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# The Black Range Naturalist

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**Randy Gray: With more than 30 years of experience in the conservation of wildlife habitat, Randy Gray is well versed in the issues affecting the Black Range. He is the recipent of the John E. Nagel Award from the Intermountain West Joint Venture.**

**Bob Barnes: He describes himself as a videographer who specializes in natural history. His internet presence includes www.birdtrips.org, www.blackrange.org, and www.blackrange3.org. His recordings have appeared in various broadcast programs and on non-profit websites in Canada and Europe.**

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**Don Precoda: Don Precoda spent months, over many years, on Hillsboro Peak. He served as a fire lookout on the peak through some very interesting times and brings a perspective to the area which comes from many thoughtful hours of experience.**

## PHOTO CREDITS

**Cover Photo: Bobcat, *Lynx rufus baileyi*; Bob Barnes; taken near NM-152, east of Emory Pass**
**Page 2: Coyote, *Canis latrans*; Bob Barnes; Wick's Canyon, east of Hillsboro**
**Page 3: Harley Shaw, *Homo sapians*; Framegrab from video "Dogs and Lions" by Shaw and Barnes**
**Page 5: Desert Cottontail, *Sylvilagus audubonii*; Bob Barnes; Ready Pay Gulch, east of Hillsboro**
**Page 8: Northern Cardinal, *Cardinalis cardinalis superbus*; Gretchen Kerr, Hillsboro; photo taken in Hillsboro, May 2015**
**Page 9: Northern Cardinal, *Cardinalis cardinalis superbus* and *Cardinalis cardinalis canicaudus;* John Hubbard, Albuquerque, New Mexico**
**Page 10: Northern Cardinal, *Cardinalis cardinalis superbus;* Bob Barnes, Hillsboro**
**Page 11: Northern Cardinal, *C. c. canicaudus;* Bob Barnes, Santa Ana NWR, Texas**
**Page 14: Don Percoda, Hillsboro Peak**
**Page 15: Wilderness marker sign, Black Range Crest Trail, after the Silver Fire, by Don Percoda**
**Page 16: Arizona Treefrog, Hyla wrightorum, by Don Percoda, Hillsboro Peak**
**Page 16: Black-chinned Hummingbird, *Archilochus alexandri*; Bob Barnes; A Spear Ranch**
**Page 17: Ornate Black-tailed and Banded Rock Rattlesnakes by Randy Gray**
**Page 18: Prairie and Northern Black-tailed Rattlesnakes by Randy Gray**
**Page 19: Western Diamond-Back Rattlesnake by Randy Gray**
**Page 22: Skyrocket by Bob Barnes**

# Join Us In A Journey

**This is the first edition of "The Black Range Naturalist", a work inspired by the natural history of the Black Range of New Mexico and the naturalists who have chosen it as a place in which to live and/or work. We plan, and plans tend to morph, to publish "The Black Range Naturalist" periodically, as material presents itself. We plan a publication dedicated to the observation and understanding of the natural world.**

**The articles which appear here will range from casual observations to efforts which smack of a great deal of scientific rigor. "The Black Range Naturalist" is not a peer-reviewed journal like "Nature". We do aspire to model ourselves after the Natural History magazine, however, so we hope not to publish works which are "damn near a fact - but not quite". The feature article in this volume aptly describes the niche we hope to fill. Enjoy Harley Shaw's "Lore Versus Science and Natural History" and while you are at it, consider joining the effort in a substantive way. This is a grassroots, non-commercial, effort - let us grow and enjoy.**

**Table of Contents**


| | |
|---|---|
| Lore Versus Science and Natural History | Page 3 |
| Northern Cardinal Range Extension | Page 8 |
| Experiences of a Hillsboro Peak Lookout | Page 13 |
| Rattlers of the Black Range | Page 17 |
| Skyrocket - Ipomopsis aggregata | Page 21 |




**This issue's editor: Bob Barnes**

**We appreciate your comments and submissions. Contact: Bob Barnes at bob@birdtrips.org**

# Lore Versus Science and Natural History…

## An essay by Harley Shaw of Hillsboro

My awareness of folklorist J. Frank Dobie goes back at least to my high school days. I read religiously the Arizona Wildlife Sportsman, a local outdoor magazine published in Phoenix. Dobie was a periodic author, and one of his subjects was a legendary puma and bear hunter named Ben Lilly. In the spring of 1956, I was facing the terror of the second semester college English term paper at Arizona State College (now ASU). The prof told us we were to do it on folk heroes. At that stage of my development, Ben Lilly fit the bill, although I doubt that he was the kind of hero our Harvard clone of a prof had in mind. Truth is that not many people had written anything about Lilly other than Dobie, and my stack of 3X5 reference cards supporting my "research" was pretty short. About the only other person who had written about Lilly was an anthropology professor at the University of New Mexico named Frank C. Hibben. Hibben claimed the high ground of science; Dobie wasn't ready to give science more credit than lore, and he was dubious about the honesty of Hibben. Dobie had done me the favor of publishing a full book about Lilly in 1950, and my whole term paper, except for an introduction and conclusions, was a shameless plagiarism of the book, with sprinklings of whatever Hibben writings and a few newspaper stories I could find to make it look like I had exhausted the (nonexistent) literature. Little did I know that I would eventually follow hounds to treed pumas much as Lilly had done.

Lilly died on December 17, 1936, four months before I was born, but among my mentors in training hounds were two elders who had known Lilly and claimed to have "Lilly hound bloodlines" in their dog packs. Norm Woolsey, the technician who worked with me on the puma study, grew up in Cliff, NM and as a lad had met Lilly a few times. Frank Dobie died September 18, 1964. I never met him but one of my mentors in the scientific world was Dr. O. C. Wallmo, who had taught at Texas A&M and, like Hibben, spurned Dobie vociferously for his lack of scientific rigor.

Fast forward to 2008, and I found myself presenting a paper at the Second Natural History of the Gila Symposium in Silver City, supposedly about puma research in the Gila. As an introduction, I said, "When I agreed to speak about cougars at the Natural History of the Gila Symposium, two considerations were obvious: I had little first-hand knowledge of the area, and so far no intensive study of cougars had ever been carried out in New Mexico's portion of the Gila watershed. For the Gila Wilderness area and its surroundings, the literature of the cougar remains largely the lore of the hunt." For such lore, I once again leaned heavily on Dobie's book on Lilly, along with a few other such books published more recently.

Fast forward again, this time to 2016, and I found myself for the first time in several years with a hound, or rather a houndlette, named Toasty. Hounds of any size require a regular fix of sniffing. They like to follow things. My daily forays with Toasty began to dredge up memories of puma hunts. They also began to stimulate curiosity about the relationship of the bunnies Toasty likes to trail and the predators that eat them. Stated simply, is a houndlette a suitable model of how how the mesocarnivores, mainly coyotes, bobcats, and foxes, hunt? A trip to the literature was in order, and I soon realized that, in spite of decades of study of these mesocarnivores, not much is known about how they go about catching prey or how their prey eludes them. I began to jot down my thoughts. I'd been accumulating such thoughts for the past 50 years, but they became more vivid due to my walks with Toasty, the Beagle. As well adapted as dogs are as pets, they remain predators by nature, and even the most docile retain their carnivorous spirit. I enjoy dogs as companions, but most of what they teach me occurs when their hunting instincts take hold. Having rambled with dogs for most of my eighty-one years, I now feel handicapped when I'm afield without one. By viewing nature through their senses, listening to their voices, and interpreting their body language, I discover phenomena that escape me when I walk

