



Weekly Report on JU-DNCC Mosquitoes Surveillance Program

Week 090 (February 6-10, 2026)

Submitted To

Chief Health officer
Dhaka North City Corporation
Dhaka, Bangladesh

Submitted By

IRES
Department of Zoology
Jahangirnagar University



IRES

JU-DNCC Collaboration Center

Department of Zoology
Jahangirnagar University
Email: ires@juniv.edu
Phone: +8801903307125

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.

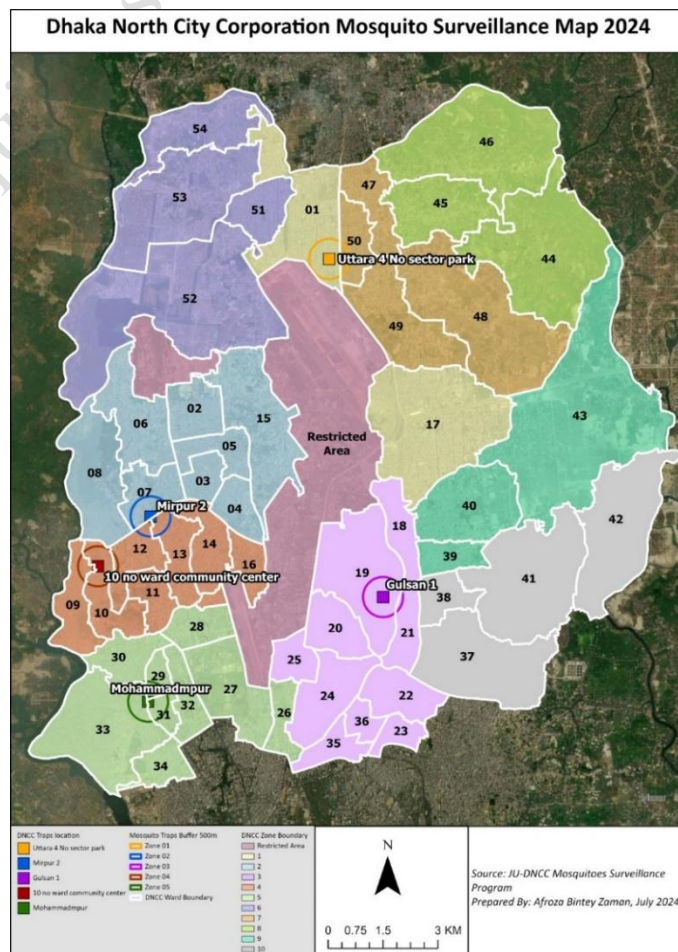
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

For the Adult mosquito collection

1. Light trap
2. Gravid trap

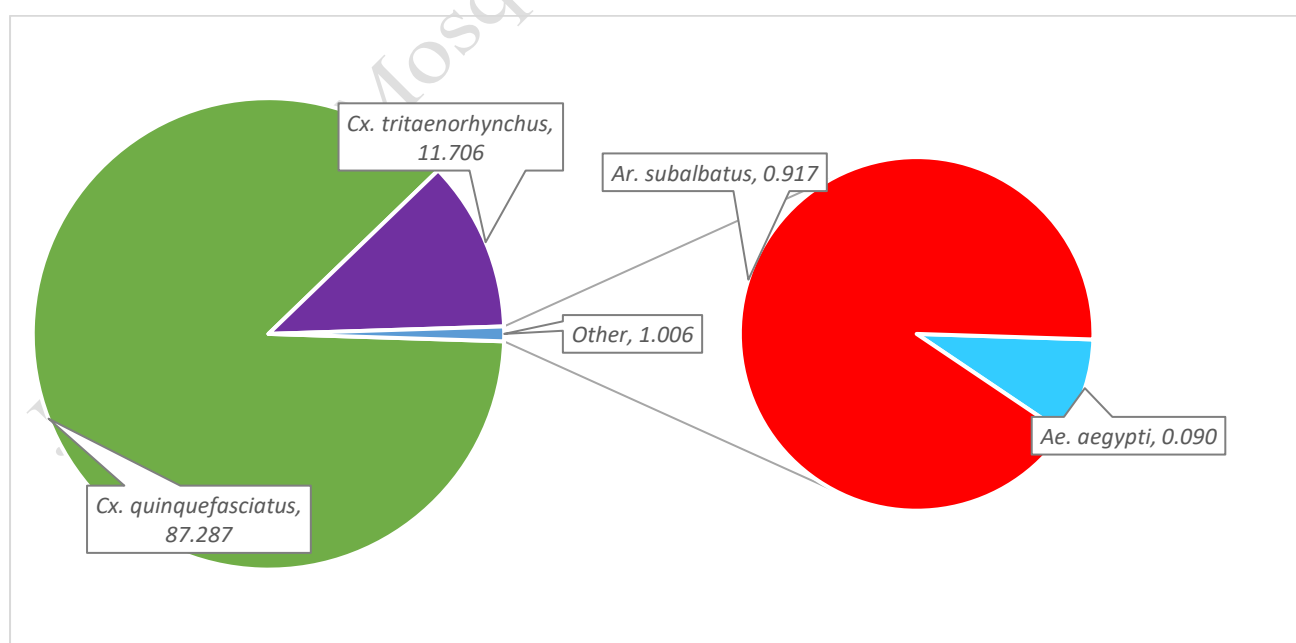
For the mosquito larvae collection

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



Results:**Table 1. Collected Adult Mosquitoes from Moshar Machine (CO₂) traps in Weeks 90 (February 6-10, 2026)**

Zone	N	<i>Ae. aegypti</i>	<i>Cx. quinquefasciatus</i>	<i>Cx. tritaeniorhynchus</i>	<i>Ar. subalbatus</i>
1	8903	3	7903	943	54
2	N/A	N/A	N/A	N/A	N/A
3	5111	5	4566	478	62
4	N/A	N/A	N/A	N/A	N/A
5	2678	7	2101	533	37
Total	16692	15	14570	1954	153
%	100.00	0.09	87.29	11.71	0.92

**Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO₂) traps in Weeks 90 (February 6-10, 2026)**

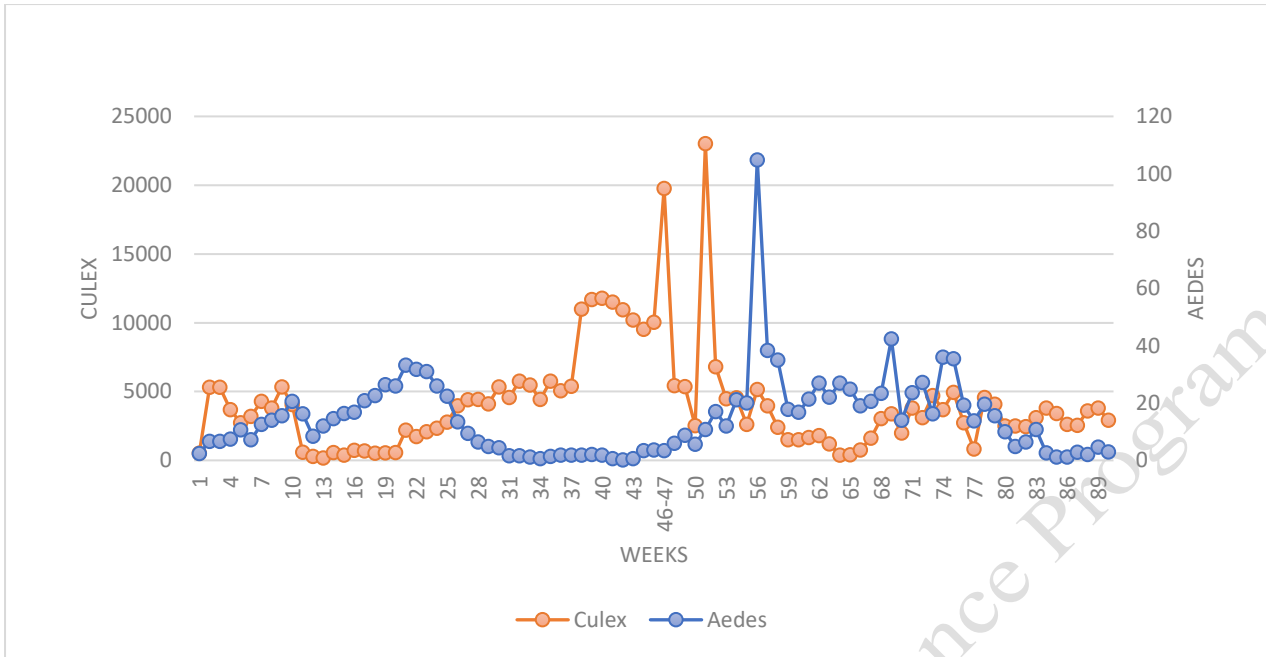


Fig 2: Average number of mosquitoes per Moshar Machine (CO₂) traps from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Weeks 90 (February 6-10, 2026)

Zone	N	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>
1	2	0	2
2	N/A	N/A	N/A
3	0	0	0
4	N/A	N/A	N/A
5	10	10	0
Total	12	10	2
(%)	100	83.33	16.67

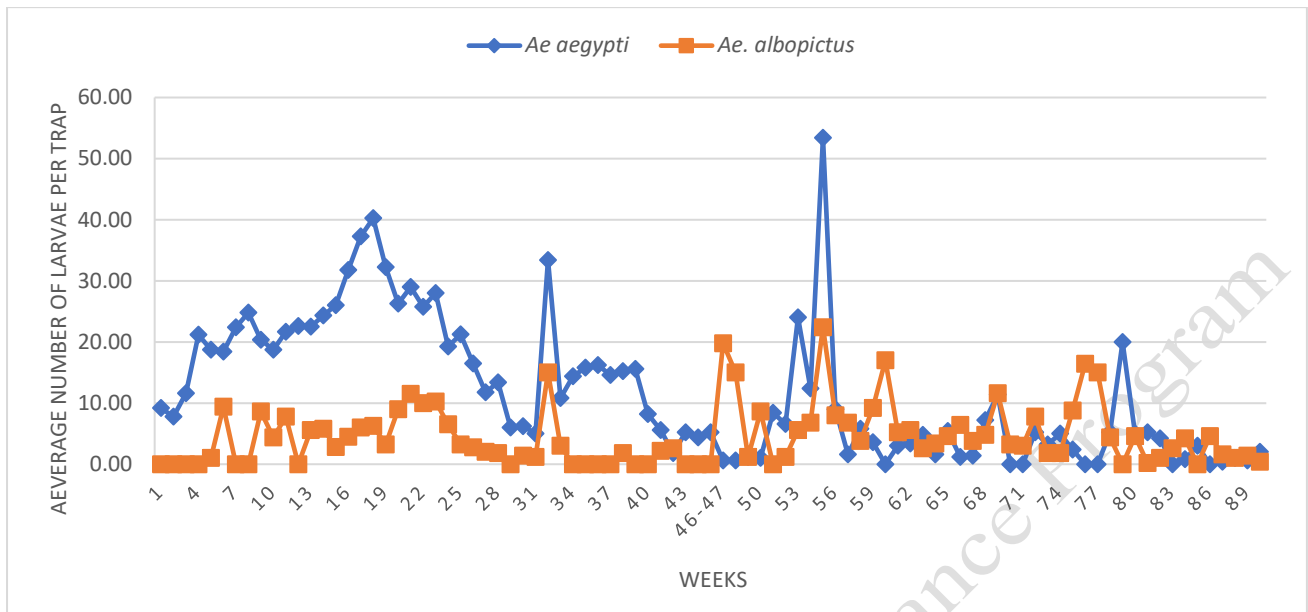


Fig 3: Average Number of Aedes Larvae per Aedes X Smart Trap in Zones 1-5 from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Weeks 90 (February 6-10, 2026)

