

# Literature Review and Classification of Jaguar (*Panthera onca*) Records from Arizona and New Mexico

*Edited By*

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*“The native mammals of a State are one of its valuable assets; they figure largely in aiding pioneer settlement and development and, if wisely used and guarded, form a no less valuable source of revenue and recreation for the most highly developed sections of the country. On the other hand, predatory and crop-destroying species have caused a constant struggle on the part of residents from the time of the early settlers up to the present for the protection of their flocks, herds, and crops. Only recently, with the knowledge gained by years of study of the relationships of the species of mammals, of their characteristics, distribution, and habits, and of the methods of effectively protecting them or of controlling their abundance, has it been possible to solve many of the problems that will mean the greatest good to the greatest number of people in the State. Even with the necessary knowledge at hand nothing can be effectively done toward the protection, utilization, or control of the wild life without a full understanding of the facts and the full cooperation of those most vitally concerned—the resident population.”*

—Vernon Bailey (Bailey, 1931, pp. 4- 5)

## ***Abstract***

In reviewing the 2012 Draft Jaguar Recovery Plan, Dennis Parker and I found many inconsistencies and inaccuracies in the cited literature. We then attempted to obtain and examine the primary, *original* record for each jaguar killed in New Mexico and Arizona, and compare it to citations in the literature for accuracy. This paper is an update on that work. It incorporates new knowledge about previously reviewed records, adds several previously undocumented records and updates and improves summary tables.

In general, Brown (1983) and Brown and Lopez-Gonzales (2000, 2001) have been widely cited, their information has been incorporated into numerous models of jaguar presence and habitat, and their datasets formed the primary alleged justification for both the endangered species listing and critical habitat designation for the jaguar in Arizona and New Mexico. Additional records, contributed by other authors, are also reviewed. Our examination and comparison of cited datasets to primary documentation for such reveals that many questions, inconsistencies, omissions, inaccuracies and discrepancies exist among them. Noted flaws fatally compromise their reliability of use for either scientifically credible modeling or foundation purposes.

Nonetheless, these datasets form the core input for modeling of alleged jaguar decline and suitable habitat purposes. Jaguar presence and decline in the United States since 1900 has been modeled by Brown (1983) and McCain and Childs (2008). Habitat models have been developed by Menke and Hayes (2003), Hatten et al. (2002), Hatten et al. (2005), Boydston and Lopez-

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Gonzales (2005), Robinson et al. (2006), McCain and Childs (2008), Grigione et al. (2009), Sanderson and Fisher (2013), and Stoner et al. (2015). Additionally, the USFWS (2014) designation of critical habitat for the jaguar (Federal Register at 12579 et seq.) (U.S. Fish and Wildlife Service, 2014) relied on the databases of Sanderson and Fisher (2013) and McCain and Childs (2008 and entire and unpublished data), to falsely allege that distance to water for jaguars was computed from a database of 130 “undisputed” Class I reports of jaguar locations in the United States since the time the species was listed. (77 FR 161 at 50221). The Draft Jaguar Recovery Plan relies on Stoner et al. (2015), which employs the unpublished and unverifiable dataset for Sanderson and Fisher (2013). The entire jaguar recovery program for the United States thus relies on fatally compromised datasets for alleged scientific support. Therefore, each historical jaguar record is examined and vetted herein for its reliability.

Proper FOIA requests submitted to the United States Fish and Wildlife Service (USFWS) and a proper Public Records request submitted to the Arizona Game and Fish Department (AZGFD), unfortunately, did not result in our obtaining all of the information and jaguar records requested. Therefore, this review of the historic record of jaguar kills and sightings in Arizona and New Mexico may be updated again in the future if information becomes available.

Our findings on many records differ with the data USFWS is using. The data and research presented here are better researched, more accurate, in many cases closer to the original source and more complete than the records reported at jaguarinfo.com, the new USFWS record-keeping system.

Reliable records for New Mexico and Arizona are tabulated in Table 1 with an accompanying histogram of reliable jaguar records per decade. Two additional, separate tables accompany this document. Table 2 compares how various researchers evaluated the reliability of each record. Table 3 shows which records were used in modeling jaguar sexual differences and modeling jaguar habitat.

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### Methodology

We examined the records mentioned in the peer-reviewed literature that we were able to access, in addition to new records we have discovered in researching archived historical newspapers. In ranking the reliability of each record we adhere to the classification system set forth by Tewes and Everett (1986), as follows:

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### Rating

#### **Class I**

- 10 Cat is in my possession or seen by me.
- 9 Cat is in possession of the observer (via trapping, hunting, treeing by hounds, or a road-kill) and seen by a second observer, or evidence seen by me (i.e., photograph, pelage, or skull).
- 8 Cat is in possession of observer and observer seems reliable or cat observed by more than 2 reliable individuals.

#### **Class II**

- 7 Detailed description of event provided and the observer seems reliable.
- 6 Observer is “experienced in the outdoors” or is accustomed to looking for details (i.e., biologist, trapper, bird watcher, game warden, hunter).
- 5 Observer is not “experienced in the outdoors.”

#### **Class III**

- 4 Details of the observer are vague and not specific or account is inconsistent.
- 3 Observer seems to have questionable credibility and exaggerates other events.
- 2 Observer describes an animal other than a jaguar.
- 1 Observation is of no value.

Since many skins and skulls from historical accounts have been lost, and since such records pre-date the ready availability of designated officials to bear witness, then if the date, observer and location details in the record are complete and indicate someone observed a skin of a jaguar, and if the description given matches that of a jaguar, we classify it as Class I, provided evidence of importation or other human manipulation outside of legitimate hunting does not exist.

Consistent with Tewes and Everett (1986), we classify jaguar sightings without physical evidence, as well as tracks, photographs of tracks and plaster casts of tracks as Class III because tracks are unreliable and unverifiable. Such evidence lends itself to the error of counting a single jaguar more than once. Moreover, DeAngelo et al. (2010) showed that experienced observers, given three types of tracks, mistook more than 20% of tracks of mountain lions and large canids for jaguar tracks.

Photographs without automatic GPS and time/date stamps, and some that do, likewise fall into Class III as unreliable because at least one NGO, the Center for Biological Diversity, and individuals associated with that organization, have track records of intentional misrepresentation (Chilton v. Center for Biological Diversity (2005)). The findings of others, e.g., (McCain & Childs, 2008), are unreliable because of scientific method abuse as documented by (Stellar, 2010), (Davis & Stellar, 2009 Apr 2), Brun (2012), (Brun, 23 April 2012) and (Davis, 15 Aug 2016). These unreliable records and/or reports of jaguars are categorized as Class III, rating 1–meaning, they are invalid for any scientific purpose (see previous March 30, 2010, comments submitted to USFWS,(Parker, 2010c). Additionally, five records of jaguars were ranked as Class III, rating 1 due to significant and substantial evidence indicating that they were either foreign born and imported or raised in captivity and released, and thus not naturally occurring at all.

*Record-By-Record Examination of Jaguar Presence in the Southwest In Chronological Order*

**1500-1800 A.D.: No reliable evidence of jaguar presence exists.**

While authors and editors of the literature cited by USFWS agree that jaguar occurrences in the Southwest have declined in number since 1900, none has provided verifiable evidence indicating that jaguars occurred other than rarely and transiently in the Southwest *prior to* 1900. Documents of the Coronado expedition do not provide reliable or verifiable evidence of jaguar presence in Arizona or New Mexico (AZ-NM). In fact, reliable evidence strongly suggests an opposite conclusion from that reached by those misusing Coronado for faux support -- that jaguar presence in the Southwest is much more recent than it is historical (i.e., during the 1540 – 1900 time period). This conclusion is supported by the lack of mention of “tigres” or jaguars in the journals of both Padre Kino and Juan Mateo Manje (late 1600s and early 1700s). (Parker, 2012, p. at C017199)

**August 1540, Francisco Vasquez de Coronado: Unverifiable evidence of jaguar presence**

NMDGF (2010): Class III (3 or 4)

Parker and Copping: Class III (1); unverifiable hearsay combined with inaccurate translations

At least two authors cite the famous journey in 1540 by Francisco Vasquez de Coronado as somehow providing scientific evidence that jaguars were then abundant residents of New Mexico (Robinson et al., 2006; Bailey, 1931). Close examination of the cited documentation, however, shows that reference to Coronado in such manner is unfounded.

Unreliable translations of two documents from Coronado’s 1540 excursion into the United States form the entire basis of the myth that Coronado saw jaguars in what is now Arizona and/or New Mexico. Even if the translations were accurate, both primary documents are lost to history, and therefore such citation is unverifiable and unreliable. Moreover, the cited English translations of two documents that are alleged to have documented jaguars seen by the Coronado explorers are likewise unreliable. The cited English translation by George Parker Winship, of the narrative of Pedro de Castañeda, fabricates jaguars that do not exist in the earliest Spanish transcription of the original document. The earliest evidence of the other document, an August 1540 letter from Coronado to Viceroy Mendoza, is an Italian translation. The translator was Giovanni Battista Ramusio, a 15<sup>th</sup> century publisher and cartographer who sold books about the explorations of the day. Unfortunately, his liberal fabrications of supposed fact are blamed for the failure of at least one Conquistador expedition. (Copping, 2017)

**Arguments as to Whether Jaguars Preceded Livestock and Vice-Versa in the United States**

Brown (1983) argues against the theory that jaguars are drifters from Mexico that followed livestock into the present-day United States, but bases the argument on unsupported claims:

*Most recent [jaguar] records were males, and the last 2 were taken within 6 km of the United States- Mexico boundary. This has led some to consider all jaguars in the Southwest United States as "drifters" from Mexico that expanded their range by*

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*subsisting on livestock. The widespread occurrence of jaguars (including females with young) in Arizona prior to 1950 makes this assumption appear forced. Further contradicting the "wanderer" hypothesis are several jaguar reports in the Southwest that predate the introduction of domestic animals.*

As shown in this review, no verifiable evidence exists of any naturally occurring female jaguars with young in Arizona and, as further shown, no verifiable evidence exists of any naturally occurring females at all in New Mexico, ever. In short, (Brown 1983) provides no documentation to support the existence of, "several jaguar reports in the Southwest that predate the introduction of domestic animals" he states as fact nonetheless.

To the contrary, while no reliable documentation pre-dating the presence of Spanish explorers of livestock in the Southwest exists, reliable documents indicate that the 1540-1542 expedition led by Francisco Vásquez de Coronado introduced thousands of heads of a wide variety of livestock species that were necessary to sustain the estimated 2,000 people who participated on the journey. Moreover, these large herds of livestock were driven northward from a starting location in the prime jaguar habitat surrounding Culiacán, Sinaloa. Many participants, including Coronado himself, brought their own livestock herds with them. One expedition member, Melchior Pérez wrote:

*"I took on the expedition more than a thousand head of livestock (pigs, sheep, and rams)." (Flint & Flint, 2012, p. p.533)*

Another expedition member, Pedro de Castañeda wrote,

*Who will be able to believe that when a thousand horses and five hundred of our cattle, more than five thousand rams and ewes and more than one thousand five hundred persons among the allies and servants [of the expedition] were traveling across those plains [and had] finished crossing [an area] they left no more trace than if no one had ever crossed there. So much [was this so] that it was necessary to put up large heaps of bones and [bison] dung at intervals in order that the rearguard could be guided behind the [main body of the] expedition and not get lost. When the grass is walked on, although [it is] very short, it returns upright, as unmarked and straight as it was before. (Flint & Flint, 2012, p. p. 432)*

The rearguard was most likely driving the vast majority of the livestock.

More information on the introduction and presence of livestock in Arizona may be found in Parker (2011) , which indicates livestock were introduced in northern Sonora as early as 1539.

### **1800-1900 A.D.: Reliable eyewitnesses indicated that jaguars were very rare in Arizona and New Mexico.**

The scientific literature and newspapers published prior to the exact year 1900 make little mention of jaguars in Arizona and almost no mention at all of jaguars in New Mexico.

This important and highly relevant sparing mention of jaguars in period literature is supported by credible eyewitness documentation of the rarity or perceived absence of jaguars, as documented by the following scientific researchers:

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- In his 1859 report, “Mammals of the Mexican Boundary”, Dr. Spencer Baird quoted C.B.R. Kennerly as stating,

*“This cat, so common in southwestern Texas, especially along the lower Rio Grande, is rarely seen so far north as El Paso del Norte. The only individual observed by our party west of the latter place was seen in the Sierra Madre, near the Guadalupe cañon.”*  
(Baird, 1859)

- In 1867, Elliot Coues stated in “The Quadrupeds of Arizona,” (Coues, 1867)

*“Two other species of true long-tailed cats may possibly exist, particularly in the southeastern portions. These are the Ocelot (*F. pardalis* Linn.), and the Jaguar (*F. oncalinn.*). Within the limits of the United States, however, they have as yet only been found in the valley of the Rio Grande of Texas.”*

- In 1887, a Smithsonian team of scientists led by John Duncan Quackenbos and including the chief federal biologist C. H. Merriam, wrote,

*“It is true that the Jaguar, the largest of American Cats, has been taken along our southern border, but it can be regarded only as a very rare straggler from the tropics.”*  
(Quackenbos et al., 1887)

- C.M. Barber (1902) in recording the presence of a lone jaguar in New Mexico stated:

*“The present paper is intended to record certain species of mammals not previously known to occur in New Mexico.”* (Barber, 1902)

- Vernon Bailey wrote,

*“Distribution and habitat. — A few large spotted cats (pl. 16, A) have been found over southern New Mexico, where they seem to be native, although generally supposed to be wanderers from over the Mexican border.”* (Bailey, 1931)

In addition, numerous newspapers reflected the common observations of the people living in Arizona at that time:

- On December 29, 1883 the *Arizona Weekly Citizen* (29 December 1883) reported,

*“The tiger is a rare animal even in Sonora.”* (29 December 1883)

- A July 19, 1890 article in the *Arizona Silver Belt* (1890 Jul 19) stated,

*“The jaguar is a native of Central America and Mexico and rarely met with in Arizona.”*  
(1890 Jul 19)



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- *The Globe News* reported on July 22, 1890, when Phil Askins brought a jaguar skin into town,  
“It is the first leopard ever known in Arizona.” (8 August 1890)
- An August 16, 1900 article in the *Arizona Republican* (1900) states,  
“Old hunters state that many years ago, the jaguar was occasionally in Mexico and Arizona.” (1900)
- A July 18, 1901 article in the *Arizona Silver Belt* (1901 July 18) states,  
“The jaguar is a beautifully spotted black and yellow creature and is exceedingly rare in Arizona, though quite plentiful in some portions of Mexico.” (1901 July 18)

Despite these credible conclusions to the contrary, the modern literature since publication of Brown (1983) conforms to the scientifically unsupported viewpoint that, prior to 1900, jaguars were just as or more abundant in Arizona and New Mexico than they were during the first two decades of the 20<sup>th</sup> century. As shown above, that view is simply not supported by the facts. Instead, the best science available shows that the presence of jaguars in Arizona and New Mexico appears to have sharply increased between 1900 and 1920.

The aforementioned, unsupported assumption of historic residency is a near universally accepted error beginning with Davis (1982), perpetuated by Brown (1983), nourished by Seymour (1989), Swank and Teer (1989), Rabinowitz (1999), Hatten (2002, 2005), Boydston and Lopez-Gonzales (2005), Robinson (2006), Grigione et al. (2007, 2009), McCain and Childs (2008), Sanderson and Fisher (2013), and Stoner et al. (2015), and embraced without question by the U.S. Fish and Wildlife Service (1997, 2010, 2012, 2013, 2014, 2016) and the mainstream media.

Because of this error, combined with incorporation of unreliable and inaccurate records, Brown’s (1983) model is subtly deceptive. It has effectively lulled millions since publication into the false belief that historical, resident jaguar populations once occupied Arizona and New Mexico. Instead, if the origin of his frequency plot of jaguar occurrences is moved back along the X-axis from 1900 to 1825 or 1850, the plot would better mimic the appearance of a normal heartbeat on an EKG than the Olympic downhill ski slope presented in the absence of such baseline comparison. Moreover, correction of the inaccurate dates and locations of records cited by Brown (1983) (discussed below) that were likely included in his data set,<sup>1</sup> would, alone, also reduce the slope of Brown’s (1983) plot significantly.

A second, common fatal error in the scientific literature concerning jaguar conservation is reliance on inaccurate and/or unreliable data to reach published results and conclusions. In addition, authors and editors appear to have universally “rubber stamped” the works of previous writers without either taking a hard look at or challenging their data and findings. This has led to even greater reliance on unreliable data and inaccurate findings.

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<sup>1</sup> We cannot say with absolute certainty if it would, because Brown (1983) also fails to present the data set from which Figure 2 in the analysis Rawas constructed.

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We therefore examined every record referenced in the modern literature, compared and contrasted information presented by the various sources for each record, and identified discrepancies, inaccuracies and omissions where they occur. As shown below, some of these discrepancies, inaccuracies and omissions are substantial and fatally compromise the basic scientific integrity of all of the computer models that have been used to identify suitable and critical habitat for jaguars in Arizona and New Mexico to date.

### **A Review Of Post-1900 Jaguar Occurrence Records in the U.S.**

#### **As Presented In The Scientific Literature And In The Press**

Various researchers have evaluated and classified the data quality of recorded jaguar events as follow:

Girmendonk (1994) adheres strictly to the classification system of Tewes and Everett (1986).

Records used in modeling by Hatten et al. (2002, 2005); Mencke and Hayes (2002); Robinson et al. (2006); Grigione et al. (2007, 2009); (Sanderson et al. 2013) or Stoner et al. (2015) are identified with \*.

Hatten et al. (2002) and Hatten et al. (2005) departed from Tewes and Everett (1986), and ranked Arizona records as Class 1: physical evidence, Class 2: firsthand account from a reliable source and Class 3: secondhand, questionable accounts are considered unreliable.

Grigione et al. (2007) includes in Table 3 a list of records considered to be Class 1 or Class II and claims these classes are defined using the system developed by Girmendonk (1994), although the latter openly credits Tewes and Everett (1986) for the classification system, and adheres to it rigidly. As shown below, however, class determinations used by Grigione et al. (2007) for many specific jaguar occurrence records differ significantly from Tewes and Everett (1986) and Girmendonk (1994). The 2010 NMDGF Delphi Group (New Mexico Department of Game and Fish, 2010) adheres to Tewes and Everett (1986), as did we, but its conclusions differ from our own in some cases, based on differences of opinion or differences in access to Class I evidence. Sanderson and Fisher (2013) and Stoner et al. (2015) incorporated all the records they could find, accurate or not, verifiable or not, into their models. USFWS (2014) attempted to duplicate, and thereby validate, Sanderson and Fisher's (2013) use of all possible records, including unreliable Class II and Class III records. The USFWS did so by repeating Sanderson & Fisher's (2013) model but using only "highly reliable records" that included 48 records that McCain and Childs (2008) had obtained between 2004 and 2008 while employing an undocumented methodology of sexual scent baiting. Those 48 records represent 100% of the data from within the United States that USFWS used in their model.

### **New Mexico Jaguar Occurrences**

A case-by-case analysis of known jaguar kills and other records comparing sources for inconsistencies, omissions, and/or inaccuracies follows, with highlighting added

#### **April 10, 1825, Convent of San Francisco in Santa Fe, Argentina**

**- an egregious 151-year-old inaccuracy, soundly refuted decades ago, yet still found in the literature and media**

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NMDGF: Class III (1)

Parker and Coping: Class III (1); inaccurate record; did not occur in the USA or northern Mexico

Baird (1859), quoting Kennerly, wrote a long and highly detailed story of a jaguar that got inside the sacristy of the Convent of San Francisco at Santa Fe and killed four friars.

Bailey (1931) considered the account implausible only because he refused to imagine a jaguar trapped inside a confined space would attack a man that is blocking the only exit, despite numerous records of bayed jaguars killing hounds. Bailey did not challenge the statement that Santa Fe is on the bank of the Rio Grande, which is actually 16 miles away at its closest point to Santa Fe, New Mexico.

Nonetheless, Schmitt (NMDGF 1998), likewise having failed to closely examine the facts, reported this jaguar as having been killed in Santa Fe, NM, citing Bailey (1931) while omitting mention of the clear explanation by Bailey that he considered this an unreliable record.

Brown and Lopez- Gonzales (2001) omitted this record from their tables, correctly pointing out that this convent is in Argentina and also citing the corrections to this record by earlier writers.

Finally in 2010 a New Mexico Department of Game and Fish (NMDGF) Delphi group ranked this record as Class III. (New Mexico Department of Game and Fish, 2010)

Despite the clear refutation of the Santa Fe, New Mexico jaguar myth, the USFWS continued to perpetuate this proven falsehood – e.g., in its August 17, 2012 online publication of questions and answers regarding its then yet-to-be published August 20, 2012, proposed rule to designate critical habitat in Arizona and New Mexico. Our examination, aided by Google Earth, has confirmed this record is from Argentina and the river is not the Rio Bravo, it is the Paraná.

In fact, this convent is still in operation in Santa Fe, Argentina and a tomb on the site houses the remains of Padre Magallanes, one of the padres killed by that jaguar in 1825.

Reliable evidence has proven this record is neither from New Mexico nor the North American Continent. Instead, it is from Argentina, in South America. (Bernhardson, 2011 Jan 15)

Baird (1859) quotes C.B.R. Kennerly. The latter retells hearsay, translated from Spanish, of a jaguar attacking four friars in a convent. Kennerly prefaces the story with a comment that there is no record of an *unprovoked* jaguar attack on a man. Kennerly erred in stating that the convent stood on the bank of the Rio Bravo rather than the Rio Paraná in Santa Fe, Argentina, where the convent stands to this day. In a grave on the lawn of the convent lie the remains of Padre Magallanes, whom the jaguar killed in 1825. Kennerly never stated that the convent is in New Mexico, but readers are misled to infer that it is.

This record is entirely unreliable and of no value for use in any habitat model.

### **\*Around 1855, Sierra Madre Mountains, Weyss**

NMDGF (2010): Class III (4)

Parker and Coping: Class III (4); hearsay, no independent observer; observer's credentials unknown

Baird (1859)(Baird, 1859) quotes Kennerly as stating,

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*“This cat, so common in southwestern Texas, especially along the lower Rio Grande, is rarely seen so far north as El Paso del Norte. The only individual observed by our party west of the latter place was seen in the Sierra Madre, near the Guadalupe cañon . . . The westernmost specimen of the genus was seen in the Guadalupe cañon (Sierra Madre) by Mr. J. Weyss, one of the assistants of this commission.”*

Bailey (1931) reports:

*“In 1855 (?) one was reported as seen by J. Weiss,[sic] of the Mexican boundary survey party, in Guadalupe Canyon in or near the southwest corner of New Mexico. (Baird, 1859, p. 7)”*

Baird (1859) reports not once, but twice that the jaguar was sighted in the Sierra Madre Mountains. Baird (1859) also confuses the reader as to the jaguar being killed *in* vs. *near* the Guadalupe cañon. Bailey (1931) highlights additional uncertainty as to whether the jaguar was seen in or near the tiny portion of Guadalupe cañon that extends into southwestern New Mexico, or was seen south of the border in Mexico.

Only a bare fraction of Guadalupe Canyon occurs in the U.S., with its vast majority found in Mexico. To the east and south lie the high mountains of the Sierra Madre (including the Sierra San Luis, the northern point of which extends barely into the U.S. south of the Animas). This is both huge and rugged country and, without more information, we simply do not know where in the Sierra Madre near Guadalupe Canyon this jaguar was actually seen.

It is much more likely that this jaguar was encountered in Mexico. As to the question of date, Bailey (1931) is probably on the mark because 1855 was the year the boundary survey party was in the field collecting data along the border in that area. Thus, it appears that Bailey's question mark should have come after the location information rather than the date.

These questions aside, even if this jaguar was seen on the border in New Mexico, what of it? That sighting would be consistent with a lone, transient jaguar entering the country through an unusually wet canyon in an otherwise very dry area surrounded by Chihuahuan desert grassland and scrubland.

This record is a second hand report with too few details to be of any value in habitat modeling.

\*Robinson et al. (2006) includes, in its list of data used for modeling habitat, record #1, which reads:

*“Peloncillo Mts., Around 1855, Observed by J. Weyss, Source Baird (1859), Classification 2.”*

\*Robinson et al. (2006) misrepresents both Baird (1859) and Bailey (1931) by moving the jaguar sighting out of the Sierra Madre and into the Peloncillo Mountains of New Mexico.

\*(Robinson et al., 2006) then uses its own misrepresentation of this jaguar's location as data for purpose of modeling suitable jaguar habitat in New Mexico. That approach is both unscientific and irresponsible.

### \*Late 1800's, Caballo Mts., Burch

NMDGF (2010): Class III

Parker and Coping: Class III (1); hearsay

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(Halloran, 1946) reports the following, at best, third-hand hearsay:

*“Felis onca arizonensis.—We have been unable to locate any jaguar specimens from the San Andres Ranges. . . Watson E. Rich, told us of a jaguar killed many years ago by Bob Burch, a foreman in the late 1800’s on the Goldberg Ranch (Jornada Experimental Range) in the Caballo Mountains between the San Andres Range and the Rio Grande.”*

Halloran (1946) leaves significant room for error on the date and location of the jaguar kill. The report does not state when the jaguar was killed; it merely states the time frame – in the late 1800s -- that Burch was a foreman on the Goldberg Ranch. Moreover, through a sentence structure containing a dangling modifier, Halloran leaves the reader wondering if the location describes where a jaguar was allegedly killed, or if it merely describes the location of a ranch where Mr. Burch once was employed, thus leaving open the possibility that this jaguar could have been killed at a different time and a different location. Also, we know next to nothing about Watson E. Rich, and how accurate he was in reporting what is at best a second-hand story. Unfortunately, Halloran’s report is at best a third-hand tale lacking sufficient details to be reliable.

Schmitt (1998) reports:

*“Location: Sierra or Doña Ana Counties; Caballo Mtns. on the Goldberg Ranch, Jornada Experimental Range. Late 1800’s. Observer: Bob Burch (foreman in the late 1800’s on the Goldberg Ranch, Jornada Experimental Range). Details: Specimen killed: Watson E. Rich told A.F. Holloran [sic] et al. of a jaguar killed by Bob Burch in the Caballo Mtns. Evidence: location of specimen is unknown. Source: Holloran [sic] (1946)”*

Robinson et al. (2006) reports:

*“Caballo Mtns, late 1800’s; killed by Bob Burch; source: Holloran;[sic] classification 2.”*

Robinson et al. (2006) gives no indication what type of classification “2” is supposed to indicate. It can be inferred the author is assigning a classification to terrain ruggedness. If the classification is an indicator of the reliability of the report, then neither is this indicated in the text, nor would it be consistent with reliability classifications assigned by other published works.

\*Robinson et al. (2006) used this record for habitat modeling despite both its vagueness and lack of reliability.

No physical evidence is available for verification. The first written report of this alleged jaguar kill is at least a third or fourth hand story told some 50 years after the alleged fact and severely lacking in critical details. The presumption that this is a record of a naturally occurring jaguar is likewise unreliable.

Since the kill date is unknown within at least 5 years (and probably more than 20 years), this alleged jaguar, if it existed, may have actually been killed in the early 20<sup>th</sup> century. The location is within 30 miles of Engle, New Mexico, where Louis O. Morris killed a jaguar that attacked him without provocation in 1900. A second jaguar was shot at but escaped two days later less than a mile away from the kill site of the Morris jaguar. That account indicates that tracks of three jaguars were seen together and thought at the time to have escaped from a traveling circus.

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This may be one of those three jaguars. If the jaguar was naturally occurring, the lack of date and specific location make this account scientifically unsuitable for credible habitat modeling. In addition, the lack of date and specific location allow this record to possibly be a duplicate of another, counting two alleged jaguars where only one allegedly occurred.

This record is unreliable.

**\* May 1900, Taylor Creek, Socorro Co., Robert Nelson “Nat Straw”**

### **Mogollon Mountains near Grafton**

NMDGF (2010) Class I (10)

Parker and Coping: Class I (9); reliable for jaguar habitat modeling

Barber (1902) reports,

*“Felis hernandesii (Gray)*

*Mr. Nat Straw, hunter and trapper, informed me that he trapped a jaguar near Grafton, on Taylor Creek, Socorro County, New Mexico, in May, 1900. He gave its length as 8 feet and 3 inches (2439 mm.) I saw the skin made up into a rug. I have heard of several others being seen or killed. It is probable that they find their way into the Mogollon Mountains by ascending the Gila River.”*

(Schmitt, October 28, 1997) reports that Barber examined “the trapped specimen.” This is somewhat misleading because Barber examined the skin later on, not while the animal was in a trap.

Bailey (1931) reported,

*“In May, 1900, Nat Straw, a hunter and trapper in the Mogollon Mountains, is reported to have trapped a jaguar near Grafton on Taylor Creek, Socorro County, N. Mex. He gave the length of this animal as 8 feet, 3 inches, but C. M. Barber, who saw the skin and made the report, did not say whether the measurement was taken from the skin or from the animal in the flesh.”*

A footnote states,

*“Measurements of skins are very unsatisfactory, and it is greatly to be regretted that there are not on record more definite measurements and weights of these large cats.”*

Brown and Lopez-Gonzales (2001) states,

*“Nat Straw, Barber 1902, Bailey 1931. Sex “?” Taylor Creek, Mogollon Mts., NM. Trapped by predator hunter.”*

\*Mencke and Hayes (2003) used this account in their model of NM jaguar habitat.

\*Robinson et al. (2006) used this account as data for modeling NM jaguar habitat.

December 9, 1900, Engle, New Mexico, Louis O. Morris

**Unprovoked attack, 2nd jaguar sighted on the 11<sup>th</sup>; male, tracks of 3 jaguars sighted a mile away-**

NMDGF (2010): Class III based on an inaccurate account

Parker and Coping: Morris Jaguar Class I (9); location description is too vague and thus unreliable for habitat modeling.

Conspicuously missing from the scientific literature is the story of a jaguar killed December 9, 1900 near what is today Truth or Consequences, New Mexico, and another sighted and fired upon in the same area two days later. It should be noted that there was a train depot at Engle. (1998) Engle is about 17 miles east of Truth or Consequences near the intersection of NM State Hwy 51 and County Rd AO13. Las Palomas was 7 miles south of Truth or Consequences. This is within 7 months and within about 50 miles from of the Taylor Creek account presented above. The following account of two kills and tracks of three jaguars states that the locals believed the three jaguars escaped from a traveling show. This conclusion is corroborated by the documented fact that at least one circus with jaguars had toured southern New Mexico in recent history. Moreover, provided the self-defense story is accurate, the first jaguar demonstrated aggressive behavior that would only be expected of a jaguar habituated to human presence, but atypical of a wild jaguar. This account provides substantial evidence against acceptance of the false but widespread assumption that all jaguars killed in the southwestern USA were “naturally occurring”:

The *Albuquerque Daily Citizen* reported on Dec. 17, 1900,

“AN IMMENSE JAGUAR,  
Killed in the Mountains Near Engle, New Mexico  
TRACKS OF OTHERS SEEN. (1900)

*A special correspondent, writing for the El Paso Herald from Engle, N. M., under the date of Dec. 10, says: “Yesterday, Sunday, Dec. 9, Louis O. Morris, being camped in the hills doing some assessment work, was walking over the hills, near the camp, when he discovered an immense jaguar or American tiger coming straight toward him. He opened fire on him with a 30-30 rifle, and after firing eleven shots, the monster lay dead, with three mortal wounds in his head and body, not more than fifteen feet from where young Morris was standing.*

*The measurements are as follows: length from tip to tip, seven feet, nine inches; height, thirty-four inches; length of tusk, two inches; around fore foot, nine inches; length of foot, eight inches; length of hind foot, ten inches. The hide was taken to Engle to be shipped immediately to a taxidermist in Kansas City to be dressed, and while there will be exhibited at the Manual Training high school, and will then be returned to New Mexico.*

*While such ferocious animals are roaming around these mountains, it will be well for prospectors, and visitors traveling through these parts to be well armed.*

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*The immense tracks that have been seen so often in these mountains, and attributed to mountain lions, have finally revealed their identity, as the killing of this animal will show.*

*The worst feature of this animal is that he did not wait to be attacked, but when he first saw young Morris, started after him with leaps from ten to fifteen feet at a time, and the slayer said he lost no time in working the lever of his gun.*

*Probably hereafter, no one will prowl round these hills without his gun and plenty of cartridges, and his eyes well opened."*

[Highlighting added to emphasize sign of possible human-habitation.]

### **Dec. 11, 1900, Dan O'Shea, W. of Mountains between Engle and Las Palomas, NM**

Parker and Coping: Class III (4), hearsay; tracks in snow are Class III (1)

The Albuquerque Daily Citizen (1900) reported:

*"Later, Dec. 11-Today Dan O'Shea while passing from Engle to Las Palomas, just west of the foot of the mountains, encountered a second tiger, about two and one half miles from where the one was killed last Sunday.*

*He fired two shots at the animal, but his horse and burro seeing it, took fright and ran away, jerking O'Shea over a steep bluff, badly bruising and skinning his left arm. The burro, going over the bluff, smashed his pack, so in the fray, O'Shea lost sight of the animal.*

***At first, the idea prevailed that the animal had escaped from a show that had passed through the country some months ago, but it now [sic] known that it was not alone.***  
[bold highlight added]

*During a light snow about two weeks ago, the tracks of three were seen in the snow within less than a mile of where the one was killed.*

*Undoubtedly cattlemen have suffered loss from these animals and have been charging it to the account of wolves and mountain lions."*

[Highlighting added to emphasize evidence of possible importation, human-habitation.]

### **About May 25, 1901, Luna County, John Cravens**

#### **-Disproves Bailey's "Otero County" jaguar**

*Parker and Coping: Class I (9); since there is no information how far the dogs chased the jaguar or where it was first seen, this record is unreliable for jaguar habitat modeling.*

Bailey (1931) wrote,



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*“A skin belonging to Governor Otero measured from tip of nose to tip of tail, 71/2 feet: tail, 27 inches; width between tip of ears, 11 inches; spread across narrowest part of skin, 21 inches; across front legs; 6 feet.”*

Bailey (1931) wrote,

*“In 1903 Governor Otero in his house at Santa Fe showed the writer a beautiful skin of a jaguar, which had been killed the previous year in Otero County, made into a rug and presented to him.”*

This error in kill location arising from at best a third-hand report repeated 28 years later in Bailey (1931) survived nearly another century without being subjected to proper scientific scrutiny.

(Brown & Lopez-Gonzales, 2000) reported the following:

*“1902, Otero Co. Hide presented to Governor Otero; seen by V. Bailey (Bailey, 1931)”*

(Brown & Lopez-Gonzales, 2001) wrote,

*“1902. Unknown. Bailey. Hide observed by Bailey. [sex] ? Otero County, NM. Hide given to Governor Otero. [habitat] ?”*

Detailed accounts in four 1902 newspaper articles in the *Deming Headlight*, *The Western Liberal*, *The Santa Fe New Mexican* and the *Albuquerque Daily News*, however, indicate that Otero County, NM is neither the location of this jaguar's killing nor the location of its natural habitat. ***Instead, as shown below, the best evidence available indicates that this jaguar was not killed in Otero County, but hundreds of miles to the south in Luna County, along the Mexican border south of Deming.*** This is a substantial error rendering use of this record both inaccurate and unreliable.

A. The *Deming Headlight* on May 25, 1901 (1901) reported,

*“John Cravens, a prominent cattleman south of Deming, recently killed a jaguar on the line of Mexico. Mr. Cravens preserved the skin, and the citizens of Deming will buy the same, send it to Denver and have it mounted in first class style, after which it will be presented to a lady in the northern part of this territory.”*

B. The *Western Liberal* reported on June 7, 1901 (1901 Jun 7):

*“The only contents of the vault [in the Luna County courthouse] is a handsome jaguar skin, the original wearer of this skin was killed a few weeks ago on a Luna County ranch. The skin will be tanned and handsomely mounted, when it will be presented to Mrs. Governor Otero as a mark of the appreciation the people of the county have for her distinguished husband.”*

C. The *Santa Fe New Mexican* reported on April 3, 1902 (3 April 1902):

*“Says the Deming Herald: ‘The many admirers of Governor Otero and wife, in Deming have just presented Mrs. Otero with a handsome jaguar skin floor rug valued at \$150. The jaguar was killed by John Cravens on the Old Mexico line after it had torn three of the Craven's watch dogs to pieces. It is a handsome present and while on exhibition in Bolich's store attracted the attention and admiration of all strangers in the city. All*

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*declare it the finest jaguar skin that they ever saw and express the opinion that the animal once belonged to a circus.”*

*[Highlighting added to emphasize signs of possible human-habitation and importation. The report did not state that Cravens was out hunting, but rather may have killed an animal that got close to his house and killed his watch dogs.]*

D. The *Albuquerque Daily News* on May 7, 1902, (7 May 1902) reported the following:

*“Beautiful Jaguar Skin*

*W. H. Greer, manager of the Victoria Cattle Company in Luna county, is in Santa Fe...*

*...This afternoon, on behalf of the citizens of Luna county, he presented to Mrs. Otero at the executive mansion, the most beautiful jaguar skin ever seen in this section. The jaguar was caught some time ago in Luna county after a hard fight and after it had killed six dogs. The skin measures seven and a half feet from the tip of the tail to nose, and it is most beautifully marked. –New Mexican”*

NOTE: The article does not mention if the cat was originally seen in Mexico and chased by hunting hounds into Luna County, New Mexico. Nor does it state how far the six dogs chased it, whether Mr. Cravens was with a hunting guide, or any other important details that would indicate the exact location of this jaguar’s whereabouts when it or its sign was first seen by Mr. Cravens or whoever it was that may have told him about such.

### 1902, “Otero” NM jaguar

NMDGF (2010): Class I (10) based on an inaccurate account:

*“Location: Otero Co., location unspecified. Date: 1902 Observer: Unspecified; skin owned by New Mexico Governor Miguel Otero. Details: In 1903 in Santa Fe, Governor Otero showed Vernon Bailey a jaguar skin given to him and made into a rug. The cat had been killed the previous year. Bailey measured the skin. Evidence: Examination and report of specimen by Bailey (1931). Accepted by Brown and Lopez Gonzalez”*

(2000). *Source: Bailey (1931:283-2)*

Parker and Copping: Class III (1); account is inaccurate and has no scientific value.

John Cravens killed this jaguar in Luna County on the Mexican border south of Deming. See 1901 record.

### \*August 1902, Datil Mountains, Mrs. Manning

NMDGF (2010); Class I: (10)

(New Mexico Department of Game and Fish, 2010): Class I (10)

Parker and Copping: Class I (9); unreliable for habitat modeling as too many circumstances just do not add up to “natural”– Jaguar with seemingly human-habituated behavior combined with “well-worn teeth,” very close temporally to the human-habituated jaguar that attacked Louis Morris in Engle 18 months earlier, taken at extreme 9,000 feet altitude in extreme north latitude

Bailey (1931) reports,

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*“In 1905 Hollister saw and photographed a skin that had been mounted as a rug and was in the possession of O. Reddeman, at Magdalena. The original skull was mounted in the skin and showed the animal to **be an adult with well-worn teeth**. Reddeman had purchased the skin from a Mr. Manning, whose wife poisoned the animal in the Datil Mountains in August 1902. A little later, when in the Datil Mountains, Hollister visited Manning and obtained an account of the killing of the animal. Mrs. Manning had been in the habit of putting out poison to kill the predatory animals about their ranch, in the mountains 12 miles northwest of Datil, and among the victims of the poisoned baits was this jaguar, which had been killing stock on the ranch for some time. It had killed 17 **calves near the house** during a short period before it was secured. The ranch was located at **about 9,000 feet altitude** in the pine and spruce timber of this exceedingly rough range of mountains. At the time Hollister was there another jaguar was supposed to be at large in the general neighborhood.”*

*[Highlight added to emphasize the possibility this jaguar had spent time in a cage, was killed far outside expected habitat and range, and exhibited signs of possible human-habituation.]*

Brown and Lopez-Gonzales (2000) reports,

*“August 1902, Datil Mountains, ca. 3,000 m elevation, Rocky Mountain Montane Conifer Forest, [sex] unknown, poisoned by rancher's wife as a stock-killer, "adult" photographed, (Bailey, 1931).”*

Brown and Lopez-Gonzales (2001) reports,

*“8/1902. Mrs. Manning. Bailey 1931. Photographed by Ned Hollister. Sex “?” Manning Ranch, Datil Mts., NM. Poisoned as a stock killer. “Adult.” Rocky Mtn Montane Conifer Forest.”*

The chain of retelling this story goes from Manning to Reddeman to Hollister, three years later, and finally 26 years after Hollister, to Bailey. As such, significant details may be inaccurate or possibly embellished with fiction.

The assignment of lower elevation “Rocky Mtn Montane Conifer Forest” habitat to this jaguar by Brown and Lopez-Gonzales (2000, 2001) is inconsistent with Brown and Lopez-Gonzales (2000, 2001) in assigning the 1963 Penrod jaguar kill at similar elevation to “Rocky Mtn Subalpine Conifer Forest” habitat. It is also inconsistent with Bailey (1931) who assigned the kill to pine and spruce timber habitat.

The question also remains why a “naturally occurring” jaguar and possibly another, which were allegedly representatives of a discrete, “resident population,” would suddenly move in next to humans, at 9,000 feet in elevation, kill 17 calves “near the house,” and then stay there until eliminated by poisoning. That this jaguar was obviously habituated to human presence is evidence indicating that it was very possibly neither “naturally occurring” nor representative of a discrete, “resident population.” As a result, use of this record for modeling of habitat purpose is unreliable.

\*Mencke and Hayes used this account in their modeling of jaguar habitat in New Mexico.

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\*Robinson et al. (2006) use this account to model suitable jaguar habitat in New Mexico.

### \*San Andres and Sacramento Mountains, before, 1903, Page Otero 3<sup>rd</sup> hand reports

Parker and Coping: Class III (1); unreliable hearsay

Bailey (1931) reports:

*“[Governor Otero’s] brother, Page B. Otero, State game warden of New Mexico at that time, . . . said that jaguars also had been reported from the Sacramento and San Andres Mountains in previous years [previous to 1903 is vaguely implied].”*

\*Robinson et al. (2006) used this information as two separate records for purposes of modeling suitable jaguar habitat in New Mexico.

This report may be a duplicate of any of the reports involving one of the two or three jaguars associated with the 1900 Morris jaguar kill. This record is an unverifiable third-hand (at best) report lacking any physical evidence that was documented in writing for the first time at least 28 years after the alleged facts of occurrence. Considering Bailey (1931) also reported jaguars from the Sierra Madre Mountains and Argentina as having occurred in New Mexico, in addition to a jaguar killed in Luna County as having been killed in Otero County, and a jaguar killed in 1900 as having been killed in 1904 or 1905, this report in Bailey (1931) of a jaguar occurrence this vague and distant in time from when it allegedly happened cannot be considered reliable.

This is an unreliable account.

### \*1903, Clanton Canyon, Peloncillo Mountains, Burchfield

NMDGF (2010): Class II (7)

Parker and Coping: Class II (7); hearsay; not reliable for habitat modeling

Bailey (1931) reports the following hearsay he was told five years after the event:

*“In 1908, while in the Animas Valley in extreme southwestern New Mexico the ranchmen told the writer of a jaguar killed in 1903 in Clanton Creek Canyon about 6 miles west of the **Gray ranch**. It had killed a **bull** that had wandered back in the canyon and was shot while feeding on him. W. P. Burchfield told the circumstances of its capture and where the skin had been sent for mounting.”*

Although Mr. Burchfield seems to have known the details of the event, nowhere does Bailey (1931) state that Mr. Burchfield killed the jaguar.

