

SCIENTIFIC NOTE

PHORESY OF A LOUSE (MALLOPHAGA: PHILOPTERIDAE) ON A MOSQUITO FROM CALI, COLOMBIA

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ABSTRACT. A case of phoresy of a female *Sturnidoecus* sp. on the wing of a female *Culex nigripalpus* in Cali, Valle is presented. The phenomenon in southwestern Colombia is discussed.

KEY WORDS *Sturnidoecus*, *Culex nigripalpus*, phoresy, wing, Colombia

Phoresy, the purposive transportation of 1 species by another, has been described in several groups of insects, but Mallophaga are 1 of the most frequently involved (Askew 1973). Most of the records concern chewing lice transported by hippoboscids flies parasitic on birds (Tonn and Arnold 1965, Keirans 1975a), with a few cases of chewing lice transported by Siphonaptera, Odonata, Hymenoptera, Lepidoptera, and other Diptera. Among the last order, 4 species of the mosquito *Aedes* were recorded, and *Bovicola meyeri* was the mallophagan found in all collections (Keirans 1975b).

The phoretic relationships between sucking lice (Anoplura) and Diptera were considered by Durden (1990), and the only other record of phoresy by lice on a mosquito is that of Worth and Paterson (1960). They reported 2 *Linognathus* sp. attached to the legs of a *Aedes circumluteolus* (Theobald).

On May 17, 1983, a *Culex nigripalpus* Theobald female was captured with a louse fastened to her left wing. The head of the louse was directed toward the thorax of the mosquito, and the louse was firmly attached by its mandibles to the wing costal vein near the humeral vein. The body of the louse was over the costal vein, and its legs were not used in grasping the wing. The mosquito was captured alive while trying to bite a person inside a house in the north area of Cali, Colombia, and according to the collector the mosquito's flight was normal. The mosquito was an unfed, nongravid, and reasonably well-preserved specimen. The louse was submitted to the late K. C. Emerson, who kindly identified it as a female of *Sturnidoecus*.

Culex nigripalpus has a wide geographic distribution, being present from the southern USA to Brazil, and it is extremely opportunistic, feeding mainly on mammals such as cattle and rabbits, and on birds of various orders including Ciconiiformes, Galliformes, and Passeriformes (Nayar 1982). In Cali, *Cx. nigripalpus* is a fairly common species (Barreto 1974, Fajardo and Arias 1981). According to Keirans (1975b), *Sturnidoecus* is the 2nd most

frequently found genus on hippoboscids. In this case, the louse probably was obtained from a recently dead passerine bird.

Phoresy of lice on Culicidae apparently is not common in southwestern Colombia. Over the years, we have examined more than half a million mosquitoes from this area (Barreto and Lee 1969; Barreto et al., unpublished data) and this was the only instance of a mosquito carrying a louse. But as Worth and Paterson (1960) stated, this number of mosquitoes probably represented only a small fraction of 1% of the local population. To our knowledge, this is the 1st record of phoresy by a louse in Colombia.

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