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Status of the Mountain Lion in Arkansas

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ABSTRACT

Two authenticated kill records of the mountain lion, *Felis concolor*, in Arkansas are reported as well as numerous reliable sight records spanning an approximately 30-year period. Distribution of sightings in the state is discussed in relation to an expanding deer population. The cougar probably never was exterminated in Arkansas but it still may be considered endangered.

Until 1949 it was believed that the mountain lion (or cougar), *Felis concolor*, was extinct in Arkansas. Young and Goldman (1946) listed the last reported occurrence in Franklin County on September 25, 1920, but in 1949 an adult cougar was killed near Sims, Montgomery County, and one (or more) was reported near Warren, Bradley County (Sealander, 1951). Since 1949 numerous mountain lion sightings have been made in Arkansas and adjoining states (Lewis, 1969, 1970; Sealander, 1956). In recent years sightings have become more frequent in Arkansas, and in 1969 another adult lion was killed about 6 mi east of Hamburg, Ashley County (Noble, 1971).

The more numerous sightings in recent years indicate that the cougar is holding its own in Arkansas and may even be increasing in numbers. The cougar population in Arkansas probably reached a low point in the late nineteen-twenties when the population of one of its staple foods, the white-tailed deer, was also at its lowest level. In the nineteen-thirties and forties, with the establishment of state and federal game refuges, a deer restocking program, improved deer habitat, and strictly enforced hunting regulations, the deer population increased rapidly from about 500 animals to more than 60,000. Today the statewide deer population, calculated from the 1970 deer kill, may be nearly 250,000 (Wilson and Sealander, 1972). Apparently the mountain lion has benefitted by the increase in its major prey item and also has increased in the state. Since 1945 the deer population has roughly doubled every decade, reaching about 120,000 by 1965 according to Arkansas Game and Fish Commission legal kill records. The latest available estimate (Fig. 1) indicates a population of about 234,000.

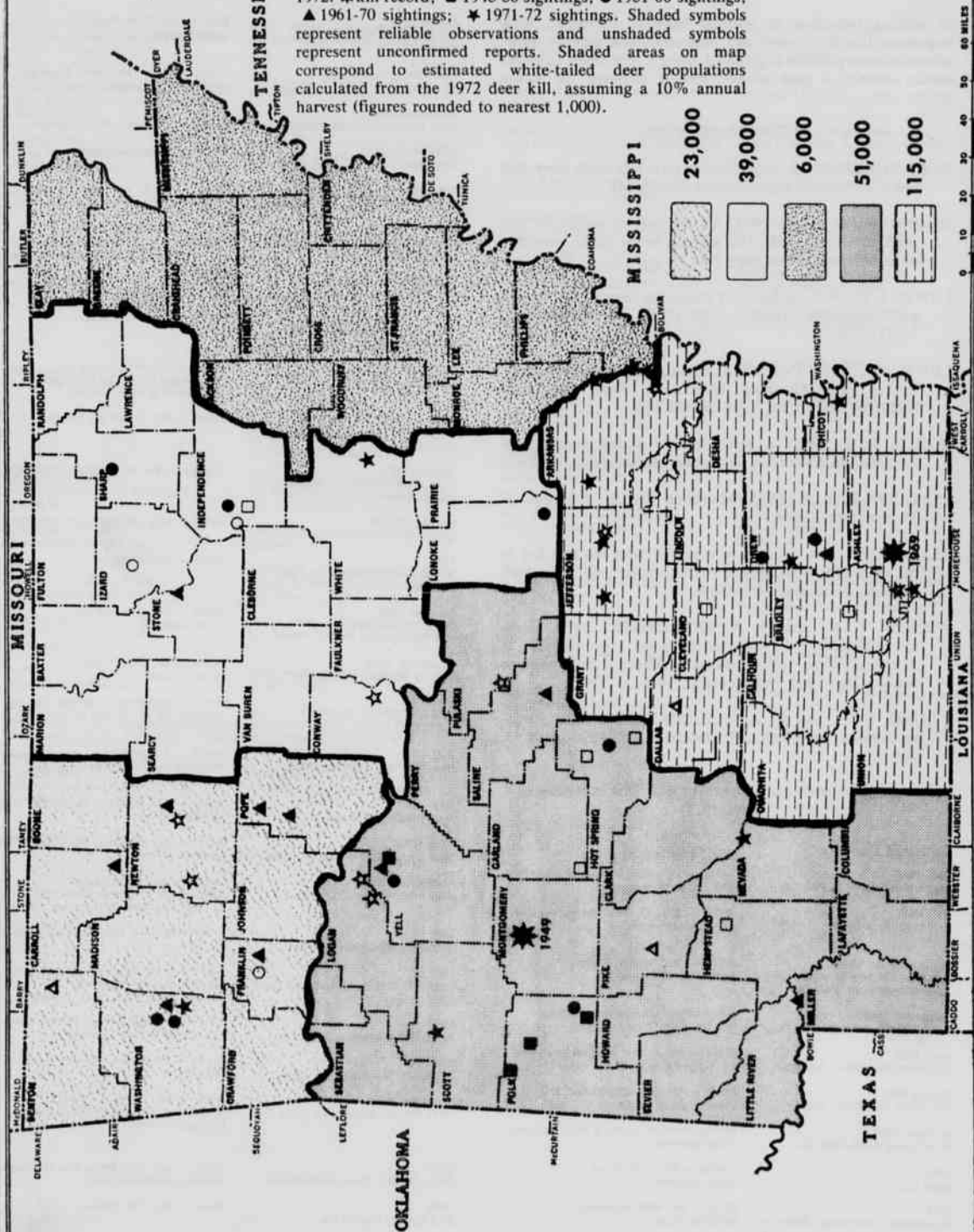
The purpose of this paper is to document reports of mountain lion sightings and to bring available information up to date. Most sightings up to 1955 have been reported (Sealander, 1956), although a few reliable observations for this period have been added since. Sightings reported herein are considered to be very reliable. They have been made by professional biologists, wildlife workers, foresters, and individuals known to be good observers and not likely to exaggerate. Many reports received by the writers have not been included for lack of sufficient documentation even though some may have been accurate. The possibility that some observations reported herein are in error is recognized because such factors as distance and poor lighting, especially at night, may confuse an observer's senses. The clustering of observations in certain areas of the state over a period of many years, however, tends to substantiate some of the more poorly documented sightings, and suggests continued residence of mated pairs or family groups in these areas for long periods. Such clustering is especially prevalent in areas of the state with the largest deer populations and in relatively inaccessible areas with few human residents.

