

A Cage Colony of *Anopheles gambiæ* Giles

MATHIS¹ has reported the successful rearing of *A. gambiæ* under laboratory conditions. He fed the adults on a guinea pig and found that mating occurred in quite small cages. For some years now I have made attempts to establish a laboratory colony of this species without any success. Great difficulty has always been experienced in getting caged adults to feed. The following animals have been tried: shaved guinea pigs, rabbits, goats and human beings. When feeding did take place, no fertilized eggs were recovered. Recently a further attempt has been made, and this has proved successful.

Adult *gambiæ* reared from eggs, obtained from gravid females captured in the field, were placed in an indoor cage lined with asbestos measuring 6 ft. × 5 ft. × 5 ft. The temperature in the cage was kept constant at 25° C. by means of a radiator connected to a thermostat. Large bird-baths and ferns were placed inside, yet the humidity of the air in the cage, as measured by a sling hygrometer, never rose above 40 per cent.

For a month the insects were given the opportunity of feeding on a human being every evening, and they very seldom took advantage of this. At the end of this period, however, nearly full-grown larvæ were seen in one of the bird baths and very robust adults resulted.

After this date a small pig was introduced and the mosquitos fed very readily. Eight days after introduction of the pig, first-stage larvæ were seen in the breeding dishes; these represented the second

generation in captivity. Since that date hundreds of larvæ have appeared and third generation adults are now ready to deposit eggs. The colony is regarded as being firmly established.

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¹Mathis, C., *C. R. Soc. Biol.*, 121, 21-22 (1936).

The Position of Genetics

THE attacks of Lysenko on Vavilov and other Russian geneticists reported in NATURE of August 21 are not wholly dissimilar to Dr. H. Dingle's attack on Prof. E. A. Milne in a recent issue of this journal. Vavilov was accused of being anti-Darwinian, Milne of going back to Aristotle, in neither case perhaps with full justification. If these attacks have led to a curtailment of Vavilov's work, the situation of genetics in the Soviet Union is indeed serious. If not, hard words break no bones, and the outlook for genetics in Moscow is at any rate no worse than in London, where I understand that the only department of genetics in the University is shortly to come to an end.

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Points from Foregoing Letters

LORD RAYLEIGH has made photographic tests to see whether, as had been supposed by certain observers, there were lights in the field of an alternate current magnet. The result was negative.

Prof. S. Chapman indicates that the decrease of cosmic ray intensity noted by Forbush in America (United States and Peru) and by Hess and Demmel-mair in Austria, during the magnetic storms of April 1937, should throw light on the mechanism of magnetic storms; in particular, it should show whether the world-wide decrease of horizontal magnetic intensity during a magnetic storm is due to currents in the high ionosphere or to a ring-current right outside the earth's atmosphere.

The 'cluster' theory, which postulates that the molecules of imperfect gases occur in groups (mainly pairs under ordinary conditions), permits, according to C. F. Goodeve, a simple treatment of many properties of imperfect gases.

The possibility of obtaining polarized beams of neutrons by selective absorption on passing through a substance cooled to very low temperatures, the nuclei of which have a resonance level for absorption of slow neutrons, is pointed out by Dr. Hans v. Halban, jun. Paramagnetic salts magnetized at low temperatures might be employed for this purpose.

Standing ultra-sonic waves produced in xylol, or in a mixture of xylol and carbon tetrachloride, by an annular quartz plate can be observed within the ring and also outside the crystal plate. Miss J. Čefovská submits a photograph obtained with radial vibrations, showing that a concentric circular grating has been formed in the liquid; this can be used in diffraction experiments.

Further experiments by Miss M. M. O. Barrie show that the young of vitamin E deficient rats are born normal but that they develop symptoms connected with thyroid and anterior pituitary insufficiency. However, if suckled by a normal rat, the young develop normally, showing that there is a lack of some essential constituent (probably vitamin E) in the mother's milk.

By a micro-chemical method D. Glick has calculated the rate at which choline esterase enzyme, acting on the super cervical ganglion of the cat, can split acetylcholine, a compound liberated during nerve activity. The time required is well within the refractory period of the nerve impulse, provided the known amount of enzyme and substrate are concentrated at the nerve endings. D. Nachmansohn has found an increased concentration of choline esterase at the nerve and plates of muscles and now reports that the grey matter of the spinal cord of the dog contains 10-20 times more choline esterase than the white matter. He suggests that the grey matter may act as transmitter of nervous impulses in the central nervous system.

The salicylic aldehyde reaction which gives a yellow colour with acetone and pyruvic acid (Csonka-Straub) is found by Prof. A. E. Braunstein to be a sensitive reaction for any methyl-carbonyl (CH₃CO) derivative, in the absence of other substances of the same group. The author directs attention to the fact that, in studying the metabolism of pyruvic acid, one should be on the look-out for substances such as acetaldehyde, acetoin, acetoacetic and acetylpyruvic acids and acetone, which also give the Csonka-Straub reaction.