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

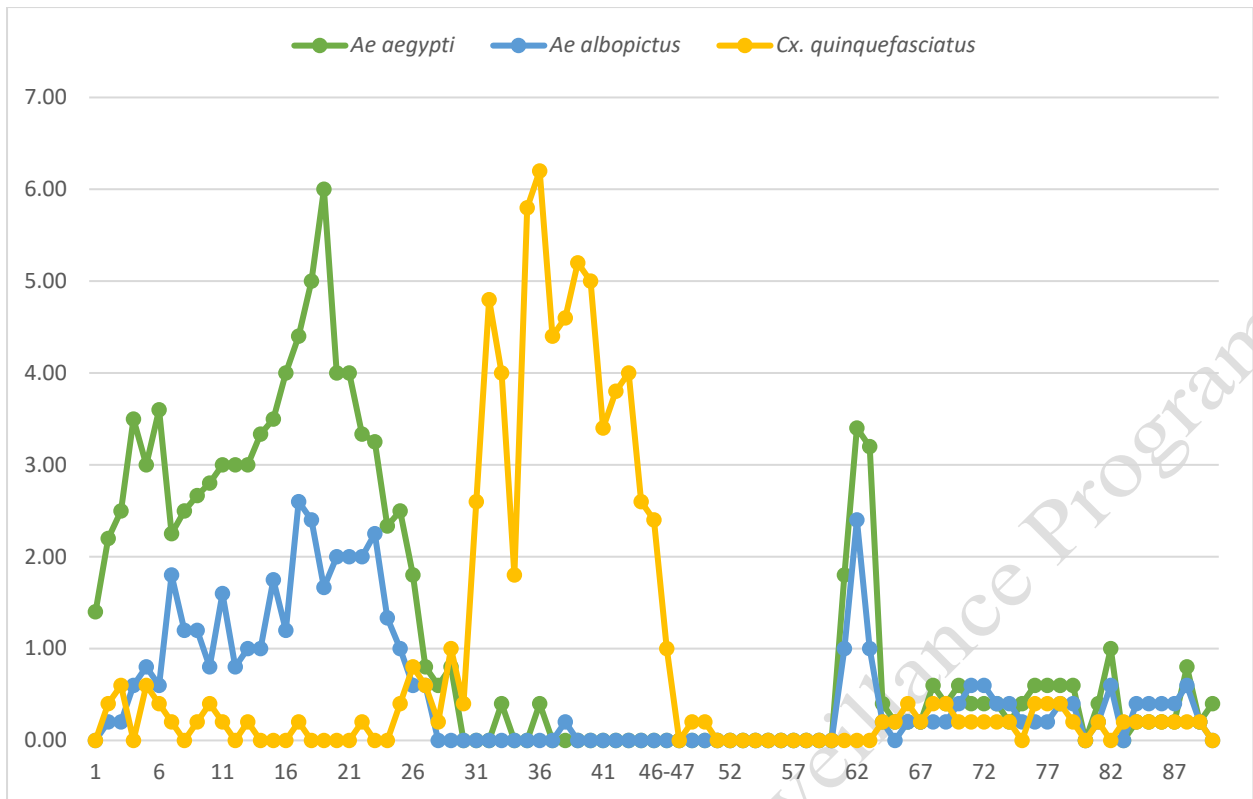


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

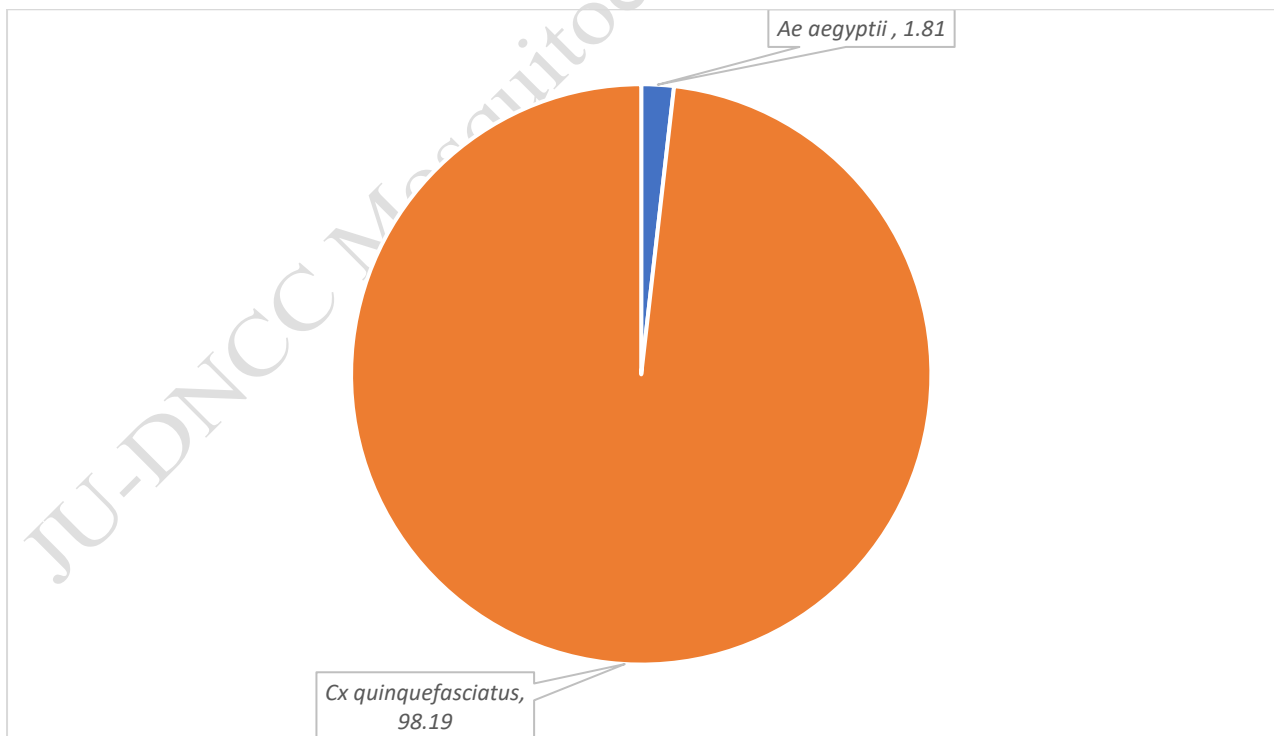


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Weeks 90 (February 6-10, 2026)

Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Weeks 90 (February 6-10, 2026)

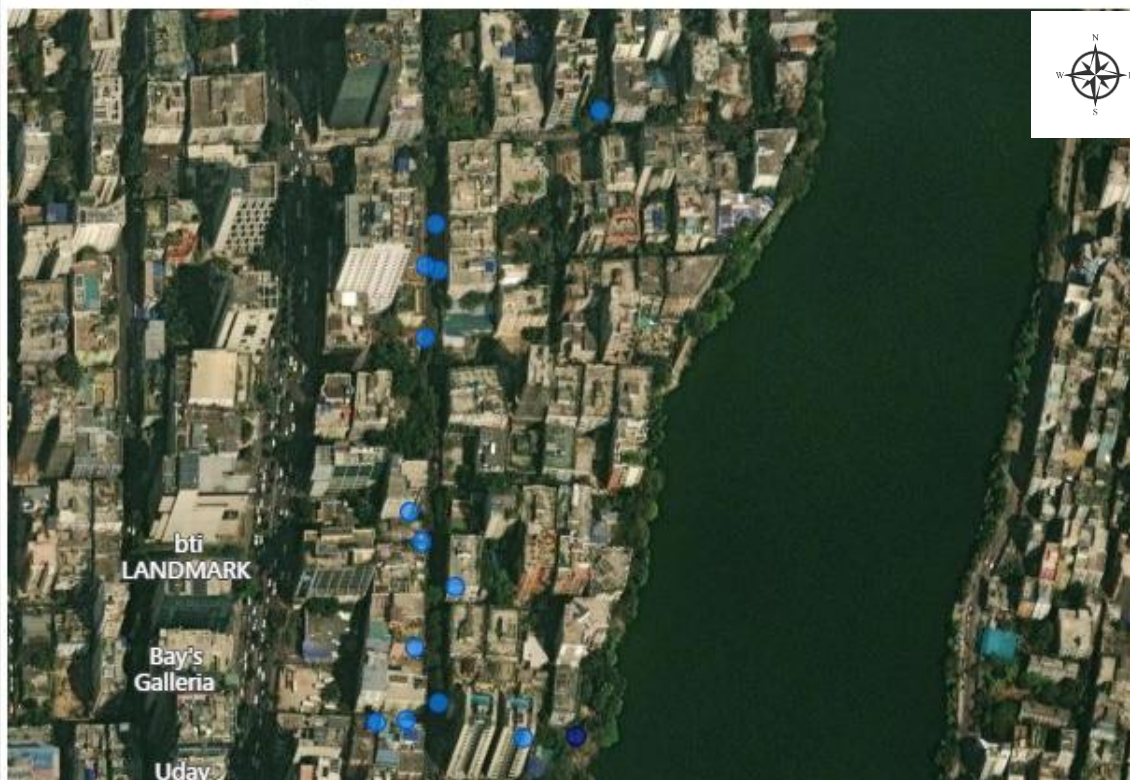
Zone	GPS Location	<i>Ae. aegypti</i>	<i>Ae. albopictus</i>	<i>Cx. quinquefasciatus</i>	<i>Ar. subalbatus</i>	Source
1	23.8638598 90.4012849	21	0	0	0	Hole of water meter
	23.8650056 90.401848	0	0	4578	0	Drain
	23.8651277 90.4016447	0	0	2457	0	Drain
	Sub Total	21	0	7035	0	
3	23.7861189 90.4155678	24	0	0	0	Plastic drum (Sealable)
	23.7862401 90.4154133	52	0	0	0	Basement/Parking
	23.7860877 90.4150656	0	0	54	0	Other
	23.7843246 90.4151474	23	0	564	0	Elevator shaft/ Hole of Elevator/Lift Hole
	Sub Total	99	0	618	0	
5	23.7608678 90.357271	21	0	0	0	Basement/Parking
	Sub Total	21	0	0	0	
Grand Total		141	0	7653	0	