**alone. But getting to know individual dogs intimately has left me with more questions than answers.**

**Dogs were derived from wolves, which depend on a broad range of hunting skills to survive. Selective breeding has formed specialized breeds, emphasizing instincts that serve humans. Domestic dogs depend upon rewards from humans for work, sport, or affection, and their genetically-modified behavior might not support them in the wilds. Each specialty breed has its human-designated "job" formed through centuries of man-caused evolution. These include instinctively finding birds (setters, pointers, and spaniels), running wild mammals to catch and kill them (coursers), trailing and holding large prey at bay (tree hounds), or herding and holding domestic stock. Each of these special traits was derived from a perhaps less-developed, but naturally present, characteristic of the wild wolf.**

**For nearly a decade during the 1970s and 80s, I followed a pack of full-sized hounds trained to trail pumas and hold them at bay, so that I could drug them and fit them with collars. The purpose was to learn what I could of wild puma foods, movements, and love life. Pumas cover a lot of country, and I did the same. The information I accumulated by plotting the radio-signals and locating kill sites and kitten litters were tabulated, quantified, and converted to technical reports. These were entirely about pumas, but through all of that time, I was following hounds, watching them obsessively trail faint scents, locating carcasses of prey killed, and baying pumas in trees, crevices, or atop rocky spires. I was accumulating, viscerally, a continuum of unwritten details about pumas and dogs that were impossible to record. I was aware of this experiential knowledge, but I could only unconsciously retain limited portions in memory. Toasty has dragged me back to an awareness of a bank of subjective knowledge.**

> ***"When you perceive nature only through mind, through thinking, you cannot sense its aliveness, its being-ness. You see the form only and are unaware of the life within the form. . . . Thought reduces nature to a commodity to be used in the pursuit of profit or knowledge or some such utilitarian purpose. The ancient forest becomes timber, the bird a research project, the mountain something to be mined or conquered."***
>
> **–Stillness Speaks. Edward Tolle.**

**Simply by being present behind the hounds, one stores, mentally and kinesthetically, unstated knowledge in addition to recorded "objective" data. The volume of this unstated experience is too great to describe. Quantification would be impossible, and description of the landscape and the vegetation, the behavior of the dogs, your feelings about the rigors of following the cat, and a host of other impressions become imbedded. They may later tug from within, when you write reports based upon your selective, but purportedly "objective", data. If you give in to such intuition in your reports they may not reach print; but if you ignore such body knowledge, your narrowly-focused data may lead you astray. As an octogenarian, tutored by Toasty, I've begun to dredge up images that I unconsciously stashed years ago, while spending hours afield with hounds to acquire data points that might be accepted as "science."**

**Yet wordless knowledge must be a form of objective truth. For many animals other than humans, it is all they have. Yet we cannot say that they do not think and do not learn. They may not expound verbally about their inner thoughts, but to survive they must blend learned internal images created by experience with their inherited traits.**

**Geneticists, using DNA analyses, can now backtrack through a species' deeper genealogy. They speculate on the time a species has been extant and they identify its relatives and ancestors. Ethologists such as Konrad Lorentz or Niko Tinbergan applied evolutionary interpretation to their observations of wild species, and assessed adaptive benefits of natural behavior. But direct observation of many wild species, even common ones, may be impossible, because they are skilled at avoiding detection. Prey species naturally hide from predators; predators cryptically stalk prey and hide from larger predators. Those of us wanting a deeper acquaintance with our wild neighbors must resort to indirect evidence– tracks and other sign – or we must go to extreme and expensive technology, such as radio-telemetry, arrays of remote cameras, DNA, or chemical analyses of tissues to piece together the zeitgeist of a species. In scientific reports, these fragments are filtered through complex statistical analyses to assess the probability that conclusions derived are true. Very often, these statistical processes take up more verbiage and graphical presentation than the intended biological results – a veritable case of the**

tail wagging the dog. The results are long papers loaded with mathematics and jargon demonstrating the erudition of the scientist to their peers, but providing only tidbits of new knowledge. And that knowledge may be as difficult to detect in the report as it originally was in the field.

Enlightened amateurs, including retired scientists, may find greater satisfaction in just seeing for themselves than they do in staying abreast of the indecipherable jargon of science and statistics. But we must not ignore the accepted mores of science. The fragmented hard data gathered via well-designed study and analysis can provide way-posts for our more relaxed observation and thought. An apt model is the historical novel. Except in a few, highly publicized, cases, human events are poorly recorded and inaccurately remembered. Professional historians dig deeply into old literature and primary sources, trying to understand early happenings and the forces at play, but their results leave many gaps between facts. Writers of historical fiction fill in those gaps with speculation, but to retain credulity, they tie their speculations to the factual points provided by historians. Similar efforts to create biological fiction have not been well-received, even though the genre is quite old. Carrying out such popular nature writing, filling gaps with speculation, may be more difficult than efforts to connect the facts of human history. Writers of history deal with our own species and can empathize with the characters whose lives they reconstruct. In linking biological facts, we may need fictional animal characters to carry the story, and we must empathize with those characters. But they represent species other than our own and giving them human personalities and human motivations may not be justified. Hardcore scientists, instead of being appreciative, are likely to shout foul.

Nonetheless, watching Toasty laboriously track faint lagomorph scents through thickets of mimosa, little-leaf sumac, dense tabosa, or clusters of bush muhly, and by watching cottontails consistently slip away from her unseen or seeing jackrabbits lead her on long, futile chases, I ponder how similar this all might be to natural predator-prey interactions. Certainly, the rabbits and hares must be reacting somewhat as they would to a coyote or fox. Perhaps Toasty's hunting style has been rendered ineffectual by her long, human-induced ancestry, but it was nonetheless selected over many generations from the primitive tool kit of the wolf. If I watch closely – a privilege provided by my slow-trailing beagle– and think hard enough, soliciting my memories from puma hunting days, I might understand better how wild carnivores and their prey interact in the wordless and unrecorded world of the wild. And I might be tempted to resort to speculation to fill some gaps.

After months of daily lagomorph trailing, I've decided that cottontails provide more observations per unit effort. They don't run as fast or go as far as the jackrabbits. At my age, speed and distance have become issues, so I focus on cottontail behavior. We've hunted the same places so long that Toasty knows which bush is most likely to hold a rabbit. She knows which rabbit it will be, and where it will go when forced from its midday resting place. If she could talk, she'd tell me the rabbit's name. Yet she has yet to catch one.

**I've enjoyed watching her evolve from a wild-ranging youngster with more enthusiasm than knowledge, to a professional houndlette. Even though she's only two years old and has much to learn, she already approaches a hunt more systematically. Instead of charging wildly into cover, she edges forward slowly with starts and stops. Testing the wind to detect body scent and listening to hear the rabbit if it should move. More often than not, she circles downwind from the cover as she draws near. I can tell if a rabbit is present or has recently evacuated a bush by the intensity of her approach and rate she wags her tail. If the scent is good, she begins to whimper excitedly, switching to all-out baying once she finds good scent on the ground. If the body scent emanating from the cover is strong, she will stand and bark sharply into the brush, hoping to force the rabbit to flee. She has developed quite a repertoire of technique over the near two years she has owned me.**

**At this point, my questions take form. How much of the behavior I am seeing emulates the hunting behavior of wild canids – coyotes or wolves? My hope for a complete answer is nil, but the questions and the thoughts they stimulate are endless. I try to envision the interactions of cottontails with coyotes. Assuming that behavior of present-day dogs represents the behavior of wild canids may be a stretch, but some small precursor of these traits must have existed in wild wolves.**

**Consider naturally bawling on a track. This is instinctive behavior in Toasty. Insofar as I know she never hunted with a pack of beagles, yet when I first put her on a scent, she immediately began to whimper, bark, then bawl. In modern scent hounds this becomes a form of communication with the hunter and other members of the pack. Most desirable among hunters is a "straight" hound that gives voice only when trailing the scent of a desired species. Such dogs will become pack leaders, with other hounds converging on them when they bark, knowing that they tell the truth.**

