Spatial dispersal of *Aedes albopictus* mosquitoes captured by the modified sticky ovitrap in Selangor, Malaysia

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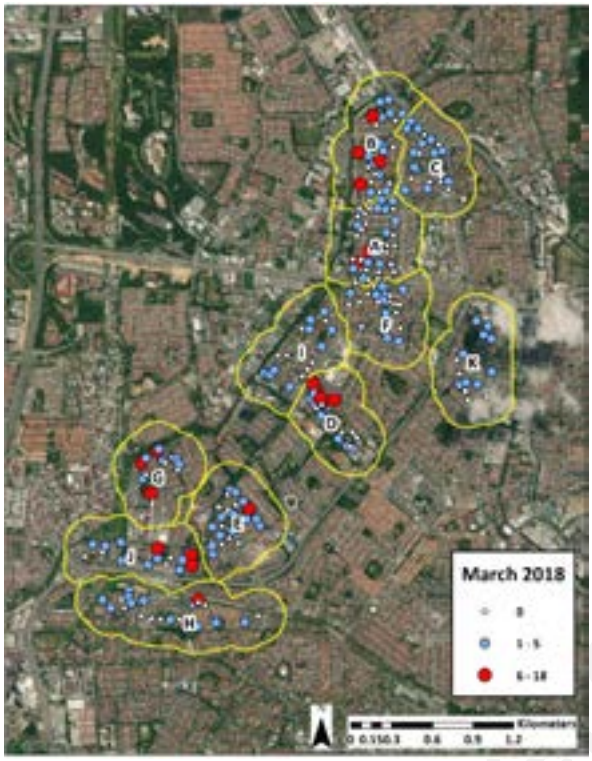
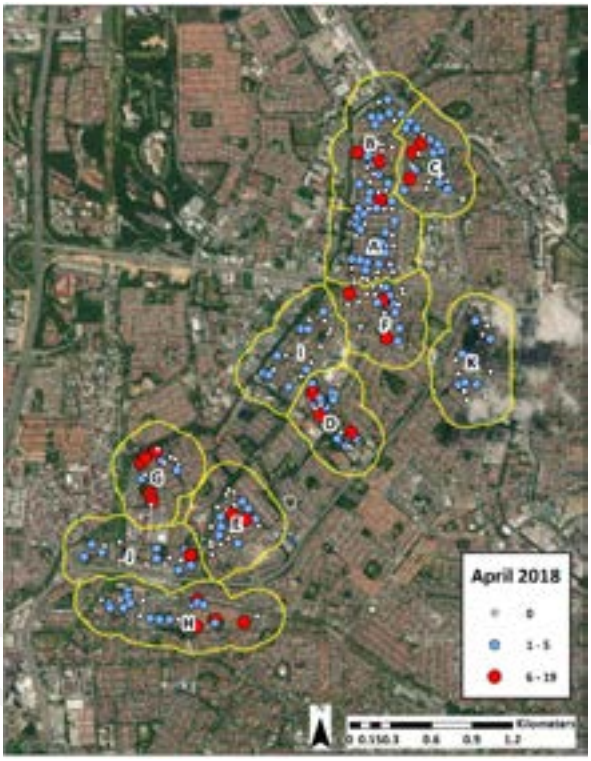
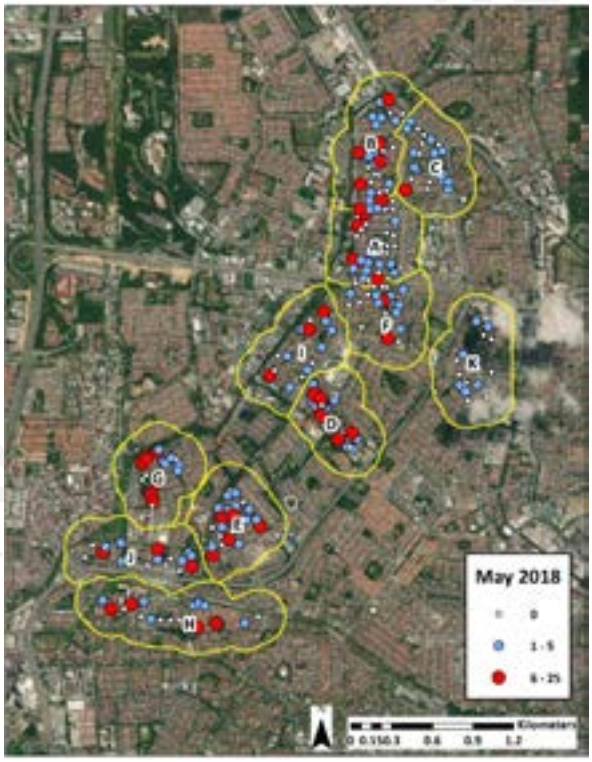
ANNEX I-VI

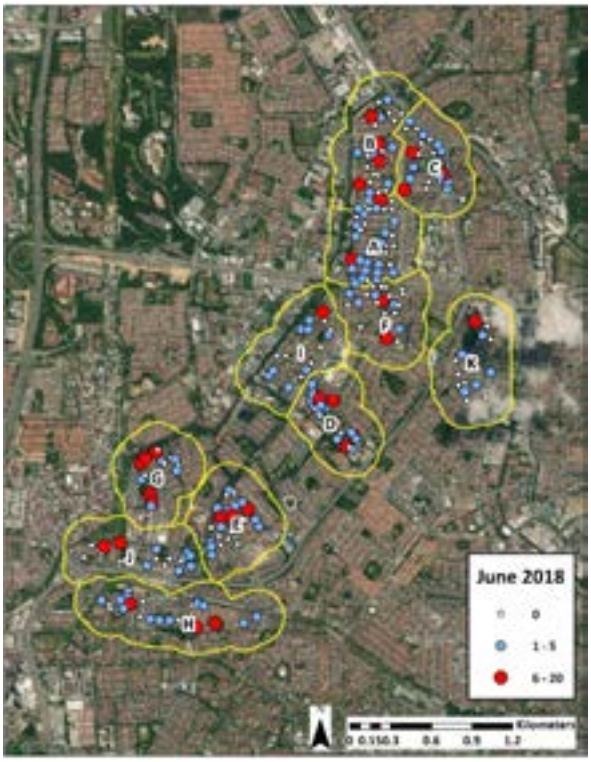
ANNEX I

Ae. albopictus **general distribution in the study area in Selangor, Malaysia**
The monthly variation between March 2018 and February 2019 in 12 figures

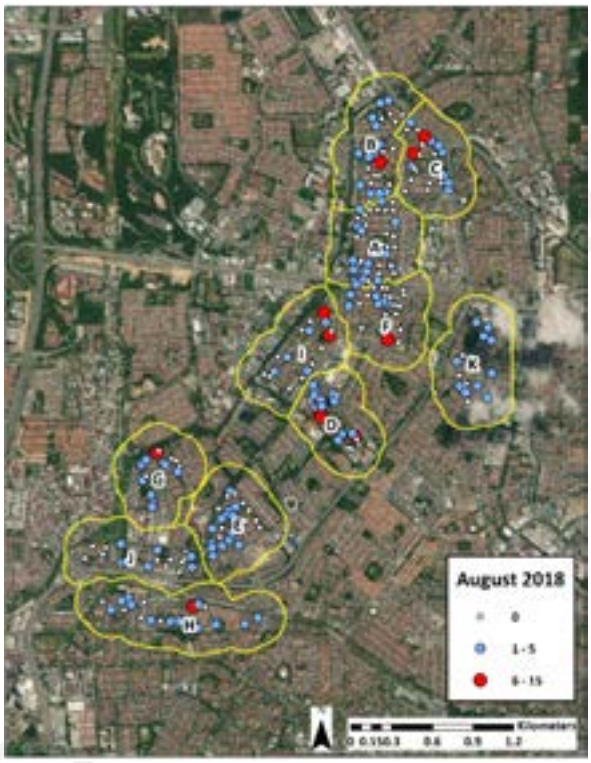


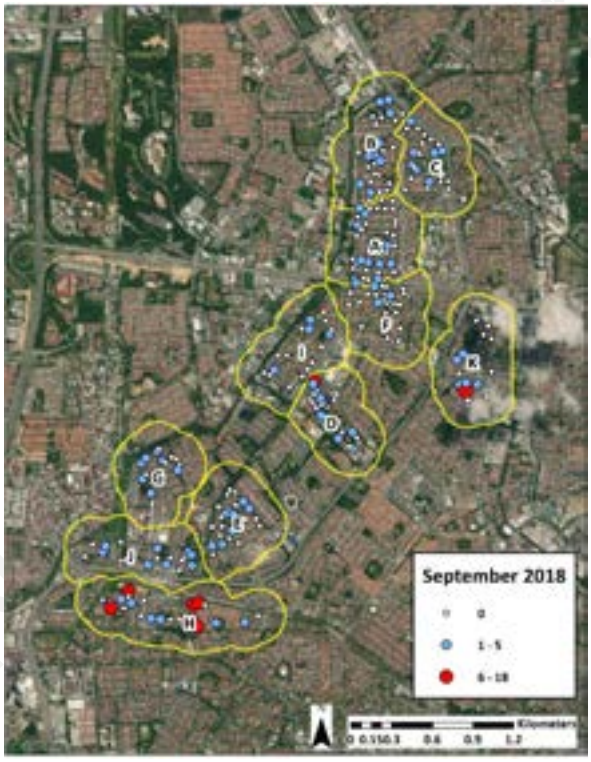


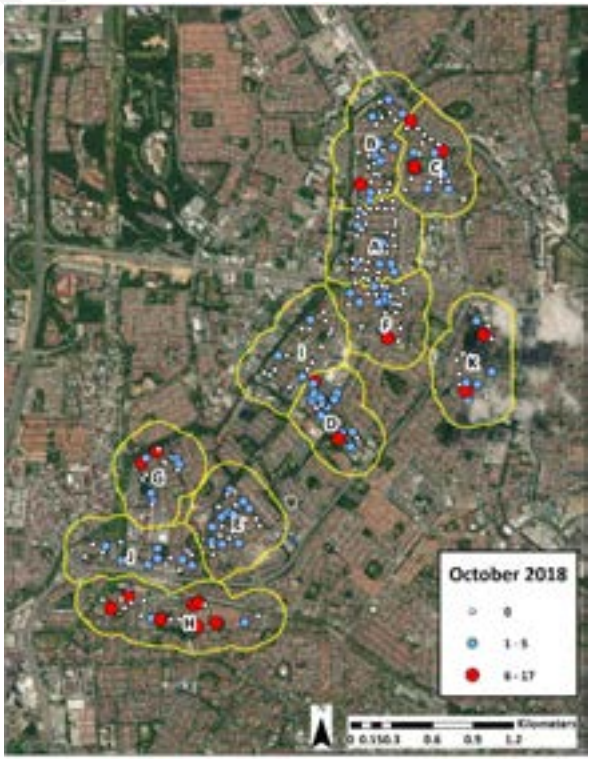


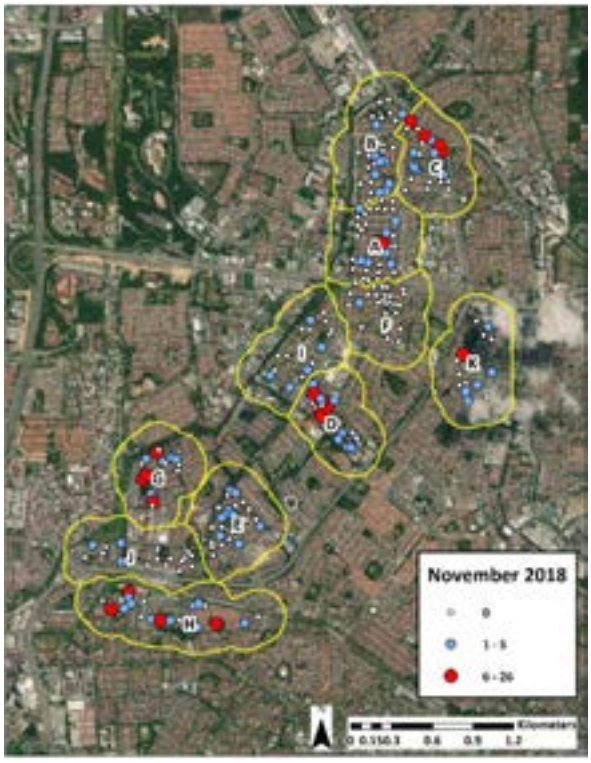


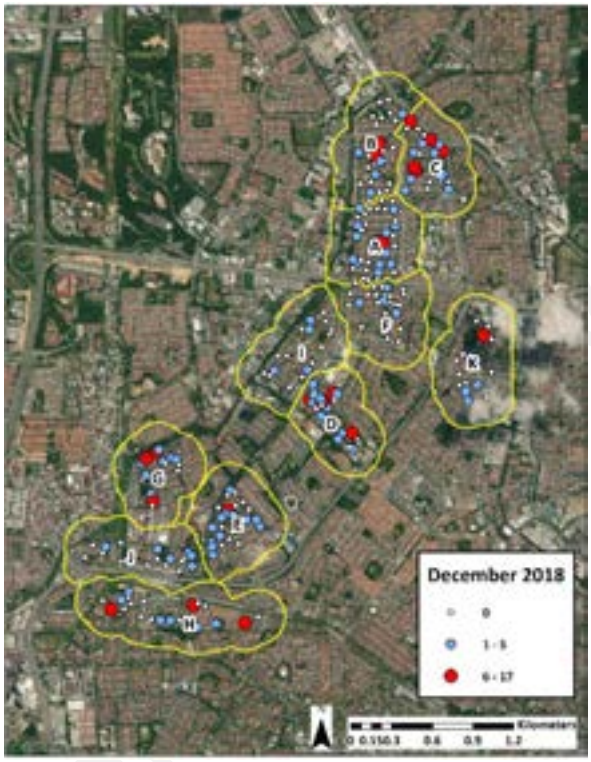

July 2018
0
1 - 5
6 - 14

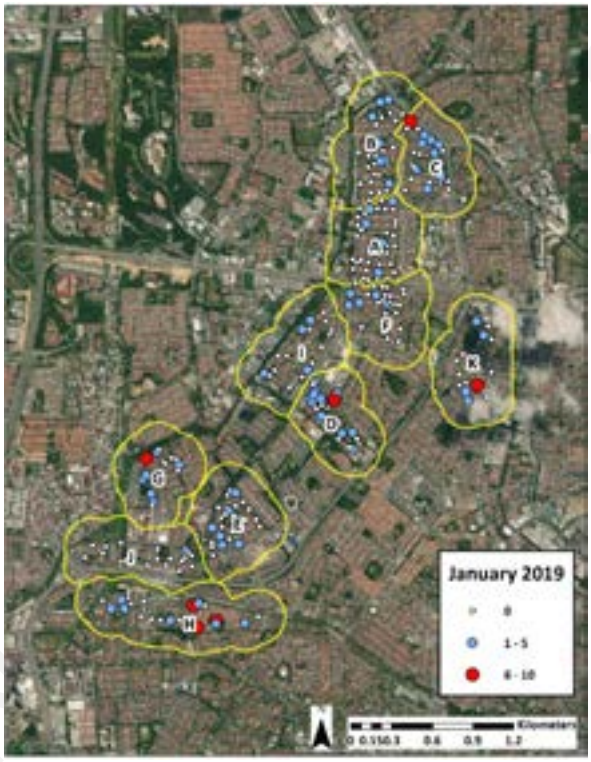

August 2018
0
1 - 5
6 - 15


September 2018
0
1 - 5
6 - 18


October 2018
0
1 - 5
6 - 17


November 2018
0
1 - 5
6 - 26


December 2018
0
1 - 5
6 - 17


January 2019
0
1 - 5
6 - 10


February 2019
0
1 - 5
6 - 11

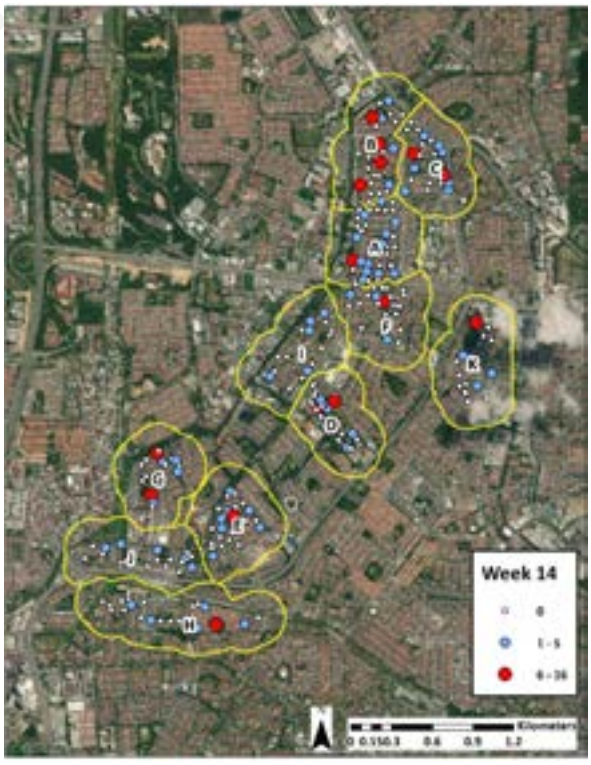
ANNEX II

The tabulated, weekly variations in the number of *Ae. albopictus* captured per MSO trap in the study area

Week	Comparison of trap contents (no. of mosquitoes)		
	High (> 5)	**Low** (1 – 5)	**None** (0)
1	1	55	217
2	0	54	219
3	4	67	202
4	0	77	196
5	0	63	210
6	3	68	202
7	1	69	203
8	2	54	217
9	2	76	195
10	4	63	206
11	6	65	202
12	5	60	208
13	4	65	204
14	16	70	187
15	1	53	219
16	2	74	197
17	2	66	205
18	3	74	196
19	2	66	205
20	0	37	236
21	0	56	217
22	2	50	221
23	2	39	232
24	1	47	225
25	0	54	219
26	0	24	249
27	0	30	243
28	0	28	245
29	1	30	242
30	1	48	224
31	1	39	233
32	2	31	240
33	0	49	224
34	0	27	246
35	2	34	237
36	2	33	238
37	1	43	229
38	5	55	213
39	1	40	232
40	1	40	232
41	1	50	222
42	2	51	220

43	0	35	238
44	1	27	245
45	0	19	254
46	0	23	250
47	0	30	243
48	0	20	253
49	0	26	247
50	1	16	256
51	0	32	241
52	0	20	253

The weekly variation in the number of *Ae. albopictus* captured per MSO trap in the study area between March 2018 and February 2019 - 52 figures




Week 23
0
1-5
6-8


Week 24
0
1-5
6


Week 25
0
1-5


Week 26
0
1-5


Week 35


Week 36


Week 37


Week 38

ANNEX III

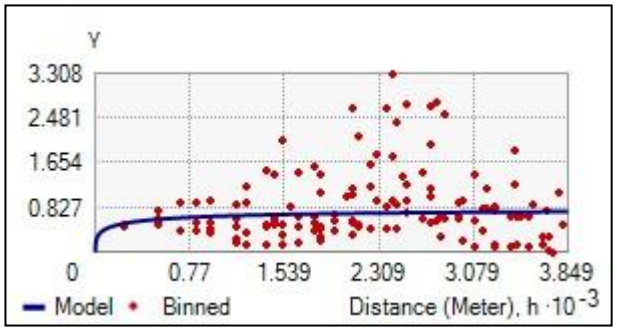
The tabulated, weekly variation in the *Ae. albopictus* hotspot distribution among the 11 sites investigated

