Thanks to all who helped me in many different ways:

Share with Wildlife, NMDGF

Jon Klingel

Steve Tanner

Cel Gapuchin, Zia Pueblo

Phil Howes, NMDGF Beatty's Cabin

Juan Martinez, Pecos RD

Bob Parmenter, VCNR

Mark Peyton, VCNR

Josephine Wargo, Jemez RD