Household Positive ● Negative ● Positive

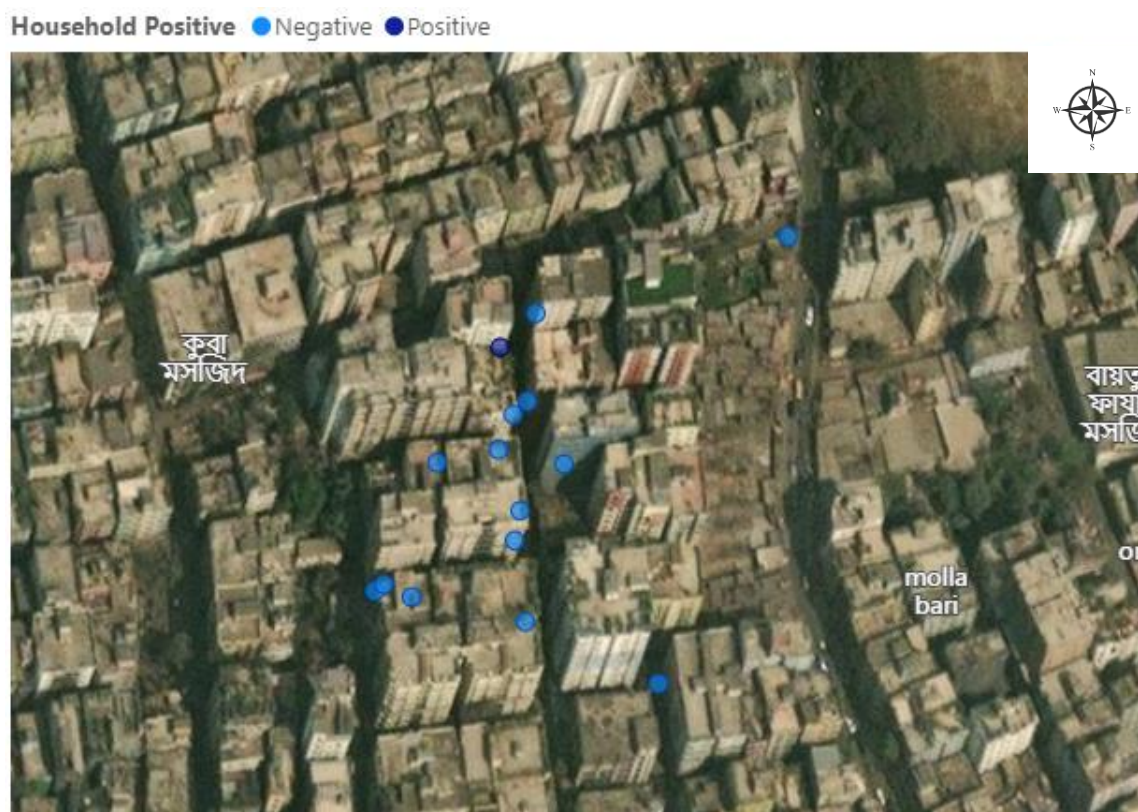


Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 90

Household Positive ● Negative ● Positive



Map 3: Positive and Negative House of Gulsan 1 at Weeks 90



Map 5: Positive and Negative House of Mohammadpur at Weeks 90

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Weeks 90 (February 6-10, 2026)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	4	27	4	26.67	14.81	26.67
2	15	N/A	N/A	N/A	N/A	N/A	N/A
3	15	4	31	5	33.33	16.13	26.67
4	15	N/A	N/A	N/A	N/A	N/A	N/A
5	15	1	26	1	6.67	3.85	6.67

