

The Eggs of *Culex (Carrollia) urichii* (Coquillett)  
(Diptera: Culicidae) in Trinidad, W. I.

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ABSTRACT. A description of the egg of *Culex (Carrollia) urichii* (Coquillett) is presented, together with illustrations. Notes on their oviposition behavior are also included.

#### INTRODUCTION

The egg of *Culex (Carrollia) urichii* (Coquillett) is described and illustrated for the first time. The present description is based on eggs collected from mosquito ovitraps (Fay and Eliason 1966) set in the Chaguaramas Forest, Trinidad and Tobago to collect eggs of *Haemagogus janthinomys* Dyar. All viable eggs were hatched and the resulting larvae reared to adults and identified by the authors using the key outlined by Valencia (1973). The nomenclature used in this description is based on Harbach and Knight (1980).

#### DESCRIPTION OF THE EGGS

A total of 100 *Cx. urichii* eggs was measured to determine their mean length and width. The mean measurements were 735.97 (SD + 26.00) microns in length and 197.72 (SD + 15.31) microns in width at the broadest point. They were subfusiform in shape and circular in cross-section. The anterior end was broadly rounded; the posterior end gradually tapered (Fig. 1).

*Culex urichii* eggs like so many other *Culex* eggs were characterized by the presence of darker anterior and posterior ends. This was mainly due to a large accumulation of small irregularly shaped tubercles. The rest of the egg was light brown in color. The outer chorion was almost transparent and bears numerous irregularly-shaped tubercles covering the entire egg except for the micropyle area (Fig. 1). The broadly rounded anterior end bore a micropylar disc and collar which measured 13 microns across. Surrounding the collar was a typical *Culex* corolla. Apical dehiscence was incomplete (Fig. 1).

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## NOTES ON OVIPOSITION

The eggs of *Cx. urichii* were laid singly with the anterior end of the eggs being actually glued to the paddles, thus making it very difficult to remove. Some eggs were deposited at the water surface, but others were collected from the moist upper exposed portion of the hard-board paddles in the ovitraps. On many occasions collapsed eggs of *Cx. urichii* were collected from the field. These collapsed eggs were moist when collected and examined so that desiccation may not have been the reason for collapsing. However, it was possible that these eggs collapsed because they were not fertilized and thus no embryonic development took place.

## DISCUSSION

The immature stages of *Culex urichii* were usually found in tree holes, tires, broken or cut bamboo, fallen leaves and palm spathes. Valencia (1973) mentioned collections of *Cx. urichii* off animal baits and humans. However, it is uncertain that *Cx. urichii* is a man-biter. During extensive arbovirus studies between 1953-1973, a total of 11 adult *Cx. urichii* was collected in the Bush Bush Forest, Aripo Wallerfield Forest, Turure Forest and in Vega de Oropouche Forest, Trinidad, W.I. of which, six adults were collected by outdoor hand collections, three by suction traps and two by light traps (Aitken et al, 1969; TRVL 1953-1973). On two other occasions adults were collected off human-bait between 0800-1500 hours (Heinemann et al 1980). However, it was not known whether the *Cx. urichii* collected were actually attracted to man or were merely hovering around man when they were collected.

Downs (1951) reported increases in the length of *Anopheles* mosquitoes eggs during the first 24 hours post-oviposition. Similar increases in length have been reported for *Aedes* and *Culex* by Gander (1951 cited by Clements 1963). Hawley (1985) also mentions that more fecund females lay smaller eggs than less fecund females. In the present study, eggs were measured from ovitrap paddles which were exposed in the Chaguaramas Forest at weekly intervals, allowing a number of *Cx. urichii* to possibly oviposit on different days and at different time intervals. Thus the smaller sizes might have represented measurement of eggs collected on the same day of oviposition, or from more fecund females.

