

## Fisher Final Report, Summer 2010

The purpose of this project was to better understand the prevalence of the Pacific Fisher and its habitat domain in the Greenhorn Mountains of Sequoia National Forest.

Procedures were similar to those followed the previous summer, although with a few exceptions. Five Reconyx cameras were placed throughout Sequoia National Forest at random points for four weeks (June 4 – July 12; sights 1-5). Upon completion of the four weeks, they were subsequently moved to five new locations within the forest and kept there for four weeks (July 12 – August 17; Sites 6-10). There were ten sights total that were monitored for fishers. The cameras were checked once a week; memory cards were switched out and fresh bait was replenished. For detailed procedures, please refer to the 2009 final report.

Each week, memory cards were viewed in order to tally the amount and type of animal that was visiting the bait trees. Note that there was no data to record at Site 4. Trends were examined that compared the relationship between camera distance from road and species diversity and fishers sighted, as well as fisher sightings and canopy closure. The types of animals sighted included pacific fisher, bear, deer, fox, squirrel, woodpecker and cow. Site 1 and 3 had the most amount of species diversity photographed (four different species each), while Site 4 had zero animals photographed. Fishers were sighted at Sites 1, 2, 3, 6, 7, 9; Site 9 had the most amount of fisher sightings (5). There did not appear to be a distinct relationship between camera proximity to road and number of fisher sightings, nor between canopy closure and number of fisher sightings. There was a direct relationship between camera distance from road and species diversity, however; As the cameras' distance from road increased, so did the amount of species diversity found at that particular site.

### Site 1.

Week Completed	1	2	3	4	5
Animals Observed	Bear	Fisher	Bear	Deer	Bear
		Bear	Fisher	White-headed Woodpecker	
			Deer		

### Site 2.

Week Completed	1	2	3	4
Animals Observed	Fisher	Bear		Bear
				Bear

### Site 3.

Week Completed	1	2	3	4

Animals Observed	Fisher	Deer	Bear	Bear
	Squirrel	Bear	Bear	Bear
		Bear	Bear	Bear
		Bear		Bear

Site 5.

Week Completed	1	2	3	4
Animals Observed		Bear	Bear	Bear
		Deer	Bear	Bear
			Bear	

Site 6.

Week Completed	1	2	3	4
Animals Observed	Squirrel			Bear
	Bear			Fisher

Site 7.

Week Completed	1	2	3	4
Animals Observed			Fisher	Fisher
			Fisher	

Site 8.

