

GOVERNMENT NOTIFICATION.—No. 232.

The following Report by Dr. J. C. THOMSON, M.D., M.A., on the results of his examinations of mosquitoes during the first quarter of 1901, is published.

By Command,

T. SERCOMBE SMITH,
Acting Colonial Secretary.

Colonial Secretary's Office, Hongkong, 20th April, 1901.

HONGKONG, 8th April, 1901.

SIR,—I have the honour to submit for the information of His Excellency the Governor the results of my examination of mosquitoes supplied to me during the past three months through the kind co-operation of the Honourable F. H. MAY, C.M.G., and the officers of the Police Force stationed throughout Hongkong and the New Territory.

2. I enclose tables showing in detail my observations during the months of January, February and March respectively, and a fourth table summarizing the same for the first quarter of 1901.

3. The column "other Genera" in these tables includes all insects other than Anopheles and Culex included in the various consignments. As a rule these are not mosquitoes, but insects belonging to cognate families, such as specimens of the fungus gnats (*Mycetophilidæ*), midges (*Chironomidæ*), sand flies (*Simulidæ*), &c., and for purposes of this enquiry may be discounted entirely. Deducting the total of this column, 389, from the total specimens received, 7,879, there remains a net total of 7,490 mosquitoes examined. Of these, 227, *i.e.* 3 per cent., were found to be Anopheles, of two species, and 7,263, *i.e.* 97 per cent., Culex, of five species. In the figures that follow, I deal in each case with the net total of Anopheles and Culex.

4. For purposes of comparison, I shall place the monthly percentage of Anopheles and Culex in the specimens examined in series with the corresponding figures for the preceding three months, as given in my report of 1st January (*Vide Gazette* of 12th January):—

	Mosquitoes examined.	Anopheles.		Culex.	
		Number.	Per cent.	Number.	Per cent.
October,	401	106	26.4	295	73.6
November,	796	50	6.3	746	93.7
December,	2,342	138	5.9	2,204	94.1
January,	3,380	143	4.2	3,237	95.8
February,	2,524	35	1.4	2,489	98.6
March,	1,586	49	3.1	1,537	96.9
Last Quarter of 1900, ...	3,539	294	8.3	3,245	91.7
First Quarter of 1901, ...	7,490	227	3.0	7,263	97.0
The six months,	11,029	521	4.7	10,508	95.3

It will be noted that the percentage prevalence of Anopheles among the specimens caught bears a very striking proportion to the known facts as to the prevalence of Malarial Fever in the Colony. There is a gradual fall from October to February, when a minimum is reached. In most years the minimum of Malaria is either in February or March.

5. Specimens of Anopheles were included, in the proportions given below, in parcels received from the following stations:—

	Mosquitoes examined.	Anopheles.		Culex.	
		Number.	Per cent.	Number.	Per cent.
Aberdeen,	139	4	2.9	135	97.1
Stanley,	214	8	3.7	206	96.3
Tai Po,	161	15	9.3	146	90.7
Sha Tau Kok,	1,145	189	16.5	956	83.5
Sheung Shui,	150	2	1.3	148	98.7
San Tin,	80	2	2.5	78	97.5
Au Tau,	208	3	1.4	205	98.6
Lamma,	172	4	2.3	168	97.7

6. No Anopheles were found among the mosquitoes sent from the following stations:—

No. 1, No. 2, No. 3, No. 7, Kennedy Town, Pokfulam, Shauiwan, Tsat Tsze Mui, Tsim Sha Tsui, Yaumati, Fuk Tsun Heung, Stonecutters' Island, Hunghom, Kowloon City, Sha Tin, Sai Kung, Kat O, Ping Shan, and Uheung Chau.

7. No specimens were sent to me from the following stations:—

Central, No. 5, No. 6, No. 8, Mt. Gough, Sha Tin Gap, Tai O, and Tung Chung;

while the contents of one parcel sent from Shek O in February were too much broken up and decomposed to be made use of, so that Shek O is returned as having made no consignment during the past three months.

8. I attach a copy of a circular which I issued during March for the guidance of those who are assisting me in this enquiry.

I have the honour to be,
Sir,
Your obedient Servant,

JOHN C. THOMSON,
M.D., M.A.

Dr. JOHN BELL,
Acting Principal Civil Medical Officer,
&c., &c., &c.

MEMORANDUM

ON THE COLLECTION OF MOSQUITOES.