**Do coyotes trail bunny tracks? If so, do they whimper and sometimes bark while trailing? We all know that wolves and coyotes howl. Here in Hillsboro, I listen to a coyote howl-in every morning about four AM. As far as I can tell, this has nothing to do with hunting or scent. Sometimes I think it is a simple Reveille mustering the pack for a dawn patrol. But I don't know if wolves or coyotes give voice when they hunt as a group; and voluminous reading of the scientific literature hasn't given me an answer.**

**Published studies of canids focus on what they hunt and how often they make kills. Observations exist of wolves mobbing and bringing down large prey in deep snow. Most of these observations were made from circling aircraft, so any sounds the animals made were not heard. Few observations of coyotes killing prey exist. Anecdotes and folklore may help some in answering this question, but even here, stories are rare.**

> ***"While chasing their prey, coyotes do not characteristically bark, but just as some dogs are silent on a hot trail, some coyotes give mouth. When he was a young man chousing cattle out of the canyons of the Devils's River country, Ray Brotherton saw two coyotes barking while chasing a jack rabbit. Years later, standing on a bluff overlooking the Rio Grande, Ray Brotherton's son heard coyotes barking across the river and presently saw a jack rabbit come into view with two coyotes not far behind. They kept on barking and cutting across circles until they passed out of sight. The running bark is uncommon and is yippy."***
>
> ***– J. Frank Dobie, in The Voice of the Coyote***

**Equally scarce in the biological literature is anything on the tendencies of wild canids to locate prey by trailing scent on the ground. Observations from aircraft and snow tracking have demonstrated that wolves will smell the body scent of prey and will divert their path accordingly. So far, I've found nothing about them sniffing along tracks. Or bawling on a track.**

**Todd Soderquist, who was the Wildlife Manager on the remote Arizona Strip north of the Grand Canyon, told me of hearing a moving pack of coyotes yipping midday. Todd was afoot, surveying mule deer. He swung his glasses in the direction of the sound and the first thing he spotted was a puma, trotting along. Behind it was a pack of coyotes. The puma climbed on a large rock and dared the coyotes to come close. Todd said that neither the puma nor the coyotes seemed particularly intent on contact or particularly excited. It was almost as if they were playing a game. Stanley P. Young[1], citing Burr[2],**

**relates a similar encounter between two coyotes and a bobcat. So, based on limited observations, might we surmise that wild canids give voice when chasing another predator. Perhaps this provided a natural behavior that might have been exploited when humans first began selecting wolves as hunting companions.**

**My point is that for many aspects of nature study, we are still restricted to lore or its proto-scientific ancestor, natural history. I think there is a sequence here. Knowledge deeply rooted in human belief, such as the kind gathered by Dobie, is lore. More often than not, this is the accepted knowledge of a culture. Curious or skeptical individuals may supplement lore with personal observation and begin to question the conventional wisdom. In the realm of biology, their findings become natural history. Their observations may then lead to formation of questions or hypotheses that must be addressed through more formal scientific means. Based upon my current readings of scientific literature, I suggest that the lore and natural history stages, based upon hard-gained experience, are too often left out as researchers rush to satisfy the hypothetico-deductive demands of modern quantitative sciences. In addition the tendency of scientists to invent, often needlessly, their own language renders much of the knowledge they gain inaccessible to the population at large. Science becomes the object of suspicion, yet only when science has been clearly interpreted and absorbed as lore does it truly become an accepted part of everyman's thinking, thus the value of people like Dobie who collect and filter knowledge from all sides and post it in digestible forms. To quote Dobie's best friend, Roy Bedichek:**

***"Even the humblest naturalist soon finds himself becoming a folklorist of a sort, for he depends upon folks for much of his information. In the nature lore of the people he finds much truth that is stranger than fiction, and also much fiction in excellent disguise. The wheat he harvests from this field is cluttered up with much miscellaneous rubbish which somehow must be got rid of, and in the processing he passes not only on the reliability of witnesses but on the credibility of the story itself. Nor can he simply discard a liar out of hand as soon as he discovers one, for unreliable witnesses are often repositories of valuable information, as any lawyer knows. He finds himself studying beliefs in general, irrespective of their truth or falsity, because they furnish clues."***

**– Adventures with a Texas Naturalist, p. 168.**

**Dobie has been criticized for failing to discriminate between fact and myth, and he has been known to embellish a story or two. But sometimes the kind of knowledge he and his ilk have cataloged is the only kind available, and we have to use our own experience to judge and filter it. At least they have made it available to be read.**

**[1] Young, Stanley P. 1958. The Bobcat of North America. The Wildlife Management Institute and Stackpole Press.**

**[2] Burr, J. G. 1948. Fanged Fury. Texas Game and Fish 6(6): 4-18.**

**FLORA OF THE BLACK RANGE**

**The Black Range website is dedicated, in part, to the natural history of the Black Range. For instance, at the moment, the Flora gallery of that site includes 735 photographs of 197 plant species photographed in the Black Range. More than 180 of the species pages include information about the species and links to more information about the species.**

**You can help grow this resource in three ways:**

- **Submit your own photographs and species "write-ups" for inclusion on the site (you will retain all copyright to your material);**
- **Provide information about location and time of year where additional species can be studied (to bob@birdtrips.org); and**
- **Review the galleries and report errors.**

# Northern Cardinal Range Expansion

## An essay by Bob Barnes with substance from John Hubbard

**In 2013, we began to see Northern Cardinal, *Cardinalis cardinalis*, in our yard in Hillsboro. Although their visits to our yard were sparodic there were reports from the west end of "town" that they were regular at a home there. I assumed, based on little definitive information, that these cardinals represented a range extension of *C. c. superbus*, the Arizona Cardinal. That subspecies has a range which extends from southeastern California thru Arizona and northern Sonora into the southwestern part of New Mexico including the Gila.**

***C. c. superbus* has been extending its range eastward for quite some time. The American Ornithologists' Union used the synonym *Richmondena cardinalis superba for C. c. superbus* between 1931 and 1957 (that synonym was used at least as early as 1928 by others - see Sora, Vol. 30 No. 4 pp. 243 - 245). It was during this time that the Bent series noted the species range had extended to at least Redrock, New Mexico.**

**Ridgeway, in his original description (1885)[1] of the subspecies, noted that it was larger than C. c. cardinalis and in 1901 he noted that it was "similar to *C. c. cardinalis* but much larger, with relatively stouter bill; adult male paler red, with black of lores not meeting across forehead; adult female more deeply colored than that of *C. c. cardinalis*..."**

**By the spring of 2015 this species had been seen in Hillsboro by multiple observers. The dead specimen shown above was photographed in May of that year by Gretchen Kerr of Hillsboro.**

**By 2017, Dr. John Hubbard had heard about our population of Northern Cardinals and began making inquiries. In "The Status of the Cardinal in New Mexico" (The New Mexico Ornithological Society Bulletin 7(3/4):22-25, 1979) he noted that:**

**"...The next record is from the opposite corner of southern New Mexico, that being a male –'one only... seen....' (Phillips, 1968) -– taken at Redrock in the Gila Valley by E. A. Goldman on l October 1908[2]. R. T. Kellogg was to find the species in the same area as well, taking a male there on 14 December 1917 and finding some two dozen birds there on 8 May 1922 (data Cincinnati Mus. Nat. Hist.). Thus, it appears that by the last date, the Cardinal had become a well-established resident of the Redrock area. In this conjunction, it is notable that such visitors to the area as Henshaw in 1873, Stephens in 1876, and Barrell in 1890 (Bailey, 1928) did not report or collect the species, suggesting that it was absent in the Gila Valley in those earlier years. By 1933 the Cardinal had certainly reached northward in the Gila Valley to Cliff, where Allan Brooks took several on 6 and 18 March (specimens Mus. Vertebrate Zoology). At present, the Gila Valley is the metropolis for the Cardinal in New Mexico, and the species extends northward there to the Turkey Creek area.**

