



# Weekly Report on **JU-DNCC Mosquitoes Surveillance Program**

Week 084 (December 26 - 30, 2025)

## **Submitted To**

Chief Health officer  
Dhaka North City Corporation  
Dhaka, Bangladesh

## **Submitted By**

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## Weekly Report on Mosquitoes Surveillance Program at DNCC

### Methods:

In the DNCC (Dhaka North City Corporation) area, mosquito surveillance is conducted across 5 zones. Adult mosquito surveillance involves setting up three types of traps in each zone to capture adult mosquitoes. Simultaneously, larval surveillance entails surveying an area within a 0.5-kilometer radius around traps location to inspect and collect mosquitoes' larvae from potential breeding sites.

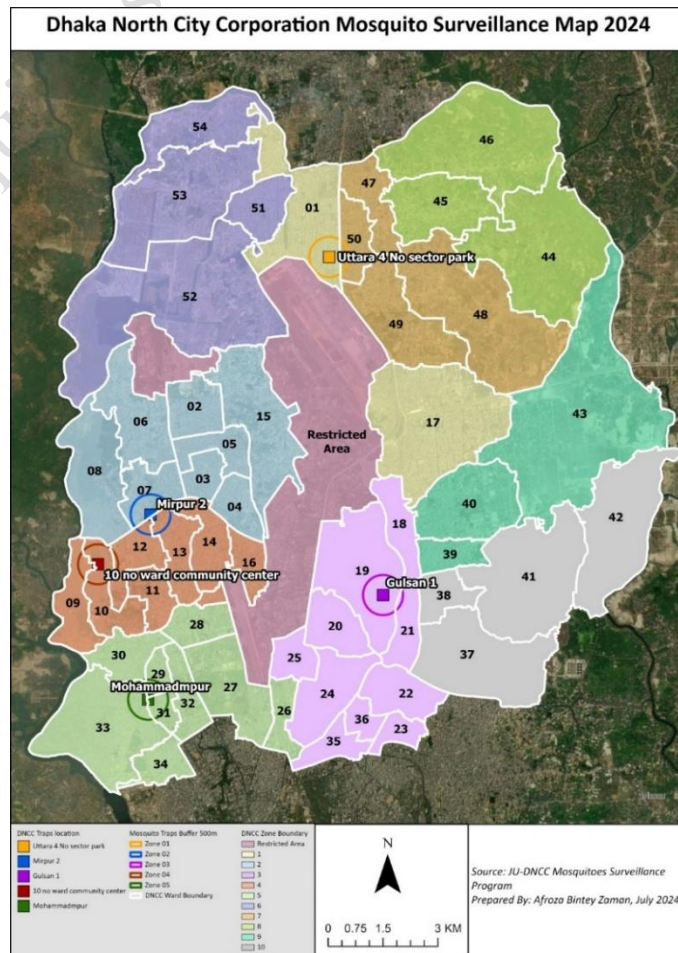
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

For the Adult mosquito collection

1. Light trap
2. Gravid trap

For the mosquito larvae collection

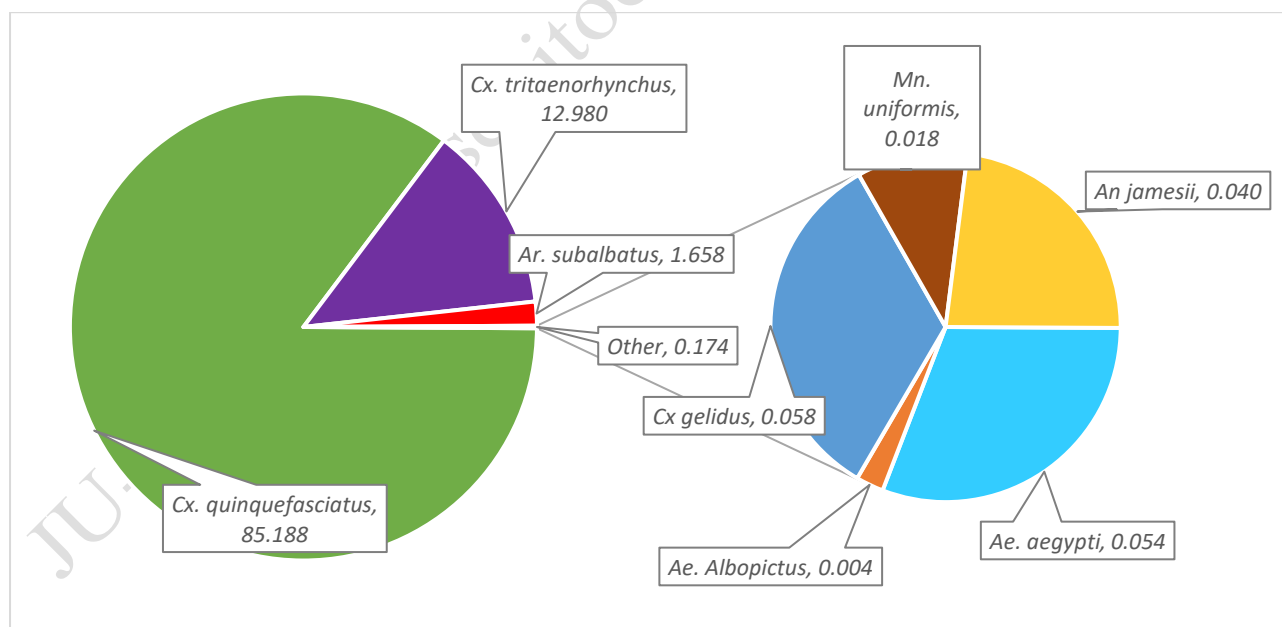
1. Aedes X smart trap
2. Directly collection larvae from field.



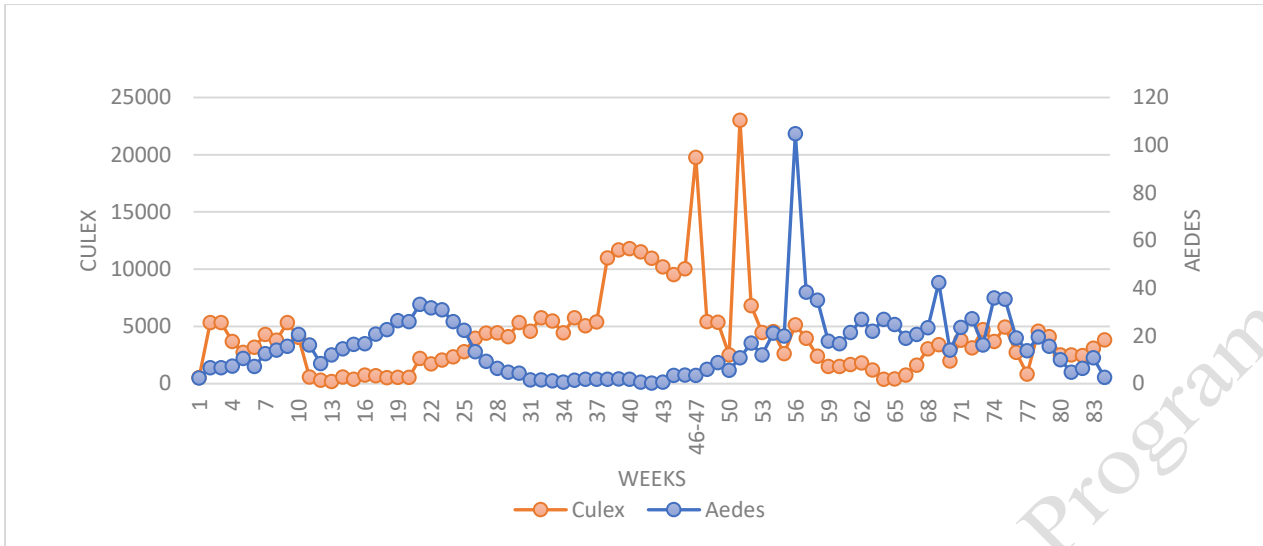
**Results:**

**Table 1. Collected Adult Mosquitoes from Moshar Machine (CO<sub>2</sub>) traps in Weeks 84 (December 26-30, 2025)**

Zone	N	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>	<i>Cx. tritaeniorhynchus</i>	<i>Cx. gelidus</i>	<i>Ar. subalbatus</i>	<i>Mn. uniformis</i>	<i>An jamesii</i>
1	13449	1	0	11370	2006	13	52	1	6
2	1841	2	0	1232	328	0	276	2	1
3	2635	8	0	2339	279	0	9	0	0
4	1653	0	0	1384	264	0	3	0	2
5	2802	1	1	2740	28	0	31	1	0
<b>Total</b>	<b>22380</b>	<b>12</b>	<b>1</b>	<b>19065</b>	<b>2905</b>	<b>13</b>	<b>371</b>	<b>4</b>	<b>9</b>
<b>%</b>	<b>100</b>	<b>0.054</b>	<b>0.004</b>	<b>85.188</b>	<b>12.980</b>	<b>0.058</b>	<b>1.658</b>	<b>0.018</b>	<b>0.040</b>



