



Weekly Report on JU-DNCC Mosquitoes Surveillance Program

Week 083 (December 12 - 16, 2025)

Submitted To

Chief Health officer
Dhaka North City Corporation
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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.

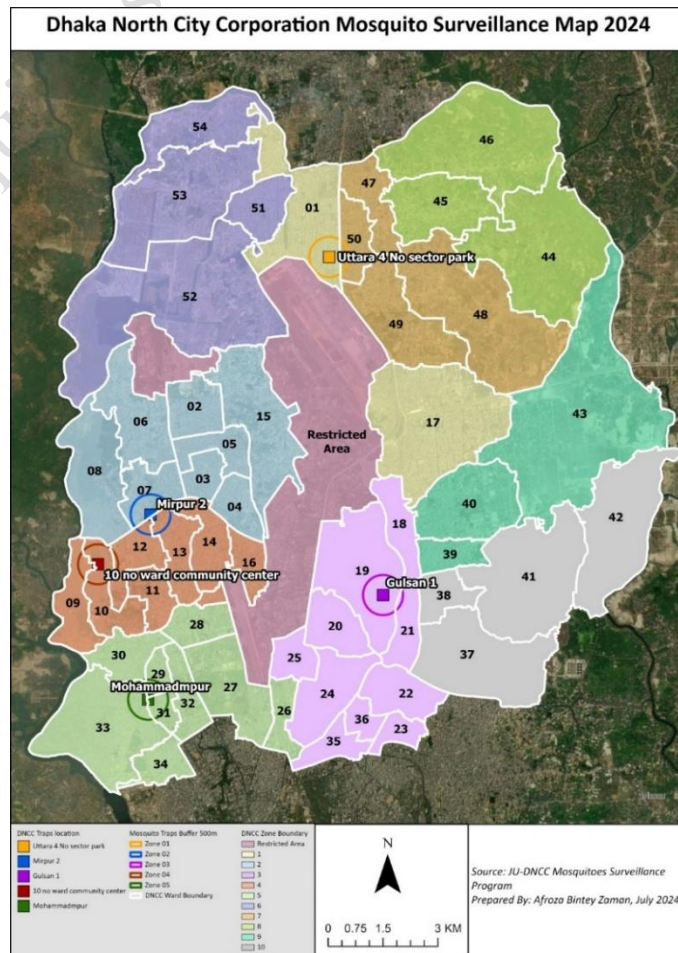
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 (CO₂) traps in Weeks 83 (December 19-23, 2025)

Zone	N	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>	<i>Cx. tritaeniorhynchus</i>	<i>Ar. subalbatus</i>	<i>Mn. uniformis</i>	<i>An philippinensis</i>
1	7578	2	0	6858	678	37	0	3
2	2859	13	7	1907	471	461	0	0
3	2287	9	0	1907	371	0	0	0
4	1858	11	0	1453	378	12	3	1
5	3949	12	0	3366	561	8	2	0
Total	18531	47	7	15491	2459	518	5	4
%	100	0.25	0.04	83.60	13.27	2.80	0.03	0.02

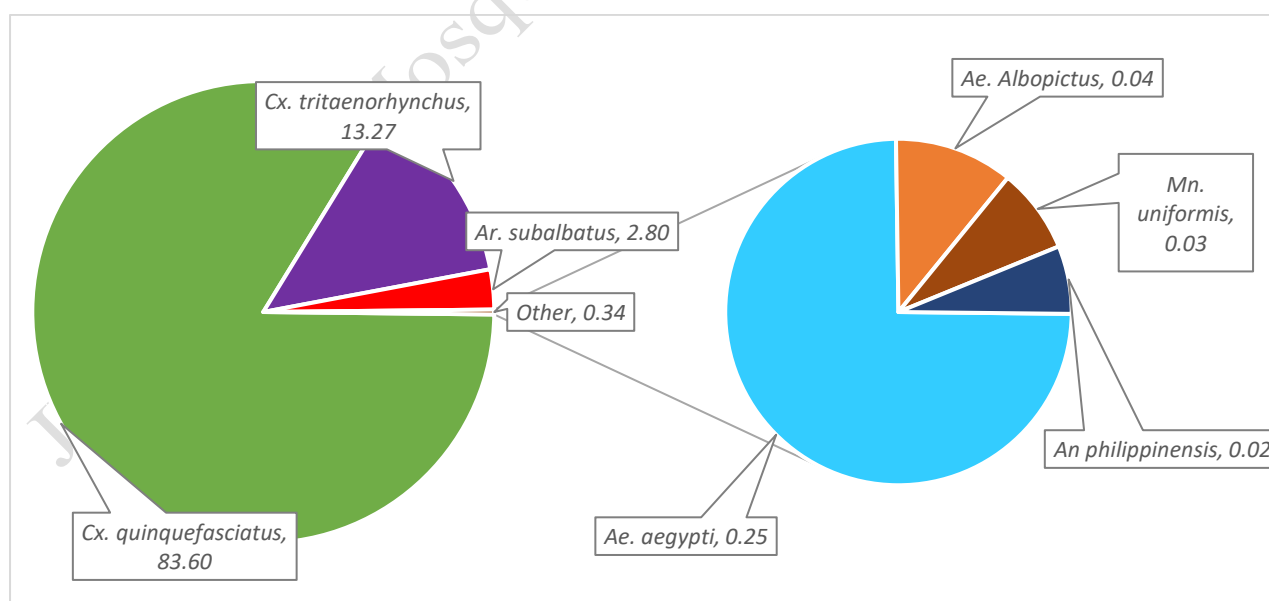


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO₂) traps in Weeks 83 (December 19-23, 2025)

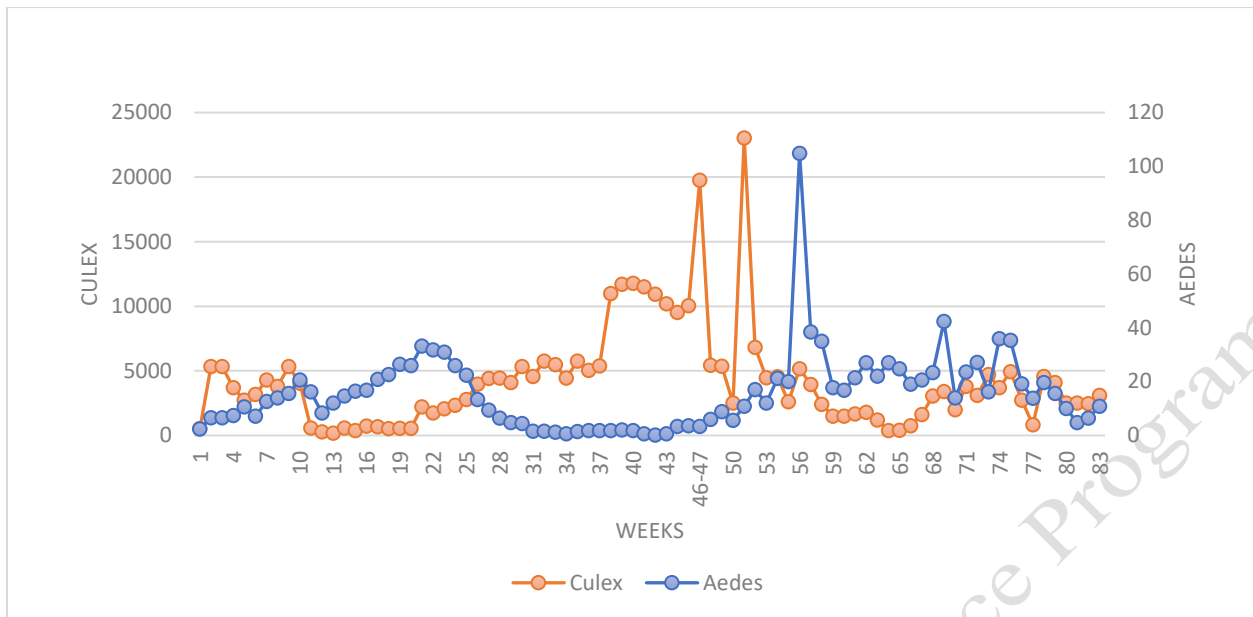


Fig 2: Average number of mosquitoes per Moshar Machine (CO₂) traps from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Weeks 83 (December 19-23, 2025)