**Other parts of the Cardinal's range in southwestern New Mexico seem to have been occupied later than the Gila Valley, based on the evidence at hand. The first records for Guadalupe Canyon appear to be those of Allan R. Phillips (ms.) and his associates, on 12-17 March and 8-9 July 1947. It is certain that Mearns did not record the bird there in 1892-93, nor apparently did anyone else prior to 1947 (Phillips et all, 1964). Farther north, in the Glenwood area of the San Francisco Valley, the Cardinal was apparently absent during visits by such workers as Barrell in 1889 and the Baileys in 1906 (Bailey, 1928), and A. W. Twomey--who made extensive collections there in 1939 (Carnegie Mus. Nat. History). It was probably in the 1940's or 1950's before the species appeared there-–where it now ranges upriver to the vicinity of the U.S. 180 bridge. More recently, the Cardinal**

**appears to have become resident in Hidalgo County along Animas and adjacent Double Adobe creeks, where I first found several on 7-9 June 1976.**

**Cardinals also occur at times elsewhere in southwestern New Mexico, but to date no additional populations appear to have become established outside of the areas mentioned above. Records include: l seen at San Simon Cienaga by A. Phillips (ms.) 31 Dec. 1956; l at Silver City by D. A. Zimmerman on 24 Nov. 1958 (Audubon Field Notes 13:55, l959)--plus l there by C. L. Snider in winter 1966-67 (NMOS Field Notes); singles seen by me 6 miles south of White Signal on 12 Dec. 1961 and at Mangas Springs 24 May 1961 (Hubbard, ms.), plus l at Carrizalillo Spring 25 May 1973; l at Rodeo seen by R. Scholes 12 Mar.-l Apr. 1976; and l at Hatchet Ranch--east of the Big Hatchet Mts.--seen by Bruce Hayward et al, on 21 Jan. 1979 (NMOS Field Notes). Only one of the extralimital records involved a specimen, that being the bird, a female (Delaware**

**In correspondence between Hubbard and Harley Shaw of Hillsboro, dated July 13, 2017, Hubbard commented that "It was good to talk to you at length about biological and other matters on the telephone yesterday, including concerning the changing status of the Northern Cardinal in New Mexico over the last 109 years (i..e., beginning in 1908 when an extant specimen of the species was collected at Redrock on the lower Gila River). I … (have attached) … a recent photograph of the underparts of eight female study skins of the two cardinal subspecies that are most likely now occurring in the Hillsboro area--with the four specimens on the left being of the so-called Arizona race (i.e., *Cardinal cardinalis superbus*), while the four on the right are of the gray-tailed form (*C. c. canicaudus)* primarily of southern and western Texas. I believe that the observed differences in the ventral coloration and patterning between these two series of skins are both consistent and readily apparent enough to allow many if not most individuals of these particular taxa to be distinguished from each other in**

**Mus. Nat. History), from Carrizalillo Spring. It represents the Arizona race, *C. c. superbus*--which is resident in southwesternmost New Mexico--this being the easternmost specimen that I know of the taxon."**

**at least adult females (which have light-colored bills), which may also be true of immatures of both sexes (which have grayish to blackish bills). As far as I am aware, these differences have never been reported before in the literature--even though I can frequently discern them even in online photographs of cardinals from the southwestern U.S.! "**

**On May 15, 2018 Hubbard noted (in personal correspondence with Harley Shaw) that "I stopped at the University of New Mexico Museum of Southwestern Biology and compared the plumages in male study skins of the Northern Cardinal of the Arizona and Texas populations, subspecies, or even species! I found that these forms differ on the average with the Arizona birds having longer and fuller crests along with a grayish cast to the upperpart coloration (versus shorter crown feathering and a buffier dorsum in the Texas ones)--which confirms what I saw in Bob Barnes' series of slides of the cardinals from these two areas. All of his Hillsboro pictures of males on this avian complex had the crown feathering and upperpart coloration of the Arizona form, with no suggestion of intergradation that I could detect in these two characters with the Texas one. If anyone finds a roadkill or other specimen of a northern Cardinal on the east side of the Black Range (or elsewhere in New Mexico), I suggest that it be frozen with the date, locality, and collector attached before turned over to the MSB--where it can be properly prepared and studied, including in terms of the DNA!"**

**In personal correspondence between Dr. Hubbard and myself on May 18, 2018 he noted that "I am satisfied …[the photographs and video I shared with him] most likely all represent the Arizona form of this species complex (i.e., Cardinalis cardinalis superbus if treated as a subspecies of this bird as recognized overall solely as a single species; or C. igneus superbus if one accepts it as being the northernmost race of one of four species based on the publication of some recent molecular-genetic findings). This identification is primarily based upon the grayish-red upperparts and fuller, longer crests of the Hillsboro birds--versus the buffier dorsum and shorter, thinner crest of the Texas (or Gray-tailed) Cardinal (C. c. canicaudus), which has been confirmed as occurring in the lower Canadian and middle to lower Pecos basins in our state!**

**I cannot be certain without examining their standard measurements (e.g., wing and tail lengths) that the Hillsboro birds are not examples of the smaller C. c. igneus/C. i. igneus, a single male of which taxon was collected several decades ago near Las Cruces by the late Dr. Ralph Raitt. I long thought that bird was most likely an escape from the live-bird markets of Ciudad Juárez, Chihuahua; however, in his 1945 publication the first notable authority on the Sonoran avifauna, Dr. A. J. van Rossem reported that this race occurs in that Mexican state northeastward into the Río Yaqui**

**basin. Therefore, some of those small birds also could be involved in the northward and eastward expansion of this species complex in southwestern New Mexico and southeastern Arizona, although all the specimens of which I am aware to date from the latter state have been identified as the Arizona form. Of this material, I would accept that annotated by the late Dr. Allan R. Phillips as most likely having been accurately identified--as opposed to possibly being the product(s) of a certain amount of guesswork!**

**In any case, your photographs of Northern Cardinals at Hillsboro now give us the first solid clue about from which population(s) the birds of this taxonomic complex appear to have relatively recently spread in the eastern foothills of the Black Range in southwestern New Mexico. This puts us far ahead of the situation in southwestern California (e.g., the greater Los Angeles area), where …[authorities]… have struggled with (if not been baffled by) this issue--which I have long regarded as still having been unresolved there as late as the end of the 20th century! Hopefully, we New Mexicans will …[be able to]… document the obvious spread of these and other wild birds in our and even the adjacent states in the U.S. and Mexico beginning at least 175 or more years ago, with the beginning of the end of the Little Ice Age in North America!?"**

**Given Hubbard's guidance on distinguishing the two subject subspecies, it is possible to distinguish between the two males shown here and on the preceeding page. In the case of C. c. canicaudus (this page) the dark coloration above the bill is more significant and the crest is not as significant as those characteristics of *C. c. superbus* (previous page) photographed in Hillsboro.**

**More work remains in the study of this range expansion. Apparently, the subspecies is found south of Hillsboro along the foothills of the Black Range but not north up Palomas Creek. More field work will help clarify the extent of the expansion. Documentation of actual nests, instead of extensive evidence of nesting behavior, will also help to document this change in range.**

**If you have sighted Northern Cardinal on the east side of the Black Range, or south of San Lorenzo on the west side, please let me know at bob@birdtrips.org. Thanks in advance for your help and insight.**


1. **Description of a New Cardinal Grosbeak from Arizona, Robert Ridgway, Auk, Volume 2, Issue 4 (Oct-Dec. 1885, pp. 343-345)**

2. **Goldman was collecting west of Deming during this period. In "The Status of the Pyrrhuloxia in New Mexico", John Hubbard notes that Goldman collected a Pyrrhuloxia west of Deming in 1908 as well. NMOS Bulletin 6(3):23-26, 1978**