Calahane (1939) reports,

*“Another jaguar killed a **steer** **at the Long Ranch** and was shot by Walter Birchfield, [sic] formerly of the Lower Diamond A Ranch, and a cowboy.”*

Brown and Lopez-Gonzales (2000) reports,

*“1903, Clanton Canyon, 10 km W of Gray Ranch, Peloncillo Mountains, Madrean Evergreen Woodland, unknown, shot while feeding on bull by rancher (Bailey, 1931)”*

Brown and Lopez-Gonzales (2001) reports,

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*“1903 Unknown rancher. Bailey 1931. Clanton Canyon, 6 mi W of Gray Ranch, Peloncillo Mts., NM Shot while feeding on a bull. Madrean Evergreen Woodland.”*

In converting “about 6 miles,” which could be interpreted as a range of 5-7 miles (8-11) km or greater, and transposing it as **exactly** 10 km, Brown and Lopez-Gonzales (2000) imparted a false increase of precision to the location of this kill without presenting any supporting or corroborating evidence.

\*Mencke and Hayes (2003) assigned the location of this kill to the Hidalgo/Peloncillo Mountains and used it in their model of jaguar habitat.

\*Robinson et al. (2006) used this account in their model of suitable jaguar habitat as well.

### **\*Summer 1903, San Miguel County, S. of Fulton, Page Otero, 3rd hand report**

NMDGF (2010): Class III (4)

Parker and Copping: Class III (1); 3<sup>rd</sup> hand hearsay

Bailey (1931) reports:

*“[Governor Otero’s] brother, Page B. Otero, State game warden of New Mexico at that time, also reported . . . one seen in the region of Cow Springs a few miles southwest of Fulton in the summer of 1903 . . . He had perfect confidence in these reports, as he knew the men who saw the animals.”*

\*Robinson et al. (2006) used this record to model suitable jaguar habitat in New Mexico.

This is an unverifiable, third-hand (at best) report lacking any physical evidence, which was documented for the first time 28 years after the alleged fact of its occurrence. Considering Bailey (1931) also reported jaguars from the Sierra Madre Mountains and Argentina as having occurred in New Mexico, in addition to a jaguar killed in Luna County as having been killed in Otero County, and a jaguar killed in 1900 as having been killed in 1904, this report in Bailey (1931) of a jaguar occurrence this improbable, vague and distant in time from when it allegedly occurred cannot be considered reliable for scientifically credible habitat modeling purposes.

This is an unreliable account.

### **\*1904-1905, Sierra de los Caballos, NM, Morris**

#### **-Unreliable account proven inaccurate**

NMDGF (2010): Class III (4)

Parker and Copping: Class III (1); 3<sup>rd</sup> hand hearsay reporting inaccurate date and location, incomplete event details

The Sierra de los Caballos Mountains straddle the Sierra/Dona Ana county boundary line.

Bailey (1931) reports,

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*“E. A. Goldman also secured a record of one that had been killed by a hunter named Morris on the west slope of Sierra de los Caballos about 1904 or 1905.”*

Unfortunately, Bailey’s cited references to Goldman do not include the aforementioned letter, making this an unverifiable and thus unreliable account. At any rate, Goldman speculated on the year and, as shown below, was wrong – by four to five years. So were Brown and Lopez-Gonzales (2000, 2001). This is a primary example of the unreliability of third hand accounts, regardless of the credentials of the second or third person to report them.

Brown and Lopez-Gonzales (2000) reports,

*“1904-1905, Western slopes of Sierra de los Caballos, Semidesert Grassland/Great Basin Conifer Woodland, unknown, killed by a hunter named Morris (Bailey, 1931).”*

Brown and Lopez-Gonzales (2001) reports,

*“1904-1905. Hunter named Morris. [sex]? W slopes of Sierra de los Caballos, NM. Semidesert grassland/Great Basin conifer woodland.”*

Lacking any details informing us of the circumstances surrounding this jaguar kill or how it was killed, the assignment of “habitat” to it by Brown and Lopez-Gonzales is obvious speculation. As shown below, while that information is both existent and highly relevant, Brown and Lopez-Gonzales (2000, 2001) omitted it.

\*Mencke and Hayes (2003) used this inaccurate account for habitat modeling, assigning the kill to the “Sierra/Black Range.”

\*Robinson et al. (2006) used this inaccurate account to model suitable habitat for jaguars in New Mexico.

The details of this account, which have passed from biologist to venerated biologist without verification for more than 81 years, and now lay as the foundation of a proposed federal regulation designating critical habitat, are almost entirely inaccurate. Bailey’s failure to cite his source of information regarding the record E.A. Goldman “secured” has prevented subsequent researchers from validating the information. The record, as it turns out, was unreliable and should have been discarded as such by every biologist that nonetheless irresponsibly repeated it, incorporated it into habitat modeling, and incorporated it into proposed federal regulation.

According to the news articles quoted in the 1900 Engle record above, Louis O. Morris was a surveyor or assessor, not a hunter. He killed the animal in self-defense when it attacked him on first sight. The date was December 9, 1900. The jaguar was obviously habituated to humans and justifiably considered by the locals at the time to have escaped from a traveling show. Its tracks had been seen in the snow with tracks of two companions and this kill occurred in winter. This was no “naturally occurring” jaguar. Two days later, another jaguar was seen in the same area and tracks of 3 had been seen less than a mile away two weeks earlier. These are the first two jaguar accounts on record for New Mexico and they occurred within days of each other.

This account is a primary example of the academic damage that has been done by a century of biologists accepting the work of others on what is arguably faith alone, without proper scientific examination, and then adding their own errors.

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### **\*1909 Dog Springs, SE of Animas Mts., NM, male, per Ben Lilly**

NMDGF (2010): Class II (7)

Parker and Coping: III (1); hearsay

As the crow flies, Dog Springs is about 20 miles from Datil, NM.

At an unknown date when Ben Lilly was “up in years” as Carmony (1998) puts it, he wrote a discourse on lion hunting. In it Lilly declares:

*“I hunted in the red mountain country in 1915 and 1916. Killed Several lions but found no trace of leopards. . . There had been a leopard Killed South east of the Anamas mountains. This I was told in 1909 and I was told they chased one that got away. It had been several years since these were Killed and chased. Any way one had been Killed at or near a place called Dog Springs in New Mexico. I hunted in the Animas Mountains and Old Mexico. I found and Killed 13 lions Some nice grizzlies and 12 bear. I found no leopards or Jaguars on either side.”*

Carmony’s annotations indicate Ben Lilly was referring to the Animas Mountains and that Lilly was not told of this in 1909; rather, he was told that *this kill took place in 1909*. That makes sense because Lilly did not move to New Mexico until 1911.

Brown and Lopez-Gonzales (2000) reports,

*“1909, Dog Springs SE of Animas Mountains, Semi-desert Grassland, unknown, killed by hunter (Ben Lilly in Carmony, 1998).”*

Brown and Lopez-Gonzales (2001) reports,

*“1909 Unknown hunter. B.V. Lilly in Carmony 1998. [sex]? Dog Springs, SE of Animas Mts., NM Semidesert grassland.”*

Lilly never mentioned who killed this jaguar. Brown and Lopez-Gonzales (2000, 2001) erred in stating, “killed by hunter,” due to confusing this jaguar with a different jaguar kill that was also documented by Ben Lilly in Carmony (1998).

No specific circumstances of the kill are documented. The Lilly quote implies the jaguar may also have been chased for an unknown distance. The assignment by Brown and Lopez-Gonzales (2000, 2001) of Semi-desert grassland to describe the jaguar’s “natural habitat,” is therefore both speculative and unreliable.

This story is entirely hearsay that sounds like Lilly heard it about 6-7 years after it happened. He did not observe evidence. We know nothing about the observer.

Mencke and Hayes (2003) did not use this record for modeling jaguar habitat.

\*Robinson et al. (2006) nonetheless used this account, with its unreliable location, to model suitable jaguar habitat in New Mexico.

### **\*“Around 1916,” “near” Little Hatchet Mountains**

**Anonymous observation, unreliable**

Parker and Coping: Class III (1)

Robinson et al. (2006) reports:

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*“near Little Hatchet Mtns.; around 1916; observed by soldier; source is McKenna, (McKenna, 1991) classification 2”*

Robinson et al. (2006) reports:

*“During Mexico’s revolution and the accompanying border tensions, probably around 1916, U.S. troops were stationed near the Little Hatchet Mountains of New Mexico. One unnamed soldier, according to the account by itinerant prospector James A. McKenna, who was camping with the troops, “saw an animal which he thought was a black cougar.” McKenna noted that “It is known as the Mexican jaguar and is seldom seen that far north,” perhaps referring to the rarity of melanistic jaguars.”*

We have yet to obtain McKenna (1991). What can be safely inferred from comparing the presentation of this record to others in Robinson et al. (2006) are that this is the first record of this alleged occurrence documented in the known literature, and that it comes 75 years after the alleged fact of its occurrence. Moreover, the name and credentials of the anonymous observer are unreported by McKenna; there is no physical evidence this occurred; the anonymous observer reported a black cougar, not a jaguar, and black or melanistic jaguars are unknown from the northern portion of the jaguar’s multi-continental range; McKenna never saw the animal and is therefore not a witness; and the actual date and location of the observation are imprecise because they are not known with certainty.

In short, this record is completely unreliable.

\*Robinson et al. (2006) nonetheless misused this unreliable report to model suitable jaguar habitat in New Mexico.

### **\*Springer, “Some years prior to 1938,” Phillips, unreliable**

NMDGF (2010): Class III (1)

Hill (1942) reports:

*“Felis onca hernandesii.—A jaguar was killed some years ago near Springer. Its skin is now in the collection of Mr. Waite Phillips. None has been reported from this region since then.”*

Robinson et al. (2006) reports:

*“Near Springer; ‘some years’ prior to 1938; Hill saw skin; Source: Hill, classification 2”*

Nowhere does Hill say that he saw the skin, but he does state that Mr. Waite Phillips, owner of the Philmont Ranch, enabled the study on which Hill (1942) is based. Moreover, nowhere does Hill (1942) state that this jaguar was taken “some year prior to 1938,” as also wrongly stated by Robinson et al. (2006).

Brown and Lopez-Gonzales (2000, 2001) omit this account from their tables.

Brown and Lopez-Gonzales (2001) states:

*“Springer is located in open plains grassland, and the nearby hills are clothed in junipers and piñons where not covered by shrub oaks and montane scrub. Adding to the unlikelihood of this account is that this location is more than 200 mi from the nearest*



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*other New Mexico kill—itself, an extreme location in the Datil Mountains (Table 1, Map 4).*

Mencke and Hayes did not use this account in modeling jaguar habitat.

In addition to the reasons given by Brown and Lopez-Gonzales that this record is unreliable, Hill (1942) failed to indicate the decade in which this jaguar was killed or even who killed it. Hill (1942) makes no comment on how or when Mr. Waite obtained the skin. The lack of detail indicates Mr. Waite knew very little about this jaguar. Waite's report that it had been killed near Springer is therefore unverifiable and unreliable.

In short, this account is also scientifically unreliable for purposes of jaguar habitat modeling.

\*Robinson et al. (2006) nonetheless used this unreliable and unlikely account to model suitable jaguar habitat in New Mexico.

### **\*1937, San Andres Range, NM, Bannerman sighting**

NMDGF (2010): Class II (7)

Parker and Coping: Class II (6); unreliable for habitat modeling

Halloran (1946) at p. 160 reports,

*“Felis onca arizonensis—We have been unable to locate any specimens from the San Andres Range. Bailey (1931, p.284) received reports of jaguars from this range. In 1937 a Biological Survey hunter named Bannerman said his dogs “jumped” a jaguar. The animal was reported as sighted, but not captured as it would not ‘tree’ as does a lion.” . . . During our stay we did not find any trace of jaguar. We should not be surprised, however, if a wandering ‘tigre’ is sometime seen in this area.”*

Dogs were used in hunting this animal and no information is given on which direction or how far they chased this jaguar. Similarly, no information is given on where this jaguar was “jumped” or where the chase ended. Neither do we have any information on whether this cat was originally chased into the San Andres Range in the first place, or migrated there naturally. This account, therefore, is unreliable for habitat modeling purposes.

\*Mencke and Hayes (2003) used this unreliable account in their habitat model, reporting the location as, “Sierra/San Andres Mtns.” This jaguar's location within an entire mountain range is neither known nor documented, but nevertheless was somehow used in modeling habitat.

\*Robinson et al. (2006) also used this unreliable account to model suitable habitat for jaguars in New Mexico, even though this jaguar's location within an entire mountain range is unknown.

### **\*1990, Observation, no physical evidence, Larry Link**

Parker and Coping: Class III (3)

Robinson et al. (2006) states in its list of data on p.11:

*“Shakespeare, North of I-10; 1990; Larry Link observed on property; source: Link; classification 2”*

Robinson et al. (2006) states:

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*“Larry Link, proprietor of the Steins Ghost Town alongside Interstate 10 at the north end of the Peloncillos, reports having seen a jaguar north of the highway in 1990.”*

Robinson et al. (2006) states in a footnote:

*“Larry Link telephone interview with Michael Robinson, 9/13/2004. Link says that shortly after the sighting he notified a New Mexico Department of Game and Fish official, who he didn't identify; Robinson notified Chuck Hayes of NMDGF of Link's account and phone number by email, 9/13/2004, but no follow-up assessment of the sighting has yet appeared.”*

This record is not present in any other literature we have come across. No physical evidence is available to verify this account. This record does not have a reliable witness. Link was not a biologist by training or trade. Link has passed away and thus cannot be contacted for verification. Link's credentials as a witness are unverifiable. Moreover, the Center for Biological Diversity lacks credibility and has lied about other information. (Chilton Ranch, 2005). Therefore, in the absence of corroborating physical evidence, this record is unreliable.

\*Robinson et al. (2006) nonetheless misused this unreliable sighting as a “record” to model suitable jaguar habitat in New Mexico.

\*Sanderson and Fisher (2013) implied they used this record in modeling jaguar habitat but such information is unverifiable without presentation of data.

### **\*8/25/1990; Black Range; Observation; no physical evidence; Dr. Gerald Jacobi**

(New Mexico Department of Game and Fish, 2010): Class II (7)

Parker and Coping: Class III (3)

Schmitt (1998) reports in Table 3—Reports of jaguars for which no physical evidence exists:

*“Sierra Co., ca. 2 mi S, 12 mi E Beaverhead, on USFS road 226 ca. 5 mi S New Mexico 59; 25 August 1990; 1700 h; Gerald Z. Jacobi, Dr. (Highlands University); and Mrs. Jacobi; Sighting. Described as a large cat (significantly larger than a bobcat), long tail, buffy or reddish-brown overall color, dark-patterned spots over entire body; cat was loping through trees 50-60 feet from Jacobi's vehicle; when vehicle was stopped for a better look, the cat reversed its route, crossed the road 25-30 yards behind the observers; observation lasted about 30 seconds.; No physical evidence or photographs were preserved; source: New Mexico Department of Game and Fish files (memo dated 29 August 1990); sighting no. 14 on map.”*

Robinson et al. (2006) reports:

*“Black Range; 8/25/1990; observed by Gerald and Donna Jacobi; source: JCT, NMDGF; classification 2”*

Robinson et al. (2006) footnote 46 reports:

*“Tim Snow, ‘Proposed Jaguar Sighting Report,’ 9/26/2000 (Jacobis)”*

Tim Snow's proposed jaguar sighting report was written a full decade after the alleged fact of this sighting.

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The description of the cat as having a long tail suggests it could have been a yearling cougar.

Dr. Jacobi has held federal contracts for his expertise in aquatic macrobiology as a self-certified disadvantaged small business. (GovTribe.com, 27 January, 2016) By October 2012, Dr. Jacobi had made charitable contributions of at least \$250 in at least one year to the Wild Earth Guardians despite his “disadvantaged” federal status. (WildEarth Guardians, 2010) In August 2010 Dr. Jacobi testified on behalf of Wild Earth Guardians in favor of extending “Outstanding Natural Resource Waters” regulations to dry washes in New Mexico. (Jacobi, 13 August 2010) Dr. Jacobi is also on the board of the Santa Fe Watershed Association, (2017) which lists environmental activist organizations including the Sierra Club and Wild Earth Guardians among its “partners.” (Santa Fe Watershed Association, 2017)

This record is based on unverifiable hearsay from an inexperienced observer who is neither a mammalogist nor has evidence been presented he has any experience as a big game hunter.

While Tewes and Everett (1986) might ordinarily classify a sighting by a nature scientist as Class II (6), Dr. Jacobi’s association with the litigious WildEarth Guardians damages his credibility. He made an unverifiable claim he knew would create “justification” for the expanded environmental regulations he personally advocates. In short, absent corroborating physical evidence, this sighting is unreliable.

\*Robinson et al. (2006) nonetheless misused this unreliable sighting as a “record” of jaguar occurrence for purpose of modeling suitable jaguar habitat in New Mexico.

### **\*April 19, 1995; Hidalgo County, Peloncillo Mountains, Bryan Starret**

#### **Photograph of track**

(New Mexico Department of Game and Fish, 2010): Class I (9)

Parker and Coping: Class III (1)

Schmitt (1998) reports in Table 4–Records of jaguars for which photographic evidence is available to verify the record:

*“Hidalgo Co., Peloncillo Mountains, ca. 1 mi. E of the saddle between Clanton Draw and Cottonwood Canyon; 19 April 1995; Observer Bryan L. Starret; Photographic evidence of jaguar track; evidence is photographic evidence (slide) preserved; source Arizona Game and Fish Department memorandum of 6 March 1997 by Andy Holycross; Number on Map; Figure 1: 15”*

The Holycross memo is dated two years after the date this photograph was taken.

Since jaguars are no longer being killed in New Mexico and only photographed or “observed,” it is possible this record might be from the same jaguar as one or more other reports.

Furthermore, a controlled study of traditional identification of jaguar, puma and canid tracks by supposedly reliable observers proved the observers were wrong in more than 20 percent of track identifications. (DeAngelo et al., 2010)

Bryan Starett is a former long-time zoo employee who entertains people with snake shows. Andy Holycross is a Ph.D herpetologist who teaches Conservation Biology at Arizona State University.

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Neither the alleged photograph nor the Holycross memorandum were released by AZGFD in response to proper Public Records request by the PNRCD and are, therefore, unavailable for verification.

\*Robinson et al. (2006) uses this track photograph to model suitable jaguar habitat in New Mexico.

### **\*March 7, 1996, Peloncillo Mountains, male, Warner Glenn, photographed, videotaped**

Hatten et al. (2002, 2005): Class I Location 1 (within 1.6 km accuracy)

Grigione et al. (2007): “reliable”

NMDGF (2010) : Class I (10)

Parker and Coping: Class I (9)

(Kahn, November 2007)reports:

*“Then, in 1996, something remarkable happened. In two separate incidents, mountain lion hunters stumbled upon jaguars in Arizona and New Mexico—and reached for cameras rather than rifles. Warner Glenn, whose hounds bayed a jaguar on a cliff in the Peloncillo Mountains of southern New Mexico in March of that year, says the thought of shooting the animal never crossed his mind. “I tell you, it would have had to be a terrible situation for me to kill one, because why would you? They are so doggone rare, and that’s the first one I ever saw,” says Glenn. So he snapped away with his camera, edging ever closer to the cat as he tried to retrieve his hounds. He got a little too close. The jaguar charged him. In a split second, Glenn’s hounds leapt between him and the cat, thwarting its attack. The jaguar slunk away, and Glenn rode out of the canyon with the first photos ever taken of a living, wild jaguar in the United States.”*

Brown and Lopez-Gonzales (2000) reports,

“7 March 1996, Peloncillo Mountains, Madrean Evergreen Woodland, male, bayed and photographed by hunters with dogs (Glenn, 1996).”

Brown and Lopez-Gonzales (2001) reports,

*“3/07/1996. Warner Glenn. Pers. comm., Glenn 1996. Photographs. M? Peloncillo Mts., AZ. Bayed and photographed while lion hunting with dogs. Madrean evergreen woodland”*

Brown and Lopez-Gonzales (2001) reports further that this occurred just north of the Mexican Border and east of Malpai Ranch, and the chase went several miles after the hounds first spotted the cat, four days into the hunt. After Glenn got involved in attempting to pull his dogs off, while also snapping photos, the jaguar trotted back into Mexico.

\*Hatten et al. (2002, 2005) incorporates this record into its models.

\* Robinson (2006) incorporates this record into its models

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### **\*Fall 1998, Tom and Boe Duffy, San Francisco River of Gila Forest, unreliable**

Parker and Coping: Class III (4)

Robinson et al. (2006) reports:

*“In fall 1998, Tom and Boe Duffy saw one cross a road near the San Francisco River of the Gila National Forest.”*

Robinson et al. (2006) states in footnote 46:

*“Tim Snow, ‘Proposed Jaguar Sighting Report’ 8/15/2000 (Duffys) . . . all Jaguar Conservation Team forms and correspondence.”*

Even a general location is anyone’s guess. The San Francisco River is 159 miles long and the largest tributary to the Gila. It starts near Alpine, AZ and flows through New Mexico before joining the Gila River downstream from Clifton, AZ.

This report was written 12 years after the alleged sighting by the Duffys. The Duffys are not professional biologists or lion hunters. They have owned and operated an alternative energy business. (Your Two Feet Inc., 6 Jun 2009) There is no physical evidence and the Duffys are not reliable witnesses. Thus, in the absence of corroborating physical evidence, this sighting is unreliable.

\*Robinson et al. (2006) nonetheless misused this unreliable sighting as a “record” for the purpose of modeling suitable jaguar habitat in New Mexico.

### **\*May 10, 1999, Burro Mtns S. of Silver City, plaster cast of track**

(New Mexico Department of Game and Fish, 2010): Class III (4)

Parker and Coping: Class III (1)

Robinson et al. (2006) reports:

*“On May 10, 1999, high school biology teacher John Trewern saw a large black cat cross the road in the Burro Mountains south of Silver City. The next morning he obtained a plaster cast of the animal’s paw.”*

Robinson et al. (2006) reports in footnote 46:

*“Bill Van Pelt to Michael Robinson, ‘Ranking for Burro mountain jaguar sighting,’ e-mail 8/8/2005 (Trewern) - all Jaguar Conservation Team forms and correspondence.*

The cited source by Robinson et al. (2006) is an email dated six years after the alleged occurrence.

John Trewern is a “certified biologist,” a professional bow hunter, a published outdoor sports writer, and a high school teacher. (Trewern, )

Since jaguars are no longer being killed in New Mexico and only photographed or “observed”, it is possible this record might be from the same jaguar as one or more other records. Moreover, black or melanistic jaguars are unknown from the vast northern portion of the jaguar’s overall, multi-continental range.

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Furthermore, a controlled study of traditional identification of jaguar, puma and canid tracks by supposedly reliable observers proved the observers were wrong in more than 20% of track identifications. (DeAngelo et al., 2010)

This “record” is therefore scientifically unreliable for modeling use purpose.

### **February 20, 2006, Peloncillo Mountains, Warner and Wendy Glenn, “Border King”**

#### **Photographed**

NMDGF (2010): Class I (10)

Parker and Coping: Class I (9)

Kahn (2007) reports:

*“One area where scientists have yet to look for jaguars is the Animas Mountains in New Mexico. On February 20, 2006, Warner Glenn and his daughter were leading a mountain lion hunt there when one of his dogs, Powder, went missing. Powder soon reappeared, but with a gaping hole in his neck and shoulder. “Something had whipped the dickens out of him,” Glenn says. At the same time, the rest of Glenn's pack took off down the face of a bluff after something.*

*Glenn watched from the ridge as the dogs surrounded a cedar tree across the canyon. Worried that his pack had struck out after a feral hog, Glenn piloted his mule off the steep ridge, “sliding mostly,” he says. “The boulders were rolling and the brush was popping.” But when he got within 100 yards of the cedar, lo and behold, he saw a big cat sitting there. In the shade, it looked chocolate brown, and Glenn assumed it was a large male mountain lion. Suddenly, the cat charged out into the sun after the dogs, and Glenn saw it had dusky gold fur and spots. “I said, my gosh, it's a jaguar!” Glenn recalls.*

*Hunters can spend a lifetime in the Southwest and never see a jaguar. Now Glenn had stumbled across his second cat in a decade. Glenn calls this one Border King. Based on the weathering of its teeth, seen in Glenn's photos, Border King is thought to be an 8- to 9-year-old male, weighing as much as 200 pounds.*

*Border King was the fourth confirmed jaguar in the United States. Glenn has not seen him since but thinks he and others are probably out there, haunting the isolated mountain ranges that run south to the border and into Mexico's Sierra Madre.”*

### **Arizona Jaguar Occurrences**

#### **1829, Between December 12-17, James Ohio Pattie, Colorado River, South of Yuma**

#### **About 50 miles south of junction of Gila and Colorado Rivers**

Parker and Coping: Class III (3); observer has credibility problems and has exaggerated other events

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Pattie's narrative indicates that on December 12, 1829, the trapping party he was with met the Yuma Indians at the juncture of the Gila and Colorado Rivers. The trappers then marched upstream for 16 miles to spend the night. That night the Indians stole their horses. The trapping party retaliated the next day by burning the suddenly abandoned Yuma village. On Dec. 3, the trapping party began building canoes in their camp. After completing 8 canoes, on Dec. 9<sup>th</sup>, they began floating downriver at a rate of 4 mph. On the evening of the 9<sup>th</sup> they passed the burned village at the juncture of the Gila and Colorado Rivers. They floated 30 miles downstream before again making camp to trap beavers. They then continued floating until Dec. 12 when they killed two horse thieves that had followed them. They floated and trapped their way 60-70 miles downstream from where they built the canoes, or 44-54 miles south of the juncture of the Gila and Colorado Rivers, and took in so many beavers they stopped to build another canoe, when Pattie's party killed an unusual cat that walked into their camp. On December 17 the canoe was finished. Flint (1831), fide Pattie, states:

*"We thus travelled on prosperously, until we reached the junction of the Helay with Red river [the Gila with the Colorado]. Here we found the tribe of Umeas [Yumas], who had shown themselves very friendly to the company in which I had formerly passed them, which strongly inspired confidence in them at present. . . . It was now the 1st of December; and at mid-day we began to see the imprudence of spending the remainder of the day and the ensuing night with such numbers of Indians, however friendly in appearance. We . . . knew that caution is the parent of security. So we packed up, and separated from them. . . .*

*To interpose as great a distance as possible between them and us, we marched that evening sixteen miles, and encamped on the banks of the river. The place of encampment was a prairie, and we drove stakes fast in the earth, to which we tied our horses in the midst of green grass, as high as a man's head, and within ten feet of our own fire. . . . We were scarcely asleep before we were aroused by the snorting of our horses and mules. . . . But the Indians had crawled among our horses, and had cut or untied the rope by which each one was bound. The horses were then all loose. They then instantly raised in concert, their fiendish yell. . . . We pursued with the utmost of our speed to no purpose . . .*

*Accordingly, early in the morning of the 2d, we started on the trail in pursuit of the thieves. We soon arrived at a point where the Indians, departing from the plain, had driven them up a chasm of the mountains. Here they had . . . each taken a different route with his plundered horses. We saw in a moment that it was impossible to follow them farther to any purpose. . . . We then set fire to the village, burning every hut but that which contained the old man. . . . We then returned to our camp, re-swimming the river, and reaching the camp before dark. . .*

*On the morning of the 3d, the first business in which we engaged, was to build ourselves a little fort, sufficient for defence against the Indians. This finished, we cut down two trees suitable for canoes, and accomplished these important objects in one day. . .*

*On the morning of the fourth we commenced digging out our canoes, and finished and launched two. These were found insufficient to carry our furs. We continued to prepare, and launch them, until we had eight in the water. . .*

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*We started on the 9th, floating with the current, which bore us downward at the rate of four miles an hour. In the evening we passed the burnt town, the ruins of which still threw up smouldering smoke.*

*We floated about 30 miles, and in the evening encamped in the midst of signs of beavers. We set 40 traps, and in the morning of the 10th caught 36 beavers, an excellent night's hunt. We concluded from this encouraging commencement, to travel slowly, and in hunters phrase, trap the river clear; that is, take all that could be allured to come to the bait.*

*The river, below its junction with the Helay, is from 2 to 300 yards wide, with high banks, that have dilapidated by falling in. Its course is west, and its timber chiefly cotton-wood, which in the bottoms is lofty and thick set. The bottoms are from six to ten miles wide. The soil is black, and mixed with sand, though the bottoms are subject to inundation in the flush waters of June. . . .*

*We now floated pleasantly downward . . . . But on the 12th, at mid- day, by mere accident, we happened, some way below us, to discover two Indians perched in a tree near the river bank, with their bows and arrows in readiness, waiting evidently until we should float close by them, to take off some of us with their arrows . . .*

*. . . these two were alone, and we crossed over to their bodies. We discovered that they were of the number that had stolen our horses, by the fact, that they were bound round the waist with some of the hemp ropes with which our horses had been tied. We hung the bodies of the thieves from a tree, with the product of their own thefts . . .*

*. . We continued to float slowly downwards, trapping beavers on our way almost as fast as we could wish. We sometimes brought in 60 in a morning. The river at this point is remarkably circuitous, and has a great number of islands, on which we took beavers. Such was the rapid increase of our furs, that our present crafts in a few days were insufficient to carry them, and we were compelled to stop and make another canoe.*

*We have advanced between 60 and 70 miles from the point where we built the other canoes. We find the timber larger, and not so thick. There are but few wild animals that belong to the country farther up, but some deer, panthers, foxes and wild-cats. Of birds there are great numbers, and many varieties, most of which I have never before seen. We killed some wild geese and pelicans, and likewise an animal not unlike the African leopard, which came into our camp, while we were at work upon the canoe. It was the first we had ever seen.*

*We finished our canoe on the 17th, and started on the 20th.”*

Considering that the first canoes were built 16 miles above the junction of the Gila and Colorado Rivers, a conservative estimate of a 44 mile float trip downstream, combined with a Google Earth measurement of the downstream path, places Pattie's kill of the cat 17 miles south, downstream, of the present Arizona/Mexico border. Moreover, to assume that what Pattie actually killed was indeed a jaguar, without better information, requires unscientific speculation.

Mr. Pattie's personal credibility has also been called into question. (Aker, 21 December 2011) reports:



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*“Pattie didn’t keep a journal on his Arizona adventure but told his story to Timothy Flint, who edited it for publication. It was customary for the buckskin men to stretch their tales a bit and Pattie was no exception. However, there was basis for fact in much of what he recalled and his journal provides an important piece of history of the fur trade in Arizona.”*

Aleshire (2003) wrote:

*“Historians have rummaged about for nearly 200 years, trying to sort momentous fact from lurid exaggeration in Pattie’s tale. He was the first American to leave a record of his entrance to Arizona and lived a brief life of thrilling adventure. But 220 grizzlies in one day? Right. And he probably didn’t actually vaccinate 22,000 Californians and head off a smallpox epidemic – although the promise to do so may have sprung him from the Mexican prison in which his father died.”*

What Pattie’s account does tell us, and obviously without any hint of exaggeration, is significant. Pattie’s party of eight men had trapped the Platte River and the San Pedro River, in addition to traveling from Santa Fe to Socorro, crossing the Black Range at Emory Pass and heading further almost to Silver City, descending Sapillo Creek into the Gila River, trapping all the way down the Gila River to Yuma and then trapping the Colorado River downstream to the southern boundary of the United States—without seeing a single jaguar, despite the fact that they were skinning hundreds of beavers at their campsites. This account provides strong evidence that jaguars, if present at all in Arizona and New Mexico in 1829, were extremely rare.

Due to the second-hand account, the location of the alleged jaguar kill clearly being in Mexico, the fact that this would be the only known record of a jaguar from the lower Colorado River, the lack of a clear description including the size of the animal, and Pattie’s reputation as a person who embellished his tales with fiction, this record is unreliable as evidence of early jaguar presence or residency in Arizona.

### **1855, Santa Cruz Sonora, Mexican Boundary Survey**

Parker and Coping: Class III (3)

Although this record is in Sonora, the account is included because, as the crow flies, the town of Santa Cruz is only about eight miles south of the Arizona border town of Lochiel.

C.B.R. Kennerly in Baird (1859) stated,

*This large cat...is rarely seen so far north as El Paso del Norte. The only individual seen by our party west of [El Paso] was seen in the Sierra Madre, near the Guadalupe Cañon. However, we were assured by many persons of Santa Cruz that it was very common near that village, in the valley of the river of the same name.*

The sighting in the Sierra Madre could have been on either side of the present international border but nevertheless is consistent with historical lone, male transient jaguars occasionally seen on either side of the U.S. Mexico border.

Kennerly’s statement that the local residents considered the jaguar “common” to the residents of Santa Cruz, Sonora, however, is actually unreliable hearsay lacking scientific documentation or any indication of how close to Santa Cruz these jaguars reported to him were supposedly observed. It is much more likely that if any jaguars had actually been seen at all, they would

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have been seen 50 miles or more to the south, given the further fact that there is no verifiable record of any jaguar whatsoever from the vicinity of Santa Cruz, Sonora.

To a significant degree Kennerly's credibility is questionable, as it was he who also inaccurately reported in Baird (1859) that in 1825, a jaguar killed four priests inside a convent on the banks of the Rio Bravo at Santa Fe. Despite prefacing the story with the fact that jaguars were rarely seen north of El Paso, the account implies the jaguar attack occurred in northern New Mexico. The attack actually occurred on the bank of the Río Paraná in Santa Fe, Argentina. That false report was repeated as fact for more than the next 150 years in the scientific literature. Even if Kennerly had mentioned the convent was in Argentina, we still have yet to confirm the deaths of three out of the four friars Kennerly claimed were killed in that attack. It appears Kennerly might have exaggerated, gotten facts confused and/or reported facts in a manner that confuses others.

The information he provided about jaguars near Santa Cruz is likewise suspect. Hamilton (1881) confirms the fact that a village named Santa Cruz already existed near the Santa Cruz River south of Lochiel, AZ, in 1859. What should be noted, however, is the fact that Baird (1859) *fide* Kennerly discusses the westernmost jaguar sighting as having been near *Guadalupe canyon* in the Sierra Madre -- not more than 70 miles to the west near Santa Cruz, where a dearth of records of jaguars actually exists.

Kennerly's recordkeeping is therefore suspect. By association, it also makes the Santa Cruz hearsay even more questionable. Moreover, any claim of jaguars being common at Santa Cruz near Lochiel, Arizona in 1859 was unverified and therefore unsupported by Coues (1867), although surely Elliot Coues was familiar with Baird (1859) and may have attempted to verify the information. Further, the claim of commonality is also contradicted by the overall paucity of jaguar records from that area at and subsequent to that time.

Brown and Lopez-Gonzales (2001) quotes from Baird (1859) *fide* C.B.R. Kennerly, the claims about jaguars being common at the town of Santa Cruz. These claims are edited with an added insertion between parenthetical marks, the style of which matches the parenthetical style used by Baird in his clarification of the location of Guadalupe canyon:

*“However, we were assured by many persons of Santa Cruz (a Sonoran border village just south of Lochiel, Arizona) that it was very common near that village, in the valley of the river of the same name.”*

The use by Brown and Lopez-Gonzales (2001) of the same style parenthetical marks as used in Baird (1859) misleads the reader to mistakenly infer that Kennerly made the parenthetical clarification of the location of the village of Santa Cruz when, in fact, this was added editorially by Brown and Lopez-Gonzales.

Finally, the USFWS's claim (U.S. Fish and Wildlife Service, 2016, pp. Appendix C, p. 12), that Dr. Baird observed a jaguar in the Santa Cruz Valley in 1857, is patently false and misrepresentative of both Baird and Kennerly. Polisar's (2014) citation to “Baird (1857)” in the draft jaguar recovery plan, purportedly to support the aforementioned error, is actually an incorrect and irrelevant citation to a paper that makes no mention at all of either jaguars or the Santa Cruz valley. The paper cited by *this review*, however, (Baird, 1859), indeed mentions jaguars and the Sonoran town of Santa Cruz. The latter paper makes no claim, however, that

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Dr. Baird or any other survey party member saw a jaguar anywhere near that town. To the contrary, Kennerly states that no jaguar was seen anywhere west of Guadalupe Canyon.

This record is unreliable.

### 1858, Santa Rita Mountains, Phocion Way

Parker and Copping: Class III (2)—the observer may not have been describing a jaguar. Account lacks a description of the animal and the observer was not experienced in the Southwest.

Girmendonk (1994): Class III

Girmendonk mentions this kill without citation to any specific source and without stating any details whatsoever.

Given Girmendonk's omission of detail, we can only speculate that this is the jaguar reported by Phocion Way. Our research shows that Phocion Way kept one of the best diaries of Tubac history. In 1960, William A. Duffen published an annotated version of Phocion Way's diary. Duffen (1960) reports that on June 21<sup>st</sup> [1858], Phocion Way had left the Santa Rita Mining Camp, the site of Hacienda Santa Rita, on a 100 mile round trip to the Cerro Colorado and Arivaca Ranch to buy hardware.

Duffen (1960) *fide* Phocion Way, wrote:

*“June 25<sup>th</sup> [1858] . . . With the pack mule and the other articles I had purchased, about 3 o'clock I started for Camp Santa Rita and got there about 6. I found my party all well and in good spirits. Mr. Fuller had killed a tiger in my absence and he and Grosvenor had quite a chase after a bear that ventured near the camp . . . but they did not succeed in capturing him. Bears are very numerous here of these species, the black bear, the brown or as it is called here the Cinnamon bear, and the fierce and dreaded grizzly. The brown bear is the most common and is almost as dangerous as the grizzly. It will attack a man without provocation, but it is smaller and not so hard to kill as the grizzly. The grizzlies are not so numerous but there are a good many of them. The black bear here as everywhere is cowardly and will run from the hunter, and will not fight unless he is badly wounded or cornered and cannot help it. It was this last species that Grosvenor and Fuller chased from our camp yesterday morning.” [Highlighting added]*

Duffen (1960) includes a footnote stating that “Mr. Fuller” was George W. Fuller who was mentioned several times in various records as an associate of Poston with the Arivaca mine and a claimant to the Salero mine.

Duffen (1960) in a footnote regarding the Camp Santa Rita reports:

*“The site was known later as Hacienda de Santa Rita. Here the headquarters of the Santa Rita Mining Company were established under the supervision of Horace C. Grosvenor and Phocion R. Way in the fall of 1858.”*

Duffen (1960) includes a footnote after the word, “tiger.” The footnote reads,

*“El tigre, a name commonly applied to the mountain lion, puma, or cougar by the Spanish-speaking people of the Americas. There is also a spotted cat, that comes into this area from Mexico, referred to as el tigre.”*

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What we can infer from Way's description of the event is that the killing of whatever cat it was did not interest him greatly. He was much more interested in the bear, implying that the "tiger" may more likely have been a common mountain lion than the much rarer jaguar. Moreover, Mr. Way was not an experienced observer, having just arrived for the first time from the Midwest.

More importantly, E.W. Nelson (1918) described ocelots as "tiger-cats."

Brown and Lopez-Gonzales (2001) wrote,

*"Phocian [sic] Way, a young prospector, reported that his partner, Mr. Fuller, killed a "tiger" while they were deer hunting in the Santa Rita Mountains during the summer of 1858. (Davis 1982)" The citation is: "Davis, G.P., Jr. 1982. Man and wildlife in Arizona: the American exploration period. N.B. Carmony and D.E. Brown, eds. Arizona Game and Fish Department, Phoenix."*

Brown and Lopez-Gonzales (2001) inaccurately reports that Fuller had killed the animal while deer hunting. Phocion Way's diary stated nothing of the sort. It does state that on June 26, 1858, the day after Way returned to the Santa Rita Camp, Fuller and Way went deer and bear hunting, not for sport but for meat. The Way diary does not mention any "tiger" being killed on this hunt.

It is interesting that Brown and Lopez-Gonzales (2001) would cite a secondary or possibly even a tertiary source of the information when the primary source, the original diary of Phocion Way, is housed in the Arizona State Library. The source cited by Brown and Lopez-Gonzales (2001) does not state the specific date on which this alleged jaguar kill occurred, thereby implying that the original diary was never consulted.

Without a better description of the specific animal killed by Fuller, it would be impossible to identify the animal as a jaguar without reliance on a great deal of unscientific speculation.

### **"Probably" 1885-1890? 1889-1900? Female with 2 cubs, Grand Canyon, AZ**

Grigione et al. (2007): **Class I or II observation** (while claiming to use Girmendonk's classification system)

Parker and Coping: Class III (1): Hearsay with no verifiable supporting evidence

**Note:** The Grand Canyon is 277 miles long, with a width ranging from 4-18 miles, and attains a depth of over a mile. The absence imprecise location of this alleged occurrence of a jaguar is unreliable for habitat modeling.

Vernon Bailey, in "Mammals of the Grand Canyon Region" (Bailey, 1935) wrote:

*"These great cats from Mexico have a scattered range including parts of west Texas, southern New Mexico, Arizona and California. One of the northernmost records is of one killed by Indians near the railroad some four miles south of the Grand Canyon Village about 1907. It had killed and eaten a colt. Generally, Jaguars kill cattle more often than horses."*

The jaguar Bailey mentioned in the quotation above is the only verifiable jaguar record that exists from anywhere near the Grand Canyon. Bailey's failure to mention any others is relevant and telling. In Bailey (1931), the author sought out numerous sources and was willing to report even second and third-hand hearsay. Bailey (1935) mentions just this one jaguar. If a female with cubs had been known in this area, Bailey could reasonably be expected to have mentioned

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it. What the omission of such indicates is that by 1935, neither Bailey nor any of his colleagues knew of any female jaguars, much less any female jaguar with cubs, from the Grand Canyon region. This is corroborated by absence of such mention also in the daily newspapers at the time this female jaguar allegedly existed. It appears this story, perhaps a campfire tale, originated some time since 1935.

Moreover, Bailey's choice of words, "*these great cats from Mexico*" provide additional evidence this alleged female with cubs was unknown to him, and further, that he believed a jaguar seen even as far north as the Grand Canyon must have wandered in from Mexico.

(Lange, 1960) reports,

*"A memorandum of H. C. Lockett, in a letter of Lyndon L. Hargrave to E. A. Goldman, dated July 14, 1943, refers to a female and her two cubs being killed in the Grand Canyon, probably in the period, 1885-1890."*

Lange provided no citation pointing to where the letter can be located to verify the information he reported. The report is therefore unverifiable and unreliable.

Housholder (1966) states these alleged jaguars were killed in 1890 but fails to cite his source.

Hoffmeister (1971) *Mammals of the Grand Canyon*, makes no mention whatsoever of these three alleged specimens.

Hoffmeister (1986) states,

*"**Supposedly** a female with two cubs were taken in the Grand Canyon area, and a female and a cub were taken at the head of Chevelon Creek, Coconino County."*

That is all Hoffmeister said about this record. It is important to note Hoffmeister's choice of a preface-*supposedly*. Further, Hoffmeister made no citation to source—clearly signaling that this "record" may be a myth, perhaps even a campfire story. It can be safely inferred that Hoffmeister was unable to locate the alleged memorandum of H.C. Lockett for verification, and at least we know that a copy of it does not exist in the AZGFD files.