Zone	N	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>
1	13	0	13
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
Total	13	0	13
(%)	100	0.00	16.67

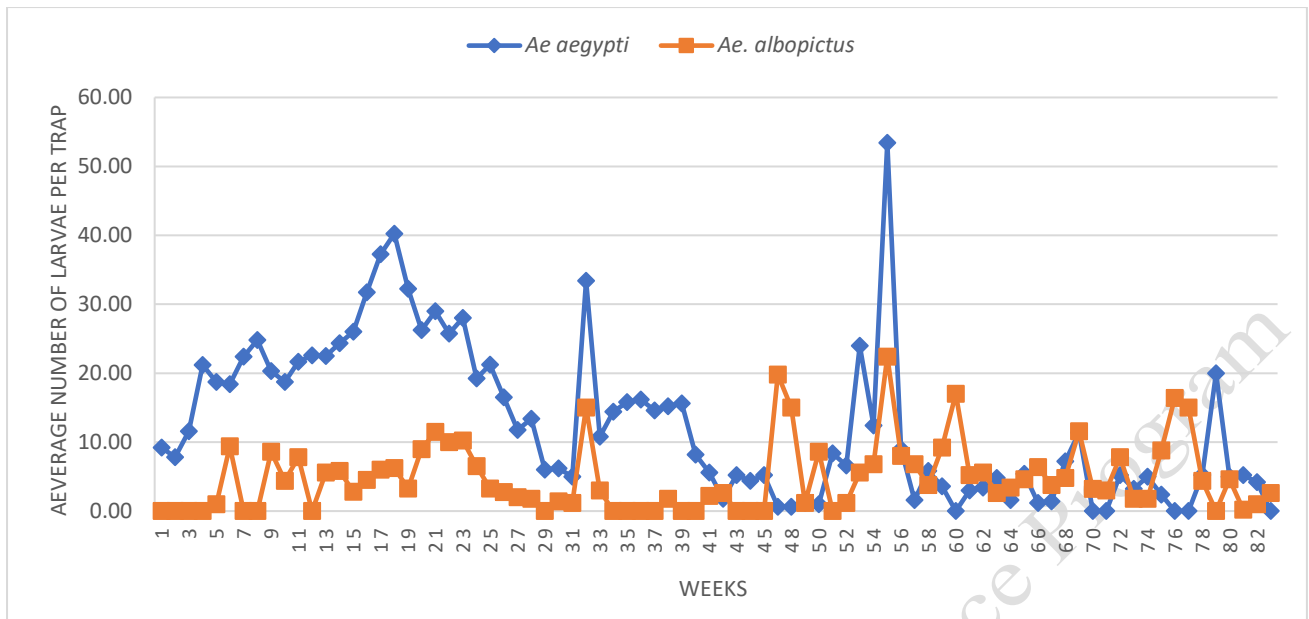


Fig 3: Average Number of Aedes Larvae per Aedes X Smart Trap in Zones 1-5 from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Weeks 8 (December 5-9, 2025)

Zone	Number of Mosquitoes	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	1	0	0	1
Total	1	0	0	1
(%)	100	0.00	0.00	100.00