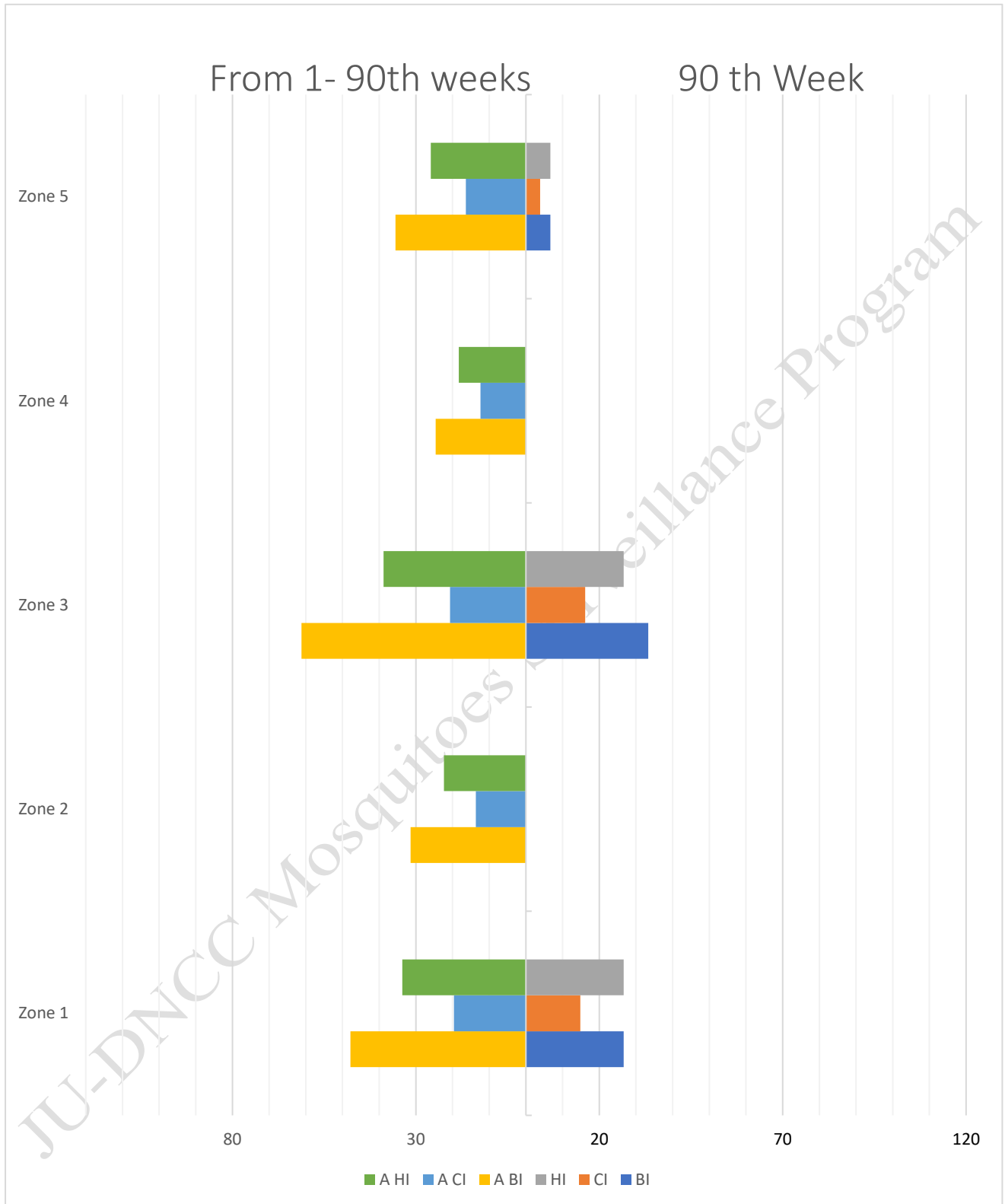


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

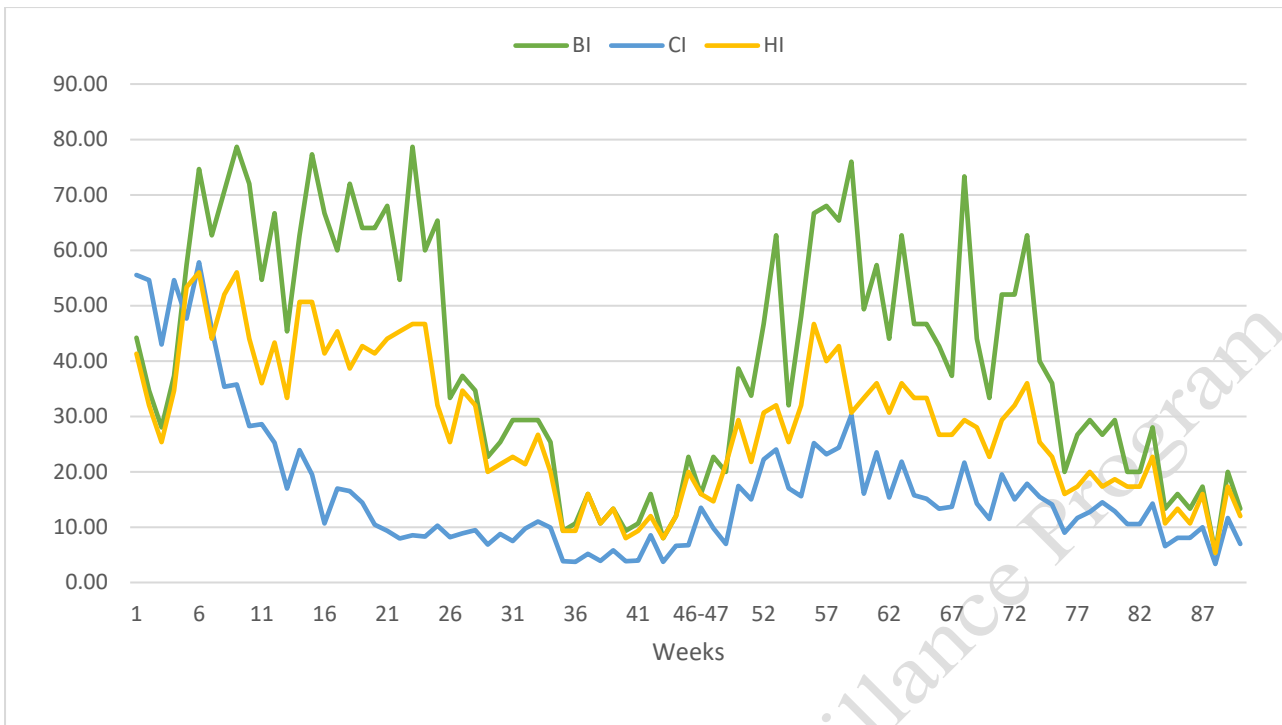


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

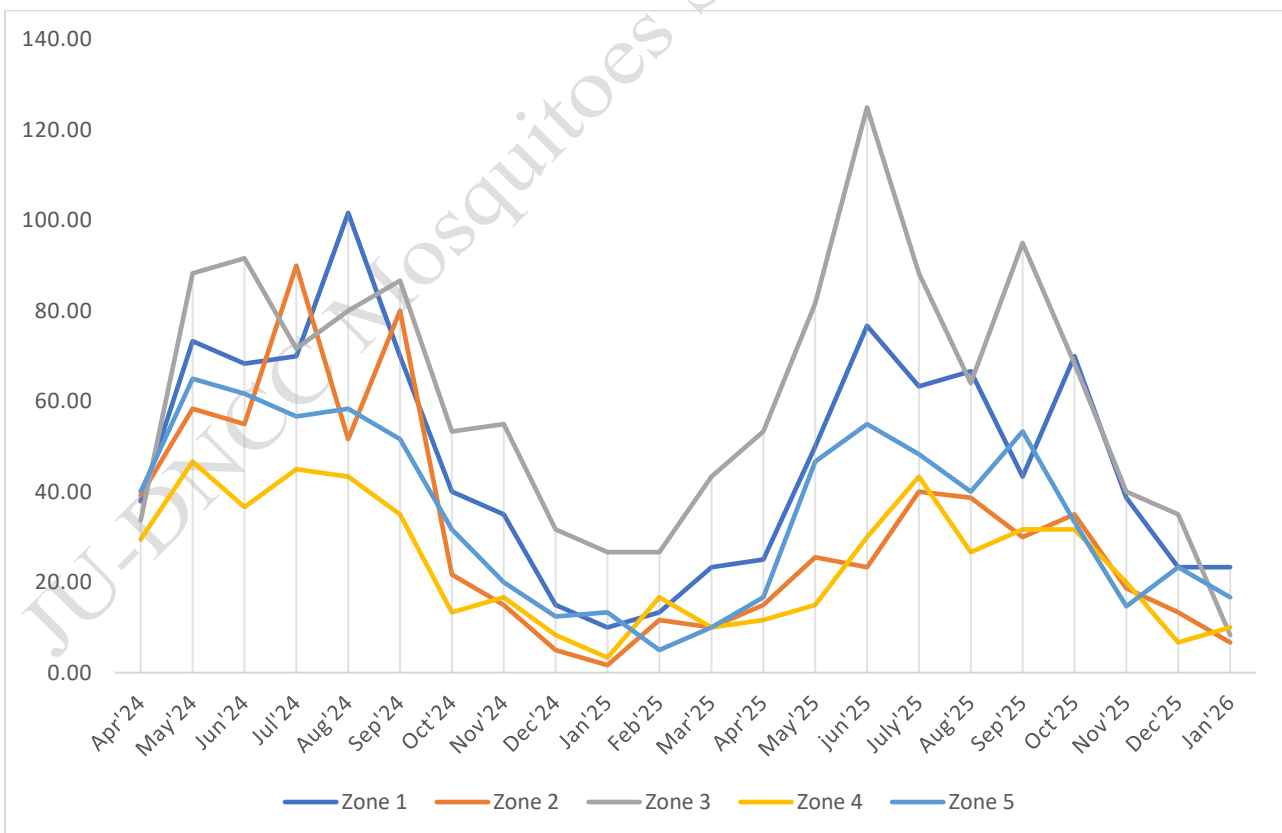


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

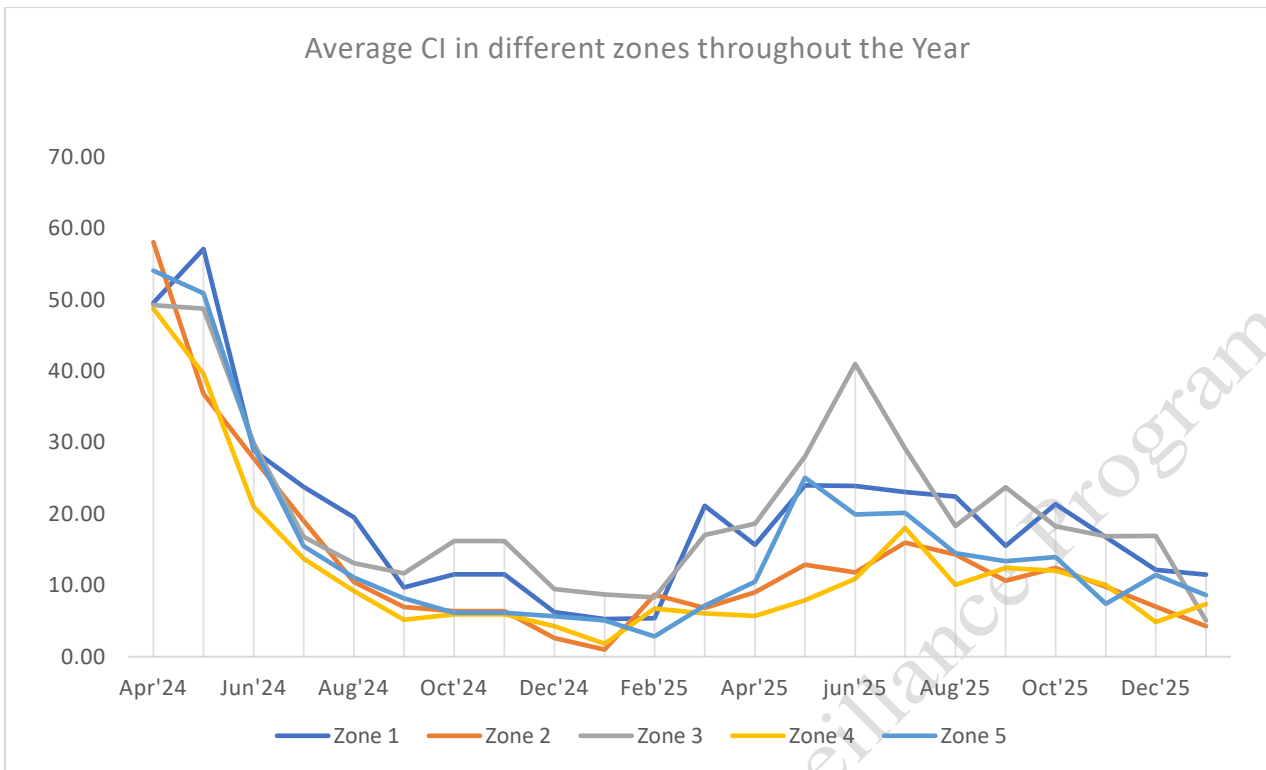


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

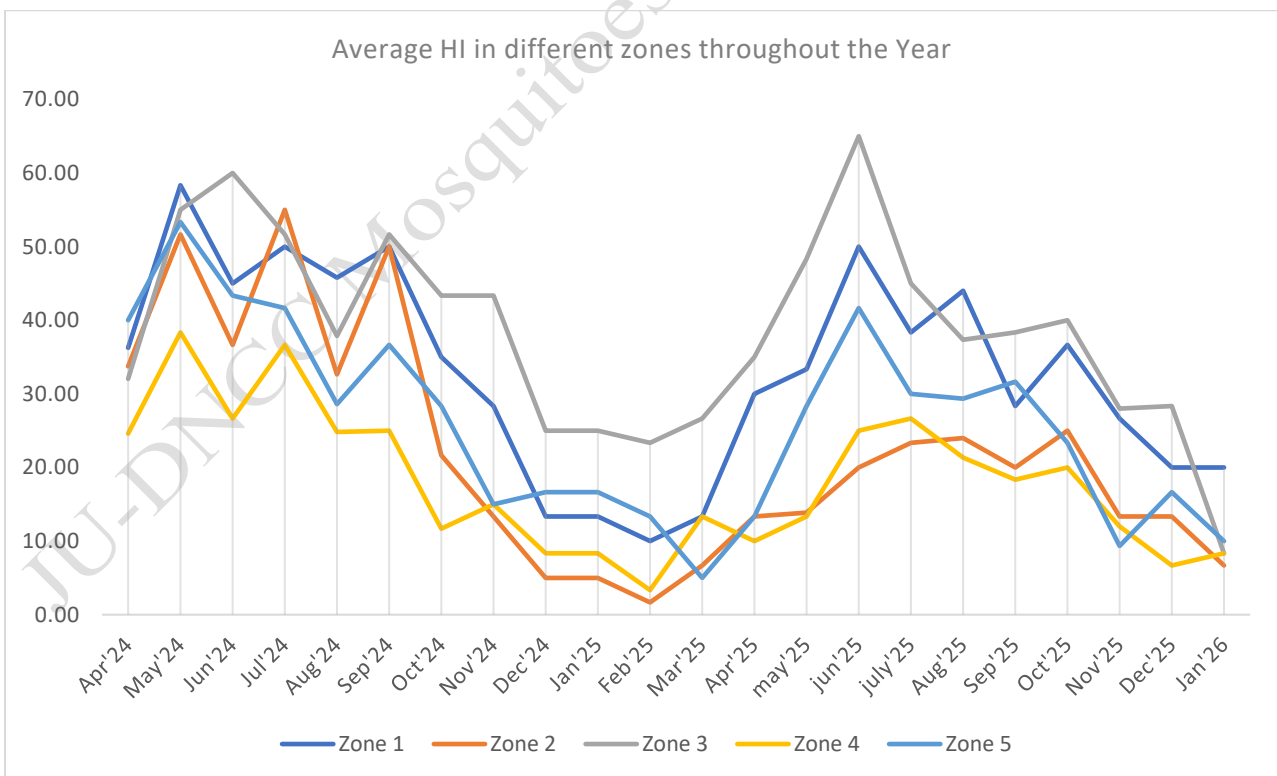


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

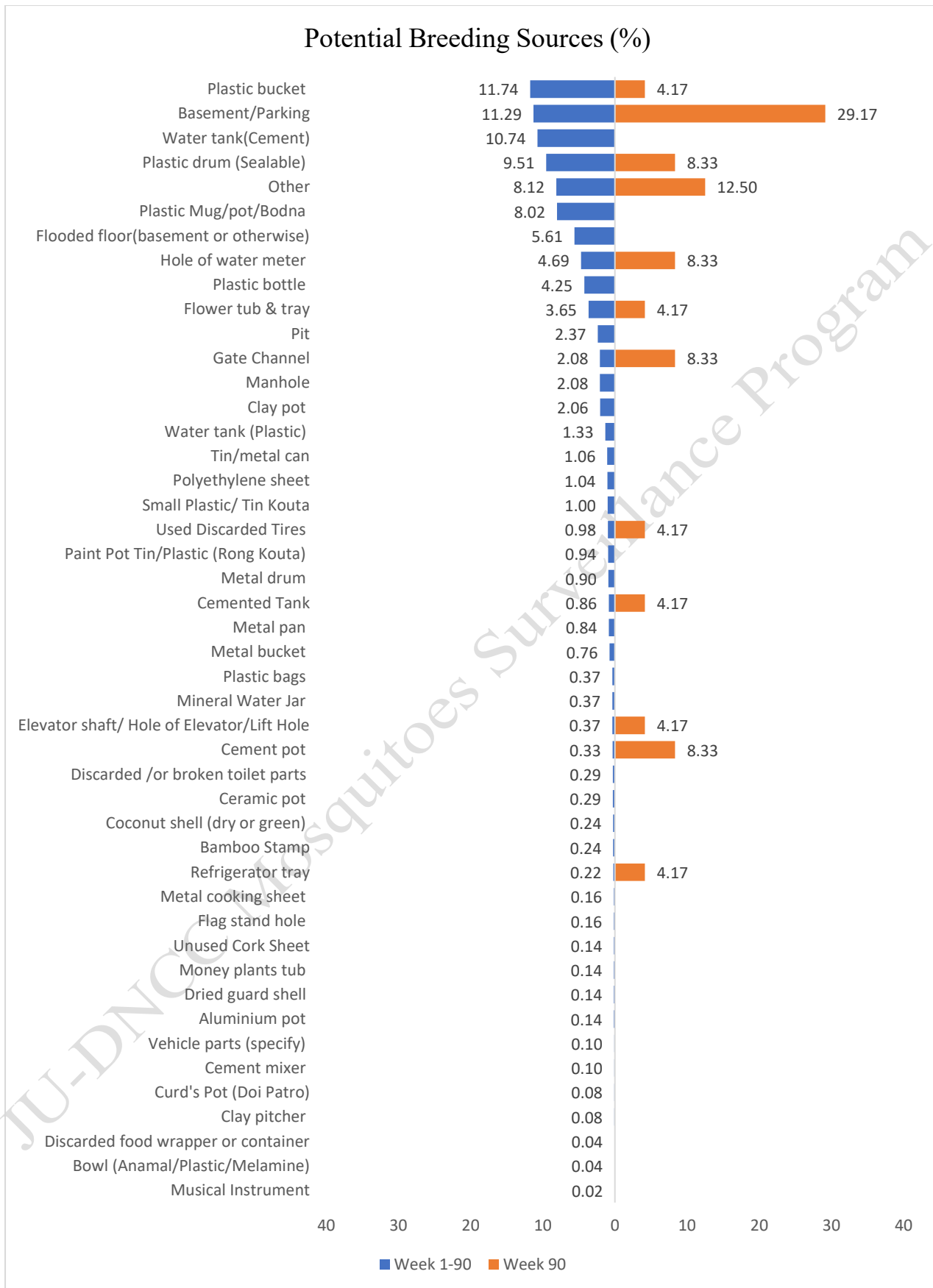


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