Week	Number of hotspots of *Ae. albopictus*											Total
	A	B	C	D	E	F	G	H	I	J	K	
1	1	2	0	0	0	0	5	1	0	1	0	10
2	2	3	1	3	1	0	0	1	0	2	0	13
3	2	0	0	4	0	0	1	1	0	1	0	9
4	1	5	0	1	0	0	2	1	0	3	0	13
5	1	1	2	3	2	0	2	2	0	0	1	14
6	3	0	0	0	1	0	0	3	0	1	0	8
7	2	1	1	2	0	1	3	2	0	0	0	12
8	0	1	0	2	0	1	0	0	0	0	0	4
9	4	1	0	2	1	2	0	1	0	1	0	12
10	1	3	0	3	0	0	1	2	2	1	0	13
11	4	3	0	1	0	0	0	3	0	0	0	11
12	1	1	0	1	1	0	2	1	1	1	1	10
13	1	1	1	2	1	0	2	2	0	2	0	12
14	1	3	1	3	1	1	2	1	0	0	1	14
15	1	1	0	1	2	1	1	1	0	0	0	8
16	1	1	0	0	0	0	3	3	1	1	0	10
17	0	0	0	2	0	0	2	1	0	0	0	5
18	0	1	0	1	0	1	0	3	0	0	1	7
19	0	1	1	0	0	0	1	3	1	0	2	9
20	1	0	0	4	0	0	1	2	1	0	0	9
21	0	2	0	3	0	1	0	1	1	1	1	10
22	1	1	0	2	1	1	0	1	1	0	1	9
23	2	1	0	1	0	1	0	0	0	0	0	5
24	0	0	1	2	0	0	0	2	2	0	0	7
25	0	1	1	0	0	0	1	1	2	0	0	6
26	0	1	2	1	0	0	0	1	0	0	0	5
27	0	0	0	1	0	0	1	2	1	2	2	9
28	0	0	0	2	1	0	3	4	0	0	0	10
29	1	0	0	2	0	0	0	4	1	0	0	8
30	0	1	0	0	0	0	0	3	0	0	1	5
31	0	3	1	1	0	1	0	1	0	0	1	8
32	0	0	3	2	0	0	1	4	0	0	1	11
33	0	0	1	1	1	0	2	4	0	0	0	9
34	0	0	1	2	0	0	1	3	0	1	1	9
35	0	0	0	0	0	0	2	4	0	0	0	6
36	1	0	1	2	0	0	3	3	0	0	0	10
37	0	1	3	2	0	0	1	2	0	0	0	9
38	1	0	2	1	0	0	1	2	0	0	1	8
39	0	0	1	4	0	0	0	0	0	0	1	6
40	0	1	3	2	0	0	2	2	0	0	0	10
41	1	2	1	2	1	0	3	4	0	0	1	15
42	0	0	4	5	0	0	0	2	0	1	0	12

43	2	1	3	1	1	0	4	2	0	0	2	16
44	0	1	1	1	0	0	0	3	1	0	1	8
45	0	1	0	2	0	0	0	0	0	0	2	5
46	0	1	1	2	0	0	2	1	0	0	0	7
47	0	0	0	2	0	0	4	5	0	0	1	12
48	0	0	2	2	0	0	2	2	0	0	1	9
49	0	2	2	1	0	0	0	1	0	0	1	7
50	0	0	0	0	2	0	0	2	0	0	0	4
51	0	0	1	4	0	0	0	3	0	0	1	9
52	3	2	2	5	5	0	1	1	1	0	0	20
Total	**39**	**51**	**44**	**93**	**22**	**11**	**62**	**104**	**16**	**19**	**26**	487

ANNEX IV

Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019: (a) Week 1, (b) Week 2, (c) Week 3, (d) Week 4, (e) Week 5, (f) Week 6, (g) Week 7 and (h) Week 8



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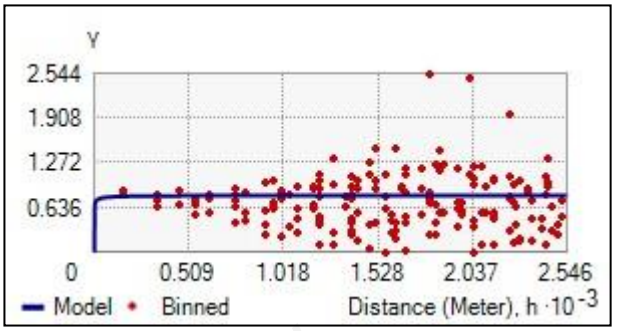
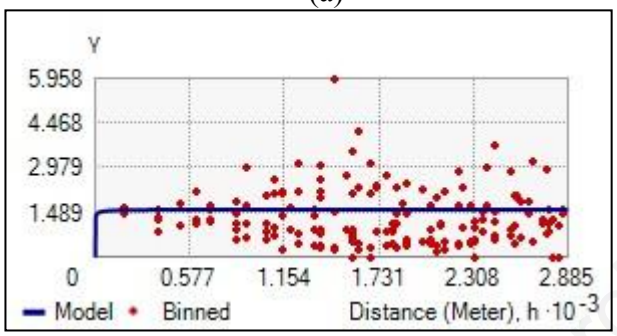


(b)



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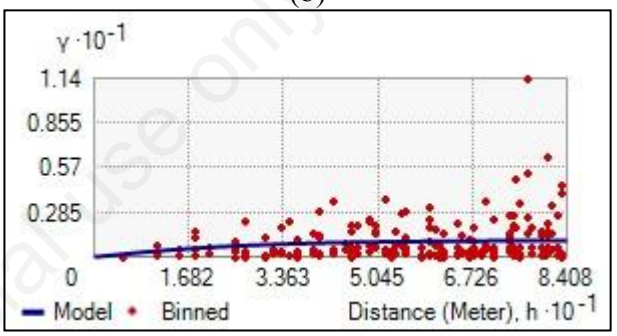

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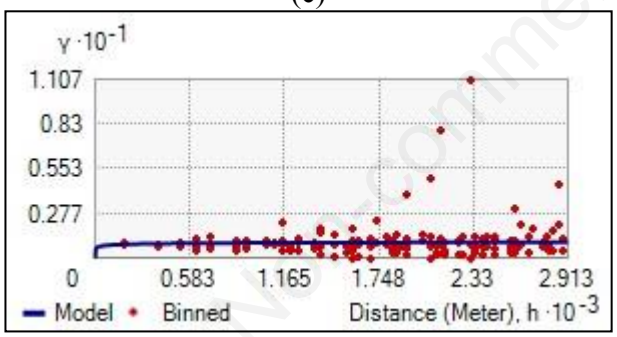

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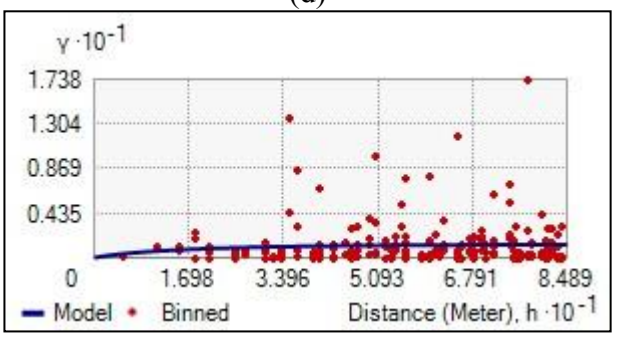

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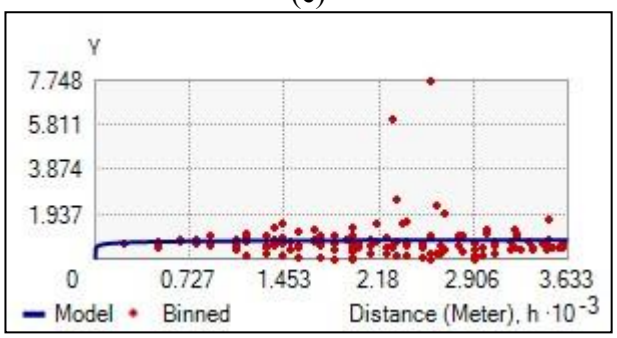
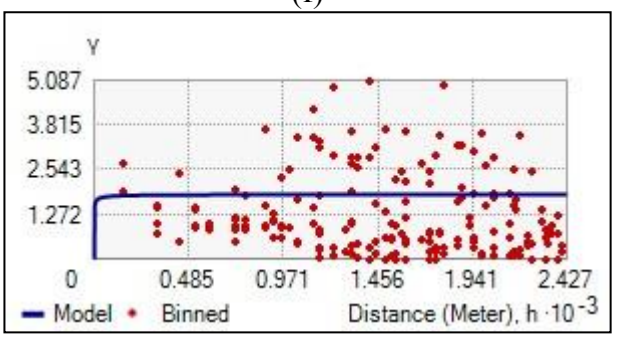
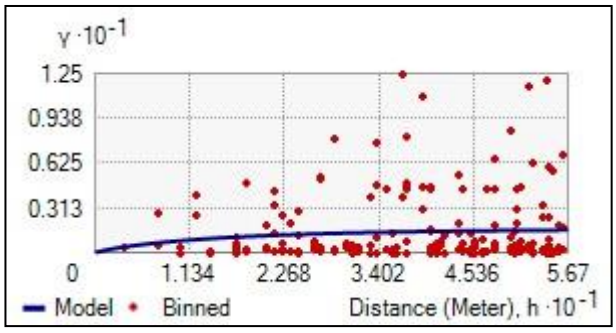


(g)



(h)

Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 9, (b) Week 10, (c) Week 11, (d) Week 12, (e) Week 13, (f) Week 14, (g) Week 15 and (h) Week 16



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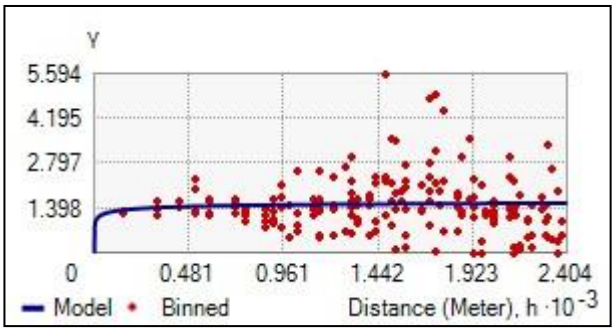

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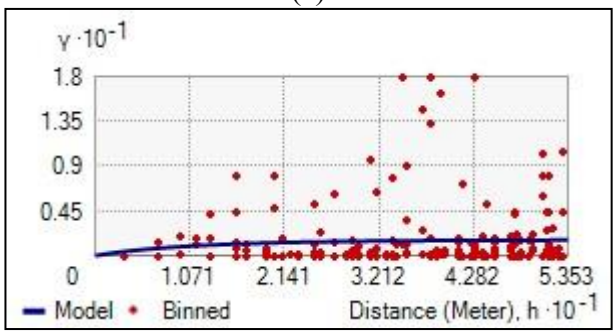

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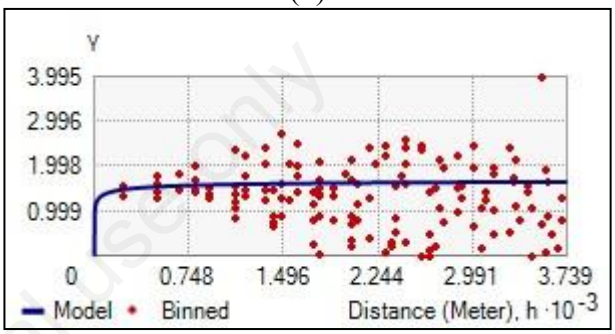

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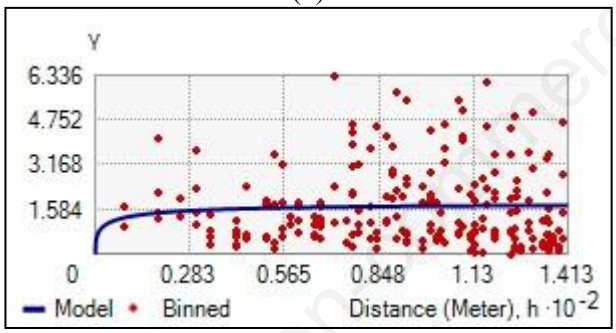

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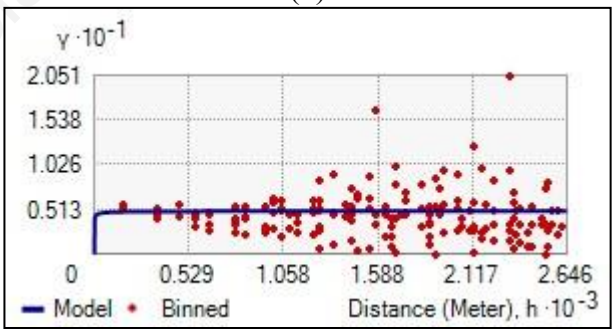

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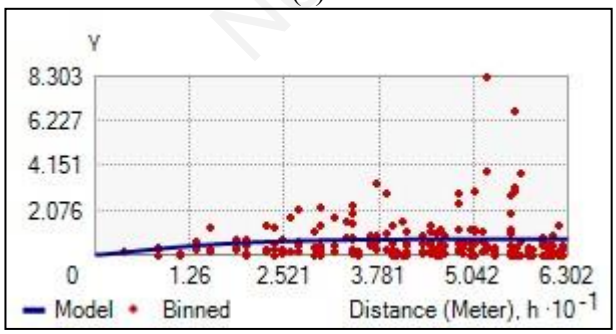

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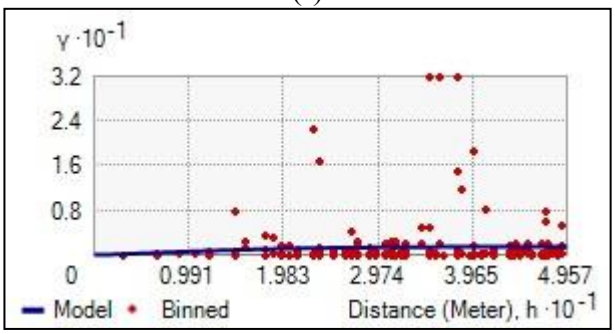
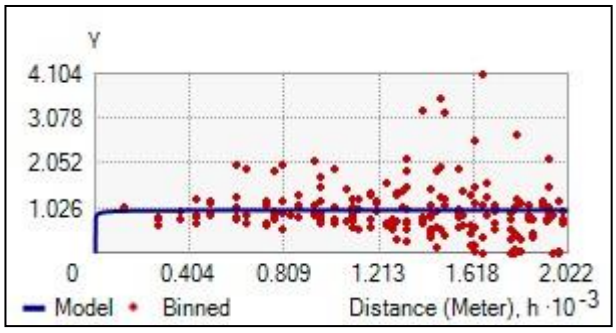


(h)

Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 17, (b) Week 18, (c) Week 19, (d) Week 20, (e) Week 21, (f) Week 22, (g) Week 23 and (h) Week 24



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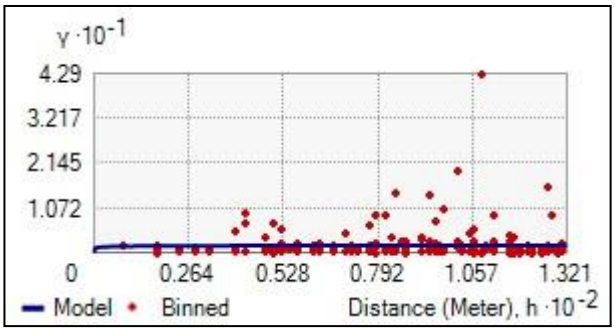

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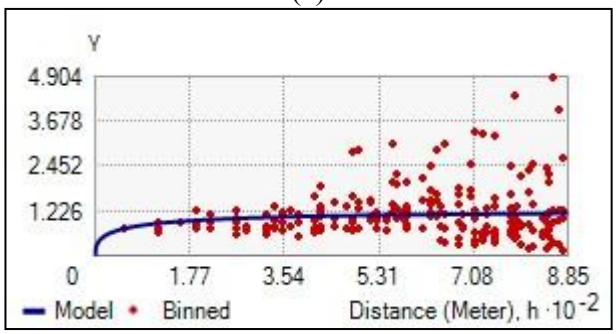
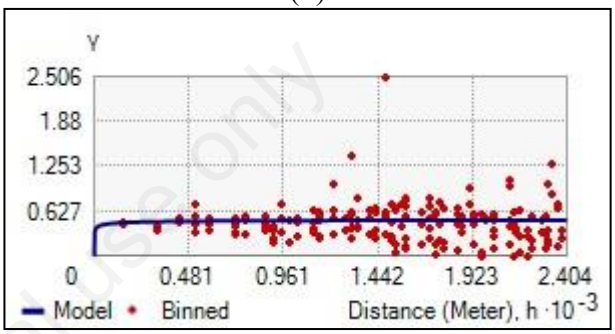


(c)



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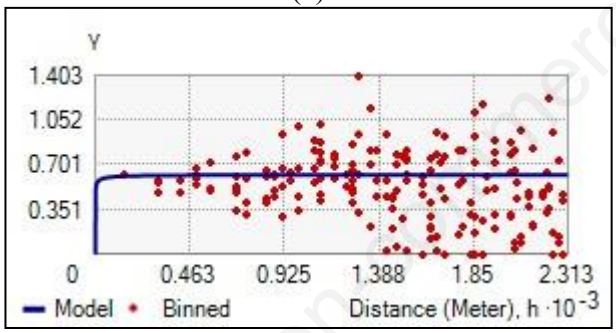

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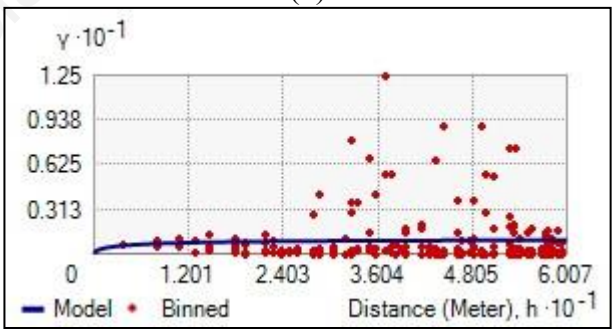

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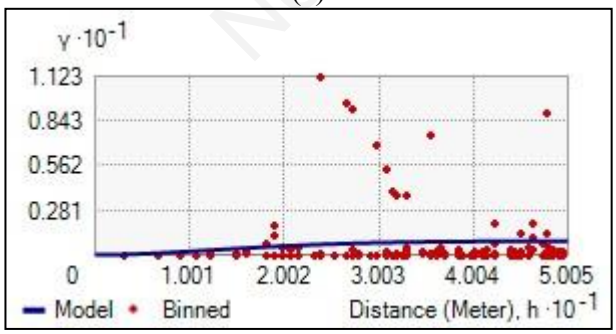

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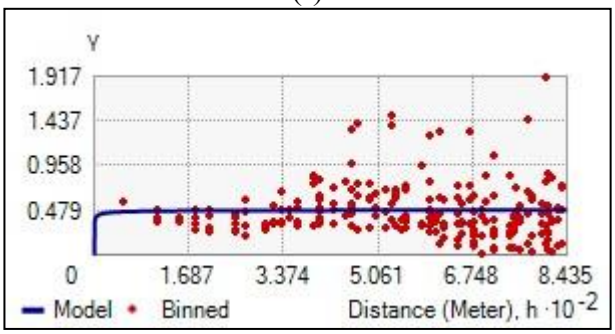
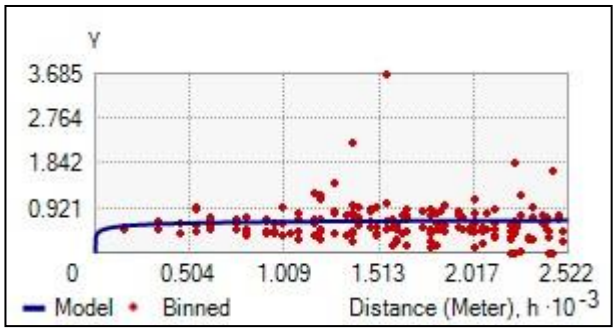


(h)

Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 25, (b) Week 26, (c) Week 27, (d) Week 28, (e) Week 29, (f) Week 30, (g) Week 31 and (h) Week 32



