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## New Records for Ectoparasites of Michigan Bats

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## NEW RECORDS FOR ECTOPARASITES OF MICHIGAN BATS<sup>1</sup>

S. B. Dood<sup>2</sup> and A. Kurta<sup>3</sup>

During 1978, 1979, and 1981 ectoparasites of bats were collected in 16 counties of the Upper and Lower peninsulas in connection with an extensive study of Michigan bat populations (Kurta 1980, 1982). The two insect and five acarine species recovered include four new records for Michigan and two new host records for the United States. All are listed with comments on past records of Michigan bat ectoparasites.

Keys used for identifications were those of Usinger (1966), Lewis (1978), Radovsky (1967), Rudnick (1960), and McDaniel and Coffman (1970). Most ectoparasites are in the personal collections of the authors.

### ECTOPARASITES AND HOSTS

(\* = new state record, † = new host record)

#### HEMIPTERA: CIMICIDAE

*Cimex adjunctus* Barber: 2 females, 3 males, 1 nymph ex *Eptesicus fuscus* (Beauvois), Allegan, Van Buren, Eaton, St. Joseph; 1 male ex *Myotis sodalis* Miller and Allen, St. Joseph. Lawrence et al. (1965) listed *C. pilosellus* (Horvath) from *Myotis* sp. in Iron County. However, Usinger and Ueshima (1965) noted that this species is found in western North America while *C. adjunctus* is widely distributed in the east to Colorado. Also, Usinger (1966) reported *C. brevis* Usinger and Ueshima from *Myotis lucifugus* (LeConte) at Ontario, Michigan.<sup>4</sup> Although the *C. pilosellus* specimen(s) have not been re-examined, the geographical distribution of species as presently described suggests that they may be *C. adjunctus* or *C. brevis* but probably are no longer an authentic record for *C. pilosellus*.

#### SIPHONAPTERA: ISCHNOPSYLLIDAE

*Myodopsylla insignis* (Rothschild): 29 females, 16 males ex *M. lucifugus*, Houghton, Ontonagon; 2 females, 1 male ex *Myotis keenii* (Merriam), Mackinac. Scharf and Stewart (1980) report this flea species from *M. lucifugus* in Grand Traverse and Wexford counties, and Benton (1980) added Cheboygan, Menominee, and Houghton counties without giving the host species.

#### ACARI: MACRONYSSIDAE

\**Steatonyssus occidentalis* (Ewing): 56 females, 16 males, 59 protonymphs ex *E. fuscus*, Cass, St. Joseph, Ingham, Oakland, Livingston, Barry, Calhoun; 2 protonymphs ex †*M. sodalis*, Hillsdale.

*Macronyssus crosbyi* (Ewing and Stover): 3 females, 1 male, 6 protonymphs ex *M. lucifugus*, Delta, Ontonagon, Houghton; 2 protonymphs ex *M. keenii*, Berrien, Eaton. The type series of another macronyssid (*Cryptonyssus flexus* Radovsky) was taken from *M. lucifugus* in Cheboygan County (Radovsky 1967).

#### ACARI: SPINTURNICIDAE

\**Spinturnix americanus* (Banks): 4 females, 7 males, 1 nymph ex *M. lucifugus*, Delta, Houghton, Wexford, Berrien.

\**S. bakeri* Rudnick: 1 female, 2 males, 1 nymph ex *E. fuscus*, Barry, Ingham. This family of mites has not been previously reported from Michigan.

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<sup>4</sup>We have been unable to locate this city.

## ACARI: CHIRODISCIDAE

\**Alabidocarpus calcaratus* Lawrence: 1 male ex †*M. lucifugus*, Ontonagon. Dr. B. McDaniel identified this mite and retains it in his collection. This species has been recovered in California on *Myotis yumanensis* (H. Allen) (McDaniel and Coffman 1970) and may also have been taken from an unspecified bat host in Montana (McDaniel, in litt.).

## ACARI: TROMBICULIDAE

No chigger mites were found in this survey; however, Wrenn (1974) reported *Leptotrombidium myotis* (Ewing) from *M. lucifugus* in Cheboygan County.

Additional species in these and other families of ectoparasites (e.g. Argasidae and Myobiidae) have been found on bats in Indiana (Whitaker 1973). Also, there are no reports of ectoparasites from several genera of bats (e.g. *Lasiurus*, *Lasionycteris*, and *Nycticeius*) which have been collected in Michigan. Further investigation may provide additional records of bat ectoparasites in that state.

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