INDUSTRIAL MORBIDITY FORM 1a.

Name of Department.	Number of Employees. Male.	Number of Employees. Female.	Males. All Cases Attending Medical Department. No. of new Cases.	Males. All Cases Attending Medical Department. No. of Cases overlapping from previous Month.	Males. All Cases Attending Medical Department. Total Number of Visits to Medical Department.	Males. Cases Losing Time. Number. New Cases. A	Males. Cases Losing Time. Number. Cases overlapping from previous Month. B	Males. Cases Losing Time. Number. Total Cases (A + B.) C	Males. Cases Losing Time. Working Days Lost. By new Cases. D	Males. Cases Losing Time. Working Days Lost. By Cases overlapping from previous Month. E	Males. Cases Losing Time. Working Days Lost. Total Days lost. (D + E.) F	Females. All Cases Attending Medical Department. No. of new Cases.	Females. All Cases Attending Medical Department. No. of Cases overlapping from previous Month.	Females. All Cases Attending Medical Department. Total Number of Visits to Medical Department.	Females. Cases Losing Time. Number. New Cases. a	Females. Cases Losing Time. Number. Cases overlapping from previous Month. b	Females. Cases Losing Time. Number. Total Cases (a + b.) c	Females. Cases Losing Time. Working Days Lost. By new Cases. d	Females. Cases Losing Time. Working Days Lost. By Cases overlapping from previous Month. e	Females. Cases Losing Time. Working Days Lost. Total Days lost. (d + e) f

INDUSTRIAL MORBIDITY FORM 2a.

Name of Department.	Male. Disease Groups (Number of Cases). (Analysis of Figures in Column A, Industrial Morbidity Form 1a.) Bubonic. Endemic. Infectious.	General.	Nervous System and Organs of Sense.	Circulatory System.	Respiratory System.	Digestive System.	Genito-Urinary System (Non-Venereal).	Skin and Cellular Tissue.	Bones and Organs of Locomotion.	External Causes.	Ill-defined.	Total all Diseases.

Name of Department.	Female. Disease Groups (Number of Cases). (Analysis of Figures in Column a, Industrial Morbidity Form 1a.) Bubonic. Endemic. Infectious.	General.	Nervous System and Organs of Sense.	Circulatory System.	Respiratory System.	Digestive System.	Genito-Urinary System (Non-Venereal).	Skin and Cellular Tissue.	Bones and Organs of Locomotion.	External Causes.	Ill-defined.	Total all Diseases.

INDUSTRIAL MORBIDITY FORM 3a.

Name of Department.	Male. Disease Groups (Working Days Lost). (Analysis of Figures in Column F, Industrial Morbidity Form 1a.) Bubonic. Endemic. Infectious.	General.	Nervous System and Organs of Sense.	Circulatory System.	Respiratory System.	Digestive System.	Genito-Urinary System (Non-Venereal).	Skin and Cellular Tissue.	Bones and Organs of Locomotion.	External Causes.	Ill-defined.	Total all Diseases.

Name of Department.	Female. Disease Groups (Working Days Lost). (Analysis of Figures in Column f, Industrial Morbidity Form 1a.) Bubonic. Endemic. Infectious.	General.	Nervous System and Organs of Sense.	Circulatory System.	Respiratory System.	Digestive System.	Genito-Urinary System (Non-Venereal).	Skin and Cellular Tissue.	Bones and Organs of Locomotion.	External Causes.	Ill-defined.	Total all Diseases.

COOLING.

NOTES.

ON THE PROTRACTED VIABILITY OF EGGS OF *AËDES ÆGYPTI* AND *AËDES NOTOSCRIPTUS* IN A "DESICCATED" CONDITION IN A STATE OF NATURE.

By L. E. COOLING, Assistant Entomologist, Australian Institute of Tropical Medicine, Townsville.

(*Received for Publication, 21st December,* 1923.)

Much has been done, under laboratory conditions, towards ascertaining the effects of various influences (including drying) on the eggs of *Aëdes ægypti,* but little, or perhaps nothing to speak of, has been attempted on the œcology of other species of mosquitoes. The weather in Townsville recently has, however, favoured observations on the effect of the gradual desiccation of eggs under natural conditions.

Following a shower of rain on 4th September, 1923 (when, however, only 5 points were registered), there was an absolutely dry interval of twelve weeks in Townsville, until in the early morning of 26th November, 1923, a short but rather heavy shower fell, the rain gauge in the Institute grounds registering about 24 points. During the afternoon of the same day, the water-holding cavity of a *Poinciana* tree, some 70 metres or so away from the Institute, was inspected, and found to be just perceptibly damp; no actual water was noticed in the cavity—the amount of rain having been only sufficient to render the dead leaves and *débris* in the cavity slightly moist, while in parts the margins of the cavity were "dust-dry."

Around what would have been the water's edge of the cavity had the latter been full of water, the decayed wood and bark were collected, and brought into the laboratory. On examining the material under a binocular microscope, eggs were observed which were regarded at the time as being those of either *Aëdes ægypti* or *A. notoscriptus,* or both. Forthwith all the woody fragments were submersed in a netted museum jar of water (5 p.m.), and on the following day at 9 a.m. (27th November), several larvæ in the first instar were noticed. By 1st December, about half-a-dozen larvæ had reached the final larval instar, and were able to be identified definitely—three of them as *A. ægypti* and one as *A. notoscriptus.* Probably through a slight infusion of tannic acid (owing to the introduction of a little green bark from the tree), a large number of larvæ died during the first and second instars; however, on 5th December, one imago of *A. notoscriptus* had emerged.