After a few months' experience of what may be done in the matter of collecting and classifying Mosquitoes, I think it well to offer a few general remarks in order to secure more uniform action among those who are assisting me; and in doing so I wish to convey my best thanks to the officers of the Police Force for their hearty co-operation. My first quarterly report on the subject was published in the *Gazette* of 12th January last.

The Mosquitoes have in nearly all cases reached me in good condition, and the method of catching and transmitting previously suggested has proved quite satisfactory. They should be caught by means of the glass test tubes supplied, killed by a whiff of tobacco smoke, and then addressed in an ordinary matchbox to the Chief Inspector at the Central Police Station. No packing of any kind is necessary, other than the wrapping of the box in a piece of paper. The name of the station from which the parcel is sent should in all cases be written on the outside.

As the malaria-bearing mosquito (*Anopheles*) bites usually, or always, at night it is important for purposes of this enquiry that the insects should for the most part be collected in the evening, or from mosquito curtains in the early morning. As, however, some species of mosquitoes bite only, or generally, during the day, specimens of forms seen flying about in the daytime should be included. A good working rule would be that at least two-thirds of those sent should be caught in the evening.

They should be sent when fresh, and should as much as possible be caught within the twenty-four hours preceding the despatch of the parcel. After they become dry, they tend to break up, and classification of them is less satisfactory.

I am especially desirous of having the weekly consignments from all parts of the Colony and the New Territory sent as regularly as possible. It is not desirable to send large numbers from any one station, as this tends to give inaccurate averages for the Colony as a whole. No consignment should exceed two dozen. No selection should be made, and at stations where the insects are abundant and easily caught, the first dozen or so mosquitoes that are taken on any given date should be sent. Any selection of special mosquitoes would give erroneous results. While I thus suggest a maximum limit, for the reason mentioned, I would express my special indebtedness to those who have entered so enthusiastically into this matter as to make such a limitation desirable.

On the other hand, officers in charge of certain stations who have been unable to find the weekly dozen at first asked for have sometimes sent none. I shall be glad to receive weekly consignments of even a very few mosquitoes rather than have stations unrepresented in some weeks, with consequent unequal results in the different weeks or months.

The mosquitoes need not necessarily be caught within the stations, but anywhere either within them or in their neighbourhoods; the general idea being that the police stations approximately represent the whole area of the Colony and its dependencies, and hence a systematic classification of mosquitoes sent regularly from all the stations throughout the whole year will give practically accurate knowledge as to the relative prevalence of the various kinds of mosquitoes that exist in Hongkong.

JOHN C. THOMSON,
M.D.

HONGKONG, 22nd March, 1901.

PREVALENCE OF MOSQUITOES, DURING THE MONTH OF JANUARY, 1901.

NAME OF STATION.	Specimens received.	ANOPHELES.		CULEX.		Other Genera.
		Number.	Species.	Number.	Species.	
No. 1 Station.....	160	...	...	152	1	8
No. 2 "	17	...	...	17	1	...
No. 3 "	226	...	...	140	2	86
No. 7 "	67	...	...	62	2	5
Kennedy Town	111	...	...	108	2	3
Pokfulam	44	...	...	42	3	2
Aberdeen	68	...	...	56	3	12
Stanley	81	5	2	72	2	4
Shauiwan	196	...	...	196	3	...
Tsat Tsze Mui	28	...	...	28	1	...
Tsim Sha Tsui	84	...	...	84	2	...
Yaumati	191	...	...	191	2	...
Fuk Tsun Heung	68	...	...	67	3	1
Hung Hom	102	...	...	102	2	...
Kowloon City	100	...	...	99	2	1
Sha Tin	12	...	...	11	2	1
Sai Kung	66	...	...	15	1	51
Tai Po	44	10	2	33	2	1
Sha Tau Kok.....	491	124	2	367	2	...
Kat O	254	...	...	253	2	1
Sheung Shui	77	2	2	74	3	1
San Tin	40	2	1	14	1	24
Au Tau	136	...	...	135	2	1
Cheung Chau.....	841	...	...	841	2	...
Lamma	80	...	...	78	2	2
Total.....	3,584	143	2	3,237	4	204
Less.....	204					
Net Total	3,380					

PREVALENCE OF MOSQUITOES, DURING THE MONTH OF FEBRUARY, 1901.