Despite citing Hoffmeister in their records, **Brown and Lopez-Gonzales (2000, 2001) omitted this jaguar from their datasets**, which begin only in 1900. Their incomplete examination of data prior to 1900 deprives the reader of the knowledge that jaguars were extremely rare in Arizona before 1900, and misleads the reader to assume otherwise.

The Lockett memorandum or the Hargrave letter cited by Lange (1960) is not referenced to any repository or citation, so the information is unverifiable. Additionally, we were unable to locate any newspaper article mentioning or announcing this jaguar kill, despite the obvious newsworthiness of the unprecedented appearance of a lactating female jaguar in such a renowned tourist attraction as the Grand Canyon.

(Grigione et al., 2007) included this account in Table 1, which appears simply to be a combined list of reliable and unreliable jaguar sightings in Arizona and Sonora. **Grigione et al. (2007) misrepresents Hoffmeister** (1986) in the statement,

*"In addition to reports in Arizona and New Mexico Game and Fish records, Hoffmeister (1986) **cites reports of a female and two kittens in the Grand Canyon between 1889 and 1900**" . . . (Table 1)."*

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The Library of Congress digitized archives of all newspapers in the United States from 1884-1924 reveals no mention whatsoever of this event in the press, despite three related, major news events including the proclamation of the Grand Canyon as a National Forest Reserve in 1893, the completion of railroad service to Grand Canyon Village on September 17, 1901; and designation of the Grand Canyon National Park by President Roosevelt on March 10, 1908. (Grand Canyon Railway and Hotel, Arizona, 2017)

The Pima NRCD was unable to verify this account in the AZGFD's records by the Department's response to proper Public Records Request, as no reliable information on this record was included in that response.

Culver and Hein (2016) states on pages 16-17,

*"...there is no evidence of recent female jaguar dispersal events either into or out of the Arizona/Sonora area. Recent means a minimum of 15 years ago (when the Sinaloa/Jalisco samples were collected; we can not detect anything more recent than that), and a maximum of 350,000 years ago..."*

*As of 2016, there is no evidence suggesting the presence of a jaguar breeding population in Arizona."*

This account has no scientific value.

\* Nonetheless, in modeling the potential for future breeding populations of jaguars to exist in Arizona, Boydston and Lopez Gonzales (2005) used this unreliable, unverifiable account as "data" allegedly representing one of six alleged historical occurrences of female jaguars in Arizona. (Boydston & Lopez-Gonzalez, 2005, pp. p. 53, Figure 1(a)) Unscientific use of this account (and two additional, unverifiable records of females with cubs) is significant because the resulting model and conclusions were central to the court decision in Center for Biological Diversity v. Kempthorne, which then led to the 2014 critical habitat designation and the present 2016 Draft Recovery Plan. (United States District Court for the District of Arizona, 2009)

### 1890, Greenback Valley, Phil Askins, M

Parker and Copping: Class I (9); unreliable hearsay for location; record is therefore unreliable for habitat modeling.

The *Arizona Weekly Citizen* (1890) reported:

*"Globe News, Globe, AZ July 22 (8 August 1890)  
A leopard's skin is on exhibition here, at the Silver Belt office. It was killed last week about 55 miles from here by Mr. Askins. The beast weighed 250 pounds and was eight feet long. It is the first leopard ever known in Arizona..."*

The *Arizona Silverbelt*, July 26, 1890 reported,

*"The skin of the ferocious animal killed by Phil. Askins, in Greenback Valley, recently, was brought to Globe by his partner, Chas. Bouquot, and placed on exhibition in the post office, where it has been greatly admired. The animal was undoubtedly a jaguar, the largest and fiercest of the cat species, closely resembling a leopard, and a native of South and Central America."*

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Brown (1997) includes this jaguar but provides only the date, the names of the collector and reporter, and “Greenback Valley” as a location.

Brown and Lopez-Gonzales (2001), quotes the same story as printed identically in the *Arizona Daily Star* on July 31, 1890, but prefaced it, editorializing with the speculation, “By the late 1880’s the jaguar was beginning to feel the wrath of Anglo-Americans as well as Mexican settlers.” Brown and Lopez-Gonzales (2001) follows the quoted news article with more editorial speculation:

*“For years afterward, the spring near where his animal was killed was known as Leopard Springs. The spring later became known as Lion Springs, but is now labeled on the Tonto National Forest map as Mud Springs—each change indicating a decline in the area’s special nature. Jaguars must have been scarce in central Arizona, however, as a later newspaper account noted that Phil Askins had trapped more than 100 lions during his career, but only one jaguar.”*

Brown and Lopez-Gonzales (2001) does not cite the source of the latter referenced newspaper account.

Further, Brown and Lopez-Gonzales (2001) may have downplayed the rarity of jaguars in Central Arizona. In contrast, *The St. Johns Herald* reported on February 26, 1891,

*“... Within [the last] 15 years, [Phil Askins] has killed 145 monarchs of the forest [mountain lions] and one leopard...”* (1891 Feb 26)

Moreover, Brown and Lopez-Gonzales (2001), p. 35 inaccurately and unscientifically attribute place names to the supposed presence of jaguars, purely based on speculation rather than defensible scientific research. This is proven in the names of the Tiger mine and the town of Tiger, Arizona. Both in fact were named after the Bengal tiger—the mascot of mine owner and town founder Sam Houghton’s alma mater, Princeton University. (Azcara, June 10, 2013)

Brown and Lopez-Gonzales (2001) do not cite the source of the information for the spring where they claim the jaguar was killed. Neither do they cite the sources of the historic names of the spring, nor how long the spring kept each alleged name. On the other hand, their final comment about the career of Phil Askins provides yet further indication that jaguars were never anything but extremely rare transients in Arizona prior to 1900.

Oddly, despite discussing this jaguar in the text on pages 86-87 (Brown and Lopez-Gonzales, 2001), Brown and Lopez-Gonzales (2000, 2001) omit this jaguar from their tables, arbitrarily assigning the year 1900 as the beginning of all jaguar history in Arizona. If Brown was aware of this jaguar in 1983, then his plot of alleged jaguar “decline,” which begins arbitrarily in the year 1900, deliberately distorts and obfuscates the reality that there are almost no records of jaguars killed in Arizona before 1900.

### 1890, Greenback Valley, Phil Askins, F

Parker and Coping: Class III (3), based on 2<sup>nd</sup> hand hearsay and observer seems to have credibility problems

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On July 19, 1890, the *Arizona Silver Belt* reported that Phil Askins had killed a “monster male leopard” at the head of Greenback Valley on the “13<sup>th</sup> last.” As the story continues,

*“His hounds bayed a pair of the ferocious beasts, and Askins succeeded in killing the male, but while he was thus engaged, the female leopard killed Nailor, one of his best hounds, badly wounded another, and made her escape. Mr. Bouquot, our informant, writes that ...”* (1890 Jul 19)

This tale has credibility problems, beginning with the improbability of a lone hunter, even aided by trained dogs, baying two jaguars at once. It is a second-hand tale told by Mr. Charles Bouquot, a produce supplier. Moreover the observer, Mr. Askins, has serious credibility problems. Eventually he was sentenced to 10 years in Yuma prison for shooting Mr. Bouquot in the back and then shooting him again from the front, killing him—followed by an initial plea of self defense. (1894 Apr 7) (1894 Jun 7)

### 1900, somewhere in Coconino County, jaguar killed

Girmendonk, NA

Hatten et al. (2002, 2005): NA

Grigione et al. (2007): Class 1 or 2 using Girmendonk’s system.

Parker and Coping: Class III (1); unverifiable

Grigione et al. (2007) exclusively cites this supposed event, with no additional details or citation to source. The description is too vague to be verifiable or reliable and therefore lacks scientific credibility for use in modeling suitable jaguar habitat.

\*Sanderson and Fisher (2013) used this record in modeling histograms from all reports from all classes of jaguar accounts. The fallacy in using this account is it appears to be a duplicate of other accounts reviewed herein. Therefore, a single jaguar would be counted multiple times in Sanderson & Fisher’s (2013) histograms. Since Stoner et al. 2015 is using the same database full of the same unreliable and duplicated accounts as Sanderson and Fisher (2013), the departures of such models from reality are only expanded and perpetuated.

### \*\*“Around” 1900, Baboquivari Mtns, Chiricahua Mtns, “near” Globe -3 jaguar kills

Girmendonk (1994): Class III

Hatten et al. (2002): NA

Parker and Coping: Class III (1); unverifiable; some appear to be duplicates of other records

\*Sanderson and Fisher (2013) used all three records in modeling histograms from all reports from all classes of jaguar accounts. The fallacy in using any of these three accounts is they all appear to be duplicates of other accounts reviewed herein. Therefore, they would be counted multiple times in Sanderson & Fisher’s (2013) histograms. Since Stoner et al. 2015 is using the same database full of the same unreliable and duplicated accounts as Sanderson and Fisher (2013), the departures of such models from reality are only expanded and perpetuated.

Herbert Brown (1848-1913) was the first curator of ornithology for the Arizona State Museum and known for his unequalled collections of southern Arizona specimens, which are deposited there. (Huels, Brown, & Johnson, 2013)



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Shufeldt (1921) quoted from Herbert Brown's alleged April 1902 letter,

*"Within the last few years several have been killed in Southern Arizona. One was killed in the Chiricahuas, one in Baboquivaris, and one near Globe. Of the last there were two together, but only one was secured."*

Lange (1960) reported,

*"Herbert Brown (in Shufeldt, Amer. Forestry, 27:629-636, 659, 1921; in Hock) refers to single kills in the Baboquivari Mountains, Pima County, and the Chiricahua Mountains, Cochise County, and to a kill near Globe, all around 1900."*

These jaguars are potentially duplicate records of jaguars mentioned elsewhere herein. For example, the jaguar mentioned as killed in the Chiricahua Mountains could have been one of the numerous jaguars mentioned elsewhere as killed by Mexican bounty hunters, by the Hands brothers, or by Riggs and Ross. Without a clear identification of each specific jaguar, these vague reports are entirely unreliable and wholly unsuitable for scientifically credible modeling purpose.

Brown and Lopez-Gonzales (2000, 2001), although citing Lange (1960) in references, omitted these records without mentioning them. The only explanation for omissions is to eliminate from their dataset any "guided hunts," meaning hunts of imported jaguars released from cages. As a result, this record is also unreliable.

### **June 1901, Cochise County, Riggs & Ross**

#### **-“probably” Dos Cabezas Mtns? Chiricahua Mtns?**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3, Location 3

Parker and Coping: Class III (1) –unverifiable hearsay

Calahane (1939) reported,

*"Another jaguar was trapped years ago on top of the Chiricahuas according to information furnished by Frank H. Hands of Dos Cabezas. [sic] The hide had been in the possession of Mariana Soto of Wilcox [sic] but eventually outlived its usefulness and ended its days hanging on a fence in the town."*

Lange (1960) reported,

*"A letter from E. J. Hands, dated February 20, 1912, refers to a jaguar 'Caught in June [1901] . . . by J. C. Riggs and a man named Ross.' The locality is Dos Cabos, Arizona, probably the Dos Cabezas [sic] Mountains in Cochise County."*

Lange does not state the source of the 1901 date he added.

Lange's failure to state where the letter may be accessed makes it impossible to confirm the information or investigate it further. No information therefore exists about how it was caught or the circumstances leading up to its capture. The Dos Cabezas location is easily confused with the location of Frank Hands, making the accuracy of Lange's report both questionable and unverifiable.

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Brown and Lopez-Gonzales (2000) reports,

*“June 1901, Dos Cabezas Mountains, Madrean Evergreen Woodland, unknown, killed by J. C. Riggs and a man named Ross (Lange, 1960; fide E. J. Hands).”*

Brown and Lopez-Gonzales (2001), Table 1, state:

*“6/1901, J.C. Riggs and a man named Ross, Lange 1960 fide E.J. Hands.” Sex “?”*  
*“Dos Cabezas Mts., AZ, Madrean Evergreen Woodland”*

The assignment by Brown and Lopez-Gonzales (2001) of Madrean Evergreen Woodland to the “habitat” of the jaguar, without any information regarding the circumstances under which it was caught, is purely speculative. Had hounds chased it? If so, how far, and for how many days was it chased?

Hatten et al. (2002, 2005) gave this jaguar account the lowest class ranking, “3,” for “less reliable, second hand account” and did not use this account in their modeling.

It should be noted that this jaguar was taken by Riggs and Ross and reported by E.J. Hands. Supposedly, another jaguar was taken to the Riggs ranch for skinning in 1912, and that jaguar was said to be killed by the Hands brothers. There may be important information that has been omitted from one or both of these accounts that ties them together.

### **\*3/16/1902, Rincon Mountains, Redington Pass? Male-2 Mexican Bounty Hunters**

Girmendonk (1994): Class I

Hatten et al. (2002): Class 1 location 2

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system  
Parker and Coping: Class II (7) –alleged but unverifiable photographic and documentary evidence in possession of Shufeldt; detailed but 3<sup>rd</sup> hand description of event, and Shufeldt seems a reliable observer of the photo. Bounty was paid, reducing credibility of event description due to financial conflict of interest if the jaguar could actually have been taken in a county that did not offer bounties. If a bounty record can be found, it might change the classification depending on the level of detail in the record.

Shufeldt (1921) wrote,

*“Personally, I have never met with the jaguar in its native haunts, and there are but very few American naturalists or hunters who have. The writer is the first to have published an account of its occurrence in Arizona. It was based upon the perfectly reliable statement of the late Mr. Herbert Brown, of Yuma, Arizona, who wrote in regard to it in April, 1902. In his letter Mr. Brown said:*

*‘I send you the photograph of a very interesting animal which was killed in the Rincon mountains, about twenty-five miles east of Tucson, on the 16th of March last; it was killed by two Mexican scalp hunters. They were in the Rincons, above the Cebadilla [translation: barley field], when their dogs found the trail of what appeared to be a very large California lion. After a short run the animal was overtaken, and two dogs were*

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*killed in the mix-up that followed. It was finally driven into a cave, smoked out and killed. An examination of the photograph will show where a bullet entered the skull a little to the left of the right eye; another went through the shoulders, but that cannot well be seen. It measured six feet seven inches from the point of the nose to the base of the tail, and nearly ten feet from tip nose to tip of tail, nineteen inches around the forearm and twenty six and a half inches around the head. In the skull you will notice that the lower right canine tooth has been broken off, but otherwise the teeth are in perfect condition. The skin and skull are in possession of William C. Brown, of Tucson, to whom I am indebted for measurements and photograph. The animal was a male and very fat.”*

Shufeldt (1921) does not include a bibliography so the existence of Mr. Brown’s letter and accompanying photograph are presently unverifiable and unreliable.

Lange (1960) reported,

*“ . . . one was killed on March 16, 1902, in the Rincon Mountains, Pima County.”*

Brown and Lopez-Gonzales (2000) reports,

*“16 March 1902, Rincon Mountains, Madrean Evergreen Woodland/Rocky Mountain Conifer Forest. Male, bayed with dogs and shot by bounty hunters, photographed (Shufeldt, 1921)”*

Brown and Lopez-Gonzales (2001) reports,

*“3/16/1902 ‘Mexican bounty hunters.’ Shufeldt 1921. Arizona Historical Society photograph. M[ale]. Rincon Mtns. AZ. Bayed with dogs and shot. Madrean Evergreen Woodland/ Rocky Mountain Montane Conifer Forest.”*

\*Hatten et al. (2002, 2005) used this record in their models, gave the account a class rank of “1” for the physical evidence, and gave the site description, which they identify as Redington Pass, a rank of “2” for “good,” accuracy of 1.7km-5 km.

It is unclear, however, how Hatten et al. (2005) were able to determine the location with such precision based on the general description “above the Cebadilla.” Nonetheless, they used this account in that manner in their model, thereby compromising its scientific integrity.

Are these the same two Mexican bounty hunters that captured two alleged jaguar kittens for sale in the Chiricahua Mountains in 1906? Might one of these men have been the apprentice of another bounty hunter, Charley Montgomery? How did bounties in Mexico compare with bounties paid by ranchers in Arizona? Were jaguars being chased into Arizona for higher bounties? The answers to these questions are unfortunately unknown.

### **1902, Catalina Mts., “Circumstances unknown,” Coplen or Copelen**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 2

Parker and Coping: Class III (1); unverifiable

Lange (1960) did not mention this jaguar.

Brown and Lopez-Gonzales (2000) report,

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*“1902, Canada del Oro, Catalina Mountains, Riparian within Madrean Evergreen Woodland/Rocky Mountain Montane Conifer Forest, unknown, killed by Monroe Coplen (USFS files, Tucson).”*

Brown and Lopez-Gonzales (2001) report,

*“1902. Monroe Coplen. USFS files. [Sex] “?” Canada del Oro, Catalina Mts., AZ Circumstances unknown. Riparian/Madrean Evergreen Woodland.”*

Since Brown and Lopez-Gonzales state that the circumstances of the kill are unknown, they admittedly had no information regarding how the jaguar arrived at the kill site or where a possible chase or other circumstance leading to this jaguar’s death may have begun. Their assignment of “habitat,” therefore, is obviously wholly speculative and thus unreliable.

Proper FOIA request to U.S. Forest Service Catalina Ranger District produced Housholder (1966), which is two short lists of alleged jaguar occurrences in Arizona. It merely states, “Monroe Copelan, 1902, Catalina Mountains.” Nowhere does it indicate this jaguar was taken in Cañada del Oro.

### **October 1903, Atascosa Mountains, Possible Guided Hunt**

Girmendonk (1994): Class II

Hatten et al. (2002): Class 3 Location 3

Grigione et al. (2007): Class I or II while claiming to use Girmendonk’s classification system

Parker and Coping: Class I (10)- we have a detailed account with photograph; reliable for habitat modeling

Lange (1960) wrote,

*“A jaguar was killed in the Santa Atascosa Mountains, Santa Cruz County, in October, 1903 (originally reported in Amer. Field, 60: 340, 1903)”*

Brown and Lopez-Gonzales (2000) reports:

*“October 1903, Atascosa Mountains, Madrean Evergreen Woodland, unknown (America Field 60:340); Lange, 1960.”*

Brown and Lopez-Gonzales (2001) reports,

*“10/1903 Unknown. American Field (60:340), Lange 1960. Atascosa Mtns AZ. [Sex]? Madrean Evergreen Woodland”*

We have been unable to access *American Field* (60:340) to confirm this information.

Details presented for this account are scant enough that it appears Brown and Lopez-Gonzales speculated in assigning “habitat” to this jaguar as well.

We have discovered a highly detailed account from a source not cited in the literature, of a guided hunt in 1903 that resulted in the taking of a jaguar in the Atascosas.

The PNRCD will share the details with USFWS only when the USFWS fulfills its legal obligation to cooperate with Pima NRC. Until then, we will treat this record as an unreliable account of an imported jaguar taken on a guided hunt. It is possible this record is related to other records, based on our information.

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### **“ca.” 1904, Camp Verde, Mr. West**

Girmendonk (1994): Class III

Hatten et al. 2002: Class 3 location 2

Parker & Coping: Class III (4)- details are too vague; unverifiable

Lange (1960) did not mention this jaguar.

Brown and Lopez-Gonzales (2000) wrote,

*“Mr. West. Housholder 1977, pers. Comm. [sex] “?” Verde River near Camp Verde, AZ. Riparian within Semidesert Grassland”*

Brown and Lopez-Gonzales (2001) wrote,

*“Ca. 1904, Verde River near Camp Verde, Riparian within Semidesert Grassland, unknown, killed by a Mr. West, (B. Housholder, pers. comm.)”*

Brown and Lopez Gonzalez (2001) wrote,

*“Another more-or-less professional hunter, Mr. Lavern West, formerly of Forestdale, Arizona, hunted lions and bears on the White River Apache Indian Reservation from 1916 until the mid-1970’s. West, an Apache tribal member, hunted at various times for clients, the Apache tribe, and the U.S. government. West killed at least one jaguar and possibly others. When interviewed on the evening of August 10, 2000, the 102-year-old man could only recall killing a lot of both species. ¿Quien sabe? His daughter, Charyl Lynn Merino, claimed that West had brought home both lions and tigers but that all of the hides had been sold or given away. Unfortunately, we cannot verify their statements because, any family photographs and memorabilia have been burned by his Apache wife’s family as befits their cultural tradition.”*

This account is unverifiable and therefore unreliable. Furthermore, some of the jaguars Mr. West allegedly killed later in life, if this story is factual, could have escaped from Curtis Prock or other importers. On the other hand, if Brown’s and Lopez-Gonzales’s (2001) statement that West did kill at least one jaguar between 1916 and the mid-1970s is factual, such would not be inconsistent with the record of transient jaguar occurrence in Arizona over time.

### **5/31/1906, Chiricahua Mountains, 2 Mexican bounty hunters, Female w/ 2 cubs**

**No verifiable evidence these were actually jaguars.**

Girmendonk (1994): NA

Hatten et al. (2002, 2005): Class 3 Location 3

Parker and Coping: Class III (1)-Sole observers of the mother had financial conflict of interest, and hide of mother jaguar not independently verified as a jaguar vs. a mountain lion

Lange (1960) did not mention this account.

Brown and Lopez-Gonzales (2000) reports:

*“1 June 1906, Chiricahua Mountains, Madrean Evergreen Woodland, female and two young, female trapped by bounty hunters and kittens offered for sale (Arizona Star; Knipe Collection at Arizona Historical Society, Tucson)”*

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Brown and Lopez-Gonzales (2001) reports:

*“5/31/1906. Unknown ‘Mexicans.’ Arizona Daily Star 6/1/1906. F+2 cubs Chiricahua Mts., AZ Female trapped and cubs offered for sale. Madrean evergreen woodland?”*

Brown and Lopez-Gonzales (2001), implying they found no other possibly verifiable evidence of historical female jaguars with cubs in Arizona.

*“The only actual account of jaguar cubs being taken in the American Southwest, however, is limited to a June 1, 1906 Arizona Daily Star article in which a female jaguar was reportedly killed the Chiricahua Mountains and her two cubs are captured and offered for sale:*

*‘Snarling, fighting, and frantic to break through the wooden cage. . . two tigers were offered for sale by two Mexicans in Bisbee yesterday. Though only a few weeks old the little tigers are full of life. To capture the pups the Mexicans had to shoot the mother tiger who they discovered guarding her young in a lonely part of the Chiricahua Mountains. Asked what price they would take for the tigers the Mexicans stated that they would sell the two of them for \$150 or one for \$80.’”*

The primary resource of this information is an identical article published on May 31, 1906 in the *Bisbee Daily Review* (1906)

It is possible that these are the same two Mexican bounty hunters who allegedly killed a fat male jaguar in the Rincon Mountains in 1902, but we have been unable to verify whether such is actually the case.

Since nobody saw this jaguar except the men who claimed to have killed it, and they surprisingly did not also offer the skin or skull of the mother for sale, it is possible these two spotted cubs were actually mountain lion cubs being offered for sale at a premium price as jaguars. No information exists as to the whereabouts or disposition of the skin or skull of the mother.

In an email of January 27, 2011 to AZGFD jaguar lead biologist Terry Johnson, made public by the Center for Biological Diversity through public records request and then posted on the AZGFD website, David E. Brown likewise questions the authenticity of the cubs. He states,

*There are other questionables—the cubs in the Chiricahuas may have been lions as kittens of both species are spotted...I also agree with you completely that the jaguars taken in Arizona do not represent a known resident, breeding population.”* (Brown, 2011)

Since the mother of the two cubs is not an independently verified jaguar, this record is of no value.

Culver and Hein (2016) states on pages 16-17,

*“...there is no evidence of recent female jaguar dispersal events either into or out of the Arizona/Sonora area. Recent means a minimum of 15 years ago (when the Sinaloa/Jalisco samples were collected; we can not detect anything more recent than that), and a maximum of 350,000 years ago...*

*As of 2016, there is no evidence suggesting the presence of a jaguar breeding population in Arizona.”*

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Without evidence of the skin or a photograph of the mother to prove these were actually jaguars and not lion cubs, this record is unverifiable and unreliable.

### 1904-1907, Patagonia Mountains, “knew of” two jaguars, unverifiable second hand story

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3? Location 3?

Parker and Coping: Class III (1)

Lange (1960) wrote,

*“A memorandum of Vernon Bailey, dated January 20, 1921, states that R. Lee Parker knew of two jaguars killed in the Patagonia Mountains, Santa Cruz County, during the period, 1904-1907.”*

Lange did not cite the specific location where Bailey’s memorandum can be obtained for verification or how Lee Parker knew of these jaguars.

Brown and Lopez-Gonzales (2000) reports,

*“1904-1907, Patagonia Mountains, Madrean Evergreen Woodland, unknown, two jaguars killed by predator hunters (Lange, 1960; fide V. Bailey and R. L. Parker).”*

Brown and Lopez-Gonzales (2001) reports,

*“Unknown. Lange 1960 fide V. Bailey and R.L. Parker. 2[sex] ?? Patagonia Mts. AZ. Two jaguars killed; circumstances unknown. Madrean Evergreen Woodland.”*

Since the reports indicate a specific year in their datasets when the year is known only within a spread of years, Hatten et al. (2002) make it impossible to discern if #7 in their Appendix 1 is this account or another account. Assuming this is the same kill, Hatten et al. (2002) assign 1907 as the year and rank it as class 3 with a site description rank 3. They do not use this account in their model.

Brown and Lopez-Gonzales (2000, 2001) speculate on “habitat” when circumstances of the kill are admittedly unknown.

This is yet another example of vague second hand descriptions of jaguars that could be duplicates of more specific records. The mere fact that Lee Parker “heard” about them does not prove these are unique jaguars unmentioned elsewhere. This record is entirely unreliable.

### 1907, Navajo County, Jaguar Killed

Likely a duplicate version of another vague account

Girmendonk (1994): Class III

Parker and Coping: Class III (1) no verifiable documentation

Girmendonk (1994) mentions this kill without citation to source and without stating any useful details whatsoever. It is impossible to verify whether this jaguar actually existed. Therefore, this report is unreliable on its face.

**1907, Mogollon Mountains near Fort Apache**

Parker and Coping: Class III (4); unverifiable hearsay 15 years after the alleged fact; skin was allegedly observed in 1907 but year of alleged kill is unknown; nothing is known of the observer's credibility; possible duplication of another record; stated location is unreliable

Seton (1929) states:

*In 1922, Dr. Harry Garcelon of Victorville, California told me that in 1907, when in Arizona, he was shown the skin of a Jaguar that had recently been killed on the Mogollon Mountains near Fort Apache. He says Jaguars are still found in the box canyon of the Rio Grande, and in Donna Ana [sic] County, N. M.*

The Mogollon Mountains are in New Mexico and more than 150 miles from Fort Apache, Arizona. The record is unreliable.

**\*Winter 1908, S. Rim Grand Canyon, Hopi Indians, male**

**-Possibly same jaguar as reported being taken between 1909-1918 “not far from the tourist hotel at Grand Canyon village”**

Girmendonk (1994): **Class III** (if record dated 1907 is the same as this record)

Hatten et al. (2002, 2005): **Class I Location 1**

Parker and Coping: Class I (9) but unsuitable for habitat modeling due to suspicious circumstances suggesting it may have been imported by rail (see yellow highlighted text).

Lange (1960) reported:

“Two kills are reported sometime around 1907: **about four miles south of the Rim of the Grand Canyon**, and the Mogollon Mountains, near Fort Apache”

It is entirely possible these “two kills” are actually two different reports of one kill. Lange does not cite any specific source, making the claim unverifiable and therefore unreliable.

(Hoffmeister, 1971) states, without citation to any verifiable documentation:

*“Distribution. Known only in former times (1907 or 1908) from **‘near the railroad about 4 miles south of the canyon rim.’***

*Habits. A jaguar . . . reportedly was killed at the above locality by a group of Indians. The late Major E. A. Goldman, prominent mammalogist, secured the information from the Kolb brothers in 1913. Major Goldman seemed satisfied that the animal was a jaguar. **No specimen of a jaguar has been secured from closer to this locality than Cibecue, Arizona, some 170 miles to the southeast. It is reported that the jaguar in the park was an old animal with much-worn teeth but in fine pelage.** It was tracked on the snow to where it had killed a colt.”*

Hoffmeister (1971) reports nothing further regarding this alleged jaguar kill. Hoffmeister (1971) lacks a bibliography, leaving Major Goldman's reported claims as unverifiable and therefore unreliable.

The comment about “much-worn teeth but in fine pelage” combined with the statistical outlier location, and with the railroad and depot proximity, suggests the animal probably had spent some time in a cage. How else might it have gotten to be “an old animal” without ever being



noticed before?

(Billingsley, 1971, p. p. 81) includes a photograph with the caption,

*“On my second visit to the Hopi land in 1908 the Hopi had just slain this leopard and were dressing out the skin at that time. There are no arrow marks on this pelt. The Hopis claimed they had slain it by hand. Denoting the bravery and skill of the hunters of the Second Mesa. It came into my possession upon the death of my tribal mother Joseanema.”*

Brown and Lopez-Gonzales (2000) reports:

*“Winter 1907-1908, 6.4 km S of Grand Canyon, Rocky Mountain Montane Conifer Forest, male, “old” animal tracked and killed by Hopi Indians; photograph in Billingsley, (1971); Arizona Historical Society Special Collection, Arizona State University, Tempe (Lange, 1960; Hoffmeister, 1971; fide E.A. Goldman and Kolb brothers).”*

The photograph in Billingsley (1971) is the same photograph reproduced in Brown and Lopez-Gonzales (2001).

Brown and Lopez-Gonzales (2001) states that this animal was tracked and **killed on snow in pine forest**. It also states,

*“[t]his is almost certainly the animal photographed in Billingsley 1971.” They admit on p. 40 that, “the idea of jaguars in the Grand Canyon may seem extreme.”*

The implied uncertainty about the latter is not expressed in, and therefore is inconsistent with, Brown and Lopez-Gonzales (2000).

The distance of 6.4 km converts to almost exactly four miles whereas “about four miles” can be taken to mean 3-5 miles or 5-8 km. Or it could mean, “not far from the tourist hotel at the Grand Canyon Village,” as described in the vague 1909-1918 record from the Grand Canyon. If Lange (1960) is the sole source of the location, as appears to be the case here, then there is misuse of significant figures by Brown and Lopez-Gonzales resulting in a fictional increase in the preciseness of the location of this jaguar’s killing for modeling purpose.

\*Hatten et al. (2002) ranked this account as Class 1 (physical evidence) and used this jaguar for modeling. They gave it a “1” ranking as a “good” location.

\*Hatten et al. (2005) likewise ranked this account as Class 1 (physical evidence) and gave the site location description a “1,” meaning within 1.6 km precision. If Brown and Lopez-Gonzales misused significant figures, as appears to be the case here, then Hatten et al. (2002, 2005) carried that error into their models as well, thereby compromising the scientific integrity of those models.

Hatten et al. (2002, 2005) does not say, however, whether they used the location of the kill or the location where the animal’s tracks were first encountered in arriving at this ranking, and we are left with the further question of which end of this jaguar’s trail the habitat description provided by Brown and Lopez-Gonzales (2001) actually represents.

Although the photograph and caption in Billingsley do appear to corroborate the alleged

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Goldman report that a jaguar was killed by the Hopis in 1908, it should be noted that Goldman reported the kill as very near the railroad track. There is no reliable evidence this jaguar was naturally occurring. The reference to the railroad track, the time of year, the distance from the nearest breeding population and the elevation, considered together, cast considerable doubt on any claim that this jaguar arrived there by natural means.

### 1909-1918? Grand Canyon tourist hotel, trapped, sex unknown

**-Likely the same jaguar that eyewitness M.W. Billingsley reported killed by the Hopi Indians 4 mi. south of the South Rim in 1908**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 2

Hatten et al. (2005): Class 2 Location 1

Parker and Coping: Class III (1): incomplete and vague duplicate of another record

Nelson (1918) wrote,

*"They are so strictly nocturnal that their presence in our territory is usually not suspected until, after depredations on stock usually attributed to mountain lions, a trap or poison is put out and reveals a jaguar as the offender. Several have been killed in this way within our border during the last ten years, including one not far from the tourist hotel at the Grand Canyon of Arizona."*

This jaguar, *if it existed at all*, could have arrived by train for any number of reasons -- a circus, an unruly exotic pet being released into the wild, or for sport hunting, to name a few. The Grand Canyon Railway made its first journey to the Grand Canyon Village, carrying passengers, on September 17, 1901. (Grand Canyon Railway and Hotel, Arizona, 2017) Nelson (1918) presents no skull, no skin, no reliable witness, no date, no details about how the animal might have arrived, no circumstances under which the animal was killed, no indication of how far the animal moved between first being spotted and killed, no indication whose stock it may have killed or how many, and no cause of death. In short, Nelson (1919) presents only unverifiable, unreliable hearsay.

How can this have happened in the Grand Canyon Game Preserve? It appears this might be the same jaguar that the Hopi Indians killed about four miles south of the South Rim in 1907. The date range is close enough that this possibility deserves consideration.

Lange (1960) wrote, without questioning the reliability of Nelson's report:

*"E. W. Nelson (Wild Animals of North America, 1918, cited in Seton) refers to a jaguar killed "not far from the tourist hotel at the Grand Canyon" within the period, 1909-1918."*

It is unclear whether Brown (1983) used this account. Brown (1983) fails to present the specific dataset used in his plotting of alleged declining jaguar presence in Arizona – but only did use data since 1900, when a sudden increase of jaguar kills began to occur. Brown and Lopez-Gonzales (2000) and Brown and Lopez-Gonzales (2001) do treat as credible those 19<sup>th</sup> century accounts of James Ohio Pattie, a reputed teller of tall tales, and Phocion Way, an untrained observer, both of which are as unverifiable and therefore as reliable as many of the Lange (1960) accounts he probably did use. (See: Davis, 1982, pp. 184- 185)

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Brown and Lopez-Gonzales (2000) wrote,

*“1909-1918, Grand Canyon, Great Basin Conifer Woodland, unknown, killed, (Lange, 1960; fide E.W. Nelson)”*

The assignment of “habitat” to this jaguar by Brown and Lopez-Gonzales (2000) is speculation.

In contrast to the tone of utter confidence set in their earlier work, Brown and Lopez-Gonzales (2001) this time expresses uncertainty, but again the authors speculate in reporting:

*“1909-1918. Unknown. Lange fide E.W. Nelson. [sex]? Grand Canyon, AZ. Circumstances unknown. Great Basin Conifer Woodland?”*

Hatten et al. (2002, 2005) included this record in their appendix and speculated further, assigning 1918 as the date of the kill. Hatten et al. (2005) also, without explanation, upgraded the location from 2 to 1 and upgraded the class from 3 to 2. Nonetheless, they deemed the report unworthy for use in their models.

McCain and Childs (2008) uses this unreliable record as a key element in its thesis and model – one of numerous fatal errors in the analysis that render its conclusions unreliable.

Grigione et al. (2007) discarded this record as unreliable, excluding it from Table 1.

Grigione et al. (2009) did not specifically list the data they used but stated they discarded unreliable records.

This record is yet another example of a vague description of a single jaguar that may be documented in multiple records as separate and distinct jaguars. This is probably the same jaguar reported as killed in 1907 by the Hopi Indians. (Billingsley, 1971, p. 81)

This record is unreliable.

### Spring 1910, Chiricahua Mountains, Fly Peak

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 **Location 2**

Parker and Coping: Class III (1); unverifiable hearsay with inaccurate citation

Housholder (1958) reports the following, at best, third-hand information:

*“A large female tigre was killed by an unknown cowboy who, while riding the range one spring day in 1910, came upon the jaguar in a canyon **near Fly Peak** in the Chiricahuas.”*

Lange (1960) reports the following inaccurate fourth-hand information:

*“Housholder refers to a 1910 kill in the Chiricahua Mountains, reported to him by Ranger Morrow.”*

The error with this tale is that Housholder (1958) credited Ranger Morrow with telling him a different story, not this one. This record is actually entirely hearsay from an unknown source.

Lange also reports:

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*“I wish to thank Mr. Everett M. Mercer, district agent at the Phoenix office, Mr. Housholder, and Miss Viola S. Schantz and Mr. John L. Paradiso at the Washington office, for their help and assistance. Mr. Mercer and Mr. Housholder also reviewed the manuscript.”*

Brown and Lopez-Gonzales (2000) report the following fifth-hand information:

*“1910, Fly Peak, Chiricahua Mountains, Rocky Mountain Montane Conifer Forest, female, killed by “cowboy” (Housholder, 1958; Lange, 1960; fide AZGFD Ranger R. Morrow”*

Without explanation, Brown and Lopez-Gonzales (2000, 2001) moved the kill site from *a canyon near Fly Peak* to directly *onto Fly Peak*. The canyon could have been several miles away from Fly Peak. Accordingly, the “habitat” reference to Rocky Mountain Montane Conifer Forest provided by Brown and Lopez-Gonzales (2001) for this jaguar is also both speculative and unreliable.

We can see herein, and in other accounts, that many of Housholder’s stories were inaccurate. No editor or author has produced any written documentation from Morrow himself. Apparently, the mere mention of a ranger’s name is enough to satisfy many authors that, not only is the story reliable, but so is the next one after it despite having no citation to any original person. Furthermore, without the name of the cowboy and no record of what happened to the jaguar’s remains, this story could be a duplicate of another record of the same jaguar.

This account is vague, unverifiable hearsay lacking any verifiable documentation, and therefore unreliable.

### **June 1910, Gadsden Hotel showing, E.E. Burden**

Parker and Copping: Class I (9); Location unknown; unreliable for habitat modeling

The *Bisbee Daily Review* (1910) on June 15, 1910 reported the following, which may explain the high number of occurrences of jaguars in southern Arizona at that time, but mention of it is curiously missing from the peer-reviewed literature:

*“El Paso, June 13. – A special from Cananea, Mexico says the forest fires in the Ojo and Manzanal mountains have swept a section of twenty-five miles and are still spreading. Several small mining camps are destroyed and a number of others, including a number of larger towns are threatened.”*

On the same page as the story of the wildfire is a short article about a jaguar kill not mentioned in the scientific literature:

*“Shows Jaguar Skin*

*E. E. Burden, the Moctezuma hunter, is at the Gadsden displaying the handsomely mounted skin of a jaguar, eight feet long which he recently killed. Mr. Burden killed thirty two mountain lions last year and besides an income from the skins which he usually has mounted and offers for sale, he receives from ranch owners from \$10.00 to \$25.00 bounty for each lion, or other animal preying beast killed, the price varying from the size and wealth of the ranches. He has a pack of fox hounds and enjoys the life very much though it is often fraught with danger.”*

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Since it appears that EE Burden was a professional bounty hunter with trained dogs and not a “cowboy riding the range,” this must be a second kill for the year 1910, but we do not know whether the Burden kill took place in Arizona, New Mexico or Mexico. Nor do we know what is meant by, “the Moctezuma hunter.” We do know that Moctezuma is the name of a municipality in northern Sonora, Mexico, located roughly 100 miles due south of Douglas, Arizona. As a result, while it is likely that this jaguar was taken in Sonora, such cannot be stated with certainty.

### **Autumn 1910, Chevelon Creek, Navajo County, George Winslow, female + young**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 2

Parker and Coping: Class III (1)-Account is of no value because there is no verifiable evidence it ever occurred.

Lange (1960) reports:

*“E. W. Nelson **heard that** George Winslow killed a female and her young at the head of Chevelon (Chevelon) Creek, southwest of Winslow, Coconino County, **in the fall of 1910.**”*

By the time E.W. Nelson “heard that,” it was already second or third hand hearsay. Lange fails to cite or reveal the whereabouts of any document written by E.W. Nelson regarding this kill. He does not reveal who told Nelson about it. The necessary paper trail to verify this information runs into a dead end at Lange (1960).

Hoffmeister (1986) reports, with no citation to source:

*“**Supposedly** a female with two cubs were taken in the Grand Canyon area, and a female and a cub were taken at the head of Chevelon Creek, Coconino County.”*

That is all Hoffmeister (1986) says about this record. It is important to note Hoffmeister’s choice of a preface-*supposedly*. It is also important to note that Hoffmeister made no citation to source, clearly signaling that this record has no better reliability than any other urban legend.

It can be safely inferred, therefore, that Hoffmeister had never seen any documentation or other evidence that would corroborate Lange (1960).

Brown & Lopez-Gonzales (2000) report:

*“**October 1910**, Head of Chevelon Canyon, Rocky Mountain Montane Conifer Forest, female and one young, killed (Lange, 1960).”*

Brown and Lopez-Gonzales (2000, 2001), fail to cite the source from which they learned that October was the specific month of these jaguars’ killings and appear to have gotten all their information from Lange (1960). We also have no clue how these jaguars got there, whether they were killed on sight, escaped from a circus train, or how many days or how many miles they may have travelled from where they were first seen or chased by dogs. Not knowing any of this information makes the habitat reference provided by Brown and Lopez-Gonzales both speculative and unreliable.

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Considering the recent placement of Carlos Lopez-Gonzales at the head of the Jaguar recovery team by USFWS, it is safe to assume he and Brown had full access to all USFWS and AZGFD original documentation. Nevertheless, Brown and Lopez-Gonzales merely cite Lange (1960), indicating that no additional information lies within the government files.

A search of digitized historical newspapers nationwide (Library of Congress, Chronicling America) revealed no corroborating evidence whatsoever of this account.

This account has no verifiable documentation and is therefore entirely unreliable and of no scientific value. Nonetheless, the USFWS (2016) Draft Jaguar Recovery Plan states on page 10,

*Three records of females with cubs have been documented in the U.S. (all in Arizona), the last in 1910. (Lange 1960, Nowak 1975, Brown 1989)*

Neither Nowak (1975) nor Brown (1989) can be found anywhere on the internet, nor was either document provided to the Pima NRC in response to our proper FOIA request. Furthermore, David E. Brown and Carlos Lopez-Gonzales (2001) state on page 34,

*“**The only actual account** of jaguar cubs being taken in the American Southwest, however, is limited to a June 1, 1906 Arizona Daily Star article in which a female jaguar was reportedly killed the Chiricahua Mountains and her two cubs are captured and offered for sale [highlight added].*

Therefore, it appears even David E. Brown now considers this 1910 “record” wanting for verifiable evidence. Additionally, he stated in an email of January 27, 2011 to AZGFD jaguar lead biologist Terry Johnson, (which was made public by the Center for Biological Diversity through public records request and then posted on the AZGFD website),

*“I also agree with you completely that the jaguars taken in Arizona do not represent a known resident, breeding population.” (Brown, 2011)*

Finally, Culver and Hein (2016) states on pages 16-17,

*“...there is no evidence of recent female jaguar dispersal events either into or out of the Arizona/Sonora area. Recent means a minimum of 15 years ago (when the Sinaloa/Jalisco samples were collected; we can not detect anything more recent than that), and a maximum of 350,000 years ago...*

*As of 2016, there is no evidence suggesting the presence of a jaguar breeding population in Arizona.”*

Therefore, the entire account is unverifiable, unreliable, and of no scientific value.

### **\*January 6-12, 1912, Chiricahua National Monument, Frank Hands**

#### **Sex unknown, skin at Portal museum**

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1

Hatten et al. (2002): Location 2

Hatten et al. (2005): Location 1

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

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Parker and Copping, Class I (9); location reliable for habitat modeling

Seton (1929) quotes a letter from Dr. Vorhies, in which he states that in 1918, he saw the skin of a jaguar owned by Edward J. Hands.