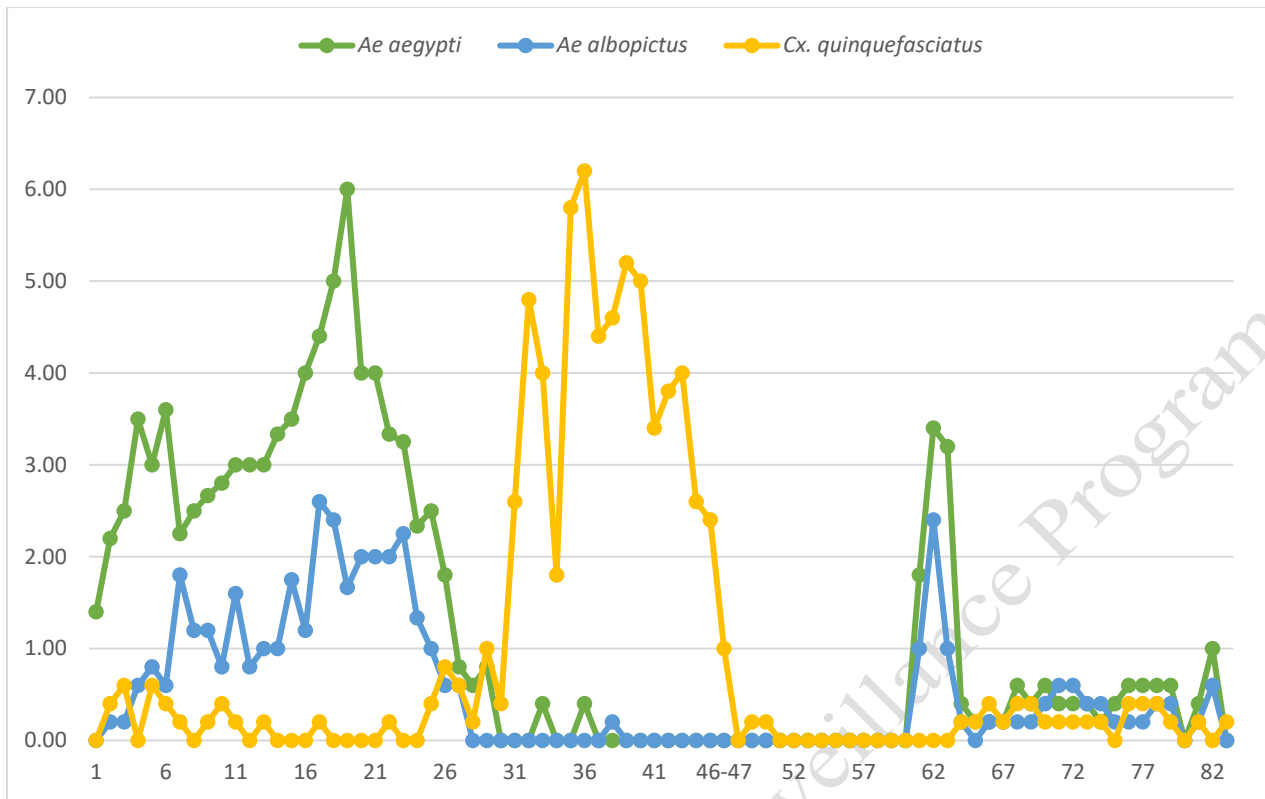


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

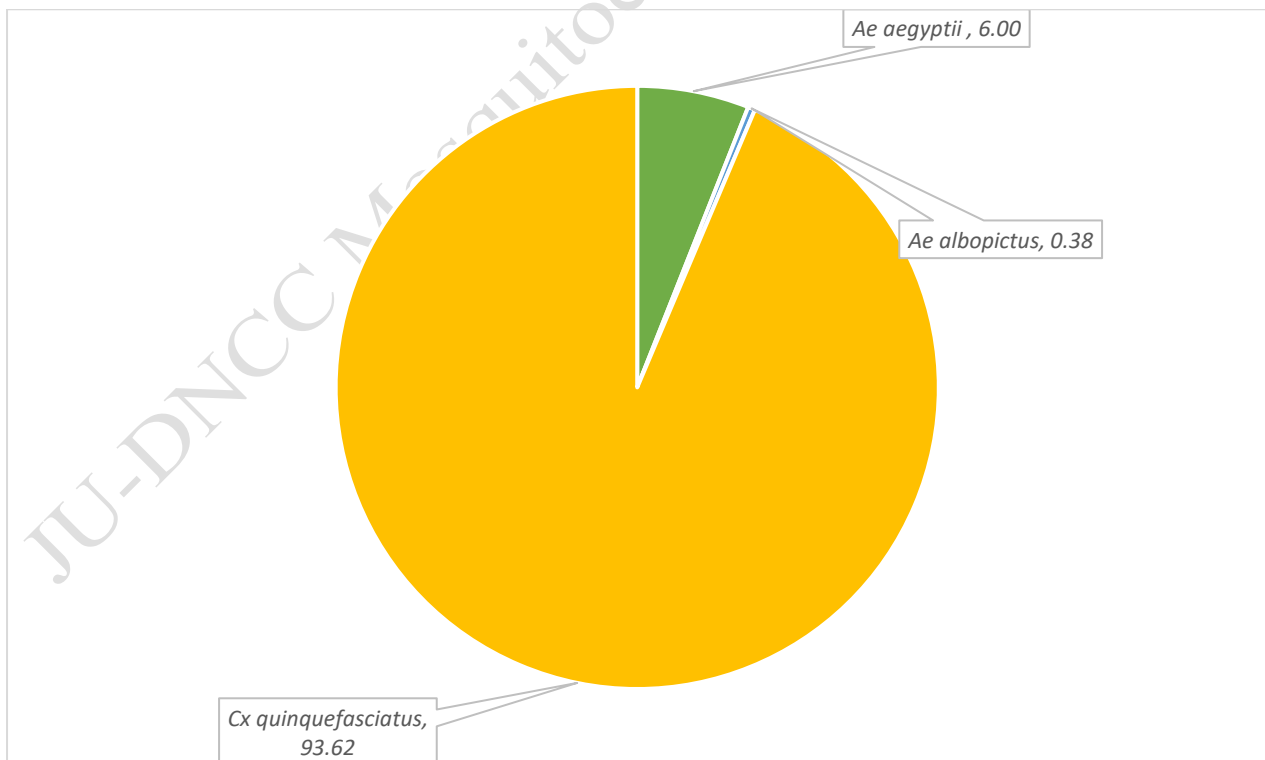
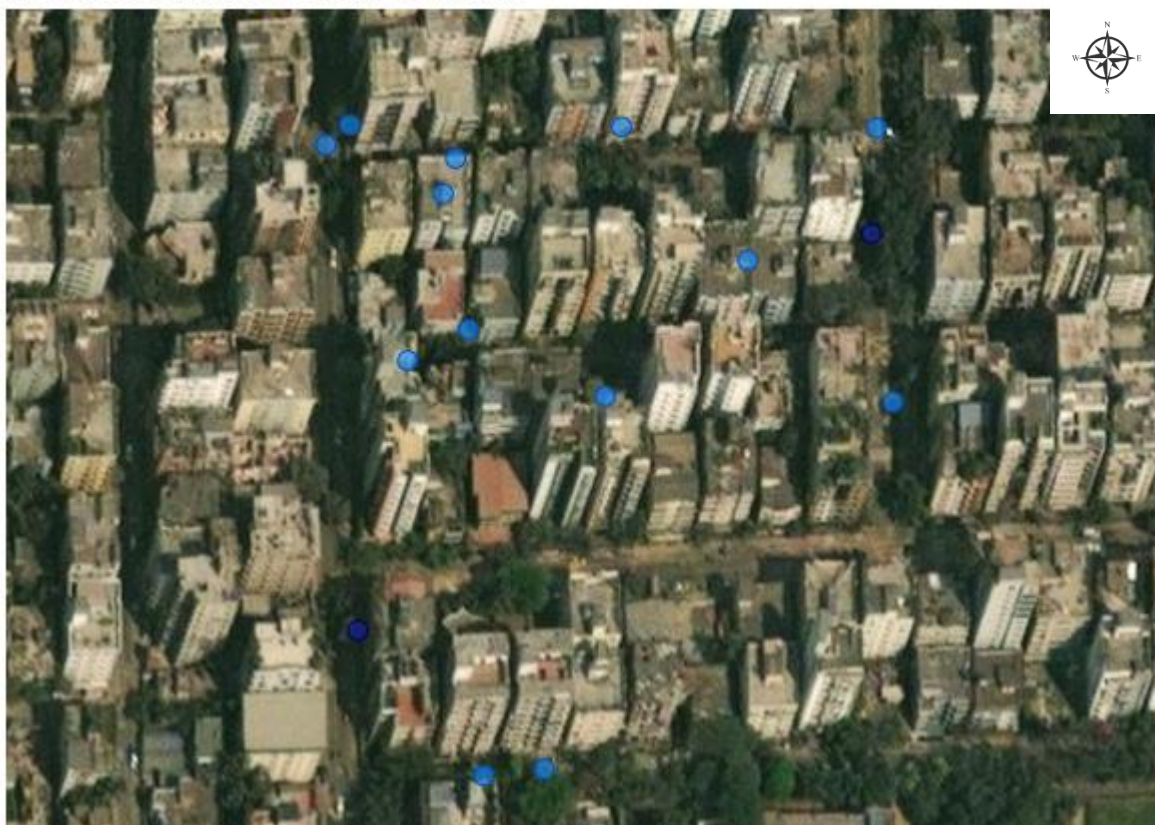


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Weeks 83 (December 19-23, 2025)

Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Weeks 83 (December 19-23, 2025)

Zone	GPS Location	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinque fasciatus</i>	<i>Ar. subalbatus</i>	Source
1	23.8623626 90.401744	23	0	0	0	Gate Channel
	23.8633348 90.4031202	17	0	0	0	Gate Channel
	23.8635963 90.4024501	19	0	0	0	Hole of water meter
	23.8634324 90.4019728	27	0	0	0	Hole of water meter
	Sub Total	0	0	0	0	
2	23.8058029 90.3594335	0	24	0	0	Water tank(Cement)
	23.8057209 90.3592081	24	0	0	0	Plastic bucket
	23.8052155 90.3574206	0	0	5875	0	Drain
	Sub Total	24	24	5875	0	
3	23.7851043 90.417439	85	0	0	0	Pit
	23.7850591 90.4188637	8	0	0	0	Gate Channel
	23.7844664 90.4188819	23	0	0	0	Hole of water meter
	Sub Total	93	0	0	0	
4	23.7907434 90.3455978	25	0	0	0	Plastic bucket
	Sub Total	25	0	0	0	
5	23.7645145 90.3596442	23	0	0	0	Hole of water meter
	23.7646756 90.3598001	52	0	0	0	Plastic drum (Sealable)
	23.7655778 90.3610662	52	0	0	0	Plastic drum (Sealable)
	23.7656478 90.3613238	0	0	23	0	Other
	Sub Total	127	0	23	0	
Grand Total		378	24	5898	0	

