

all of us at one time or another have been acutely concerned in the "control" of mosquitoes. As a member of the latter class, most of whose members must confess to academic delving in some other field, the writer wonders if the value of G. A. Mail's recent note in *SCIENCE*¹ would not have been increased many fold if *Aedes campestris* had been presented as a mosquito rather than as a culicid.

The writer, who knows and probably overuses a lot of long names in his own branch of study, was able to deduce from the origin of the above-mentioned note in an entomology department the fact that *Aedes*

campestris is some species of insect, but a dictionary was essential to further appreciation of an otherwise interesting contribution. The very brevity of the statement suggests that it was addressed to a larger group of readers than those who readily recognize Culicidae as the family name of the mosquitoes. Should not the author, or the editor, have given those of us who scan *SCIENCE* in search of adult education more initial encouragement by featuring "Mosquito" rather than "Culicidae" in the parenthetic title?

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AEROLOGICAL STATIONS IN GREENLAND 1930-1931

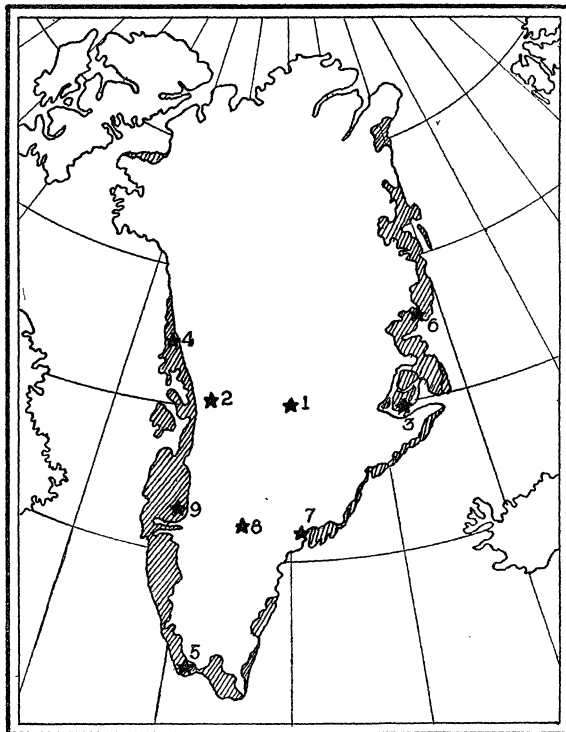
FOR the first time a number of aerological stations each set up for the period of a year are now operating in Greenland. The outline map of Fig. 1 shows the approximate positions of the eight stations (1-8). Six of them are now, it is believed, sending up pilot balloons on all fair days.

First in importance are the stations of the German Expedition under Dr. Alfred Wegener (1-3), the veteran Greenland explorer and meteorologist, following upon his important preliminary studies carried out on the west coast in 1929.¹

Recent radio reports published in the *New York Times* show that his station near the central axis of the inland-ice about 250 miles distant from either coast and about 10,000 feet above the sea (1) has already for a good many weeks been functioning under Dr. J. Georgi. The station on but near the western margin of the ice (2) is also reported to be in operation. Wegener's eastern station under Dr. Kopp was to have left Copenhagen in July and to be located on Scoresby Sound near sea-level and as near as possible to the inland-ice. All these German stations are near latitude 71°.

The University of Michigan stations (4 and 5) are on the west coast about equally distant north and south from the Mount Evans aerological station (9) which was operated from July, 1927, to July, 1929, but is now closed. Letters received from William Carlson in charge of the northern station indicate that he was erecting his observing station on the summit of a small island 400 feet above sea-level in latitude 72° 50' and only two miles distant from the inland-ice. Balloon ascents were to begin on Septem-

ber 1. Evans S. Schmeling, of the southern station, is at the settlement of Ivigtut in extreme south Greenland (latitude 61°). Letters from him dated in late August indicate that he was to begin regular balloon ascensions on September 1.



The British Arctic Air Route Expedition, according to radio reports from the *New York Times*, has now for a number of weeks been operating its station on the inland-ice near the central axis (8) and thus in a position similar to Wegener's station 1; as well as a station at the expedition's base on the Sermilikfjord near the Danish settlement of Angmagssalik (7) in latitude 66°.

¹ G. A. Mail, "Viability in Eggs of *Aedes campestris* Dyar and Knab (Culicidae)," *SCIENCE*, 72 (No. 1859): 170, 1930.