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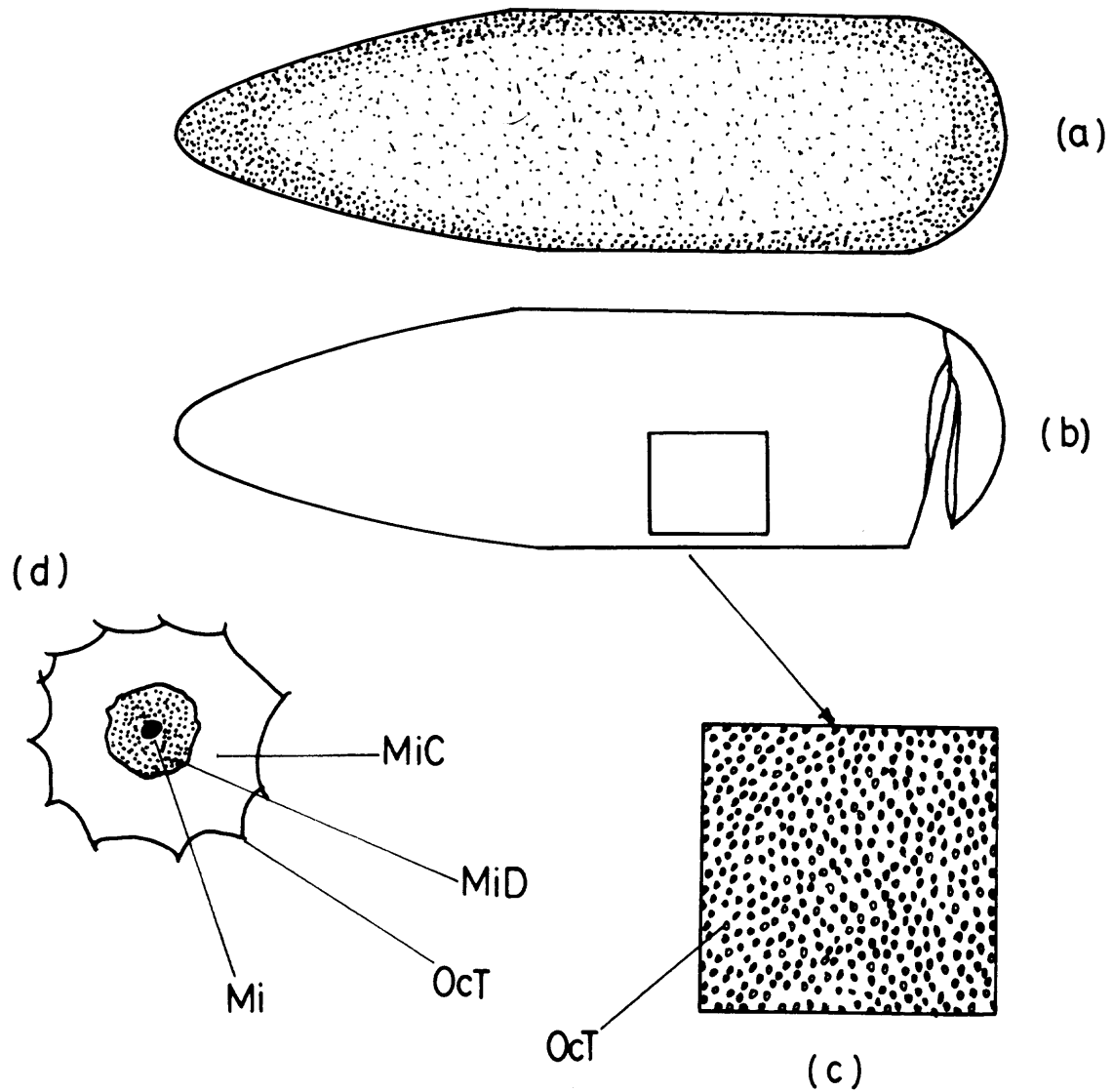
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## ABBREVIATIONS (HARBACH AND KNIGHT, 1980)

- Mi = Micropyle
- MiD = Micropylar disc
- MiC = Micropylar collar
- OcT = Outer chorionic tubercles

Fig.1

Egg of Culex (Carrollia) urichii



- a Single egg.
- b Pattern of dehiscence.
- c Sculpturing of the outer chorion (dorsal aspect.)
- d Micropylar disc and collar.