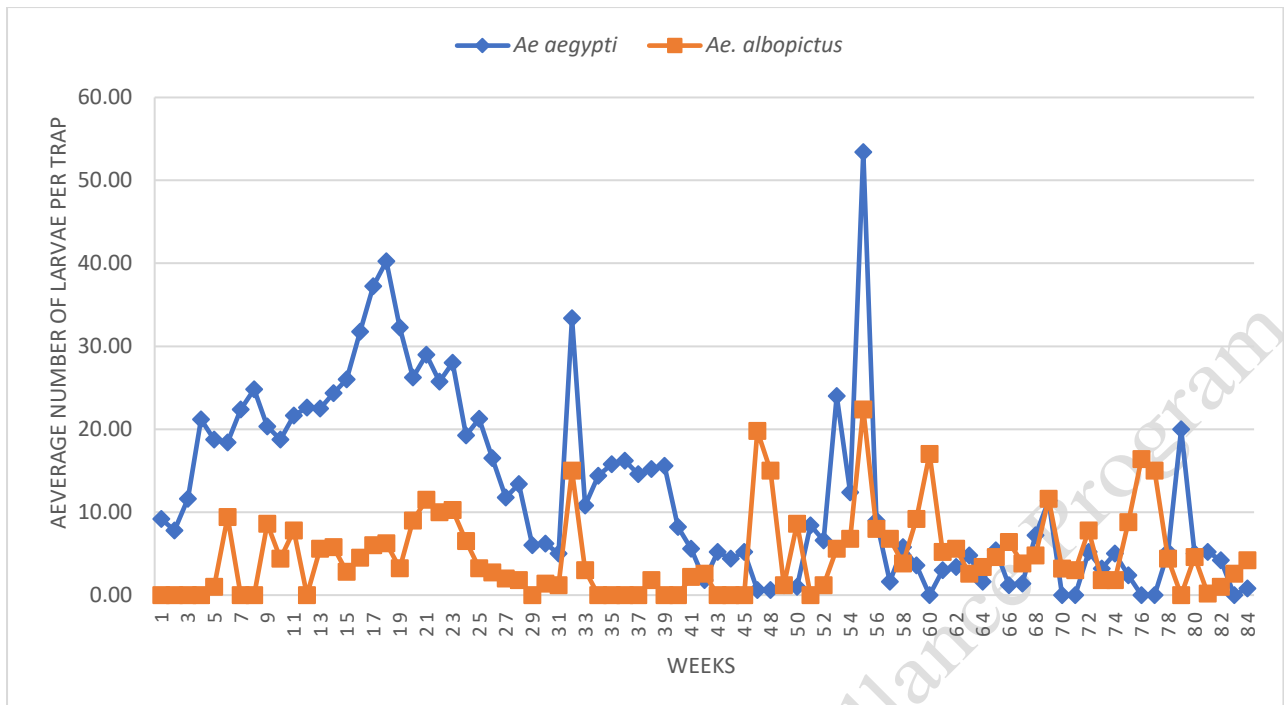
**Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO<sub>2</sub>) traps in Weeks 84 (December 26-30, 2025)**



**Fig 2: Average number of mosquitoes per Moshar Machine (CO<sub>2</sub>) traps from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**

**Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Weeks 84 (December 26-30, 2025)**

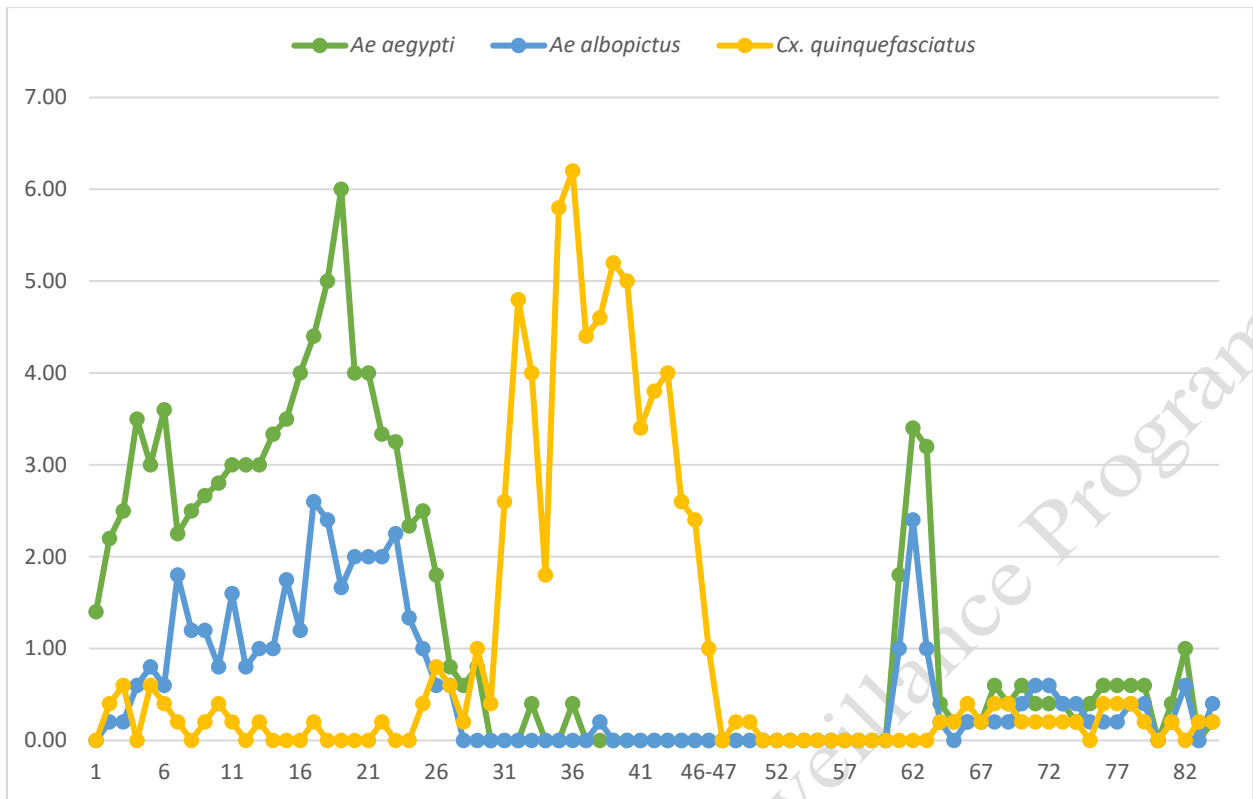
Zone	N	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>
1	16	0	16
2	5	0	5
3	4	4	0
4	0	0	0
5	0	0	0
<b>Total</b>	25	4	21
<b>(%)</b>	100	16.00	26.92



