

NOTES ON THE ABILITY OF MOSQUITO PUPAE TO SURVIVE EXPOSURE TO AIR

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The tests were made in Assam, India during 1944 with the pupae of *Culex (Culex) fatigans* Wiedemann 1828. Because of the nature of the soil in the area very often mosquito-breeding spots would dry up suddenly leaving eggs, larvae, and pupae exposed to the moist air until the next rainfall. In these particular tests, the author was concerned only with the ability of the pupae to survive the partial drying-out.

Conditions were duplicated in the laboratory using petri dishes, filter paper, and rain water. The pupae were gathered in the field. By means of a pipette, they were transferred to the surface of the moist filter paper in the dishes which were covered and placed on the laboratory tables. The indoor temperature ranged around seventy-five degrees Fahrenheit. Records were kept of the number (and percentage) of mosquito adults which eventually emerged. In each case the test was completed within one week. Data were as follows:

Test Number	Number of Pupae Placed in Dish	Number Emerged	Per cent
1	5	3	60
2	4	4	100
3	5	4	80
4	53	53	100
5	10	6	60
6	65	38	58
		(remaining pupae apparently drowned under the paper where they had become caught)	
7	56	56	100
8	27	24	88
9	40	33	82
10	35	23	65
11	49	40	81
12	40	33	82
13	31	26	84
14	63	58	92
15	35	31	88
16	32	26	81
17	34	32	94
Totals	584	490	83

From the data secured, it seemed the mosquito pupae did not require a water medium such as was required by the eggs and larvae for complete development.

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