Household Positive ● Negative ● Positive

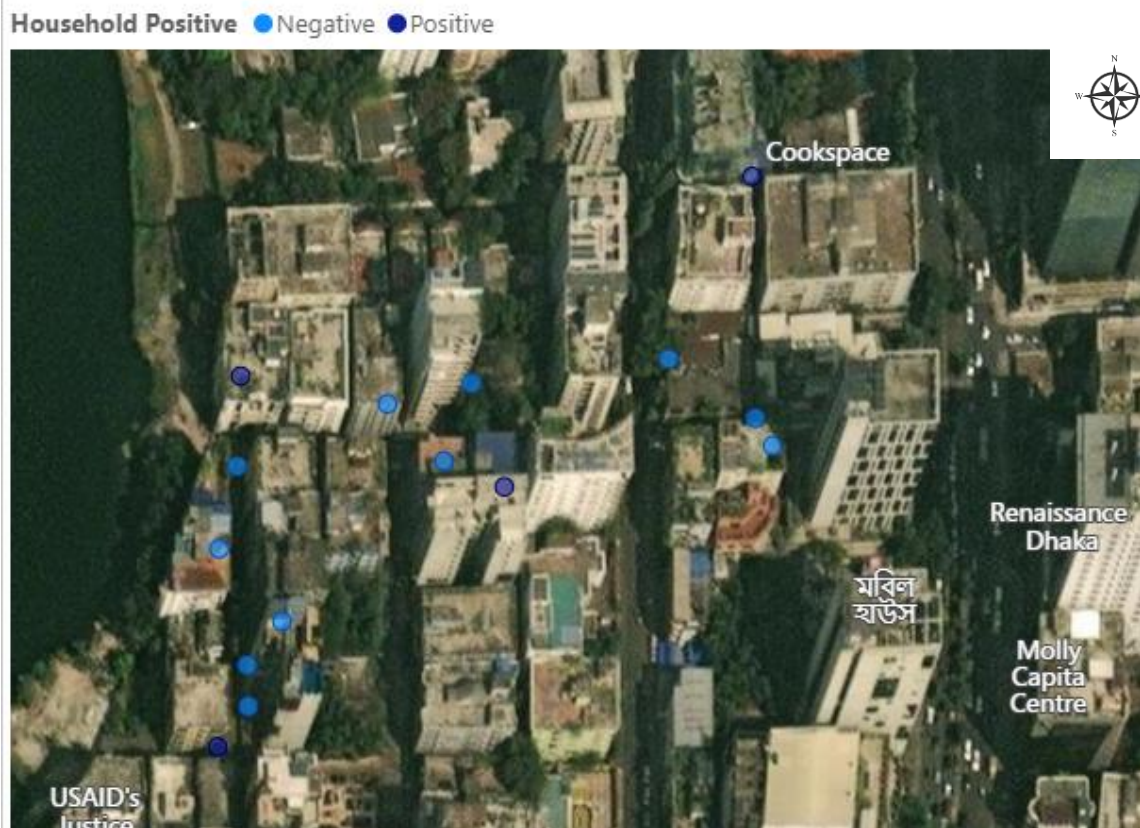


Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 83

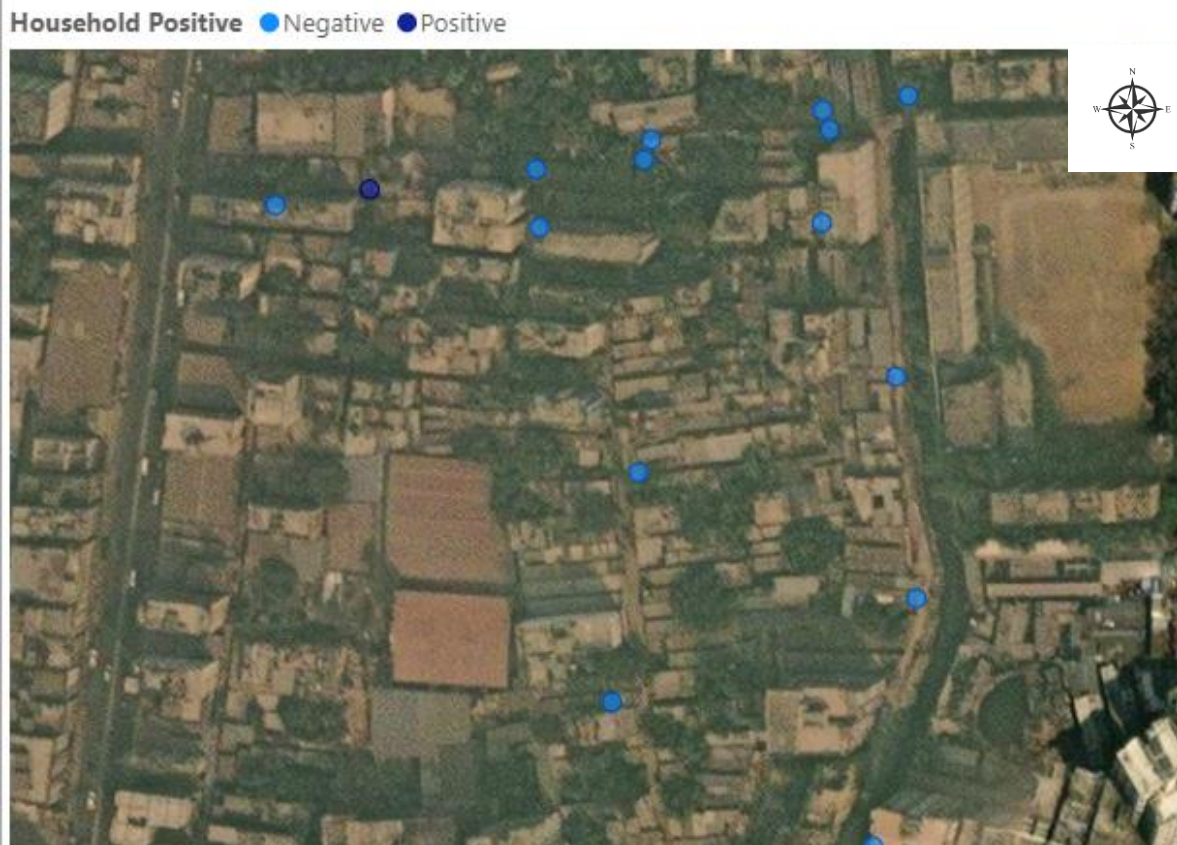
Household Positive ● Negative ● Positive



Map 2: Positive and Negative House of Mirpur 2 at Weeks 83



Map 3: Positive and Negative House of Gulsan 1 at Weeks 83



Map 4: Positive and Negative House of Mirpur 1 at Weeks 83

Household Positive ● Negative ● Positive



Map 5: Positive and Negative House of Mohammadpur at Weeks 83

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Weeks 83 (December 19-23, 2025)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	4	27	5	33.33	18.52	26.67
2	15	4	28	4	26.67	14.29	26.67
3	15	4	36	6	40.00	16.67	26.67
4	15	1	18	1	6.67	5.56	6.67
5	15	4	31	5	33.33	16.13	26.67