In 1915, Professor Charles T. Vorhies (1879-1949) left his position as Professor of Zoology and Botany at the University of Utah to join the faculty at the University of Arizona, where he spent the next 33 years in a wide variety of roles. In addition to his initial position as a teaching professor, he also served as the curator of zoology for the University's natural history museum, economic zoologist for its Agricultural Experiment Station, Acting Dean of Agriculture, and Acting President of the University. (Brown, Babb, & Johnson, 2015)

In 1921, Dr. Vorhies wrote to Edward Hands's brother Percy Hands for details on the jaguar they killed. Seton (1929) quotes verbatim from the response letter written to Vorhies by eyewitness Percy Hands. Mr. Hands mentions that he was the first to see the tracks of this jaguar, on the east side of the Chiricahua Mountains on January 6, 1912. The jaguar was believed to have been killing stock and horses on the west side of the Chiricahuas and stock on a small ranch on Bonita Peak, but this had been thought to be a lion before the tracks were first seen. Tommy Stafford set a bear trap for it on Bonita Peak after a cow and calf were killed there. The jaguar had been trapped on that ranch, but escaped dragging the 19-pound bear trap with it. The jaguar was eventually chased into, and shot, in a cave on Bonita Peak on January 12, 1912. Percy hands tracked the jaguar into the cave, and climbed inside and found the jaguar. Once he was safely outside, Frank Hands shot it.

Calahane (1939) reports, without citation to source,

*“The Hands brothers, John, Frank, Hi and Percy, killed a jaguar near the present Chiricahua National Monument, some time between January 1 and 12, 1912. The skin of this animal is in the collections of the University of Arizona. According to F.H. Hands, the jaguar had killed a cow and a calf at the forks of Bonita Canyon above Faraway Ranch (North of Pinery Canyon, on the west slope of the mountains). A trap was set at the carcass and a week or ten days later the cat was caught. As the drag broke, the jaguar was able to retreat into the mountains where it was cornered in a small cave and killed. Its length was 7'9”.* According to John Hands, it was in prime condition with 4 or more inches of fat on the abdomen.”

It appears Calahane may have personally interviewed Frank Hands, but if he did, the interview took place 27 years after the event.

Lange (1960) reports:

*“The skin of the jaguar trapped and shot near the Chiricahua National Monument, Cochise County, on January 12, 1912, is in the collection of the Department of Zoology, University of Arizona.”*

Housholder (1958) reports, without citation to source:

*“Old-timers will remember Frank Hand and his hunting exploits in southeastern Arizona. It had been reported that a large cat had killed a cow near what is now the Chiricahua National Monument, in the fall of 1914. A man named Stafford was called in to trap the animal. He rigged a large steel trap with a log drag and waited. Two days*

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*later, he was astonished to discover both trap and drag gone. The trail led across a boulder field and Stafford eventually lost it. Hand came in with hounds and, living off the country, followed the trail four long days. Finally toward evening that fourth day Frank found the jaguar, the drag had finally caught on two trees. A single pistol shot dispatched the tigre. The immense strength and stamina of the jaguar is a known fact and should never be underestimated, for Frank's tigre, with one foot in a trap, had dragged a 150-pound log for more than 30 miles!"*

It appears Housholder's source is hearsay from "old timers" he may have personally interviewed, although he makes no claim that he did. Hearsay is unverifiable and unreliable. In addition, the date of the event according to Housholder is 1914, not 1912. This, compared to the trustworthy Seton (1929) version, serves as a primary example of the inaccuracies and fictional embellishment to be found in hearsay accounts.

Brown and Lopez-Gonzales (2000) reports:

*"January 1912, Bonita Canyon, Chiricahua Mountains, Madrean Evergreen Woodland, unknown, trapped and followed up with hounds, ca. 9.5 years old, photographs (Riggs family diary and photo album; Calahane, 1939; O'Connor, 1939; skull and hide at Portal."*

Brown and Lopez-Gonzales (2001) reports:

*"Frank Hands. Calahane 1939. O'Conner 1939, Housholder 1958, Lange 1960. Hands diary and photographs by Riggs family; hide with skull in possession of Ted Troller, Portal, AZ. Sex M? Bonita Canyon, Chiricahua Mtns., AZ Trapped before being trailed and bayed with hounds during snowstorm. Described as "him" by Percy Hands in Seton (1929). TL=93."*

Brown and Lopez-Gonzales (2001) reports,

*"The big cat proved to be elusive, however, and several days passed before Hands cut fresh sign, again in Bonita Canyon. This version of the story contains the most detail, taking up nearly two pages. They also mention that the hide was transferred from the Arizona State Museum to a small museum in Portal, and then state that it is in the custody of Ted Troller."*

Between the many editors and authors, however, each seems to embellish the story a little more than the previous writer and yet most fail to cite the physical location of the source where they acquired their unique details of the story. Brown and Lopez-Gonzales fail to mention where they acquired the Hands diary or where one might find it for verification.

In addition, some details of the various stories do not match, without explanation of the differences, rendering those details unreliable. One example is Housholder's account that the log caught on the trees vs. the version told by Brown and Lopez-Gonzales (2001) that the jaguar was trapped and shot inside a cave. Another example is the statement by Housholder (1958) that the hunt took two days and covered 30 miles whereas other accounts indicate it took 4-6 days and ended up near the place where it began. Since Brown and Lopez-Gonzales did not actually quote from the Hands diary, their account is a second-hand version.



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For this account, Brown and Lopez-Gonzales (2000, 2001) assigned the “habitat” to the location where the jaguar was first seen feeding on livestock.

\*Hatten et al. (2002, 2005) used this record in their models, and ranked this jaguar as class 1. Hatten et al. (2002) assigned a “2” for a “fair” location. Accordingly, the assigning of a number 2 ranking for this jaguar record by Hatten et al. (2002) is both speculative and unreliable.

\*Hatten et al. (2005), without explanation or citation to new information, upgraded the ranking of the site description from “2” to “1”— indicating that the location is somehow now known to be within 1.6 km. Failure to cite a source of information justifying the upgrade makes the location unverifiable and unreliable for modeling purposes.

### February 1912, Winslow, Lon King, 2 jaguars poisoned, second hand story w/o citation

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 2, citing location as **Sunset Pass**

Parker and Coping: Class III (1): unverifiable hearsay

Lange (1960) reports the following, at best, fourth-hand information,

*“Nelson also heard that Lon King poisoned two jaguars in the mountains west of Sunset Pass, south and west of Winslow, Coconino County, in February, 1912”*

Brown and Lopez-Gonzales (2000) wrote the following fifth-hand information,

*“February 1912, W of Sunset Pass, SW of Winslow, Great Basin Conifer Woodland/Rocky Mtn Montane Conifer Forest, unknown, 2 jaguars poisoned as stock killers, Lane [sic] 1960, fide E.W. Nelson”*

Brown and Lopez-Gonzales (2001) wrote,

*“Lon King, Lange 1960 fide E.W. Nelson. W of Sunset Pass SW of Winslow, AZ. Two jaguars poisoned as stock-killers. [sex]?? Great Basin Conifer Woodland/Rocky Mtn. Montane Conifer Forest”*

Lange did not cite his specific source on this information. It is therefore unverifiable and unreliable.

### 1912, Bozarth Mesa, Bozarth and Contreras

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 2

Parker and Coping: Class III (1): unverifiable hearsay

Housholder (1958) reports,

*“The former sheriff of Prescott, Orville Bozarth, was in on the kill of a large tigre on the Bozarth Mesa, 65 miles northwest of Prescott, in 1912. He and some cowboys were rounding up cattle one afternoon when they noticed a jaguar standing over a colt it had just killed. Orville and Ed Contreras took after the cat on their horses. The jaguar would easily outdistance the horses, then stop where it had protection from the rear, turn, and*

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*prepare to fight. Finally Bozarth succeeded in roping the cat!" Housholder continues the story that, being unarmed, the men dismounted their horses and heaved rocks at the enraged cat for thirty minutes until one hit the cat in the temple. "*

Lange (1960) reports,

*" . . .one was taken in 1912 by Bozarth and Contreras 65 miles northwest of Prescott"*

Brown and Lopez-Gonzales (2000) wrote,

*"1912, 100 km NW of Prescott on Bozarth Mesa, Semidesert Grassland/Chaparral, [sex] unknown "adult" animal roped and killed with rocks, (Housholder, 1958; Lange, 1960)"*

Brown and Lopez-Gonzales (2001) reports,

*"O. Bozarth and E. Contreras. Housholder 1958, Lange 1960. [sex] ? 65 mi NW of Prescott on Bozarth Mesa, AL "Adult" animal roped and killed with rocks. Semidesert grassland/ chaparral"*

### **"Around" 1912, Rincon Mountains**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 3

Parker and Coping: Class III (1): vague, unverifiable hearsay

Seton (1929) quoted a letter from C.T. Vorhies wherein Vorhies reported numerous vague, poorly detailed alleged accounts of jaguar sightings and kills. Vorhies did not state whether he actually saw the remains of these kills.

Lange (1960) reports,

*"C. T. Vorhies (in Seton) reported one taken . . . Pima County, around 1912, and one was killed in the adjacent Rincon Mountains in 1912."*

Brown and Lopez-Gonzales would have had access to all USFWS and AZGFD files and yet state nothing new regarding this jaguar. No indication was made whether this jaguar or its remains were actually seen by a reliable witness, and we are not given the date when Vorhies allegedly made this report.

Brown and Lopez-Gonzales (2000) reports,

*"1912, Rincon Mountains, Madrean Evergreen Woodland? [sex]unknown, killed, (Lange, 1960; fide C. T. Vorhies)."*

Brown and Lopez-Gonzales (2001) wrote,

*"1912 Unknown Lange 1960 fide C.T. Vorhies. Rincon Mts, AZ, Madrean Evergreen Woodland?"*

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Brown and Lopez-Gonzales (2000, 2001) cites no reference material that would provide useful details of the kill. Brown and Lopez-Gonzales (2000, 2001) are therefore speculating about “habitat” and admit as much by their use of a question mark.

This is yet another unreliable, sparsely detailed report that may be duplicated elsewhere in the scientific literature, in more detail, as a separate jaguar kill.

### **Around” 1912, Santa Catalina Mountains**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location 3

Parker and Coping: Class III (1): unverifiable hearsay

Lange (1960) reports,

*“C. T. Vorhies (in Seton) reported one taken in the Santa Catalina Mountains, Pima County, around 1912”*

Brown and Lopez-Gonzales (2000) wrote,

*“ca. 1912, Catalina Mountains, Madrean Evergreen Woodland, unknown, killed, (Seton, 1929; Lange, 1960 fide C. T. Vorhies).”*

Brown and Lopez-Gonzales (2001) wrote,

*“Ca. 1912. Unknown. Lange 1960 fide C.T. Vorhies, Seton 1929. [sex]? Canyon del Oro Catalina Mts. Shot while feeding on prospector’s burro. Madrean Evergreen Woodland?”*

Brown and Lopez-Gonzales (2000, 2001) both speculate about “habitat” and admit so by use of a question mark.

This is yet another example of an unreliable, sparsely detailed report that may be duplicated elsewhere in the scientific literature, in more detail, as a separate jaguar kill.

### **1913, Tortolita Mountains, J. H. Durham**

Girmendonk (1994): **Class II**

Hatten et al. (2002): **Class I** Location 3

Parker and Coping: Class II (7); skin verified by Goldman; unreliable for habitat modeling

Seton (1929) wrote,

*E.A. Goldman sends me the following additional Arizona record. A Jaguar was*

*“killed by J.H. Durham at his cattle ranch in the Tortolita Mountains, about 30 miles northwest of Tucson in 1913. I saw the skin of this jaguar. The Jaguar seems to cross the Mexican line much more frequently than the Ocelot.”*

Lange (1960) wrote,

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*“E. A. Goldman saw the skin of a jaguar taken in the Tortolita Mountains, about 30 miles northwest of Tucson, in 1913.”*

Lange leaves his readers wondering whether the jaguar was killed in 1913 or Goldman saw the skin in 1913. The cited reference to Goldman (1932) mentions skins examined from Cibecue, Greaterville and Nogales; but none from the Tortolita Mountains. There is no citation to allow the reader to find the document(s) E.A. Goldman allegedly wrote.

Brown and Lopez-Gonzales (2000) wrote,

*“1913, Tortolita Mountains, Sonoran Desertscrub/ Semidesert Grassland, unknown, killed, (Seton, 1929; E. A. Goldman saw skin).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1913. J.H. Durham. Lange 1960 fide E.A. Goldman and E.T. Seton (1929), who saw the skin. [sex]? Tortolita Mtns. (Durham Hills?) AZ. Killed by Rancher. Circumstances unknown. Sonoran desertscrub/semidesert grassland.”*

Since the circumstances of the kill are unknown, and no information is available to inform us whether hounds or some other force either drove or lured the jaguar into the kill zone from another location, the assignment by Brown and Lopez-Gonzales of “Sonoran desertscrub/Semidesert grassland” to the jaguar’s “habitat” is pure speculation.

### **1913, Red Mountains, N. of Clifton, old male, per Ben Lilly**

Girmendonk (1994): NA

Hatten et al. (2002): Class 3 Location 2

Parker and Coping: Class II (7); location unreliable for habitat modeling due to contradictions between published accounts

As recounted in Lilly (1998) – On April 21, 1916, Ben V. Lilly wrote a letter to Dr. Albert K. Fisher, a senior biologist at the Biological Survey in Washington, D.C. in which he declared,

*“I am writing to you for fear Dr. C. Hart Merriam will be a way and the wart on the lion skin might be over looked or cut off not Knowing the intention of my Sending the hide.”*

In the same letter he wrote,

*“There was a jaguar killed about two years ago on the red hills about 5 miles south of Casper’s. It was a male. The hide made in a rug measures 96 inches from tip of tail to End of nose and was 32 inches across the bodeye from one Side to the other.”*

*“. . . Kindest regards to Dr. C. Hart Merriam and all the others. Regards to Mr. Ned Holister. I wish you could take a hunt with me. I have some Very good lion hounds now. . . I thank you very mutch for Sending Mr. Ligon around to See me. I will do all I can to assist your enterprise. Your best friend  
B.V. Lilly”*

The 1916 date on Lilly’s letter would have put the kill in 1914 but in his discourse written many years later he states that he saw the skin in 1913.

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Carmony says he does not know the year when Lilly wrote his discourse on mountain lions, but he was “up in years” at the time. Lilly lived into his 70’s and died of dementia. (Dobie, 1981) Whether that disease affected his memory in recalling this story is unknown. In the discourse Lilly wrote,

*“The Jaguar showed he was a real old fellow . . . The Second year there was reported that there was a man in Clifton Arizona who Killed a Leopard in the red mountains about 45 miles North of Clifton 30 miles west of Alma New Mexico. This man was hunting deer and Shot the Jaguar and wounded him badly and when he reached the place where he Saw it Struggling he was Frightened to find a full grown Jaguar Struggling trying to get away. The Jaguar had Killed a deer. Mr. Tol [Toles] Cospes who lived about 15 miles North on the Blue River Showed me the Skull. It was a male. Old one.”*

Lilly goes on to describe in detail the growth of the sagittal crest, which is a ridge on the skull of male cats and other species, and that this part of the skull in males never stops growing, in contrast to females and young males. He also describes this jaguar’s skin in detail, including the shade of yellow, the spots and the hide’s measured dimensions. He then states, regarding the skin,

*“ I looked over it closely. This was in 1913 I saw it and from the description the man [a man he stated earlier that he’d spoken with in 1911] gave me of the animal he saw on Dry creak in New Mexico it must have spent some time in the Dry creak country. They Said it had been Seen and its tracks were there up to 1911 any way but no one Saw his tracks after I offered \$10.00 for one track.”*

Carmony’s inserted annotations indicate that the red mountains Lilly referred to are actually 30 miles north of Clifton and 20 miles west of Alma. That is about the same location of Red Mountain. Lilly’s description sounds more like the jaguar was killed down in the nearby foothills. Lilly stated in his discourse that he never worked more than ten miles west of the New Mexico border. He therefore probably had not visited this location personally previous to the time he saw the jaguar’s skin. Lilly would have been able to accurately describe distances if he had.

Brown and Lopez-Gonzales (2000) wrote,

*“1913, Red Mountain, N of Clifton, Chaparral/ Madrean Evergreen Woodland, male, killed by deer hunter (B. V. Lilly cited in Carmony, 1998).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1913. Unknown deer hunter fide B.V. Lilly in Carmony. M. Red Mtn. N of Clifton, AZ. Madrean Evergreen Woodland”*

Here, Brown and Lopez-Gonzales, with Carmony’s help, speculatively pinpoint a location that originally was relayed with a poor second-hand description by a person who had never been there. With this as their foundation, they then speculate, as if it is a confirmed fact, that the “habitat” of this jaguar that they know nothing about, except that it died, is Madrean Evergreen Woodland.

Hatten et al. (2002) likewise had to have speculated in assigning a “2” to the location of this kill.

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Brown and Lopez-Gonzales (2001) also wrote,

*“Hunting deer and other big game as an avocation rather than to fulfill a need did not really take hold in the United States until after the turn of the [20<sup>th</sup>] century. But by the time Congress approved statehood for Arizona and New Mexico in 1912, a substantial number of citizens were enjoying enough leisure time to consider themselves sportsmen. Accordingly, the first jaguar known to have been shot by a sports hunter was in November 1913 north of the mining town of Clifton, Arizona.”*

Hatten et al. (2002, 2005) consider this an unreliable second hand account and did not use it in their models.

Descendants of the Cosper family have no recollection of this jaguar. Pima NRCD Supervisor Jim Chilton contacted a Cosper family member who lives in the Cosper Blue area and inquired about this jaguar and the jaguar Ben Lilly allegedly reported. Mr. Chilton then emailed Cindy Coping on October 3, 2013 and reported,

*He had never heard any relative who ever mentioned any Cosper stating that they had killed a Jaguar or seen a dead Jaguar carcass.*

### **\*1916, Upper Canyon del Oro, Catalina Mountains**

Girmendonk (1994): NA

Hatten et al. (2002, 2005): Class 1 Location 3

Parker and Coping: Class III (1); no citation to verifiable primary documentation—unverifiable

(Brown, 1997b) included this record as No. 16 in a table entitled, “Jaguars Known And Reported Killed Or Photographed Since 1890.”

Brown and Lopez-Gonzales (2000) wrote,

*“1916, Upper Canon del Oro, Catalina Mountains, Riparian within Madrean Evergreen Woodland/Rocky Mountain Montane Conifer Forest, male, possibly trapped; skin obtained by William F. Cody at Campo Bonito (Coronado National Forest files, Tucson).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1916. Unknown ‘Mexican’ Skin obtained by W. F. Cody for his ranch at Campo Bonita. USFS files. Upper Canada del Oro, Catalina Mtns, AZ. Trapped? M. Riparian/Madrean Evergreen Woodland/Rocky Mtn Montane Conifer Forest”*

Brown and Lopez-Gonzales do not know how the animal was killed or whether it was trapped or chased by hounds for several days from an unknown starting location before it was killed. As such, their statement about this jaguar’s “habitat” is speculation.

\*Hatten et al. (2002, 2005) used this record in their models and ranked it as a Class 1 based on Brown and Lopez-Gonzales (2000,2001).

\*Hatten et al. (2005) assigned a “3” for location description, meaning “fair” with 5.1-8 km precision.

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In 2012, Brown (1997) was the earliest author we had found to mention this jaguar. He cites USFS files for this information, but our FOIA request to the Coronado National Forest office in Tucson for all original documentation of jaguars yielded no such information. The FOIA respondent, Marc Kaplan, told us that some records are destroyed after a certain length of time. The entire record was absent from the response we received, and is therefore unverifiable and unreliable.

### **\*May 11, 1917 Greaterville, AZ, E.J. O’Doherty, USNM 225613, M**

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1 Location 1

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

Parker and Coping: Class 1(9); reliable for habitat modeling

Note: Helvetia and Greaterville are about 10 miles apart on opposite sides of the Santa Rita mountain range.

Housholder (1958) reports:

*“E.J. O’Doherty trapped and killed a large tigre in the Santa Rita mountains near Helvetia in 1917. This jaguar ranks high in the record book.”*

As of 1958, this jaguar’s skull ranked 11<sup>th</sup> largest of all measured jaguars worldwide.<sup>2</sup> (Waters & Boone and Crockett Club, 1964, pp. 355- 357) Lange (1960) reports:

*“The National Museum has the skin and skull of a male jaguar taken by E. J. O’Doherty on May 11, 1917, three miles west of Greaterville, Pima County; this is the large old male reported by Vernon Bailey in his memorandum of January 20, 1921.”*

Lange (1960) gives no citation mentioning where the memorandum of Vernon Bailey might be obtained for verification, but does imply it may be in the USFWS files. The Pima NRCDC cannot verify this account because the USFWS failed to honor a proper FOIA request specifically asking for this information.

Records received from the National Museum of Natural History, which holds the skin and skull of this jaguar under catalog no. 225613, indicate this male jaguar was taken by E.J. O’Doherty on May 11, 1917, at Helvetia.[sic] Remarks indicate the location was edited in the Biological Survey X-Catalog to read: *“10 mi south Helvetia, 3 mi W Greaterville P.O.”* No date of the editing, or explanation for it, was given.

Brown and Lopez-Gonzales (2000) state,

*“5 November 1917, Helvetia [sic] (Santa Rita Mountains), Madrean Evergreen Woodland/Chaparral, male, trapped by federal predator control agent as a stock-killer (Nelson and Goldman, 1933; USFS files; USNM 225613)”*

Brown and Lopez-Gonzales (2000) inaccurately state that this jaguar was taken November 5, 1917, transposing the date of 5/11 to 11/5.

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<sup>2</sup> This jaguar had a skull score of  $16^{14/16}$ , greatest length without lower jaw  $10^{1/16}$  in. and greatest width  $6^{12/16}$  in.

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Brown and Lopez-Gonzales (2001) state,

*“5/11/1917 E.J. O’Doherty (PARC). Nelson and Goldman 1933, Housholder 1958, Lange 1960, USFS files. Skull in USNM. M, Helvetia (Santa Rita Mtns.), AZ. Trapped as a stock killer. Madrean Evergreen Woodland.”*

\*Hatten et al. (2002, 2005) used this record in their models, gave this record a Class 1 ranking, and assigned a “1” for a “good” location description, meaning a precision within 1.6 km. Given the facts stated above, that conclusion is both unsupported and unreliable.

### 1918, Santa Rita Mountains

Girmendonk (1994): NA

Hatten et al. (2002, 2005) Class 3

Parker and Coping: Class III (1): Likely an incomplete and inaccurate duplicate of another record; cited to an unverifiable reference; likely a duplicate of another record.

Lange (1960) reports the following, at best, fourth-hand information,

*“Stanley P. Young, in a letter to W. B. Bell, dated March 10, 1932...reports a jaguar that was trapped in the Santa Rita Mountains, Santa Cruz County in 1918. The locality was near the base of Old Baldy (Mt. Wrightson) at about 7,000 feet.”*

Lange (1960) fails to cite the specific location where this letter that was allegedly written 14 years after the event can be found for verification.

Brown and Lopez-Gonzales (2001) reports:

*“Winter 1917-1918, base of Mt. Baldy, Santa Rita Mountains, 2,134 m elevation, Rocky Mountain Montane Conifer Forest/Madrean Evergreen Woodland, unknown, trapped by predator control agent as a stock-killer (Seton, 1929; fide S.P. Young; USFS files, Tucson.)”*

Brown and Lopez-Gonzales (2001) does not cite Lange or Housholder but cites other sources and states the elevation as *exactly* 2,134 meters. The conversion of that figure to feet is 7,001 feet. It appears that somewhere along the way, someone converted exactly 7,000 feet to meters and in doing so, improperly and unscientifically increased the number of significant figures, thus falsely suggesting that the location and elevation of this kill is much more precisely known than it actually is. Such an approach is speculative, unreliable and unscientific.

Although Brown and Lopez-Gonzales cite USFS files in Tucson, the response to our FOIA request from the same office yielded no such information.

Government trappers were required to turn over jaguar skins and skulls to NMNH, (Brown & Lopez-Gonzales, 2001, p. 98) yet neither skin nor skull are verifiable for this record.

Instead, this sounds suspiciously like a duplicate record of the jaguar trapped by Lee Parker near the base of Old Baldy.

This record is unreliable.



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### \*April 22, 1919, Greaterville, R. Lee Parker, NMNH 231961, female

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1 Location 1- (Note: the authors do not make it clear that this is the same 1919 record to which their classification refers)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system

Parker and Coping: Class I (9) but location cited to an unverifiable document is unreliable for jaguar habitat modeling.

Housholder (1958) reports:

*"Lee Parker, uncle of the well known big game hunter, George Parker of Amado, trapped and killed a jaguar near Greaterville, in the Santa Rita mountains in 1918."*

Lange (1960) reports:

*"The National Museum has the skin and skull of a female taken on April 22, 1919, six miles northwest of Greaterville, Pima County, by Lee Parker. This is the old but not very large female reported by Bailey in his memorandum dated January 20, 1921: Bailey gives the locality as the ridge east of the Parker Ranch (the Old McBeth Ranch) at the North end of the Santa Rita Mountains, near Castle Dome; the date as June, 1919; and the collector as R. Lee Parker."*

Lange gives no citation to where the memorandum might be located for verification. If it is in the USFWS files, it was excluded from the agency's response to PNRCD's FOIA request for historic jaguar documentation. The PNRCD is unable to verify this information and cannot, therefore, consider it reliable.

The National Museum of Natural History holds the skin and skull of this jaguar under catalog number 231961. The museum's records show Lee Parker collected this female jaguar at Greaterville on April 22, 1919.

Brown and Lopez-Gonzales (2000) reports:

*"April 1919, Greaterville (Santa Rita Mountains) Madrean Evergreen Woodland, female, trapped by federal predator control agent as a stock-killer, "adult" (USFWS files, Phoenix; USNM 231961)"*

The Pima NRCDC learned from this record in Brown and Lopez-Gonzales (2000) that the USFWS has information in its files in Phoenix that it has failed to share with the Pima NRCDC even after this information was specifically and directly requested under FOIA from the Phoenix USFWS office by the PNRCD.

Brown and Lopez-Gonzales (2001) wrote,

*"4/22/1919. R. Lee Parker (PARC) USFS Files, Housholder 1958. Skin and skull in USNM. Greaterville, AZ trapped and killed as stock-killer. "Adult." Madrean Evergreen Woodland."*

It is unclear from the information presented how Brown and Lopez-Gonzales obtained the information that this particular jaguar was being specifically targeted for killing stock. It is possible Mr. Parker set a trap for wolves, mountain lions or coyotes and happened to catch a

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jaguar. Without access to the primary documents held by the USFWS, the PNRCD cannot verify that this new information is reliable.

\*Hatten et al. (2002, 2005) reference a jaguar killed in the Santa Rita Mountains in 1919 and incorporate it in their models. Since this record is far more detailed in describing the location than the other 1919 record their cited references include for the Santa Rita Mountains, we speculate that this is likely the jaguar they refer to in Appendix 1. They gave this record a class 1 ranking for physical evidence and a ranking of “1” for location description, meaning within 1.6 km precision.

### **Santa Rita Mountains; Winter of 1919 -1920**

Girmendonk (1994) Table 3 gives the reader the following multiple choices: Pima 1920 Class II, OR Pima or Santa Cruz 1920 Class III

Hatten et al. (2002) likewise give the reader a multiple choice: 1919 Class 1 Location 1 OR 1920, Class 2 Location 3.

Hatten et al. (2005) also gives the reader a multiple choice: 1919 Class 1 Location 1 OR 1920 Class 2 Location 4

Parker and Coping: Class III (1): vague, no details; likely a duplicate of another record

Seton (1929) quotes a letter sent to him in 1922 by Professor Charles T. Vorhies, which states,

*“...I can only say that two Jaguars have been taken in the Santa Rita Mountains since I have been more or less acquainted with that country. These were taken by government trappers, and the only way to get certain dates would be through Musgrave. However, my own recollection . . . is that the first one was taken about 5 years ago, which would make it the winter of '17 to '18; and the second about three years ago, or the winter of '19-'20.”*

Since Vorhies indicates the two jaguars were both taken by government trappers, he must be referring to the male jaguar taken near Helvetia by E.L. O’Doherty on May 11, 1917 and the female jaguar taken near Greaterville by R. Lee Parker on April 22, 1919.

Lange (1960) reports:

*“Vernon Bailey, in his 1921 memorandum, stated that: "Another was killed west of the Santa Rita Mountains last year but I did not get the details or the exact locality.*

Lange’s citations provide no information where to find this “1921 memorandum” for verification. It is not listed in his bibliography. The memo’s existence is unverifiable. However, assuming the referenced Bailey memorandum does exist, it appears from the similarities that Bailey may have seen the 1921 Vorhies letter to Seton but was unable to recall it entirely.

Brown and Lopez-Gonzales (2000) reports:

*“Winter 1919-1920, W of Santa Rita Mountains, Semidesert Grassland/Madrean Evergreen Woodland, killed by government hunters as a stock-killer (Seton, 1929, fide V. Bailey; Lange, 1960; USFS files, Tucson.”*

Brown and Lopez-Gonzales (2001) wrote,

*“1920. Unknown. Lange 1960 fide V. Bailey, USFS files. ‘Killed’ W. of Santa Rita Mtns, AZ. Semidesert grassland/Madrean Evergreen Woodland.”*

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This record appears to be an error that duplicates the R. Lee Parker jaguar into the appearance of two different jaguars, simply because the same jaguar was reported by multiple sources in slightly different ways, with each recitation of the story straying a little farther from reality.

Brown and Lopez-Gonzales (2001) Appendix 3 includes a copy of a 12/4/1920 report of big game killed on the Coronado National Forest during 1920. The report shows two jaguars killed, but only one in the Santa Rita district, per Ranger Scholefield.

Brown and Lopez-Gonzales (2000, 2001) had to rely on Seton (1929) to state that they knew this event occurred in winter, and that they know government predator control agents killed the animal. They do not state how they know whose stock this jaguar was allegedly killing.

This account lacks any details about the incident or whether the jaguar moved over a long distance during the hunt and before it was killed. The “habitat” determination by Brown and Lopez-Gonzales (2000, 2001) is therefore speculative.

This record appears to duplicate the R. Lee Parker jaguar record into the misinformation that two jaguars were taken when only one actually existed.

On the timeline of jaguar kills in southern Arizona, this account is suspiciously close to the January, 1920, jaguar killed on a hunt guided by Billy Chester in the nearby Rincon Mountains. Additionally, we have found evidence that suggests Chester may have been seeding jaguars in Arizona for his high profile clients, as described later herein.

### **January 10, 1920, Rincon Mountains, Billy Chester & Stanley Graham, guided hunt**

Girmendonk (1994): By omitting details from Table 3, Girmendonk (1994) gives the reader a multiple choice to guess how she assessed the record for this jaguar: Pima 1920 Class II OR Pima or Santa Cruz 1920 Class III.

Hatten et al. (2002) Class 2 Location 3

Hatten et al. (2005) Class 2 Location 4

Parker and Coping: Class III (3): Guided hunt, **may have been “canned.”**

Lange (1960) reports:

*“The Holbrook Observer on January 20, 1920, reported a jaguar killed in the Rincon Mountains, Pima County, on Saturday.”*

Brown and Lopez-Gonzales (2000) reports:

*“20 January 1920. Rincon Mountains, Madrean Evergreen Woodland/Rocky Mountain Montane Conifer Forest, killed by S. R. Graham and party; “large,” reported in Holbrook Observer (Seton, 1929; USFS files, Tucson).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1/1920. Stanley Graham and party. Seton 1929, Lange 1960, Holbrook Observer, USFS files. ‘Killed’ in Rincon Mtns., AZ. Madrean Evergreen Woodland?”*

Brown and Lopez-Gonzales (2001) Appendix 3 shows a copy of a tabular report on big game killed in the Coronado National Forest in 1920. It shows one jaguar killed in the Rincon Mountains.

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Brown and Lopez-Gonzales (2000, 2001) state that the “habitat” of this jaguar is Madrean Evergreen Woodland, although they neither present nor cite information on how far the animal was chased to provide evidence supportive of that claim. It is therefore speculation.

Brown and Lopez-Gonzales (2000, 2001) also state in the introduction to the records in the Appendix that “[t]hese accounts do not include guided hunts.” They also speculate – inaccurately – that this was not a guided hunt.

An article printed January 16, 1920 in the *Coconino Sun* indicates the information presented by Brown and Lopez-Gonzales (2000, 2001) is inaccurate. The correct date of this jaguar’s kill is January 10, 1920.

*The Coconino Sun* (1920) reported the event as included below, giving plenty of evidence that, contrary to Brown and Lopez-Gonzales (2000, 2001), this was indeed a guided hunt. Not only was the hunt guided, but the first member of the party to see and shoot the jaguar was the guide, Billy Chester.

Personal communication with Chester’s grandson, Joe Dreyfuss, indicates Chester had recently moved to Arizona from Mexico, where he had already been famous as a jaguar-hunting guide. He left Mexico in fear for his life at the end of the revolution, so Dreyfuss thinks he may have had friends bring up jaguars for him. Whether this particular hunt was a “canned” jaguar hunt, or a guided lion hunt that accidentally encountered a jaguar, remains unknown.

Chester, as Dreyfuss described him before the discovery of this article, had been well known for his dim view on canned hunting. Based on what Mr. Dreyfuss mentioned of his grandfather’s personal history, his character, and his economic circumstances, having had his ranches in Chihuahua confiscated by the new government in Mexico, we believe he did not engage in caged hunts but did introduce jaguars or had jaguars introduced into Arizona for his clientele. Mr. Chester’s viewpoint on canned hunting does indicate that canned hunting was practiced and known of at the time of this jaguar’s taking in 1920. Dreyfuss also told us that Billy Chester’s hunting guide activities in the US spanned from 1919 to 1940, and the Lee Brothers took over his accounts when he retired. According to Dreyfuss:

*“Jim McDonald, the sheriff, was a friend of my grandfather and hunted with him in Mexico and his family. The Cooks have some photos. Now, keep in mind Billy Chester did not get out of old Mexico till about 1919 and his brand registration is in Pinal Co. in 1919, the same year the revolution ended. . . . The Chicago connection with McDonald makes some sense to me because Bill Cook was married to Jim McDonald’s daughter June. Bill came from Chicago.” (email dated January 24, 2012, from Joe Dreyfuss to Cindy Coping)*

We present further evidence that Mr. Chester was leading guided jaguar hunts in Arizona, in our examination of the account of the two jaguars that Fred Ott allegedly trapped in 1926.

Since the article states that the jaguar was shot and then chased by hounds for 18 miles from an unidentified starting location, Brown and Lopez-Gonzales’s (2000) assertion that its natural habitat was “Madrean Evergreen Woodland/Rocky Mountain Montane Conifer Forest” is both speculative and unreliable.

## GIANT JAGUAR KILLED IN RINCON MOUNTAINS

One of the largest jaguars killed in this section of the country was killed in the Rincon mountains Saturday by a party consisting of Stanley R. Graham, of Chicago, wild animal hunter, and writer; George T. Baker, his uncle; J. W. McDonald, of Arizona, and W. P. Chester, well-known hunter of Tucson. The skin of the animal was brought to Tucson and measured nine feet from the nose to the tip of the tail. The hunters claimed it weighed about three hundred pounds.

The animal was first seen by Chester, who shot him in the leg. The hounds then trailed him for eighteen miles where he had sought shelter in a cave. At first it was thought it was a mountain lion. It was then getting dark, so a fire was built at the mouth of the cave and gradually fed back until it was five feet away from the animal. He was then shot by Mr. Graham.

It was found that his front leg had been broken by Chester's shot and caused him to make only a mild resistance when killed. He was skinned by the light of the fire and his hide and tusks were brought to town. The meat was allowed to remain in the cave because it was too late to do anything with it.

Mr. Graham will take the hide with him to Chicago on his return eastward and have it mounted. With the aid of the tusks, it is expected to make a splendid specimen. The tusks measure almost two inches.

Mr. Graham and Mr. Baker are going to Ventura county, California, in a few days on a mountain lion hunt. Mr. Chester is going along as guide and Mr. Graham has offered him a bonus of \$1000 to rope and tie a mountain lion alive.

### September 1920; Silverbell Highway northwest of Tucson

Girmendonk: III

Parker and Coping: Class III (4)-hearsay; credentials and credibility of the observer are unknown.

Seton (1929) quotes a letter written to him by Professor Charles T. Vorhies:

*“I.E. Roberts of Tucson saw a Jaguar cross the Silver Bell highway about 3 miles northwest of the city one evening in September, 1920. Exact date could not be supplied, although I interviewed Mr. Roberts in October. The animal crossed the road ahead of the automobile in which the observer was riding, and stopped at a distance of only about 50 yards, faced about and stood watching the car. As this was an hour before sundown, and the observer reported a perfectly clear view of the animal, describing it as spotted, etc. and even observed the catlike switching of the tail, there seems no chance for error. Mr. Roberts personally related the incidents [sic] to me.”*

### \*1922, Rincon Valley

Girmendonk (1994) NA

Hatten et al. (2002) Class 1 Location 2

Hatten et al. (2005) Class 1 Location 3

Parker and Coping: Class III (2); skin shown in photograph was not definitively taken from a jaguar (dorsal rosettes are not evident except on tail; tail appears long in proportion to body); event details missing; location lacks sufficient precision for reliable habitat modeling.

This record is not mentioned in the published literature prior to 2000.

Brown and Lopez-Gonzales (2000) reports:

*“1922, Rincon Valley, Semidesert Grassland, unknown, taken by homesteaders, photographed, (fide R.M. Turner and R. Pinto)”*

Brown and Lopez-Gonzales (2001) reports:

*“Frederick O. Knipe et al. fide Henrietta Barassi (granddaughter). Photograph. Rincon Valley, AZ. Taken by rancher. Semidesert grassland?”*

Brown and Lopez-Gonzales (2001) includes a photograph on P. 95 with the caption,

*Figure 46. Skin of what appears to be a young jaguar killed by homesteaders on the Bar FK Ranch in Rincon Valley, 1922. Photograph courtesy of Louis Barassci and Theodore Knipe Jr.*

Brown and Lopez-Gonzales (2001), in choosing the words, “appears to be,” express their own uncertainty that the animal in the photo was a jaguar.

Brown and Lopez-Gonzales (2000, 2001) fail to cite where the information *fide* RM Turner and R Pinto can be accessed for verification. This account is therefore unreliable.

Lange (1960) makes no mention of this animal. Brown and Lopez-Gonzales imply Frederick O. Knipe killed the animal shown in the photo. They do not state where specifically on the FK Ranch the animal was first located, how large the FK ranch was, how the animal was killed,

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exactly where it was killed, whether it arrived at the kill location on its own, or whether it was chased by hounds or trapped. Nor do they indicate the exact kill location or the habitat it actually occupied as they so admit by use of a question mark (Brown and Lopez-Gonzales, 2001).

The claims in Brown and Lopez-Gonzales (2000, 2001) that this animal's "habitat" was "Semidesert Grassland" are obviously speculative and thus unreliable.

\*Hatten et al. (2002, 2004) used this record in their models, ranking it as class 1 for physical evidence. Hatten et al. (2005) ranked the site description as "3," meaning 5.1- 8km precision.

With all circumstances leading to the kill unknown, combined with uncertain identity of the species in the photograph, any habitat modeling that depends on this record is wholly speculative, unscientific and unreliable.

### **\*April 12, 1924, "near" Cibecue, Jack Funk, male, USNM 244507**

Girmendonk (1994): Class I

Hatten et al. (2002, 2005) Class 1 Location 3 (within 5.1 – 8 km accuracy)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system

Parker and Coping: Class I (9) but unreliable for habitat modeling: "run by hounds" renders exact initial location unknown

Housholder (1958) reports:

*"The record jaguar killed near Cibecue, was run by hounds. The government hunter, Jack Funk, wasn't necessarily looking for a tigre, however, as soon as the hounds got on the saucer-size tracks he knew what he was after. Seldom, in fact rarely, does a jaguar "tree." The Cibecue cat was no exception and was killed by a single 30-30 shot in the neck while on the ground.*

*Most guides instruct their hunters to shoot a big cat in the head, eliminating the possibility of a wounded cat mauling valuable hounds. On the other hand a mushrooming bullet through the skull practically obviates any measurement for record book consideration. If the opportunity presents itself, a neck shot is just as good as a head shot. The skull of the Cibecue tigre is now in the United States National Museum."*

Lange (1960) reports:

*"The type specimen of *F. o. arizonensis* was collected by Jack Funk on April 12, 1924, near Cibecue, Navajo County, and is now in the National Museum."*

Goldman (1932) wrote,

*"Multiplying records at different seasons indicate that the present form of jaguar, while never very abundant, is a regular resident in southeastern Arizona. It represents the extreme northern limit of the range of *F. onca*, and is a rather well-marked race as shown by comparison with its nearest geographic neighbor, *F. o. hernandesii* of the Pacific Coast of central Mexico. The specimens [sic] upon which this new jaguar is based were obtained largely through the active interest of Mr. M. E. Musgrave, who had*

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*long service in charge of predatory-animal control activities of the Biological Survey, U. S. Department of Agriculture, in Arizona.”*

Could it be that Goldman did not realize how much President Theodore Roosevelt influenced the popularity of sport hunting, potentially creating a market for sport hunting of imported jaguars? Goldman’s assumption as to jaguar residency in Arizona is inconsistent with the views of earlier first-hand observers such as (Coues, 1867) and John Duncan Quackenbos et al. (1887). On the other hand, Goldman’s (1932) observation of “multiplying records at different seasons” is consistent with the record of increased transient presence of jaguars in Arizona after 1900.

Goldman (1932) wrote,

*“ARIZONA JAGUAR.*

*Type. — From near Cibecue, Navajo County, Arizona. No. 244507, male adult, skin and skull, U. S. National Museum (Biological Survey collection), collected by Jack Funk, April 12, 1924. X catalogue No. 23633.”*

It appears E.A. Goldman indulged the flawed assumption that this jaguar, and all others killed in the United States, arrived here naturally, meaning without human influence. Pocock (1939) aptly points out that Goldman and Nelson (1933) took too few measurements on too few of the many specimens they had available.

This particular specimen is the world’s second largest on record for combined skull measurements, or score, of jaguars recorded in the Boone and Crockett trophy book, having been bested in 1965 by a jaguar taken from Veracruz. (Waters & Boone and Crockett Club, 1964) The dimensions of the largest jaguar are larger by a mere 1/16 inch in both greatest skull length and greatest skull width. This type specimen for *arizonensis* is therefore not typical as Nelson and Goldman presumed it to be, and is anything but typical of the universe of jaguars that have been taken in Arizona. This may be somewhat confirmed by (Pocock, 1939) who wrote that this type specimen is not significantly different than the type specimens of *veraecrucis*:

*“The measurements also show that the claim that the skull of veraecrucis is bigger than that of arizonensis conveys very little, seeing that the length of the condylobase of the type skull of arizonensis is almost exactly the same as the average of the two [male] skulls of veraecrucis.”*

*The published evidence that these three races differ in the size of their skulls amounts to nothing.”*

The so-called “*arizonensis*” type specimen taken by Jack Funk, and a similar jaguar taken in 1926, therefore, could well be representative of specimens of “*veraecrucis*” imported into Arizona by a world-class hunting guide, such as Mr. William P. (Billy) Chester, for hunting by his high-profile clients. Mr. Chester’s clientele list included Cornelius Vanderbilt, President Theodore Roosevelt, the President’s son Archibald (Archie) Roosevelt, and the President’s friend, the famous and colorful nimrod hunter from Chicago, Stanley Graham. In fact, Stanley Graham shot a jaguar in the Rincon Mountains of Arizona in January 1920, on a hunt guided by Billy Chester.

