



Some notes on the natural history of south-central New Mexico

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SOME NOTES ON THE NATURAL HISTORY OF SOUTH-CENTRAL NEW MEXICO

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Life zones in the area of the field conference are chiefly Lower and Upper Sonoran. Transitional forms appear along the fringe of the Black Range at the western edge and locally on the higher peaks of the San Andres Mountains. Yellow Pine is the chief plant indicator of the Transition zone, as are Pinon and Juniper of the Upper Sonoran. This latter is the zone of the mountain slopes and crests for the most part. The lower slopes and flats are in the Lower Sonoran zone and are characterized by mesquite, creosote bush, salt bush, ocotilla, grama grass, and a variety of cacti. The character of the vegetation strongly reflects the nature of the soil, especially on the lower flats. Cottonwood, willow, tamarisk, and ash appear along the lowlands of the Rio Grande and tributary streams.

Mule deer are to be found in all the mountain ranges. Pronghorn (antelope) are fairly numerous in the Jornada del Muerto. Black bear, if found at all, may be encountered in the San Mateo Mountains at the north edge and in the Black Range at the west edge of the area. A few Bighorn Sheep may still be found at the south end of the San Andres Mountains. Beaver and Muskrat are common, of course, along the Rio Grande and the irrigation canals; and skunks are well nigh ubiquitous. Gray fox may occasionally be seen but are becoming as rare as coyotes, which have suffered from systematic poisoning.

For the fisherman, bass, catfish, crappie, bream (carp), walleyed pike or perch, and buffalo fish (sucker) occur in the lakes behind Elephant Butte and Caballo dams and are said to succumb to the lure of an enticingly camouflaged hook.

At the Bosque del Apache, a bird and animal life refuge a short distance upriver above San Marcial, 230 different species of birds have been identified. Most of these species may be found in the vicinity of Elephant Butte and Caballo reservoirs at some time of the year if one is alert to look for them. One of the most common birds about the mesquite- and creosote-bush-covered slopes leading up to the mountains is the spry black-bibbed Desert Sparrow. His most common companions are the Ash-throated Fly-catcher, the Mourning Dove, and an occasional brilliantly colored Scott's Oriole. Along the slopes of Rhodes Canyon and along the Rio Grande below Elephant Butte dam, the somewhat rare Phainopepla

may commonly be seen in summertime. It is a striking bird--silky, crested, almost jet black except for central white spots in each wing. Cliff swallows nest by the thousands at Elephant Butte dam and at Caballo dam. Along the river between the dams, most of the other varieties of swallows are also to be found. Many varieties of herons and related birds occur at or near the fish hatchery just below Elephant Butte dam. This is also a favorite nesting site for the bright Bullock's Oriole and for the Yellow and Pileolated Warblers.

Every year in late summer, hundreds of White Pelicans, the largest of the reasonably common American birds--with a wingspread of nine feet--pause for several days or weeks on Caballo Lake. Double-crested cormorants are common visitors here, too, though not in such numbers. Snowy white Egrets may commonly be seen along the shore in groups of two or three dozen.

For the sportsman there are quail, Gambel's and Scaled, and a great variety of ducks. Canada Geese and Snow Geese occur seasonally in great flocks.

In the Jornada del Muerto near the north end of the Fra Cristobal Mountains occurs a Recent lava flow or series of lava flows, an area of rough, slaggy, jagged, creviced basalt known in this part of the world as "malpais." In collapsed parts, where water has lain in pools and where wind-blown sand, silt, and dust have accumulated, occur little oases of verdant grass to form smooth, lush pockets in a shroud of forbidding scoria. A herd of as many as 30-50 pronghorn (antelope) roam the north end of the Jornada and take refuge in this labyrinthine seclusion.

At the time of eruption of the basalt, numerous lava tunnels were formed where crusts congealed over tongues of fluid rock and were then left standing as the interior liquid poured on and out. Many of these tunnels remain intact, but a large number have caved in. One such tunnel near the eastern edge of the malpais has collapsed in two places, forming caves at both ends and a natural bridge in the middle. In the caves, more especially the one at the southern end of this north-trending structure, bats shelter themselves by the thousands during the daytime. If you wish to jounce over "roads" perforated with pits and crevasses, enough jouncing to cause

a jeep radiator to sever connections with the car frame (as the writer's did—twice) and if you wish to take a chance on getting lost (as the writer did—once) you may wriggle your way to this non-cosmopolitan spot some evening near dusk. A fine vantage point is the natural bridge. As soon as dusk has been announced—and officially communicated to bat headquarters—the nocturnal little creatures begin to arouse themselves. At first only a few can be seen, and heard. They emit wee sounds of squeaking, but the principal noise is the whir of their wing-like membranes as they come close to the observer. For many minutes, perhaps for as long as ten or fifteen minutes the bats will circle and dart within the confines of the old tunnel, now unroofed. They dart back and forth under the natural bridge never essaying to rise above to venture forth. Finally a few will move upward above ground, and gradually more follow, ever circling, still not moving away from the area. Strangely, almost all the bats emerge from the tunnel through the opening beyond the natural bridge and not through the opening nearest where they roost or rest. It seems as though the far opening may have been the original entrance for them or their ancestors and that the other opening may have resulted from later collapse, but is unused because of habit or instinct. (It is not entirely unused; some bats do emerge through it. But at the time of the writer's visit in 1953, the proportion of these unconventional bats was extremely small.)

Generally there will be a hawk sitting on some nearby crag waiting for a meal. The evening the writer made his pilgrimage, A Swainson's Hawk sat and waited, and, when the air was crowded made his play, unsuccessfully. Again and again he tried

but was futilely and hungrily pouncing yet when it finally became too dark to see him longer.

When the first few bats take off for the distant Rio Grande to the west or toward the San Marcial swamps to the north, it is done suddenly, and then there forms a constant stream, darkening the still glowing sky. Most of the migration occurs to the west and to the north, but there must be other fruitful feasting grounds, for some streamers move off in other directions. Whether these circle around at some distance could not be detected for lack of light. The best view is obviously to the west, and for fifteen minutes the writer watched the continuous cloud of bats speckle the sunset. An estimate of the number at that time was 125,000 to 150,000. After about fifteen minutes all became almost silent and motionless. A few strays still flitted about but otherwise the place seemed deserted. The hawk was yet unsatisfied, but still hovering. The writer, poking about to see what kind of den the bat's occupied, crawling down to see how much guano might have accumulated (not apparent because most of the bats move back into parts of the cave protected by narrow openings), and examining decrepit buildings of an old guano company used up ten more minutes and then, on the point of departing, he heard more whirring, saw more bats, and was soon encircled (though not attacked!). An identical performance to the previous exodus was observed. The number in this second contingent seemed comparable to the first. The hawk, when last seen, was yet unfed. Soon all the bats had gone; it became too dark to see; and there was profound quiet. A long wait discovered no further activity.

With radiator in hand, the awed visitant turned homeward.