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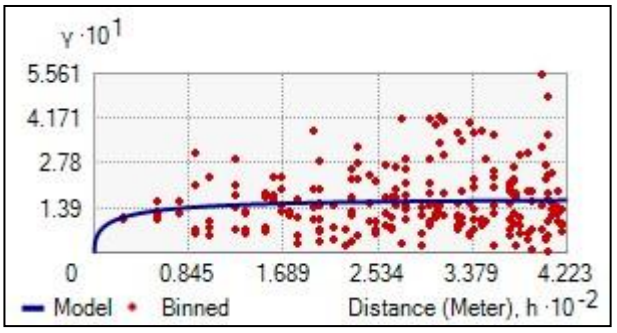

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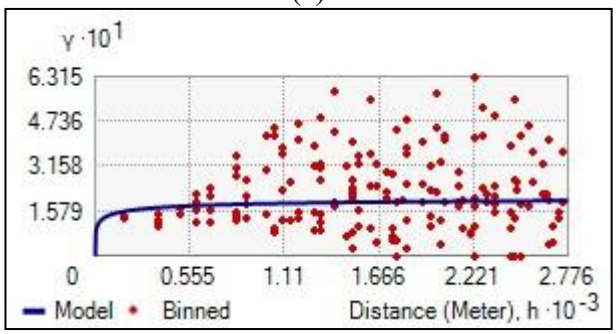

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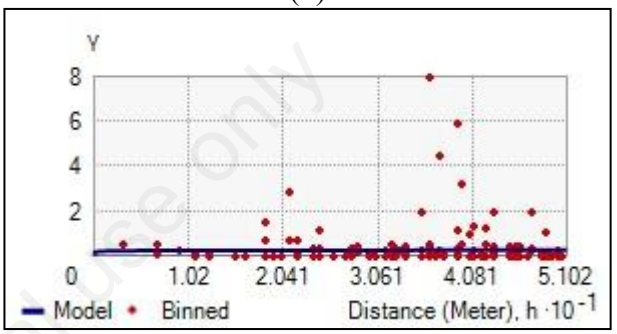

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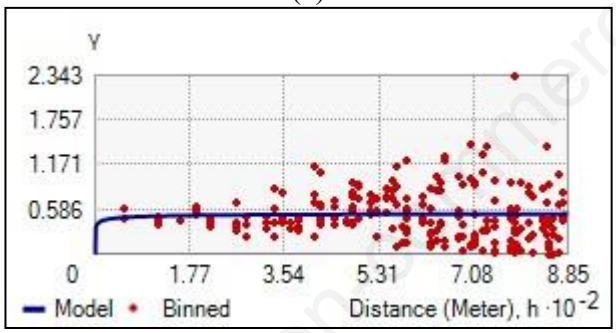

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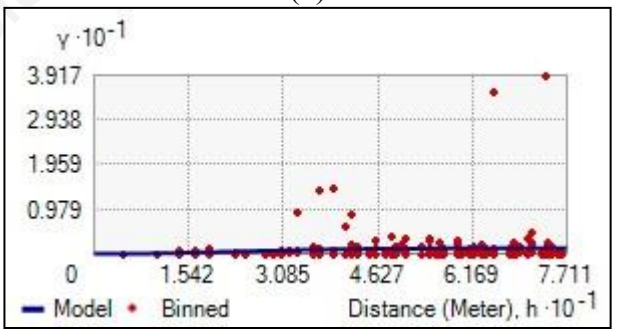
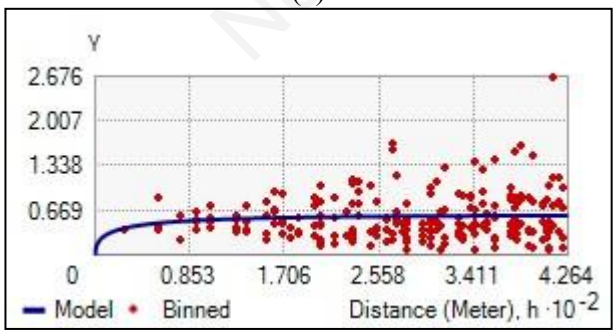
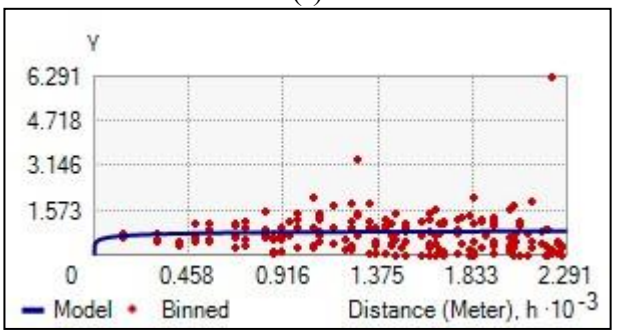


(f)

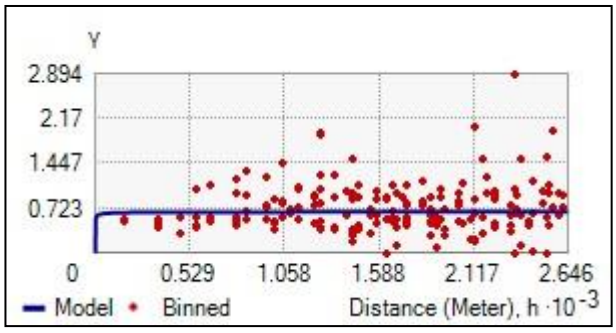


(g)

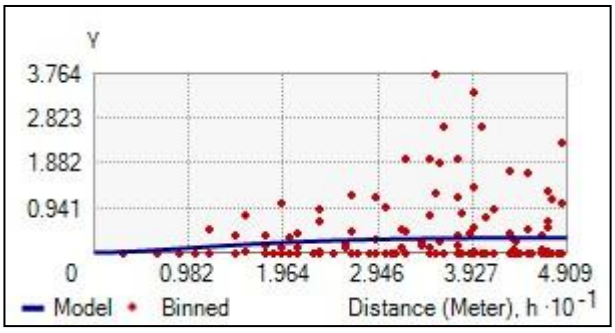


(h)

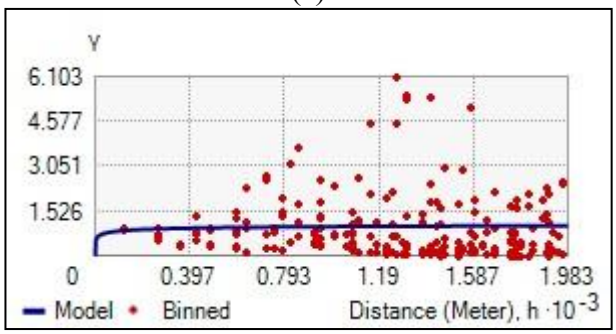
Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 33, (b) Week 34, (c) Week 35, (d) Week 36, (e) Week 37, (f) Week 38, (g) Week 39 and (h) Week 40



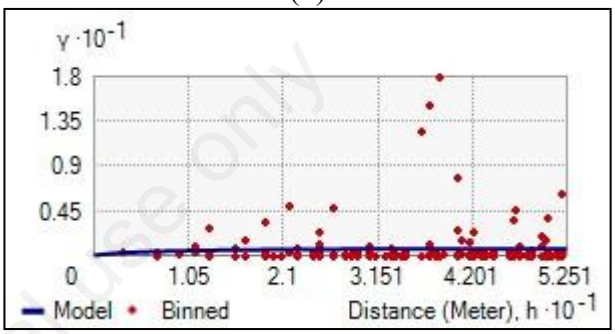
(a)



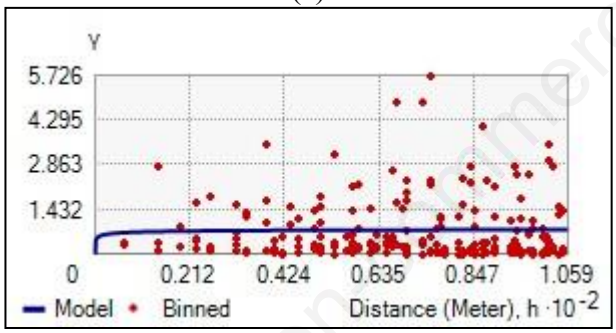
(b)



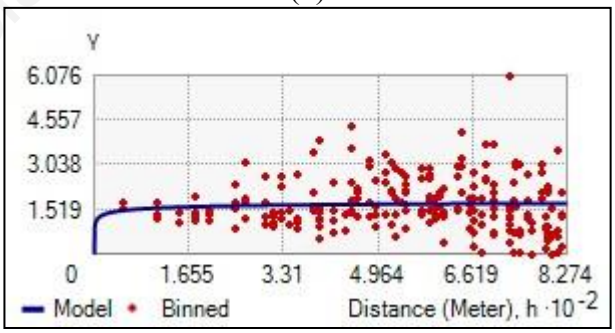
(c)



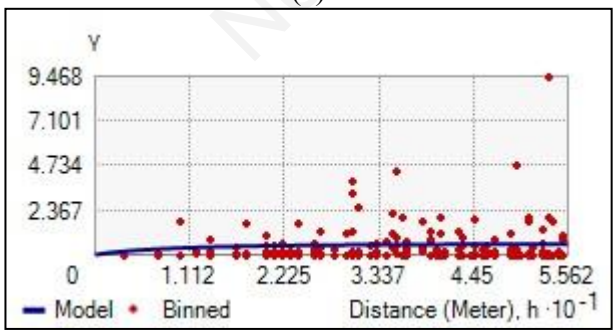
(d)



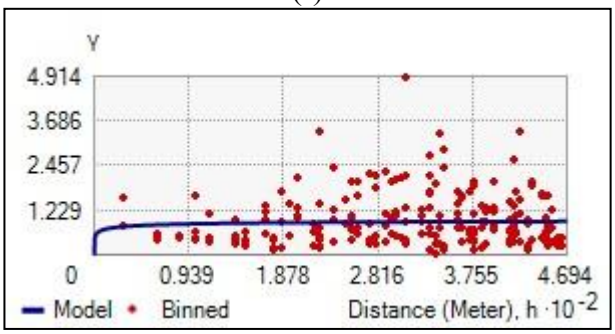
(e)



(f)

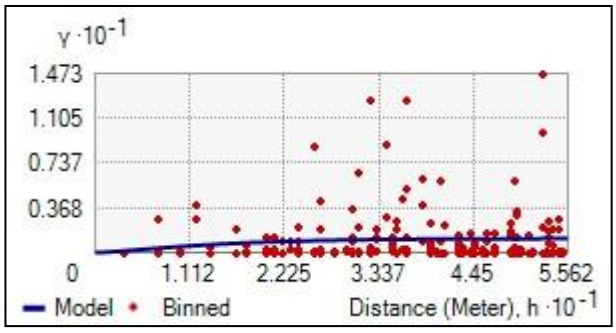


(g)

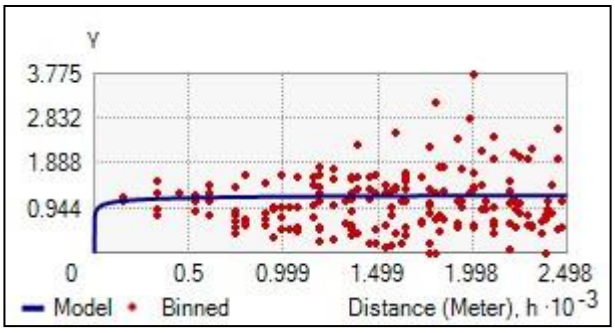


(h)

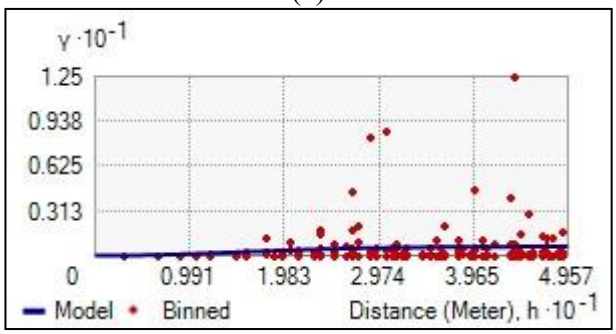
Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 41, (b) Week 42, (c) Week 43, (d) Week 44, (e) Week 45, (f) Week 46, (g) Week 47 and (h) Week 48



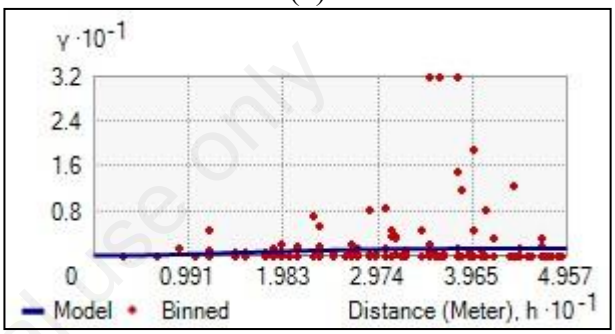
(a)



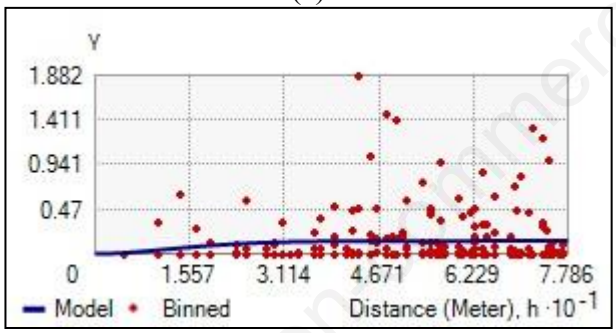
(b)



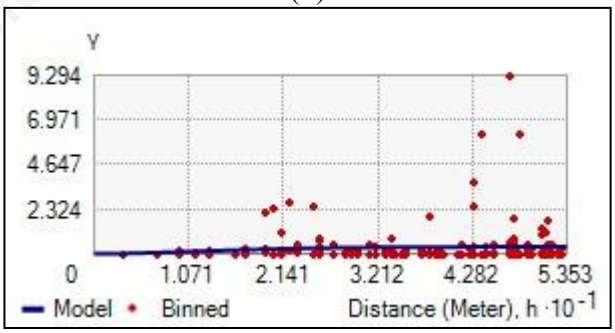
(c)



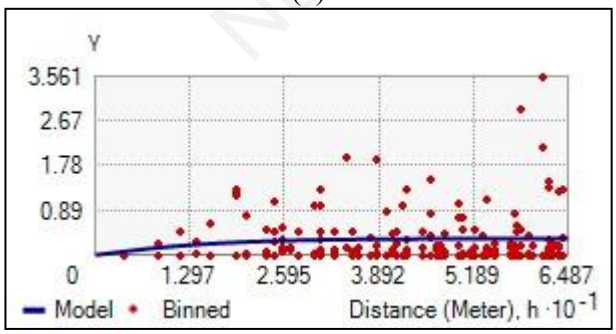
(d)



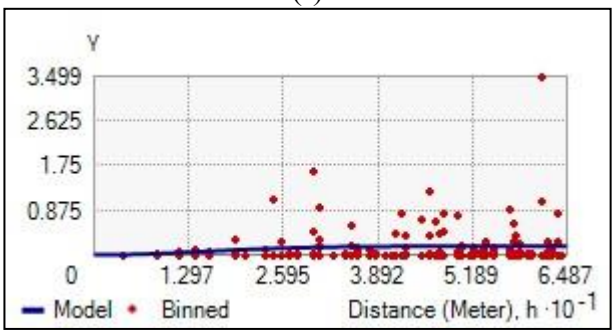
(e)



(f)

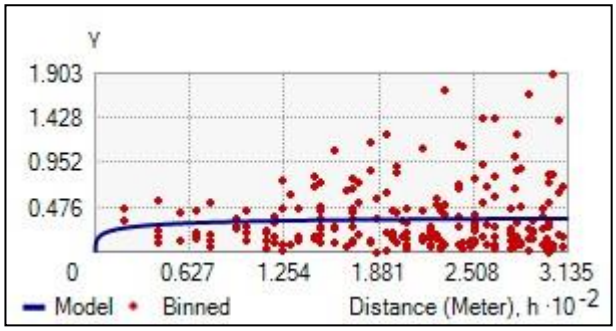


(g)

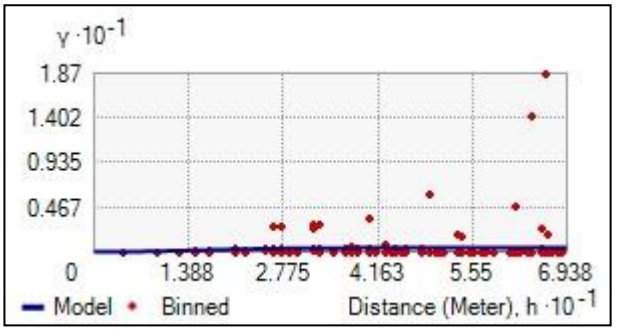


(h)

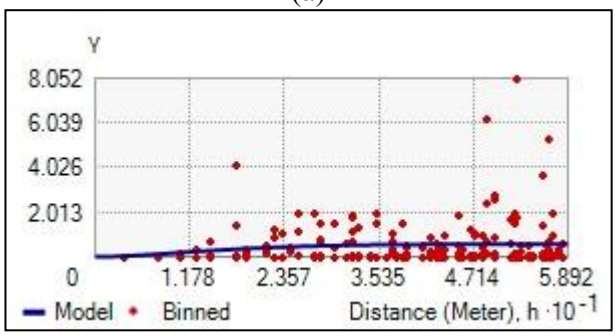
Semivariogram of *Ae. albopictus* of the weekly distribution between March 2018 and February 2019 (continued): (a) Week 49, (b) Week 50, (c) Week 51 and (d) Week 52



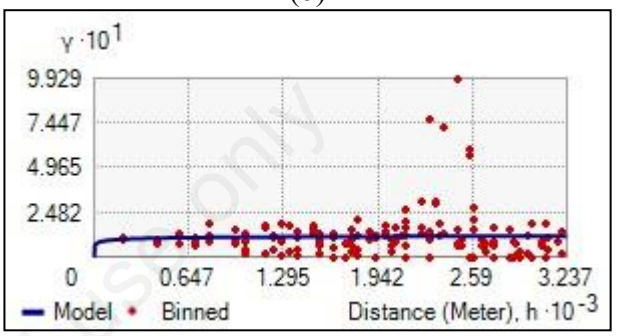
(a)



(b)



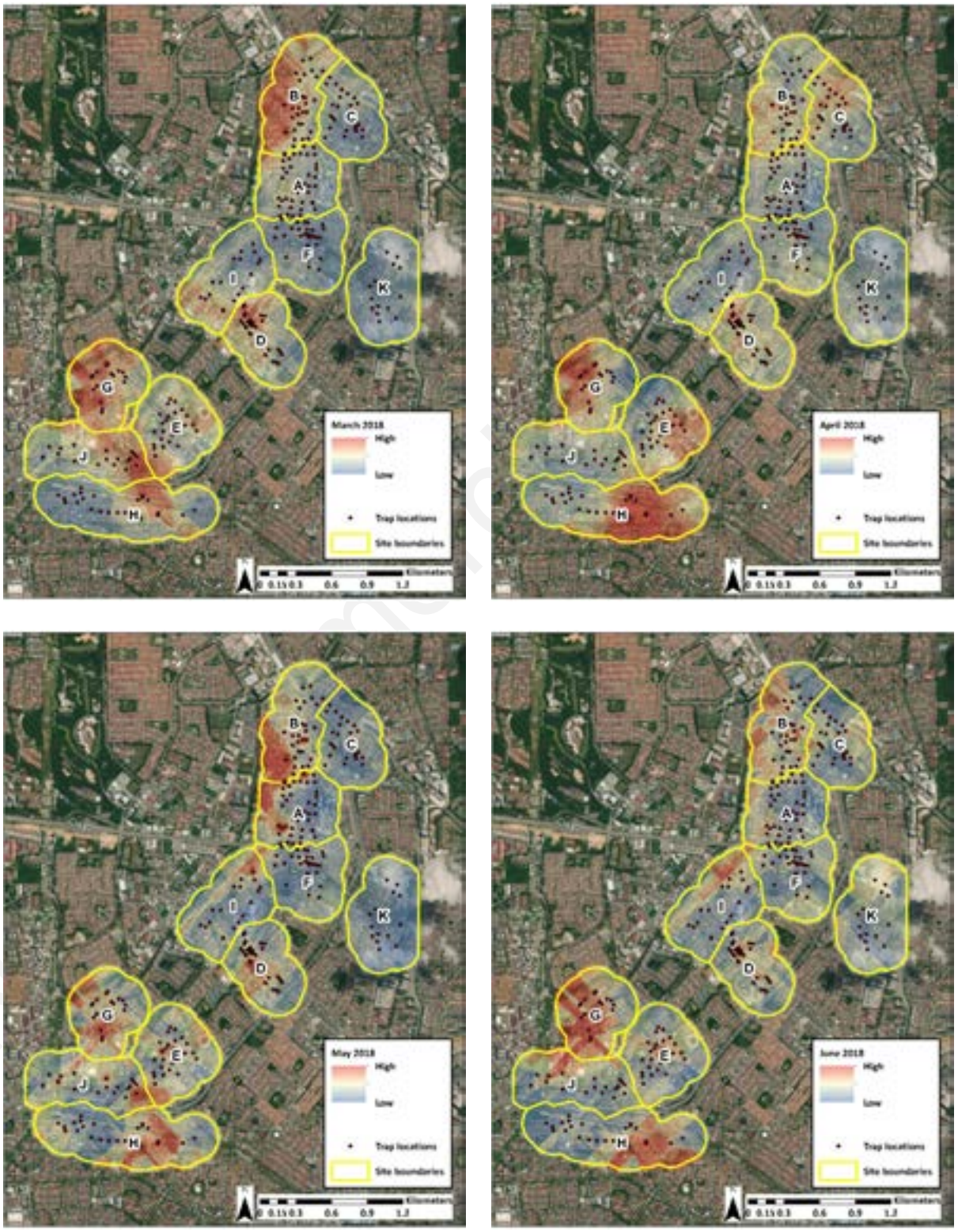
(c)