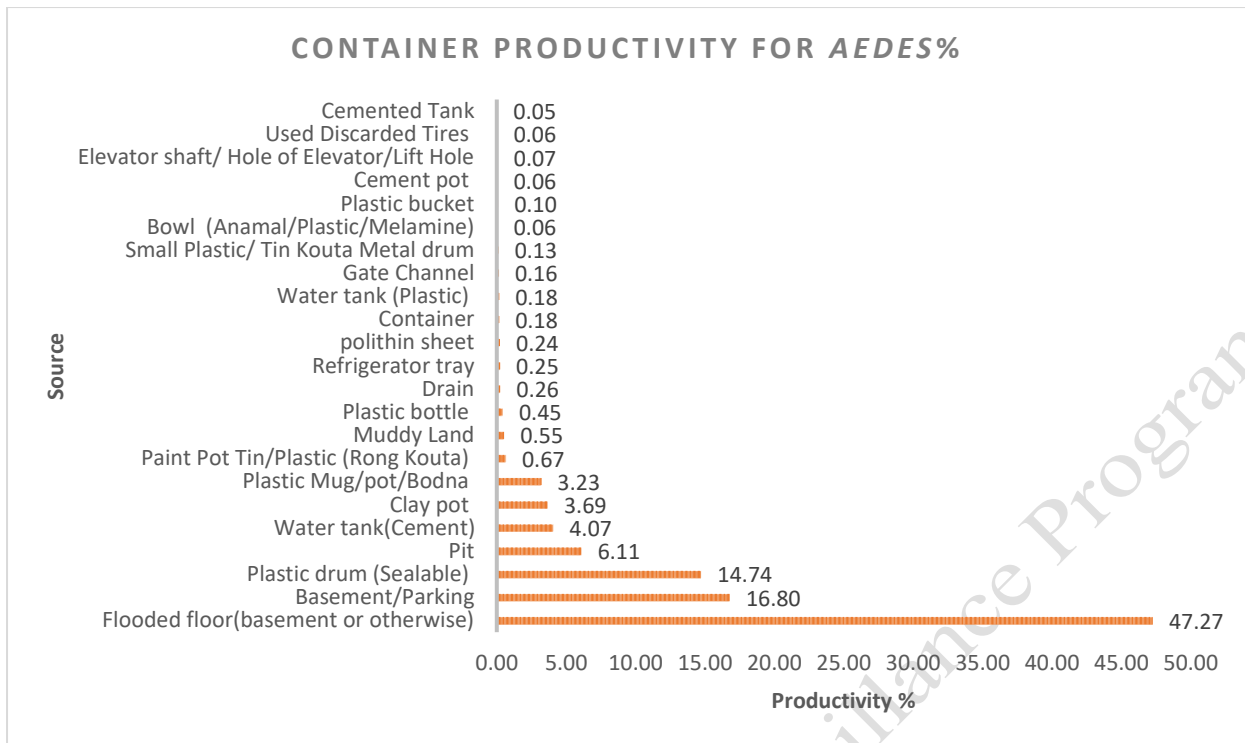


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

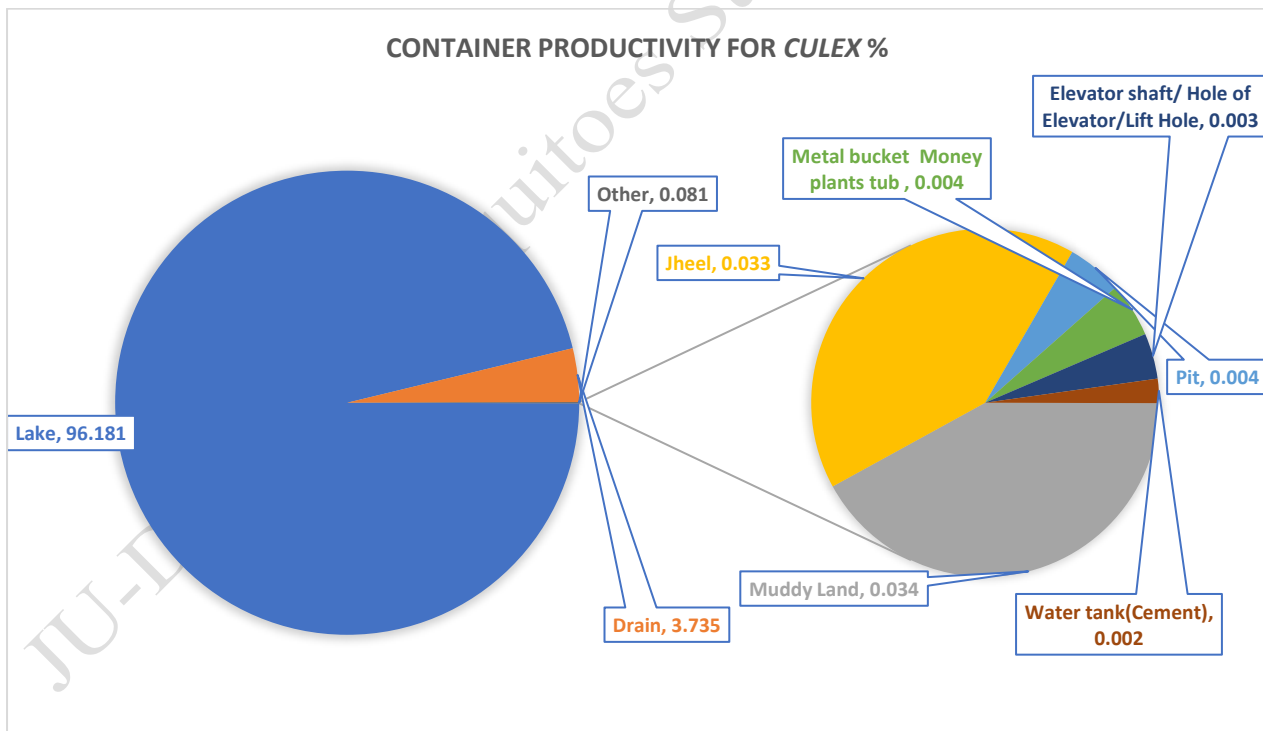


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 90 (May 2, 2024 - February 10, 2026)

Sources	+House	-WC	+WC	Total WC	% WC	% PWC
Plastic bucket	192	261	308	569	11.80	6.38
Basement/Parking	201	40	490	530	10.99	10.16
Water tank(Cement)	162	252	271	523	10.84	5.62
Plastic drum (Sealable)	221	78	384	462	9.58	7.96
Plastic Mug/pot/Bodna	164	82	310	392	8.13	6.43
Other	187	128	261	389	8.06	5.41
Flooded floor(basement or otherwise)	128	138	137	275	5.70	2.84