NAME OF STATION.	Specimens received.	ANOPHELES.		CULEX.		Other Genera.
		Number.	Species.	Number.	Species.	
No. 1 Station.....	151	...	...	110	2	41
No. 2 "	27	...	...	27	1	...
No. 3 "	73	...	...	67	2	6
No. 7 "	12	...	...	12	1	...
Kennedy Town	72	...	...	72	1	...
Pokfulam	39	...	...	39	1	...
Aberdeen	50	2	1	43	2	5
Stanley	75	1	1	70	2	4
Shauiwan	418	...	...	417	2	1
Tsat Tsze Mui	35	...	...	35	2	...
Tsim Sha Tsui	56	...	...	56	2	...
Yaumati	71	...	...	71	1	...
Fuk Tsun Heung	24	...	...	24	1	...
Stone Cutters' Island	45	...	...	44	1	1
Hung Hom.....	20	...	...	20	1	...
Kowloon City	81	...	...	80	1	1
Sai Kung	55	...	...	46	1	9
Tai Po	63	1	1	59	2	3
Sha Tau Kok.....	296	28	2	267	1	1
Kat O.....	92	...	...	92	1	...
Sheung Shui	50	...	...	50	3	...
San Tin	24	...	...	21	1	3
Au Tau	61	3	2	58	1	...
Cheung Chau.....	650	...	...	650	2	...
Lamma	59	...	...	59	2	...
Total.....	2,599	35	2	2,489	3	75
Less.....	75					
Net Total	2,524					

PREVALENCE OF MOSQUITOES, DURING THE MONTH OF MARCH, 1901.

NAME OF STATION.	Specimens received.	ANOPHELES.		CULEX.		Other Genera.
		Number.	Species.	Number.	Species.	
No. 1 Station.....	73	...	...	51	2	22
No. 3 „	40	...	...	28	3	12
No. 7 „	14	...	...	14	1	...
Kennedy Town	20	...	...	20	2	...
Pokfulam	43	...	...	41	3	2
Aberdeen	45	2	1	36	4	7
Stanley	70	2	2	64	2	4
Shaukiwan.....	132	...	...	130	4	2
Tsim Sha Tsui	99	...	...	99	4	...
Yaumati.....	78	...	...	78	3	...
Fuk Tsun Heung	13	...	...	13	1	...
Hung Hom.....	14	...	...	14	1	...
Kowloon City.....	89	...	...	87	2	2
Sha Tin	66	...	...	28	3	38
Sai Kung	38	...	...	38	2	...
Tai Po	60	4	2	54	3	2
Sha Tau Kok.....	364	37	2	322	5	5
Kat O.....	107	...	...	104	3	3
Sheung Shui	25	...	...	24	2	1
San Tin	51	...	...	43	3	8
Au Tau	12	...	...	12	2	...
Ping Shan	13	...	...	11	3	2
Cheung Chau.....	195	...	...	195	4	...
Lamma	35	4	1	31	3	...
Total.....	1,696	49	2	1,537	5	110
Less.....	110					
Net Total.....	1,586					

PREVALENCE OF MOSQUITOES, DURING THE QUARTER ENDING 31ST MARCH, 1901.

NAME OF STATION.	Specimens received.	ANOPHELES.		CULEX.		Other Genera.
		Number.	Species.	Number.	Species.	
No. 1 Station.....	384	...	...	313	3	71
No. 2 „	44	...	...	44	1	...
No. 3 „	339	...	...	235	4	104
No. 7 „	93	...	...	88	2	5
Kennedy Town	203	...	...	200	3	3
Pokfulam	126	...	...	122	4	4
Aberdeen	163	4	1	135	5	24
Stanley	226	8	2	206	3	12
Shaukiwan.....	746	...	...	743	5	3
Tsat Tsze Mui	63	...	...	63	2	...
Tsim Sha Tsui	239	...	...	239	4	...
Yaumati.....	340	...	...	340	3	...
Fuk Tsun Heung	105	...	...	104	4	1
Stone Cutters' Island.....	45	...	...	44	1	1
Hung Hom.....	136	...	...	136	3	...
Kowloon City	270	...	...	266	3	4
Sha Tin	78	...	...	39	4	39
Sai Kung	159	...	...	99	2	60
Tai Po	167	15	2	146	5	6
Sha Tau Kok.....	1,151	189	2	956	5	6
Kat O.....	453	...	...	449	3	4
Sheung Shui	152	2	2	148	4	2
San Tin	115	2	1	78	3	35
Au Tau	209	3	2	205	4	1
Ping Shan	13	...	...	11	3	2
Cheung Chau.....	1,686	...	...	1,686	4	...
Lamma	174	4	1	168	4	2
Total.....	7,879	227	2	7,263	5	389
Less.....	389					
Net Total.....	7,490					