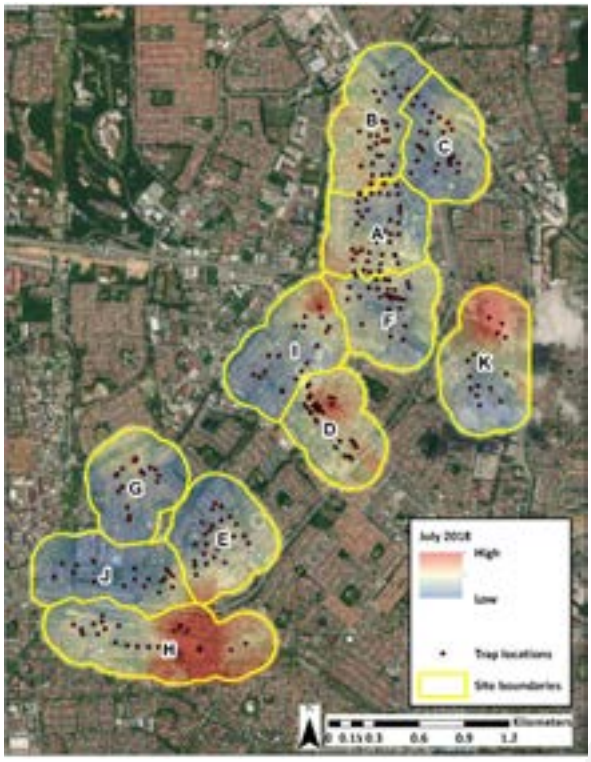


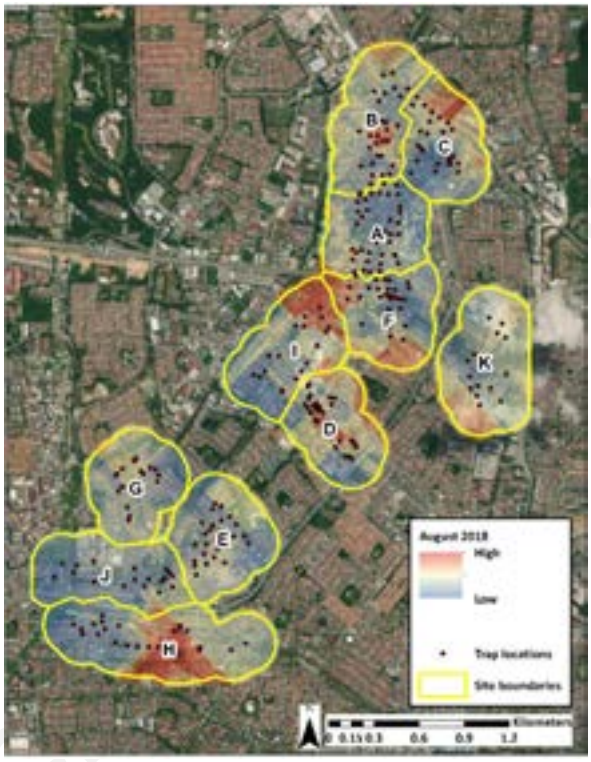
(d)

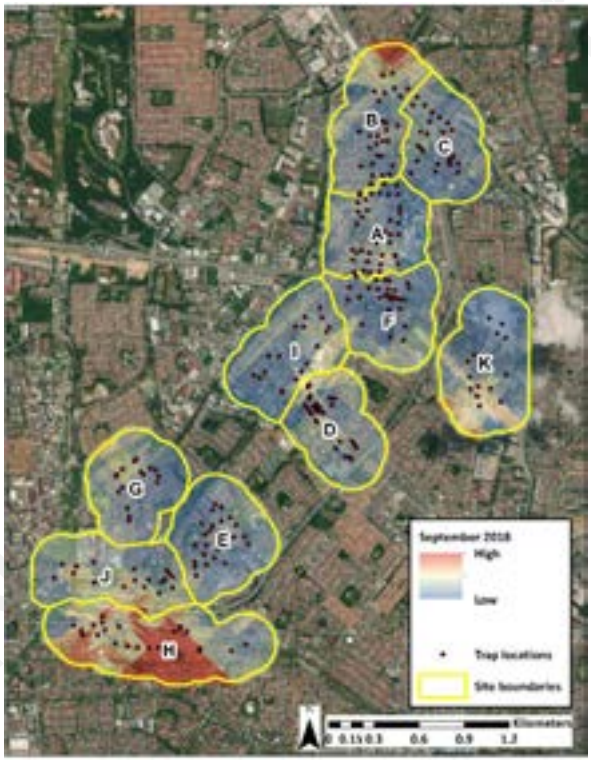
ANNEX V

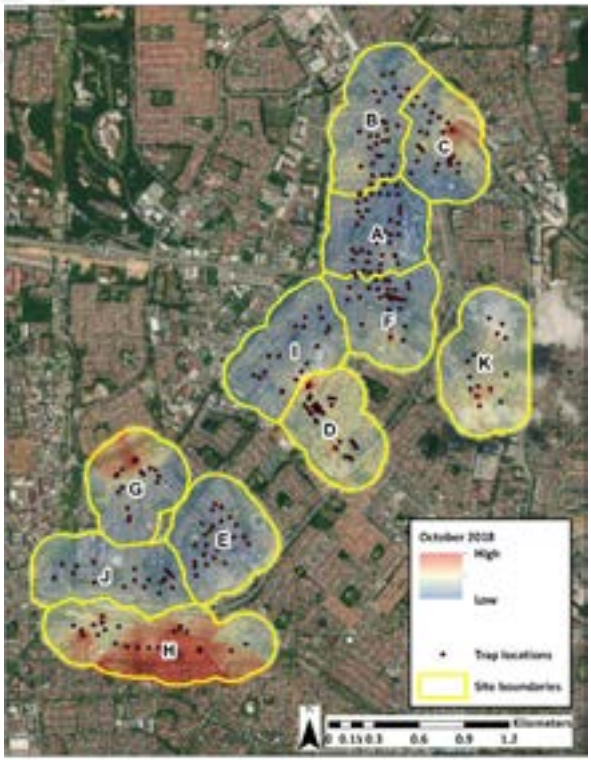
Interpolated maps demonstrating the variation between high and low *Ae. albopictus* densities in the study area in Selangor, Malaysia
The monthly variation between March 2018 and February 2019 - 12 figures

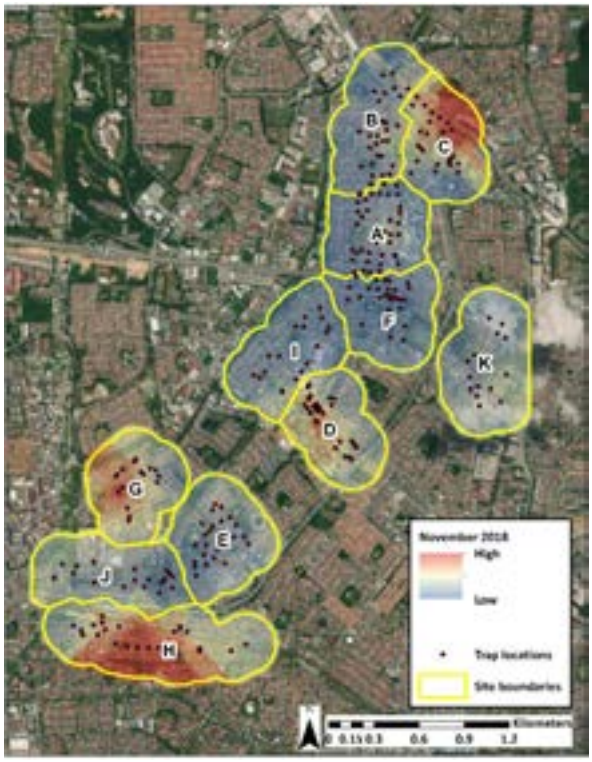


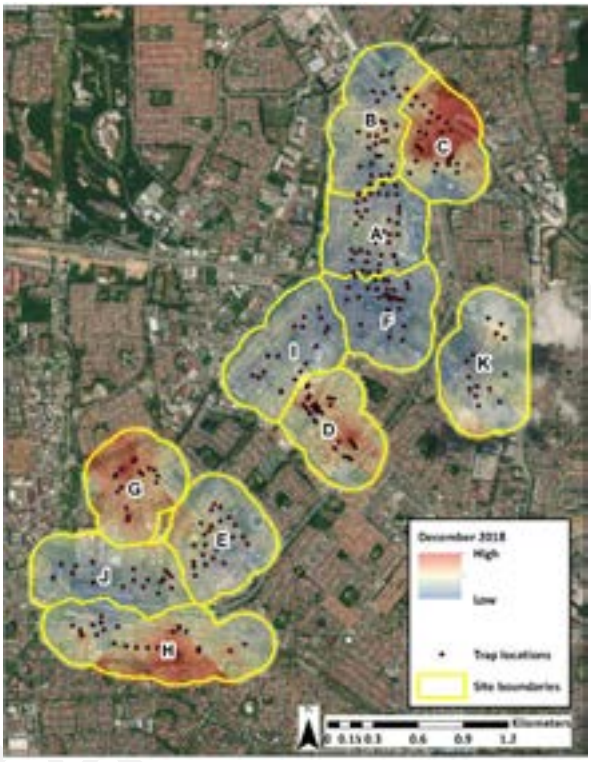

A
B
C
D
E
F
G
H
I
J
K
July 2018
High
Low
Trap locations
Site boundaries

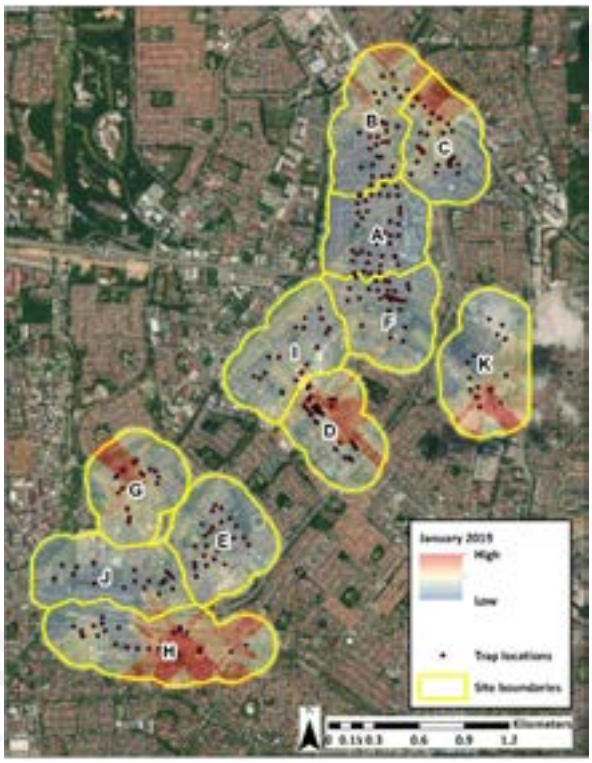

A
B
C
D
E
F
G
H
I
J
K
August 2018
High
Low
Trap locations
Site boundaries

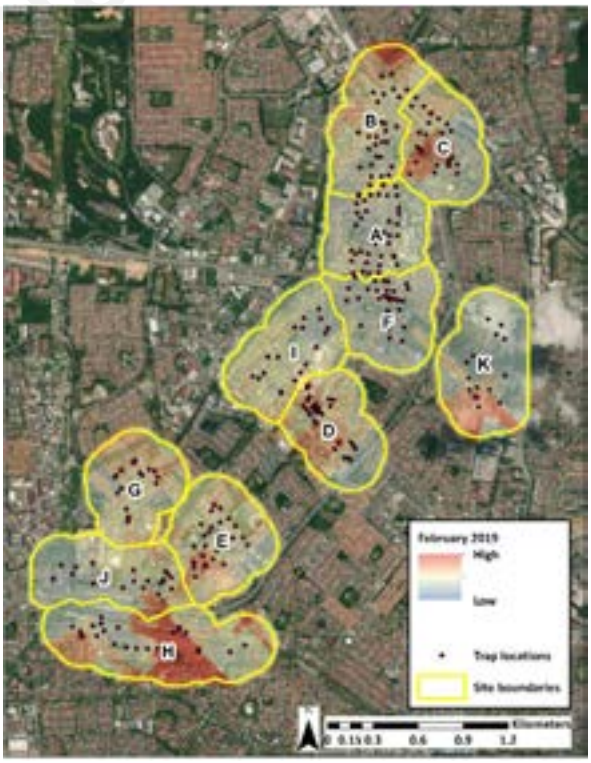

A
B
C
D
E
F
G
H
I
J
K
September 2018
High
Low
Trap locations
Site boundaries


A
B
C
D
E
F
G
H
I
J
K
October 2018
High
Low
Trap locations
Site boundaries


B
C
A
F
I
K
D
G
E
J
H
November 2018
High
Low
Trap locations
Site boundaries
0 0.15 0.3 0.6 0.9 1.2
Kilometers


B
C
A
F
I
K
D
G
E
J
H
December 2018
High
Low
Trap locations
Site boundaries
0 0.15 0.3 0.6 0.9 1.2
Kilometers


B
C
A
F
I
K
D
G
E
J
H
January 2019
High
Low
Trap locations
Site boundaries
0 0.15 0.3 0.6 0.9 1.2
Kilometers


B
C
A
F
I
K
D
G
E
J
H
February 2019
High
Low
Trap locations
Site boundaries
0 0.15 0.3 0.6 0.9 1.2
Kilometers

ANNEX VI

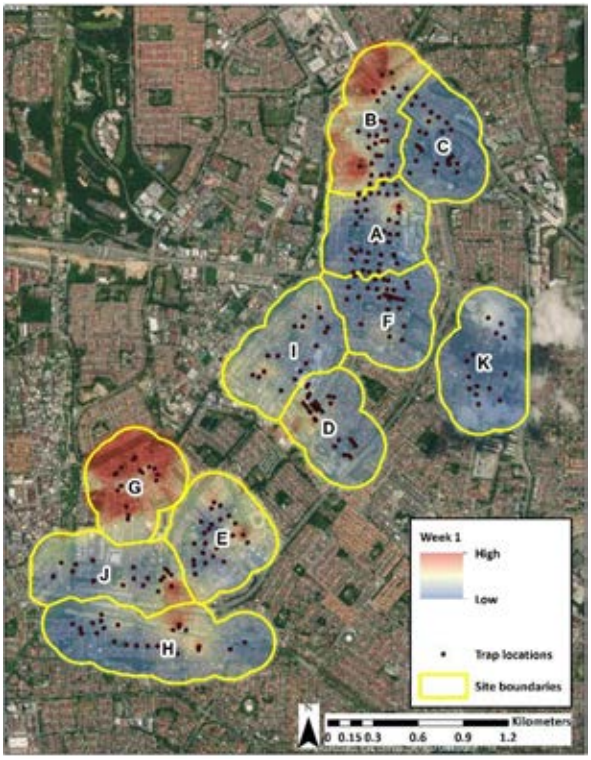
The tabulated, weekly of *Ae. albopictus* density among the eleven sites

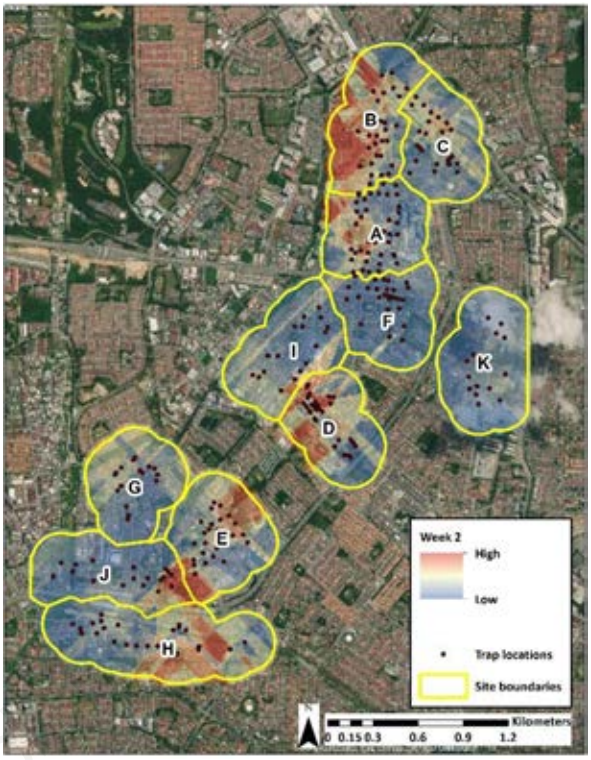
Week	High-density areas											Low-density areas										
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1	X	√	X	X	X	X	√	√	X	√	X	√	√	√	√	√	√	X	√	√	√	√
2	√	√	√	√	√	X	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
3	√	√	X	√	√	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
4	√	√	X	√	√	X	√	√	X	√	X	√	√	√	√	√	√	√	√	√	√	√
5	√	√	√	√	√	X	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√
6	√	√	√	X	√	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
7	X	√	√	X	X	√	√	√	X	√	X	√	√	√	√	√	√	√	√	√	√	√
8	√	√	X	√	√	√	√	√	X	√	X	√	√	√	√	√	√	√	√	√	√	√
9	√	√	X	√	√	√	√	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√
10	√	√	X	√	√	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
11	√	√	X	X	√	X	√	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
12	√	√	X	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
13	√	√	√	√	√	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
14	√	√	√	X	√	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
15	X	X	X	√	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√
16	X	√	X	X	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
17	√	X	X	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
18	√	√	X	√	X	√	X	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√
19	√	√	√	X	√	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√
20	√	X	√	√	√	√	√	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√
21	X	√	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
22	√	X	√	√	√	√	X	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√
23	X	√	X	√	√	√	X	X	X	√	√	√	X	X	X	X	X	X	X	X	X	X
24	X	√	√	X	X	√	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
25	√	√	√	X	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√
26	X	√	√	√	√	√	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√

