

FENCE SURVEY - 1998

by Karen Kitchen

A survey of the boundary fence was conducted during the summer of 1998 to determine the existence and condition of the boundary fence. Cattle trespass is a continuing problem, and a comprehensive survey of the fence will help determine entry points for cattle. It will also provide the information necessary to prioritize future fence construction and repair.

METHODOLOGY

There are 62.5 miles of boundary surrounding Bryce Canyon National Park. The boundary was hiked by biological technicians (usually in pairs, because a second purpose of hiking the boundary was to look for exotic plants). The fence condition was broken down into five categories:

1. No fence exists but terrain (i.e. cliffs) make fencing impractical and/or unnecessary to stop cattle trespass.
2. No fence exists.
3. Fence exists, yet is in poor condition (posts rotten, wire broken with more than three breaks per 1/4 mile, fence across streams/ washes missing. Needs major repair or replacement.
4. Fence exists and is in moderate condition. 90% of posts are sound, wire is in place with less than three breaks per 1/4 mile. Needs repair.
5. Fence in good condition. Posts sound, less than one break per 1/4 mile. May need minor repair.

In addition to fence condition, cattle trespass locations and gates were noted. The type of gate (metal or wire) was indicated and whether it is accessible by vehicle, (i.e. the access is not overgrown and the gate is wide enough to drive through).

On average it took about an hour per mile to hike the fenceline. Forty-eight of the 62.5 miles of boundary were hiked. The remaining 14.5 mile were not surveyed due to lack of time and past reports that no fence exists in these areas. In addition, hiking the Under the Rim Trail along the southeast boundary and Cope Canyon along the northeast boundary indicated that no boundary fencing exists in these areas.

RESULTS

The boundary survey revealed that of the 62.5 miles of boundary only 26.8% (16.75 miles) has fence in good condition. Forty percent of the boundary (25 miles) has fence in fair or poor condition. The remaining 33.2% of the boundary (20.75 miles) has no fence. The previous survey done in 1990 found that 38% (24 miles) of the boundary was fenced in good condition, 30% (18.75 miles) in fair to poor condition, and 32% (20.25 miles) without fence. While some of the change in fence condition between 1990 and 1998 may be due to the definition of what constitutes good or poor fence, it also suggests that the condition of unmaintained fence deteriorates quickly.

Category 1: There are four short sections of fence (approximately 1/2 mile total) that were never built because of cliffs. It would be impractical to try to fence these areas, and a fence would not keep livestock out any better than the natural barriers.

Category 2: There is a total of 20.25 miles of boundary where fence is non-existent but should be built to protect park resources. Most of this is along the southeast boundary from Pasture Wash south to Riggs Spring (Corral Hollow), and from the northeast corner of the park south to Tropic Canyon. The northeast corner of the park is adjacent to private property, the terrain is very steep, except for Cope Canyon wash, and there was no evidence that cattle use this area. However, a tamarisk/Russian olive report from 1992 indicated that this area was heavily impacted by cattle. This property is for sale and may well be used to graze cattle in the future.

Category 3: This is the largest category; 23 miles of fence were in poor condition and need major repair. Any fence section with more than three breaks per 1/4 mile was placed in this category. Therefore, some fence in this category could be easily repaired, while in other areas the wire needs to be restrung and up to a third of the posts replaced. Due to the steep terrain, falling trees, weight of snow and local ranchers with wire cutters, fences do not remain in good condition for long if not regularly maintained.

Category 4: Only 2 miles of fence were in moderate condition. Fence which is only a year or two old in forested areas already had breaks because trees had fallen across it.

Category 5: There was 16.75 miles of fence in good condition. Most of this is in meadows or ponderosa pine forests along the northwest boundary of the park, or relatively new fence along the west boundary near Podunk Creek.

Cattle trespass has been a continuing problem throughout the years. Private rangelands and public allotments adjacent to the park combined with good forage within, and poor fence conditions around the park provide numerous opportunities for cattle to wander into the park. Several trespass locations have been identified over the years. These include: Yellow Creek, Bryce Canyon, Riggs Spring, Black Birch Canyon, Campbell Creek, Sheep Creek, Natural Bridge, West Boundary, Pasture Wash, Noon Canyon Butte, Merrill Hollow, Bridge Hollow, and Sheep Creek Flat. During the summer of 1998, fresh signs of cattle were seen at Yellow Creek, East Creek Meadow, Podunk Creek, Sheep Creek and Sheep Creek Flat.

