

Habitat Model for Species: **Big Brown Bat**

Eptesicus fuscus

[Distribution Map](#) [Habitat Map](#)

Landcover Category

0 - Comments

Habitat Restrictions

Comments

Birney and Rising, 1967

big brown bats were shot from the rafters of a garage on a working ranch

Hibbard, 1934

big brown bats found in a cave where they were hanging together close to the damp stream bed or were in a crevice of the roof of the cave; caves were of gypsum (Red Hills region) and had stream beds fed by surface waters during the rainy season

Kurta and Baker, 1990

overall, maternity colonies of big brown bats usually are located in manmade structures such as barns, houses, and churches, whereas hibernacula located in buildings, mines, or caves

McMillan et al., 1997

mummified bat found in hayloft of large barn; habitat consistent with other authors which suggests use of buildings as roosting sites

Phillips, 1966

largest colony of big brown bats in Kansas: 515 big brown bats occupied idle limestone mine throughout year, but not used as maternity colony; hibernated at sites where humidity was low, temperature was variable and exposed in air movement

Guthrie, 1933

big brown bats found in large, relatively dry entrance chamber, where they crawled into crevices; Rocheport Cave main entrance at base of bluff at head of ravine which had a flowing creek; cave rugged with flowing stream, a deep pool, but some dry parts

Raesly and Gates, 1987

used limestone caves and mines with relative humidity 63.8-70.7% and ambient temperature 6.3-8.0 degrees Celsius; solitary hibernators, use side-wall areas and use dry and cool areas typically in passages that have noticeable air flow

Beck and Rudd, 1960

summer colony of big brown bat found in large barn near an oak-covered hillside (California study)

Baker and Ward, 1967

big brown bats found at 3 localities: a nursery colony in a large building, small roadside pools, and a farm pond

Mills, 1971

30 big brown bats found in 3 small limestone caves in Ohio

Davis et al., 1968

40 big brown bats observed in attic of a garage and a nearby barn; the bats use caves for hibernation; they do not use caves in summer during the day, but do use them as night roosts

Hall, 1923

1 big brown bat collected from the rafters in a dairy barn

Twente, 1955

big brown bats usually hibernate singly in small crevices on the ceilings of caverns; these bats often were found near entrances of caverns and avoided more humid and warmer parts; all caverns were formed in the Medicine Lodge gypsum (Red Hills region)

[#Reviewer]

Choate: Add Cowley, Crawford, Franklin, Saline, Wilson, Woodson (10504)

06 - Cottonwood Floodplain Forest

Andersen and Fleharty, 1967

big brown bats prefer riparian communities; authors suggest that numerous plains cottonwood trees (Populus) provide summer roosts

11 - Cottonwood Floodplain Woodland

Andersen and Fleharty, 1967

big brown bats prefer riparian communities; authors suggest that numerous plains cottonwood trees (*Populus*) provide summer roosts

25 - Shortgrass Prairie

Robbin et al., 1977

a big brown bat netted over a stock tank in a narrow canyon in Cheyenne County; canyon is compacted loess that has eroded to form a rugged terrain called, "The Breaks"

81 - Urban Areas

Choate and Fleharty, 1975

roosts in buildings; maternity colony in football stadium on Fort Hays campus; commonly observed foraging along rivers and in cities around light posts at night

Hibbard, 1936

big brown bats found in association with Brazilian free-tailed bats (*Tadarida brasiliensis*) in the belfry of an old school building in city of Medicine Lodge

Kurta and Baker, 1990

overall, maternity colonies of big brown bats usually are located in manmade structures such as barns, houses, and churches, whereas hibernacula located in buildings, mines, or caves

Phillips, 1966

one big brown bat observed in storm sewer in Lawrence

Goehring, 1954

36 big brown bats found occupying crevices in storm sewer in central Minnesota; most found near entrance, where it was coolest; relative humidity as low as 64% recorded in where they were collected

Reference List

1. Andersen, K. W. and E. D. Fleharty. 1967. Mammalian distribution within biotic communities of northeastern Jewell County, Kansas. Fort Hays Studies Science Series 6:1-45.
2. Baker, R. J. and C. M. Ward. 1967. Distribution of bats in southeastern Arkansas. *Journal of Mammalogy* 48:130-132.
3. Beck, A. J. and R. L. Rudd. 1960. Nursery colonies in the pallid bat. *Journal of Mammalogy* 41:266-267.
4. Birney, E. C. and J. D. Rising. 1967. Notes on distribution and reproduction of some bats from Kansas, with remarks on incidence of rabies. *Transactions of the Kansas Academy of Science* 70:519-524.
5. Choate, J. R. and E. D. Fleharty. 1975. Synopsis of native, recent mammals of Ellis County, Kansas. *Occasional Papers, The Museum, Texas Tech University* 37:1-80.
6. Davis, W. H., R. W. Barbour, and M. D. Hassell. 1968. Colonial behavior of *Eptesicus fuscus*. *Journal of Mammalogy* 49:44-50.
7. Goehring, H. H. 1954. *Pipistrellus subflavus obscurus*, *Myotis keenii*, and *Eptesicus fuscus fuscus* hibernating in a storm sewer in central Minnesota. *Journal of Mammalogy* 35:434-435.
8. Guthrie, M. J. 1933. Notes on the seasonal movements and habits of some cave bats. *Journal of Mammalogy* 14:1-19.
9. Hall, E. R. 1923. Occurrence of the hoary bat at Lawrence, Kansas. *Journal of Mammalogy* 4:192-193.
10. Hibbard, C. W. 1934. Notes on some cave bats in Kansas. *Transactions of the Kansas Academy of Science* 37:235-238.
11. Hibbard, C. W. 1936. Established colonies of the Mexican free-tailed bat in Kansas. *Journal of Mammalogy* 17:167-168.
12. Kurta, A. and R. H. Baker. 1990. *Eptesicus fuscus*. *Mammalian Species* 356:1-10.
13. McMillan, B. R., D. W. Kaufman, G. A. Kaufman, and R. S. Matlack. 1997. Mammals of the Konza Prairie: new observations and an updated species list. *The Prairie Naturalist* 29:263-271.
14. Mills, R. S. 1971. A concentration of *Myotis keenii* at caves in Ohio. *Journal of Mammalogy* 52:625.
15. Phillips, G. L. 1966. Ecology of the big brown bat (Chiroptera: Vespertilionidae) in northeastern Kansas. *The American Midland Naturalist* 75:168-198.
16. Raesly, R. L. and J. E. Gates. 1987. Winter habitat selection by north temperate cave bats. *The American Midland Naturalist* 118:15-31.
17. Robbin, L. W., M. D. Engstrom, R. B. Wilhelm, and J. R. Choate. 1977. Ecogeographic status of *Myotis leibii* in Kansas. *Mammalia* 41:365-367.
18. Twente, J. W., Jr. 1955. Some aspects of habitat selection and other behavior of cavern-dwelling bats. *Ecology* 36:706-732.

Big Brown Bat