Coincidentally, Graham had just finished three months of hunting with his pack of bloodhounds



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and Billy Chester in northern Mexico when the Funk jaguar was killed, returning to his home in Chicago on March 6, 1924.

On March 7, 1924 the *Chicago Daily Tribune* reported that Graham had returned to Chicago from his hunting trip on March 6. (7 March 1924)

On February 19, 1924 the *Prescott Evening Courier* reported,

*“Already two mountain lions have been bagged by Stanley R. Graham, Chicago sportsman who, with Billy Chester, is now in the mountains of northern Sonora hunting lions and jaguars with a pack of hounds.”* (1924 Feb 19)

While we do not know the exact details of these hunts, we do know from these news articles that Billy Chester and Stanley Graham were chasing jaguars with hounds in northern Sonora shortly before the Funk jaguar was killed. It is not inconceivable that some of these jaguars may have escaped into Arizona, had they not been deliberately seeded there at that time. We are also aware that Jack Funk, if not also other government hunters, chased *this particular jaguar* with hounds and may have caused it to move northward toward Cibecue.

It is also an improbable coincidence that this jaguar, the largest recorded in the 1964 Boone and Crockett record book, was taken at the same time that one of Chester’s famous clients was visiting Arizona for a hunting trip. A second improbable coincidence is that PARC agent Fred Ott collected the jaguar with the second biggest Boone and Crockett score a few days before the well-publicized arrival of Archibald Roosevelt, who came to hunt jaguars with Mr. Chester in Arizona and Sonora.

A third improbable coincidence is that Billy Chester’s client, Stanley Graham, killed a jaguar in the Rincon Mountains on a hunt guided by Billy Chester, and that Mr. Chester was the first in the party to see the jaguar and fired the first shot. The cat ran into a convenient cave nearby. The most improbable coincidence is the common factor of hunting guide Billy Chester in all three accounts.

Mr. Chester was well known for his dim view on “canned” hunting, which obviously existed as a practice during the same time frame of his US hunting guide career that spanned from 1919-1940. He severely chastised clients that demonstrated unsportsmanlike behavior, including one incident where he took his clients’ mounts and boots, and forced them to hike back to camp in stocking feet. It is more likely, given his personal history, his character, his skill and experience as a world-class jaguar hunting guide, and his close connections with ranchers all over Sonora and Chihuahua, that he had someone bringing up jaguars from Mexico, introducing them into the US, and letting them run free for his clients to track down and kill in a sportsmanlike manner. It may have been Mr. Chester’s coincidental misfortune that the federal government had professional predator control agents working full time in all 15 counties of Arizona killing thousands of coyotes and mountain lions at the time, and that his “merchandise” was taken by these agents in the routine of doing their jobs, during the same time frame that his clients were in Arizona and Sonora to hunt with him.

Brown and Lopez-Gonzales (2000) reports:

*“April 1924, near Cibecue, White Mountain Apache Reservation, Great Basin Conifer Woodland/Rocky Mountain Montane Conifer Forest, male, taken with hounds by federal predator control agent as stock-killer, “adult” (Nelson and Goldman, 1933; type specimen for Panthera onca arizonensis, USNM 289015”*

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Brown and Lopez-Gonzales (2000) inaccurately reported the type identification number from both the US National Museum and from Nelson and Goldman (1933). The correct catalog number is 244507.

Moreover, since hunting dogs had chased this jaguar for an unreported amount of time over an unknown distance before it was killed, and because the exact location of the livestock depredation is not mentioned, the habitat reference stated by Brown and Lopez-Gonzales (2000) is speculative and therefore unreliable.

\*Hatten et al. (2002) uses this account in their model, ranking this jaguar record as Class 1 and the site description as “2” for “fair,” thus further compromising the scientific integrity of that model.

### **11/30/1926, Cerro Colo. Mountains, Fred Ott, male, USNM 247337 + 2<sup>nd</sup> jaguar of unknown sex**

For the jaguar in the USNM -

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1 Location 4 (>8 km accuracy)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system; location given as Nogales without citation to specific source

Parker and Coping: Class I (9); location unreliable for habitat modeling

### **For the jaguar not collected-**

Girmendonk (1994): NA

Hatten et al. (2002, 2005): Class 1 Location 4 (>8 km accuracy)

Parker and Coping: Class III (1); hearsay; no documented observer of 2<sup>nd</sup> jaguar; only one skull sent to NMNH

Hatten et al. (2002, 2005) give the reader a multiple choice to guess which jaguar they think was taken in the Atascosa Mountains and which one was taken in the Patagonia Mountains. They also do not cite their specific source for the information that one of these jaguars was taken in the Atascosa range. That information is therefore unreliable.

Housholder (1958) reports:

*“A government predator hunter, Fred Ott, holds the distinction of being the only man to take two jaguars in Arizona. In 1926, Fred was engaged in a poisoning program in the Sonoita-Patagonia-Lochiel section. One day, while afoot, Fred was out checking his stations and came upon two full-grown tigers dead near one of the poison sets. This happened during the warm part of the year, so Fred hurriedly skinned one jaguar, then dragged the other carcass into the shade and headed for camp with the skull and skin. It was hours before he was able to return to the second jaguar and he found the heat had caused the hair to “slip” and the skin was ruined.”*

Housholder’s 1958 account differs substantially from other accounts by stating that the jaguars were both killed in the same place on the same date.

Lange (1960) states:

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*“Fred Ott, a Fish and Wildlife Service hunter, killed two jaguars in 1926 about 18 miles south of the Cerro Colorado Mountains in the Ruby district. The skull of the animal killed on November 30, 1926, is in the National Museum.”*

Brown and Lopez-Gonzales (2000) reports:

*“11 November 1926, S. of Patagonia, Madrean Evergreen Woodland, male, poisoned by federal predator control agent, “adult” (Nelson and Goldman, 1933, USNM 247337);” and:*

*“1926, S. of Patagonia, Madrean Evergreen Woodland, unknown, taken with poison as a stock-killer, (USFWS files, Phoenix; Lange, 1960)*

Brown and Lopez-Gonzales (2001) state:

*“11/30/1926 Fred Ott (PARC). USFWS files, Housholder 1958, Lane 1960. Skull no. 247337 in USNM. S of Patagonia, AZ. Taken with poison as a stock killer. “Adult.”*

And:

*“1926 Fred Ott (PARC). USFWS files, Housholder 1958, Lange 1960. Skull in USNM. S of Patagonia, AZ. Taken with poison as a stock-killer. Madrean Evergreen Woodland”*

Brown and Lopez-Gonzales (2001) disagrees with Brown and Lopez-Gonzales (2000) by stating that both skulls are in the US National Museum. All accounts disagree with Housholder’s claim that both jaguars were killed in the same place at the same time.

In contrast to Brown and Lopez-Gonzales (2000, 2001), the US National Museum of Natural History states that specimen 247337 was taken by “Off, F.” [sic] 20 miles W of Nogales on 11/30/1926. There is only one skull in the NMNH from these two jaguars.

Hatten et al. (2005) (Spatial Model of Jaguar Habitat in AZ) determined the location accuracy of the Ott kill(s) as >8 m and therefore chose not to use either of the Ott jaguars in their model. They put one record for 1926 in the Patagonia Mountains and the other in the Atascosa Mountains, both with location ratings of 4 for poor accuracy. Whether these are both the Ott jaguars is not stated and leaves ample confusion for future error.

The *Meridian Daily Journal* reported on December 3, 1926,

*“Tucson, Ariz. Dec. 3 (AP):*

*Scarcely a year has passed since the lure of Asia and the Ovis Poli called the two Roosevelts to the far eastern steppes, and once more the urge of the “Red Gobs” has brought a member of the famous family to the edge of mountain country, this time bent on a jaguar and mountain lion hunt.*

*Archie Roosevelt today was cleaning saddles and assembling equipment for a trip into the mountains of southern Arizona and northern Mexico, seeking big cats. The party consists of Mr. and Mrs. Archie Roosevelt, their cousin, Mrs. Stuyvessant Fish and Fairman Dick of New York City. They will be accompanied by Billie Chester, noted mountain guide and lion hunter, who some time ago successfully piloted Stanley Graham, nationally known nimrod, [who in 1920 killed a jaguar in the Rincon Mountains on another hunt guided by Billy Chester], in his search for mountain lion with bow and arrow.”*

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*The Reading Eagle* reported from Tucson on December 6, 1926:

*“Looks like Archie Roosevelt will have to be a great shot or seek new hunting grounds. He came here to shoot jaguars. Government officials say there’s only one such animal left in the Arizona Mountains.” “Only One Jaguar Left-Tucson Ariz., Dec. 6—Two jaguars, natives of hills farther south than the border, were reported in the Arizona ranges, but Fred Ott, government hunter, reduced the number by half. Roosevelt and his party came here recently.”*

Perhaps it is just coincidence that two famous and wealthy hunters of the early 1920’s, both of whom were clients of the legendary jaguar hunting guide Billy Chester, arrived in Tucson, and more than once or twice, coincidentally at the same time that rare jaguars were roaming Arizona ranges nearby. And perhaps it is an even more improbable coincidence that Fred Ott’s jaguar, killed that same week, just happened to be the second largest ever killed in North America. Or perhaps it is also coincidence that this also happened when Jack Funk’s jaguar, the largest jaguar on record at that time, was taken. Or perhaps these are not coincidences at all. The Meridian article raises the very real possibility that these two jaguars were imported specifically for the Roosevelts to hunt, but for getting into poison put out by a predator control agent before that hunt could occur. That possibility precludes reliable conclusion relative to these jaguars’ origins.

This record was not used for habitat modeling.

### **\*December 1926, Santa Maria Mountains, Yavapai County, male, Clyde Miller**

Girmendonk (1994): **Class III**

Hatten et al. (2002, 2005): **Class I** Location 2

Grigione et al. (2007): **Class 1 or 2** while claiming to use Girmendonk’s classification system; specific location given as **Cypress Mtn** w/o citation to specific source

Parker and Coping: Class III (1): unverifiable

Housholder (1958) reports:

*“Clyde Mille killed a wandering Mexican jaguar northwest of Prescott, near Camp Wood, in 1931.”*

Lange (1960) reports:

*“M. E. Musgrave, in a letter dated February 5, 1927, reported that Clyde Miller, a rancher, took a male in December, 1926, on the north-east slope of the Santa Maria Mountains, just south of the Luis Maria Baca Grant and 40 miles west of Prescott in Yavaipai [sic] County.”*

Brown and Lopez-Gonzales (2000) reports:

*“December 1926, NE slopes of Santa Maria Mountains, N of Prescott, Rocky Mountain Montane Conifer Forest, male, taken as a stock-killer by rancher with dogs. Photographed (Lange, 1960; fide M.E. Musgrave)”*

Brown and Lopez-Gonzales (2001) reports:

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*“12/1926. Clyde Miller. Lange 1960 fide M.E. Musgrave (PARC). Photograph. M. Santa Maria Mts., AZ (near Prescott). Taken by rancher. Rocky Mtn Conifer Forest/Great Basin Conifer Woodland.”*

Housholder’s date differs from the reports of the other writers, and is obviously mistaken since Musgrave’s letter is dated 1927.

The obvious speculation about “habitat” by Brown and Lopez-Gonzales (2000, 2001), considering hounds chased it for an unknown distance, is unreliable.

Nonetheless:

\*Hatten et al. (2002) used this record in their model, ranking it as Class 1 and ranking the site description as “2” for “fair.”

\*Hatten et al. (2005) used this record in their model, ranking it as Class 1 and ranking the site description as a “2” meaning 1.7-5 km precision.

### 1926-1930, Chiricahua Mountains

Girmendonk (1994): Class III

Hatten et al. (2002, 2005) Class 3 Location poor

Parker and Coping: III (1): vague, unverifiable account

Lange (1960) provides the following unverifiable 5<sup>th</sup>-hand hearsay, allegedly first written 13-17 years after the event:

*“Lockett, in the 1943 letter of Hargrave to Goldman, refers to a jaguar-kill in the Chiricahua Mountains during the period, 1926-1930”*

Brown and Lopez-Gonzales (2000) provides the following 6<sup>th</sup> hand hearsay:

*“1926-1930, Chiricahua Mountains, Madrean Evergreen Woodland/rocky Mountain Conifer Forest, “killed” (Lange, 1960; fide H. C. Lockett).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1926-1930. Unknown. Lange1960 fide H.C. Lockett. [sex] ? Chiricahua Mts., AZ. Circumstances unknown. Madrean Evergreen Woodland?”*

Brown and Lopez-Gonzales, equipped with zero information regarding the circumstances of how the jaguar arrived at the location where it died, and not knowing where in the Chiricahua mountains it died, attempt to assign a “natural habitat” to this jaguar. This is obvious speculation and therefore unreliable.

Since the year cannot be pinpointed within half a decade and no other details are reported, it is possible the location is also wrong and duplicates another jaguar record. This record is therefore unreliable.

### 1928-1933 (Year unknown) Estrella Mountains? Sand Tank Mtns? 1 jaguar or 2?

Girmendonk (1994) treats this as two separate kills in Maricopa County, ranking the 1928-1929 kill Class III and the 1933 kill Class III I [sic]

Parker and Coping: Class III (4) due to scant details, although further research in 1933 *Arizona Republic* archives might yield reliable information

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Housholder (1958) reports:

*“A tigre was killed within 20 miles of downtown Phoenix in 1933. The Arizona Republic reported a rancher killed a big spotted jaguar in the low, desert foothills of the Estrella mountains southwest of Phoenix.”*

Lange (1960) reports the following unverifiable fifth-hand information:

*“Lockett, in the 1943 letter of Hargrave to Goldman, refers to . . . and to a fresh skin taken in 1928 or 1929 from 15 miles east of Gila Bend in Maricopa County. This "fresh skin" probably is that of the jaguar taken by a rancher in 1933 in the Estrella Mountains, southwest of Phoenix (Housholder, In lit.).”*

Since Lange did not indicate where this letter is located, verification may be impossible. If the letter is within AZGFD or USFWS files, the PNRCD cannot verify it because of incomplete responses to proper Public Records and FOIA requests.

Brown and Lopez-Gonzales (2000) speculated that Lange referred to two separate kills:

*“1928-1929, Sand Tank Mountains, Sonoran Desertscrub, unknown, fresh hide seen (Lange, 1960, fide H.C. Lockett);*

And:

*“1933, foothills of Sierra Estrella, Sonoran Desert- scrub, unknown, killed by rancher (Housholder, 1958)”*

Brown and Lopez-Gonzales (2001) likewise speculated that Lange referred to two separate kills:

*“1928 or 1929. Unknown. Lange 1960 fide H.C. Lockett; fresh hide seen. [sex] ? Sand Tank Mts., AZ. Circumstances unknown. Sonoran desertscrub.”*

And:

*“1933. Unknown rancher. Arizona Republic, Housholder 1958. Sex [?] Sierra Estrella foothills, AZ. Circumstances unknown. Sonoran Desertscrub.*

Brown and Lopez-Gonzales (200,2001) know almost nothing about this jaguar, or these jaguars, how it or they was/were killed, or how it/they arrived at the location/s where it/they was/were killed, but nevertheless confidently speculate that its/their “natural habitat” was “Sonoran desertscrub.” Such uninformed speculation is both wholly unreliable and clearly unscientific.

Hatten et al. (2002, 2005) treats the record as one jaguar taken in the Sand Tank Mountains in 1929 Class 3, and another taken in the Sierra Estrella in 1933, Class 3. They do not cite specifically where they found the exact 1929 date.

Lange thoroughly confuses his readers -- even with a question as simple as who wrote a letter. There is more confusion between Lockett, Lange, and Brown and Lopez-Gonzales here, probably beginning with Lockett attempting to remember the details of an event he obviously did not write down, 10-17 years after the fact, and Lange speculating about it. Lange appears not to trust Lockett’s memory.

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The Estrella Mountains, however, are not the Sand Tank Mountains, and Gila Bend is more than 35 miles from downtown Phoenix. Moreover, no one among Lange, Lockett, Brown or Lopez-Gonzales seems to even know for sure where or when or how many jaguars were actually killed. If anyone is to be trusted it is Housholder, who obviously had a newspaper clipping from the day. As a result, Brown and Lopez-Gonzales' (2000) reporting of a record of a jaguar taken in 1928 or 1929 from the Sand Mountains is unreliable. Similarly, the Lockett/Lange report is also unreliable. In fact, this report casts suspicion on all other accounts by Lange *vide* Lockett.

If the Lockett letter is in the USFWS files, as Lange (1960) implies, it is unverifiable because the USFWS did not provide it to the PNRCD in response to the PNRCD's FOIA request for all such records.

This record is unreliable.

### \*1932, Grand Canyon Village, female

Girmendonk (1994): Class III

Hatten et al. (2002, 2005): Class 2 Location 1

Parker and Coping: Class III (1): no verifiable evidence

Housholder (1958) wrote, without citation to source:

*"The farthest point north a jaguar is known to have been taken was near the Grand Canyon Village in the summer of 1932. An unknown predator hunter took that specimen, a large female, and in timber country."*

Lange (1960) reports:

*"One was killed in the Grand Canyon Village in 1932."*

In original context and format Lange (1960) states, at best, third-hand hearsay:

*"M. E. Musgrave, in a letter dated February 5, 1927, reported that Clyde Miller, a rancher, took a male in December, 1926, on the north-east slope of the Santa Maria Mountains, just south of the Luis Maria Baca Grant and 40 miles west of Prescott in Yavaipai [sic] County."*

Lange (1960) then adds fifth-hand hearsay, embellished with speculation:

*Lockett, in the 1943 letter of Hargrave to Goldman, refers to a jaguar-kill in the Chiricahua Mountains during the period, 1926-1930, and to a fresh skin taken in 1928 or 1929 from 15 miles east of Gila Bend in Maricopa County. This "fresh skin" probably is that of the jaguar taken by a rancher in 1933 in the Estrella Mountains, southwest of Phoenix (Housholder, in litt.). One was killed in the Grand Canyon Village in 1932, and Frank Colcord, a Fish and Wildlife Service hunter, killed one about 18 miles south of the Cerro Colorado Mountains in 1933. Frank Hibben, Professor of Anthropology at the University of New Mexico, reported a 1934 kill in the Altar Mountains, northwest of Nogales, and Lockett reported that a trapper took one in Bloody Basin, Yavapai County, in 1939."*

Lange does not clearly identify the source of this information. Was it Musgrave, Lockett, Hargrave, or someone else? Lange also fails to inform the reader where the cited letters can be found for verification.

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Furthermore, unless for some reason a predator control agent was needed, this kill would had to have taken place **illegally inside the Grand Canyon Game Reserve**. Another possibility is that something unusual happened that threatened public safety, such as a jaguar escaping from a circus that stopped at the train depot there. President Harrison established the Grand Canyon Forest Reserve in 1893. Theodore Roosevelt created the Grand Canyon Game Preserve by proclamation in 1906 and Grand Canyon National Monument in 1908. Finally, President Woodrow Wilson signed the Grand Canyon National Park Act in 1919. (Wikipedia, 27 January 2017)

We have found numerous archived news articles cumulatively indicating that in October 1931, zoos and circuses around the globe went belly up and suddenly had no means to feed all of their animals. It is not unlikely that this jaguar was brought in by train and turned loose for that reason or for a tourist to shoot for money. While there is no evidence supporting the presumption that this jaguar was “naturally occurring” in the Grand Canyon, there is plenty of evidence suggesting the contrary.

A diligent search for corroborating evidence of this kill has turned up only that M.E. Musgrave was in charge of the PARC program.

If Lange was relying on government records, the PNRCD cannot verify the information due to failure by both AZGFD and USFWS to turn over such records after receiving formal requests for public information. As a result, the PNRCD can only logically consider this record as unreliable.

Brown and Lopez-Gonzales (2000, 2001) add some new information and inaccurately cite Lange as their sole source. They also appear to have a pattern of stating that specific jaguars were being taken as stock killers without citing any specific source for that information. While there were predator control agents working in all 15 Arizona counties to control mountain lion populations at the time, they were not necessarily targeting individual animals.

Brown and Lopez-Gonzales (2000) report more information than their cited source provides:

*“1932, Grand Canyon Village, Rocky Mountain Montane Conifer Forest, female, taken by predator control agent as a stock-killer (Lange, 1960; fide H. C. Lockett).”*

Brown and Lopez-Gonzales (2001) wrote,

*“Although the idea of jaguars in the Grand Canyon may seem extreme, . . . jaguars have been reported from northern New Mexico, California, Colorado, California and even Baja California.”*

They then address each of these, all of which depend either on errors or imaginative speculation. They conclude, based entirely on their own speculation, that,

*“jaguars may have an amazing propensity to wander.”*

None of those accounts are reliable and neither is their conclusion based on them.

Brown and Lopez-Gonzales (2001) also wrote, without citation to the specific source, that,

*“. . . freelance predator hunters continued to take the occasional jaguar in Arizona for another 50 years. Some of these were paid on a retainer basis, and others were paid on*



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*the basis of what they caught—one such hunter supposedly killed a female jaguar on the South Rim of the Grand Canyon in 1932.”*

From their choice of the word, “supposedly,” we infer that the source of this new information is unreliable hearsay. It also contradicts the claims in the tables included in Brown and Lopez-Gonzales (2000, 2001) that this jaguar was taken by a federal predator control agent. Brown and Lopez-Gonzales would have had full access to all USFWS files and yet they do not cite these files as a source of this unreliable new embellishment of unreliable, previously documented hearsay.

*“1932. Unknown. Lange 1960 fide H.C. Lockett, Housholder 1958. Grand Canyon Village, AZ. Taken by predator control agent in pine forest. Rocky Mt. conifer forest.”*

The assignment of “Rocky Mt Conifer Forest” by Brown and Lopez-Gonzales (2000, 2001) is unreliable because they have no information regarding the jaguar’s history prior to its death or the circumstances that led to its presence at the Grand Canyon Village. Nonetheless, Brown and Lopez-Gonzales speculate that this jaguar was “naturally occurring.”

\*Hatten et al. (2002, 2005) used this record in their models, ranking it as Class 2 for a “reliable witness,” although the name of that witness is not provided and the identity of that “reliable witness” remains a mystery. Hatten et al. (2005) gave the site description a “1,” meaning a location precision within 1.6 km., based on its location “in the Grand Canyon Village.”

Both Hatten et al. and Brown and Lopez-Gonzales speculate that this unreliable, alleged occurrence of a jaguar in the Grand Canyon Village was “naturally occurring,” without corroborating evidence of that claim. This record, like that conclusion, is therefore unreliable.

### 1931, 1932, or 1933? Frank Colcord

#### Pajarito Mtns? Patagonia Mtns? Cerro Colorados? Atascosas? Huachucas?

Girmendonk (1994): Class II

Hatten et al. (2002): Class 2 Location 2 (fair) while placing the kill in the Atascosa Mountains w/o citation to specific source

Hatten et al. (2005): Class 2 Location 1 RED FLAG 1 while uniquely placing the kill in the Atascosa Mtns w/o citation to specific source, meaning within 1.6 km (we had to speculate that this is the record to which they referred)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system; notes that exact location is unknown, but nonetheless assign 1933 as the specific year of this kill without citation to specific source.

Parker and Copping: Class I (9); inconsistent accounts, inconsistent, unverifiable locations—unreliable for habitat modeling

An article in *The Milwaukee Journal* Aug 18, 1934 stated:

*“Of the 500 lions Frank Colcord has killed, one was no lion at all, but an even more dangerous animal, rarely found in the United States. It was a South American jaguar, larger than a lion, and much more likely to attack a man. This one had worked through Mexico into southern Arizona. Ranchers had seen it and found its cattle kills, but had never been able to run it down. There was a legend that a jaguar would not tree. So the ranchers sent for the ace lion hunter.*

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*With the aid of a fine dog named Baldy, Frank took the trail. Not many hours afterward the hunter and dog were back in camp, and on dress occasions last winter Mrs. Colcord wore the finest spotted fur coat a girl could desire, one of the rarest animal trophies ever taken in the United States."*

Hoffmeister and Goodpaster (1954) report:

*"The jaguar, or tigre, as it is locally known, is not resident in the Huachucas, but infrequently visits there. Frank Colcord, a government trapper, "ran" a "tigre" north of Sunnyside about 1933." They describe the location of Sunnyside as a once thriving community, "west slope, 5800 feet, 2 ½ mi. W, 8 mi. S Fort."*

Housholder (1958) reports:

*"The well known ex-lion hunter, Frank Colcord, killed a big tom near the Mexican border west of Nogales in 1931. The chase started in the Pajaritos range and ended two days later near the border. Frank now runs a string of racing horses in California and Arizona."*

Housholder's account of a two-day chase differs from the 1934 news article in the *Milwaukee Journal*.

Lange (1960) wrote, without citation to source:

*"Frank Colcord, a Fish and Wildlife Service hunter, killed one about 18 miles south of the Cerro Colorado Mountains in 1933."*

Brown and Lopez-Gonzales (2000) reports:

*"1931-1933, Patagonia Mountains, Madrean Evergreen Woodland, male, taken with dogs by predator control agent (USFWS files, Phoenix, Housholder, 1958)"*

Brown and Lopez-Gonzales (2001) reports:

*"1932 or 1933 Frank Colcord (PARC). USFWS files, Housholder 1974, John Windes, pers. Comm. M, Patagonia Mts., AZ. Taken with dogs as stock killer."*

This detailed and lengthy narrative begins by confusing the reader. A photograph caption identifies a man with a jaguar over his shoulders as John "Judge" Windes. The narrative states that Colcord invited Windes to go on this hunt with him and promised Windes the opportunity to take the first shot. The narrative states they were expecting to kill depredating lions but tree'd a jaguar. Windes shot the jaguar in the shoulder, knocking it out of the tree.

Jaguars rarely tree. Of all documented chases prior to 1996, this is the sole example where the jaguar tree'd.

Both Lange (1960) and Brown and Lopez Gonzalez (2000, 2001) omit the crucially important information provided by Housholder (1958) that this jaguar was first jumped in the Pajarito Mountains, the vast majority of which occur in Mexico, and then **chased by hounds for two days** before finally being killed near the border. Brown and Lopez-Gonzales also omit the important information provided by Lange (1960) that this jaguar was finally killed about 18 miles south of the Cerro Colorado Mountains. That information places this kill in the Atascosa Mountains, west of Nogales, near the Mexican border, and **not** in the Patagonia Mountains as reported by Brown and Lopez-Gonzales. Moreover, because no information is provided about

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the habitat in which this jaguar was initially encountered in the Pajaritos before being chased for many miles over two days into the Atascosa Mountains, the assignment of Madrean Evergreen Woodland “habitat” to this jaguar by Brown and Lopez-Gonzales is purely speculative and therefore unreliable.

Further, we cannot verify Brown & Lopez-Gonzales’s claim that the hunter, Frank Colcord, was acting in the capacity of a “predator control agent” at the time of this jaguar’s killing. This is because we know that, separate from his job as a predator control agent, Mr. Colcord also conducted private, guaranteed lion hunts during this time period. (Arnold, 1936)

The fact that Dudley Windes, a former Maricopa Superior court judge who would later serve as an Arizona Supreme Court Justice, was promised the first shot suggests he was a paying client of Colcord’s on this hunt.

Brown and Lopez-Gonzales (2001) confirm the hide, which Windes had mounted for himself, was never sent to the US National Museum as would have been expected if Colcord had been acting in the capacity of a predator control agent. Brown and Lopez-Gonzales (2001), however, claim that they do not know what happened to the hide although the article in the *Milwaukee Journal* claims the hide was made into a coat for Mrs. Colcord.

The three accounts between the *Milwaukee Journal*, Housholder, and Brown and Lopez-Gonzales differ on another important point– the length of time that the hunt lasted.

In contrast to the stonewalling that the USFWS has given the PNRCD on our requests for historic information on jaguars killed in Arizona, we believe that Brown and Lopez-Gonzales would have been granted full access to those records. If Brown and Lopez-Gonzales actually examined the original USFWS record of this kill, then why would they still be confused about whether this kill occurred in 1931, 1932, or 1933? Since the USFWS did not provide that record to the PNRCD in response to proper FOIA request, we can only conclude, based on what we do know, that the year of this jaguar’s taking was never actually recorded with certainty by the USFWS. As a result, this record is unreliable for modeling purposes.

### **\*1933, Atascosa Mountains, male, no citation to source**

Girmendonk: NA

Parker and Coping: Class III (1) no information presented; may be duplicated record of Colcord jaguar, transferred through record keeping error to Atascosa range

\*Hatten et al. (2002, 2005) incorporate this record into their models as an alleged kill in the “Atascosa Mountains” in 1933, without sufficient information to either create a stand-alone record or reliably correlate it with any of the jaguars identified in Brown and Lopez-Gonzales (2000, 2001). By doing so, they further compromise the scientific integrity of their models.

This account is unreliable on its face.

### **1934, “Altar Mountains,” AZ**

Girmendonk (1994): Class III

Hatten et al. (2002, 2005): Class 3 Location “poor”

Parker and Coping: Class III (1); unverifiable hearsay, no such place as “Altar Mountains”

Lange (1960) reports:

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*“Frank Hibben, Professor of Anthropology at the University of New Mexico, reported a 1934 kill in the Altar Mountains, northwest of Nogales”*

The Altar Mountain range does not exist. The ranges surrounding Altar Valley include the Atascosa Mountains, the Baboquivari Mountains and the Coyote Mountains, to name a few. Furthermore, there is no information as to how the jaguar arrived at the location where it was killed, or whether it was trapped, poisoned or chased into the area from how great a distance by hunting dogs. Therefore, the location of this reported kill is unreliable.

Since Lange (1960) implies this record is within USFWS files either in Phoenix or in Washington D.C., and because the USFWS did not provide this record to the PNRCD upon proper FOIA request, this information is unverifiable and therefore unreliable.

Brown and Lopez-Gonzales (2000) speculated on the location as being the Atascosa Mountains. They also speculate on the “natural habitat” of this jaguar, reporting,

*“1934, Atascosa Mountains, Madrean Evergreen Woodland (Lange, 1960; fide F. Hibben).”*

Brown and Lopez-Gonzales (2001) again speculated,

*“1934. Unknown hunter. Atascosa mtns, AZ. Lange (1960) fide Frank Hibben. Atascosa Mts., circumstances unknown. Madrean Evergreen Woodland.”*

This record is omitted without explanation from Hatten et al. (2002).

Hatten et al. (2005) speculate that the location of this kill was the Atascosa Mountains. They consider this a “less reliable” (second hand) account and did not use it in their model.

### **1939, Bloody Basin, Yavapai County, trapper**

Girmendonk (1994): Class III

Hatten et al. (2002, 2005): Class 3

Parker and Coping: Class III (1); unverifiable hearsay

Lange (1960) offers, at best, unverifiable third-hand hearsay that,

*“Lockett reported that a trapper took one in Bloody Basin, Yavaipai [sic] County, in 1939.”*

Since Lange (1960) implies this record is within USFWS files either in Phoenix or in Washington D.C., and because the USFWS did not provide that record to the PNRCD in response to proper FOIA request, this information is unverifiable and therefore unreliable.

Brown and Lopez-Gonzales (2000) reported the following fourth-hand hearsay:

*“1939, Bloody Basin, Semidesert Grassland/Chaparral, unknown, unknown trapper (Lange, 1960; fide H. C. Lockett).”*

Brown and Lopez-Gonzales (2001) reported,

*“1939. Unknown trapper. Lange fide H.C. Lockett. [Sex]? Bloody Basin, AZ. Trapped. Semidesert grassland/chaparral.”*

**“Circa” 1940, Trout Creek, Whiteriver Apache Reservation**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3, Location 3

Hatten et al. (2005): Class 3

Parker and Coping: Class III (1); third-hand hearsay; location unverifiable; sex unknown

Brown and Lopez-Gonzales (2000) introduced this account into the literature for the first time. It reports,

*“Ca. 1940, Trout Creek, Whiteriver Apache Reservation, Riparian within Rocky Mountain Subalpine conifer Forest, unknown, bayed with dogs and killed as stock-killer fide W. West, S. Smith.”*

Brown and Lopez-Gonzales (2000) do not mention who “W. West” and “S. Smith” are, nor do they document any details that would enable verification of any part of this record. The account itself is unreliable and the attribution of “Riparian within Rocky Mountain Subalpine conifer Forest, considering the animal was chased for an unknown distance by hounds, is both wholly speculative and unreliable.

Brown and Lopez-Gonzales (2001) reports the following, at best, third hand hearsay:

*“Ca. 1940. Lavern West fide Steve Smith, Payson, AZ. Personal interview 8/9/2000. [sex] ? Trout Creek, WMAIR. Taken with dogs? Riparian within Rocky Mtn Montane conifer forest.”*

The account is third-hand hearsay repeated some sixty years after the fact of its alleged occurrence, and is therefore unreliable. Without a specific date attached, and some 60 years having passed between the “circa” date of 1940 and the personal interview with Steve Smith, it is even possible this account is the same jaguar whose skull is reported by Brown and Lopez-Gonzales (2000, 2001) to be “UA 6408” taken in 1956-1957 on the Whiteriver Apache Indian Reservation, and of which almost no details are known.

Brown and Lopez-Gonzales (2001), inconsistent with Brown and Lopez-Gonzales (2000), reveals that nobody knows how the animal arrived at the location where it was killed or the circumstances surrounding the kill. Also inconsistent is the earlier (2000) speculation that the jaguar’s “natural habitat” was riparian within subalpine conifer forest vs. the latter (2001) speculation that it was riparian within the lower altitude “Rocky Mountain Montane conifer forest.”

This account is entirely unreliable and may represent a duplicate record of a single jaguar.

**1947 Atascosa Mountains? Tumacacori Mountains? Duplicated jaguar. Peterson report**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location “poor”

Hatten et al. (2005): Class 3

Parker and Coping (2017): Class III (1); record is incomplete duplicate of 1949 jaguar taken by Walter Noon. See photo, Brown & Lopez-Gonzales (2001), p. 16. Location information per Housholder (1958) is reliable; therefore, we combine the two accounts in our examination of the 1949 record of the jaguar taken by Walter Noon.

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Housholder (1958) reports:

*“George Peterson, senior veteran game ranger for the Arizona Game and Fish Dept., reports a jaguar killed in 1947 in the Atascosa mountains west of Nogales. It was taken in Agua Fria Canyon, seven miles west of Atascosa Peak, by a hunter whose identity has been lost over the years.”*

Lange (1960) reports:

*“Housholder (1958) refers to a 1947 kill in the Atascosa Mountains, west of Nogales, reported to him by Ranger Peterson”*

Brown and Lopez-Gonzales (2000) reports:

*“1947, Atascosa Mountains, Madrean Evergreen Woodland (Housholder, 1958; fide AZGFD Ranger G. Peterson)*

Brown and Lopez-Gonzales (2001) wrote,

*“1947. Jim Converse? Housholder 1974 fide AZGFD Ranger G. Peterson.[sex] ? Tumacacori Mts., AZ. Killed a big heifer; other circumstances unknown. Madrean Evergreen Woodland.”*

Brown and Lopez-Gonzales (2001, at p. 16), show a photograph of a jaguar killed by Walter Noon near Arivaca in 1949. Among the men photographed with the two dead bucks and a dead jaguar is Ranger Peterson himself. It appears Housholder or Peterson mistakenly reported 1947 when 1949 was the correct date, thereby duplicating one jaguar as two.

In contrast to the kill location reported by Brown and Lopez-Gonzales (2000) (Atascosa Mountains), Brown and Lopez-Gonzales (2001) changed the location of the kill to the Tumacacori Mountains and speculated on the name of a hunter not mentioned in their citations.

This record appears to be a duplicate of the 1949 Walter Noon jaguar kill. The change of mountain range and hunter's name are new, without citation to source, and are therefore entirely unverifiable.

This record is therefore unreliable.

### **Spring 1948, Canyon S. Of Patagonia, Ray Harshman**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 3 Location “poor”

Hatten et al. (2005): Class 3

Parker and Coping: Class III (1) unverifiable hearsay documented 10 years after event; location unreliable for modeling due to 13 hour chase by hounds

Housholder (1958) reports the following hearsay:

*“Ray Harshman of Phoenix, hunting with George Bennet Sr. in the rough, canyon cut area south of Patagonia in the spring of 1948, killed a huge tigre, estimated to weigh more than 200 pounds. A rancher told Ray he'd seen a lion track the day before, west of his ranch. Early in the morning, Ray's hounds got on the track . . . Later in the day the track led into country that a horse could not negotiate, so Ray tied his mare, and followed the hounds afoot...”*

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*Twice the dogs went out of earshot... Near dusk, after 13 hours on the trail, the pack bawled "tree" and soon Harshman came upon the scene. Backed up against large boulders on a steep hillside, roaring defiance and sending 60 lb. hounds thru the air like leaves, was the big tigre. Twice as large as any lion Ray had ever seen, the jaguar had his rear protected and was open to frontal attack only. Each of the remaining six hounds was bleeding from the slashing, ripping blows of the cat's huge forepaws..."*

Housholder does not state his source, nor does he name an independent eyewitness.

Lange (1960) reports:

*"... and Ray Harshman took one in 1948 south of Patagonia."*

Brown and Lopez-Gonzales (2000) reports:

*"Spring 1948, S of Patagonia, Madrean Evergreen Woodland, male, bayed and shot as stock-killer (Housholder, 1958)."*

Brown and Lopez-Gonzales (2001) reports:

*"Spring 1948. Ray Harshman. Housholder 1958, 1974. M. S of Patagonia, bayed with hounds and shot by predator trapper. Madrean Evergreen Woodland."*

Housholder's account never mentioned where the hunt began, other than west of an unnamed person's ranch. The hounds tracked the jaguar 13 hours, so Brown's and Lopez-Gonzales's assigning "Madrean Evergreen Woodland" as the "habitat" of this jaguar is, again, simply speculation absent any evidence that he was killed in the same habitat the hunt started in.

Hatten et al. (2005) classified this hunt as a "second hand story" and the location accuracy of the kill, not the starting location of the chase, as 5.1-8 km (rank of 3 out of 4).

It is unclear how Hatten et al. (2005) pinpointed the location of the kill to within 8 km., because none of the sources quoted above estimates how far south of Patagonia the kill took place.

Hatten et al. (2005) did not consider this record scientifically worthy of inclusion in their model.

### **\*November 13, 1949, Cerro Colorado Mountains, Walter Noon, female**

Girmendonk (1994): Class III

Hatten et al. (2002): Class 1 Location "fair"

Hatten et al. (2005): Class 1 Location 2

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system

Parker and Copping: Class I (9); reliable for habitat modeling. This is a duplicated record with partial information in each. Combining the Housholder (1958) location description for the "1947" jaguar reported by Ranger Peterson in the Atascosa Mountains provides a detailed record reliable for habitat modeling purposes—provided this jaguar was indeed naturally occurring—which we have reason to doubt, but no evidence.

Housholder (1958) reports:

*"The late Walter Noon of Nogales killed a beautiful specimen in the Cerro Colorados while deer hunting with his son. Both Walter and his son were busy dressing a white-tail buck when the elder Noon heard a low growl. Slowly turning, he was startled to see a large jaguar crouched on a rock less than 50 feet away. Keeping his eye on the huge cat,*

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*Walter reached for his rifle, careful not to move quickly. The animal had its head slung low, so the hunter had no alternative to shoot at the head [Housholder had explained in the article that a head shot would destroy any skull measurements for the trophy records]. The bullet entered the lower jaw, head on, and killed the jaguar instantly.” The article includes a photo of Walter Noon with his jaguar, with the photo credited to Dave Karam.*

Lange (1960) reports:

*“Walter Noon, Sr., shot a jaguar while deer-hunting near Arivaca in the Cerro Colorado Mountains, Pima County, on November 13, 1949. Arivaca is some 15 miles from the Mexican border.”*

Brown and Lopez-Gonzales (2000) reports:

*“13 November 1949, Cerro Colorado Mountains, N of Arivaca, Semidesert Grassland, female, shot and photographed by deer hunter, mass=50 kg (Heald, 1955; Hock, 1955; Arizona Daily Star, 15 November 1949).*

Brown and Lopez-Gonzales (2001) reports:

*“11/13/1949. Walter Noon. Arizona Daily Star 11/15/1949. Heald 1955, Hock 1955, Housholder 1958. Photographs. F. Cerro Colorado, AZ. Shot while deer hunting. Wt 110 lb. TL 74 in. semidesert grassland.”*

\*Hatten et al. (2002, 2005) used this record in their models as a Class 1 record, assigning the location description a “2” for 1.7-5km precision.

Curiously, none of the authors quoted above took notice of this cat’s unusually aggressive behavior -- behavior much more typical of jaguars habituated to humans than those that are not. In addition, it was killed just 11 days before a male jaguar was killed not far away. No mention is made of this jaguar being injured at the time it was killed, which indicates that pre-existing injury was not the reason for the aggressive behavior displayed. Instead, this jaguar behaved like a hungry cat without fear of adult humans, which would be consistent with an animal released from captivity. These facts suggest that this jaguar may have been previously held in captivity before escaping or being released. Further indication that this jaguar may have been released is supported by the fact that Curtis Prock moved to Arizona in the late 1940’s.

Since Brown and Lopez-Gonzales (2001) includes a photo of these hunters with Ranger Peterson and the two deer and jaguar they killed, it appears the record stating that Ranger Peterson reported a jaguar killed in 1947, in the Atascosas by a forgotten deer hunter, is actually a duplicate of this jaguar record.

Finally, Culver and Hein (2016) states on pages 16-17,

*“...there is no evidence of recent female jaguar dispersal events either into or out of the Arizona/Sonora area. Recent means a minimum of 15 years ago (when the Sinaloa/Jalisco samples were collected; we can not detect anything more recent than that), and a maximum of 350,000 years ago...”*

*As of 2016, there is no evidence suggesting the presence of a jaguar breeding population in Arizona.”*



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### Thanksgiving Nov. 24, 1949, Atascosa Mountains-Ramanote Canyon, Male, Lloyd “Red” Harris

Girmendonk (1994): Class II

Hatten et al. (2002): Class 1 Location 2 (fair)

Hatten et al. (2005): Class 1 Location 1 (good, within 1.6 km accuracy) Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system; they also identify the year specifically as 1941 w/o citation to specific source

Parker and Coping: Class 1 (10); Location reliable for habitat modeling based on Brown and Lopez-Gonzales’ personal communication with Mr. Harris.

Housholder (1958) reports:

*“Red” Harris, ex-government trapper, killed a male adult in 1942 near Ruby, AZ.”*

Lange (1960) reports:

*“Red” Harris, a Federal hunter, took one in 1941 in the Ruby district south of the Cerro Colorado Mountains.”*

Brown and Lopez-Gonzales (2000) reports:

*“23 November 1939, Ramanote Canyon, Atascosa Mountains, Madrean Evergreen Woodland, male, bayed with dogs and shot as a stock-killer, photographed (L. Harris, pers. Comm.; AZGFD files, Phoenix).”*

Brown and Lopez-Gonzales (2000 and 2001) mention that this jaguar had horse remains in its stomach, per personal communication with Mr. Harris. They speculate about the habitat occupied by this jaguar because, unmentioned by them, this cat was also subjected to chase by hounds before it was finally killed. Because Brown and Lopez-Gonzales do not document where or in what habitat the chase of this jaguar began, or how many days or miles it was chased before reaching the place where it was finally killed, the assignment of “Madrean Evergreen Woodland” habitat to this jaguar by Brown and Lopez-Gonzales is both speculative and unreliable at best.