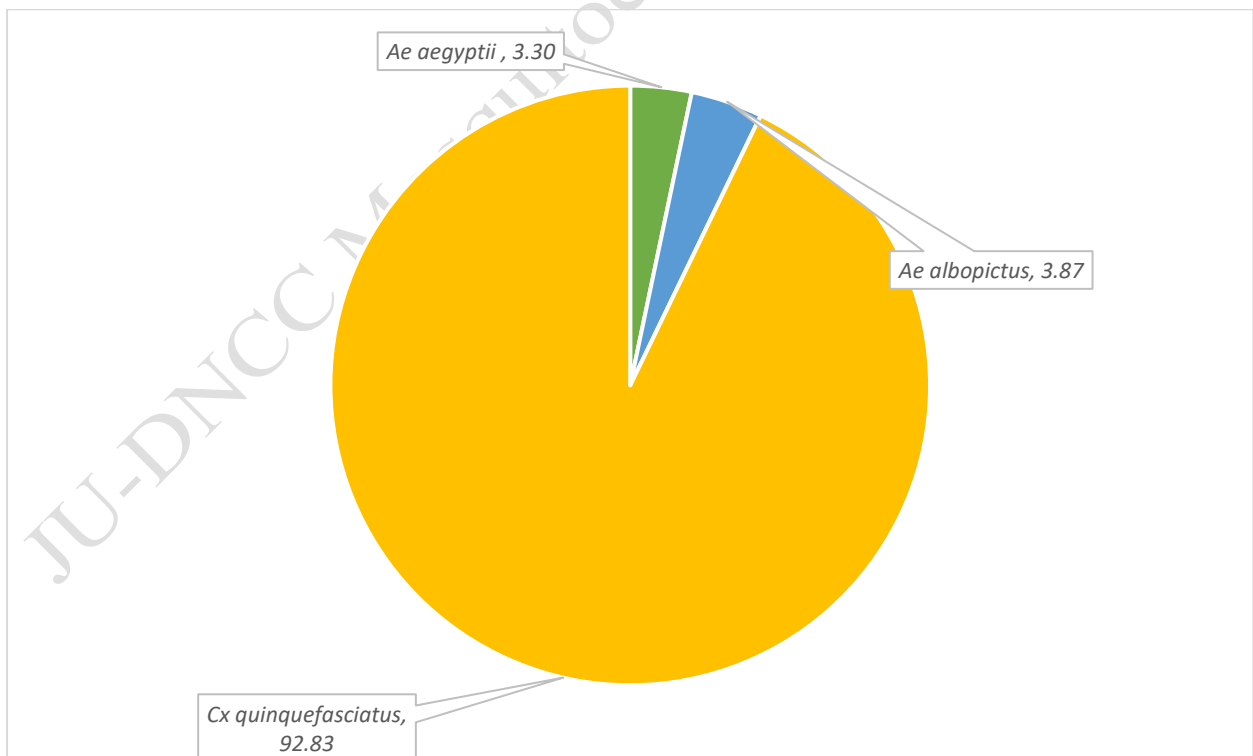
**Fig 3: Average Number of Aedes Larvae per Aedes X Smart Trap in Zones 1-5 from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**

**Table 3. Collected Adult Mosquitoes from Gravid Trap in Weeks 83 (December 5-9, 2025)**

Zone	Number of Mosquitoes	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>
1	1	0	1	0
2	1	0	1	0
3	1	1	0	0
4	0	0	0	0
5	1	0	0	1
<b>Total</b>	4	1	2	1
<b>(%)</b>	100	25.00	50.00	25.00



**Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



**Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Weeks 84 (December 26-30, 2025)**

**Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Weeks 84 (December 26-30, 2025)**

Zone	GPS Location	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>	<i>Ar. subalbatus</i>	Source
1	23.8597273 90.4054136	76	0	0	0	Water tank(Cement)
	23.8596513 90.405626	0	76	0	0	Flooded floor(basement or otherwise)
	23.8592281 90.4056539	0	38	0	0	Water tank(Cement)
	<b>Sub Total</b>	76	114	0	0	
3	23.78634 90.4147693	0	0	2478	0	Lake
	<b>Sub Total</b>	0	0	2478	0	
4	23.7915634 90.3480255	0	0	54	0	Manhole
	<b>Sub Total</b>	0	0	54	0	
5	23.7657095 90.3616014	21	0	0	0	Hole of water meter
	23.7656384 90.3615022	0	0	200	0	Flower tub & tray
	<b>Sub Total</b>	21	0	200	0	
<b>Grand Total</b>		97	114	2732	0	