During the nineteen-thirties the U. S. Forest Service bought many of the farms in the areas now encompassed by the Ozark and Ouachita National Forests. The reduced hunting pressure (legal and illegal) in these areas, which resulted from removal of much of the rural population, combined with conditions favoring an increase in the deer population undoubtedly contributed to the survival of a small cougar population.

Mountain lion sightings in Arkansas are listed in Table I and shown in Figure 1. It is believed that the increased frequency of reports during the last decade reflects an actual increase in the cougar population. At present there appear to be four areas in the state with small cougar populations. They are centered near the Saline and Ouachita River bottomlands in southeastern Arkansas, the White River National Wildlife Refuge near the confluence of the White and Arkansas Rivers, the western Ozark Mountains north of the Arkansas River, and the Ouachita Mountains in westcentral Arkansas south of the Arkansas River. Scattered reports elsewhere in the state may represent dispersing young. All four areas, except the Ozark Mountains, have large deer populations. Southeastern Arkansas where lion reports have been most numerous in recent years has the highest deer population in the state. Hornocker (1970) who studied mountain lion predation on deer and elk in Idaho found a ratio of 1 lion to 201 prey animals (deer and elk). Adjusting for different weights of deer and elk, he estimated the lion to deer ratio would be 1:353. The fact that density of lions in the area of his study remained the same despite an increase in prey species suggests the numbers of lions were determined by factors other than food supply. Reports of lions from various areas of Arkansas indicate a substantially lower population than could be supported by the available food supply. It seems likely that the few lions now present in the state do not have a significant influence on the size of the deer herd. If anything they contribute to a healthier herd by removing crippled, aged, and diseased animals. The annual increase in the deer herd is probably not affected significantly by the small number of newborn fawns which may fall prey to lions.

Hornocker (1969, 1970) found that female mountain lions occupied ranges of 5-20 sq mi and that males had ranges of 25 sq mi or more. He stated that territoriality was an extremely important regulator of mountain lion numbers. Although lions are known to live close to human habitations in other parts of the United States and Canada, even invading the suburbs of Vancouver, it seems likely that rugged wilderness areas harboring good deer populations meet their requirements best. Such areas are disappearing rapidly in Arkansas and elsewhere. Although the mountain lion apparently never was exterminated in Arkansas it may still be considered endangered because of attitudes of hunters, stockmen, and rural residents

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 1972: ★ kill record; ■ 1945-50 sightings; ● 1951-60 sightings; ▲ 1961-70 sightings; ☆ 1971-72 sightings. Shaded symbols represent reliable observations and unshaded symbols represent unconfirmed reports. Shaded areas on map correspond to estimated white-tailed deer populations calculated from the 1972 deer kill, assuming a 10% annual harvest (figures rounded to nearest 1,000).



as well as reduction in optimal habitat. Therefore, it is important that it receives full protection and that as much information as possible is gathered about it if its small numbers are to remain a part of our wildlife heritage for future generations.