*****Additional Resources and Information*****

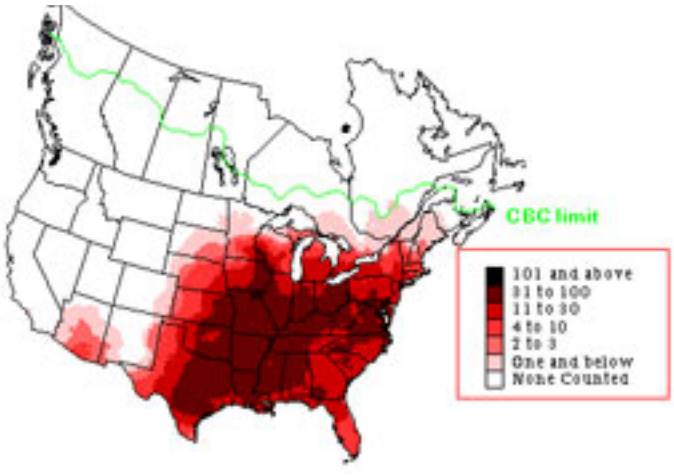
**Blog by Chris Cunningham dated August 16, 2014 - "The Most Spectacular Northern Cardinal Subspecies?"**

**Bent Life History of the Northern Cardinal**

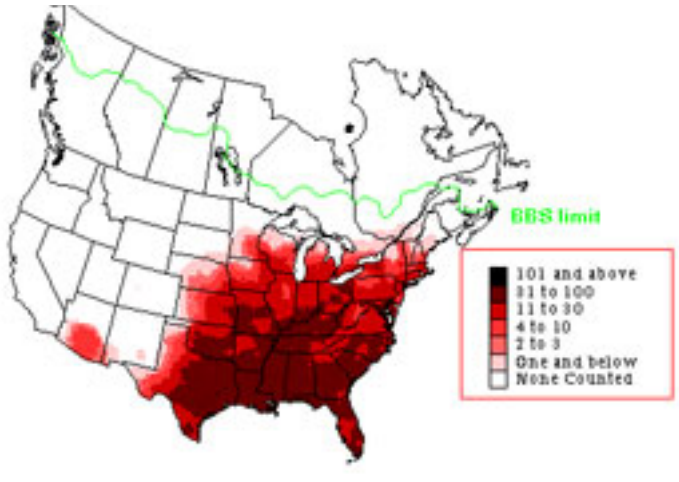
**The Northern Cardinals of the Caribbean Slope of Mexico, With the Description of an Additional Subspecies from Yucatan, Kenneth C. Parkes, 1997, Pp. 129-138 in The era of Alan R. Phillips: A festschrift (RW Dickerman, compiler). Horizon Communications, Albuquerque, NM. At page 129, Parkes notes that Robert Ridgway (1901) had divided the Northern Cardinal into three groups, one of which included the subspecies discussed here. (Ridgeway considered the west Mexican subspecies, C. c. carneus to be a full species).**

**U. S. National Museum Bulletin 237. Life Histories of North American Cardinals… pp. 19 - 20 (pp. 54-55 of the .pdf) has a description of the subject subspecies.**

**Breeding Bird Survey Data: Northern Cardinal**




**Christmas Bird Count Data: Northern Cardinal**




**Breeding Bird Survey and Christmas Bird Count Maps from the Patuxent Wildlife Research Center. Gough, G.A., Sauer, J.R., Iliff, M. Patuxent Bird Identification Infocenter. 1998. Version 97.1. Patuxent Wildlife Research Center, Laurel, MD.**

**North American does not end just south of Columbus, New Mexico (even when you build a wall there). The dots on the map above are from data on collected specimens in the Atlas of the Birds of Mexico. Those data were used with an overlay of vegetation, climate, and topography data to generate a GARP map of the potential distribution of the Northern Cardinal in Mexico. Data and the map above are from the CONABIO site, see in particular the excellent discussion of the Northern Cardinal in Mexico, and the substantial bibliography at the end of the article (translation of the site is possible).**

**BONAP**

**If you examine the flora gallery of the Black Range website you will see that website uses range maps produced by The Biota of North American Program in its species descriptions. The use of these maps is allowed under a share arrangement between Bob Barnes (who allows BONAP to use his plant photographs) and the Program which allows him to use its maps. Use of these maps does not extend to other purposes and they are excluded from the Creative Commons License which governs most of the material on the Black Range website.**

# Experiences of a Hillsboro Peak Lookout

## an essay by Don Precoda

**Hillsboro Peak is a beautiful part of God's country located in southwest New Mexico. It is a tall and broad mountain with a nice meadow on top. The peak is a way point on the Forest Service Black Range Crest Trail 79, which is also the Grant/Sierra county line from Thompson Cone to near Reeds Peak. Crest Trail 79 is also a short segment of a longer alternate Continental Divide Trail (CDT) route that begins just north of Palomas Mexico, passing Deming and Cooke's spring before traveling up Berenda Canyon, then climbing Sawyer Peak, Emory Pass, and Hillsboro Peak. Most CDT thru hikers complete the 125 mile walk from Palomas to the peak in 3 to 5 days. The alternate route continues to Mimbres Valley or Gila Hot Springs for resupply, and then joins the other CDT somewhere between the Black Range, Beaverhead area, and Collins Park.**

**Hillsboro Peak has visitors. Most visitors are day hikers coming up from Emory Pass. A few horse and riders come up Railroad Canyon. Almost no one comes up the trail from Kingston, the Animas country, or North Percha Creek. Less than ten northbound CDT hikers pass by during April. Perhaps five southbound CDT thru hikers pass by during November and December. The historic cabin on Hillsboro Peak is trail magic to CDT hikers and a planned overnight stop. (A bunk out of the wind beats a stick in the eye.) Most visitors to the peak leave written entries in a log book placed inside the old cabin. Thoughts of God and life, stories and poetry, weather, humor, date and trail monikers are recorded. Some visitors leave drawings, mementos, or trail magic. These visitor log books go back in time many years. In 1992 I saw entries by Peter Hurd (dated 1950), Dr. Werner Von Braun and colleagues (Alles auf Deutsch geschrieben in 1947), Eugene Manlove Rhodes (1928?), and other scamps, politicos, ranchers, governors, generals, cowboys, astronauts, the noteworthy and notorious from New Mexico history. Only a few visitors to the peak stay overnight. Some sleep in the old cabin like Rhodes and I. Some camp in the meadow under the stars. Others stretch out in the old disused corral. It's shaded, clean, grassy and private - in a depression shielded from the winds.**

**Hillsboro Peak has history. Many old mines are visible. A few isolated relic cabins still survive. Rabb Park is nice country. Nearby Hillsboro Lake is always interesting. Segments of present day Forest Road 157 were once upon a time the wagon road connecting the mining camps of Chloride, Hermosa, and Kingston. Buffalo Soldiers rode this way to find, fight, and fall to Apaches in Massacre Canyon in September 1879. The graves are still there. Go and look. Nowadays it's the views people come for. Everyone - geocachers, riders, thru hikers, day trippers, scientists, foreigners and locals, young and old, in-laws and outlaws, the high and the low all climb the sixty tower steps for the view. And the view is great: Far away the Dos Cabezas and Chiricahuas near Wilcox. Mt. Graham near Safford. The Organ and Franklin Mountains near El Paso. The Sierra Juarez in Old Mexico. Big Hatchet and Animas Peak in the boot heel. The Sacramento Rim country behind Alamogordo. Sierra Blanca and Nogal Peak in Lincoln County. The Sierra Oscura above Trinity Site near US-380 in Socorro County. The Manzano Mountains east of Belen. Salinas Peak on the White Sands Missile Range is in the middle distance, as are the Magdalenas, San Mateos, Floridas, Mogollons, and the Gilita country. Close by are all the Black Range Peaks. Many and many more mountains from Arizona to Texas are visible - parts of two sovereign nations, three US states, thirteen counties, and nearly forty mountain ranges. The view is basin and range at its best.**

**Hillsboro Peak has silence and solitude. Days and months when no one tries for the top because of cold or wind or snow. Only the wind comes whistling up the trail. When the wind is calm one hears many sounds: Birds in flight. Animals calling. Aspen leaves shaking. Far away thunder. Rain on the roof. Mice. One Sunday morning I first heard then watched the Kingston Volunteer Fire Department traveling to Hillsboro village for a structure fire. The wail of the fire engine sirens floated up from 4,000 feet below and miles down the canyon. In summer the roar of Harley Davidson motorcycles leaving Kingston is common on top of the mountain. Then silence. There is an old adage: "Solitude is the pleasure of being alone. Loneliness is the pain of being alone." Both**

**John Weir, who "was a volunteer for the United States Forest Service while his wife manned the look-out towers at Reeds Peak, Black Mountain and Hillsboro Peak for 18 years", shared old log books (1920's to 1990's) with Don Precoda.**

concepts exist on the peak. Both have adherents. Some visitors return to the peak again and again to soak up the solitude, beauty, peace, and views. For other visitors one dose of loneliness is enough.

