

Description of the Egg of *Culex (Lutzia) fuscans*
Wiedemann (Diptera, Culicidae)

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Introduction

The egg of *Culex fuscans* Wiedemann is described and illustrated for the first time. The only other known egg of the subgenus *Lutzia* is that of *Culex allostigma* (Howard, Dyar and Knab 1915). The present description is based on 3 rafts of eggs obtained by maintaining a temporary colony in the laboratory. The colony was started from immatures of *fuscans* collected from a large cement tank in the American College campus. Like other species of *Lutzia* (Belkin 1962; Bram 1967), the immatures of *fuscans* were found in various kinds of temporary and semi-permanent ground water habitats and a variety of containers. Each larva was observed to devour 8-12 larvae of other mosquito species per day. The pupal stage lasted for 60-72 hours. The caged females lived from 45-60 days but the life span of the males was much shorter. Routine adult collections showed very few specimens of *fuscans* and therefore like other Indian species of *Lutzia* they apparently seldom attack man to any extent (Barraud 1934). In the laboratory repeated attempts to feed on human baits proved unsuccessful but the females readily fed after dark on common pigeon (*Columba livia*), thereby showing their preference to birds (Ikeshoji 1966).

Description of the Egg

The eggs were laid in rafts on the surface of the water. The diagnostic features of the raft are, (1) the linear arrangement of the eggs in parallel rows and (2) the symmetry. The rafts were longer than wide; while 2 rafts were about 5.0 mm in length, the third one was unusually long (9.0 mm). There were 8 parallel rows of closely packed eggs in each raft (fig. 1). Apparently each female laid about 200-350 eggs.

The eggs are subfusiform, pointed at the posterior end and more bluntly rounded at the anterior end (fig. 2). The exochorion is thin, transparent and usually evident at the posterior third of the egg. The distinguishing characters of the egg are (1) the absence of reticulation in the chorion (only faint striations visible), (2) the presence of a dark minute papilla at the anterior and posterior ends, and (3) the restriction of darker pigmentation to anterior and posterior ends. The other regions of the egg are brownish in color. The eggs are 695-720 microns in length and about 200-203 microns wide at the broadest point. Dehiscence was incomplete (fig. 3).

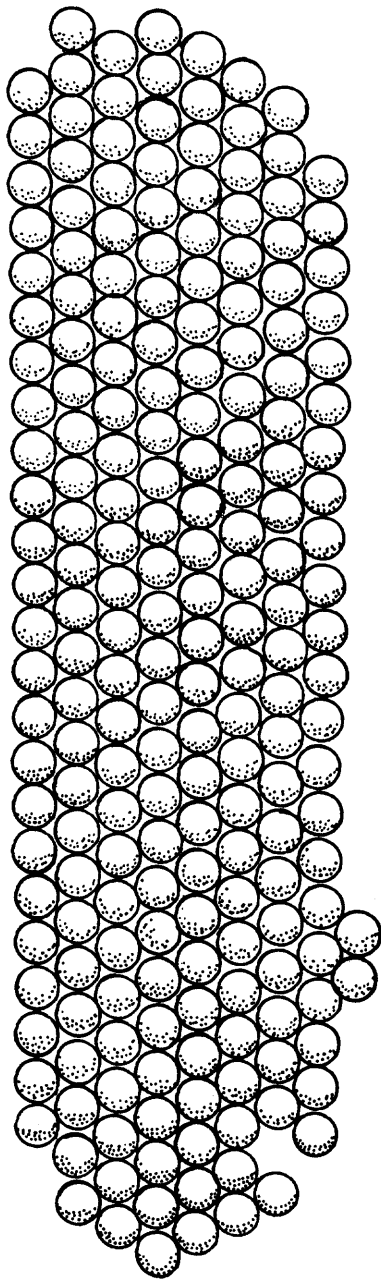
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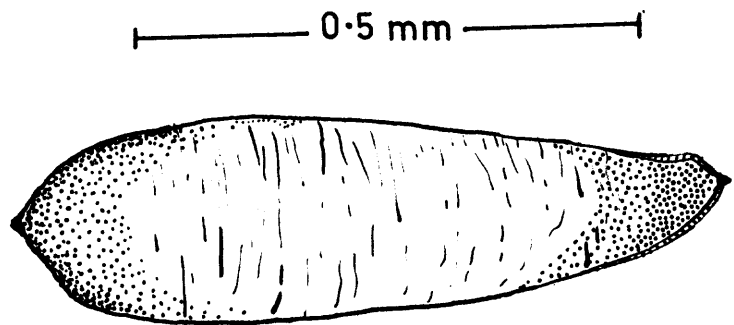
References

- Barraud, P. J. 1934. Family Culicidae. Tribes Megarhinini and Culicini. London, Taylor and Francis. 463 p. (Fauna of Brit. India, Diptera, v. 5).
- Belkin, J. N. 1962. The mosquitoes of the South Pacific (Diptera, Culicidae). v. 1. Berkeley, U. Calif. Press. 608 p.
- Bram, R. A. 1967. Contribution to the mosquito fauna of South-east Asia. II. The genus *Culex* in Thailand (Diptera: Culicidae). Amer. Entomol. Inst., Contrib. 2(1): 1-296.
- Howard, L. O., H. G. Dyar and F. Knab 1915. The mosquitoes of North and Central America and the West Indies. v. 3. Part I. Wash., Carnegie Inst. Wash. (Publication 159) p. 1-523.
- Ikeshoji, T. 1966. Bionomics of *Culex (Lutzia) fuscans*. Jap. J. exp. Med. 36: 321-334.

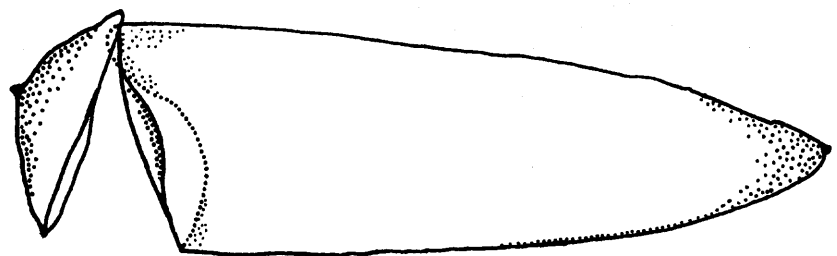
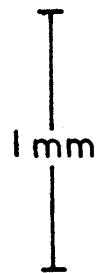
Culex (Lutzia) fuscus



1. Egg raft



2. Egg



3. Hatched egg