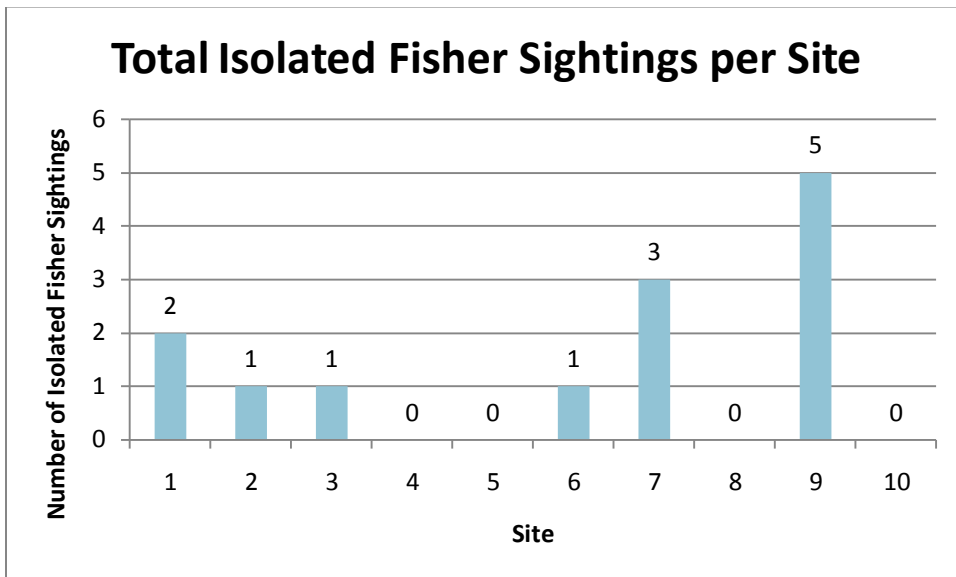
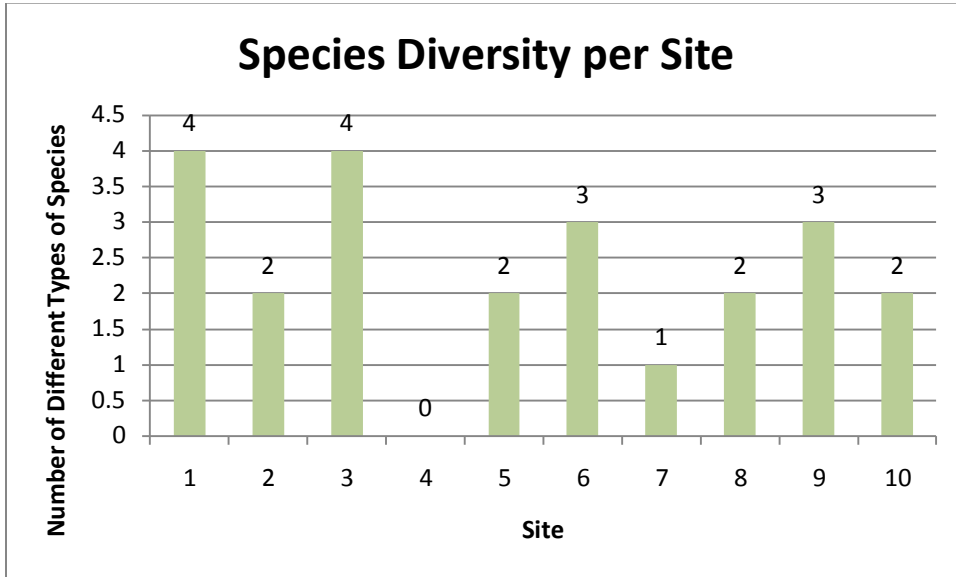
Week Completed	1	2	3
Animals Sighted	Deer	Bear	
		Deer	
		Deer	
		Deer	

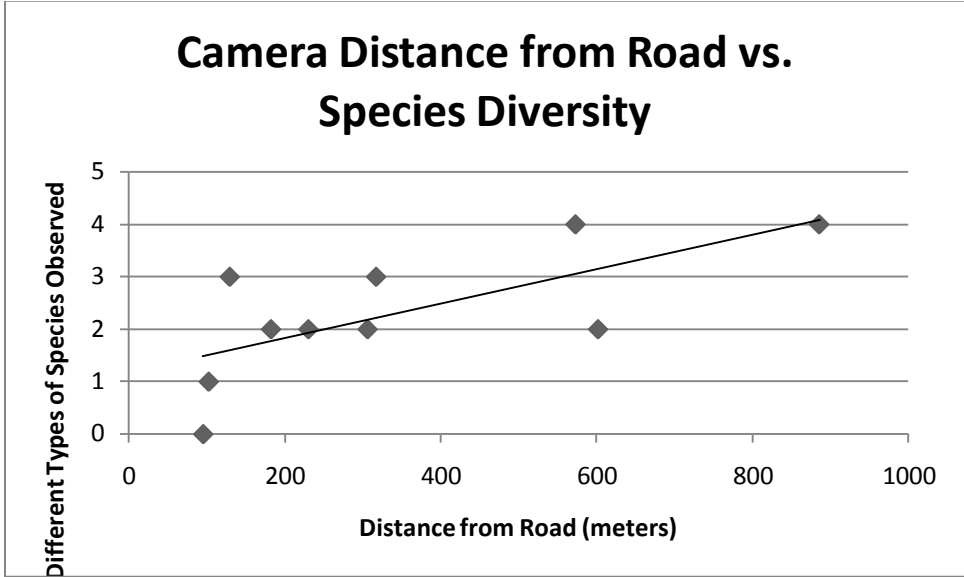
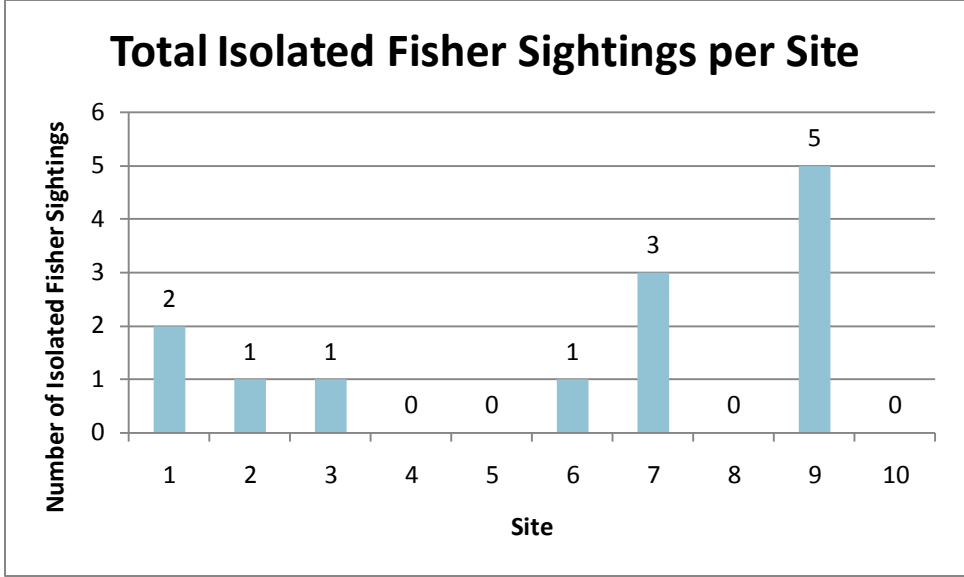
Site 9.