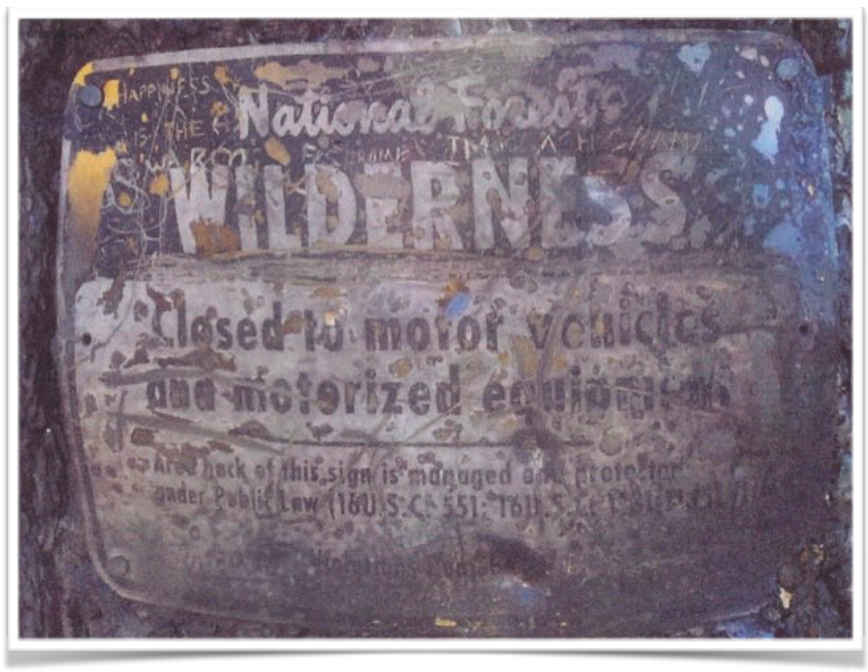
Hillsboro Peak has night life. After sundown the lights of Silver City and T or C, the Mimbres and Rio Grande valleys all shine from below. The stars above so clear and close they might be touched. Meteors flash by and are gone. UFO sightings are recorded. Nocturnal vermin slink about their business in the meadow while owls perch on tower steel, silent, waiting, and watching. Owl parents know the coming moonrise will awaken young upon the nest…whooo…will call out for a snack. Only then will parents swoop and slay in the meadow below. It seems fresh warm blood greases young gullets to swallow its own weight with ease. There are no chokers on this owl's nest. Kids play Frisbee in the meadow at midnight under a bright full moon. Inside the cabin are pinochle and popcorn by gas lamp. The nights are special.


Hillsboro peak has wildlife. Deer graze the meadow at sunrise and sunset. Turkeys feed their way through the meadow all day long. Ever try counting turkey poults the size of golf balls? 31-45-36-48. Never the same number twice in a row. By August the brood has lost half its number and the remainder are grown to football size. By Christmas half again will perish. Life is tough on young turkeys. Few will survive till spring. A new bear comes up every few weeks. Sometimes it's a female with cubs, or a male bear alone, or yearling twins traveling together. Bears are great roamers. They stay awhile then move on. Often they are seen, but more often it's a fresh footprint in the mud, or a snag pushed over and pawed through, or the sound of bear running through brush that gives them away. They grub a living for a day or a week then move on, to be replaced a day or a week later by another bear. Other wildlife includes snakes, many butterflies, red fox chasing chipmunk, coyote, lizards and other critters. There are many and many raptors, game birds, song birds, woodpeckers, carrion eaters, seed eaters, and hummingbirds including Magnifient. There may be a mountain lion. And one frog that quacks like a duck. Don't believe it? Read on.

One afternoon while in the tower scoping buffalo on the Ladder Ranch I heard a duck call out. Then again. I looked around the clear blue sky and saw nothing. Over the course of two hours the same call came maybe 20 times. Sometimes loud, other times faint. I was sure it was a duck. I looked and looked - no duck. It called again. Cleaned my eye glasses and looked - no duck. It called again. Cleaned the tower windows and looked - no duck. It called again. You know how a human mind can fixate on something and chew on it like stringy Mexican beef? That's how it was with that duck. Finally it shut up and I gave up. That night I had dreams of a duck. I killed, cleaned, cooked, and consumed duck. What a delicious dream. The next dream was not so pleasant. Some duck drank up all the water in yonder Caballo Reservoir and flew over the peak looking for me. Then a river of something slimy came bull's eye on my head. Yuck.

Don Precoda provided the photo (above) of himself on his birthday in 2016. At work at 63.

The next morning all was forgotten. Clean air, robust living, and high places have that effect. During lunch on the porch the duck starting calling again. I stayed



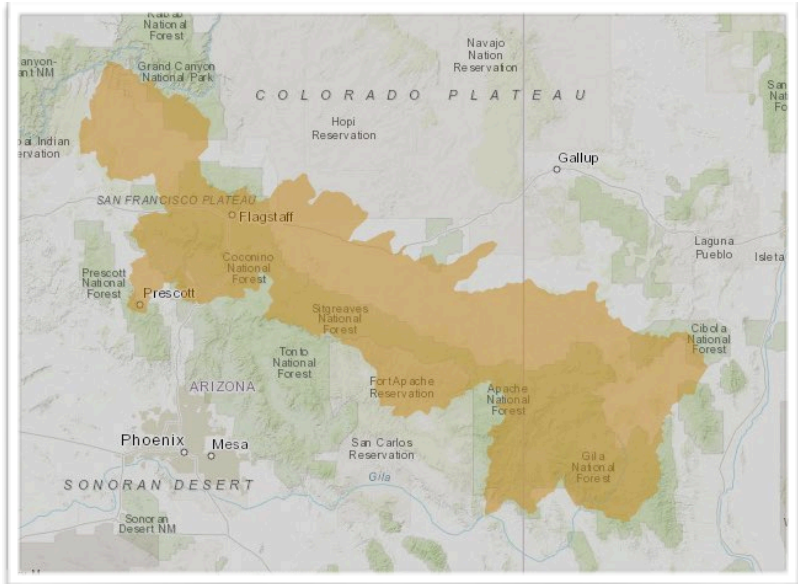

under cover. Another call. All at once I realized three things: It was not a duck. The sound came from ground level just fifty feet away. It now sounded like the croak of a frog. Over several minutes as it croaked I slowly homed in on its call. Then I see it - less than one inch long. Its smooth skin and green color exactly matches the grass. Camouflage so wonderful I lose sight of it between my feet. Can you imagine? A frog at 10,000 feet. How does a frog survive? Yes - another person [ed. Philip Conners] saw it in the same spot one year later. He took a better photo too.

Hillsboro Peak has many tales to tell. Stories of boots and bones, mountains and memories, sunsets and smiles. Happy trails to you.