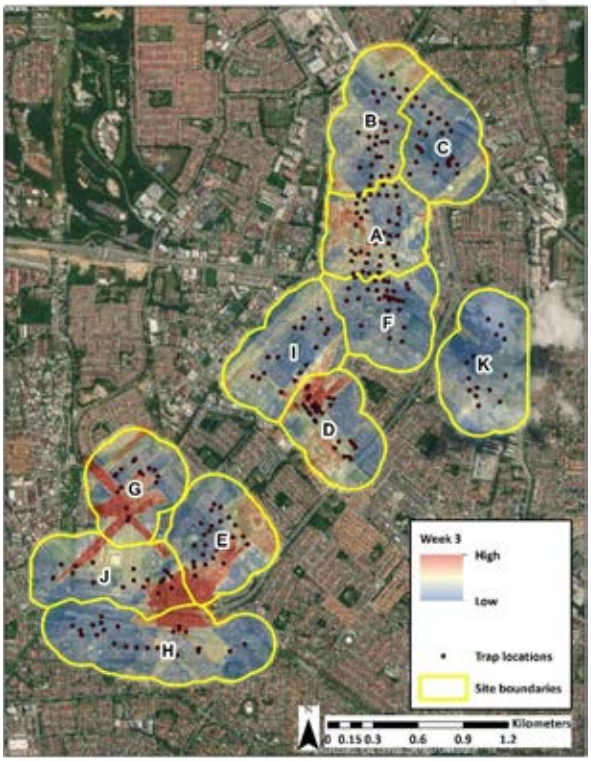
27	X	X	X	√	X	X	X	√	√	√	√	√	√	√	√	√	√	X	√	√	√	√
28	X	√	X	√	X	X	√	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
29	X	X	X	√	X	X	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√
30	√	√	√	√	√	√	√	√	X	√	√	X	X	X	X	X	X	X	X	X	X	X
31	√	√	√	√	X	√	X	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√
32	X	X	√	√	X	X	X	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√
33	X	X	√	√	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
34	X	X	√	√	√	X	√	√	X	√	√	X	X	X	X	X	X	X	X	X	X	X
35	X	X	X	√	X	X	√	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
36	X	X	√	X	X	X	√	√	X	√	X	√	√	√	√	√	√	√	√	√	√	√
37	X	X	√	√	X	X	√	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
38	X	X	√	X	X	X	√	√	X	X	X	√	√	√	√	√	√		√	√	√	√
39	X	√	√	√	√	X	X	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√
40	X	X	√	√	X	X	√	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
41	X	X	X	X	√	X	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√
42	X	√	√	√	X	X	X	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√
43	X	√	√	√	√	X	√	√	√	√	√	X	X	X	X	X	X	X	X	X	X	X
44	X	√	√	√	X	X	X	√	√	√	√	X	X	X	X	X	X	X	X	X	X	X
45	X	√	√	√	X	X	X	√	X	X	√	√	√	√	√	√	√	√	√	√	√	√
46	X	√	√	√	X	√	√	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
47	X	X	X	√	X	X	√	√	√	X	X	√	√	√	√	√	√	√	√	√	√	√
48	X	X	√	√	X	√	√	√	√	√	√	X	X	X	X	X	X	X	X	X	X	X
49	X	√	√	√	X	X	X	√	X	X	X	√	√	√	√	√	√	√	√	√	√	√
50	X	X	X	X	√	X	√	√	X	√	X	X	X	X	X	X	X	X	X	X	X	X
51	X	X	√	√	√	X	X	√	X	√	√	√	√	√	√	√	√	√	√	√	√	√
52	X	√	X	√	√	X	√	X	√	X	X	√	√	√	√	X	√	√	√	√	√	√

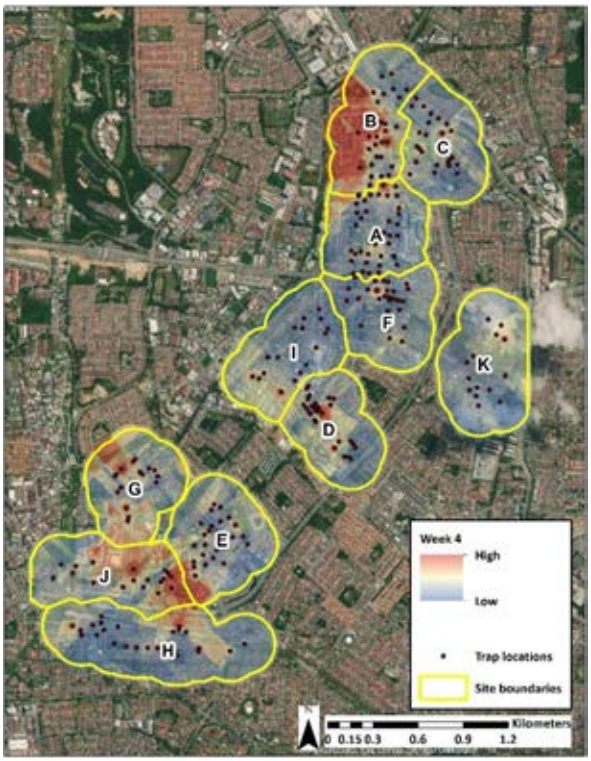
√ = Yes and X = No with respect to vector density.

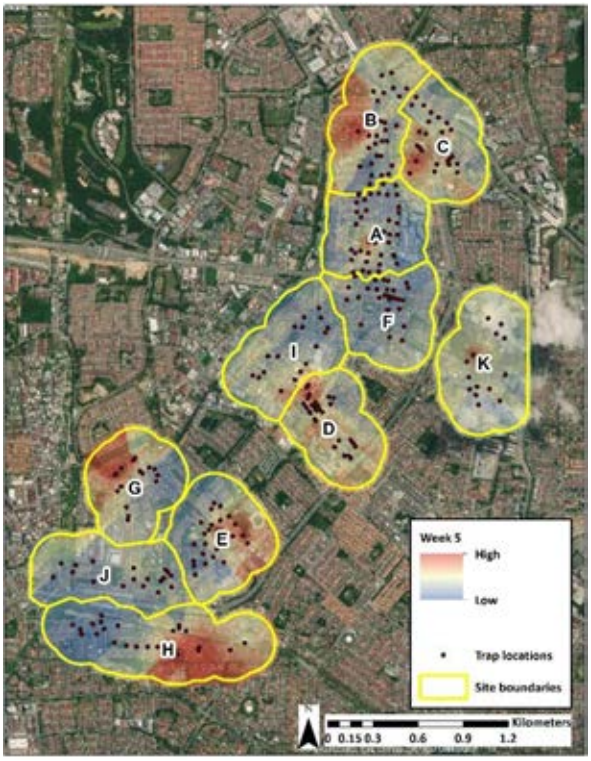
Interpolated maps demonstrating the variation between high and low *Ae. albopictus* densities in the study area in Selangor, Malaysia
The weekly variation between March 2018 and February 2019 - 52 figures







