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## Seven Significant Vascular Plant Records for Arkansas

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## Arkansas Academy of Science

AN INFESTATION OF THE BAT BUG *CIMEX PILOSELLUS* ON AN ARKANSAS POPULATION OF BIG BROWN BATS (*EPTESICUS FUSCUS*)

On 29 June 1981, an investigation was initiated on a maternity colony of big brown bats, *Eptesicus fuscus* (Beauvois) in Brinkley, Monroe County, Arkansas. The colony roosted in the attic of a 100-year-old colonial style home (much to the consternation of the owner), and extensive guano deposits indicated bat utilization over a great number of years.

Bats were captured from dusk until midnight by hand and mist-netting. A total of 49 female and subadult bats was captured, and 13 cimicids were removed from them. Interestingly, all of the cimicids were attached to the plagiopatagium or uropatagium of volant bats, although Spencer (Proc. Entomol. Soc. Brit. Col., 31:43-45, 1935. Taken from: Usinger, Monograph of Cimicidae, Entomol. Soc. Amer., College Park, Maryland, p. 348, 1966) reported cimicids as seldom found on bats, but inhabiting roosting areas, where they could obtain their bloodmeal from a roosting bat and return to a crack or crevice. Generally a single cimicid was found per bat, although three bats harbored two cimicids each. Allen (J. Mamm., 2:53-57, 1921) reported an incidence of two cimicids behind the ears of a big brown bat.

Cimicids were transported to the laboratory, cleared, and identified as *Cimex pilosellus* Horvath (Hemiptera: Cimicidae: Pilosellus group). This group is primarily ectoparasitic on bats and is apparently restricted to the Nearctic region (Usinger, 1966). *C. pilosellus* is distinguished from other cimicids in this group by its long, narrow hemelytral pads, the shallowly cleft paragenital sinus, and setae having a stellate termination when viewed microscopically (Usinger, 1966).

A second examination of the bat colony was conducted on 10 September 1981. At this time, additional cimicids were encountered on bats and 15 - 20 were observed on the woodwork around the attic door.

Records of *C. pilosellus* associated with big brown bats are not uncommon (Phillips, Amer. Midl. Nat., 75:169-197, 1966; Usinger, p. 347, 1966), and records in association with other bats (e.g., *Pipistrellus hesperus* Hatfield, *Antrozous pallidus* LeConte, and several species of *Myotis*) are also known (Usinger, pp. 347-348, 1966; Dooley et al., J. Mamm., 57:187-191, 1976). However, all previous records are from western North America. The eastern-most records have been by Phillips (1966) from Leavenworth, Kansas, and Dooley et al. (1976) from Dona Ana County, New Mexico, and El Paso County, Texas. Although Allen (1921) recorded *C. pilosellus* from Ithaca, New York, Usinger (1966) reassigned the record to another member of the Pilosellus group, *C. adjunctus* Barber. Our Arkansas records, then, clearly extend the range of *C. pilosellus* east of the recognized range and represent the first recorded bat bugs from an Arkansas bat colony.

The authors thank Harvey Barton for preparation and identification of the cimicids.

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## SEVEN SIGNIFICANT VASCULAR PLANT RECORDS FOR ARKANSAS

During 1981 the staff of the Arkansas Natural Heritage Commission performed extensive field work. Four previously unreported species were added to the State's flora:

*Carex bromoides* Willd. GARLAND CO.: along Meyer's Creek, in cherty soil, full shade, 3.2 km NW of Meyers, S17 T3S R22W; 21 April 1981 Rettig & K. Smith 220 (VDB).

*Carex hitchcockiana* Dewey. NEWTON CO.: along Leatherwood Creek, deep shade, cherty soil, overstory primarily of *Fagus grandifolia* and *Liquidambar styraciflua* ca. 1.6 km E of Ponca, S30 T16N R22W; 6 May 1981, Rettig & K. Smith 282 (VDB).

*Carex pensylvanica* Lam. POLK CO.: the understory dominant on south side of Rich Mountain near crest in stunted hardwood forest, abundant, ca. 0.5 km W of Rich Mountain fire tower along Ouachita Trail, S17 T1S R31W; 27 April 1981, Rettig & R. Davis 238 (VDB).

*Aster sericeus* Vent. IZARD CO.: approximately 15 individuals on prairie-like opening of limestone derivation atop Devil's Knob-Devil's Backbone, ca. 30 km NE of Mt. View, S34 T16N R10W; 8 October 1981, William Shepherd & D. Eichieson 1 (APCR).

Three additional species were reported for the first time in at least thirty years:

*Sagittaria ambigua* J. G. Sm. CLARK CO.: few plants in standing water in roadside ditch adjacent to natural opening in forest, full sun, soil gray and clayey with occasional gravel, ca. 12.9 km SE of Arkadelphia, S8 T8S R18W; 17 May 1981, Rettig & M. Rettig 313 (VDB). This species was reported previously for Arkansas by Demaree (A catalogue of the vascular plants of Arkansas, Taxodium 1:1-88, 1943).

*Carex leptalea* Wahlenb. MONTGOMERY CO.: abundant in very rich moist humus of small, seepy area, with *Magnolia tripetala* & *Smilax* sp., along U.S. Forest Service road #177, ca. 14 km W of U.S. Hwy 270, S8 T3S R24W; 27 April 1981, Rettig & R. Davis 234 (VDB). This species was collected previously in Garland Co., on wet silicious rocks about spring, near Lofton, 10 May 1925, E. J. Palmer 27132 (UARK).

*Carex prasina* Walenb. All collection data same as the Montgomery Co. site for *C. leptalea*, Rettig & R. Davis 235 (VDB). This species was collected previously in Benton Co., vicinity of War Eagle, altitude 1100'-1300', 12 May 1928, D. Demaree 5050 (UARK).

The author is grateful to Dr. Gary Tucker of Arkansas Tech University (APCR) for verifying the identification of *Aster sericeus* and to Dr. Robert Kral of Vanderbilt University (VDB) for identifying all other species. The author is grateful also to Dr. Tucker and William Shepherd for critical review of the manuscript. All nomenclature follows Kartesz and Kartesz (A synonymized checklist of the vascular flora of the United States, Canada, and Greenland. Univ. of North Carolina Press, Chapel Hill, 498 pp., 1980).

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