Philip Conners in "Beauty in the Burn" describes his encounter with the frog this way "Something bright and gently quivering caught my eye in the grass between the cabin and the outhouse: a mountain tree frog. In twelve summers of living there I'd never seen one. I sat near it and tried to remain as still as it did for the next half hour, my compatriot on an island of green. "
Orion, March-April 2015

## ***Added Thoughts From The Newsletter***

A lot of people have written about the Silver Fire and its aftermath. For a view of the fire, by locals, as it happened read The Silver Fire - As We Lived It.




The USGS indicates that the northern range of Hyla wrightorum as above. Hillsboro Peak is just south of the indicated range. The USGS page also indicates that the species is found up to 2,900 meters,

Hillsboro Peak is about 500 feet higher than that. As such, the sightings by Precoda and Conners are of some significance. The species is also found in disjunct populations southward in Mexico. Jim Rorabaugh notes that "Populations in the Huachuca Mountains and Canelo Hills differ in morphology, calls, and mitochondrial DNA from both the Mogollon Rim frogs and H. wrightorum from the Sierra Madre Occidental of Sonora, and may represent a different subspecies or species. These disjunct populations are small and threatened by catastrophic fire, drought, and introduced predators." Until 2001, Hyla wrightorum was regarded as a synonym for Hyla eximia. Some authorities now place it in the genus *Dryophytes*.

Listen to the Arizona Treefrog

Don Precoda provided the photograph above of an Arizona Treefrog, *Hyla wrightorum*. (species identification by Barnes)

**Want to Contribute Material?**

**If you have material which is begging to be published in the "Black Range Naturalist" simply send it to Bob Barnes at bob@birdtrips.org. You will retain all copyright of the material which you submit.**

**What is "material"?**

**Just about anything which furthers our understanding and appreciation of the natural history of the Black Range: photographs, sound recordings, video recordings (as an electronic based medium we have the ability to link to or embed such material), short blurbs about observations which you have made, requests for information (want to know more about a specific topic? - ask, we can pass on the request or inquire with those who might know the answer), or full-length articles.**

**There is much to learn about the Black Range and our joint effort will be of benefit to all.**

**News From the A Spear**

**On June 7 of this year the A Spear Ranch on Palomas Creek hosted the continuing hummingbird banding efforts of Ned and Gigi Batchelder. The Batchelders have banded thousands of hummers all over the western United States. On the 7th a group of nature's observers from Hillsboro and the Berrenda and Lake Valley Ranches were honored to watch the banding process. Most of the birds being banded were Black-chinned Hummingbirds, *Archilochus alexandri*, which weigh from 3.09 grams (male) to 3.42 grams (female). A U.S. penny weighs 3.11 grams.**

***Crotalus ornatus, Ornate Black-tailed Rattlesnake, Photo by Randy Gray***

***Crotalus lepidus, Banded Rock Rattlesnake, Photo by Randy Gray***

***Crotalus viridis, Prairie Rattlesnake, Photo by Randy Gray***

***Crotalus molossus, Northern Black-tailed Rattlesnake, Photo by Randy Gray***

# Rattlers of the Black Range

## an essay by Randy Gray

**The most maligned, misunderstood and feared residents of the Black Range are rattlesnakes. However, they are a fascinating group of reptiles that we are still learning more about. For instance, in the past couple of years researchers have documented that female rattlesnakes after giving live birth, stay with their offspring and help protect them along with other social behaviors before unappreciated.**

**There are eight species of rattlesnakes now recognized to occur in New Mexico. Four, and just maybe six species of rattlesnakes call the Black Range home. The most often seen is the Western Diamondback (*Crotalus atrox*) easily recognized by its boldly alternating pattern of white and black bands on the tail. (Photo below) Also found in the Range is the Ornate Black-tailed Rattlesnake (*Crotalus ornatus*) who's name "black-tailed" is a good way to identify the species. (A young snake of this species is shown at the top of page 17.) The Banded Rock Rattlesnake (*Crotalus lepidus*) is not seen as often as the Diamondback or Ornate Black-tailed. It makes its home in rocky areas where it feeds primarily upon lizards. (Photo at the bottom of page 17.) Another common rattlesnake in the Black Range at lower elevations is the Prairie Rattlesnake (*Crotalus viridis*). (Photo at the top of page 18.) The fifth rattlesnake that just might be found in some of the lower elevation drainages is the Massasauga (*Sistrurus catenatus*) because a few have been found in the grasslands around the Black Range. The possible sixth species is the Northern Black-tailed Rattlesnake (*Crotalus molossus*) which might occur on the western slopes of the Black Range. (Photo at the bottom of page 18.) However, you might need some DNA to be sure. Several years ago the Black-tailed Rattlesnake (*Crotalus molossus*) was broken into two species**

***Crotalus atrox, Western Diamondback Rattlesnake, Photo by Randy Gray***

(*Crotalus molossus* and *Crotalus ornatus*). The western distribution of the Ornate Black-tailed Rattlesnake was proposed as the southern end of the Black Range. As taxonomy goes, those two snakes may be lumped back together someday.

The Ornate Black-tailed, Western Diamondback and Prairie Rattlesnakes are the species most often encountered crossing roads. Unfortunately they often linger on the roads to absorb the heat radiated by the asphalt which raises the chances they will be hit by a vehicle. Sightings are especially common during the monsoons when they are moving around looking for mates. They give live birth the following summer and most breed only every two years.

There are several common misunderstandings about our rattlesnake residents that are often voiced. First is who's who. Many folks think we have Timber Rattlesnakes (*Crotalus horridus*) in the Black Range. However we don't; the closest populations of Timber Rattlesnakes are in East Texas. The Ornate Black-tailed is the species most often misidentified as a Timber Rattlesnake. You will also hear people say there are Mojave "Green" Rattlesnakes (*Crotalus scutulatus*) in the area. The only documented Mojave Rattlesnakes are in the boot heel of New Mexico just west of Animas and in south central New Mexico along the border with Texas. Some populations of Mojave Rattlesnakes have a green phase as is also the case with Northern Black-tailed rattlesnakes, so maybe seeing a greenish Black-tailed leads to the mistaken conclusion that it is a Mojave.

Many think you can tell the age of a rattlesnake by the number of buttons on its rattle. This is not reliable because rattlesnakes gain a button (rattle) every time they shed. If the snake is eating well it can shed several times a year. In addition, buttons can be broken off, so they come and go more frequently than assumed.

Another misunderstanding is that baby rattlesnakes are more deadly. A reason cited is they cannot control the amount of venom injected. However, the bite from a larger rattlesnake is more serious because larger snakes have more venom. However, the best course is to not find out! Avoid being bitten by being mindful of where you put your hands or where you walk when out and about. Rattlesnakes prefer not to interact with you and often rattle to warn of their presence. But sometimes they don't rattle so look for them.

There is a group, Advocates for Snake Preservation, that is based just west of the Black Range in Silver City, NM that does outreach about snakes. Their web site (www.snakes.ngo) has information about living with rattlesnakes as well as videos showing the social behavior of rattlesnakes.

Rattlesnakes are part of the great biodiversity of the world and are unique residents of the Black Range. They are a part of the ecology of this remarkable area. More people have learned to respect and appreciate rattlesnakes and avoid killing them. In fact, don't be surprised if you pass somebody on the road that has stopped to move a rattlesnake before it is intentionally or otherwise run over.

Know what a New Mexico Milkwort, *Polygala rectipilis*, is? Have you seen one? Do you know where one might be? The type specimen was collected three miles south of Hillsboro, but there is virtually no information about this plant on the web.

