

TRANSMISSION OF HEAD LICE BY INSECTS

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Although head lice, *Pediculus humanus capitis* Deg., are principally transmitted by direct physical contact and by indirect methods such as infested clothing, bedding, and furniture, flies have also been implicated as a means of transmission. Flies were observed transmitting head and body lice, *P. h. humanus* L., from place to place and from person to person (Calandruccio, 1890), while a head louse was found attached to a fly's thorax 24 hours after placing two flies in a container with many lice (Galli-Valerio, 1916).

This study examines the feasibility of transmitting head lice by flies and other insects. Lice used in this experiment were obtained from a colony maintained by an improved rearing method (Lang & Roan, 1974). An insect, together with two male and two female adult lice, were placed in a 28 ml glass jar and in a 570 ml glass jar, each for 30 minutes. Results showed that faster moving and flying insects (*Periplaneta americana* (L.), *Musca domestica* L., *Lucilia* sp.) were less likely than slower ones (earwigs, carabids) to acquire lice. Lice were noted to attach to slower insects for three-four times during the 30-minute periods in the smaller jar, while attachment rates occurred even less frequently in the larger jar. In all instances lice remained attached for only a few seconds. These short attachment periods were mainly the result of insects becoming very aggravated once a louse became attached, so that they soon freed themselves of the louse. The majority of attachments were made on the insects' legs.

This study showed that head louse dispersal by insects in nature is probably rare due to the infrequency of lice coming in contact with an insect and also once a louse became attached the annoyed insect would soon free itself making transmission unlikely. This study confirmed Nuttall's (1917) observation that fly transmission (and no doubt other insects) play a very subordinate part in louse dispersal and this only under particular circumstances.

REFERENCES

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Exhibition of the works of John Hull Grundy at the Royal Army Medical College. — We hear that an exhibition of the work of John Hull Grundy, who was lecturer in Entomology at the Royal Army Medical College from 1942 until 1967 when he retired, will be held in the Study Centre of the Royal Army Medical College, John Islip Street (Millbank), London SW1, from 6 December 1976 until 28 January 1977. — Eds.