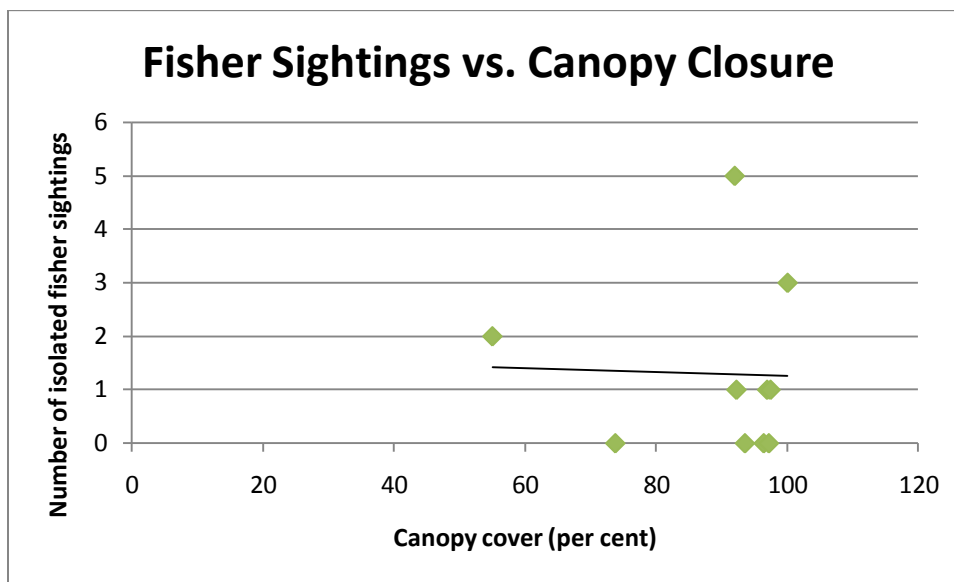
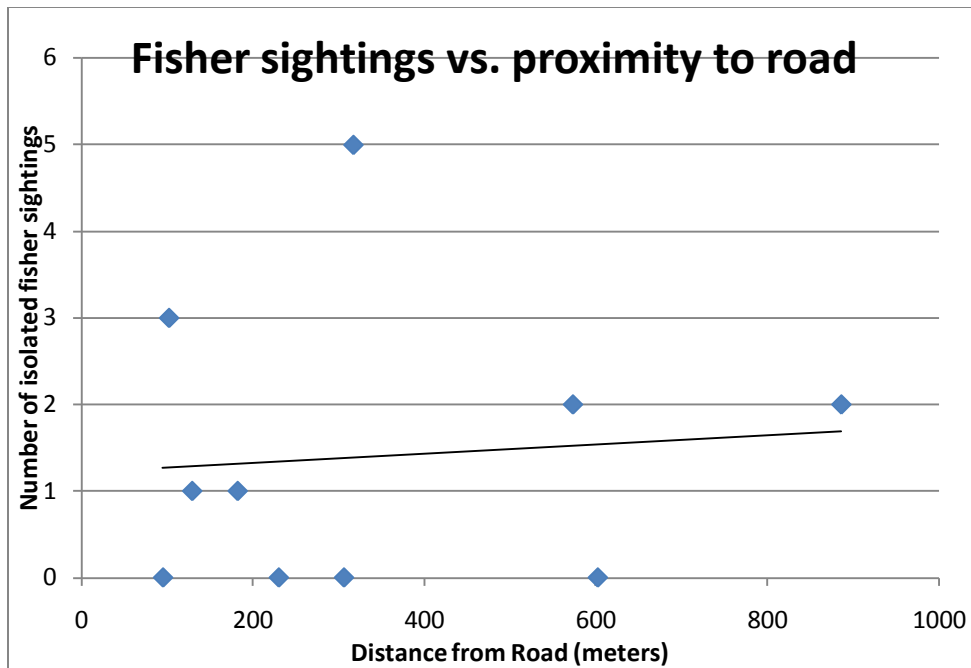
Week Completed	1	2	3	4
Animals Observed		Fisher	Fisher	Fisher
		Fisher	Bear	Fisher
				Fox