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Week 5
High
Low
Trap locations
Site boundaries
Kilometers
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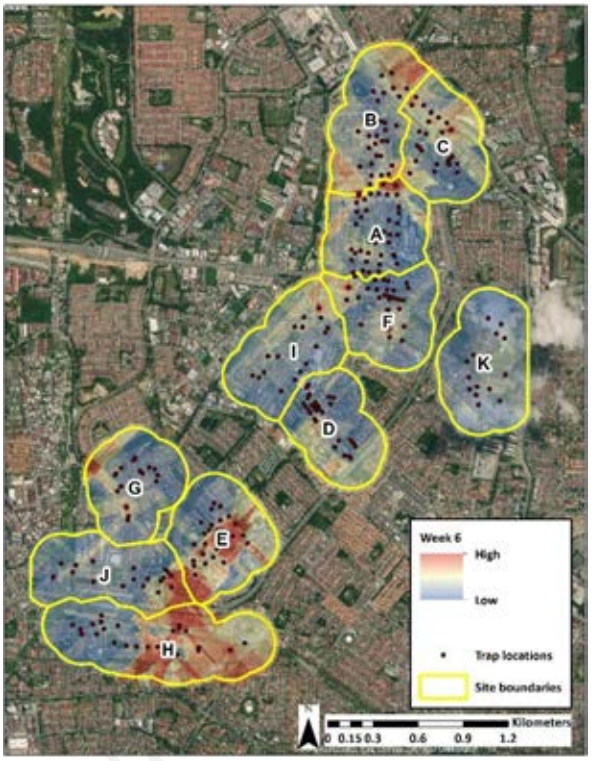
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Week 6
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Trap locations
Site boundaries
Kilometers
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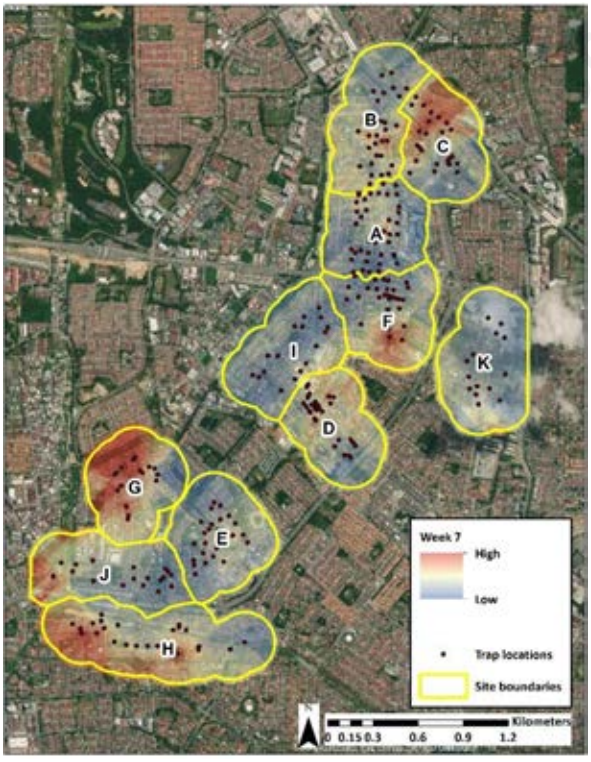
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Week 7
High
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Trap locations
Site boundaries
Kilometers
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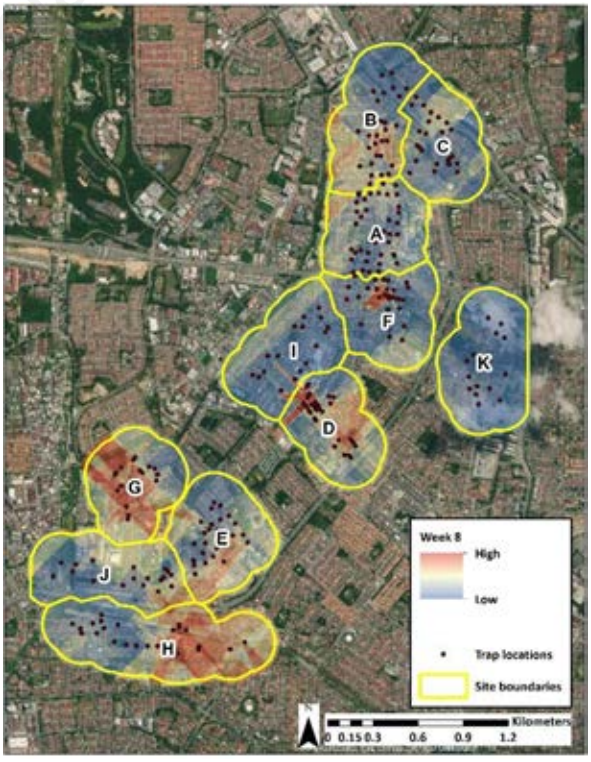
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Week 8
High
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Trap locations
Site boundaries
Kilometers
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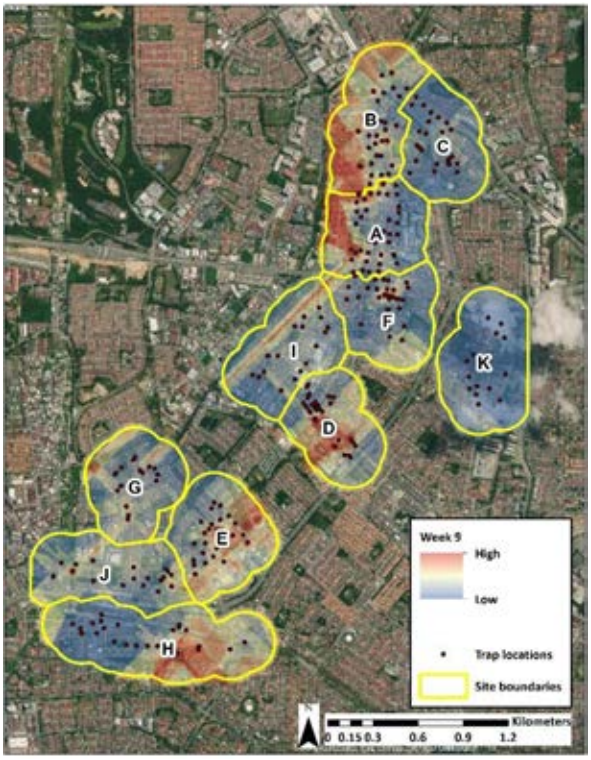
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Week 9
High
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Trap locations
Site boundaries
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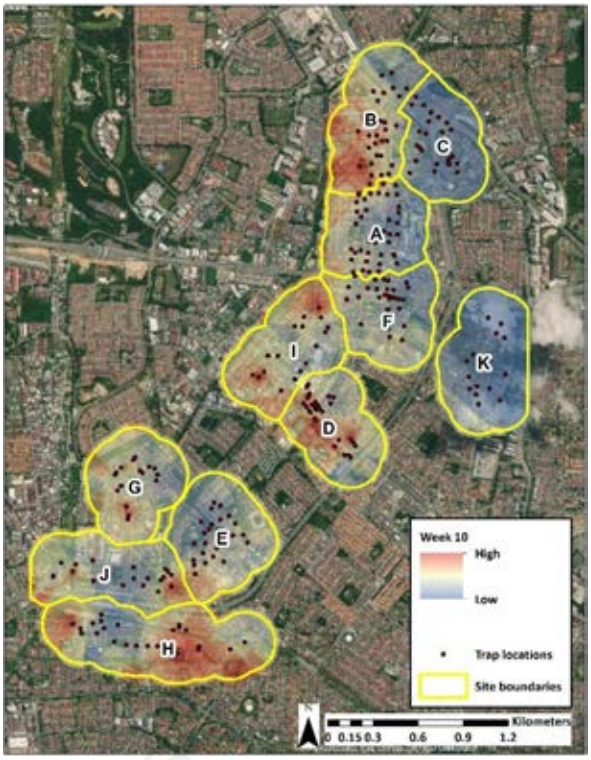
Kilometers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Week 10
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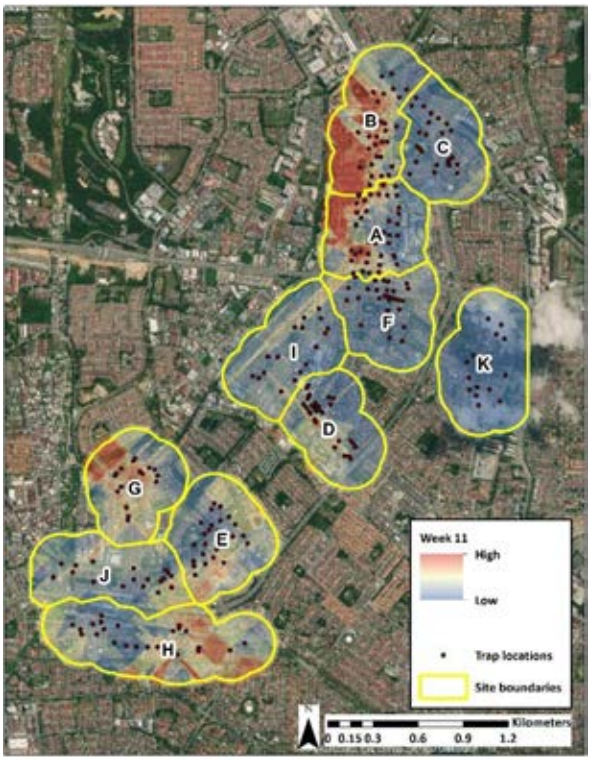
Kilometers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Trap locations
Site boundaries
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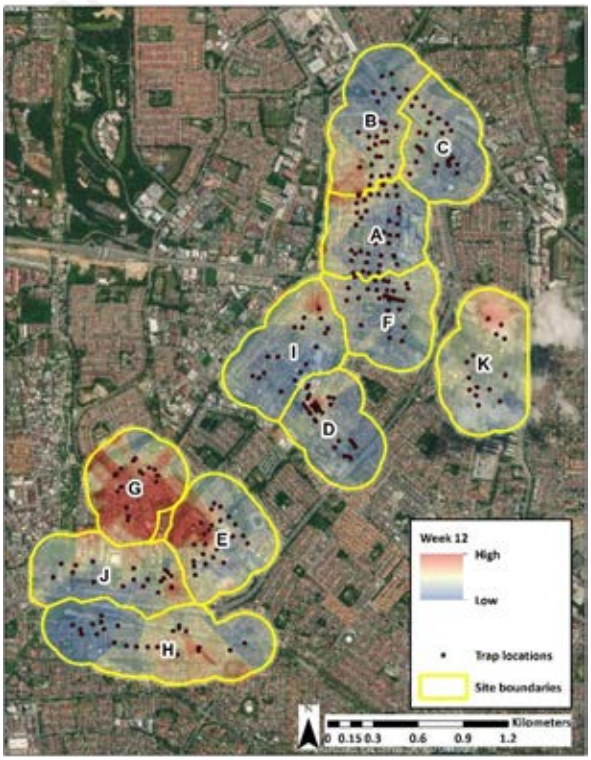
Kilometers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Week 12
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Trap locations
Site boundaries
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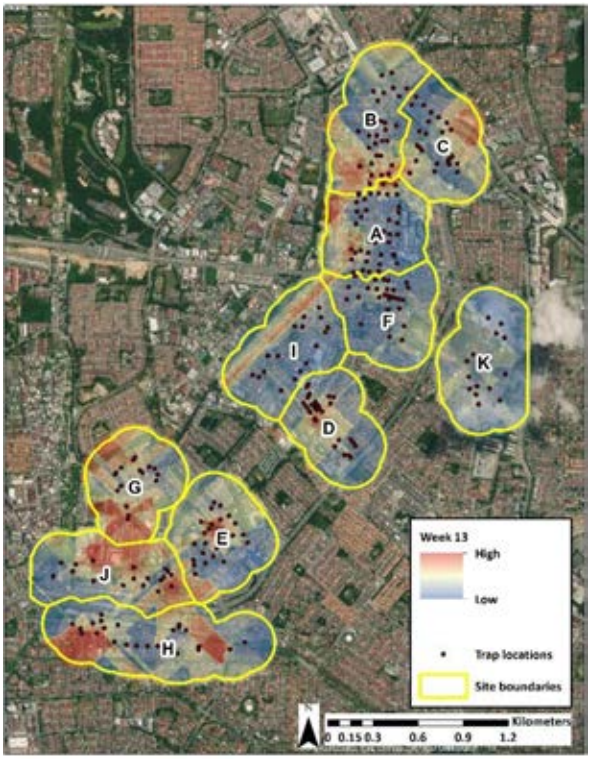
Kilometers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Week 13
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Trap locations
Site boundaries
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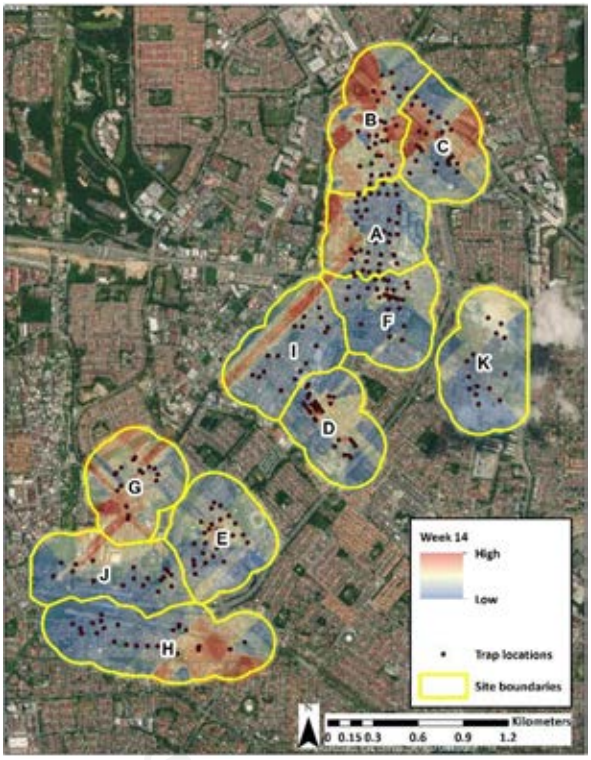
Kilometers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Week 14
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Trap locations
Site boundaries
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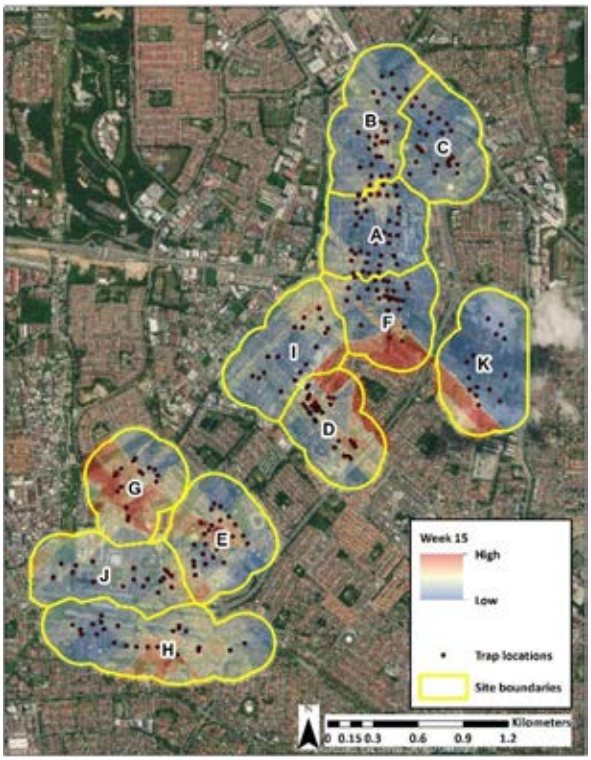
Kilometers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Week 15
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Trap locations
Site boundaries
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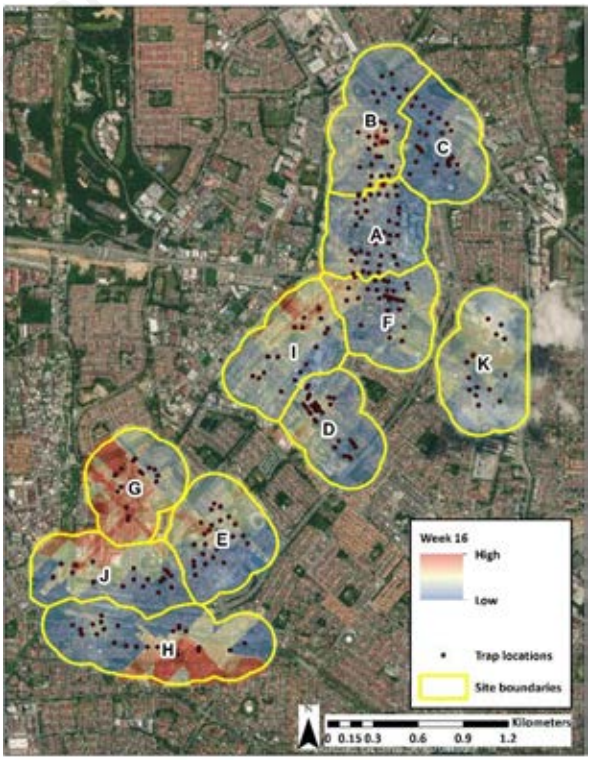
Kilometers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Week 16
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Trap locations
Site boundaries
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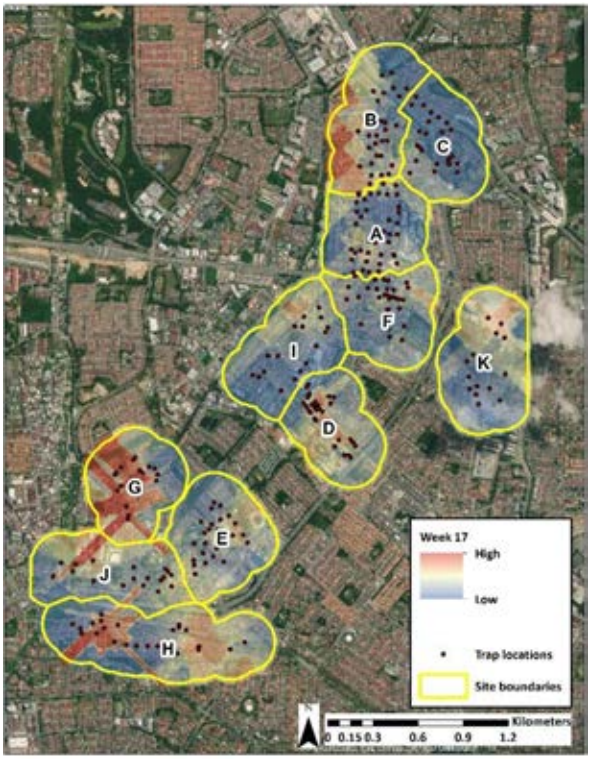
Kilometers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Week 17
High
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Trap locations
Site boundaries
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Kilometers
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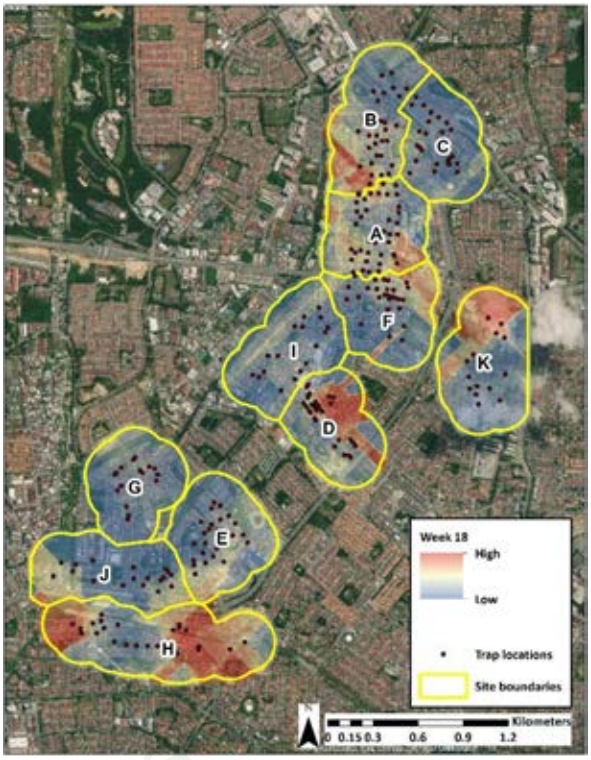
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Week 18
High
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Trap locations
Site boundaries
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Kilometers
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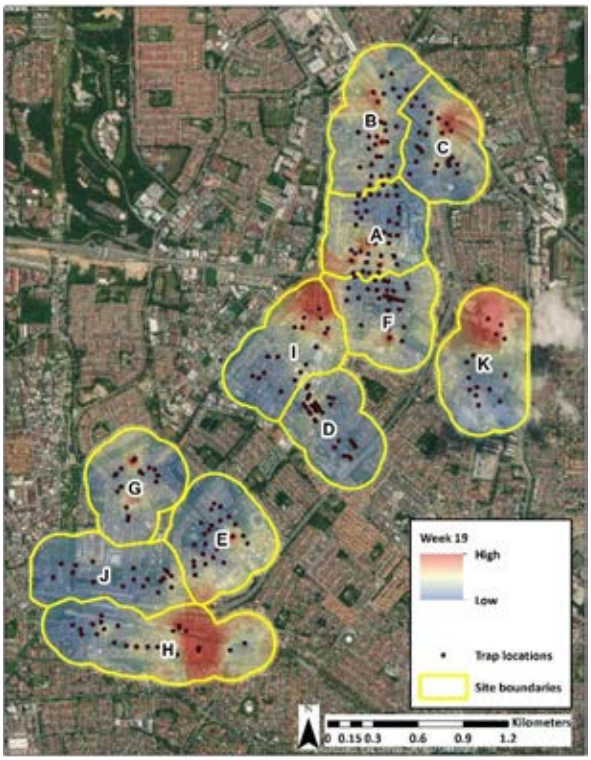
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Week 19
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Trap locations
Site boundaries
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Kilometers
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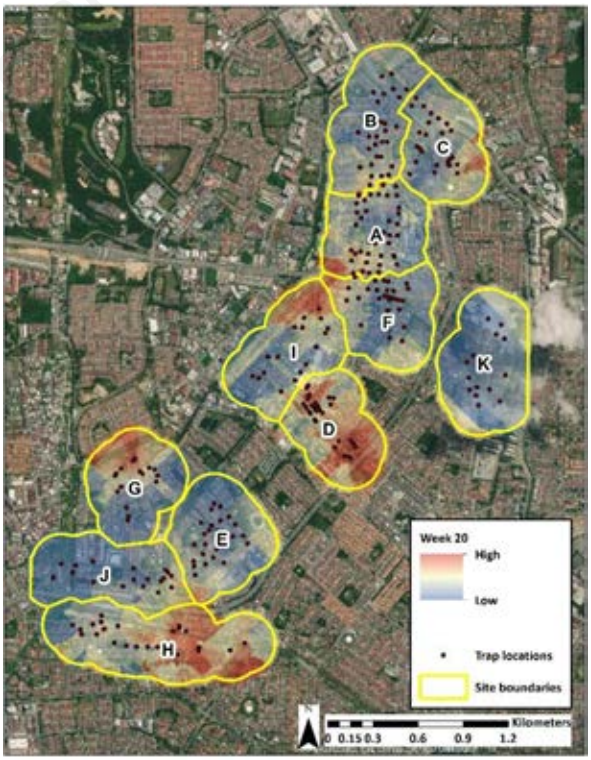
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Week 20
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Site boundaries
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Kilometers
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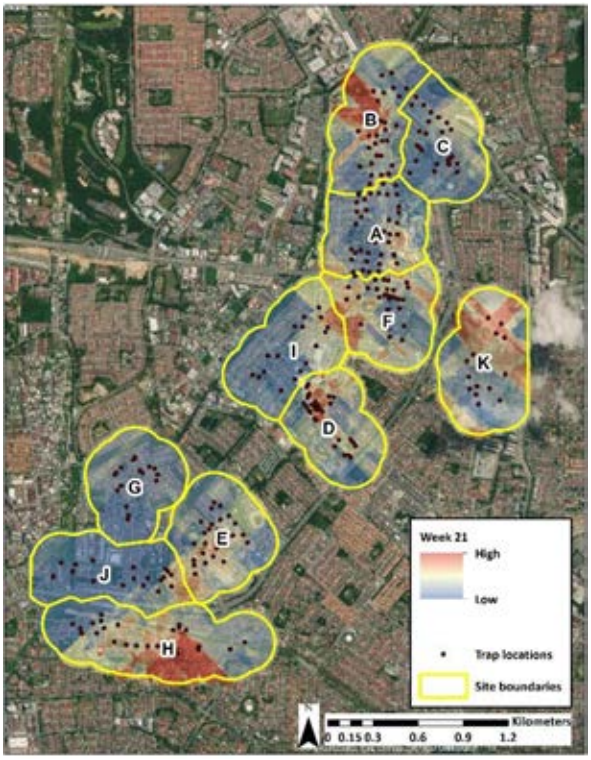
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Trap locations
Site boundaries
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Kilometers
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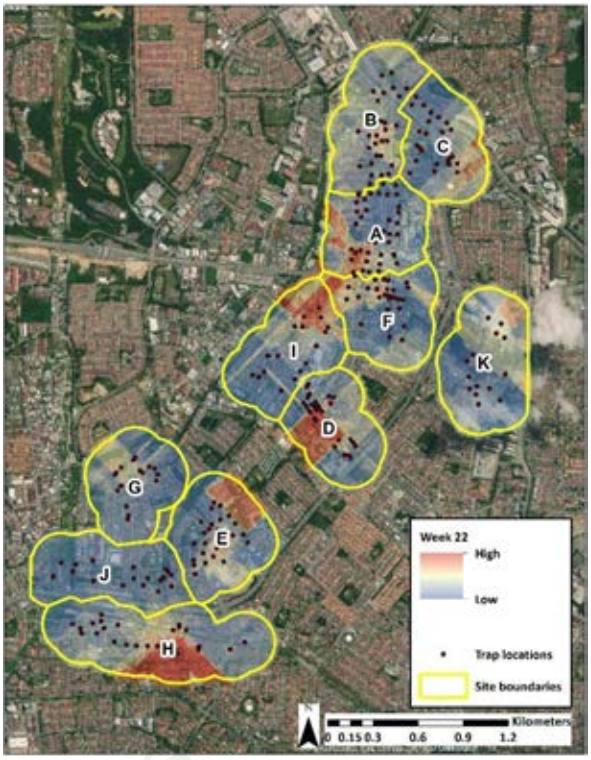
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Week 22
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Trap locations
Site boundaries
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Kilometers
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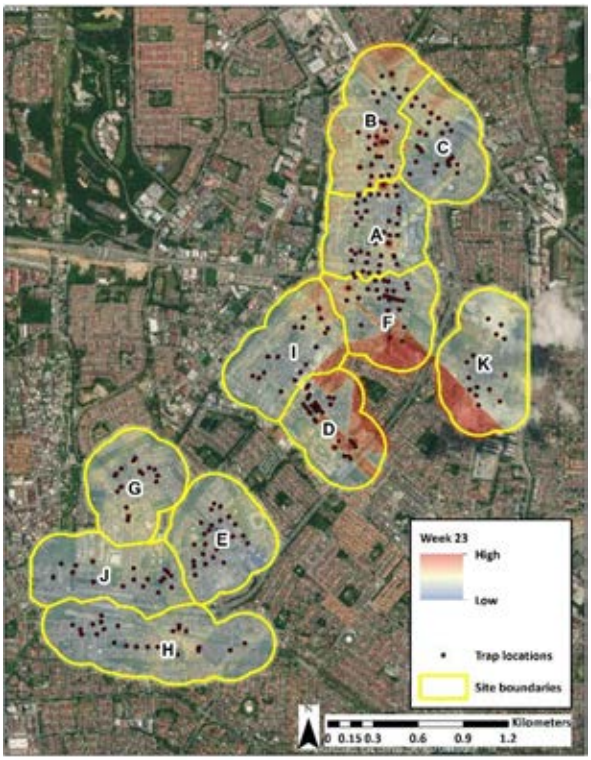
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Week 23
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Trap locations
Site boundaries
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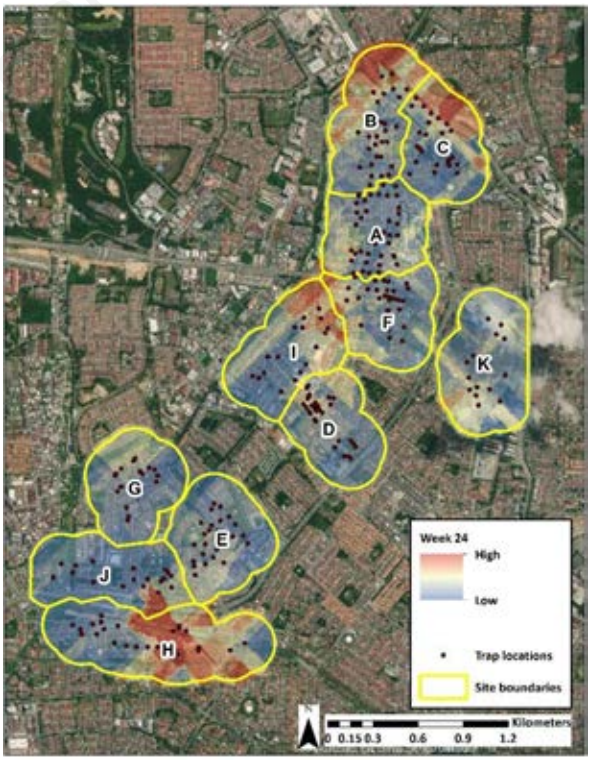
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Week 24
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Trap locations
Site boundaries
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Kilometers
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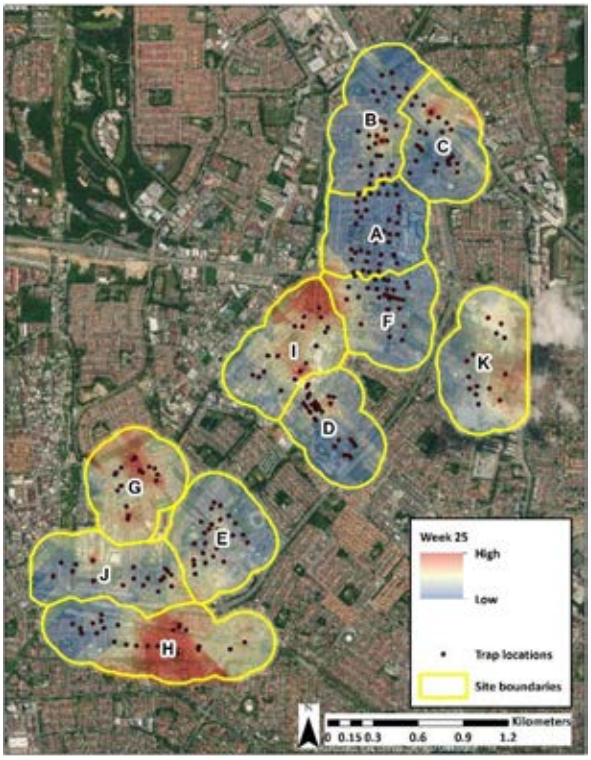
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Week 25
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Trap locations
Site boundaries
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Kilometers
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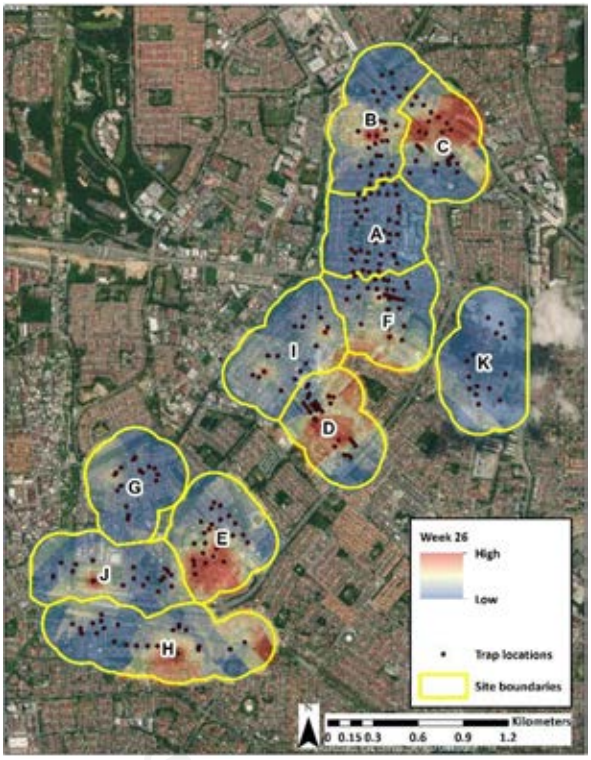
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Week 26
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Trap locations
Site boundaries
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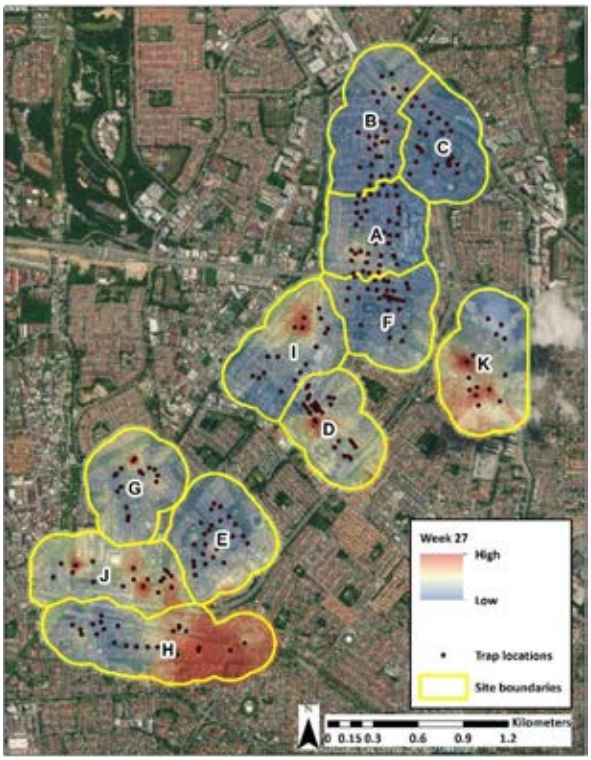
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Site boundaries
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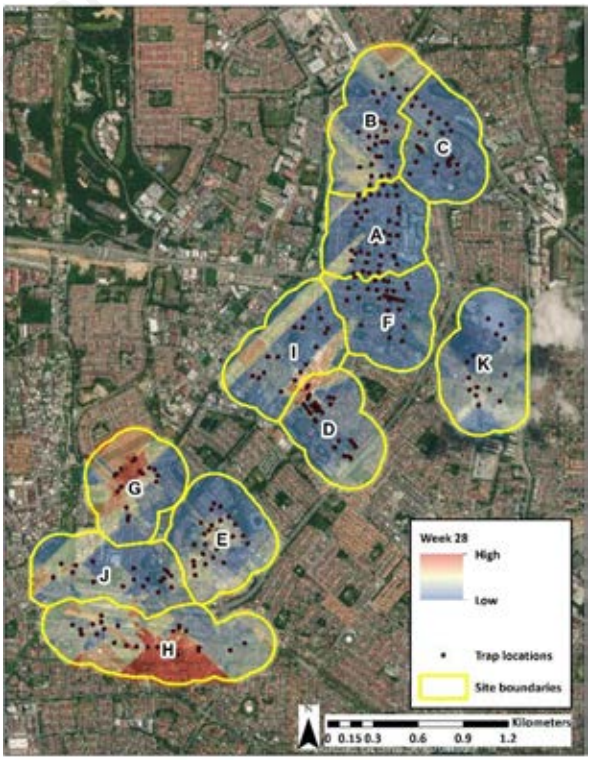
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Trap locations
Site boundaries
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Kilometers
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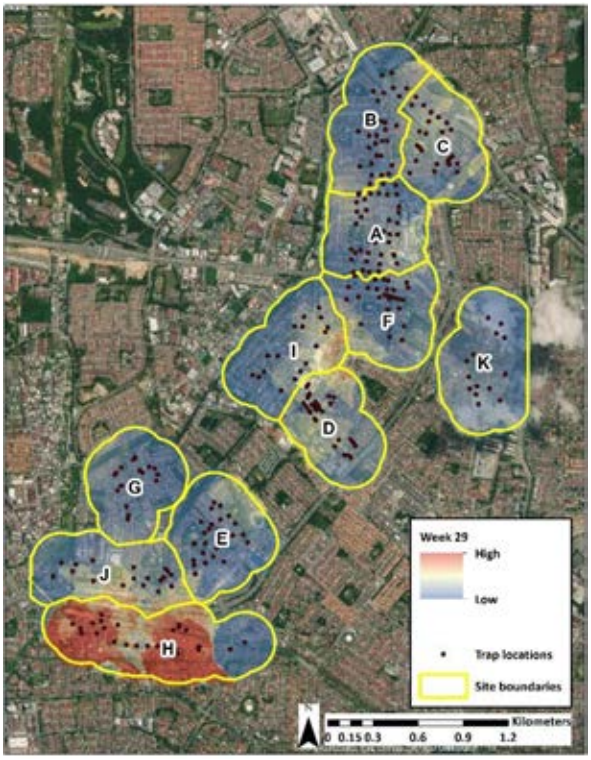
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Trap locations
Site boundaries
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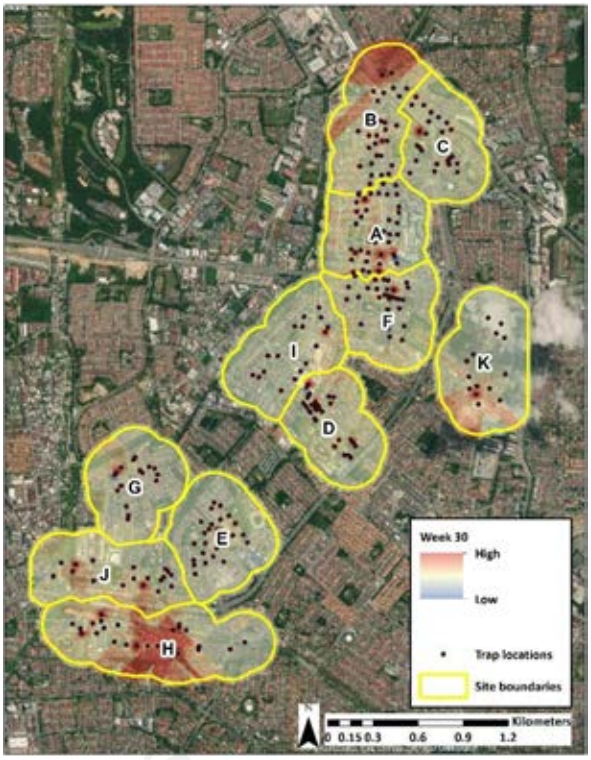
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Week 30
High
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Trap locations
Site boundaries
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Kilometers
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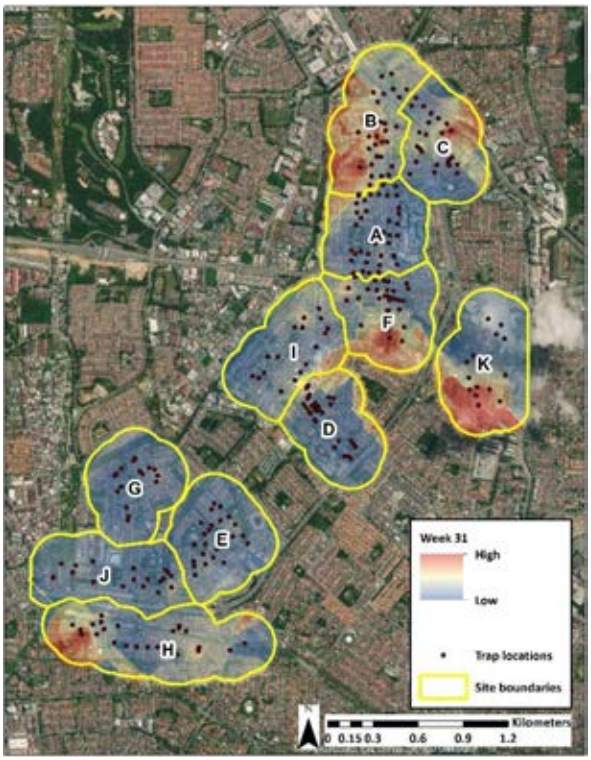
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Week 31
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Trap locations
Site boundaries
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Kilometers
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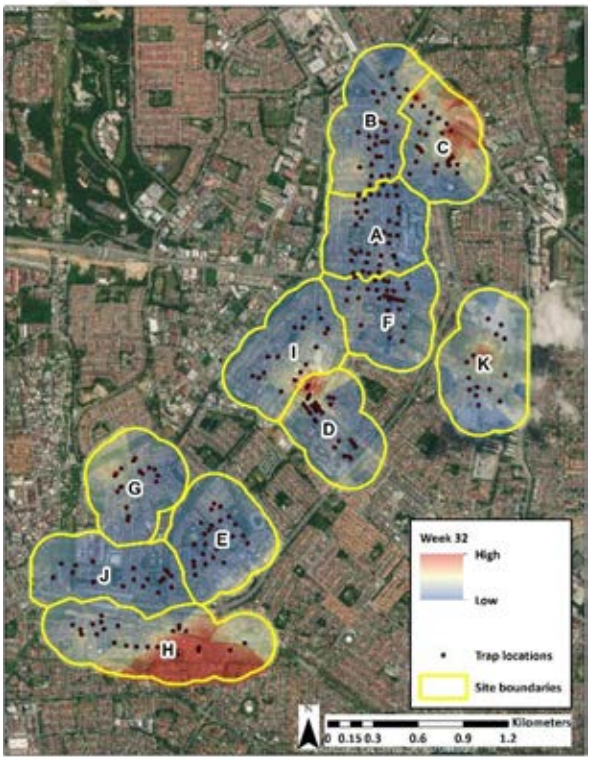
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Week 32
High
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Trap locations
Site boundaries
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Kilometers
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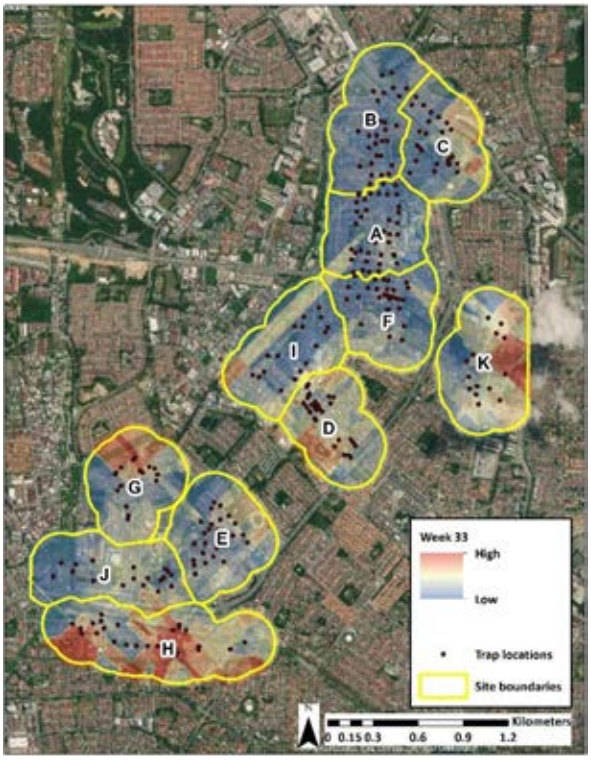
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Week 33
High
Low
Trap locations
Site boundaries
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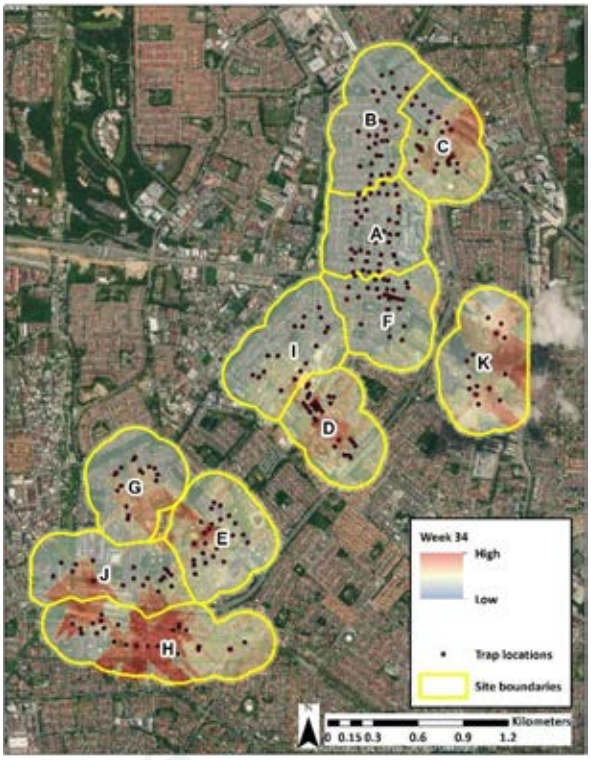
Kilometers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Week 34
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Trap locations
Site boundaries
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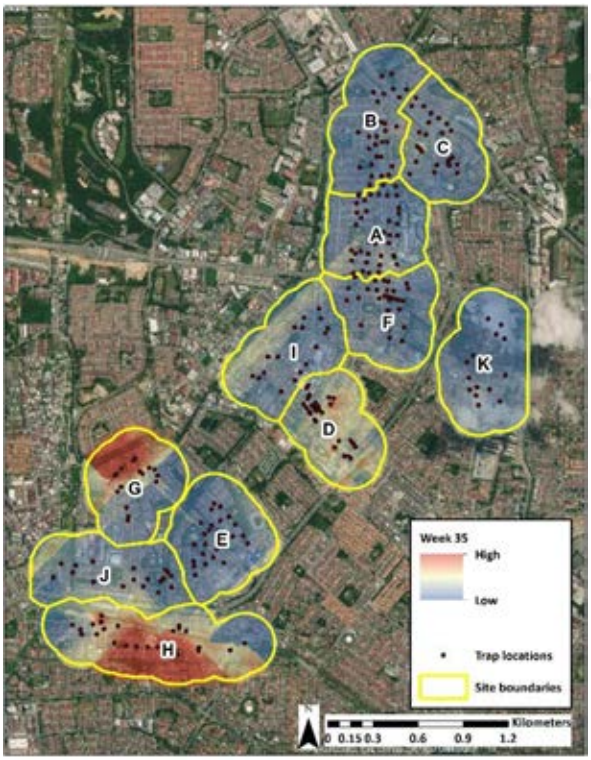
Kilometers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Week 35
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Trap locations
Site boundaries
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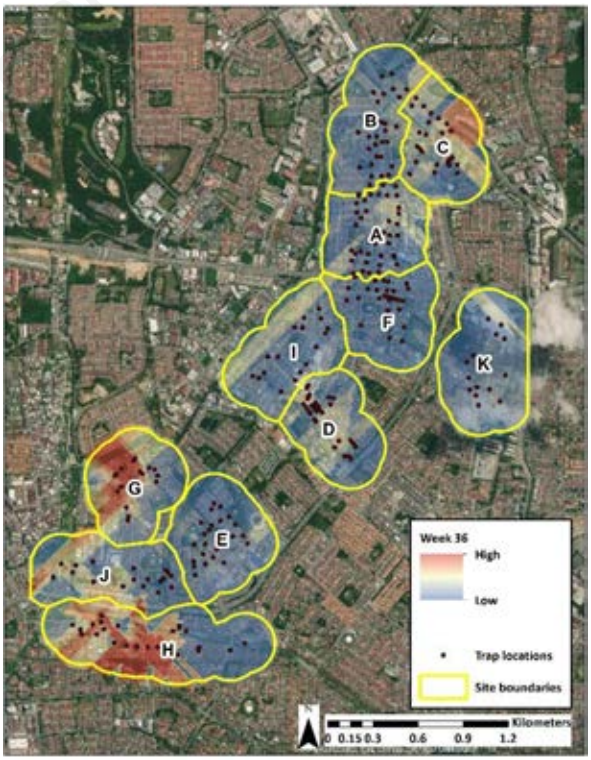
Kilometers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Week 36
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Trap locations
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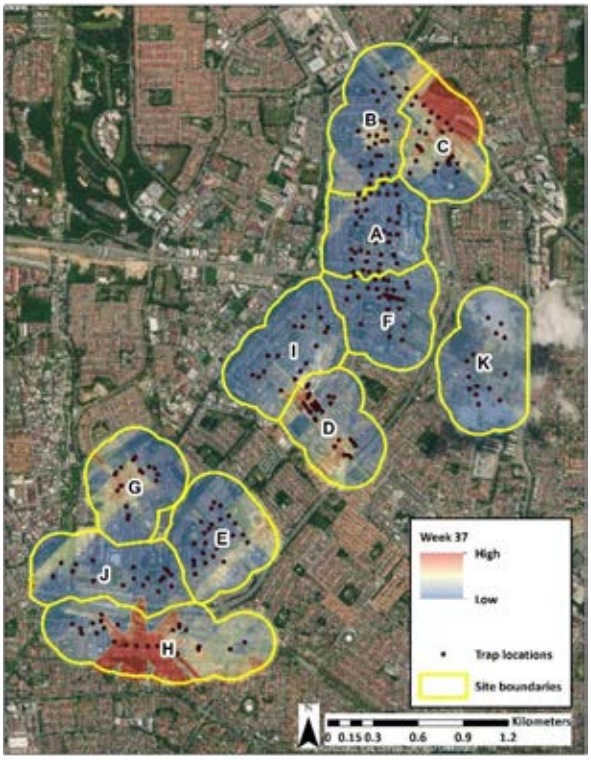
Kilometers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Week 37
High
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Trap locations
Site boundaries
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Kilometers
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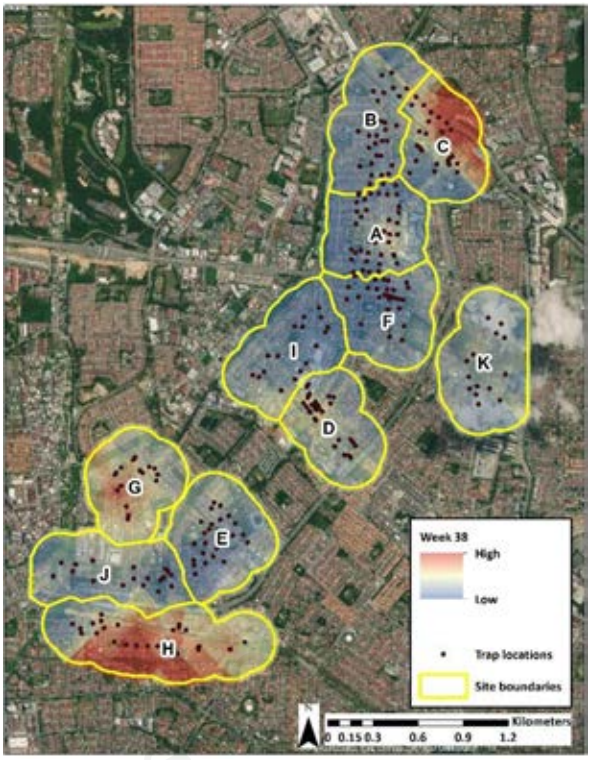
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Week 38
High
Low
Trap locations
Site boundaries
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Kilometers
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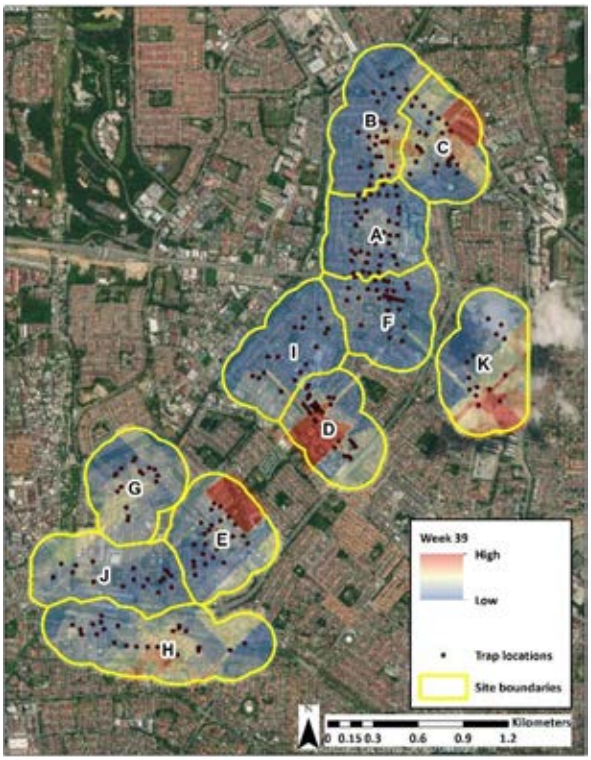
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Week 39
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Low
Trap locations
Site boundaries
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Kilometers
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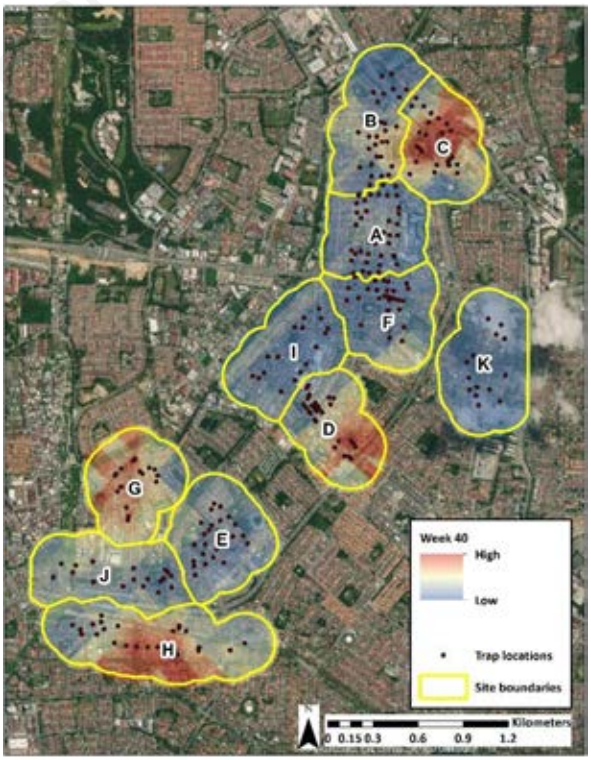
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Week 40
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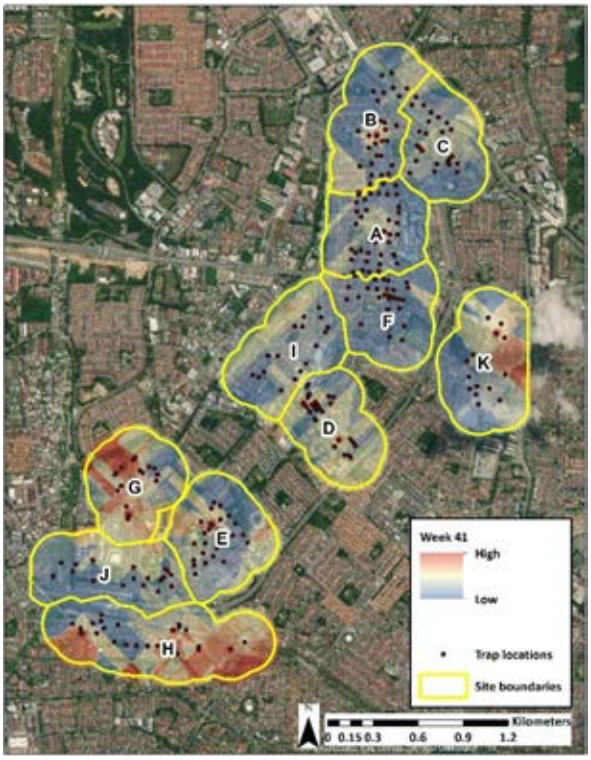
Low
Trap locations
Site boundaries
N
Kilometers
0 0.15 0.3 0.6 0.9 1.2