Brown and Lopez-Gonzales (2001) reports:

*“11/23/1939 Red Harris. S. Goodwin, pers. Comm., Housholder 1974. Photograph. M. Ramanote Canyon, Atascosa Mts., AZ Bayed with dogs and shot as stock killer.”*

Brown and Lopez-Gonzales (2001, at p. 91) imply that Harris was working not in the capacity of a federal predator control agent but instead as a freelance bounty hunter for a rancher. The rancher kept the hide as his own, further indicating Harris was not working on government time when this jaguar was killed.

\*(Hatten, Annalaura Averill-Murray, & Pelt, 2002) includes this record in its models as a Class 1 kill in the Atascosa Mountains in 1939 and assigns a site description ranking of “2” for “fair.” (Hatten et al., 2005) likewise includes this record in its model as a Class 1 kill but, without explanation, *upgrades the site description rank to “1”* meaning within 1.6 km precision. This is unreliable speculation for habitat modeling because hounds chased this cat an undocumented distance prior to its death.

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Moreover, a photograph, with a caption apparently hand-written by Harris himself, indicates that this jaguar was not killed in 1939. Instead, on this photograph of Mr. Harris with this jaguar, given directly to Mr. George Proctor (USFS retired) by Mr. Harris (and provided herein), Mr. Harris states the date in caption as “Thanksgiving day 1949.” This date, November 24, 1949, differs by 10 years from that stated by (Brown, 1983) and if correct as appears to be the case, casts substantial doubt on the (Brown, 1983) characterization of jaguar decline in Arizona, upon which the jaguar listing was founded. It also differs by 10 years from that stated by Brown and Lopez-Gonzales (2000), and Brown and Lopez-Gonzales (2001). That difference puts the Red Harris kill within two weeks of Walter Noon’s jaguar kill in the Cerro Colorado during November of 1949.

To help resolve the date question, we identified the two vehicles in the photograph.

A 1939 Chrysler Royal Sedan appears in the background (Lee, 2008 Dec 15). The vehicle in the foreground is a 1940 Chevrolet Master Deluxe Business Coupe. (The Auto Editors of Consumer Guide, 2017), (General Motors Corporation, 1940). The 1940 Chevrolets were rolled out in all 8,600 GM dealerships nationwide on October 14, 1939. (3 November 1939) That means that if the photo was shot on November 23, 1939, as alleged by (Brown & Lopez-Gonzales, 2000) and (Brown & Lopez-Gonzales, 2001), then the vehicle in the foreground rolled off the dealer’s lot for the first time, at most, 32 days earlier. Judging from the apparent oxidation on top of the fender, the apparent dent on the front of the fender, the dirt buildup on the running board, the muddy tire, and most importantly, the fact that the trunk is propped open presumably to load a large dead animal into it, it is improbable that the vehicle is barely a month old and the vehicle in the background is only about a year old.

If Mr. Harris had identified “Thanksgiving Day” in 1939, he would have known that there were *two* Thanksgiving days that year. (WorldNow, 2017) Therefore, he would be more likely to have written the calendar date than the holiday on the photo.

In summary, the following evidence refutes the 1939 date:

1. According to Mr. Proctor (personal communication with Dennis Parker), Red Harris personally wrote, “Thanksgiving day 1949” on the photo.
2. There were 2 Thanksgiving holidays in 1939, so if the year 1949 is wrong, the calendar date would likely have been identified, rather than the holiday.
3. The vehicle in the foreground of the photo exhibits neither the condition nor the immediate use to be expected of a car that was just 32 days old or newer. Ownership dates might be confirmed via 1939 and/or 1949 ADOT records.

Finally, Lloyd F. Harris was born in 1911, so he was 38 years old in 1949. His age is consistent with the photograph.

We conclude that this jaguar was killed on 11/24/1949 west of Rio Rico.

Significance:

1. This jaguar was killed just 11 days after Walter Noon killed a female jaguar in the Cerro Colorado Mountains. Location of the Harris jaguar is in question and may have been confused with the record for the Noon jaguar in (Lange, 1960).
2. Brown and Lopez-Gonzales claim to have obtained the location of Ramanote Canyon from personal communication with Mr. Harris. Despite our disagreement on the date,

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Ramanote Canyon is not an unlikely location, being coincident with the location of the last naturally occurring Mexican wolf taken in Arizona.

3. Most importantly, re-plotting this record accurately into the histogram of Brown (1983) reveals a fluctuating rather than smooth, continuous decline of jaguar records between 1900 and 1950. This is important because a new histogram constructed with accurate dating of exclusively reliable records and having a proper origin showing the actual dearth of records prior to 1900 (Figure 4), shows wildly erratic fluctuation. It thereby soundly refutes the following, inaccurate statements paraphrased in the Draft Jaguar Recovery Plan (p. 11):

*Brown (1983) plotted numbers of jaguars killed in Arizona and New Mexico at 10- year intervals from 1900 to 1980 and argued that the decline is characteristic of a resident population that was hunted to extinction. If the jaguars killed during this period were dispersers from Mexico, the numbers would have fluctuated erratically, not in a declining pattern (Brown 1983).*

An accurate plot incorporating accurate data, the never-identified jaguar records that “predate the introduction of domestic animals” and reliable, verifiable evidence of “widespread occurrence of jaguars (including females with young)” would likewise refute the statement in Brown (1983),

*Most recent records were males, and the last 2 were taken within 6 km of the United States- Mexico boundary. This has led some to consider all jaguars in the Southwest United States as "drifters" from Mexico that expanded their range by subsisting on livestock. The widespread occurrence of jaguars (including females with young) in Arizona prior to 1950 makes this assumption appear forced. Further contradicting the "wanderer" hypothesis are several jaguar reports in the Southwest that predate the introduction of domestic animals.*



Photo

with caption hand-written by Lloyd “Red” Harris, indicating date is 11/24/1949.

**\*1956? 1957? Whiteriver Apache Reservation, J. Gilbert. M? Skull at UA#6408**

Girmendonk (1994): NA

There is no mention of this record in the literature prior to 2000.

Hatten et al. (2002, 2005): Class 1 Location 2

Parker and Coping: Class I (9); location unreliable for habitat modeling

Brown and Lopez-Gonzales (2000) reports:

*“Winter 1956-1957, Whiteriver Apache Reservation near White River, Riparian within Great Basin and Rocky Mountain Conifer Woodlands, unknown, UA 6408.”*

Brown and Lopez-Gonzales (2001) reports:

*“Winter 1956-1957. Jimmy Gilbert. Skull at University of Arizona. M? White River, WMAIR, AZ. Riparian/Great Basin conifer Woodland.”*

Brown and Lopez-Gonzales (2001) speculated that this jaguar might be a male.

Without citation to a new source of information, Brown and Lopez-Gonzales (2001) move this kill from an unknown distance “near” White River to White River as compared to Brown and Lopez-Gonzales (2000). They also name the killer of this jaguar for the first time and speculate as to this specimen’s gender.

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They further speculate, without knowing the details of how this specimen was taken, how it arrived at the location where it was first spotted, or how far it moved between being spotted and being killed, that this jaguar's "habitat" was nonetheless "Riparian within Great Basin and Rocky Mountain Conifer Woodland."

\*Hatten et al. (2002, 2005) incorporated this record into their models, ranking it as Class 1 and assigning a rank of "2" to the location description meaning within 1.6-5 km precision. How they determined that location with such precision is unmentioned by them and remains a mystery. The timing of this record is also very close to the dates when Curtis Prock became known for running some highly publicized hunts for jaguars that were secretly imported (from Mexico and/or the country then known as British Honduras) and released from cages for that purpose. As a jaguar would travel, White River is less than 80 miles from Curtis Prock's favorite hunting grounds near Young, Arizona. When an animal Mr. Prock's client was chasing moved onto the Fort Apache Indian Reservation, a sanctuary, the hunt ended. (Toney, December 1959) Considering the close spatial and temporal proximity of Prock-guided hunting, this record is suspect.

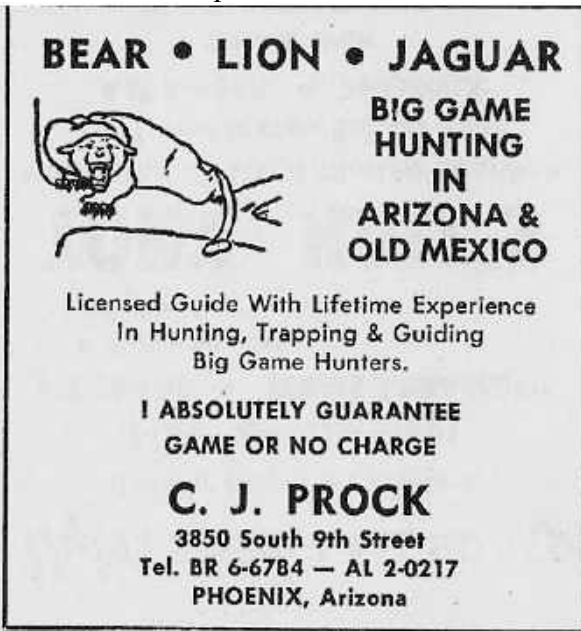


Figure 1. Curtis Prock ad, January 1958 issue of *Arizona Wildlife Sportsman*

The habitat information concerning this jaguar is both speculative and unreliable.

### **Autumn 1957, Red Mtn. North of Clifton, AZ, Ferguson**

Girmendonk (1994): NA

Hatten et al. (2002): Class 3

Parker and Coping: Class III (1); unverifiable hearsay; details are suspiciously coincidental with other jaguar records

Brown and Lopez-Gonzales (2000) reports:

*"October or November 1957, Red Mountain, N of Clifton, Chaparral/Madrean Evergreen Woodland, male, shot by deer hunter fide S. Goodwin)."*

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Brown and Lopez-Gonzales (2001) reports:

*“10 or 11/1957 Mr. Ferguson fide Sewell Goodwin and P. Cosper. M. Red Mountain near Clifton. Shot while deer hunting. Chaparral/Madrean Evergreen Woodland.”*

Brown and Lopez-Gonzales (2001, at p. 97) reports,

*“Another male was shot by a deer hunter in 1957—ironically on the same mountain as the one killed by a deer hunter in 1913.”*

Neither Lange (1960) nor Housholder (1958) mentions this jaguar. Since “S. Goodwin” is not listed in cited documents, and is now deceased, there is no way to validate the kill or habitat description provided by Brown and Lopez-Gonzales (2000, 2001).

This record is dubious because it contains too many improbable coincidences with other records. First, this would be the first of *two* jaguar kills in Arizona within three years that involved “Mr.” Ferguson and Sewell Goodwin. Similar odd coincidences led another hunter, Curtis Prock, to a Lacey Act conviction and yet the similarities between this alleged record and the 1961 jaguar apparently went unnoticed by the authorities.

Second, the details of this kill are too coincidentally nearly identical to the 1913 jaguar kill reported by Ben Lilly, which also was attributed to a deer hunter and mentions the Cosper family and the exact same location. These coincidences are so odd that it appears Brown and Lopez-Gonzales allowed their recordkeeping to become disorganized and may have accidentally inserted the information from the 1913 kill into this record. This is quite possible because they made a similar mistake in confusing the information for the 1913 record from Clifton with another account reported by Ben Lilly. They also published conspicuously inaccurate information in Brown and Lopez-Gonzales (2001, at p. 92) in relaying the account of the 1961 jaguar kill involving Sewell Goodwin and Ted Ferguson.

Since Sewell Goodwin and Ted Ferguson have passed away and the Brown and Lopez-Gonzales report cites neither written documentation nor the location of any physical evidence, the reported information is unverifiable and therefore unreliable

Pima NRC D Supervisor Jim Chilton contacted a Cosper family member who lives in the Cosper Blue area and inquired about this jaguar and the jaguar Ben Lilly allegedly reported. Mr. Chilton then emailed Cindy Copping on October 3, 2013 and reported,

*He had never heard any relative who ever mentioned any Cosper stating that they had killed a Jaguar or seen a dead Jaguar carcass.*

### **1958-1959, Curtis Prock’s successful guided hunts of 3 imported female jaguars**

Parker and Copping: Class III (1) for all three accounts

April 21, 1958, John Nutt, female, score 14 14/16 - Girmendonk (1994): Class III –Girmendonk notes that it was likely released

January 4, 1959, Jack Herter, female, un-scored– Girmendonk (1994): Class I- Girmendonk notes that it was likely released

May 5, 1959, Ed Scarla, 115 lb. female, score 14 9/16- Girmendonk (1994): Class I- Girmendonk notes that it was likely released.

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Housholder (1959) reported that Curtis Prock used a caller to attract the jaguar and 13-year old Jack Herter, son of the owner of the famous Herter Sporting Goods store, shot the 150-lb female. The cat's remains went on display at the store. Very likely the other jaguars Mr. Prock allegedly imported and released were also taken with predator callers.

Hatten et al. (2002, 2005) omit these 3 jaguars without mentioning they existed, much less any reason for their omission.

Grigione et al. (2007): **RED FLAG** All 3 jaguars -Class 1 or 2 while claiming to use Girmendonk's classification system. Further **RED FLAG** Grigione et al. (2007) failed to mention that these cats were likely imported and released from cages but did improperly mention them among the total number of supposedly naturally occurring females seen in Arizona. That methodology is both misleading and unscientific. Grigione et al. (2007) then speculated, based in part on their misrepresentation of this data, that the number of females taken in Arizona means there was an historic breeding population of jaguars in Arizona.

Housholder (1958) wrote, before the secret of Curtis Prock's "success" was discovered:

*"When Johnny Nutt, well known Eloy cotton grower, killed a female jaguar April 21 of this year near Nogales, it became the 16<sup>th</sup> known Mexican Tigre taken in the State of Arizona."*

*"...Ten of the 17 Arizona killed jaguars were taken by sportsmen, the remainder taken by federal predator hunters. Only one, I believe, was killed on purpose. By that, I mean, a jaguar hunt actually being set up in Arizona. This was Nutt's trip last April to the Peña Blanca Dam area 15 miles northwest of Nogales. A rancher had reported to Curtis Prock that a jaguar had been seen on his property near the Mexican border, thus an actual Arizona tigre hunt became a reality."*

*The Arizona Game and Fish Laws...list the jaguar as one of 11 predators to be found in Arizona, however, at the present time, the only bounty paid for any predator is for the mountain lion."*

A photo of the jaguar is shown. The caption reads,

*"The 17<sup>th</sup> jaguar in Arizona was killed by John Nutt, April 21, 1948, 15 miles northwest of Nogales near Peña Blanca Dam. Left to right are: Pete Brown, Gun Editor for Sports Afield, guide Curtis Prock, John Nutt on right. This is his second jaguar. (Photo by author.)"*

Lange (1960) wrote, before the secret of Curtis Prock's "success" was discovered:

*"April 21, 1958, John Nutt, a rancher from Eloy, Arizona, hunting with C. J. Prock, an Arizona licensed guide, shot a female by Pena Blanca Lake, Santa Cruz County. The skull of this animal is now in the Department of Zoology, University of Arizona. On January 4, 1959, Jack Herter, the 13-year-old son of George Herter, who owns the Herter Sporting Goods Store in Waseca, Minnesota, shot an animal while quail-hunting in the Patagonia Mountains northeast of Nogales. The guide, C. J. Prock, called this animal in with a "Mexican caller." This jaguar is destined for display in the Herter store. The most recent kill is that of May 5, 1959, when Ed Scarla of Phoenix, guided by C. J. Prock, shot a female, "8 years old-115 lbs. dressed," 30 miles east of Nogales near*

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*the Mexican border. . . . three private hunters guided by C. J. Prock have accounted for the last three jaguars from Arizona.”*

Brown and Lopez-Gonzales (2000) reports:

*“APPENDIX Records of jaguars reported killed or photographed in Arizona and New Mexico from 1900 through 1999 . . . These accounts do not include guided hunts.”*

While this mention of omitting guided hunts is honorable, Brown and Lopez-Gonzales (2000) did not give their reasons for omitting them. That omission of explanation could easily mislead an uninformed reader into forming the false impression that all jaguars in Arizona and New Mexico were “naturally occurring” and arrived without benefit of any human help. To their credit, Brown and Lopez-Gonzales do mention in their 2001 book, however briefly and vaguely, that canned hunts of jaguars did occur in the Southwest.

Brown and Lopez-Gonzales (2001) wrote,

*“No guide or client ever intentionally set out to kill a jaguar in Arizona and did so—at least not until the 1950’s.*

*Eyebrows were therefore rightfully raised when three jaguars were taken on guided hunts in Arizona and another near Marfa, Texas, in the 1950’s. All of these fortunate hunters had employed the same guide, an experienced and wide-ranging lion and bear hunter who also had a hunting camp in what was then British Honduras. According to his onetime partner, the two of them smuggled more than one jaguar in and out of Mexico, having some incredible adventures in the process. Suspicions intensified, however, when the senior partner was convicted of transporting a mountain lion across the Idaho state line to be released for one of his clients. There were other suspicious circumstances. At least one taxidermist noted that an Arizona “jaguar” that he was to mount had soiled itself. Only a cat kept in a cage, he said, did that. Enough said. No jaguar taken in the United States on a guided hunt specifically for jaguars can be considered legitimate.”*

Here, Brown and Lopez-Gonzales appear to be writing to keep their readers entertained while inaccurately combining Curtis Prock’s 1964 and 1973 Lacey Act convictions into a single account and also omitting important information without explanation. Prock did not own a hunting ranch in British Honduras (today known as Belize) until after 1964.

Curtis Jackson Prock was convicted in 1964 on Lacey Act charges for transporting a mountain lion over the Utah/Arizona state line without a proper permit from the Arizona Game and Fish Department. A shipment of five lions was impounded after crossing the Utah border into Arizona at Fredonia, Arizona. (Parker, 2010b)

Prock was arrested on Lacey Act charges a second time in 1974 in New Mexico. At that time, he had 4 jaguars and a black leopard in his possession. In 1974 he was convicted in Boise, Idaho. (Jones, 1974 Jan 14) At least 9 jaguars, caught in Mexico and/or present day Belize, were released in western New Mexico near the Arizona line by Mr. Prock in 1972-73 alone. He had been releasing imported jaguars in the Apache Creek area southwest of Albuquerque (Jones 1974), just 45 miles from Big Lake, AZ, where a female jaguar was killed ten years earlier in 1963, and within 30 miles of Red Mountain north of Clifton, where a jaguar was killed in 1957. Both of those areas are improbable sites for naturally occurring jaguars. It appears probable therefore, that Mr. Prock may have been releasing imported jaguars for sport hunting in the



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Apache Creek area as early as the 1950's and 1960's, or during the same time period he was actively doing so in southern Arizona.

Hatten et al. (2002, 2005), like Brown and Lopez-Gonzales, omit mention of the *known* guided hunts. Unlike Brown and Lopez-Gonzales, however, Hatten et al. fail to mention that canned hunts ever happened. This critical omission further misleads an uninformed reader into believing that all records of jaguars in Arizona are of naturally occurring animals, when, in fact, a significant percentage of them are not.

### \*July 26, 1961, Total Wreck Mine, Empire Mountains, male, H. Barnett et al

Girmendonk (1994): Class I

Hatten et al. (2002): Class 1 **Location 1**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system; **states exact location is unknown (when it was specifically known) and places it in Cochise County.**

Parker and Copping: Class 1(9); reliable for habitat modeling because the jaguar's location was initially documented in a creek one mile west of the ranch headquarters before they started trailing it, and the jaguar had been using the mine tunnel as a lair long enough to consume 25 head of cattle, in addition to a horse and colt, and deer and peccaries. W.F. Barnett and Sewell Goodwin, in Lopez-Gonzales (2001) on pp. 120-124, provide detailed eyewitness accounts. A photograph appears on page 119. On p. 121 Barnett states that the jaguar had preyed on calves in a pasture 1 mile west of the Ciénega headquarters. The dogs picked up the jaguar's track and followed it down the creek. Barnett or Goodwin also mentions that they found sign that the jaguar had been using an abandoned mine tunnel high on a ridge as a lair "for quite a while." According to Sewell Goodwin, 40 years after the event, the jaguar's lair was either the New York Mine or the Total Wreck Mine but it was five or six miles northwest of the Ciénega Ranch headquarters. Later he mentions finding a track in the Cienega Creek west of the ranch.

Brown and Lopez-Gonzales (2000) wrote,

*"26 July 1961, Empire Mountains, Total Wreck Mine, Semidesert Grassland, male, bayed with dogs and killed and photographed, (S. Goodwin, pers. comm.; Barnett, 1961)."*

Brown and Lopez-Gonzales (2001) wrote,

*"7/26/1961 H. Barnett, Ed Hilton, T. Ferguson, S. M Goodwin. Pers. comm., Barnett 1961. Photographs. Total Wreck Mine, Empire Mts., AZ, Bayed with dogs and shot as stock-killer. TL=75 inches. Semidesert grassland/riparian"*

Brown and Lopez-Gonzales (2001) wrote on p. 92,

*"...Ted Ferguson and Sewell Goodwin, who helped kill a jaguar on the Ciénega Ranch in Cochise County in 1960,"*

This information is incorrect. **The Empire Mountains, the Ciénega Ranch and Ciénega Creek are all in Pima County.** This information shows that Brown and Lopez-Gonzales were careless in their recordkeeping. The fact that Grigione et al. (2007) repeated the error demonstrates their carelessness as well in accepting another's inaccurate work without proper examination.

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\*Hatten et al. (2002, 2005) used this record in their models, ranking it as Class 1 and ranking the site description as within 1.6 km.

Furthermore, this record is suspect because it occurred during the hunting guide career of Curtis J. Prock in Arizona. Prock led “canned hunts” for jaguars both southwest of (Pena Blanca) and southeast of (Patagonia, Mountains and Lochiel, respectively) the Total Wreck Mine in Arizona prior to the killing of this jaguar. He conducted those three hunts in 1958 and 1959. This jaguar was also small like the ones Mr. Prock is known to have imported. Moreover, immediately after Mr. Prock’s departure from Arizona in 1964, the number of jaguar kills within the state dropped to nearly zero, with only two recorded over the next 22 years. As a result, the origin of this small jaguar is suspect, thus making this record unreliable for modeling use purposes.

### 1963, Big Lake, AZ, T. Penrod, female

Girmendonk (1994): Class I

Hatten et al. (2002): Class 1 Location 2

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

Parker and Coping: Class III (1): unreliable for habitat modeling due to very high probability the jaguar was imported and released

The November 1963 issue of *Arizona Wildlife Sportsman* shows a photograph of Terry Penrod with a very small female jaguar he had shot several weeks earlier. The caption reads,

*“Right, Terry Penrod of Lakeside kneels beside pelt of jaguar killed high in the White Mountains near Big Lake. Penrod and a friend were varmint calling when the 105-pound “cat” came within range, lured by the calls. Available records list fewer than 40 legitimate jaguar kills ever made in Arizona. He was dropped at a range of less than 100 yards with a .270 rifle. (Phoenix Gazette photo.)”* (November 1963)

Housholder (1966) consists of a list of 39 jaguars taken in Arizona. While the three jaguars taken on hunts guided by Curtis Prock in southern Arizona are noted as “questionable,” this female jaguar taken in 1963 is given the following footnote,

*“This cat was probably released in front of a hunter and got away – teeth were worn”*

(Housholder, 1966)

*He gives the location as Big Lake, (9000’).*

This was a small young jaguar, only 105 pounds, and yet the teeth were worn, a sign it had may have spent some time in a cage.

Brown and Lopez-Gonzales (2000) reports:

*“Kill locations ranged from as low as 500 m to >3,000 m.”*

Brown and Lopez-Gonzales (2001) report:

*“A captioned photo of this jaguar, states, “FIG.1-Female jaguar killed at an elevation of 3,025 m [9,925 feet] in the White Mountains of Arizona in 1963.”*

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*“23 September 1963, S of Big Lake, ca. 3,000 m [9,843 ft] elevation. Rocky Mountain Subalpine Conifer Forest, shot and photographed by hunter, had fed on elk carrion, mass= 47.7 kg (T. Penrod, pers. Comm.; AZGFD files, Pinetop.)”*

Brown and Lopez-Gonzales (2001) reports, however, in Table 1 on page 57, that this same jaguar was killed at an elevation of 9,000 feet [2743 m].

Brown and Lopez-Gonzales (2001) also reported, at page 96:

*“Probably the only Southwestern jaguar taken with a predator call was killed in September 1963 by Terry Penrod near Big Lake in Arizona’s White Mountains.”*

This statement is incorrect. An imported jaguar released by Curtis Prock in Arizona was also taken with a predator caller on a guided hunt on January 4, 1959 (Housholder, February 1959).

Brown and Lopez-Gonzales (2001) also reports:

*“Most unusual, however, was that the cat was killed in spruce-fir forest at an elevation of more than 9,500 feet [2,850 m].”*

Thus, Brown and Lopez-Gonzales (2001) present three separate elevations for the kill site of this jaguar.

In point of fact, this is the only record to our knowledge of a jaguar killed out of habitat at such high altitude – more than 9,500 feet in elevation and perhaps as high as 9,925 feet -- anywhere within the jaguar’s range. The fact that this record is nonetheless being used to model suitable habitat for jaguars in the American Southwest is therefore as unreliable as it is scientifically unprecedented.

Brown and Lopez-Gonzales (2001) misstate the year of the kill as 1961 in Table 4 on page 23.

A tabular report entitled Arizona Game and Fish Department records for AZ-NM 1900-2009 Draft 03, submitted to the Center for Biological Diversity per public records request to AZGFD, reports:

*“1963:9/28; validity questioned. Terry Penrod, pers. Comm. AZGFD game wardens speculate animal might have been released in “canned hunt” before Penrod shot it. R.Babb and R. Thompson pers. Comm.; F; AZ: at 9,000 ft el S of Big Lake, White Mts; shot while predator calling; Rocky Mt Montane Conifer Forest and Subalpine Conifer Forest; Brown 2001; R. Kohls; pers. Comm.”*

Nonetheless, \*Hatten et al. (2002, 2005) incorporate this record into their models, ranking it as Class I and assigning a site description to it of “2,” meaning 1.7-5 km accuracy.

The Arizona Game and Fish tabular record of jaguar occurrences in Arizona arbitrarily and inaccurately presumes all natural history of jaguars in Arizona and NM began in the year 1900, further perpetuating the charade and public misperception of a pre-1900 abundance of jaguars. (Arizona Game and Fish Department, 2011)

The information that the game wardens thought these jaguars were imported was never released by AZGFD prior to its publication in the January 2011 AZGFD Jaguar Assessment report despite proper Public Records request made of the AZGFD by the Pima NRC.

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Using a topographic map and elevation lines, we found it very difficult to estimate within several miles where this kill actually took place, given the self-contradictory information presented by Brown and Lopez-Gonzales (2001) concerning elevation.

In 1974, Curtis Prock was arrested on a second set of Lacey Act violations involving the importation of jaguars into New Mexico for canned hunts. At that time, he had been releasing jaguars from cages in the Apache Creek area near Reserve, about 40 miles as the crow flies, from Big Lake. It is entirely possible that Mr. Prock had been running canned hunts out of the same area as early as the 1950's and 1960's.

Moreover, AZGFD law enforcement officers presumed at the time (1963-64) that this and the Culbreath jaguar, oddly killed in high elevation pine forest that subsequent winter, were not naturally occurring, but captive, imported animals released or caused to be released into Arizona by Mr. Curtis Prock (AZGFD Jaguar Assessment, 2011). Mr. Prock was also of the expert opinion that neither of these jaguars was naturally occurring. According to Mr. Prock, these jaguars "had plenty of help getting to where they got to" in Arizona. (C.J. Prock, pers. comm., August 2010).

Dennis Parker interviewed Curtis Jackson Prock on May 5, 2010. He was 97 years old. Having been an active, high-demand hunting guide who had been leading big game hunts in the early 1960's in the same area, and as the world's foremost authority in the world regarding jaguars, their native habitats and behavior, Mr. Prock provided his expert opinion that this small female jaguar killed by Terry Penrod on September 23, 1963, as well as the small male jaguar killed by Russell Culbreath on January 16, 1964, had both "had a lot of help" getting to where they had gotten to.

As a result, use of the Penrod and/or Culbreath jaguar records for purpose of modeling suitable habitat, critical habitat, or breeding potential for naturally occurring jaguars in Arizona and New Mexico is both wholly speculative and unreliable.

A satellite view showing the starting locations of Prock-guided hunts in relation to the locations of this jaguar and the jaguar taken in 1963 by Terry Penrod is shown below.

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Figure 2. Starting locations of big game hunts guided by Curtis Prock in relation to locations where jaguars were taken in 1963 and 1964, and the location of “canned” jaguar hunts in 1973

The Pima NRC D et al. submitted this and other substantial new information to U.S. Fish and Wildlife Service on September 23, 2010. (Parker, 2010a) (Coping, 2010a) This information was also emailed to AZGFD Director Larry Voyles on October 11, 2010. (Coping, 2010b)

The January 31, 2011 AZGFD Jaguar Conservation Assessment (Johnson et al., 2011) responded to this new information, but the paper was never announced to the public, published or posted online. The Pima NRC D first learned of it from a citation in the April 2012 Draft Recovery (U.S. Fish and Wildlife Service, 2012b). We requested and received a copy from the Arizona Game and Fish Department. Johnson et al. (2011) severely misrepresented the new information about the Penrod and Culbreth jaguars. This is significant because USFWS 2016 states only that these two jaguars are “disputed” and cites Johnson et al. (2011) without mentioning that the latter severely misrepresents the facts:

*In the U.S. portion of the NRU, including southeastern Arizona and extreme southwestern New Mexico, only male jaguars have been documented since 1950; the last female documented in this area was in 1949 (Brown and López González 2001). No jaguars have been documented north of the NRU in the U.S. since 1963 (Brown and López González 2001, Johnson et al. 2011; note the validity of the 1963 record (a female jaguar killed in the White Mountains of Arizona) has been disputed—see Johnson et al. 2011 for further information). (U.S. Fish and Wildlife Service, 2016, p. 74)*

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In Parker (2012), Dennis Parker responded to the misrepresentations of fact found in Johnson et al. (2011):

*“D. False and Misrepresentative Statements Published to the Service by the Authors of the 2011 Jaguar Conservation Assessment For Arizona, New Mexico And Northern Mexico*

*Another serious problem which requires addressing here, is that false and misrepresentative statements published by the authors of this 2011 Jaguar Conservation Assessment that have found their way into this recovery outline. Specifically, in footnote 13 of that assessment, the authors attempt to entirely discount previously submitted, September 23, 2010 comments on the jaguar, to which the PNRCD was a party, based in large part on the claim that the supporting documentation for those comments’ challenges of the 1963 Penrod and 1964 Culbreath jaguar records was “not available” to AGFD.*

*That claim, however, is patently false. Instead, as shown in attachment (see attachment), a complete package of those September 23, 2010 comments and their supporting documentation was emailed to Mr. Larry Voyles, Director of AGFD, on October 11, 2010. Therefore, contrary to the claim of those authors, the documentation supporting the September 23, 2010 comments was, in fact, made available to AGFD in October of 2010. As a result, these authors are left with no legitimate excuse for falsely publishing the opposite to the Service in the 2011 jaguar assessment they wrote for AGFD.*

*Nor do these authors have any legitimate excuse for misrepresenting to the Service what the September 23, 2010 comments actually state – not infer – about the little, imported female jaguar Mr. Prock allowed to escape in New Mexico during the 1972-73 hunts. According to the authors of AGFD’s 2011 assessment: “Parker referenced an August 5, 2010 personal communication from Prock from which Parker inferred that a small female jaguar (and perhaps others) released in the 1972-73 NM hunts had not been killed.”*

*That statement is also patently false. Contrary to these AGFD authors’ claim, the comments make no inferences. Instead, the September 23, 2010 comments plainly state what Mr. Prock actually said in that August 5, 2010, interview in Texas: that this little female, turned loose and rejected by the hunter, was not recaptured.*

*Similarly, those comments also plainly state – not infer – what Mr. Prock actually reported about other escapees: that every now and then a jaguar did get away from him on a hunt, but not often. According to Mr. Prock, this usually occurred when a jaguar made it onto land where he wasn’t allowed to follow it. As a result, the AGFD authors’ misrepresentation of these comments to the Service as inferences, rather than statements, is also wholly inaccurate and equally without basis in fact or excuse.*

*Further misrepresentative and inaccurate, is these authors’ subsequent claim, made immediately following the sentence quoted above, that “[b]ased on Prock’s comments, Parker asserted the 1963-64 AZ jaguars taken by Penrod and Culbreath should be rejected as legitimate records. At one point, Parker seemed to imply that a small female jaguar Prock released in the 1972-73 NM hunts escaped and might be the 78 lb. female*

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*that Penrod killed in AZ in 1963.” The September 23, 2010 comments, however, are not written in the context misrepresented to the Service by those authors but instead, when viewed in their actual context, reveal no inference or implication of the sort.*

*In their actual context, the September 23, 2010 comments reveal that Mr. Prock was of the specific, expert opinion that neither the Penrod nor Culbreath jaguars were naturally- occurring and that both had plenty of help getting to where they got to in Arizona. Those comments then go on to immediately state that Mr. Prock’s expert opinion about the origin of these jaguars is particularly relevant because it provides question of those records, in addition to the question presented by the oddity their presence out of habitat referred to by Brown and Lopez-Gonzales (2000), that makes those records unreliable for critical habitat mapping purpose (i.e., the Penrod jaguar is the only record of a jaguar to our knowledge taken out of habitat in spruce-fir forest above 9,500’ in elevation, while the Culbreath jaguar was also taken out of habitat for that time of the year -- in high pine forest in January).*

*Contrary to the false impression published to the Service by the authors of this 2011 assessment, the little, imported female released during the 1972-73 New Mexico hunts is neither mentioned nor discussed in the section of comment relevant to Mr. Prock’s opinion about the origins of the Penrod and Culbreath jaguars and why that opinion is highly relevant. Thus, any “implication,” seeming or otherwise, that the little female and the Penrod jaguar are one and the same is clearly the false creation of the authors of this 2011 assessment alone.*

*That such is the case is further proven by the fact, unmentioned by those same authors, that Mr. Prock’s expert opinion about the Penrod and Culbreath jaguars as reported in previous comment is, in actuality, not only consistent with, but corroborated by, new, important and highly relevant information about Mr. Prock they themselves provide in this same, 2011 assessment.*

*According to the 2011 assessment:*

*“In the White Mountains of east-central AZ, in 1963, a hunter (T. Penrod) killed a small female and in 1964 a government trapper (R. Culbreath) killed a male (Brown and Lopez-Gonzales 2001). AGFD law enforcement officers speculated one or both of the jaguars had been imported for “canned hunts” (hunts involving release of captive animals) by C.J. Prock, a guide who was investigated for canned hunts involving other species of wildlife. The premise was that the Penrod and Culbreath jaguars had escaped from Prock hunts but the jaguar case could not be made (R. Kohls personal communication; R. Thompson personal communication). Prock, who did not guide Penrod or Culbreath, later asserted he had “never let a jaguar get away in Arizona and that is the whole truth” (Brown and Thompson 2010). However, Prock did lead three successful jaguar hunts in southern AZ in 1958-59 and was fined in 1964 in U.S. District Court in Phoenix AZ for violating the Lacey Act by importing mountain lions into AZ and turning them loose for canned hunts (see: Dean 1974; Jones 1974; W. Swank personal communication). Because of the circumstances, all jaguars taken on hunts guided by C.J. Prock were dropped from the occurrence record for AZ years ago (AGFD unpublished data; Brown and Lopez-Gonzales 2001).”*

*Footnote 11, 2011 Jaguar Conservation Assessment.*

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*Thus, in footnote 11, we learn for the first time that AGFD law enforcement officers involved in the 1964 case presumed the Penrod and Culbreath jaguars were imported by Mr. Prock. This highly relevant revelation casts further doubt on the reliability of the Penrod and Culbreath jaguar records and therefore, per the caution of Brown and Lopez-Gonzales (2000), precludes their use for the purpose of modeling of jaguar critical habitat. Importantly, this highly relevant information is not indicated in any previously published information we have examined to date. Nor was it provided by AGFD to the PNRCD for viewing in response to proper public records request.*

*Neither is the reliability of either the Penrod and Culbreath jaguar records resolved by these authors' less than satisfactory resort to citation to "Brown and Thompson (2010)" for support of the claim that Mr. Prock later asserted that he had "never let a jaguar get away in Arizona and that is the whole truth." This is because, first, the citation for this quote stated by these authors, Brown and Thompson (2010), is not identified among the "literature cited" by them in this assessment and therefore is not verifiable, and, second, because even if entirely correct, Mr. Prock's alleged assertion says nothing about the little female jaguar he stated he did let go, and others he stated did get away from him, in New Mexico.*

*Nor does this statement, even if entirely correct, necessarily mean that Mr. Prock did not release or cause the release of any imported jaguars in Arizona because, in our interview experience with him, that would be viewed by Mr. Prock as an entirely different subject from letting a jaguar "get away" on a hunt. In short, it is entirely possible based on the timing of the killings of the Penrod (1963) and Culbreath (1964) jaguars – after Mr. Prock's arrest but before his conviction – that both were intentionally released in Arizona as a means of avoiding the filing of further charges against Mr. Prock.*

*That imported jaguars were apparently intentionally released into southeastern Arizona by the Lee brothers, and therefore didn't "get away" from them on a hunt, illustrates that point. In footnote 12 of the assessment, we also learn for the first time of an importantly relevant 2008 email subject to PNRCD's previous public record request but also withheld from the PNRCD's viewing by AGFD. The relevance of this footnote to the unreliability of jaguar records currently being used by the Service to model critical habitat for the jaguar in the United States is clear and therefore is presented for the administrative record in its entirety:*

*12 T.B. Johnson: In a January 2008 email, D. Robertson said that world-famous lion and jaguar hunter Dale Lee had confided to him long ago over a campfire in the Chiricahua Mountains (southeastern AZ) that Dale Lee and his brother [Clell] had "gone down to Guatemala for the Guatemalan government ... and brought back a litter of jungle cats [jaguars], nurtured them to a survivable state, and turned them loose in that area (Twixt Wilcox [sic] and the Chiricahuas [sic].)" Robertson said Lee had sworn him to secrecy and he was only making a "public statement" because Lee "passed in the 1980s" and, now that he was in his own "twilight years," he "felt it was time to say something." To date, I have not found corroborating evidence for Robertson's comments.*

*Footnote 12, 2011 Jaguar Conservation Assessment*



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*Thus, we learn that jaguars of foreign origin were not only released by jaguar hunters in Arizona for the purpose of immediate hunting, but apparently “seeded” or released in Arizona with the view of creating a population to hunt in the future. While this critically important revelation introduces yet another huge element of doubt highly relevant to the reliability of the jaguar records the Service is currently using to model critical habitat for the jaguar in the United States, incredibly, the Service’s recovery outline doesn’t even mention it.*

*Instead, we see in the recovery outline that the Service is continuing to act arbitrarily and capriciously despite its receipt of this new, important and highly relevant information by persisting on using the Penrod and Culbreath jaguar records while ignoring all evidence of their unreliability, and, “class II” sightings for which no physical evidence or actual reliability exist, as the “scientifically reliable” basis, no less, from which critical habitat can be accurately modeled for the jaguar in the United States. As shown herein, that continuing practice is irresponsible, unscientific, and contrary to the ESA’s requirement that the Service rely solely on the best scientific data available in designating critical habitat for the jaguar in the United States.”*

– (Parker, 2012, pp. C017180-C017184)

Nonetheless, the USFWS has yet to acknowledge that these two jaguars are unreliable records and unreliable for jaguar habitat modeling, nor has it recognized that several of the models it mistakenly refers to as “the best available science” incorporate these two jaguars. This is particularly important because this jaguar was one of just six females, including an additional three that are unverifiable, that are employed by Boydston and Lopez Gonzales in modeling sexual differences in spatial preferences of jaguar, the key analysis that determined the outcome of *Center for Biological Diversity v. Kempthorne*.

Moreover, Culver and Hein (2016) states on pages 16-17,

*“...there is no evidence of recent female jaguar dispersal events either into or out of the Arizona/Sonora area. Recent means a minimum of 15 years ago (when the Sinaloa/Jalisco samples were collected; we can not detect anything more recent than that), and a maximum of 350,000 years ago...*

*As of 2016, there is no evidence suggesting the presence of a jaguar breeding population in Arizona.”*

1/16/1964, Fort Apache Indian Reservation, male, Russell Culbreath, NMNH 289015

Girmendonk (1994): Class I

Hatten et al. (2002): Class 1 Location 3

Hatten et al. (2005): Class 1 Location >8 km precision

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

Parker and Copping: Class III (1): unreliable for habitat modeling due to evidence suggesting a very high probability the jaguar was imported and released

Culver and Hein (2016) attempted to test DNA of a skin sample from this jaguar to compare with DNA of jaguars from other locations, but the sample failed to provide DNA. The tanning process often destroys DNA. (Dr. Rob Roy Ramey, geneticist, personal comm.)

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Brown and Lopez-Gonzales (2000) reports:

*“16 January 1964, Whiteriver Apache Reservation, SW of ID Ranch, N of Black River, Semidesert Grassland/Great Basin Conifer Woodland, male, trapped and photographed by predator control agent (R. Culbreath, pers. comm.; USFWS files, Phoenix).”*

Brown and Lopez-Gonzales (2001) wrote,

*“1/16/1964 PARC agent Russell Culbreath. Pers. comm., USFWS files. Photographs. M. SW of ID Ranch on breaks above Black River, WMAIR, AZ. Trapped by predator control agent. Semidesert grassland/ Great Basin Conifer Woodland.”*

A photograph of Russell Culbreath with the jaguar he trapped is shown on p. 48 of Brown and Lopez-Gonzales (2001).

Brown and Lopez-Gonzales (2001) speculated that the kill of this jaguar somehow confirmed the “legitimacy” of the 1963 female jaguar taken by Terry Penrod at more than 9,500 feet in elevation as “naturally occurring.” That claim is based entirely on speculation without a review of the facts.

It is far more likely that Curtis Prock or his associate intentionally released both jaguars because his 1962-1963 guided hunts of lions were the focus of Lacey Act charges and he would have been seeking to avoid facing additional federal charges under the Lacey Act.

Mr. Prock had led numerous predator hunts on and around the area between Young and Heber, Arizona, for several years prior to the Culbreath jaguar kill, as we have already notified the USFWS in detailed comment. This jaguar was killed within ten miles of the starting points of at least two then recently guided predator hunts led by Mr. Prock. (Housholder, January 1960), (Housholder, November 1962)

In November and December 1962, authorities seized three shipments involving six caged mountain lions in transport from Utah into Arizona for Mr. Prock. He was charged with three counts of illegal transport of an animal.

In February of 1963, Mr. Prock was arrested for illegally transporting a mountain lion across the Utah/Arizona state line, apparently for the purpose of canned hunting. Curtis J. Prock was indicted on federal charges under the Lacey Act on March 4, 1963 for transporting mountain lions across state lines without the required permit from Arizona Game and Fish Department, violating a new regulation the Arizona Game and Fish Commission had passed the previous year. (U.S. District Court, 1964) At that time, Prock had been advertising guaranteed hunts for lion, jaguar and bear in Arizona and Mexico, as shown in the included advertisement.