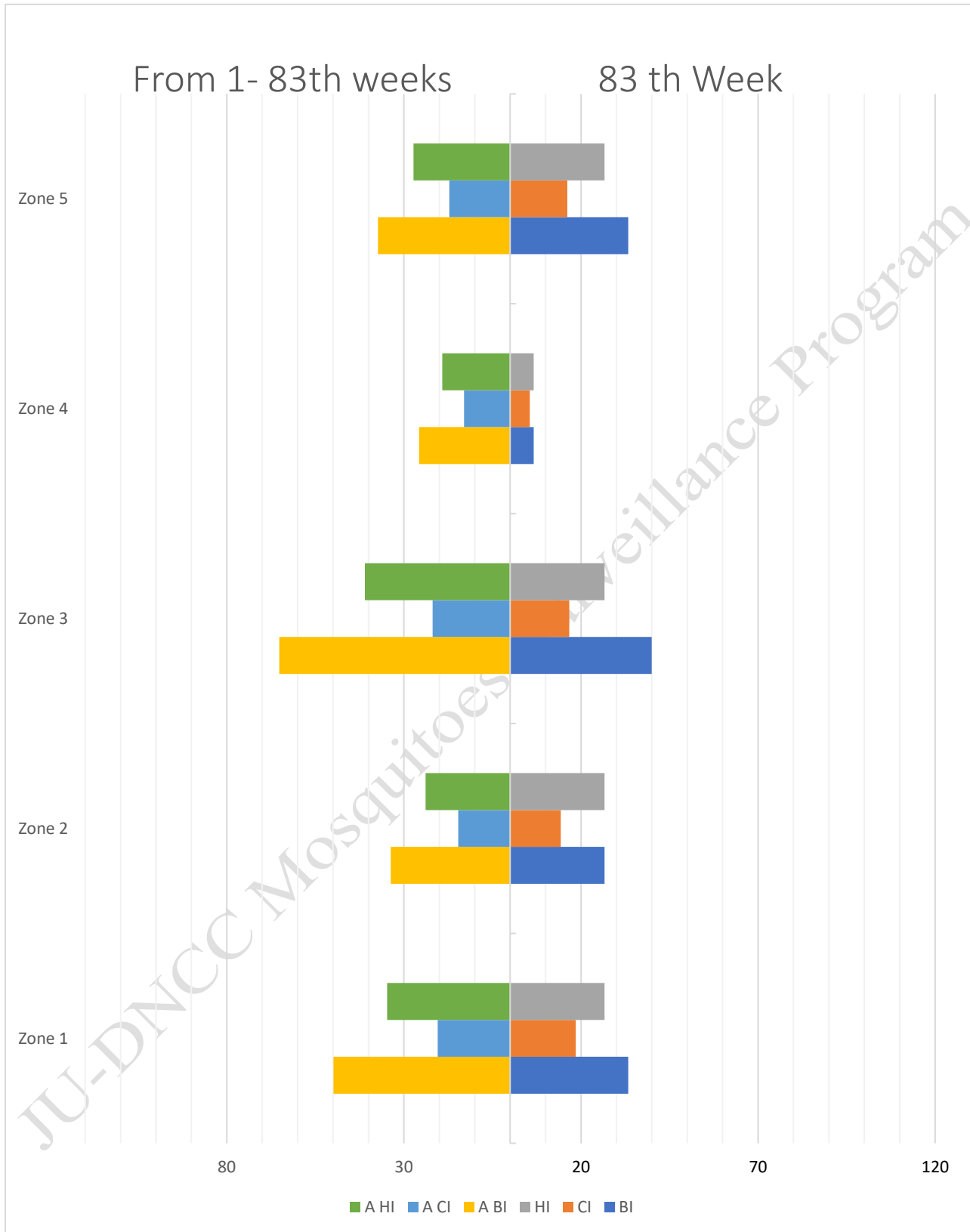


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

***NB: “A” stands for Average from 1st week.**

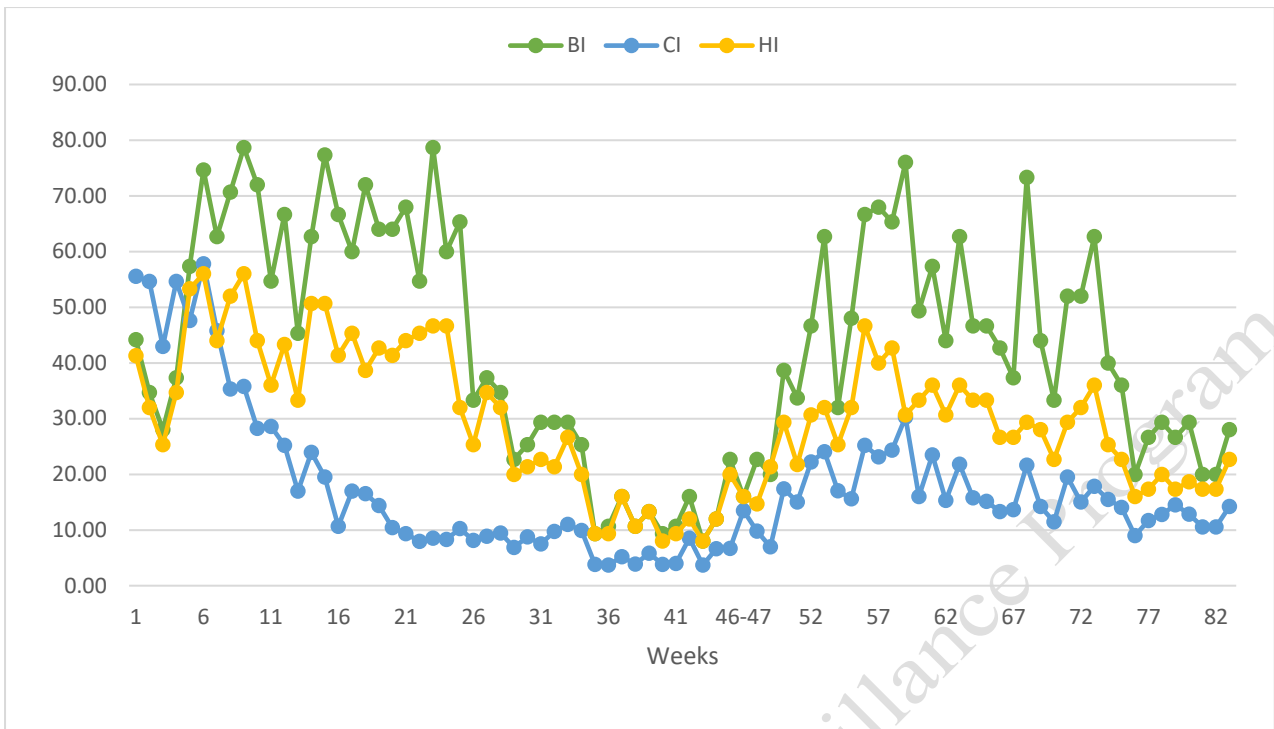


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

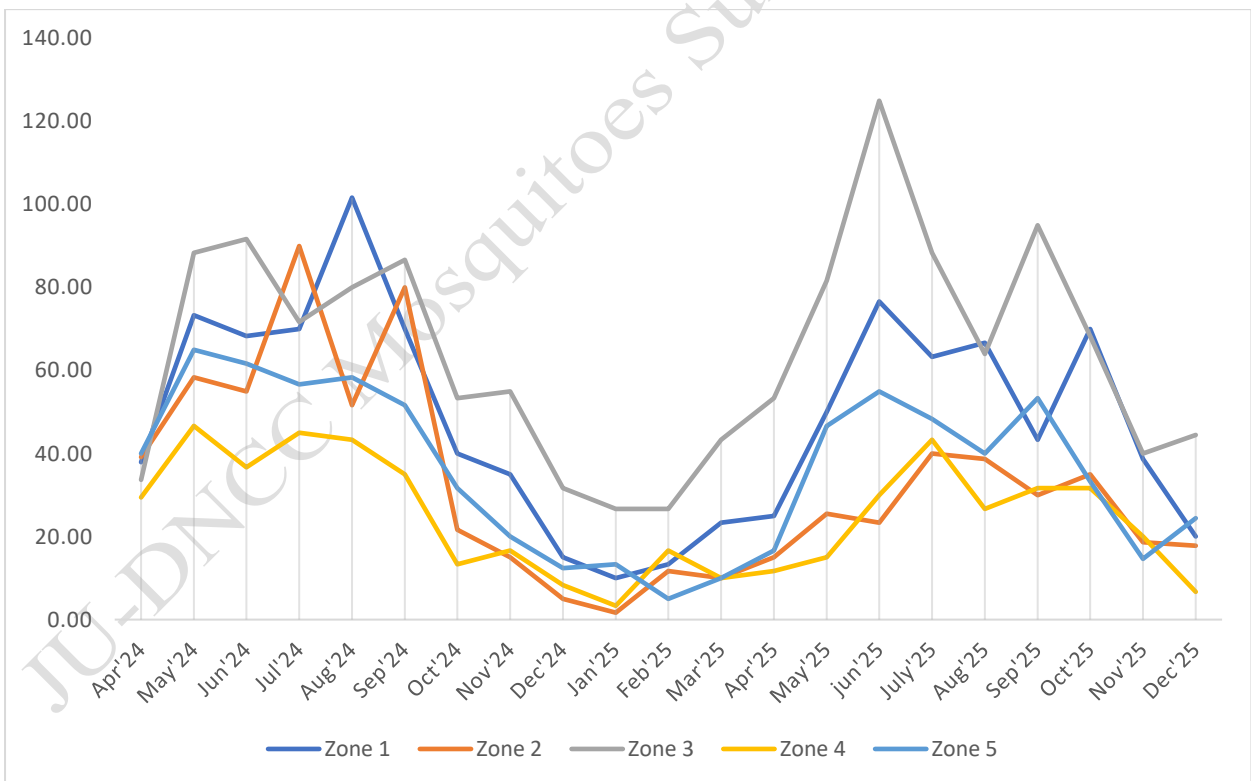


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

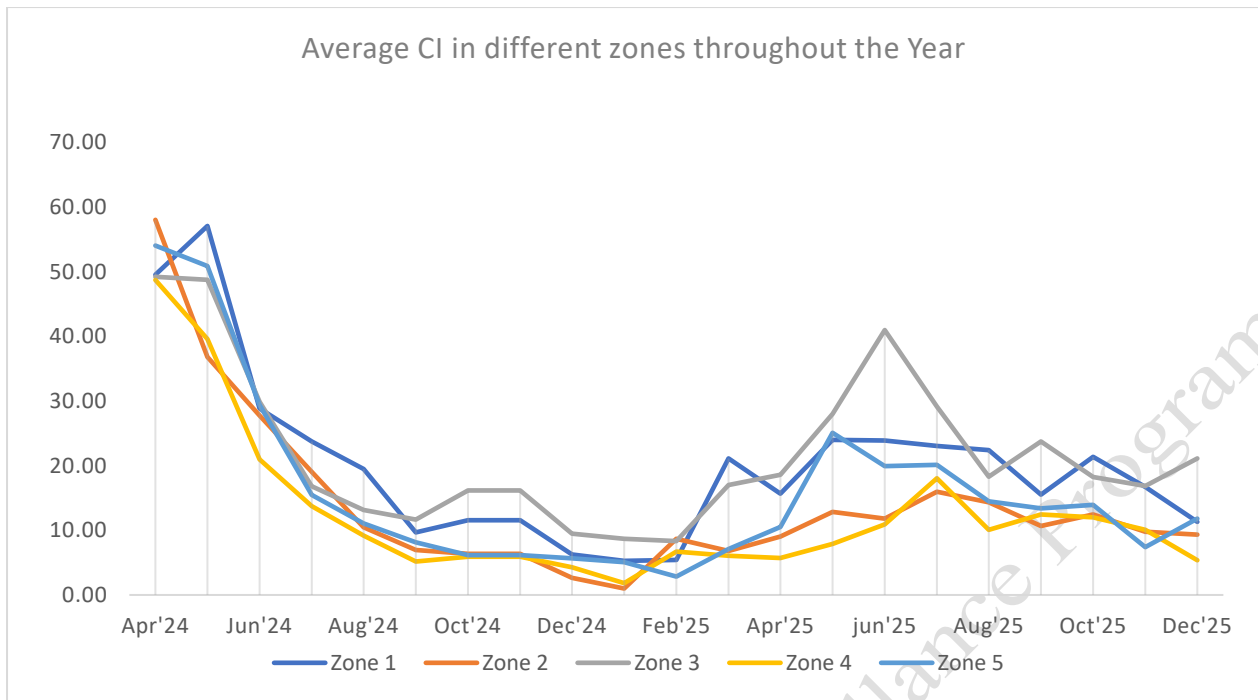


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

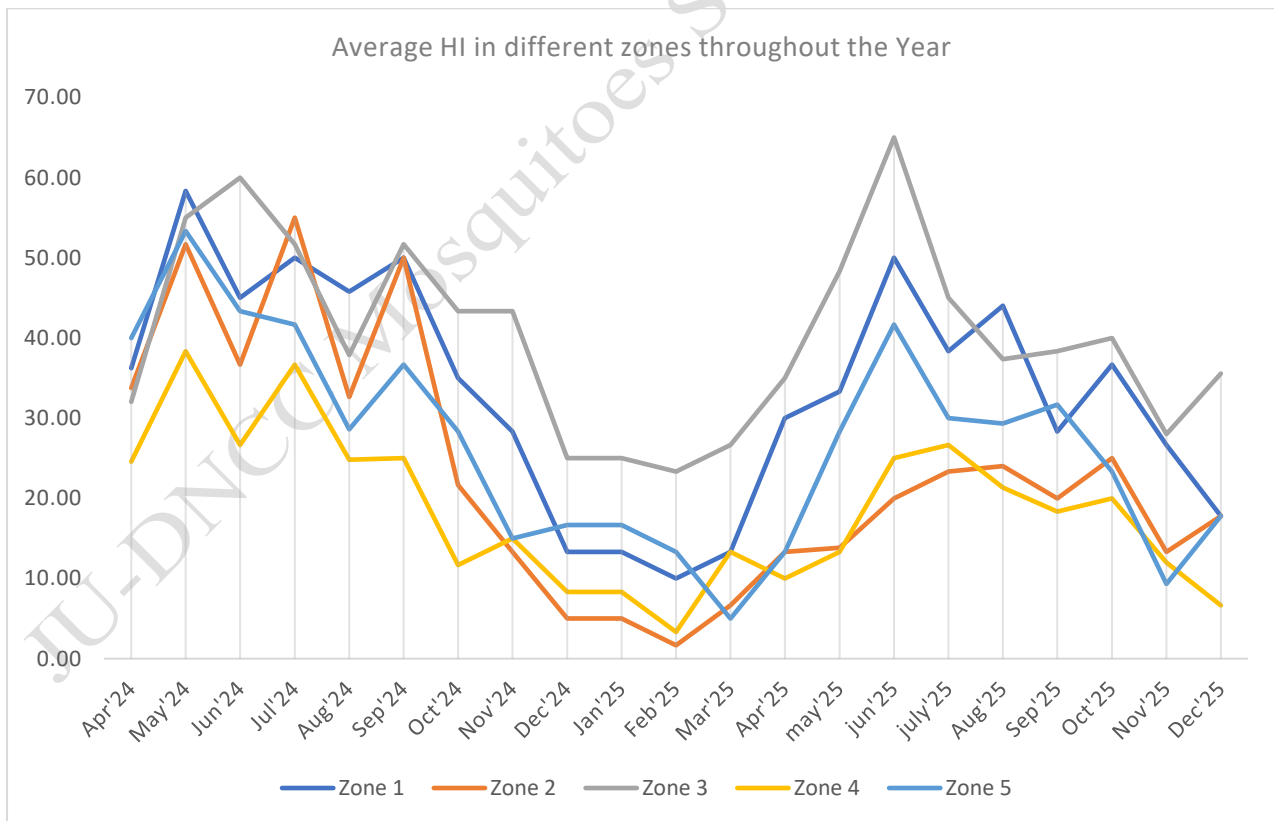


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