# Skyrocket - *Ipomopsis aggregata* subsp. *formosissima*

## an essay by Bob Barnes

**The Black Range may be known for a great many things, but "firsts" is not one of them. That said, let us consider the Skyrocket, originally described as, *Callisteris formosissima*, a plant species that is very familiar to any one who has spent time in the Range. And while we are at it, let us consider Orrick Baylor Metcalfe, generally known as O. B. Metcalfe.**


**Metcalfe collected <u>many botantical specimens in the Black Range between 1902 and 1905.</u> One of those specimens which he collected is shown here: the type specimen for *Callisteris formosissima*. The "official" species description for the Skyrocket is based on this specimen, from about 9,000 feet in the Black Range, in 1904.**

**One test of a botantist's importance in the field is whether or not there are species names which recognize him/her in some manner. There are several species which now honor, or have honored Metcalfe: *Senecio thurberi* was originally described as *Senecio metcalfei* - from a specimen Metcalfe collected at Hillsboro Peak; *Oxytropis lambertii* var. *bigelovii* was originally described as *Aragallus metcalfei* - from a specimen Metcalfe collected on Sawyer's Peak; and *Meibomia metcalfei* was originally described from a specimen Metcalfe collected in Animas Creek. If I take off my Black Range centric hat for a moment I should note that he is recognized in the names of several other species, generally in cases where he collected the type specimen.**

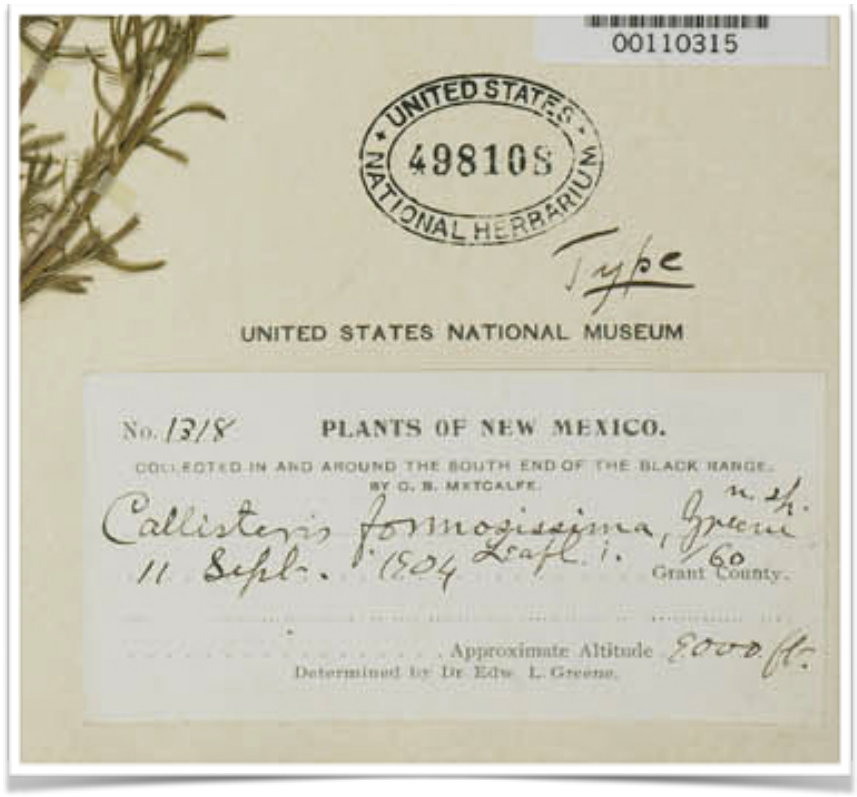
**<u>In the summer of 1904 and spring of 1905</u>, Metcalfe collected several specimens in the southern end of the Black Range, including; *Acacia constricta paucispina, Antennaria anacleta, Bidens cognata*...(the list is rather long and includes *Meibomia metcalfei*).**

**During 1904 and 1905, <u>Metcalfe made Kingston his headquarters</u> for his collection expedition. It was on July 6, 1904 that he collected the type specimen for the Southwestern Prickly Poppy, <u>Agremone p. pleiacantha</u>.**

**What else do we know about Metcalfe, other than that he was born (1879), collected for a few years in the Black Range, and died (1936)?**

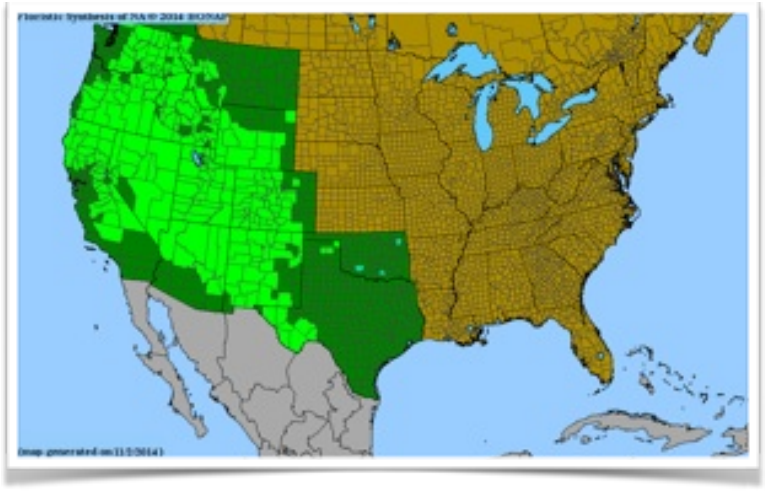
Metcalfe received his Bachelor of Science and Masters Degrees from New Mexico Agricultural College (now NMSU). He studied under Elmer Otis Wooton. His bachelor's thesis was "The Flora of the Mesilla Valley" and his master's theseis was on soil analysis and tension line in Mesilla Valley between saltbush and cresote bush.

In botantical circles he is known as a plant collector and ecologist.




Following his education he lived in Mangas Springs and Silver City. After the collecting period described here he taught auto mechanics and had an auto business in Silver City. He also worked in mines and was killed in a mining accident in 1936.

Returning to the Skyrocket for a moment. The subspecies discussed here is found from California to Colorado - south to Arizona and Texas at elevations between 5,500 and 9,300 feet. The full species has a larger range, as shown in the BONAP map above.



The photograph of Skyrocket, below, was made by Bob Barnes in the Black Range.

## Our Next Issue

Our next issue is tentaively planned for the fall of this year and will have a general theme of fire and water. If you have material, or know of material, which would fit with this issue please let bob@birdtrips.org know.

Articles on other topics may also be included in that issue and, of course, we need material for future issues. So, if you would like to be included in this effort please send your material/ideas to us.

We may have a "Letters to the Editor" section in future issues. We appreciate your comments on the material published (or left out) of our newsletter. If you would like your comments to be published we will be pleased to include them, attributed or unattributed. Such letters should be substantive and supportive of the general effort - no "cat fights" please.

## An Experiment in Peer Review

**The readers of this newsletter are familiar with the concept of peer review. This newsletter is not a peer-reviewed journal, at least not in the traditional sense of the concept. Before articles appear in peer-reviewed publications they are subjected to a review by other experts on the subject. It is considered the gold standard in publication, by many, especially the peer-reviewed publications. However, it is a sluggish process which often gets in the way of the dissemination of information and is often prone to supporting the commonly accepted "facts" at the expense of new ideas and "facts".**

**We all benefit from the efforts and works of others. Established fact has great value (and understanding how established fact changes is perhaps of even greater value). Accepted fact is difficult to challenge, from the grand to the mundane. For example, you will find references to scientific synonyms throughout this work, and which name is correct and which is a synonym is a big deal, especially for the authors.**

**Here, we experiment with after-the-fact peer review. We actively encourage our readers to respond to the information contained in the newsletter. Our goal is to advance knowledge and the availability of information. Our approach leads to a different type of error. The error of just getting it wrong, something that peer review might have caught. We don't think that is likely, certainly not the norm, and is a small price to pay for the active dissemination of information (even if it is sometimes untested). And we hope that our readers will actively engage in this process.**