Household Positive ● Negative ● Positive

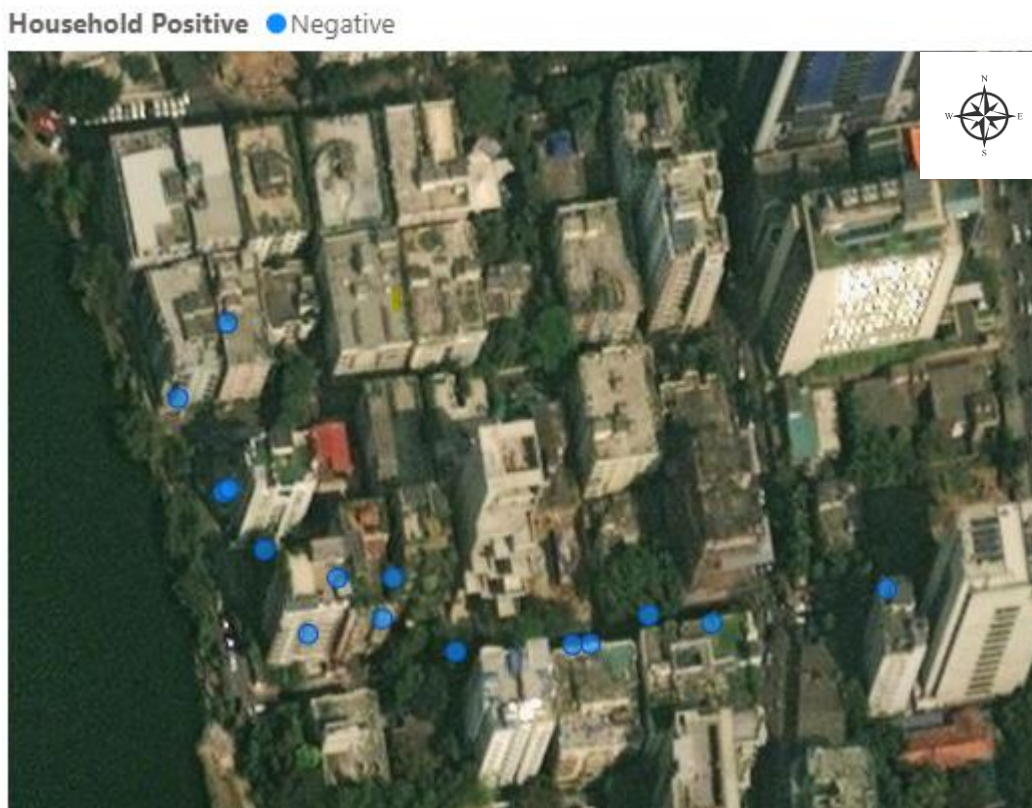


Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 84

Household Positive ● Negative



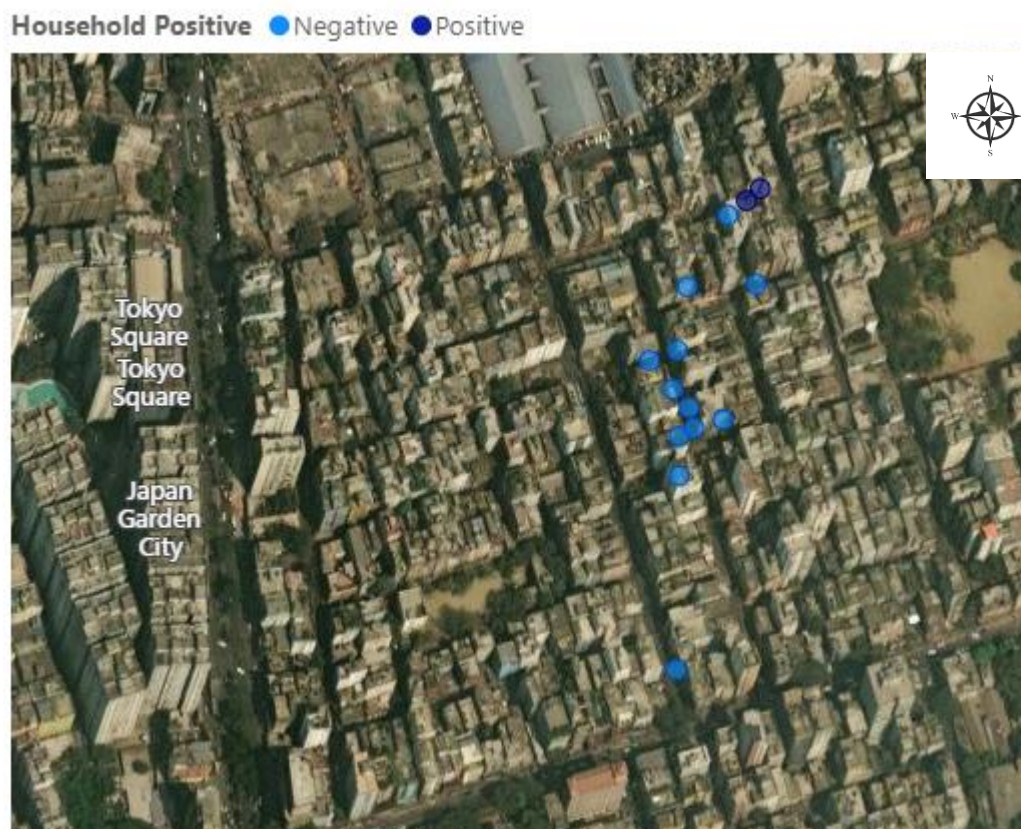
Map 2: Positive and Negative House of Mirpur 2 at Weeks 84



**Map 3: Positive and Negative House of Gulsan 1 at Weeks 84**



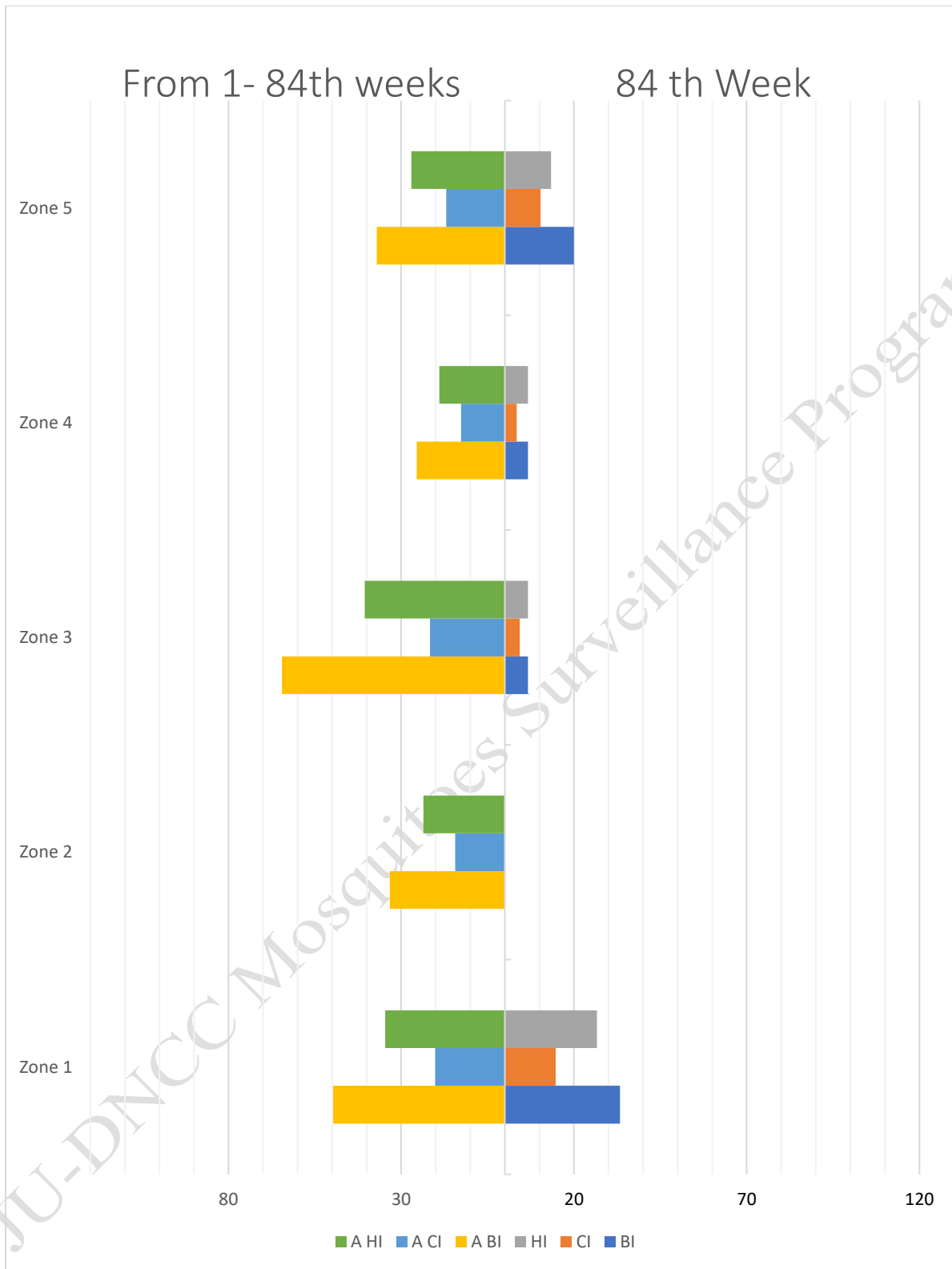
**Map 4: Positive and Negative House of Mirpur 1 at Weeks 84**



Map 5: Positive and Negative House of Mohammadpur at Weeks 84

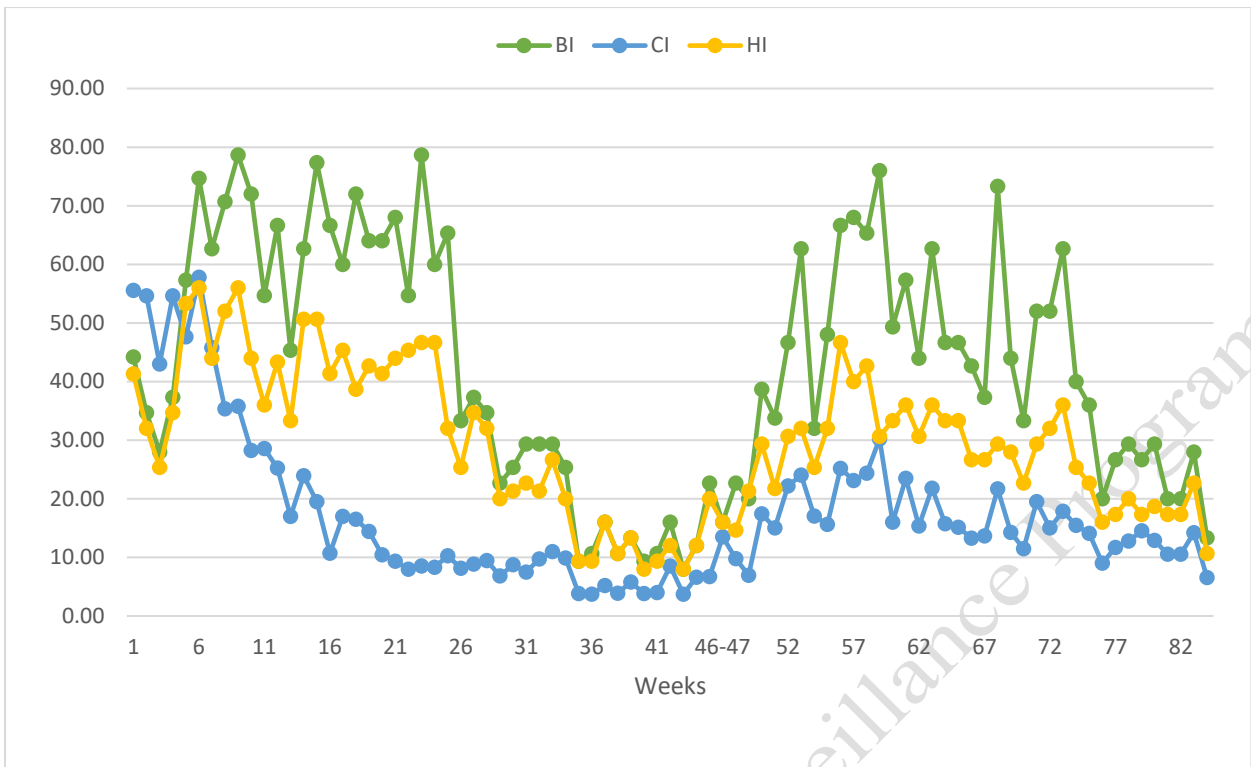
Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Weeks 84 (December 26-30, 2025)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	4	34	5	33.33	14.71	26.67
2	15	0	31	0	0.00	0.00	0.00
3	15	1	23	1	6.67	4.35	6.67
4	15	1	29	1	6.67	3.45	6.67
5	15	2	29	3	20.00	10.34	13.33