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- March 1953
Between Ash Flat and Hardy,
Sharp Co. Adult — Mr. T. N. Rush
(state trapper)
- November 11, 1953
15 mi NE Monticello, Drew Co. Adult; tracks — Mr. David T. Hyatt
(professional forester)
- December 1953
Near Batesville, Independence Co. Adult — Mr. Henry Rudd (farmer)
- December 1953
Cushman Junction, Independence Co. Tracks — Missouri Pacific
section crew
- December 31, 1953
8 mi S Malvern, Hot Spring Co. Adult — Mr. O. L. Cardin
(state trapper)
- January 18, 1954
Between Humnoke and Stuttgart,
Lonoke Co. Adult — Mr. W. W. Barnett
(farmer)
- October 1954
Hot Spring County Tracks — Mr. O. L. Cardin
(state trapper)
- October 1954
11 mi SE Fayetteville,
Washington Co. Adult — Mr. W. M. Elvins
(farmer)
- November 1954
Near Cass, Franklin Co. Adult — report of hunter to
Mr. Harold Alexander (biologist,
Ark. Game & Fish Comm.)
- January 1955
2 mi N and 5 mi E Greenland,
Washington Co. Adult — Mr. H. Wallen (farmer)
- January 1955
2 mi N and 5 mi E Greenland,
Washington Co. Tracks — Mr. W. M. Elvins (farmer)
- Winter 1957-58
Chickalah Mountain, Yell Co. Adult — Mrs. Morgan Scott (farmer)
- 1958
Shady Lake Recreational Area,
Polk Co. Adult — Lewis (1969)
- October 1959
10 mi SW Malvern,
Hot Spring Co. Adult — Mr. O. L. Cardin
(state trapper)
- November 1959
8 mi W Malvern, Hot Spring Co. Adult — Mr. O. L. Cardin
(state trapper)
- 1959
Bradley County Adult — sightings by several people,
reported by Mr. Ernest Williams
(wildlife officer)
- 1960
Near Blevins, Hempstead Co. Adult — 5 sightings by different people,
reported by Mr. Robert D. Bonds
(wildlife officer)
- 1960
Near Rison, Cleveland Co. Adult — one sighting, Mr. Angus R. Morris
(wildlife officer)
- June 1960
Near Locust Grove, Independence Co. Adult — one sighting, Mr. George Parks
(wildlife officer)
- August 31, 1960
Near Narrows Dam, Pike Co. Adult (black or red phase) —
letter to Dr. D. James (zoologist,
U. of A.) by George Hoffman
- 1961
Chickalah Mountain, Yell Co. Screaming - Mr. Morgan Scott's son, Jerry
- 1961
Hasty (1) and Boat Mountain (2),
Newton Co. Adult — 3 sightings by several "unnamed"
Newton County residents
Gazette news item, Nov. 10, 1961
- 1962
25 mi N Russellville, Pope Co. Adult — Mr. Gene Rush (Chief, Game Div.
Ark. Game & Fish Comm.)
- 1965
Chickalah Mountain, Yell Co. Adult — Mr. & Mrs. Morgan Scott
(farmers)
- November 1966
10-11 mi SW Monticello, Drew Co. Adult — Mr. David T. Hyatt
(professional forester) and Mr. James
Sanders (hunter)
- 1968
Clear Creek E Cass, Franklin Co. Adult — Mr. Tom Wells and Mr. Grady
Morris (forest rangers)
- 1969
E of Osage, Carroll Co. Adult — Mr. Farr (farmer)

Table I. Mountain Lion Sightings and Kills in Arkansas
(1945-1972)

Date and Location	Evidence and Observer(s)
1945-1946 Acorn and Eagleton, Polk Co.	Adult and 2 young — several sightings, Mrs. O. B. Witherspoon
Fall 1946 Eagleton, Polk Co.	Adult — Mrs. O. B. Witherspoon and Mrs. Pierre Redman
Mid-November 1946 Between Shady and Shady Lake Recreational Area, Polk Co.	Adult — Mr. John P. Redman (professional zoologist)
December 1949 2 mi N Sims, Montgomery Co.	Adult killed — Mr. Virgil McKinney and Mr. Tom Dillard (hunters)
April 1950 Chickalah Mountain, Yell Co.	Adult — Mr. & Mrs. Morgan Scott and Mr. Lee McCutcheon (farmers)
Spring 1951 Chickalah Mountain, Yell Co.	Adult — Mrs. Orna Scott and Mrs. Clauzell Scott (farmers)
Summer 1951 N of Spring Lake, Yell Co.	Half-grown lion — Mr. & Mrs. Morgan Scott (farmers)
1952 Izard Co.	Tracks — Mr. T. N. Rush (state trapper)
1952 New Hope Community, Drew Co.	Adult — Mr. Billy Hickham (wildlife officer)

