

New State and Host Records for the Phoretic Fur Mite, *Glycyphagus hypudaei* (Acari: Glycyphagidae)¹

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Phoretic deutonymphs (hypopi) of the glycyphagid mite, *Glycyphagus hypudaei* Koch, have been collected from the fur of several North American small mammal species and reported from at least 11 states and 2 Canadian provinces (Fain and Whitaker 1973, *Acarologia* 15: 144-170; Whitaker and Wilson 1974, *Am. Midland Nat.* 91: 1-67; Whitaker et al. 1975, *J. Elisha Mitchell Sci. Soc.* 91: 13-17; Whitaker and French 1982, *Can. J. Zool.* 60: 2787-2797; Whitaker and Lukoschus 1982, *Proc. Penn. Acad. Sci.* 56: 187-192; Whitaker et al. 1985, *Northwest Sci.* 59: 319-322; Durden and Wilson 1991, *J. Parasitol.* 77: 219-223). However, we present here the first records of this mite from Georgia and Florida. In addition, these records represent the first for this mite from two rodent species, the old-field mouse [*Peromyscus polionotus* (Wagner)] and the cotton mouse [*Peromyscus gossypinus* (Le Conte)]. Hypopi of *G. hypudaei* were also collected from the golden mouse [*Ochrotomys nuttalli* (Harlan)], a previously recorded host (Fain and Whitaker 1973).

Rodents were captured using Sherman folding live traps (7.62 × 8.89 × 22.86 cm) (H. B. Sherman Traps, Inc., Tallahassee, FL), baited with sunflower seeds, at four locations in southeastern Georgia. Two sites (R. G. Daniell Preserve and Charles Harrold Preserve, The Nature Conservancy) are located in Candler Co. The other two sites (private landholdings) are located in Bulloch Co. These locations represent paired, burned and unburned, longleaf pine/wiregrass ecosystems. Rodents were examined by searching through their fur using dissecting needles and a dissecting microscope. The intensity of hypopi was estimated (Table 1) and samples were removed from each infested animal. Removed specimens were later cleared in lactophenol and slide-mounted in Hoyer's medium before being identified using a high-power microscope.

A total of 3,923 hypopi (all deutonymphs) were recovered from 111 *P. polionotus* (an average of 35.3 per mouse), 239 from 21 *P. gossypinus* (11.4 per mouse), and

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Table 1. Infestation parameters for *G. hypudaei* recovered from 3 rodent species in Bulloch and Candler counties, Georgia, 2002-2003

Rodent species	Prevalence (%)	Relative abundance*	Mean intensity*	Infestation range
<i>Peromyscus polionotus</i> (n = 111)	86	35.3 ± 72.1	41.3 ± 75.7	1-630
<i>Peromyscus gossypinus</i> (n = 21)	33	11.4 ± 22.8	34.1 ± 31.1	10-99
<i>Ochrotomys nuttalli</i> (n = 16)	75	61.8 ± 87.6	82.4 ± 92.8	1-350

* Prevalence = % of hosts infested; mean abundance = mean per host (±SEM); mean intensity = mean per infested host (±SEM); following Bush et al. (1997, J. Parasitol. 83: 575-583).

989 from 16 *O. nuttalli* (61.8 per mouse) (Table 1). No other life stages of this mite were recovered from any of the hosts.

We also searched through previously accessioned ectoparasite collections in the Department of Biology and Institute of Arthropodology and Parasitology at Georgia Southern University. We found *G. hypudaei* deutonymphs in 15 additional collections from *P. gossypinus* and 5 more collections from *O. nuttalli*. The specimens from *P. gossypinus* were from Bulloch, Coffee, Columbia and Richmond counties in Georgia and Leon Co. in Florida (mean per infested host = 36.7). The specimens from *O. nuttalli* were from Bulloch, Coffee and Columbia counties in Georgia and Leon Co. in Florida (mean per infested host = 98.0).

Based on these data, *G. hypudaei* appears to be common on certain sigmodontine rodents in southeastern Georgia and northern Florida. This mite also appears to be widespread in North America and has previously been reported from Alberta, Indiana, Kentucky, Minnesota, New Brunswick, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas and Utah (Fain and Whitaker 1973; Whitaker and Wilson 1974; Whitaker et al. 1975; Whitaker and French 1982; Whitaker and Lukoschus 1982; Whitaker et al. 1985; Durden and Wilson 1991). By definition, phoretic glycyphagid mites are not parasitic; they use their mammalian hosts as a means to disperse to new host nests where post-deutonymphal stages may feed on fungi or detritus (Krantz 1979, A manual of acarology, Oregon State Univ. Press).

Voucher mite specimens are deposited in the Ectoparasite Collections of the Department of Biology and the Institute of Arthropodology and Parasitology, Georgia Southern University. Representative accession numbers include L2456, L2921, and L3077 through L3086.

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