Site 10.

Week Completed	1	2	3	4
Animals Observed		Fox	Cows	Cow







Based on the number of fisher sightings this summer, it can be concluded that locations in the Greenhorns that have been designated for timber sales, thinning or burning are indeed areas of fisher habitat. All of these projects proposed by the U.S. Forest Service, as well as heavy recreational use of the area, serve as potential threats to fisher survival. Although it was difficult to ascertain specific site and location trends with fisher sightings, the data showed that fishers were found in areas of dense canopy cover (mean closed canopy was 88.9%) and elevations above 1600 meters (mean elevation was 1818.8 meters), as supported by previous research by other fisher scientists. The most assertive trend was that as camera distance from the road increased, so did species diversity, indicating that a wider variety of

animals thrive at a farther distance away from recreational usage. It was difficult to clearly understand the relationship between fisher sightings and distance from road due to the varying amount of use that each road experiences; cameras were not all placed off of one particular road, but rather along different roads. Some of these roads, such as Rancheria, are used very heavily while others are unkempt and difficult to drive on, or lead to nowhere, making them less susceptible to recreation. Further, the presence of ATV and dirt bike trails throughout the forest could also make a difference in habitat preference among fishers. For example, Site 5 was located far away from the road but relatively close to an ATV trail; noise pollution and recreational use was extensive in this area. It was also observed that no fishers were found in areas that were heavily grazed by cattle, such as Sites 8 and 10. Although cameras were placed in dense canopy areas, these locations were surrounded by extremely open environments that supported little to no trees and remained void of leaf litter – instead, vegetation consisted of ferns or gooseberry, and very often were just comprised of loose dirt. Cow tracks and scat were heavily concentrated in these areas, and each time these cameras were checked, cows were roaming the area.

To find distinctive trends in fisher habitat in the Greenhorns, it is suggested that cameras are placed more strategically in a wide variety of locations. For example, placement should be considered in areas of dense canopy cover as well as very sparse canopy cover; in low elevations as well as high elevations, and areas proximal to the road and areas far from roads. Further, cameras should be placed in areas of extreme usage and of little usage – this will give SFK more solid evidence of habitat sensitivity among fishers. In order to collect more data, it is suggested that instead of leaving cameras in the same location for 4 weeks, they should immediately be moved to a new location as soon as a fisher is spotted. A larger area of habitat inquiry can be made this way.

For Detailed camera and site notes, please refer to the word document entitled Location 1 Summaries and the excel documents entitled Location 1 Spreadsheet and Location 2 Spreadsheet.