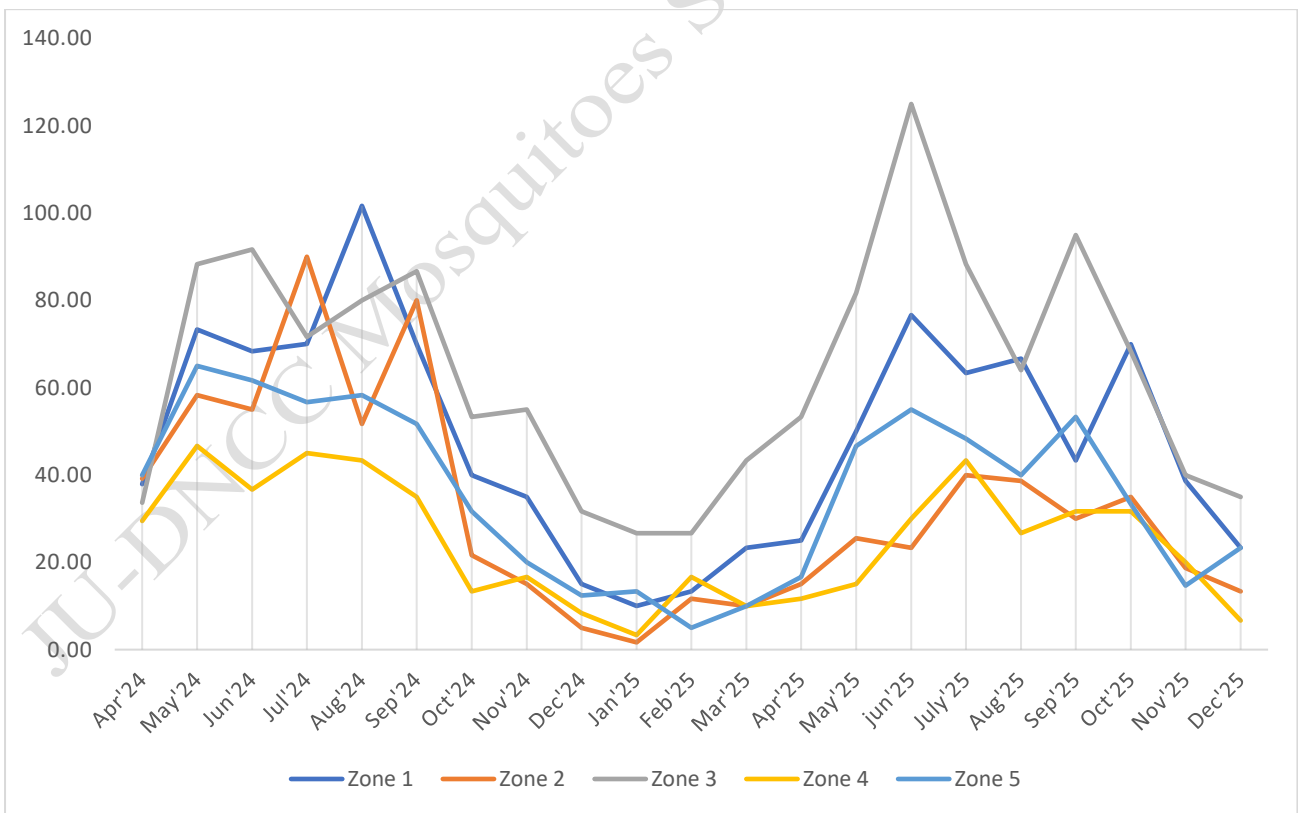


**Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation**

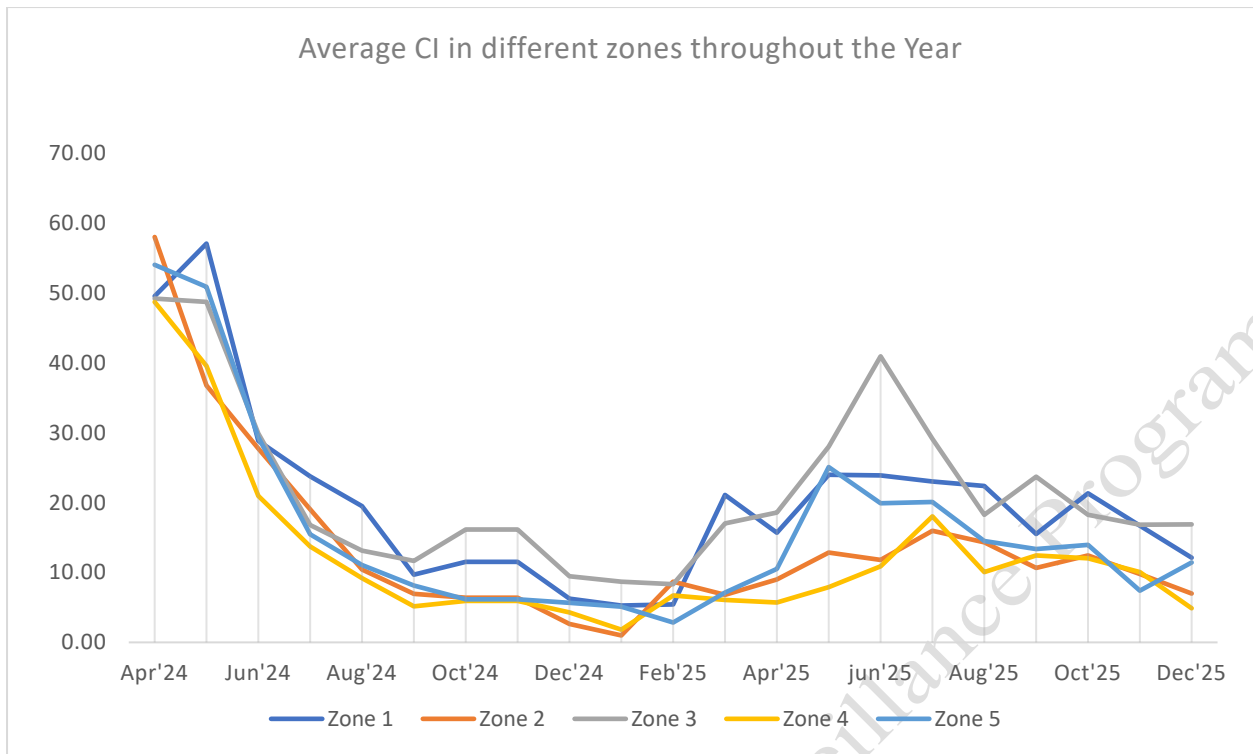
**\*NB: “A” stands for Average from 1<sup>st</sup> week.**