A
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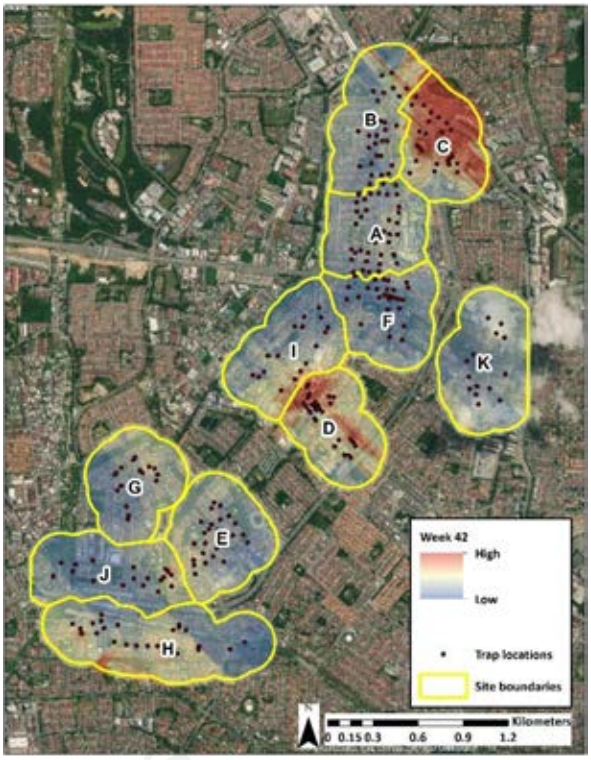
K
Week 41
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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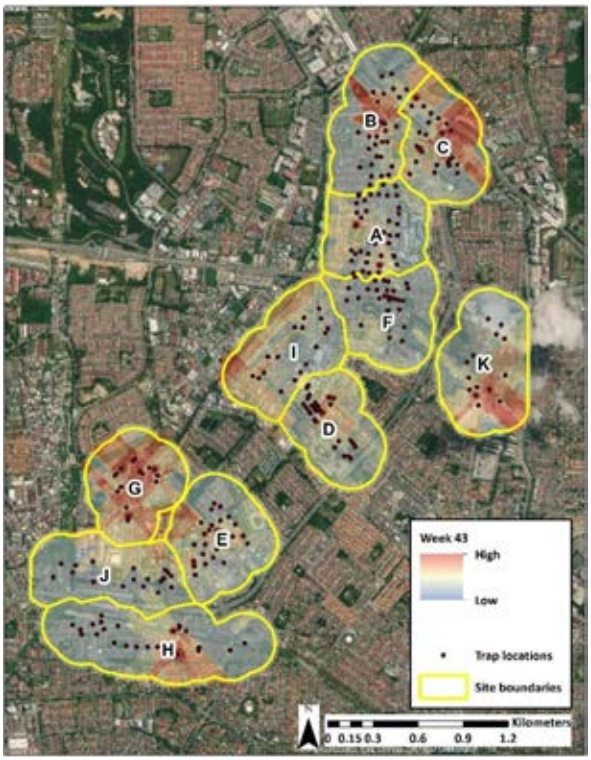
Week 42
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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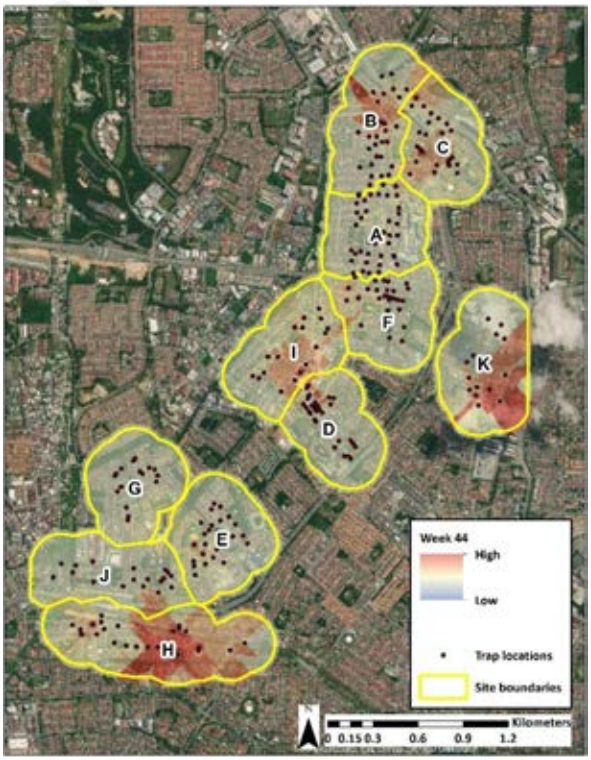
K
Week 43
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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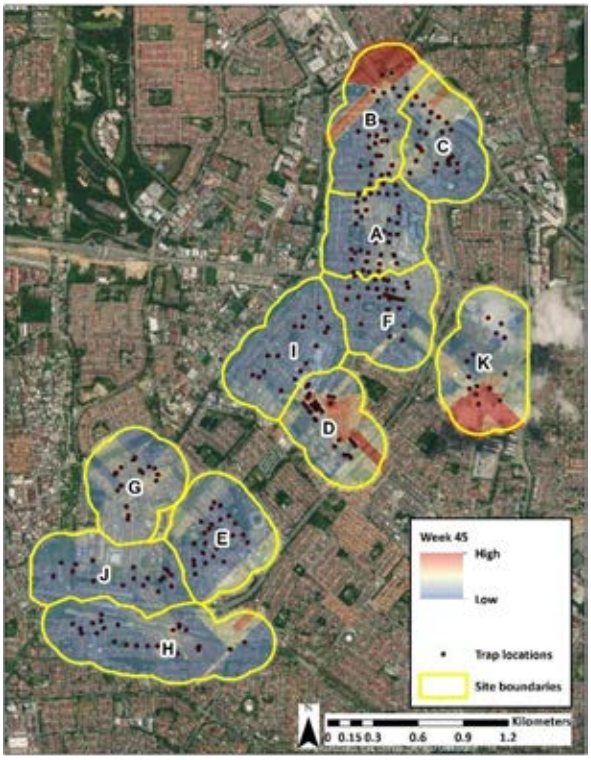
Week 44
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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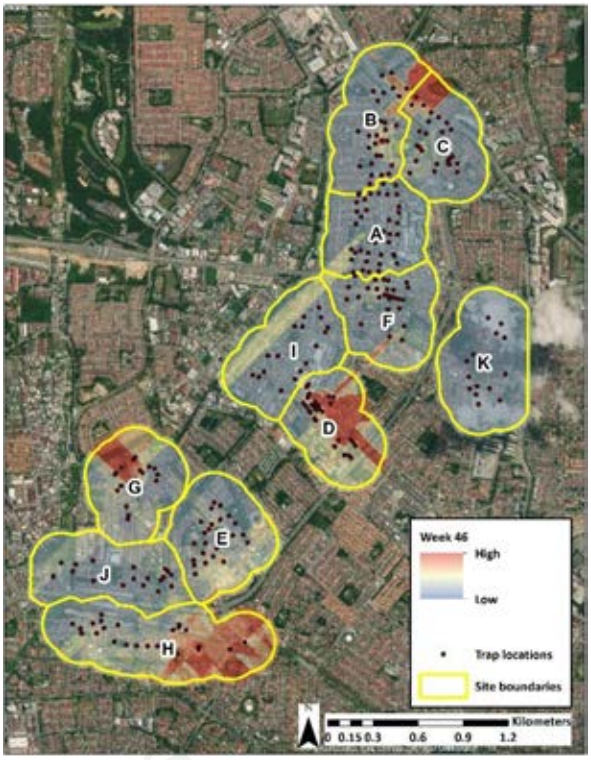
K
Week 45
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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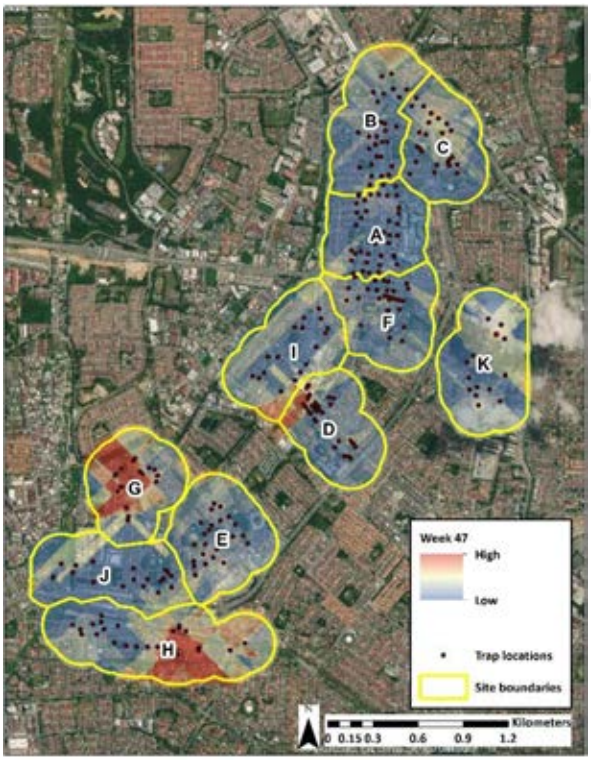
K
Week 46
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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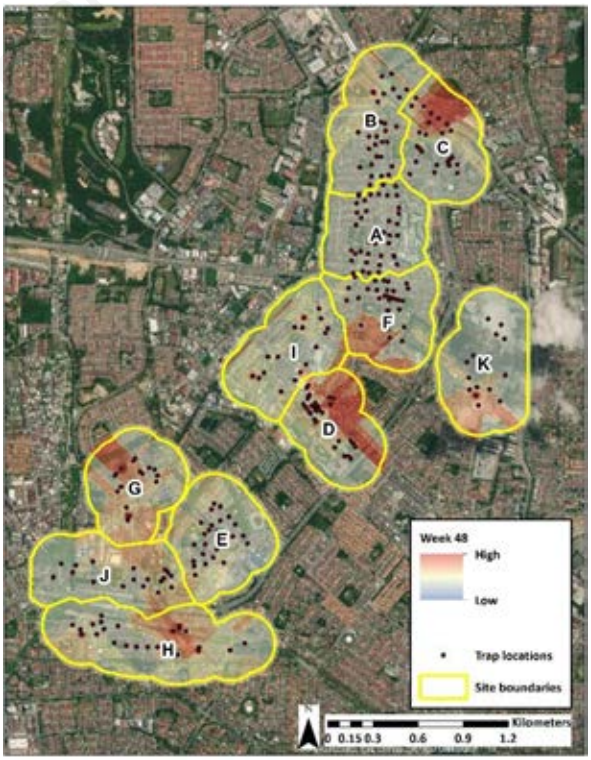
K
Week 47
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers