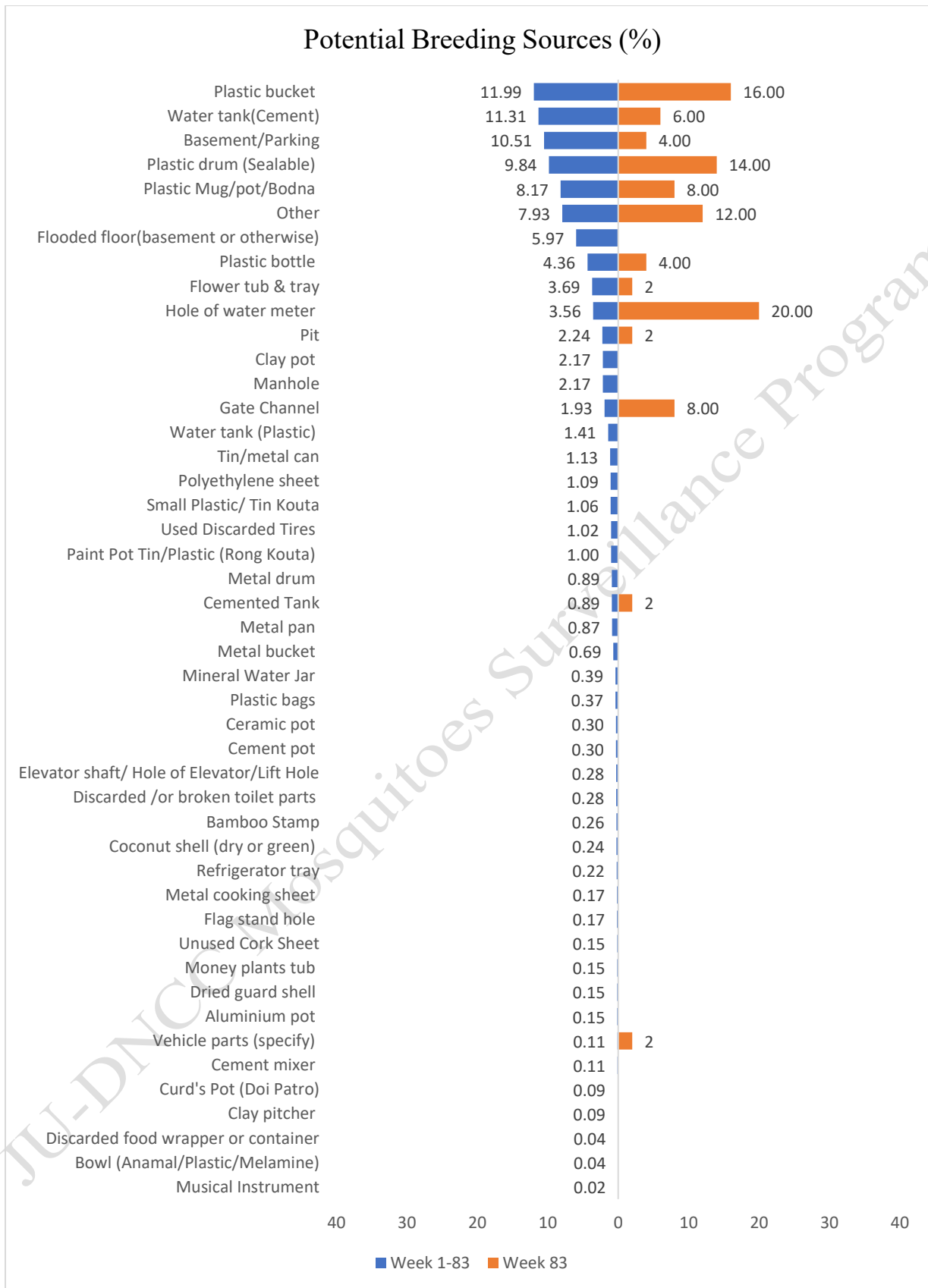


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

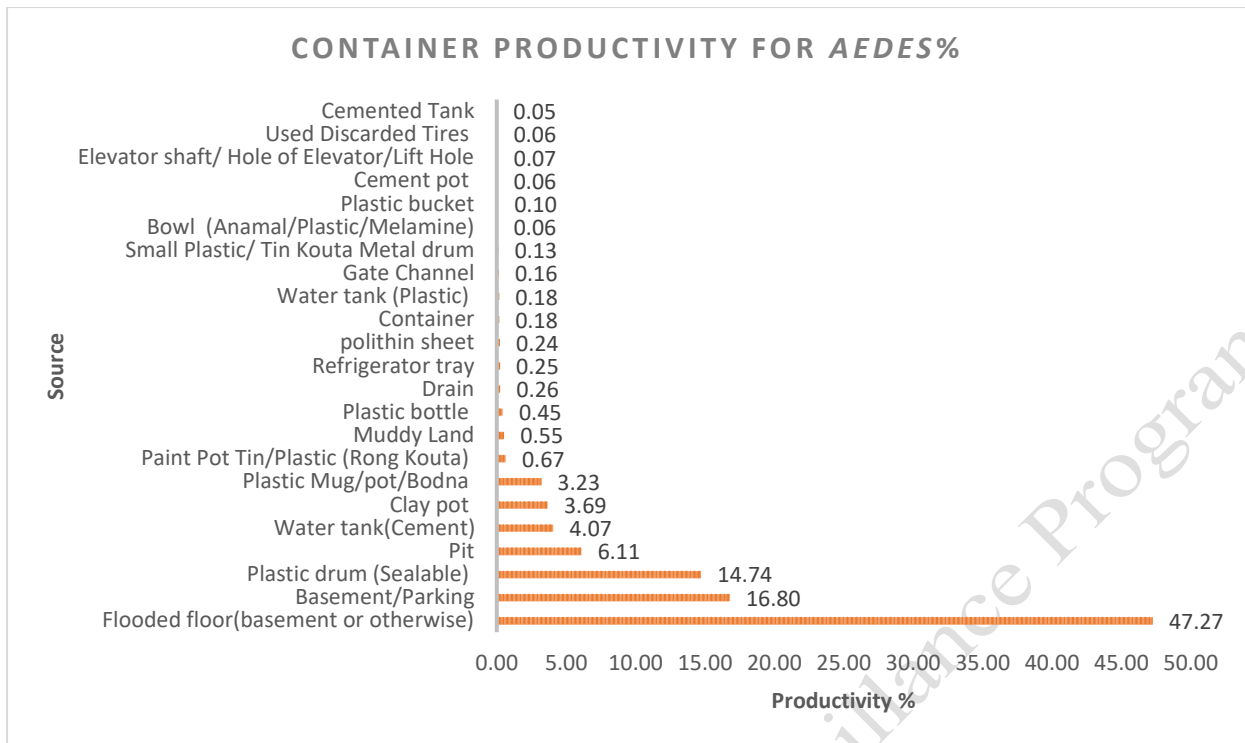


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

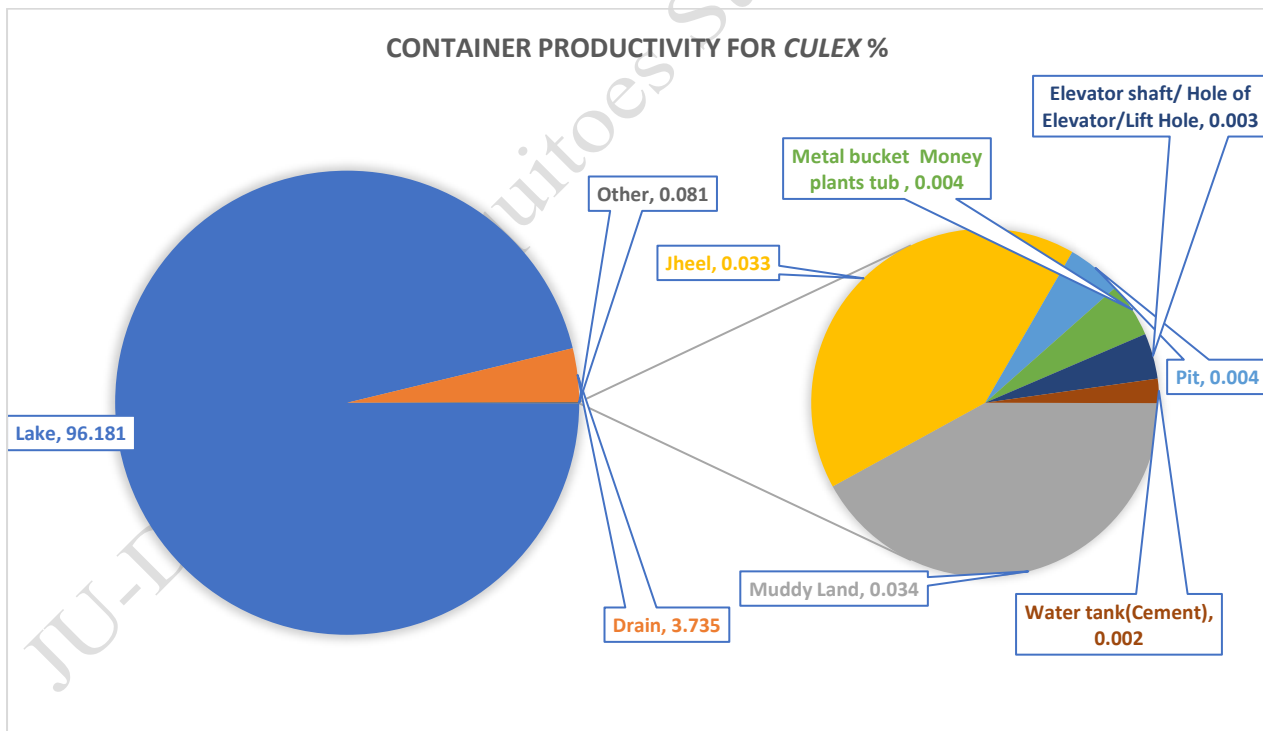


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 83 (May 2, 2024 - December 23, 2025)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 83 (May 2, 2024 - December 23, 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 83 (May 2, 2024 - December 23, 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

