

Haemogamasus harperi Keegan (Arthropoda: Acari: Laelapidae): New to the Mite Fauna of Oklahoma

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Little is known about the parasitic and phoretic mite (Acari) fauna of vertebrates of Oklahoma. In their summation on mites of North American wild mammals north of Mexico, Whitaker et al. (2007) list only seven species from mammals of Oklahoma. Of these, one was reported from rodents (Elsen and Whitaker 1985) and the remainder from bats (Reisen et al. 1976; OConnor and Reisen 1978). More recently, McAllister et al. (2013) reported a louse from a fox squirrel, *Sciurus niger*, in McCurtain County, Oklahoma. Therefore, nothing is known of mites from any of the five insectivores (Caire et al. 1989) from the state. Here we report, for the first time, a species of parasitic mite from the eastern mole, *Scalopus aquaticus* from Oklahoma.

On 7 August 2014, an adult male *S. aquaticus* was collected alive by hand from its burrow under a rock on the campus of Eastern Oklahoma State College in Wilburton (Latimer County) off North Hill Street (34.915679°N, 95.327487°W). The mole died within 48 hr and its pelage was searched for ectoparasites following previous methods (Connior et al. 2014). Three mites were collected and placed in vials containing 70% ethanol and shipped to the junior author for identification. Mites were cleared in lactophenol and slide-mounted in Hoyer's medium (Walters and Krantz 2009). Voucher specimens of mites are deposited in the General Ectoparasite Collection in the Department of Biology at Georgia Southern University (accession no. L3698). The voucher host is deposited in the Henderson State University (HSU) collection, Arkadelphia, Arkansas.

Two parasitic mites (1 female, 1 nymph) identified as *Haemogamasus harperi* Keegan, 1951 were recovered from the mole. Keegan (1951) originally described *H. harperi* from the least shrew, *Cryptotis parva* from Georgia. This large mite has been previously reported from moles, shrews and voles from nine states, including nearby Arkansas, Louisiana and Texas (Keegan 1951; Whitaker and Wilson 1974; Whitaker et al. 2007; McAllister and Wilson 2012; Connior et al. 2014) (Fig. 1). Previous reports of this ectoparasite on *S. aquaticus* include Keegan (1951) in Georgia and Mississippi, Whitaker and Schmelz (1974) in Indiana, Wilson and Durden (2003) in Georgia, and McAllister and Wilson (2012) in Texas. It has not been, to our knowledge previously reported from any mammalian host in Oklahoma. We therefore document a new state record for *H. harperi* in Oklahoma. A third mite specimen recovered from the mole was an adult female *Tyrophagus putrescentiae* (Schrank), a widespread, non-parasitic mold-consuming acarid mite that is associated with stored products, plants and, sometimes, mammal nests (OConnor 2009).

Oklahoma supports an exceptionally rich mammalian fauna (Caire et al. 1989) distributed over 12 ecoregions of the state (<http://www.forestry.ok.gov/ecoregions-of-oklahoma>). Yet, compared to surrounding states, little is known about the ectoparasite fauna of Oklahoma's mammals. With additional study, the geographic distribution and host associations of this fauna will surely increase and the likelihood of discovering new species is a further possibility.

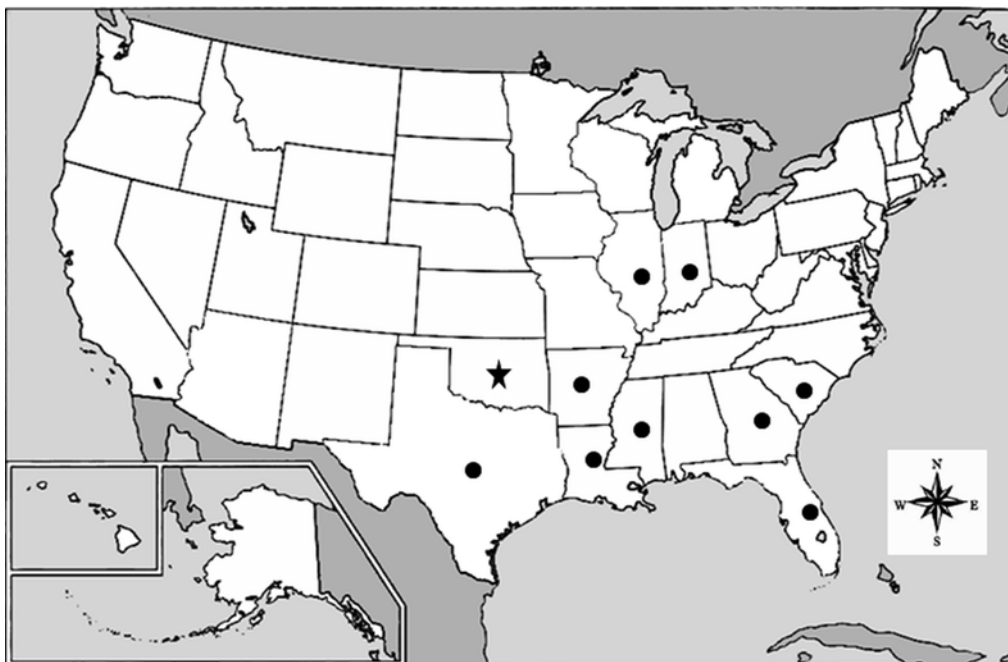


Figure 1. Records of *Haemogamasus harperi* from 10 states. Dots = previous records; star = new state record.

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