A
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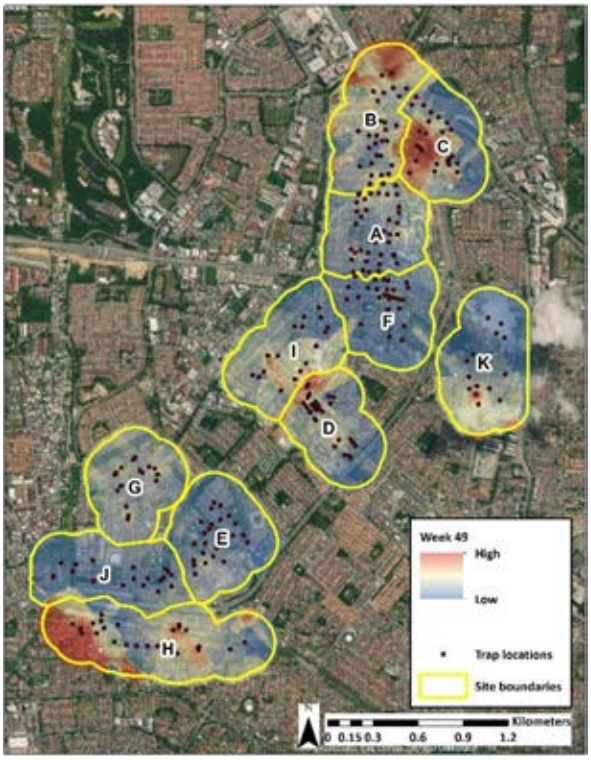
K
Week 48
High
Low
Trap locations
Site boundaries
N
0 0.15 0.3 0.6 0.9 1.2
Kilometers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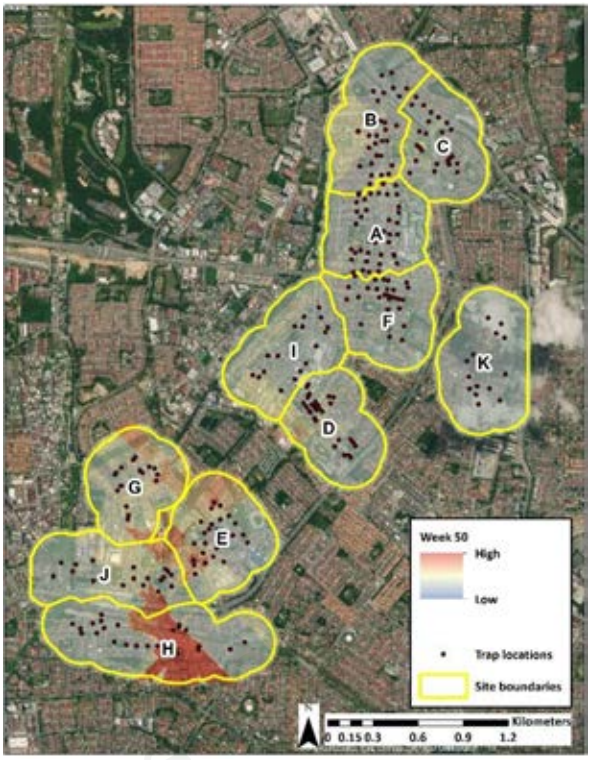
Week 49
High
Low
Trap locations
Site boundaries
N
Kilometers
0 0.15 0.3 0.6 0.9 1.2


B
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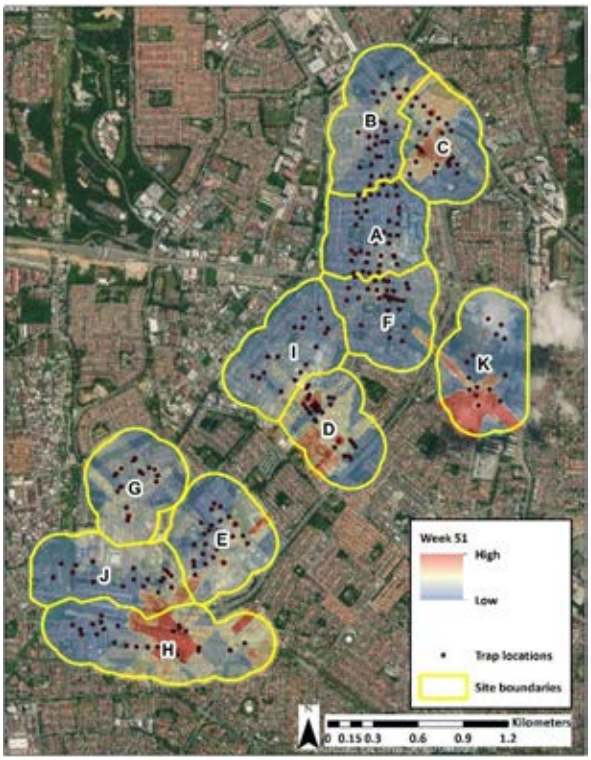
Week 50
High
Low
Trap locations
Site boundaries
N
Kilometers
0 0.15 0.3 0.6 0.9 1.2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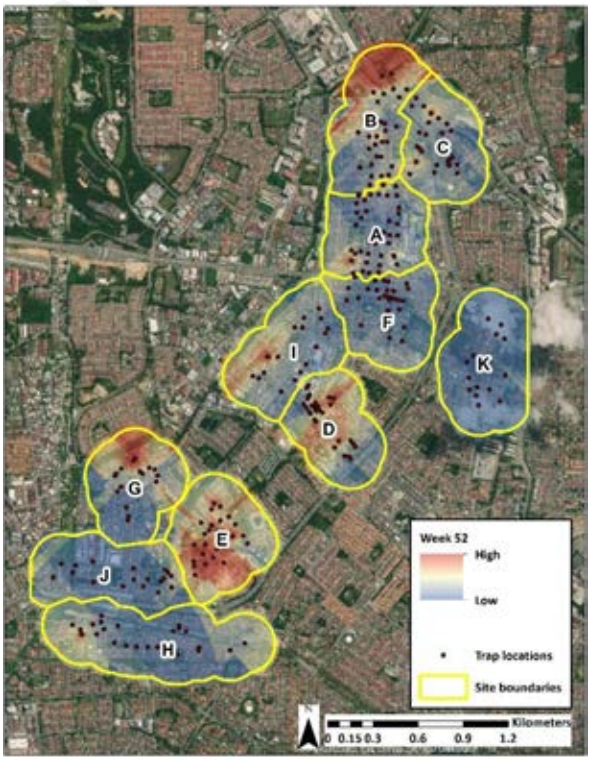
Week 51
High
Low
Trap locations
Site boundaries
N
Kilometers
0 0.15 0.3 0.6 0.9 1.2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Week 52
High
Low
Trap locations
Site boundaries
N
Kilometers
0 0.15 0.3 0.6 0.9 1.2