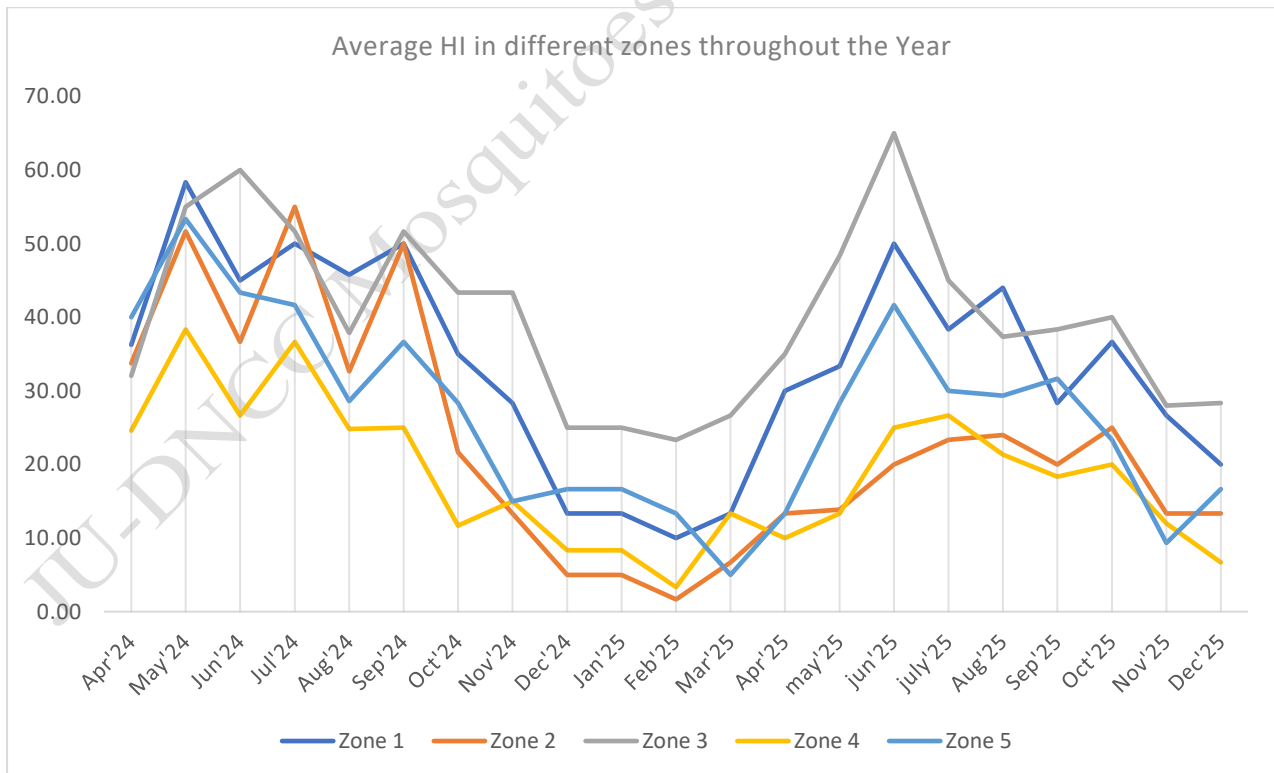
**Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



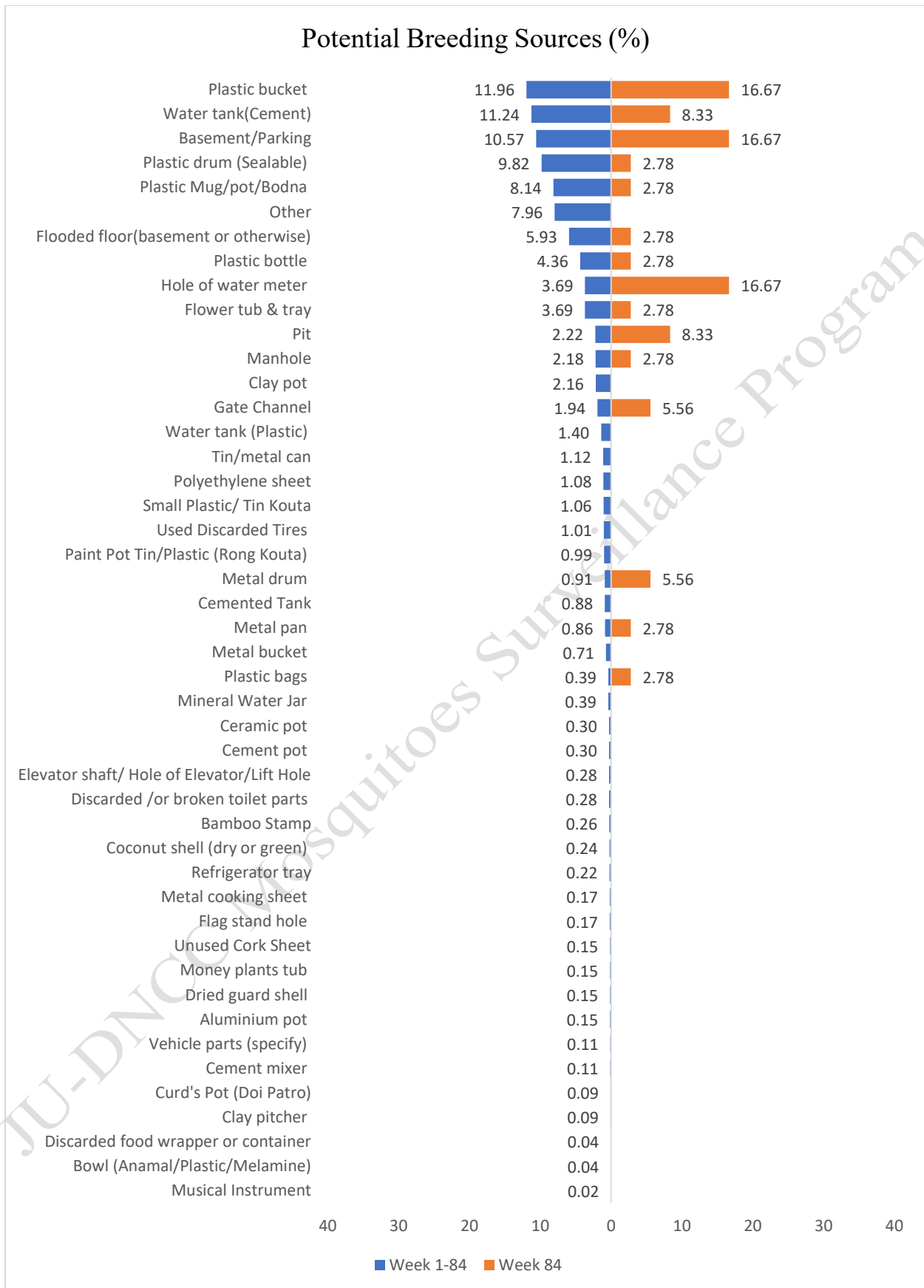
**Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



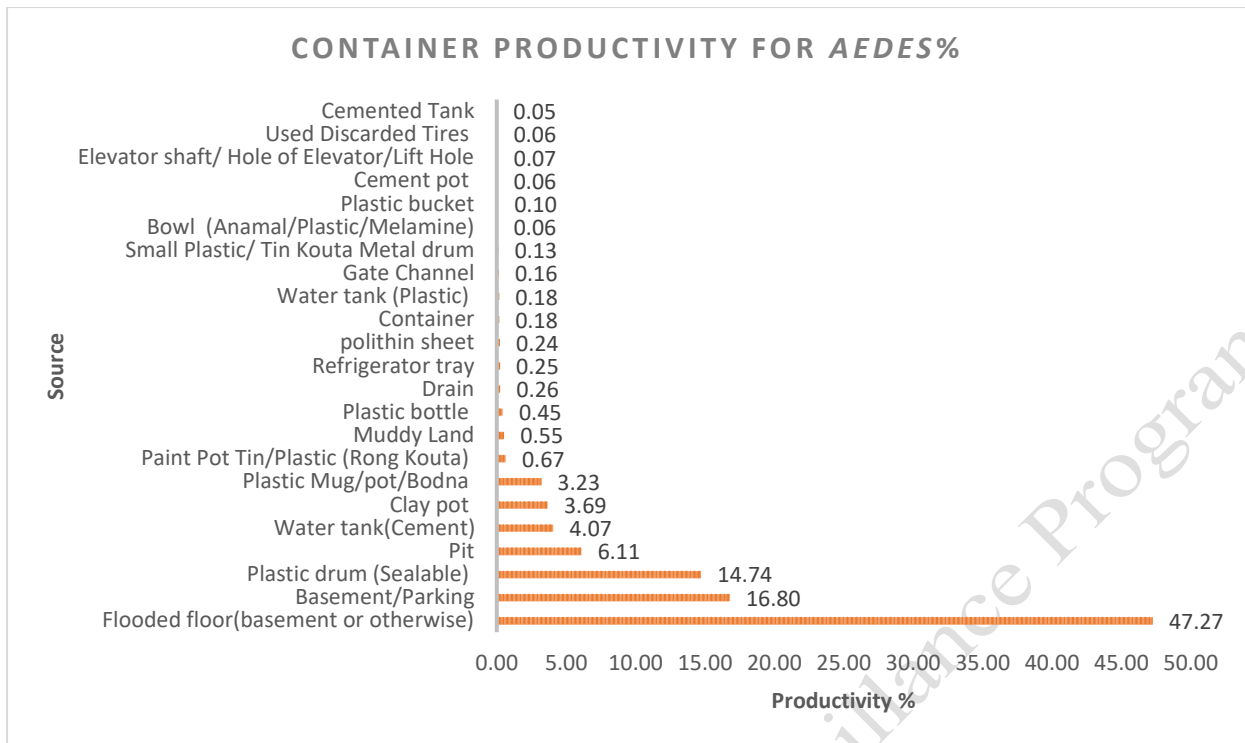
**Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