² A. Wegener, *Zeitsch. d. Gesell. f. Erdkunde z. Berlin*, 1930, nos. 3-4, pp. 81-124.

The remaining Greenland station (6) is that of a party of Norwegian hunters supplied with pilot balloons at their station of Mygbukten (Mackenzie Bay)

in latitude 73°, where they are operating under the auspices of the Meteorological Institute of Oslo.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

APPROXIMATE METHOD FOR DETERMINING THE SAME DEGREE OF ANESTHESIA FOR FISH

THIS method is primarily one of electrical stimulation. While it is not hair-splitting in accuracy, still it is very reliable, the criterion for this statement being the number of times the anesthetizing time for any particular fish in the same strength solution checks. The accuracy of this method, of course, depends a great deal upon the acuteness of the power of observation of the operator.

APPARATUS

Fig. 1 illustrates the apparatus used. This consists of a glass cylinder A fastened to a ring-stand by

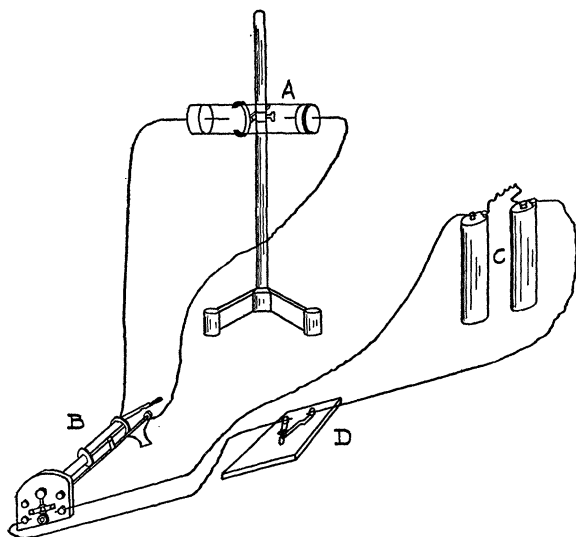


FIG. 1. Stimulating apparatus.

means of a clamp, induction coil B, two dry cells C, a simple key D and two copper stimulating electrodes leading from the secondary coil into the glass cylinder A. Cylinder A is sealed by two rubber stoppers through which the electrodes protrude. The stimulus consists of tetanic induced current from an inductorium receiving its current from the two dry cells. In order to insure the same strength of current (which has been previously determined to be the optimum stimulus), the secondary coil must always remain at the same position in the inductorium. The dry cells should also be tested at regular intervals with the voltmeter. The electrodes leading into the glass cylinder A should be cleaned thoroughly every time the apparatus is put into use. The interrupter points

of the inductorium should be readjusted in order to maintain the pitch of the vibrator. The circuit is established by closing the simple key D.

TECHNIQUE

Cylinder A is placed in a vertical position and filled about four fifths full with the solution to be tested. The same number of cubic centimeters should be used each time. The fish is introduced immediately into the cylinder, at which time a stop-clock is started. The removable stopper is replaced and the glass cylinder returned to the horizontal position. After a second or so, depending upon the strength of solution, the fish is stimulated at intervals by pecking on the simple key D until it gradually becomes less and less irritable. Finally the response obtained will change from an active response of the whole fish to local muscular contractions of the tail at which point appear also, to a close observer, tremors comparable to "ether tremors" as reported by Hewitt.¹ It is a mistake to continue stimulating until no response is received, because in the majority of cases where this is done the fish will not recover.

It can then be seen by the above brief description that the success of this method depends upon (1) keeping the strength of current as nearly constant as possible; (2) the ability of the operator to recognize the transition from response of the fish as a unit to local contraction of the tail muscles, and (3) the recognition of the accompanying tremors.

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A NEW STAINING RACK FOR MICRO-SLIDES

THE rack here described and illustrated consists of a metal frame (D) appropriately slotted to receive a number of metal clips (A) of a particular design, which hold the micro-slides. The frame and clips are made of non-corrosive metal. However, no part of the rack, neither frame nor clips, is immersed in the staining bath. The clips are made of thin strips of an elastic metal folded lengthwise, the fold viewed on end having somewhat the bend of the traditional shepherd's crook. One side of the fold is wider and longer than the other; the projecting ends of this side, the upper borders of which are bent over in the

¹ Hewitt, "Anesthetics," p. 363, 1912.