

***Echimyopus dasypus* Fain *et al.* (Acari: Astigmatina: Echimyopodidae) from a nine-banded armadillo, *Dasypus novemcinctus* L. (Mammalia: Dasypodidae), in Florida, USA**

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Abstract

We collected parasitic deutonymphs of *Echimyopus dasypus* Fain *et al.* from a wild-caught nine-banded armadillo, *Dasypus novemcinctus* L., for the first time within the United States of America, although this mite was previously found in England on armadillos imported from Florida. The new specimens came from a free-ranging animal captured in Hendry County, Florida, in 2004.

Key words: Deutonymph, hypopus, mange, *Blomia*, new distribution data, *Amblyomma auricularium*

The astigmatine mite family Echimyopodidae (five genera, 31 species) is associated mostly with rodents and marsupials in Australia, South America, and North America (OConnor 2009). Many echimyopodid species are known from only their deutonymphal stages (hypopi), which live as subcutaneous or endofollicular parasites of their mammalian hosts, but presumedly, the free-living stages habitually live as detritivores in mammal nests (OConnor 1982). Free-living life stages are described for only a few species in three of the genera, i.e., *Marmosopus* Fain & Lukoschus, *Echimyopus* Fain, and *Blomia* Oudemans, the latter of which have no known deutonymphs and no demonstrated parasitic connections (Mariana *et al.* 1996). Alone in the family, the seven currently recognized *Blomia* species are widely known primarily as synanthropic house dust and stored food mites (Colloff 2009).

At least two species of *Blomia* are documented from the USA (Banks 1917, Fain *et al.* 1977, Fernandez-Caldas *et al.* 1990), but to date, members of only one of the parasitic echimyopodid genera, *Echimyopus*, have been found there. Whitaker *et al.* (1976) first found deutonymphal *E. nyctomys* Fain (later reidentified as *E. orphanus* Fain & Philips by Whitaker *et al.* (2007)) on eastern gray, *Sciurus carolinensis* Gmelin, and fox squirrels, *S. niger* L., in Indiana. Fain and Philips (1977) described deutonymphs of *E. orphanus* from the nest of an eastern screech owl, *Megascops asio* (L.), in New York (Philips & Dindal 1990), but at the time, they surmised that the mites came from an unknown rodent host. Later, Fain and Philips (1981) used additional mites from the same owl nest to describe the protonymph, tritonymph, and adult female of *E. orphanus* and clarify the status of this taxon as a senior synonym of *Blomia angustivulva* Fain & Philips. A second purported US *Echimyopus* species record came only by indirect inference involving the collection of *E. dasypus* deutonymphs in England from eight of 20 newly imported nine-banded armadillos, *D. novemcinctus*, that originated in Florida (locality unspecified) (Baskerville & Francis 1981). Also, Forrester (1992) cited unpublished observations of two mangy armadillos (of 130 examined) in Alachua County, Florida, with no demonstrable mites. In the present report, we document *E. dasypus* from a wild-caught armadillo at a specified locality in Florida.