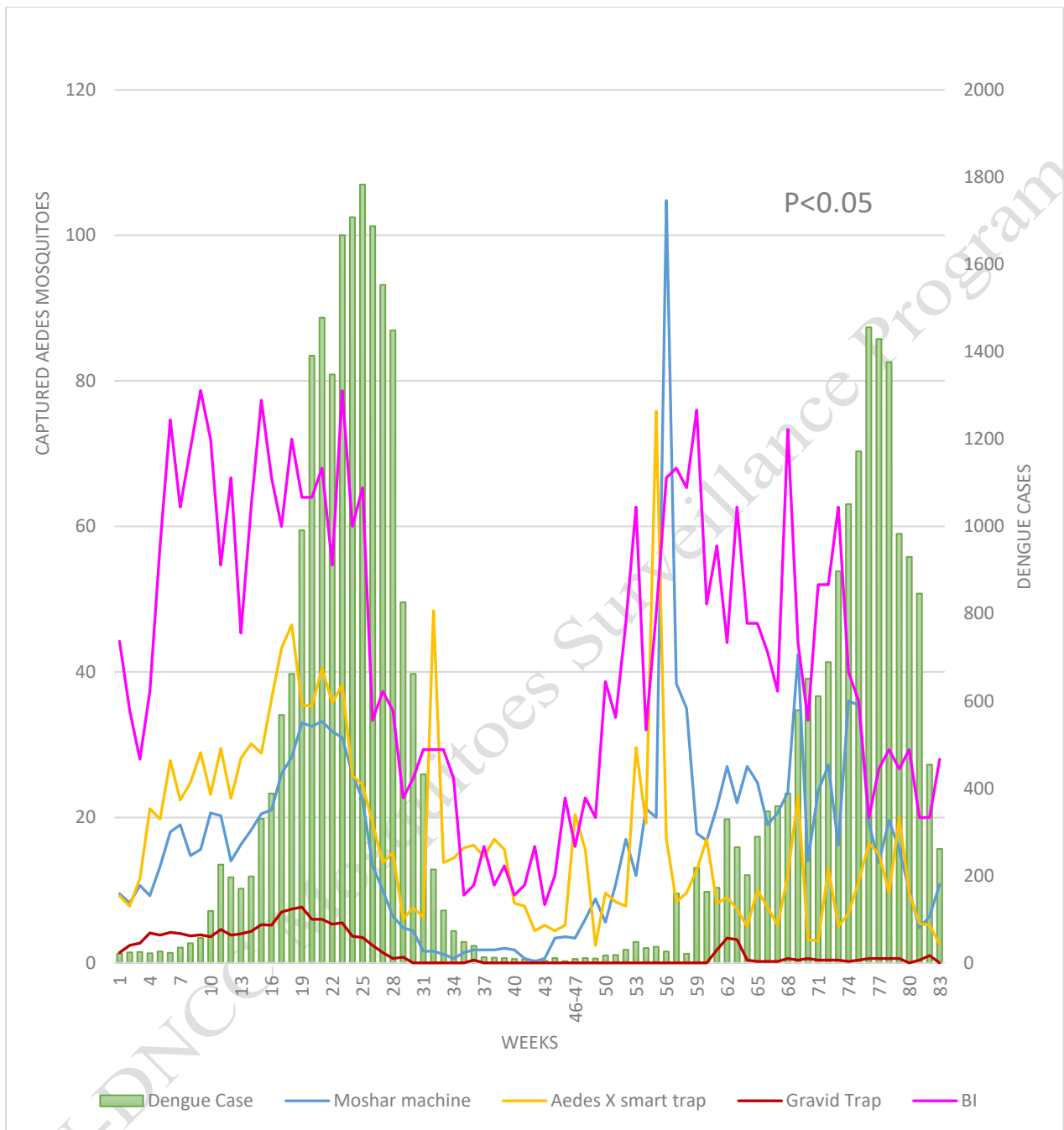


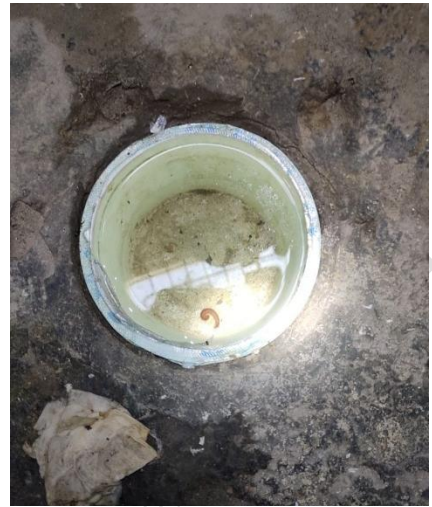
Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO₂ traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance



Samples Collection from Field



Samples Processing and Identification



Comments:

Overall mosquito density is rising and the dengue cases now declining. Furthermore, the Breteau Index (BI) is has gone down. It is high time for effective intervention. 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

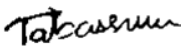
- Drainage systems should be kept flowing to prevent stagnant water accumulation.
- Canals, ponds, lakes, and muddy lowlands should be cleaned of waste, weeds, and organic matter.
- Septic tanks must be covered and regularly maintained.
- Emphasis should be placed on slum areas and waterlogged urban 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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(Prof. Dr. Kabirul Bashar)

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