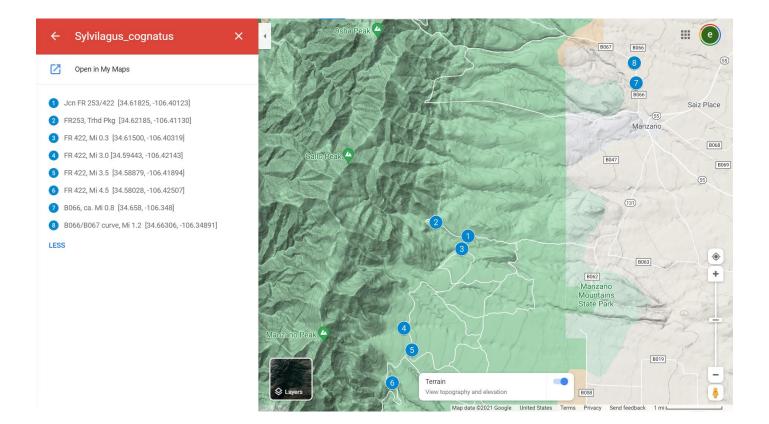
Notes on Manzano Mountain Cottontail

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The core range of *Sylvilagus cognatus* is in the Manzano Mountains, which are southeast of Albuquerque and are located close to the center point of the state. This species may also occur in the Sandia Mountains, northeast of Albuquerque, and possibly even farther east (Frey, 2004). IUCN gives a lower elevation limit of about 7500 feet, which is consistent with the species' stated habitat preference of montane coniferous forest. In the Manzano Mountains, 7500 feet corresponds closely with the elevation at which Ponderosa Pine becomes dominant (below this elevation, juniper woodland dominates). White Fir and Douglas-Fir, often mentioned in habitat descriptions for this cottontail, appear by 7700 feet.

There have only been a few reports of Manzana Mountain Cottontail in this forum. Vladimir Dinets had one in 2004 in the northern Manzana Mountains just above Fourth-of-July Campground, around 7700 feet elevation. Jon Hall looked there in 2013 without success (and we camped there in 2019 and did not find them). Jon then tried farther south near the hamlet of Manzano, and saw three animals around 7000 feet, which would have been in juniper woodland. These are the same two areas recommended by Vladimir in his mammal-finding guide, and we did not find any other good leads in recent internet searches.

We have just visited the Manzano area, and higher portions of the Manzano Mountains to the southwest of there, and had good luck finding this species. After a lot of daytime scouting, on July 17, 2021, from sunset to midnight, saw seven definite *S. cognatus* (based on elevation and habitat) at five sites, as well as five "possibles" at two sites.



The map above summarizes our findings. The legend gives the latitude and longitude of each waypoint. Waypoint "1" is the junction of two Cibola National Forest roads, FR 253 and FR 422, and is a useful reference

point. It is reached from Manzano by following signs for Red Canyon Campground (the route sequence is Rte 55 south, County B064 briefly, Rte 131, County B062, and FR 253 – in practice, simpler than it sounds). Google Maps will navigate there successfully, and there is good Verizon signal everywhere covered in this discussion. During our visit, all roads mentioned were in good to very good shape and could be handled by two-wheel-drive vehicles without any problems.

Red Canyon Campground is pretty, inexpensive, and did not fill on a nice July weekend. (There is also plenty of free, dispersed camping in the area.) From Waypoint "1" a right (west) turn on FR 253 goes about a mile and ends at the upper half of the campground, which is intended for equestrian campers. Just before the campground, there is a small loop with trailhead parking (Waypoint "2"). We had three *S. cognatus* here, a pair and a single, at 7900 feet in prime habitat.

Again from Waypoint "1", a turn south onto FR422 leads in seconds to the lower half of Red Canyon Campground, where we stayed and had Tassel-eared (Abert's) Squirrel. The first five miles of this road proved excellent for *S. cognatus*; we had singles at each of the Waypoints "3" – "6", at elevations ranging from 7900 to 8050 feet. The legend gives the mileage from Waypoint "1" for each of these sites. I suggest turning around at a curve about five miles from Waypoint "1", where there is a sign about drowning out your campfire. There is room to turn around there, and the road subsequently starts a long downhill section on cross-slopes that looks topographically inferior.

Of these seven Manzano Mountain Cottontails, five were spotted using a thermal scope and two were initially picked up in the headlights. The thermal scope was attached to a spotting scope window mount, which was attached to a vertical metal plate, itself C-clamped to the passenger side mirror. This allowed Eileen to pan the thermal scope continuously as we drove, sampling both sides of the road. The image was viewed on a video tester, as recommended in Paul Carter's extremely helpful post <u>here</u>. A "safety line" was also attached to the scope in case something vibrated loose while driving. In this configuration, the thermal scope greatly aided in detecting the cottontails, which mostly were off to the side of the roads, rather than being in them.

We also checked out areas farther north that looked interesting in satellite photos, including driving to 7700 feet on the road to Capilla Peak, but nothing looked as good as the more southerly area. However, shortly after sunset, about a mile north of Manzano on County B066, we found five cottontails at two sites (Waypoints "7" and "8"), at 7000 feet, in juniper woodland. I do not regard the identity of these cottontails as entirely straightforward. They are 500 feet below the minimum elevation for *S. cognatus* given by IUCN, and they are in a rather different habitat than I have seen ascribed to this species. Geographically, they are within the range of *S. audubonii* and perhaps *S. floridanus*. In the Trans-Pecos region of Texas, the latter is not expected above 4700 feet elevation, nor would it be expected in juniper woodland, so I think it is safely ruled out.

But Desert Cottontail is commonly cited as occurring up to 6000 feet elevation, and is said to regularly occupy pinyon-juniper habitat. And to put this in context, we had quite a few Black-tailed Jackrabbits in this same habitat at this same elevation. So which is more plausible – *S. cognatus* 500 feet lower than is typical, in an unexpected habitat; or *S. audubonii* 1000 feet higher than is typical, in expected habitat? Certainly, the Manzano Mountain Cottontail lower limit of 7500 feet lower could have significant error bars. If the very expanded range given by Frey (2004) is correct, it might occur a thousand feet lower and/or in pinyon-juniper. Furthermore, there is at least some continuous woodland forming a corridor from the area we saw them, up to higher elevation Ponderosa Pine forests; the 7500 foot contour is only about 2 air miles to the west. In contrast, the closest areas near 6000 feet elevation are about 10 air miles away. So I find myself leaning slightly towards Manzano Mountain Cottontail but I don't feel that Desert Cottontail can be ruled out.

The Red Canyon Campground and vicinity is really lovely area – check it out!