On September 28 of that same year, Terry Penrod took a female jaguar at Big Lake, within about 60 miles of the Culbreath jaguar and about 75 miles from Young, AZ as the crow flies. Woody Holloway, an eyewitness employed at the time by taxidermist Jeff Sievers, to whom Mr. Penrod had taken the jaguar for mounting, confirmed the Penrod hunt was legitimate because the animal had been living outside a cage in the wild long enough to have rough paw pads, and this was not a guided hunt. (Holloway, 2010)

On January 16, 1964, Russell Culbreath trapped a young male jaguar on the Fort Apache Indian Reservation. According to personal communication with Terry Penrod, the AZGFD later took tissue samples for DNA testing to determine whether the two jaguars might be related. It is

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unlikely that they were, because if they had been, it is reasonable to expect the DNA results would have been made public and the fact would have spread rapidly through activist literature.

Curtis Prock found new employment in British Honduras, where he had been called in initially to hunt down a jaguar that had killed a small child. (Smith, 2010)

On October 23, 1963 he contacted the court on his letterhead, which advertised guaranteed hunts for bear, lion and jaguar in Arizona and Mexico. The court granted him permission to leave the country, requiring him to return for his trial date.

On June 10, 1964, Curtis Prock changed his plea to guilty.

On June 19, 1964 the court found Curtis J. Prock guilty under the Lacey Act on one count of illegal transport of mountain lions. Copping (2010)

A tabular report entitled Arizona Game and Fish Department records for AZ-NM 1900-2009 Draft 03, submitted to the Center for Biological Diversity per public records request of AZGFD, reports:

*“1964:1/16; validity questioned. PARC (USFWS) agent Russell Culbreath, pers. Comm. AZGFD game wardens speculate animal might have been released in “canned hunt” before Culbreath trapped it. R. Babb and R. Thompson pers. Comm.; M; AZ: SW of ID Ranch above breaks on Black River FAIR; trapped and killed; Semidesert grassland and Great Basin Conifer woodland; Brown 2001.”*

Dennis Parker interviewed Curtis Jackson Prock on May 5, 2010. He was 97 years old. Having been an active, high-demand hunting guide who had been leading big game hunts in the early 1960's in the same area, and as the world's foremost authority in the world regarding jaguars, their native habitats and behavior, Mr. Prock provided his expert opinion that this jaguar and the small female jaguar killed by Terry Penrod on September 23, 1963, had both “had a lot of help” getting to where they had gotten to.



Figure 3. Dennis Parker interviews Curtis Prock May 5, 2010

Hatten et al. (2002, 2005) did not use this record in their models although they ranked it as a Class 1 record for physical evidence. They ranked the location description as “poor,” meaning greater than 8 km.

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### **\*11/16/1965, Patagonia Mountains, male, Laurence “Mickey” McGee, skull at UA**

Girmendonk (1994): Class I

Hatten et al. (2002): Class 1 Location 2

Hatten et al. (2005): Class 1 Location 2 (5.1-8 km accuracy)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system; states this kill is in Sta. Cruz County but exact location is unknown.

Parker and Copping: Class I (9); reliable location for jaguar habitat modeling

Culver and Hein (2016) attempted to test DNA of a skin sample from this jaguar to compare with DNA of jaguars from other locations, but the sample failed to provide DNA. The tanning process often destroys DNA. (Dr. Rob Roy Ramey, geneticist, personal comm.)

Brown and Lopez-Gonzales (2000) reports:

*“16 November 1965, Patagonia Mountains, Madrean Evergreen Woodland, male, killed and photographed by deer hunters, eviscerated mass=39.9 kg (L. McGee, Pers. Comm.; UA 14141)”*

Brown and Lopez-Gonzales (2001) reports:

*“11/16 1965, Laurence McGee, pers. comm., Photographs, skull at University of Arizona. Patagonia Mountains, Shot while deer hunting. Dressed wt.=88lb., TL=70 in. Madrean Evergreen Woodland”*

Brown and Lopez-Gonzales (2001) reports on page 96:

*“The last Arizona jaguar killed by a sportsman, however, was a young male shot by Laurence “Mickey” McGee while deer hunting in the Patagonia Mountains in 1965. This animal, a small male, was the last jaguar legally killed in Arizona.”*

This was just one year after Curtis Prock left the state. No jaguars would be sighted or killed in Arizona for another 5 years.

\*Hatten et al. (2002, 2005) incorporated this record into their models as a kill in the Patagonia Mountains in 1965, Class I with physical evidence and a "fair" location precision of 5.1-8 km (3-5 miles).

### **\*Nov. 16, 1971, Santa Cruz River S. of AZ Hwy 82, 130 lb. Male, R. Farley, skull at UA**

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1, Location 1 (within 1.6 km accuracy)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system; states this kill is in Sta. Cruz County but exact location is unknown.

Parker and Copping: Class I (9); reliable location for jaguar habitat modeling

Brown and Lopez-Gonzales (2000) reports,

*“16 November 1971, Santa Cruz River, S of State Highway 82, at stock tank, Semidesert Grassland/ Madrean Evergreen Woodland, male, killed and photographed by duck hunters, eviscerated mass = 59 kg, "stomach full of frogs," (R. Farley): pers. comm.; Santa Cruz Co. court transcript).”*

Brown and Lopez-Gonzales (2001) reports,

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*“11/16/1971. R. Farley and T. Cartier. Pers. comm. M. Santa Cruz Co. court records. Photographs. S of Hwy 82, Santa Cruz River, AZ. Killed by boys duck hunting with shotguns. Stomach “full of frogs.” Head, eviscerated carcass, and hide = 130 lb., TL = 12 in. M. semi-desert grassland/Madrean Evergreen Woodland.”*

Brown and Lopez-Gonzales (2001, p 98) shows a photograph of Robert Farley with the remains of the jaguar. The head was mounted separately from the skin.

\*Hatten et al. (2002, 2005) incorporate this record into their models.

According to an email sent from Dale Robertson to the AZGFD, Dale Lee at some time between 1965 and 1979 released a “large litter” of hand-raised jaguars into the Chiricahua Mountains. (Robertson, 23 January 2008) Possibly this is one of those jaguars. On the other hand, it is more likely that this was a lone, transient male jaguar that wandered across the border from Mexico.

### **\*December 1986, Dos Cabezas Mountains, male, John Klump**

Girmendonk (1994): Class I

Hatten et al. (2002, 2005): Class 1, Location 1 (within 1.6 km accuracy)

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

Parker and Copping: Class I (9); John Klump kept a diary that revealed a jaguar mount sold to undercover agents seven years later had been taken in the Dos Cabezas. *If and only if* the diary clearly stated the exact location of the kill, then the record is reliable for habitat modeling. Since we do not know what the diary states, and an exact location has not been released to us despite proper FOIA request to USFWS and public records request to AZGFD, then we must assume the location is not precisely documented and the record is unreliable for jaguar habitat modeling.

Culver and Hein (2016) successfully tested DNA of this jaguar and compared it with jaguars from other locations.

Brown and Lopez-Gonzales (2000) wrote,

*“December 1986, Dos Cabezas Mountains, Madrean Evergreen Woodland, male, bayed, killed, and photographed by hunters with dogs, mass = 62.6 kg (S. Goodwin, pers. comm.; AZGFD and USFWS files, Phoenix).”*

Brown and Lopez-Gonzales (2001) wrote,

*“12/1986 J. Klump et al. AZGFD files, USFWS files. M Photographs. Dos Cabezas Mts., AZ. Bayed and killed while lion hunting with dogs. Wt. = 138 lb. Madrean evergreen woodland?”*

Brown and Lopez-Gonzales (2001, p. 98) report that a local rancher was rumored to have killed a jaguar near Willcox. Several people said they had seen the carcass and there were supposedly photographs, one of which is shown on p. 99 with a caption alleging that this is a photo of this jaguar. A \$4000 reward was offered for information on the whereabouts of the skin, but nobody came forward with sufficient information to press charges. State and federal agents then set the rancher up for a sting for guiding game hunts out of season. John Klump and Tim Haas were convicted for taking a bighorn sheep out of season. That investigation netted as evidence a jaguar hide, a mounted jaguar and two ocelots. Diaries indicated a jaguar pelt had been from an animal taken illegally with dogs in the Dos Cabezas Mountains east of Willcox and the other

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animals had been taken illegally in Campeche, which led to charges under CITES. Due to illegal takings of wildlife by the game officers who were attempting entrapment of Mr. Klump in a wildlife crime, the evidence was deemed inadmissible and all charges were dropped.

According to court documents, Tim Jon Haas and John Klump were eventually convicted as a result of a 1993 sting operation where they were enticed into selling a jaguar mount, a jaguar skin taken in Mexico, and two ocelot skins, and shipping them to a buyer in New Mexico. (They were convicted under the ESA for selling ocelot skins taken in violation of the Endangered Species Act. They were convicted under the Lacey Act for selling the mount, which had turned out to be the same jaguar John Klump took in the Chiricahuas in 1986, in violation of Arizona law but not in violation of federal law, and a jaguar skin that had been taken in Mexico. The ESA did not apply to the jaguar skins because the jaguar was not listed in the United States until 1997. Notably, the ESA did not cover either jaguar skin involved, but simultaneous crimes involving ocelot skins were convicted under the ESA, as the ocelot was listed as an endangered species in the United States in 1982. The importance of these facts is that, contrary to USFWS's claims that the "time of listing" of the jaguar, which the USFWS presently claims to have occurred in 1972, and surrounding which "time of listing" the critical habitat rule was finalized, was not the opinion of the USFWS in 1993. In 1993, the opinion of both the court and the USFWS were that the jaguar was not yet listed in the United States. Therefore Mr. Klump and Mr. Haas could not be tried under the ESA for selling jaguar skins at that time, but they were convicted under the ESA for selling the ocelot skins at the same time they sold the jaguar skins. (U.S. District Court, 1999)

\*Hatten et al. (2002, 2005) incorporated this record into their models.

### **\*1988, observation in San Luis Mountains, all other details unknown, unreliable**

Hatten et al. (2002, 2005): Class 2 Location 1

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system; states the kill is in Pima County but exact location is unknown.

Parker and Coping: Class III (1); unverifiable, unreliable hearsay

We have found no other source of information confirming the existence this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this observation might be of the same jaguar as one or more other accounts.

\*Hatten et al. 2002, 2005 used this alleged jaguar observation in their models.

This is an unreliable sighting. Without physical evidence of the individual, a single individual can be included in multiple records. In the absence of corroborating physical evidence, use of this unverified observation as a "record" for modeling purpose is both unscientific and unreliable.

The importance of physical scientific evidence as necessary support for jaguar sightings used to model jaguar habitat in the Southwest is clearly and convincingly demonstrated by the experience of Jag Team over a long number of years. During the last decade alone, there have been dozens, if not hundreds, of jaguar sightings reported to the Arizona Game & Fish Department (AZGFD) and the New Mexico Department of Game and Fish (NMDGF). None have ever led to any physical evidence of a jaguar. As the AZGFD's and the NMDGF's

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experience clearly indicates, unverified jaguar reports are unreliable because people apparently see what they want to see and, thinking back on what they have seen, can and do transform that information. Thus, the use of unreliable jaguar sightings or observations, without more, to model jaguar habitat or to design conservation areas for them, is both unscientific and irresponsible.

### **1988, observation in Sierrita Mountains, all other details unknown, unverifiable**

Hatten et al. (2002, 2005): **Class 3** Location 1

Grigione et al. (2007): **Class 1 or 2** while claiming to use Girmendonk's classification system; states the kill is in Pima County but exact location is unknown.

Parker and Coping: Class III (1); unverifiable, unreliable hearsay

We have found no other source of information confirming the existence of this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same jaguar as one or more other sightings.

This observation or "sighting" is unreliable. Without physical evidence of the individual, a single individual can be included in multiple records. In the absence of corroborating physical evidence, representation and use of this unverified and unreliable sighting as a "record" for modeling purpose is both irresponsible and unscientific.

### **1989-1990, Rustler Park Campground, Chiricahua Mountains, L. Pope**

#### **Tracks seen in snow, no physical evidence, unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system; cites Louis Pope personal communication for the source of the record.

Parker and Coping: Class III (1); unverifiable; no scientific value

It is extremely unlikely that Girmendonk would have considered this a reliable record, considering she rated mortalities as Class III in all cases where the physical evidence has been lost.

If this is in fact a jaguar track, it could be a track of an individual jaguar documented by another, separate track, leading to a single individual being counted multiple times.

This visual record of a track, absent physical evidence, lacks necessary reliability for scientifically credible modeling purpose use. A controlled study of identification of jaguar, puma and canid tracks by supposedly reliable observers proved the observers were wrong in more than 20 % of track identifications. (DeAngelo et al., 2010)

### **1991-1993, Mortality, Cochise County, all other details unknown, unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system

Parker and Coping: Class III (1) no evidence

We found no corroboration of this alleged jaguar occurrence in any other documentation. Without better documentation, and a skin, or a skull or a unique photograph, this account appears fabricated because it was not documented anywhere else that we know of outside of

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Grigione et al. (2007). The exact year of this alleged jaguar's occurrence is obviously not known and the entire record gives a strong appearance of either unreliable hearsay or impropriety.

This record is therefore wholly unreliable and therefore unfit for scientifically credible modeling use.

### **1993, Observation, Cochise County, all other details unknown, unreliable**

Parker and Copping: Class III (1); unverifiable, unreliable

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk's classification system

We have found no other source of information, other than Grigione et al. (2007), confirming the existence of this alleged jaguar occurrence. We have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed or "observed," it is possible this sighting might be of the same jaguar as one or more other sightings.

Proper FOIA request to USFWS and public records request to AZGFD produced no documentation verifying this jaguar existed.

This record is unreliable and unfit for scientifically credible model development use.

### **\*1993, Baboquivari Mountains, deer kill, all other details unknown, unreliable**

Parker and Copping: Class III (1); no physical evidence; opinion-dependent; unverifiable; unreliable

Hatten et al. (2002, 2005): Class 2 Location 1;

Grigione et al. (2007): "reliable" while claiming to use Girmendonk's classification system; identifies a deer kill as its evidence but then claims exact location is unknown

Neither Hatten et al. (2002, 2005) nor Grigione et al. (2007) provide sufficient details for the reader to know whether they are referring to the same alleged jaguar occurrence or separate alleged jaguar occurrences. None of these three reports has supplied reliable, replicable information and none has sufficiently presented its data.

\*Hatten et al. 2002, 2005 nonetheless used this unreliable account as a "record" in their models, thereby fatally compromising those models' scientific integrity.

This report is unreliable. It is also scientifically unfit for scientifically credible modeling use purpose.

### **\*August 31, 1996, Baboquivari Mountains, male, Jack Childs, Matt Colvin—"Macho B"**

Culver and Hein (2016) successfully analyzed DNA of a hair sample from this jaguar and compared it to DNA of other jaguars.

—Treatment herein of this account includes this record and all later records collected on this jaguar and reported in McCain and Childs (2008) and USFWS (2014). It further includes the 48 published and unpublished records collected by Emil McCain that have been used for modeling



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in Sanderson and Fisher (2013), further used for modeling designation of jaguar critical habitat in the United States (U.S. Fish and Wildlife Service, 2014), and which are now being used as a foundation of modeling protected “cross-border habitat corridors” in the Draft Jaguar Recovery Plan. (U.S. Fish and Wildlife Service, 2016)

### Classifications–

Hatten et al. (2005): 1 (1)

Grigione (2007): “reliable”

Sanderson and Fisher (2013): Class 1, Location 1

USFWS (2014): Class I, loc. 1, “highly reliable records”

Parker and Coping: Class III (3); observers Jack Childs and Emil McCain seem to have credibility problems

In a nutshell, this record and all others created by Emil McCain and Jack Childs are unverifiable and unreliable due to the researchers having departed from their documented scientific methodology in their data collection, by use of sexual scent baiting of Macho B from 2004-2009.

Johnson et al. (2009) reports:

*“...Jack Childs, was in the Baboquivari Mountains of south central Arizona when, on August 31, 1996, he and colleague Matt Colvin photographed and videotaped a male jaguar treed by their hounds (Childs 1998; Childs and Childs 2008)*

Note: This is only the second documented record we have found in the scientific literature of a jaguar being treed by hounds in Arizona or New Mexico. All earlier recorded documents of jaguars being chased by hounds, except the Colcord 1933 jaguar, indicated that they did not tree but ran until cornered in a cave or against a cliff.

Johnson et al. (2011) reports:

*Thoughts about extirpation changed in 1996, when two separate groups of mountain lion hunters independently confirmed that jaguars were still, or were again, present in the AZ-NM/México borderlands. The first group, led by rancher-guides Warner Glenn and his daughter Kelly Glenn- Kimbro, photographed an adult male jaguar running before their hounds on March 7, in the Peloncillo Mountains, in extreme southwestern New Mexico (Glenn 1996). The other group, led by Jack Childs and houndsman Matt Colvin, was in the Baboquivari Mountains of southcentral Arizona when, on August 31, they photographed and videotaped a male jaguar treed by their hounds (Childs 1998; Childs and Childs 2008).*

*At least four (possibly five) different jaguars (all males) have been photographed in the AZ-NM borderlands since 1996. In southcentral Arizona, near the México border, McCain and Childs (2008) documented repeated occurrences of two and perhaps three different individuals from 2001 through March 2007. One of those animals was the 1996 Childs jaguar; it was also documented in August 2008 (possibly also in July 2008) and January 2009 (McCain and Childs 2009), and in 2009 on February 4 and from*

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*February 18 through March 2 (AZGFD unpublished data). In New Mexico, Warner Glenn observed and photographed an adult male jaguar on February 20, 2006 in Hidalgo County that was not the one he had documented in 1996 (W. Glenn personal communication). The occurrence total is given as four or possibly five because one jaguar was only photographed from the left side and another only from the right side (McCain and Childs 2008). The photographs could thus be of one individual or two.*

Brown and Lopez-Gonzales (2000) wrote,

*“31 August 1996, Baboquivari Mountains, Madrean Evergreen Woodland, unknown, treed and photographed by hunters with dogs (Childs, 1998).”*

Brown and Lopez-Gonzales (2001) wrote,

*“8/31/1996. Jack Childs. Pers. comm., Childs 1998, AZGFD files. Photographs. M? Baboquivari Mts., AZ. Treed and photographed while lion hunting with dogs. Madrean evergreen woodland”*

Brown and Lopez-Gonzales (2001) on p.108 reported that this jaguar sighting was 200 miles from the nearest known breeding population of jaguars, the Huasabas-Sahuaripa population.

Brown and Lopez-Gonzales (2001) further reported on p. 126 that in June, Childs had killed a larger than average mountain lion that had been bitten and scratched up. Childs was surprised that the jaguar stayed treed as long as it had. The jaguar had treed in a juniper. It remained calm because it apparently had eaten recently.

Hatten et al. (2002, 2005) rank this record as Class 1 for a photograph, and assign a location description rank of ‘1’ meaning within 1.6 km.

In 2009, Macho B walked into a bear trap that, per instructions from Emil McCain, was baited with scat of a female jaguar in estrus. The events that followed led to his death soon thereafter. Investigative journalists, a federal investigation and an internal investigation by the Arizona Game and Fish Department brought forth reliable evidence that, beginning as early as 2004, if not earlier, Emil McCain had been baiting Macho B. According to an *Arizona Daily Star* article by Tony Davis and Tim Stellar,

*“...The research project began using female jaguar scat obtained from the Reid Park Zoo in 2004, said two former volunteers for the group, Shiloh Walkosak and Sergio Avila.*

*... Walkosak, a former Reid Park zookeeper and volunteer with the jaguar project, said she supplied McCain and the project with female jaguar scat that she collected when the zoo's jaguars were in their fertile periods.*

*"Using the scat was an ongoing part of the project up till when I left the zoo" in late 2006, she said. "We would give him (McCain) maybe the equivalent of one bowel movement for a large cat. He would use that for a very long period of time. He was literally putting a small smear on a rock in front of the camera."*

*Walkosak and Avila, who now researches jaguars for the Sky Island Alliance, said the project got more photos of jaguars when they began using female jaguar scat.*

*He and other project workers "used jaguar scat in 2004," Avila said. "That same year, as a result of this, we obtained four photographs of jaguars."*

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*Said Walkosak: "Afterwards we consistently got photographs whenever that (scat) scent was used."*

*Reid Park Zoo administrator Susan Basford confirmed Walkosak's account, and Phoenix Zoo president Bert Castro acknowledged the zoo provided scat for photo sites last year.*

*Earlier this year, the zoo agreed to resume supplying jaguar scat to McCain and the project for use in attracting jaguars to the cameras, Basford said. McCain requested the scat to place at camera sites, not snares, she said.*

This methodology is a significant departure from the methodology stated in McCain and Childs (2008), wherein scent baiting receives no mention. Investigative reporter Tim Stellar investigated the baiting issue further, stating,

*When I learned last April that McCain had for years used fertile female jaguar scat to capture better pictures of jaguars, that raised a question for me about this article. You see, this journal piece argues that McCain's camera-trap photos of jaguars show that the animals are resident in the United States. One of the key pieces of evidence: In the pictures, jaguars are seen marking trees with their scent, as if they were trying to communicate with other jaguars. (Stellar, 2010)*

*The problem I saw with this picture is that nowhere in the piece does it mention the use of fertile female jaguar scat from zoos. Other researchers told me the principal use of the scat is to make jaguars stop in front of camera traps, so that the motion-sensing cameras get better pictures. But wouldn't using female scat at the camera sites also tell male jaguars that there is a potential mate around, and therefore make it worthwhile for the males to mark a spot with their scent?*

*I went so far as to track down one of the peer reviewers who had looked at the piece before it was published. He was nonplussed by my questions and not worried that the possible use of scat had affected the research outcomes.*

*But then there was this, from*

*[http://www.azgfd.gov/w\\_c/jaguar/JaguarInternalInvestigation.shtml](http://www.azgfd.gov/w_c/jaguar/JaguarInternalInvestigation.shtml) target="\_blank">Thorry Smith's interview with Arizona Game and Fish for the agency's internal investigation. Talking about Emil McCain, he described McCain pulling a scat out of a bag. "He said -- it's kind of hush hush. And I assumed that wasn't because we were doing our snaring up there it was because he had published a paper in the Journal of Mammalogy and that wasn't in the methods."*

*(Updated info:) Later in the transcript, Smith takes on the point more directly. He said of McCain "His point in that paper was that there was a male jaguar that may have been residential in the United States. He didn't say that he put female jaguar there maybe to keep him that way. So that might blow that paper out of the water."*

*And I continue to wonder about the validity of the conclusions of that piece.*

Importantly, Thorry Smith was under oath when he made the statement Mr. Stellar quoted.

We consider the data and conclusions of McCain and Childs (2008) and any other data Emil McCain and Jack Childs produced to be entirely unreliable. Moreover, Mr. McCain's

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unscientific methods led to the deaths of additional jaguars in Mexico under similar circumstances. (Davis & Stellar, 21 May 2014) (Wagner, 11 Dec 2012)

The 2011 AZGFD Jaguar Conservation Assessment acknowledges the unscientific and undocumented use of scat but seems to excuse it by stating that other purported scientists did the same thing.

*Regardless, use of jaguar scat as a positioning agent or attractant is, in hindsight, conspicuously absent in papers authored by Childs and others (2007) and McCain and Childs (2008, 2009). Note, however, that neither Silver and others (2004) nor Wallace and others (2003) mentioned use of scat or other attractants in seminal camera-trapping studies of jaguar populations in Central and South America. (Johnson et al., 31 January, 2011)*

If the stated purpose of the studies Johnson et al. mentioned in the quotation above was to learn about natural animal behavior, then we must conclude that the numerical information produced by “Silver and others (2004)” and “Wallace and others (2003)” was equally biased by unscientific, unsound methodology and must likewise be regarded as having no scientific value.

Nonetheless, the numerical documentation that Emil McCain and Jack Childs so produced, in lieu of scientific data, became a key component of what USFWS purports to be, “the best available science” for designating critical jaguar habitat. (Federal Register 75 at 1473)

Meanwhile, Emil McCain was convicted of violating the Endangered Species Act, fined and sentenced to five years probation, during which time he was not allowed to work as a biologist in the United States. (Johnson et al., 2011, at p. v)

Despite timely receipt of public comments and other evidence exposing published and unpublished numerical documentation produced by Emil McCain) as unreliable and failing to meet the minimum threshold of “best available science,” USFWS nevertheless relied heavily on such in its revised proposed critical habitat designation for the jaguar. (U.S. Fish and Wildlife Service, 2012a, pp. 50218, 50220, 50221, 50225, 50226, and 50227) USFWS received timely protests from the Pima NRC et al. in public comment regarding the continued reliance on McCain’s numerical documentation in lieu of scientifically reliable data. (Parker, 2012, pp. C017170, C017175, C017193, C017293, C017303-C017307, C017412, C017654-C017659, C017834-C017835, C017839-C017840). In response, the USFWS knowingly published false statements that McCain’s practice of sexual scent baiting jaguars first began in 2008 and that the agency removed all sightings that may have been influenced by female scat,

*“...which was determined to be from October 3, 2008 (the date of Emil McCain’s request for jaguar scat from the Phoenix Zoo), through March 2, 2009 (the date Macho B was captured and flown to the Phoenix Zoo), and we did not use records that may have been from “canned” hunts.”*

The problem with that claim is that it flies in the face of the evidence USFWS already had—that sexual scent baiting of Macho B began in 2004, not 2008.

All the relevant numerical information that Emil McCain produced from 2004 until October 3, 2008, despite knowledge by the USFWS that Macho B was sexually scent-baited during that time, are included in the dataset from which habitat “essential” to jaguar survival was modeled for purpose of imposing a significant critical habitat regulation. (Parker, 2012, pp. C017303-

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C017307), (U.S. Fish and Wildlife Service, 2014, pp. 12580-12581, 12613, 12614, 12615, 12616, 12627, 12628, 12629, 12630)

\*48 alleged “records” of Macho B’s whereabouts, collected by Emil McCain between 2004 and 2009—during all of which time McCain is known by USFWS to have been sexually scent baiting the jaguar—were employed in USFWS’s database in USFWS (2014) Appendix 2, and inaccurately referred to as, “highly reliable records” in support of the conclusions of Sanderson and Fisher (2013). The data that USFWS employed in its purported validation of the results of Sanderson and Fisher (2013) included the aforementioned 48 accounts, which also happen to represent 100% of data originating from within the boundaries of the USA in the agency’s model.

Since the actual dataset employed by Sanderson and Fisher (2013) has never been published, and various descriptions of its contents in the Administrative Record for the 2012 critical habitat designation contradict each other, the study’s findings are unverifiable and fail to meet the “best available science” standard of the ESA.

\*All the accounts produced by Emil McCain were employed and purported to represent scientific data in jaguar habitat modeling by Sanderson and Fisher (2013).

\*The unpublished and unverifiable dataset employed in Sanderson and Fisher (2013) was also used in (Stoner et al., 2015) to map theoretical cross-border jaguar corridors.

\*The unpublished and unverifiable dataset employed in Stoner et al. (2015) is the foundation of proposed trans-border jaguar corridors in USFWS (2016), the Draft Jaguar Recovery Plan.

In conclusion, the 2014 critical habitat designation is designed on a foundation of unreliable, unscientific information conjured up by use of unsound methodologies having no relationship to the generally accepted “Scientific Method.” Since the draft jaguar recovery plan relies entirely on such datasets, it is likewise unscientific and fails to meet the minimum scientific standards of the ESA.

### **\*1997, Cerro Colorado Mountains, all other details unknown, unreliable**

Hatten et al. (2002, 2005): Class 2 Location 2

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

Parker and Coping: Class III (1); no supporting evidence

We have found no other source of information confirming the existence of this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same jaguar as one or more other sightings. Additionally, Hatten et al. (2002, 2005) and Grigione et al. (2007) supply too few details for the reader to discern whether the three studies are referring to a single alleged jaguar occurrence or to multiple alleged jaguar occurrences.

\*Hatten et al. (2002, 2005) used this unverified jaguar sighting in their models.

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With jaguars no longer being killed, observations made after 1996 in the absence of corroborating physical evidence are unreliable per se as because single animals sighted more than once can be documented as multiple animals.

This sighting is unreliable. It is also unfit for use as a “record” for scientifically credible modeling purposes. Instead, the use of unverified sightings in this matter is both irresponsible and unscientific.

### **1997, Garden Canyon/ Huachuca Mountains, Cochise Co., observation only**

#### **No other details known, unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system;  
Parker and Coping: Class III (1); no supporting evidence

This alleged jaguar sighting is not documented in any other source we have found. Grigione et al. (2007) presents insufficient information to verify this sighting. Observations without physical evidence or a photo are unreliable because one jaguar can be observed and also counted many times. Moreover, the observation may not be of a jaguar at all.

Use of this sighting as a “record” for modeling purpose is unreliable and therefore unscientific. Thus, this sighting is unfit for use for scientifically credible modeling purposes.

### **1998, Hereford, Cochise County, observation, no other details known, unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system  
Parker and Coping: Class III (1); no supporting evidence

We have found no other source of information confirming the existence of this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same jaguar as in one or more other sightings.

This sighting is unverifiable, unreliable and therefore similarly unfit for use as a “record” for scientifically credible modeling purposes.

### **1998, Pena Blanca Lake, Santa Cruz County, observation only; unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system  
Parker and Coping: Class III (1); no supporting evidence

We have found no other source of information confirming the existence this alleged jaguar occurrence and have been unable to verify it. No other details are known. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same jaguar as in one or more other sightings.

This sighting is unverifiable, unreliable, and therefore unfit for use as a “record” for scientifically credible modeling use purpose.

### **1998, Patagonia, Santa Cruz County, observation, no other details known, unreliable**

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system  
Parker and Coping: Class III (1); no supporting evidence

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We have found no other source of information confirming the existence this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same jaguar as reported in one or more other sightings.

This sighting is also unverifiable, unreliable, and wholly unfit for use as a “record” for scientifically credible modeling use purpose.

### **1998, Tumacacori Mountains, Santa Cruz County, observation, unreliable**

Parker and Copping: Class III (1); no supporting evidence

Grigione et al. (2007): Class 1 or 2 while claiming to use Girmendonk’s classification system

With a location being described as an entire group of mountain ranges, it is unlikely a reliable observer made this sighting. No other details known,

We have found no other source of information confirming the existence this alleged jaguar occurrence and have been unable to verify it. Since jaguars are no longer being killed in Arizona and only photographed, it is possible this sighting might be of the same animal reported in one or more other sightings. It is also quite likely that this was not the sighting of a jaguar at all.

This sighting is unverifiable, unreliable, and therefore unfit for use as a “record” for scientifically credible modeling use purpose.

### **\*December 2001, Pajarito Mountains Jack Childs, male, Photographed, “Macho A”**

Parker and Copping: Class III (3)– For a full explanation, see the earlier record for August 31, 1996, Baboquivari Mountains, male, tree’d, photographed, not killed, Jack Childs, Matt Colvin– “Macho B.”

Hatten et al. (2002, 2005): Class 1 Location 1

Hatten et al. (2002, 2005) used this record in their model of jaguar habitat.

Parker and Copping: III (3); observer lacks credibility

(Rizzo, December 2005) reports,

*“In 1999, [Jack Childs] began placing remote cameras in Arizona where jaguars had been seen in the past. By December 2001, he had his first jaguar photograph: a male weighing between 130 and 150 pounds and later dubbed Macho A. The jaguar looked healthy, well fed and heavily built, with a broad, wide skull that flowed back to a torso shaped like a cylinder of muscle. Macho A turned up on film in August 2003, and again in September 2004.”*

Not mentioned in the methodology of McCain and Childs (2008), the jaguars being photographed by this pair were being baited with scat from a female jaguar in heat obtained from the Phoenix zoo. Since these jaguars were secretly being lured to stay near the trail cameras set up by McCain and Childs, they cannot be considered naturally occurring. All data collected by McCain and Childs is therefore unreliable.

Nov. 19, 2011, Cochise Co., Whetstone Mountains, Don Fenn, M, “El Jefe”

**Videotaped, photographed**

Data from this jaguar was used for modeling habitat and imposing regulation.

Parker and Coping: The November 19, 2011 record is Class I (9) and reliable for habitat modeling; however, all information produced by the Culver et al. (2016) jaguar surveying and monitoring study are Class III (3); observer seems to have questionable credibility.

Culver and Hein (2016) successfully analyzed DNA of a hair sample from this jaguar and compared it to DNA of other jaguars.

The *Arizona Daily Star* (Davis, 22 November 2011) reported on Nov. 22, 2011,

*“An experienced mountain lion hunter spotted the jaguar Saturday morning about 15 feet up a mesquite tree and reported it to Game and Fish. The hunter was led to the large cat by his dogs, who were baying and starting to pursue the animal as if on the trail of a lion...”*

*The hunter photographed and shot video of the jaguar, then left with his dogs and watched the animal from a distance. The jaguar stayed in the tree for 15 minutes before jumping down and heading south.*

*Based on the photos and video, Game and Fish officials described the jaguar as an adult male that appeared healthy and weighed about 200 pounds. Game and Fish biologists went to the sighting location to verify that the photos and videos were taken there, Hart said.*

*"It all checked out," Hart said. "We started at the exact same point where they (the photos and video) were shot. We saw tree branches where they were supposed to be, and they absolutely looked the same as in the photos. We counted about 10 marks of claws where a large animal had climbed the tree."*

*The biologists also collected hair samples from the area for possible DNA testing.*

*The department hopes to compare the photos with those of other jaguars sighted in Arizona and of two jaguars photographed this year by remote cameras at a ranch in Sonora about 30 miles south of the border...”*

We have noticed that three jaguars reported in the last 15 years climbed trees when chased by hounds. Prior to 1996, we have found only one report of a jaguar climbing a tree when chased. Every report that included the details of the chase indicated the cat took cover in a cave or against a cliff.

This jaguar was the subject of a trail camera study, Culver (2016), which was funded by the Department of Homeland Security to gather data on this jaguar and try to find others. The study ended in 2015 with no additional jaguars found (Culver, Malusa, Childs, Emerson, & Fagan..., 2016), with initial design by (Haynes, Hackl, & Culver, 2005); although three ocelots were also detected. Jaguar scat detection sites (n=12) versus photo jaguar detection sites (n=23) made up approximately one third of the total jaguar detection sites, representing a significant portion of the detections. Home range for this jaguar was calculated to be about 90 km<sup>2</sup>. The following statement from Culver (2016) seems to stretch the truth about jaguar habitat quality north of Mexico.



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*The aim of this study was to monitor jaguars in core jaguar habitat on the United States side of the border.*

In fact no “core” jaguar habitat exists in Arizona. There is no evidence of any historical breeding population of jaguars in Arizona. The study area extended from the crest of the Baboquivari Mountains in southern Arizona, east to the “Boot-heel” of southwestern New Mexico.

On a single night in 2014, this jaguar, now known as “El Jefe,” walked over 50 percent of the Santa Rita mountain range. (Davis, 15 Aug 2016)

This jaguar, El Jefe, was photographed 118 times and Chris Bugbee with his trained dog supposedly “detected” El Jefe’s scat 13 times as an employee of the project. These 131 detections occurred at 35 sites, all in one mountain range. (Culver et al., 2016)

That mountain range is the Santa Ritas, site of the most controversial political hotspot in southern Arizona, the proposed Rosemont Mine. Chris Bugbee’s present employer believes it their mission to halt the mine’s development. (Center for Biological Diversity, 2016a) Court records indicate the Center for Biological Diversity has knowingly submitted false information to federal regulators in the past, followed by publishing the same false information on the internet. (Chilton Ranch, 2005) Chris Bugbee took employment with the Center for Biological Diversity in September 2015.

Despite his change of employers, Mr. Bugbee continued a volunteer with the Culver (2016) jaguar detection project under a nondisclosure contract. The University of Arizona terminated Mr. Bugbee’s volunteer status upon learning he violated his nondisclosure agreement by compiling a video of El Jefe from proprietary trail camera data and distributing it to the public through the Center for Biological Diversity’s public relations network and website. (Davis, 15 Aug 2016) The video was released in February 2016. (Center for Biological Diversity, 2016b; Davis, 15 August 2016). Mr. Bugbee obviously still had access to proprietary trail cameras and was permitted to possess jaguar scat. El Jefe suspiciously never strayed far from the Rosemont mine throughout the study, and three ocelots also surprisingly appeared in the trail camera photos. Their sudden presence is suspicious, considering only a few ocelots had been seen in Arizona since the 1960’s. One of the ocelots appeared “on the mine’s doorstep,” within a few hundred yards of he mine’s headquarters, just two days before Rosemont would otherwise have received a permit to proceed with development. (Davis, 21 March 2015)

September 15, 2015 was the last time El Jefe was seen in Arizona.

The aforementioned facts indicate possible political contamination of the scientific integrity of Culver et al. (2016).

When Mr. Bugbee decided to violate his legal nondisclosure contract with the University of Arizona, and intermingle an otherwise scientific study with political activism, he destroyed the scientific credibility of all the data that he ever had the ability to influence. His personal attempt to misuse the study data to influence the future of the Rosemont mine is too coincidental with his personal access to jaguar scat and the study’s trail cameras. Considering it was common knowledge that the behavior of another jaguar, Macho B, had been influenced by misuse of jaguar scat, the aforementioned unlikely coincidences, taken together with Mr. Bugbee’s political misuse of the Culver (2016) dataset, lead us to conclude that Mr. Bugbee single-handedly destroyed the scientific credibility of the Culver (2016) dataset.

**December 1, 2016, Fort Huachuca, Male**

Parker and Coping: Class I (9); data seems reliable for jaguar habitat modeling

On December 7, 2016, the Arizona Game and Fish Department (AZGFD) issued a news release with a trail camera photo dated December 1, stating,

*The Arizona Game and Fish Department and the U.S. Fish and Wildlife Service recently received a photograph of a jaguar taken by a Fort Huachuca trail camera in the Huachuca Mountains. Fort Huachuca is a U.S. Army installation near Sierra Vista in southeastern Arizona.*

*“Preliminary indications are that the cat is a male jaguar and, potentially, an individual not previously seen in Arizona,” said Dr. Benjamin Tuggle, regional director for the Southwest Region of the U.S. Fish and Wildlife Service. “We are working with the Arizona Game and Fish Department to determine if this sighting represents a new individual jaguar.”*

*“While this is exciting news, we are examining photographic evidence to determine if we’re seeing a new cat here, or if this is an animal that has been seen in Arizona before,” said Jim deVos, assistant director of the department’s Wildlife Management Division. “We look forward to partnering with the U.S. Fish and Wildlife Service and thoroughly vetting the evidence.”*

On December 14, 2016, the AZGFD issued an update: (Arizona Game and Fish Department, 14 December 2016)

*PHOENIX — Scientists at the Arizona Game and Fish Department (AZGFD) completed an independent analysis of trail cam photos of a jaguar in the Huachuca Mountains and confirmed that the animal has not been seen previously in Arizona.*

*“Five scientists from the department independently examined the photos from the new sighting with those from previous jaguars in Arizona to compare spot patterns and concluded that this animal has not been sighted in previously in the state,” said Jim deVos, assistant director for Wildlife Management at AZGFD.*

*“While recognizing the importance of finding a new jaguar in Arizona, it is also important to point out that this animal, like all other jaguars observed in Arizona in at least 50 years, is a solitary male and that the closest breeding population of this species is about 130 miles south of the International Border,” added deVos.*

*The other most recent sighting of a jaguar in Arizona was in the Santa Rita Mountains in southern Arizona; however, that animal has not been documented in the state since September 2015. Prior to September 2015, this jaguar was photographed hundreds of times over a three-year period.*

*“Jaguars are a unique component of this state’s wildlife diversity and it is exciting to document a new visitor. However, in the absence of female jaguars and with the irregularity with which we document any jaguar presence in Arizona, this sighting in early December is important, but not an indicator of an establishing population in the state,” said deVos.*

**SUMMARY:**

Reliable Class I jaguar records are summarized by decade in Table 1. Tables 2 and 3 are appended to the end as .pdf files. Table 2 summarizes each record's details and how various researchers classified its reliability. Table 3 summarizes each record's details and which researchers incorporated it into theoretical modeling.

Overall, the results are as follow:

**New Mexico**

Total Class I Records: 6

Male: 6, Female: 0

Total Class I records with reliable location for modeling: 3

**Arizona**

Total Class I records: 18

Male: 14, Female: 2, Unknown: 2

Total Class I records with reliable location for modeling: 10 M, 1 F

**Table 1. Summary of Class I Jaguar Records by Decade**

<b>Decade</b>	<b>New Mexico</b>	<b>Arizona</b>	<b>Total</b>
1850-1859	0	0	0
1860-1869	0	0	0
1870-1879	0	0	0
1880-1889	0	0	0
1890-1899	0	1 M	1M
1900-1909	4 M	2 M	6M
1910-1919	0	1M, 1F, 1?	1 M, 1F, 1?
1920-1929	0	2M	2M
1930-1939	0	1M	1M
1940-1949	0	1M, 1F	1M, 1F
1950-1959	0	1?	1?
1960-1969	0	2M	2M
1970-1979	0	1M	1M
1980-1989	0	1M	1M
1990-1999	1 M	0	1M
2000-2009	1 M	0	1M
2010-2017	0	3M	3M
<b>Total</b>	6 M	15M, 2F, 2?	21M, 2F, 2?