RECOMMENDATIONS

Trespass cattle do the most damage to sensitive riparian areas. Of the areas where they have been seen this summer, the most sensitive areas are Podunk Creek and Yellow Creek. These are the two areas that also have had repeated trespasses throughout the summer. Cows were chased out of the park near Podunk Creek on several occasions. Sierra Club volunteers have worked on the fence on either side of Podunk Creek during the past few summers. The fence is in good condition through the meadow and to the north. However, the fence ends to the south of the meadow a short distance into the trees. There is about 1/4 mile with no fence and then almost

another 1/4 mile that has metal T-posts, but no wire. The top priority for fencing should be to complete the section of fence south of Podunk Creek.

There is fence along the boundary at Yellow Creek, but the fence is in poor condition. On the north side of the creek a wire gate is broken and lying on the ground, and there is a well worn cattle trail leading into the park with fresh evidence of cattle use. Yellow Creek is one of the few creeks which flows year round within the park. There are cottonwoods and other native vegetation along the creek and it is important habitat for numerous native species, including the endangered southwestern willow flycatcher (*Empidonax traillii*). Repairing the fence in this area should also be a high priority. The slopes around Yellow Creek are Tropic Shale, and T-posts on steep slopes of Tropic shale tend to fall downhill. When repairing the fence an effort should be made to either use some cedar posts on the steeper slopes (although these may slide downhill as well), or anchor the fence uphill using additional T-posts and wire.

A third priority is to maintain the fence that is in good or fair condition. The area along the southwest boundary both north and south of Podunk Creek would require a chainsaw in addition to fencing material and would probably take a day to patrol and repair 3.5 miles to the southwest corner. The northwest boundary from East Creek Meadow to north of Shakespeare Point would probably take three days to patrol and repair. There are a few trees across the fence in this area, but it may not be practical to carry a chainsaw along this entire section.

Finally, since the primary purpose of the fence is to keep livestock out of the park, the fence in areas of known cattle trespass should be repaired or replaced. Sheep Creek, Pasture Wash, Riggs Spring, Sheep Creek Flat and Bryce Creek are main areas where fence should be maintained. Once the fence has been repaired or replaced in these areas, they should be patrolled periodically to make sure the fence is not cut allowing access to cattle or motorized vehicles.

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The following is a list of gates found along the park boundary, beginning at the park entry and working northeast. All gates can be driven through except where noted:

1. 200 meters east of entrance - post and wire gate, no lock - Cannot drive through, the gate is only five feet wide.
2. 1/3 mile east of entrance - Metal gate with NPS lock.
3. 1 1/2 miles northeast of entrance, about 100 meters from rim. Post and wire gate, no lock. The gate is about five feet wide and cannot be driven through.
4. 100 meters north of Water Canyon (Tropic Ditch) - metal gate with NPS lock. Needs some pruning to drive a vehicle through.
5. 3/4 miles east of Ruby's Inn - metal gate with combination lock.
6. 1/2 mile south of Hwy 12 - post and wire gate with combination lock. Log down inside gate; may be able to drive around it.
7. South of Hwy 12 at west boundary - metal gate with NPS lock.
8. North boundary 1 1/2 mile west of northeast corner of park - post and wire gate.
9. North boundary 1/2 mile west of northeast corner of park - metal gate with NPS lock.
10. 100 meters north of Tropic Ditch, (cattle driveway) - post and wire gate, no lock.
11. 100 meters north of Campbell Creek - post and wire gate, no lock - heavy use by ATVs into the park.
12. 1/8 mile east of Bryce Creek - metal gate, no lock.
13. Just north of Yellow Creek - post and wire gate is broken and lying on the ground.
14. Jim Hollow road - post and wire gate - wire is cut and gate is on the ground.
15. Sheep Creek Flat - 1/3 mile west of Jim Hollow Road - post and wire gate, locked open with a Master lock, key #2332.
16. Sheep Creek Flat - 2/3 miles west of Jim Hollow Road - post and wire gate, locked open with a Master lock, key #2123.
17. Sheep Creek Flat - end of first road northwest of Johnson Ranch - post and wire gate, no lock.
18. Sheep Creek - metal gate with NPS lock.
19. Riggs Springs - metal gate with NPS lock.
20. Horse Hollow - 20 meters west of creek - post and wire gate, no lock. Only five foot wide and cannot be driven through.
21. Podunk Creek - metal gate with NPS lock.
22. West boundary, 1/2 mile north of Kane/Garfield County line - metal gate with NPS lock - could not get the lock open.
23. Whiteman Bench Road - metal gate with NPS lock.
24. East Creek Meadow - metal gate with NPS lock.
25. 2/3 miles east of East Creek Meadow - metal gate.
26. West of Sunset Campground - metal gate.
27. Mixing Circle Road - metal gate with NPS lock and a walk-through gate with no lock.
28. South side of sewage lagoons - metal gate with NPS lock.
29. North side of sewage lagoons - post and wire fence with no lock and a chain link fence with a Garkane Power lock and USFS lock.