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DESCRIPTION OF THE EGG OF *ANOPHELES GIGAS*
GIGAS GILES, 1901.

BY

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ACCORDING to Christophers (1933), all forms of *Anopheles gigas* are normally found in high altitudes, usually 6,000 ft. or above. The type form occurs, so far as is known, only in the hills in South India, while two varieties—*A. gigas simlensis** James, 1911, and *A. gigas bailey* Edwards, 1929, have so far been recorded from the Western and the Eastern Himalayas, respectively. The other three varieties *A. gigas refutans* Alcock, 1913, *formosus* Ludlow, 1909, and *sumatrana* Swellengrebel, 1920, do not occur in India; the first has been recorded from Ceylon, while the latter two only from outside the Indian region.

The eggs of *A. gigas* and its varieties were not known till recently when the eggs of the variety *refutans* was described in detail from Ceylon (D'Abrera, 1944). A description of the egg of the type form of *A. gigas* is recorded here for the first time.

For the present study, several gravid females of *A. gigas*, type form, were collected from cattlesheds in Ootacamund and made to oviposit individually in the laboratory on moistened filter paper. Besides, viable eggs were also collected from a natural breeding place† during one of the routine collections.

The form of the egg is whale-back type, length varies from 615 to 646 microns (Average length 632 microns). Greatest breadth including the floats varies from 240 to 270 microns (average breadth 244.8 microns).

Dorsal surface.—Deck-single moderately broad; full, continuous around the whole margin of the upper surface. The greatest width of the deck about the middle is about 90 microns, about one third of the total width including the floats. Near the poles, the deck surface is much narrower (60 microns).‡ The deck surface

* Russell and Jacob (1942) have recorded a single specimen of *A. gigas simlensis* from the Nilgiris.

† A partially shaded seepage drain near a euclyptus grove. Eggs were found floating in the middle of a small pool.

‡ This measurement was taken in the region of the bosses.

20 *Description of the Egg of Anopheles Gigas Gigas Giles, 1901.*

is finely stippled except towards the poles where stippling is coarser and is paler in colour. The bosses at the poles of the eggs are very conspicuous, translucent and light coloured, resembling those in *A. tessellatus*, but are unlike those of other anophelines in which they are black. The number of these bosses vary from seven to nine at each pole. Each of these bosses under a high magnification appears to be made up of a number of smaller ones.

Ventral as well as lateral surfaces are ornamented with pale polygonal markings characteristic of the eggs of the sub-genus *Anopheles*.

Frill fairly broad, 30 microns in width, about one sixth of the depth of the egg. When seen from the side, the frill appears erect, markedly striated, continuous along the margin of the upper surface, passing below the bosses, in which region it becomes narrower and loses its striations.

Floats do not touch the dorsal surface ; length varying from 360 to 450 microns, about two thirds the length of the egg (average 403.2 microns). They are placed about equidistant from the two poles. They are elongated, fusiform, occupying about half the lateral aspect of the egg in the middle portion, the greatest width being about 90 microns. Float ridges fairly well defined, their number varying from 24 to 29 ; terminations of moderate size, more or less rounded, and not broader than the rest of the ridges.

The egg of the type form differs from that of its variety *A. gigas refutans* Alcock, 1913, recorded from Ceylon, only in minor details, which are tabulated below :—

	<i>A. gigas gigas</i>	<i>A. gigas refutans</i> (D' Abrera, 1944)
1. Length of egg ...	615 to 645 microns	640 to 680 microns
2. Breadth of egg (including floats)	240 to 270 microns (average for 25 eggs 244.8)	(average for 24 eggs 251.24 microns)
3. Breadth about the middle : Deck at the poles	90 microns 60 microns	96 microns 64 microns
4. Number of float ridges	from 24 to 29	from 25 to 30
5. Bosses at poles	from 7 to 9	9 bosses at each pole
6. Frill (Maximum width)	30 microns	16 microns

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