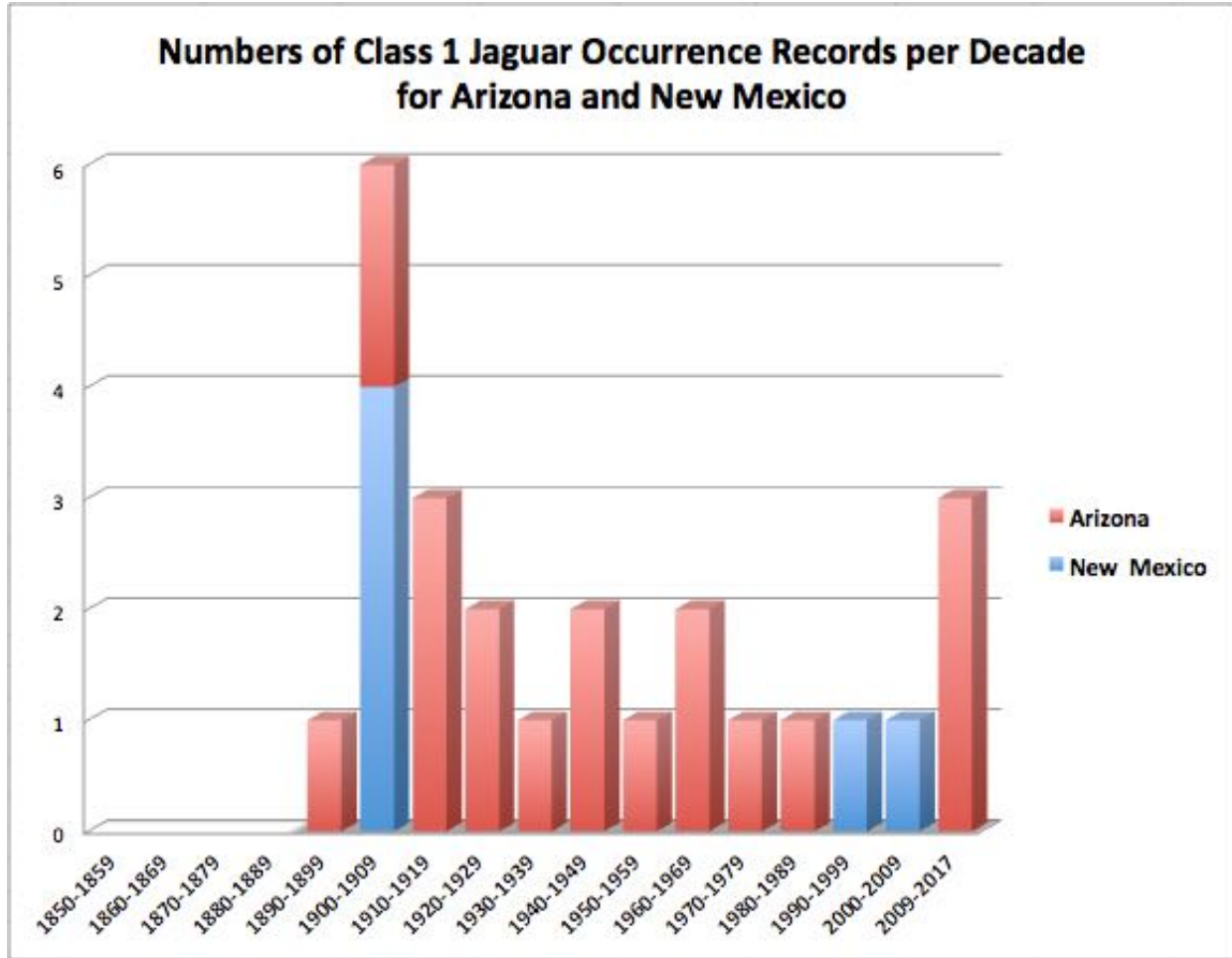


Figure 4. Numbers of Class 1 Jaguar Occurrence Records Per Decade for Arizona and New Mexico

**Table 2. Summary of Jaguar Occurrence Records and Their Reliability Rankings**

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
<b>NEW MEXICO JAGUAR OCCURRENCES</b>																		
1825	NM	Santa Fe	Convent allegedly on bank of Rio Bravo River	convent friars	?	convent records	Baird (1859)	yes	yes	NA	III (1)						convent was in Argentina, not New Mexico. Convent is still standing on bank of Rio Paraná.	no
1855	NM	Hidalgo, if not in Sonora Mexico	Guadalupe Canyon in Sierra Madre range	J. Weyss fide Kennerly	?	Baird (1859)	Baird (1859)	no	no	no	III (4)	NA				III		no
"Late 1800s"	NM	Sierra or Doña Ana	on Jornada Exp. Range, Goldberg ranch, between San Andres Range & Rio Grande	Bob Burch	?	Halloran (1946) is based on third hand hearsay 50-70 years after the fact	Halloran (1946)	no	no	NA	III (1)	NA				III		no
May 1900	NM	Sierra	near Grafton on Taylor Creek, Mogollon Mtns	Nat Straw	?	Barber (1902)	Barber (1902)	no	yes	NA	I (9)	NA						yes

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al.. (2002) Class (rating) (Loc)	Hatten et al.. (2005) Class, (Location rating)	Grigione et al.. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
11/27/1900	NM	Sierra	tracks of 3 jaguars seen in snow 1 mi from location where jaguar was shot on Dec.9, 1900	unknown	?	News Clipping	News clipping	no	no	no	III (1); hearsay	NA						no
12/9/1900	NM	Sierra	foothills near RR depot town Engle	Louis O. Morris	M	1900 News clipping	News clipping	no	skin, skull	NA	I (9)	NA				III, based on inaccurate information	Allegedly one of three jaguars present, unprovoked attack on human, locals believed it to have escaped from circus	no, evidence of importation
12/11/1900	NM	Sierra	Engle & Las Palomas, just west of foot of mtns; 2.5 mi from location of Morris jaguar2 days	Dan O'Shea	?	1900 News clipping	News clipping	no	no	NA	III (4); hearsay	NA						no
mid-May 1901	NM	Luna	south of Deming on the Mexican border	John Cravens	?	May 25, 1901 Deming Headlight news clipping	News clipping	none known but it may still exist	yes	NA	I (9)						mis-reported in the scientific literature as having been killed in Otero County.The jaguar was merely presented as a gift from the citizens of Luna County to Governor Otero's wife.	no
1902	NM	Otero	Otero County	unknown	?	none	Bailey (1931) reporting inaccurate third-hand hearsay	none	skin presented to NM First Lady Otero	NA	III (1)					I(10)	account is inaccurate. Jaguar was killed in 1901 in Luna County	no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?	
Summer 1902	NM	Catron	12 miles NW of Datil, 9,000 ft altitude, next to ranch house	Mrs. Manning	?	1905 photograph by Ned Hollister	photograph reproduced in Bailey (1931); story is 4th-hand from Mr. Manning to Reddeman to Hollister to Bailey	yes	yes	NA	I (9)							Latitude is statistical outlier; 9,000 feet altitude is statistical outlier; jaguar seems human-habituated, had well-worn teeth (indicating it may have spent time in a cage).	no
previous to 1903	NM	Sierra	San Andres Mtns	unknown	?	none	Bailey (1931)	none	unknown	NA	III (1)								no
previous to 1903	NM	Otero	Sacramento Mtns	unknown	?	none	Bailey (1931)	none	unknown	NA	III (1)								no
1903	NM	Hidalgo	Peloncillo Mtns Clanton Creek Canyon 6 mi. W of Gray Ranch	W.P. Burchfield	?	none	Bailey (1931) based on 2nd hand hearsay	none	skin	NA	II (7)								no
Summer 1903	NM	San Miguel	Near Cow Springs a few miles southwest of Fulton	unknown, sighting only	?	none	Bailey (1931) based on 3rd hand hearsay 28 years after the alleged event	no	allegedly	NA	III (1)								no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
1904-1905	NM	Sierra/Doña Ana	west slope of Sierra de Los Caballos hills	Morris	?	none	Bailey (1931), based on inaccurate third or greater hand hearsay 31 years after the fact	no	no	NA	III (1)	NA					Account woefully inaccurate. Accurate information is recorded in Dec 1900 newspaper article. Actual date Dec.9, 1900, location is actually near Engle, NM	no
1909	NM	Socorro	Dog Springs, SE of Animas Mtns	unknown	?	Ben Lilly diary ed. by Carmony (1998), based on, at best, 2nd hand hearsay	Ben Lilly's diary	no	no	NA	III (1)	NA					parts of this story appear to be confused with another record	no
"probably around 1916"	NM	Hidalgo or Grant	Little Hatchet Mtns	unknown	?	unknown if primary document exists. Cited document is at best 2nd hand hearsay repeated 75 years later	McKenna (1991)	no	no	NA	III (4)	NA					Black jaguars are virtually unknown north of Isthmus of Tehuantepec (Draft Jag. Recovery Plan p.5.) If existed, not natural occurrence	no
"some years ago"	NM	Colfax	Springer	Waite Phillips	?	Waite Phillips. A Skin was in collection of Waite Phillips	Hill (1942)	no	yes	NA	III (1) account is too vague	NA					location is more than 200 mi from next nearest New Mexico kill—which is also at outlier altitude and outlier latitude in the Datil Mountains	no
1937	NM	Socorro	San Andres Mtns	Bannerman, an FWS hunter	?	none	Halloran (1946), based on 2nd hand hearsay 9 years after the event	no	no	NA	II (6) location vaguely described	NA					sighting only	no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al.. (2002) Class (rating) (Loc)	Hatten et al.. (2005) Class, (Location rating)	Grigione et al.. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
1990	NM	Hidalgo	Shakespeare, N. of I-10	Larry Link	?	Robinson (2006), documented 16 years after event	Robinson (2006)	no	no	NA	III (3)	NA					sighting	no
8/25/1990	NM	Sierra	Black Range, . 2 mi S, 12 mi E Beaverhead, on USFS road 226 ca. 5 mi S New Mexico 59	Dr. Gerald Jacobi, macrobiologist	?	AGFD memo 8/25/1990	AGFD memo 8/25/1990	none	no	NA	III (3)					II (7)	unverifiable sighting; observer has questionable credibility	no
4/19/1995	NM	Hidalgo	Mountains, ca. 1 mi. E of the saddle between Clanton Draw and Cottonwood	Bryan Starret, long time zoo employee	?	Arizona Game and Fish Department memorandum of 6 March 1997 by Andy Holycross	photo	photo of an animal track	yes	NA	III (1); tracks are not reliable evidence					I (9)		no
3/7/1996	NM	Hidalgo	Peloncillo Mts along AZ-NM State Line and trailed into AZ	Warner Glenn	M	videotape, photos	videotape, photos	video, photos	yes	NA	I (9)	NA	I (10)	√		I (10)		yes
Fall 1998	NM	Catron	near the San Francisco River and near a road	Tom & Boe Duffy	?	AZGFD report dated 2000, 2 years after the fact	2000 AZGFD report	none	none	NA	III (4)							no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
5/10/1999	NM	Grant	Burro Mtns. south of Silver City; Hwy 90 near Tyrone	John Trewer	?	8/8/2005 email from Bill Van Pelt to Michael Robinson	8/8/2005 email from Bill Van Pelt to Michael Robinson	plaster cast of an animal track alleged to be jaguar	yes	NA	III (1)					III (4)		no
2/20/2006	NM	Hidalgo	S of Animas Mts on N end of San Luis Mts, 1.5 mi N of US-MX Border	Warner Glenn	M	photos, AGFD report	photos, AGFD report	photos	yes	NA	I (9)					I (9)		only if naturally occurring. Timing suspiciously coincident with controversy surrounding Secure Fence Act of 2006.
2004-2009	AZ	Pima, Santa Cruz	49 or more localities with GPS data	Emil McCain	M,	trail cam photos	Trail cam data	Trail cam data	yes	no	III (1)						"Macho B": jaguar's behavior was manipulated with undocumented methodology using scat of female jaguar in estrus	no
<b>ARIZONA JAGUAR OCCURRENCES</b>																		
1885-1900	AZ	Coconino	Grand Canyon, somewhere	unknown	F+2 cubs	none	Lange (1960)	none	none	NA	III (1)	NA			✓			no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
1890	AZ	Gila	Headwaters Greenback Valley, Gila County	Phil Askins	M	News clipping	<i>Arizona Silverbelt</i> 7/19/1890	no	Skin, skull, & possible bounty record	NA	I (9)	NA						yes
1890	AZ	Gila	Headwaters Greenback Valley	Phil Askins	F	News clipping	<i>Arizona Silverbelt</i> 7/19/1890	no	none	NA	III (3)	NA						no
1900	AZ	Coconino	unknown	unknown	?	none	Grigione et al. (2007)	none	"mortality"	NA	III (1)				✓			no
"around 1900"	AZ	Pima	Baboquivari Mtns	unknown	?	none. Schufeldt (1921) quotes a 1902 letter from H. Brown	Shufeldt (1921)	no	no	NA	III (1)	III						no
"around 1900"	AZ	Gila	Near Globe	unknown	?	none. Schufeldt (1921) quotes a 1902 letter from H. Brown	Shufeldt (1921)	no	no	NA	III (1)	III						no
"around 1900"	AZ	Cochise	Chiricahua Mtns.	unknown	?	none. Schufeldt (1921) quotes a 1902 letter from H. Brown	Shufeldt (1921)	no	no	NA	III (1)	III						no
1901	AZ	Cochise	Chiricahua Mtns or Dos Cabezas	Riggs & Ross	?	none. Supposedly Lange had a letter from E.J Hands	Lange (1960)	none	supposedly	NA	III (1)	III		3 (3)				no
1902 Mar 16	AZ	Pima	Redington Pass	2 Mexican bounty hunters	M	none. Shufeldt (1921) quotes from a letter that is unverifiable	Shufeldt (1921)	no	allegedly	NA	II (7)	I		1 (2)	✓			no
1902	AZ	Pima	Catalina Mtns	Copelan	?	none	Housholder (1966)	no	no	NA	III (1)	III		3 (2)				no
1903	AZ	Santa Cruz	Atascosa Mtns	Information withheld pending USFWS cooperation as required by ESA §2(c)2	M	Information withheld	Information withheld	yes	yes	NA	I (10)	II		3 (3)	✓		Grigione et al. (2007) classified this as reliable based on unreliable information	yes

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
"ca. 1904"	AZ	Coconino	Camp Verde	Laverne West	?	none	Brown & Lopez-Gonzales (2001) based on hearsay	no	no	NA	III (4)	III	3(2)					no
1906 May 30	AZ	Cochise	Chiricahua Mtns.	unknown	F +2 cubs	Bisbee Daily Review, 5/31/1906, p. 8	Bisbee Daily Review, 5/31/1906, p. 8	no	no	NA	III (1)	NA	3 (3)					no
1904-1907	AZ	Santa Cruz	Patagonia Mtns	unknown	?	none.	Lange (1960) references unverifiable 3rd hand hearsay	no	no	NA	III (1)							no
1907	AZ or NM	?	"Mogollon Mountains near Fort Apache" (the two are 150 miles apart and in different states)	Dr. Harry Garcelon claims to have seen skin	?	none	Seton (1929) based on hearsay 10 years after the fact	no	Dr. Garcelon	NA	III (1)							no
1907	AZ	Navajo	unknown	unknown	?	none		no	no	NA	III (1)	III					One of three different records describing one jaguar.	no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
Winter 1908	AZ	Coconino	RR tracks 4 mi. S. of Grand Canyon Village	M.W. Billingsley	M	Eyewitness account by Billingsley, M. W. <i>51 Years with the Hopi People...self-published</i> , Phoenix, p. 81	Billingsley, M. W. <i>51 Years with the Hopi People...self-published</i> , Phoenix, p. 81	photo	yes	NA	I (9)	III	1 (1)				The only accurate version of 3 duplicated records. "animal with well-worn teeth but in fine pelage" suggests it may have spent time in a cage. Taken 170 miles from next nearest jaguar record. On RR tracks.	no
1909-1918	AZ	Coconino	"not far from the tourist hotel at the Grand Canyon"	none	?	none	Nelson et al. (1918)	no	no	NA	III (1)	III	3(2)	3(1)			Inaccurate and incomplete duplicate of two other records describing a single jaguar.	no
Spring 1910	AZ	Cochise	Chiricahua Mtns ,near Fly Peak	unknown cowboy	F	none	is 3rd hand hearsay via AGFD Agent Morrow comm. with	none	none	NA	III (1)	III	3(2)					no
Autumn 1910	AZ	Navajo	Chevron Creek	George Winslow	F+2 cubs	none	unverifiable third-hand hearsay reported by Lange (1960)	none	none	NA	III (1)	III	3(2)					no
Tracks first seen January 6, 1912; Shot January 12, 1912	AZ	Cochise	Cave on Bonita Peak; Bonita Canyon, N. of Pinery Canyon, on the west slope of the Chiricahua Mtns.	Tracked into cave on Bonita Peak by Percy Hands; shot by Percy's brother Frank Hands. Their brother John Hands was also present.	M	Letter--eyewitness account-- from Percy Hands written in 1921 to Professor Charles T. Vorhies, and quoted verbatim in Seton (1929)	Seton (1929)	skin allegedly housed previously at UA Dept of Zoology and now at Portal Museum	yes; Dr. Vorhies observed the skin in 1918	no primary documentation ; location is unverifiable.	I(9)	I	1 (1)	√			The skin combined with interviews of first hand witnesses proves the jaguar occurred. However, location verification is corrupted due to passage of time and dearth of primary documentation from 1912.	yes

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
Feb 1912	AZ	Coconino	Winslow, Mtns SW of Sunset Pass	Lon King	?	none.	Lange (1960)	none	no	NA	III (1)	III	3 (2)	3			Allegedly 2 jaguars poisoned as stock killers	no
1912	AZ	Coconino	Bozarth Mesa, 65 mi. NW of Prescott	Sheriff Bozarth, and Orville & Ed Contreras	?	none	Housholder (1958) 2nd hand hearsay	none	allegedly	NA	III (1)	III	3 (2)					no
"Around" 1912	AZ	Pima	Rincon Mtns	Unknown	?	none	Hearsay in Seton (1929)	none	no	NA	III (1)	III	3(3)					no
"Around" 1912	AZ	Pima	Catalina Mtns	Unknown	?	none	Hearsay in Seton (1929)	none	no	NA	III (1)	III	3(3)					no
1913	AZ	Pima	Tortolita Mtns	J. H. Durham	?	Letter from E.A. Goldman to E.T. Seton, quoted in Seton (1929)	Seton (1929)	none	E.A. Goldman	NA	II (7)	II	1(3)					no
1913	AZ	Greenlee	Norh of Clifton, AZ & West of Alma, NM	Ben Lilly saw skin	M	?	Diary of Ben Lilly Ed. Carmony (1998)	none	yes	NA	II (7)	NA	3 (2)	3 (2)				no
1916	AZ	Pima	Upper Cañada del Oro	Buffalo Bill	M	none known	1983.Bowden, Charles. Frog Mtn Blues	none	yes	NA	III (1)	NA	1 (3)	1(3)				
May 11, 1917	AZ	Pima	10 mi. S. of Helvetia, 3 mi. W of Greaterville P.O.	E.L. O'Doherty	M	NMNH record	NMNH record	skin, skull	yes	NA	I (9)	I	1(1)	1(1)	√		trapped by USDA PARC employee	yes

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

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1918	AZ	Santa Cruz	Santa Rita Mtns. near base of Mt Wrightson	unknown	?	none	Lange (1960) reference to unverifiable document repeating hearsay written 16 years after event	no	no	NA	III (1)		3	3			may be duplicate of Parker 1919 record or the O'Dohery 1917 record	no
April 22, 1919	AZ	Pima	unverifiable locality near Greaterville	PARC trapper R. Lee Parker	F	NMNH Catalog no. 231961	NMNH Catalog no. 231961	Skin and Skull, NMNH Catalog no. 231961	yes	NA	I (9)	I	1(1)	1(1)	√		Lange alleges a more specific locality, but referenced it to unverifiable document. Recorded as 2 separate jaguars in Brown and Lopez-Gonzales (2001).	no
Winter of 1919-1920	AZ	Pima	west of Santa Rita Mountains	government trapper	?	none	Seton (1929) reciting hearsay from Vorhies	none	no	NA	III (1)	II or III	1(1) or 2(3)	1(1) or 2(4)			A duplicated record of the Lee Parker jaguar	no
Winter of 1919-1920	AZ	Pima	west of Santa Rita Mountains	unknown	?	none	Bailey (1931) reciting hearsay	none	no	NA	III (1)	II or III	1(1) or 2(3)	1(1) or 2(4)			A second duplicated record of the Lee Parker jaguar	no
January 10, 1920	AZ	Pima	Rincon Mtns following 18-mile chase	Stanley Graham	M	Coconino Sun, January 16, 1920	Coconino Sun, January 16, 1920	Skin	yes	NA	III (3) despite having skin. Guided hunt.	II or III	2(3)	2(4)			one of two guided hunts for jaguars in Arizona led by Billy Chester; may have been "canned"	no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

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September 1920	AZ	Pima	Silver Bell Highway 3 miles northwest of Tucson	I.E. Roberts	?	Letter from C.T. Vorhies to Seton quoted in Seton (1929)	Seton (1929)	no	no	NA	III (4)	III						no
1922	AZ	Pima	Rincon Valley on FK Ranch	Frederick.O. Knipe	?	photograph ca. 1922	questionable photograph ca. 1922 printed in Brown & Lopez Gonzales (2001)	none	yes	NA	III (2)		1(2)	1(3)				no
April 12, 1924	AZ	Navajo	near Cibecue	Jack Funk	M	NMNH record 244507	NMNH record 244507	skin, skull in NMNH	yes	NA	I (9)	I	1 (3)	1 (3)	√		2nd largest jaguar ever measured, anywhere: how likely was it AZ native?	no
11/30/1926 ; 2 jaguars poisoned	AZ	Pima	Cerro Colorado Mtns, 20 mi W of Nogales	PARC trapper Fred Ott	M	NMNH record 247337	NMNH record 247337	one skull in NMNH	yes	NA	I (9)	I	1 (3)	1 (3)	√		2 jaguars allegedly poisoned on same day; had a government agent not killed these jaguars in the nick of time, Billy Chester would have been guiding Stanley Graham on a second commercial jaguar hunt in Arizona. Coincidence? Reports conflict on Location	no

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Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

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11/30/1926	AZ	Pima	Cerro Colorado Mtns, 20 mi W of Nogales	PARC trapper Fred Ott	?	none	Housholder (1958) citing hearsay that a second jaguar existed	no	no	NA	III(1)	I	1 (3)	1 (3)	?		Allegedly poisoned the same day as NMNH jaguar 247337, but no documentation that an independent observer saw physical evidence of a second jaguar	no
December 1926	AZ	Yavapai	unverified; NE slope of Santa Maria Mountains just S. of Baca land grant, 40mi W. of Prescott, near Camp Wood	Clyde Miller	M	none	Housholder (1958) w/o citation to source; and Lange (1960) allegedly referencing an unverifiable 1927 letter from Mr. Muskgrave w/o mentioning the letter's whereabouts	no	allegedly	NA	III (1)	III	1(2)	1(2)	✓			no
1926-1930	AZ	Cochise	Chiricahua Mtns	unknown	?	none	unverifiable 5th-hand hearsay in Lange (1960)	no	no	NA	III (1)	III	3 (poor)	3 (poor)				no
Summer 1932	AZ	Coconino	"near" Grand Canyon Village	unknown	F	none	Housholder (1958) w/o citation, 26 years after event	no	no	NA	III (1)	III	2 (1)	2(1)				no

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
1928-1933	AZ	Maricopa	low desert foothills of Estrella Mtns SW of Phoenix, within 20 miles of downtown; and/or the Sand Tank Mountains	unknown	?	1933 <i>Arizona Republic</i> , date not documented	Housholder (1958)	no	perhaps	NA	III (4)	III	2 jaguars, both Class 3	2 jaguars, both Class 3			unclear whether this is one or two jaguars taken in the Sand Tank Mtns and/ or the Estrella Mtns.	no
1931-1933	AZ	Santa Cruz and Cochise	Pajarito and Huachuca Mountains	PARC agent Frank Colcord	M	none	<i>Milwaukee Journal</i> , Aug 18, 1934	no	yes	NA	I (9)	II	2(2)	2(1)	√		4 different mtn ranges reported in literature	no
1934	AZ	Santa Cruz	Atascosa Mtns	unknown	M	none	Hatten (2002)	no	no	NA	III (1)							no
1934	AZ	Pima	nonexistent "Altar Mtns"	Frank Hibben	M	none	Lange (1960) w/o citation to source	none	none	NA	III (1)	III	3 (poor)	3 (poor)				no
1939	AZ	Yavapai	Bloody Basin	unnamed trapper	?	none	Lange (1960), based on hearsay	none	unknown	NA	III (1)	III	3	3				no
"circa 1940"	AZ	Navajo	Trout Creek on Whiteriver Apache Indian Reservation	unknown	?	none	Brown and Lopez-Gonzales (2000) per personal 2nd hand communication 60 years after event	none	allegedly	NA	III (1)	III	3 (3)	3(3)				no
1947	AZ	Santa Cruz	Atascosa Mtns, Agua Fria Canyon 7 mi. w. of Atascoa Peak	unknown	?	none	Housholder (1958) per George Peterson comm.	none	yes. AGFD game warden George Peterson	NA	III (1)	III	3 (poor)	3			Record is duplicate of 1949 jaguar taken by Walter Noon, as proven in photo in Brown & Lopez-Gonzales p.16.	no
1948	AZ	Santa Cruz	Canyons south of Patagonia	Ray Harshman	M	none	Housholder (1958) per hearsay, 10 years after the event	none	allegedly George Bennet	NA	III (1)	III	3 (poor)	3				no

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
November 13, 1949	AZ	Santa Cruz	Cerro Colorado Mtns ; Agua Fria Canyon 7 miles w. of Atascosa Peak	Walter Noon	F	Photograph in Brown & Lopez-Gonzales (2001), P. 16	Arizona Daily Star 11/15/1949	Photograph in Brown & Lopez-Gonzales (2001), P. 16	AGFD Ranger Peterson	NA	I (9)	III	1 (fair)	1 (2)	✓			yes
November 24, 1949	AZ	Santa Cruz	Atascosa Mtns, West of Rio Rico	Federal PARC agent Lloyd "Red" Harris	M	Photograph with date & location hand written by Red Harris in border	Photograph with date & location hand written by Red Harris in border	Photograph w/date & loc. hand written by Red Harris in border	yes	NA	I (10)	II	1(2)	1(1)	✓		various peer-reviewed papers identify 3 different locations & 2 inaccurate years. Best information is Harris's hand written note on the border of the photo	yes
1956-1957	AZ	Navajo	Whiteriver Apache Indian Reservation	Jimmy Gilbert	?	UA skull recorrd #6408	UA skull recorrd #6408	skull	yes	NA	1(9)		1(2)	1(2)			suspiciously close in time and space to activities and 3 known, canned jaguar hunts of Curtis J. Prock	no
Autumn 1957	AZ	Greenlee	Red Mtn, N. of Clifton	Ferguson	M	none	Brown and Lopez-Gonzales (2000) reporting hearsay 43 years after alleged event	none	allegedly	NA	III (1)		3				Story is founded on unverifiable hearsay. Evidence we do have is contrary to the entire story	no
April 21, 1958	AZ	Santa Cruz	Peña Blanca Lake	John Nutt	F	Housholder (1958) Photograph	Housholder (1958) Photograph	skin, skull	yes	NA	III (1)	III	omitted w/o mention	omitted w/o mention	✓		canned hunt; Grigione et al. (2007) p. 193 misidentifies it as reliable record & posits this represents resident breeding jagars	no
January 4, 1959	AZ	Santa Cruz	Patagonia Mountains northeast of Nogales, AZ	Jack Herter	F	Housholder (1959) photograph	Housholder (1959) photograph	skin, skull	yes	NA	III (1)	I	omitted w/o mention	omitted w/o mention	✓		canned hunt; Grigione et al. (2007) p. 193 misidentifies it as reliable record & posits this represents resident breeding jagars	no

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
May 5, 1959	AZ	Santa Cruz	Patagonia Mountains 30 miles east of Nogales	Ed Scarla	F	Lange (1960)	Lange (1960)	skin, skull	yes	NA	III (1)	I	omitted w/o mention	omitted w/o mention	✓		canned hunt; Grigione et al. (2007) p. 193 misidentifies it as reliable record & posits this represents resident breeding jagars	no
July 26, 1961	AZ	Pima	Empire Mtns., First seen in a creek in a pasture one mile west of Ciénega Ranch headquarters	H. Barnett, Sewell Goodwin	M	Photograph, 1961 article by W. Barnett	photograph	photograph	S. Goodwin	NA	I (9)	I	1 (1)	1(1)	✓		Both Brown and Lopez-Gonzales (2001) and Grigione et al. (2007) both misidentify this record as having occurred in Cochise County. It is unknown whether Grigione et al. (2009) used this inaccurate location for habitat modeling.	yes, original location of jaguar known prior to human influence
September 23, 1963	AZ	Apache	9,500 ft altitude w. of Big Lake	Terry Penrod	F	Photograph in <i>Arizona Wildlife &amp; Travelogue</i>	photograph	skin, skull, photos	yes	NA	III (1)	I	I (2)	I (2)	✓		Strong evidence including well worn teeth and expert opinion of Curtis Prock suggests <b>very high probability this jaguar was imported</b>	no
January 16, 1964	AZ	Apache	>8,000 ft altitude, in snow, SW of ID Ranch on breaks above Black River, WMIAIR, AZ	PARC	M	Photograph in Brown and Lopez-Gonzales (2001) p. 48	photograph	photo	yes	NA	III (1)	I	I (3)	I (>8km)	✓		Strong evidence including expert opinion of Curtis Prock suggests <b>very high probability this jaguar was imported</b>	no
11/16/1965	AZ	Santa Cruz	Patagonia Mountans	Mickey McGee	M	photo	photo	photos, skull kept at UA mammal collection	yes	NA	1(9)	I	I(2)	I(2)	✓		last jaguar taken legally in USA	yes

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al.. (2002) Class (rating) (Loc)	Hatten et al.. (2005) Class, (Location rating)	Grigione et al.. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
11/16/1971	AZ	Santa Cruz	Santa Cruz River S. of Hwy 82 at stock tank near Mexican border	R. Farley & T. Cartier	M	photo	photo	photo, skin, skull	yes	NA	<b>I (9)</b>	I	I(2)	I(2)	√		Two boys who shot the jaguar were acquitted on plea of self-defense.	<b>yes</b>
December 1986	AZ	Cochise	Dos Cabezas	John Klump	M	mount, photo	photo	Photo	yes	NA	<b>I(9)</b>	I	1(1)	1(1)	√		John Klump was convicted under Lacey Act, but not ESA, because the USFWS and the court recognized that the jaguar was not listed as an endangered species in the United States in 1993 when Mr. Klump and his friend Tim J. Haas sold the skin, taken in violation of Arizona law (but not federal law) to undercover agents across State lines	<b>no</b>
1988	AZ	Pima	San Luis Mtns	unknown, sighting only	?	none	Hatten (2002)	none	none documented	NA	<b>III (1)</b>			<b>1(2)</b>	√		no evidence presented	<b>no</b>
1988	AZ	Pima	Sierrita Mtns	unknown, sighting only	?	none	Hatten (2002)	none	none documented	NA	<b>III (1)</b>			<b>1(2)</b>	√		no evidence presented	<b>no</b>
1989-1990	AZ	Cochise	Rustler Park Campground, Chiricahua Mtns.	R. Pope, track sighted in snow	?	none	Grigione et al. (2007)	none	no	NA	<b>III (1)</b>				√		possibly a duplicated record of a single jaguar	<b>no</b>
1991-1993	AZ	Cochise	"exact location unknown"	unknown, "mortality"	?	none	Grigione et al. (2007)	none	alleged "mortality" but no evidence presented	NA	<b>III (1)</b>				√		possibly a duplicated record of a single jaguar	<b>no</b>

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
1993	AZ	Cochise	"exact location unknown"	unknown, observation only	?	none	Grigione et al. (2007)	none	alleged "mortality" but no evidence presented	NA	III (1)				✓		possibly a duplicated record of a single jaguar	no
1993	AZ	Pima	Baboquivari Mtns	unknown, alleged "deer kill"	?	none	Hatten et al. (2002)	none	no	NA	III (1)		2(1)	2(1)	✓		Grigione et al. (2007) identify a deer depredation as evidence of jaguar presence, yet states, "exact location unknown."	no
8/31/1996	AZ	Pima	Baboquivari Mtns	Jack Childs, "Macho B"	M	photo, video	photo	photos	yes	no	III (3)				✓		observer's credibility is damaged	no
1997	AZ	Pima	Cerro Colorado Mtns	unknown, observation	?	none	Hatten et al. (2002)	none	no	NA	III (1)		2(2)	2(2)	✓		no evidence	no
1997	AZ	Cochise	Huachuca Mtns, Garden Canyon	unknown, observation	?	none	Grigione et al. (2007)	none	no	NA	III (1)				✓		no evidence	no
1998	AZ	Cochise	Hereford	unknown, observation	?	none	Grigione et al. (2007)	none	no	NA	III (1)				✓		no evidence	no
1998	AZ	Santa Cruz	Peña Blanca Lake	unknown, apparently sighting only	?	none	Grigione et al. (2007)	none	no	NA	III (1)				✓		no evidence	no
1998	AZ	Santa Cruz	Patagonia	unknown, apparently sighting only	?	none	Grigione et al. (2007)	none	no	NA	III (1)				✓		no evidence	no
1998	AZ	Santa Cruz	Tumacacori Mtns.	unknown, apparently sighting only	?	none	Grigione et al. (2007)	none	no	NA	III (1)				✓		no evidence	no
December 2001	AZ	Santa Crua	Pajarito Mtns	Jack Childs, "Macho A"	M	photo	photo	photo	yes	No	III (3)		1(1)				observer's credibility is damaged	no
11/19/2011	AZ	Cochise	Whetstone Mtns	Donnie Fenn, jaguar is "El Jefe."	M	photos, AGFD report	photos, AGFD report	photos	yes	NO	I (9)							yes

\*\*\*Unreliable records misclassified as reliable are noted in red.



Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al.. (2002) Class (rating) (Loc)	Hatten et al.. (2005) Class, (Location rating)	Grigione et al.. (2007) "reliable"	NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?
4/25/2012 through 2/28/2015	AZ	Pima	Santa Rita Mountains	University of Arizona	M	Trail cam photos	Trail cam photos	photos	yes	NO	III (3)						Observer Chris Bugbee's credibility is damaged	no
November 16, 2016	AZ	Cochise	Dos Cabezas Mountains	BLM trail camera	?	Trail cam photos	Trail cam photos	photos	AZGFD	NA	I (9) only if natural occurrence						Timing of 3 concurrent jaguars in AZ within weeks after Trump election with border wall controversy is extremely suspicious. No precedent for 3 Class I jaguar records at the same time in AZ-NM ever. Also very suspicious that the last time 2 Class I jaguars showed up in the same year was coincident with 2006 Secure Fence Act.	Only if natural occurrence, which is doubtful.
December 1, 2016	AZ	Cochise	Ft Huachuca	trail camera	M	photos, AGFD report	photos, AGFD report	photos	yes	NA	I (9) but only if natural occurrence						Timing of 3 concurrent jaguars in AZ within weeks after Trump election with border wall controversy is extremely suspicious. No precedent for 3 Class I jaguar records at the same time in AZ-NM ever. Tthe last time 2 Class I jaguars showed up in the same year was coincident with 2006 Secure Fence Act.	Only if natural occurrence, which is doubtful.

\*\*\*Unreliable records misclassified as reliable are noted in red.

Table 2. Summary of Jaguar Occurrence Records in NM and AZ and Their Reliability Rankings\*\*

Date first observed	State	County	Locality	Observer	Sex	Primary document that verifiably exists	Earliest verifiable document	Presently verifiable evidence that jaguar existed?	Historical evidence verified by someone other than observer	Subsequent location records reliable?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Girmendonk (1994) Class/rank/location	Hatten et al. (2002) Class (rating) (Loc)	Hatten et al. (2005) Class, (Location rating)	Grigione et al. (2007) "reliable" NMDGF Delphi Group (2010)	Special circumstances	Reliable for habitat modeling, per Parker & Coping?	
<b>Mexico</b>																		
1855	SON	NA	Santa Cruz, Sonora, 8 mile s. of Lochiel, AZ	local residents	?	Baird (1859)	Baird (1859) citing unverifiable hearsay	no	no	NA	III( 1)	NA						no
1829	SON	NA	downstream of Yuma	James Ohio Pattie	?	Pattie's Diary	1829	no	no	no	III (3)	NA				observer lacks credibility	no	

\*\*\*Unreliable records misclassified as reliable are noted in red.

**Table 3. Summary of Jaguar Occurrence Records and their Use in Modeling**

Table 3. Summary of Jaguar Occurrence Records in NM and AZ and Their Use in Modeling\*\*

Date first observed	State	County	Locality	Observer	Sex	Reliable for habitat modeling, per Parker & Coping?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Used in modeling?										Used in modeling critical habitat designation?	
								Menke & Hayes (2003)	Hatten (2002)	Hatten 2005	Boydston & Lopez	Gonzales (2005): 6 f and 47 m. from AZ, 6 m from NM	Robinson et al., 2006	Grigione et al. 2009	Sanderson et al. 2013 (per jaguardata.info)	Stoner et al., 2015 (uses Sanderson 2013)	***USFWS (2014)		
<b>NEW MEXICO JAGUAR OCCURRENCES</b>																			
1825	NM	Santa Fe	Convent allegedly on bank of Rio Bravo River	convent friars	?	no	III (1)												
1855	NM	Hidalgo, if not in Sonora Mexico	Guadalupe Canyon in Sierra Madre range	J. Weyss fide Kennerly	?	no	III (4)						✓ used inaccurate location in Peloncillo Mtns	?	?	?	?	?	?
"Late 1800s"	NM	Sierra or Doña Ana	on Jornada Exp. Range, Goldberg ranch, between San Andres Range & Rio Grande	Bob Burch	?	no	III (1)						✓	?	?	?	?	?	?
May 1900	NM	Sierra	near Grafton on Taylor Creek, Mogollon Mtns	Nat Straw	?	yes	I (9)	✓					✓	?	?	?	?	?	?
11/27/1900	NM	Sierra	tracks of 3 jaguars seen in snow 1 mi from location where jaguar was shot on Dec.9, 1900	unknown	?	no	III (1); hearsay							?	?	?	?	?	?
12/9/1900	NM	Sierra	foothills near RR depot town Engle	Louis O. Morris	M	no, evidence of importation	I (9)							?	?	?	?	?	?

\*\*\*Unreliable records used in habitat modeling are noted in red.



Table 3. Summary of Jaguar Occurrence Records in NM and AZ and Their Use in Modeling\*\*

Date first observed	State	County	Locality	Observer	Sex	Reliable for habitat modeling, per Parker & Coping?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Used in modeling?										Used in modeling critical habitat designation?
								Menke & Hayes (2003)	Hatten (2002)	Hatten 2005	Boydston & Lopez	Gonzales (2005): 6 f. and 47 m. from AZ, 6 m from NM	Robinson et al., 2006	Grigione et al. 2009	Sanderson et al. 2013 (per jaguardata.info)	Stoner et al., 2015 (uses Sanderson 2013)	***USFWS (2014)	
1903	NM	Hidalgo	Peloncillo Mtns Clanton Creek Canyon 6 mi. W of Gray Ranch	W.P. Burchfield	?	no	II (7)	✓				?	✓	?	?	?	?	?
Summer 1903	NM	San Miguel	Near Cow Springs a few miles southwest of Fulton	unknown, sighting only	?	no	III (1)					?	✓	?	?	?	?	?
1904-1905	NM	Sierra/ Doña Ana	west slope of Sierra de Los Caballos hills	Morris	?	no	III (1)	✓ using wrong location				?	✓ using wrong location	?	?	?	?	?
1909	NM	Socorro	Dog Springs, SE of Animas Mtns	unknown	?	no	III (1)					?	✓	?	?	?	?	?
"probably around 1916"	NM	Hidalgo or Grant	Little Hatchet Mtns	unknown	?	no	III (4)					?	✓	?	?	?	?	?
"some years ago"	NM	Colfax	Springer	Waite Phillips. A Skin was in collection of Waite Phillips	?	no	III (1) account is too vague					?	✓	?	?	?	?	?
1937	NM	Socorro	San Andres Mtns	Bannerman, an FWS hunter	?	no	II (6) location vaguely described	✓				?	✓	?	?	?	?	?

\*\*\*Unreliable records used in habitat modeling are noted in red.

















Table 3. Summary of Jaguar Occurrence Records in NM and AZ and Their Use in Modeling\*\*

Date first observed	State	County	Locality	Observer	Sex	Reliable for habitat modeling, per Parker & Coping?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Used in modeling?										Used in modeling critical habitat designation?		
								Menke & Hayes (2003)	Hatten (2002)	Hatten 2005	Boydston & Lopez	Gonzales (2005):6 f. and 47 m. from AZ, 6 m from NIM	Robinson et al., 2006	Grigione et al. 2009	Sanderson et al. 2013 (per Jaguardata.info)	Stoner et al., 2015 (uses Sanderson 2013)	***USFWS (2014)			
11/30/1926	AZ	Pima	Cerro Colorado Mtns, 20 mi W of Nogales	PARC trapper Fred Ott	?	no	III(1)			✓	✓		?			?	?	?	?	
December 1926	AZ	Yavapai	unverified; NE slope of Santa Maria Mountains just S. of Baca land grant, 40mi W. of Prescott, near Camp Wood	Clyde Miller	M	no	III (1)			✓	✓		?			?	?	?	?	
1926-1930	AZ	Cochise	Chiricahua Mtns	unknown	?	no	III (1)						?			?	?	?	?	
Summer 1932	AZ	Coconino	"near" Grand Canyon Village	unknown	F	no	III (1)			✓	✓	✓				?	?	?	?	
1928-1933	AZ	Maricopa	low desert foothills of Estrella Mtns SW of Phoenix, within 20 miles of downtown; and/or the Sand Tank Mountains	unknown	?	no	III (4) but may become reliable with better research						?			?	?	?	?	
1931-1933	AZ	Santa Cruz and Cochise	Pajarito and Huachuca Mountains	PARC agent Frank Colcord	M	no	I (9)			✓	✓		?			?	?	?	?	
1934	AZ	Santa Cruz	Atascosa Mtns	unknown	M	no	III (1)			✓	✓		?			?	?	?	?	

\*\*\*Unreliable records used in habitat modeling are noted in red.

Table 3. Summary of Jaguar Occurrence Records in NM and AZ and Their Use in Modeling\*\*

Date first observed	State	County	Locality	Observer	Sex	Reliable for habitat modeling, per Parker & Coping?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Used in modeling?							Used in modeling critical habitat designation?													
								Menke & Hayes (2003)	Hatten (2002)	Hatten 2005	Boydston & Lopez Gonzales (2005): 6 f. and 47 m. from AZ, 6 m from NM	Robinson et al., 2006	Grigione et al. 2009	Sanderson et al. 2013 (per jaguardata.info)		Stoner et al., 2015 (uses Sanderson 2013)	***USFWS (2014)											
1934	AZ	Pima	nonexistent "Altar Mtns"	Frank Hibben	M	no	III (1)																					
1939	AZ	Yavapai	Bloody Basin	unnamed trapper	?	no	III (1)																					
"circa 1940"	AZ	Navajo	Trout Creek on Whiteriver Apache Indian Reservation	unknown	?	no	III (1)																					
1947	AZ	Santa Cruz	Atascosa Mtns, Agua Fria Canyon 7 mi. w. of Atascosa Peak	unknown	?	no	III (1)																					
1948	AZ	Santa Cruz	Canyons south of Patagonia	Ray Harshman	M	no	III (1)																					
November 13, 1949	AZ	Santa Cruz	Cerro Colorado Mtns ; Agua Fria Canyon 7 miles w. of Atascosa Peak	Walter Noon	F	yes	I (9)			√	√																	
November 24, 1949	AZ	Santa Cruz	Atascosa Mtns, West of Rio Rico	Federal PARC agent Lloyd "Red" Harris	M	yes	I (10)			√	√																	
1956-1957	AZ	Navajo	Whiteriver Apache Indian Reservation	Jimmy Gilbert	?	no	1(9)			√	√																	

\*\*\*Unreliable records used in habitat modeling are noted in red.









Table 3. Summary of Jaguar Occurrence Records in NM and AZ and Their Use in Modeling\*\*

Date first observed	State	County	Locality	Observer	Sex	Reliable for habitat modeling, per Parker & Coping?	Tewes-Everett (1986) Class (rating) per Parker & Coping	Used in modeling?										Used in modeling critical habitat designation?						
								Menke & Hayes (2003)	Hatten (2002)	Hatten 2005	Boydston & Lopez	Gonzales (2005):6 f. and 47 m. from AZ, 6 m from NM	Robinson et al., 2006	Grigione et al. 2009	Sanderson et al. 2013 (per jaguardata.info)	Stoner et al., 2015 (uses Sanderson 2013	***USFWS (2014)							
November 16, 2016	AZ	Cochise	Dos Cabezas Mountains	BLM trail camera	?	Only if natural occurrence, which is doubtful.	I (9)																	
December 1, 2016	AZ	Cochise	Ft Huachuca	trail camera	M	Only if natural occurrence, which is doubtful.	I (9)																	
1855	SON	NA	Santa Cruz, Sonora, 8 mile s. of Lochiel, AZ	local residents	?	no	III( 1)																	
1829	SON	NA	downstream of Yuma	James Ohio Pattie	?	no	III (3)																	

\*\*\*Unreliable records used in habitat modeling are noted in red.

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