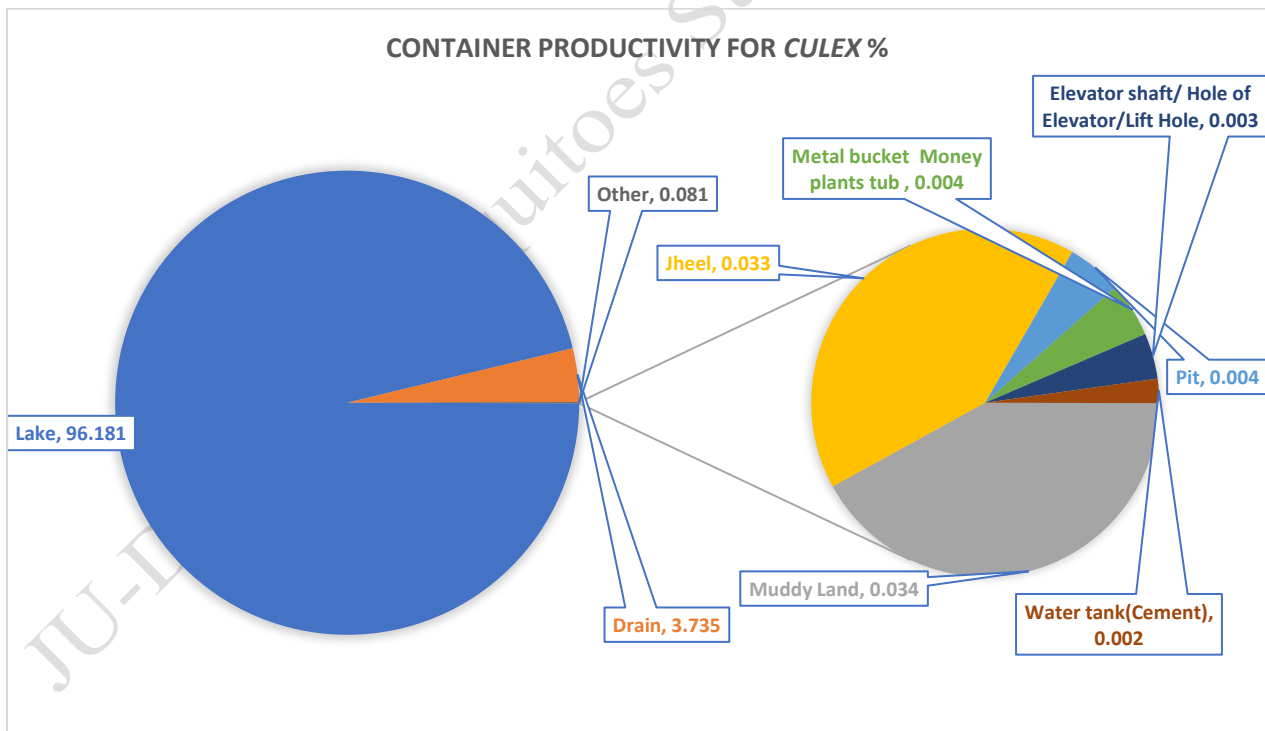
**Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



**Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)**



**Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**



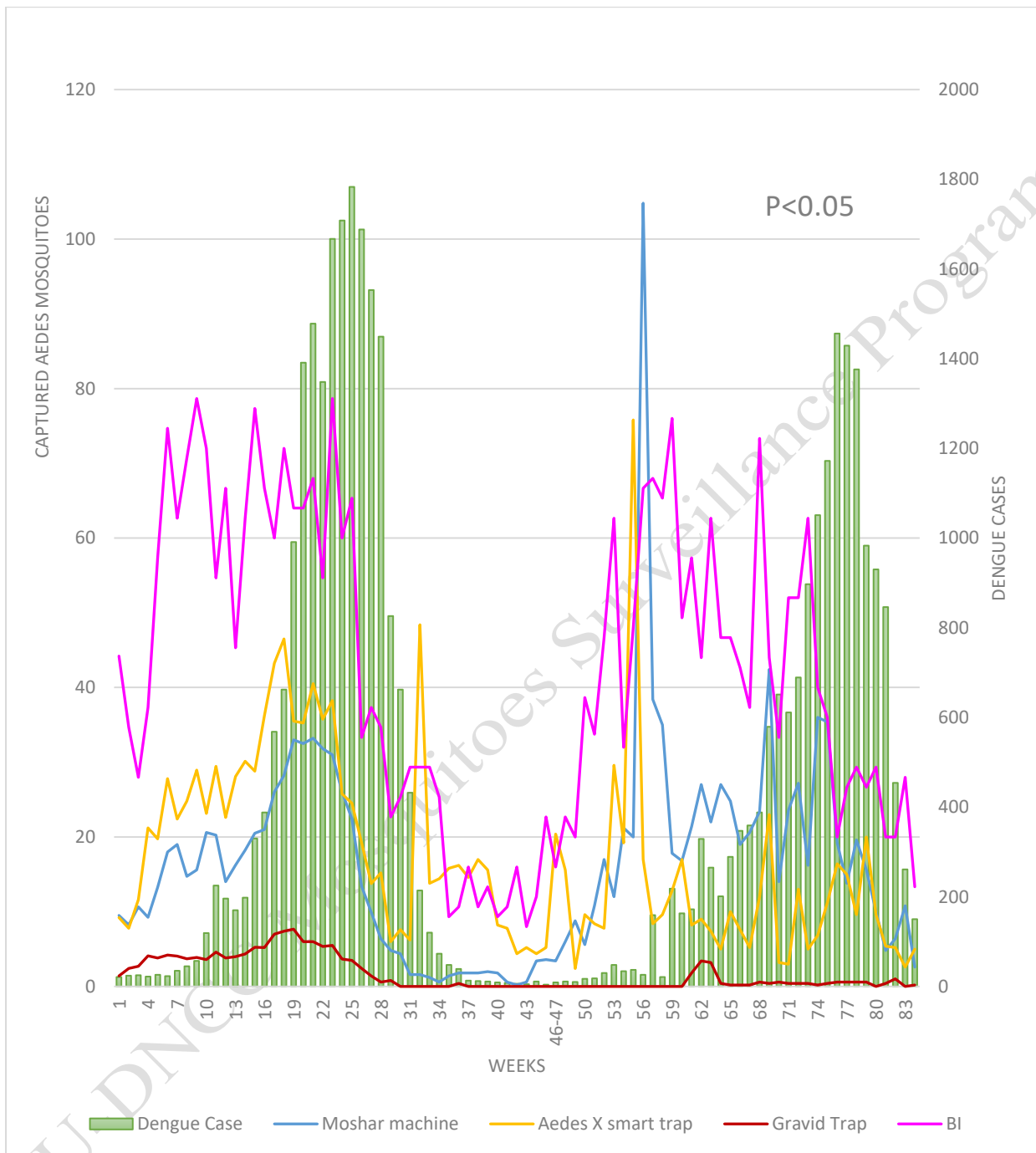
**Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**

**Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**

Sources	+House	-WC	+WC	Total WC	% WC	% PWC
Plastic bucket	192	261	291	552	11.99	6.32
Water tank(Cement)	161	252	269	521	11.31	5.84
Basement/Parking	198	38	446	484	10.51	9.69
Plastic drum (Sealable)	220	78	375	453	9.84	8.14
Plastic Mug/pot/Bodna	159	82	294	376	8.17	6.38
Other	181	127	238	365	7.93	5.17
Flooded floor(basement or otherwise)	128	138	137	275	5.97	2.98
Plastic bottle	78	63	138	201	4.36	3.00
Flower tub & tray	65	24	146	170	3.69	3.17
Hole of water meter	34	2	162	164	3.56	3.52
Pit	57	21	82	103	2.24	1.78
Manhole	54	29	71	100	2.17	1.54
Clay pot	83	11	89	100	2.17	1.93
Gate Channel	31	32	57	89	1.93	1.24
Water tank (Plastic)	20	28	37	65	1.41	0.80
Tin/metal can	30	0	52	52	1.13	1.13
Polyethylene sheet	33	3	47	50	1.09	1.02
Small Plastic/ Tin Kouta	24	9	40	49	1.06	0.87
Used Discarded Tires	28	16	31	47	1.02	0.67
Paint Pot Tin/Plastic (Rong Kouta)	30	5	41	46	1.00	0.89
Cemented Tank	22	13	28	41	0.89	0.61
Metal drum	17	7	34	41	0.89	0.74
Metal pan	17	3	37	40	0.87	0.80
Metal bucket	19	5	27	32	0.69	0.59
Mineral Water Jar	6	4	14	18	0.39	0.30
Plastic bags	8	0	17	17	0.37	0.37
Cement pot	11	0	14	14	0.30	0.30
Ceramic pot	13	0	14	14	0.30	0.30
Discarded /or broken toilet parts	11	2	11	13	0.28	0.24
Elevator shaft/ Hole of Elevator/Lift Hole	5	4	9	13	0.28	0.20
Bamboo Stamp	9	0	12	12	0.26	0.26
Coconut shell (dry or green)	4	0	11	11	0.24	0.24
Refrigerator tray	8	0	10	10	0.22	0.22
Flag stand hole	4	1	7	8	0.17	0.15
Metal cooking sheet	2	0	8	8	0.17	0.17
Aluminium pot	4	0	7	7	0.15	0.15
Dried guard shell	4	0	7	7	0.15	0.15
Money plants tub	5	0	7	7	0.15	0.15
Unused Cork Sheet	5	1	6	7	0.15	0.13
Cement mixer	2	0	5	5	0.11	0.11
Vehicle parts (specify)	3	1	4	5	0.11	0.09
Clay pitcher	3	1	3	4	0.09	0.07
Curd's Pot (Doi Patro)	3	0	4	4	0.09	0.09
Bowl (Anamal/Plastic/Melamine)	2	0	2	2	0.04	0.04
Discarded food wrapper or container	1	0	2	2	0.04	0.04
Musical Instrument	1	0	1	1	0.02	0.02

**Table 7: Percentage of breeding sources in different zone from Week 1 to Week 84 (May 2, 2024 - December 30, 2025)**

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.11	2.17	2.32	2.98	2.41
Water tank(Cement)	1.43	1.82	1.50	3.34	3.21
Basement/Parking	2.87	1.48	2.84	0.96	2.37
Plastic drum (Sealable)	1.41	2.35	1.72	2.32	2.04
Plastic Mug/pot/Bodna	1.52	1.43	1.61	2.30	1.30
Other	2.58	1.41	2.11	0.74	1.09
Flooded floor(basement or otherwise)	1.54	1.32	1.00	0.65	1.45
Plastic bottle	0.59	1.04	0.65	1.09	1.00
Flower tub & tray	1.15	0.63	1.11	0.50	0.30
Hole of water meter	0.41	0.74	0.15	0.98	1.28
Pit	0.65	0.24	0.74	0.30	0.30
Manhole	0.91	0.26	0.69	0.20	0.11
Clay pot	0.26	0.46	0.67	0.26	0.52
Gate Channel	0.69	0.17	0.52	0.09	0.46
Water tank (Plastic)	0.00	0.89	0.20	0.17	0.15
Tin/metal can	0.33	0.30	0.22	0.22	0.07
Polyethylene sheet	0.30	0.28	0.22	0.20	0.09
Small Plastic/ Tin Kouta	0.28	0.20	0.30	0.13	0.15
Used Discarded Tires	0.39	0.28	0.20	0.09	0.07
Paint Pot Tin/Plastic (Rong Kouta)	0.24	0.11	0.30	0.22	0.13
Cemented Tank	0.17	0.13	0.22	0.26	0.11
Metal drum	0.17	0.11	0.24	0.28	0.09
Metal pan	0.20	0.15	0.28	0.09	0.15
Metal bucket	0.11	0.07	0.20	0.17	0.15
Mineral Water Jar	0.04	0.02	0.07	0.17	0.09
Plastic bags	0.04	0.02	0.09	0.11	0.11
Cement pot	0.04	0.00	0.13	0.02	0.11
Ceramic pot	0.07	0.02	0.07	0.02	0.13
Discarded /or broken toilet parts	0.02	0.13	0.04	0.00	0.09



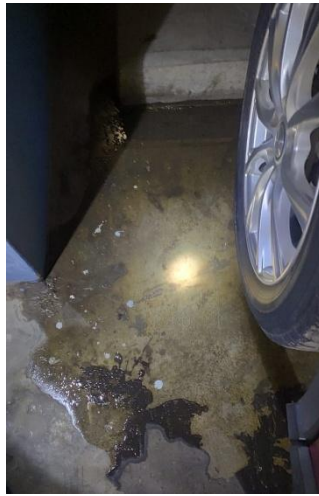
**Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO<sub>2</sub> traps, Aedes X smart traps, and Gravid traps**

**NB: DNCC dengue cases only**

### Photographs of Mosquitoes Surveillance



### Samples Collection from Field



### Samples Processing and Identification



**Comments:**

Overall mosquito density is rising but the dengue cases now declining rapidly. Furthermore, the Breteau Index (BI) is has gone down. It is high time for taking precaution and preparation for future. Moreover, this highlights the importance of continued surveillance to uncover hidden risks and to guide timely interventions.

**For Aedes Mosquito Control**

- Aedes mosquito density varies across locations, with notable breeding found in plastic drums, buckets, flooded basements, and water tanks, as seen in larval and trap data.
- Continuous surveillance is essential to monitor trends and target control interventions effectively.
- Frequent cleaning and management of water-holding containers (e.g., pots, bottles, plastic drums, and construction site debris) are vital.
- Permanent breeding habitats should be managed with larvicides or Insect Growth Regulators (IGRs) for sustained control.
- Construction sites must be regularly inspected and treated due to their high potential for breeding.

**For Other Mosquito Control**

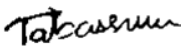
- Drainage systems should be kept flowing to prevent stagnant water accumulation.
- Canals, ponds, lakes, and muddy lowlands should be cleaned of waste, weeds, and organic matter.
- Septic tanks must be covered and regularly maintained.
- Emphasis should be placed on slum areas and waterlogged urban zones, which are significant breeding grounds for Culex mosquitoes.

**Public Awareness and Community Involvement**

- Launch targeted awareness campaigns, especially in vulnerable and high-risk areas.
- Encourage communities to eliminate standing water regularly.
- Promote participatory surveillance and control efforts, including homeowner engagement in larval source reduction.

**Copy sent for your information and further action (FYI/FA):**

1. CHO, Health Department, Dhaka North City Corporation
2. Secretary, Dhaka North City Corporation
3. PS to Administrator, Dhaka North City Corporation
4. Staff Officer of CEO, Dhaka North City Corporation
5. Office Copy



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**Entomologist**

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**(Prof. Dr. Kabirul Bashar)**

**Focal person**

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