January 1969 Sandbar on river 4 mi upstream from Fulton, Hempstead Co.	Adult, tracks — Mrs. Brine Harper and Mr. Edgar Spears (state trapper)	August 18, 1971 6 mi W Mellwood on White River levee, Phillips Co.	Adult — Mr. Richard Golden and Mr. Donald Doffman (wildlife officers)
April 1969 Between Mineral Springs and Lowgap (6 mi E Hwy 71 near West Fork), Washington Co.	Adult — Dr. Paul R. Noland (professional biologist, U. of A.)	Fall 1971 Hurricane Lake public hunting area, White Co.	Adult, tracks — Mr. Gordon Dunham, Monticello (hunter)
Spring 1969 Long Pool Recreation Area on Big Piney Creek, Pope Co.	Adult — Mr. Tom Taylor (biologist, Ark. Game & Fish Comm.) with brother and uncle	January 1972 Near mouth of Big Creek, Newton Co.	Tracks — Mr. Larry Dablemont (Chief Naturalist, Ark. State Parks)
November 1969 Carthage, Dallas Co.	Adult & one sighting, Mr. Ernest Dodd (Arkansas Gazette news item Dec. 14, 1969)	Early spring 1972 ½ mi S Hwy 82 bridge on Ouachita River, Ashley Co.	Adult — Mr. Frank Allen and father (Georgia Pacific Corp., Crossett)
December 8, 1969 6 mi E Hamburg, Ashley Co.	Adult killed — Mr. Harold Watts (hunter)	March 30, 1972 7 mi SSW Boxley, Newton Co.	Scat (confirmed by authors) — Dr. Neil Compton (physician)
April 17, 1970 About 2 mi W Interstate 30 and Ark. Hwy 183, Saline Co.	Adult treed, tracks — woman observer (not identified) interviewed by Mr. Robert G. Leonard (Chief, Game Div. Ark. Game & Fish Comm.) and Mr. Rocky Lynch (game biologist)	April 5, 1972 11 mi N and 6 mi W Mellwood, Phillips Co., on White River levee	Adult — Mr. Raymond McMaster (refuge manager, White River National Wildlife Refuge)
Mid-November 1970 11 mi SE Fayetteville, Washington Co.	Adult, tracks — Dr. & Mrs. John L. Bowers (professional biologist), Dr. Paul R. Noland (professional biologist), Mr. Everett (regional forester), Mr. Thomas O. Duncah (professional biologist)	April 8, 1972 Between Mineral Springs and Lowgap, Washington Co. (near West Fork)	Adult — Dr. Paul R. Noland (professional biologist, U. of A.)
December 16, 1970 3 mi downriver from Sylamore, Stone Co.	Adult, tracks — deer hunters, Mr. Mitch Rogers (game biologist, Ark. Game & Fish Comm.)	April 20, 1972 Base of White River levee, Phillips Co.	Adult — timber cutter
December 25, 1970 Near Glade, Benton Co.	Adult — Mr. Willie Morrison (farmer)	May 15, 1972 4 mi N Ark. Hwy 4 bridge on Saline River, Drew Co.	Adult — owner of Exxon service station, Monticello
Spring 1971 Near Luna Landing N of Lake Village, Chicot Co.	Adults (2) — Mr. George Purvis (Chief, Information & Education, Ark. Game & Fish Comm.)	Spring and summer 1972 Cadron Creek bottomlands, NE of Conway, Conway Co.	Tracks — Mrs. Clark Hightower
Spring 1971 Hwy 71, 5 mi N Waldron, Scott Co.	Young adult — Dr. Jack Goode and Mr. Everett Bowen (plant pathologists, U. of A.)	July 7, 1972 Near Altheimer, Jefferson Co., on Mr. Fausepl's farm	Tracks, attacks on hogs, and killing of four hogs — report to Ark. Game & Fish Comm. by Mr. Don Akers (biologist)
1971 Near Paris, Logan Co.	Adult — Mr. Solon Dodson (forest ranger)	August 19, 1972 2 mi S Stuttgart, Arkansas Co.	Adults (2) appeared black and cub brown — Messrs. Richard and Tom Roth (farmers), reported to Dr. Roth (professional zoologist)
1971 Mt. Salem Community, Shady Grove, and South side Mt. Magazine, Logan Co.	Adult — sightings by several people, reports to District Forest Rangers Mr. William D. Walker and Mr. Charles L. Noble	Summer 1972 N of Hwy 82 bridge on Saline River, Ashley Co.	Tracks — Mr. Frank Allen (Georgia Pacific Corp.)
June 3, 1971 Near Nevada and Clark Co. line, Nevada Co.	Adult (trapped, escaped) — Mr. Edgar Spears (state trooper)	Early fall 1972 Coal Hollow, Washington Co.	Adult and cub — Mr. Thomas O. Duncan (professional biologist)