The following table shows the amount of rainfall previous to 26th November:—

		Points.	
17th August	.. ..	37 = 9.39	mm.
18th August	.. ..	3 = 0.76	,,
19th August	.. ..	109 = 27.67	,,
29th August	.. ..	31 = 7.87	,,
3rd September	.. ..	2 = 0.5	,,
4th September	.. ..	5 = 1.26	,,

It may definitely be assumed that the rainfall on 29th August (31 points) is the only amount of those recorded which might have rendered the cavity damp, or partially filled it with water; and that that of 19th August (109 points) is the only amount of rainfall which would probably have resulted in the retention of some water in the cavity of the tree. Calculating then back to the day of 5 points of rainfall from 26th November, we have a dry period of almost twelve weeks, while to the day of 31 points of rainfall, we have an interval of 12 5-7 weeks. The heavy rain of 19th August (109 points) occurred fourteen weeks previous to the discovery of the eggs. For all practical purposes therefore, there was a completely rain-free interval of 11 6-7 weeks, and a more or less dry period of 14 weeks during which the tree cavity was exposed to all the casual natural drying agencies. During this period it had been inspected on three occasions, being found each time to be dry to the extent of being "dusty."

It may be assumed with some confidence that mosquito eggs had been deposited in the cavity either during a time when it was damp, or when it was more or less filled with water—a period, as stated, dating twelve to fourteen weeks previously. Such an assumption is justified by the fact that the eggs were located on the decayed wood apparently about where the water's edge would have lodged, when the cavity was full of water.

The practical significance of these findings is quite apparent. We are in a position in Townsville to anticipate a mosquito nuisance (by either or both of these species) a few days after a heavy shower of rain.

Since this observation was made, a leaf-blocked and sagged roof-gutter was found to be similarly affected, and to provide similar findings.

I do not know of any record, in Australia at least, of observation on the viability of eggs of *A. ægypti* under natural conditions; neither am I aware of any similar work which has been done in connexion with *A. notoscriptus*.

CONVEYANCE OF AËDES ÆGYPTI (*STEGOMYIA FASCIATA*) ON BOARD SHIP.

Inspection of the s.s. *Comeric*, off Goode Island, near Thursday Island, on 27th August, 1923, revealed the presence of a dozen or more *Aëdes ægypti* (*Stegomyia fasciata*) in an unoccupied cabin.

The nearest land was 2 miles away, and the ship had been at her anchorage only a short while. Mosquitoes were not noted in other parts of the ship. For these reasons it is thought improbable that they could have come from the shore.

The *Comeric* left Calcutta on 5th August, reached Balik Papan 18th August, and left there the following day. No other ports were called at.

There was no evidence of mosquito breeding on the ship. It would appear, therefore, that the living mosquitoes had been carried either from Balik Papan or from Calcutta.

DEPARTURE OF THE INTERNATIONAL HEALTH BOARD OFFICERS.

Dr. W. A. Sawyer, Dr. A. J. Lanza, and Colonel F. F. Longley, of the International Health Board, who have been attached to the Commonwealth Department of Health, left for America in January. These officers came to Australia as part of the world-wide programme of the International Health Board of the Rockefeller Foundation, for service in an advisory capacity in the organization and extension of public health activities in Australia. As a part of this scheme, which was furthered during the visit, in 1921, of Dr. V. G. Heiser, Director for the East of this Board, four Australian graduates were sent to America and Europe for study and investigation under Rockfeller Fellowships. These men have now returned for service with the Commonwealth Department of Health.

Dr. W. A. Sawyer came to Australia in 1919 to carry on the work of the Hookworm Campaign, which had been initiated through the co-operation of the International Health Board with the Commonwealth and the State of Queensland. Under the direction of Dr. Sawyer, the campaign was extended to the other States and the Territories to embrace a survey of the whole of Australia. Dr. Sawyer took a foremost part in the organization of the Public Health Association of Australasia, and in the publication of a journal by that association, now issued quarterly as *The Health Forum*. In the latter part of 1922, Dr. Sawyer handed over the direction of the Hookworm Campaign to Dr. W. C. Sweet, after inaugurating a malaria and filaria survey, which is now being carried on in co-operation with the Australian Institute of Tropical Medicine at Townsville. During 1923, Dr. Sawyer had headquarters in Melbourne as Adviser in Public Health to the Commonwealth Department of Health, and as Australian representative of the International Health Board. He also visited Java and Malaya, and attended the meeting at Singapore of the Far Eastern Medical Association.

Dr. A. J. Lanza, whilst in the United States Public Health Service, was attached for some years for investigational duties with the United States Bureau of Mines. He arrived in Australia in August, 1922, and has been occupied in the organization of the Division of Industrial Hygiene of the Department. The need for a forward movement in this direction was brought out at an Inter-State Conference of the Commonwealth Health Department and the Health and Labour Departments of the States, at Sydney, in September, 1922. Dr. Lanza organized activities investigating industrial sickness in various occupations and educating both employer and employees to the benefits which accrue from the application of the laws of health to industry. The direction of this work is now being carried on by Dr. D. G. Robertson who, as a holder of a Rockefeller Fellowship, has recently investigated the advances of industrial hygiene in America and Europe.

Colonel F. F. Longley has been in Australia since December, 1922, and has organized the Division of Sanitary Engineering of the Department. In April, 1923, he presented his views to a Sanitary Engineering Conference of the States and Commonwealth Health Departments.