Hole of water meter	44	4	216	220	4.56	4.48
Plastic bottle	79	63	144	207	4.29	2.99
Flower tub & tray	65	25	150	175	3.63	3.11
Pit	59	22	93	115	2.38	1.93
Manhole	55	29	73	102	2.11	1.51
Clay pot	83	11	90	101	2.09	1.87
Gate Channel	31	33	64	97	2.01	1.33
Water tank (Plastic)	20	28	37	65	1.35	0.77
Tin/metal can	30	0	52	52	1.08	1.08
Polyethylene sheet	33	3	48	51	1.06	1.00
Small Plastic/ Tin Kouta	24	9	40	49	1.02	0.83
Used Discarded Tires	28	16	31	47	0.97	0.64
Paint Pot Tin/Plastic (Rong Kouta)	30	5	41	46	0.95	0.85
Metal drum	17	7	36	43	0.89	0.75
Cemented Tank	22	13	28	41	0.85	0.58
Metal pan	17	3	37	40	0.83	0.77
Metal bucket	20	5	32	37	0.77	0.66
Mineral Water Jar	6	4	14	18	0.37	0.29
Plastic bags	8	1	17	18	0.37	0.35
Elevator shaft/ Hole of Elevator/Lift Hole	6	4	13	17	0.35	0.27
Cement pot	11	0	14	14	0.29	0.29
Ceramic pot	13	0	14	14	0.29	0.29
Discarded /or broken toilet parts	11	2	12	14	0.29	0.25
Bamboo Stamp	9	0	12	12	0.25	0.25
Coconut shell (dry or green)	4	0	12	12	0.25	0.25
Refrigerator tray	8	0	10	10	0.21	0.21
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	0.12
Cement mixer	2	0	5	5	0.10	0.10
Vehicle parts (specify)	3	1	4	5	0.10	0.08
Clay pitcher	3	1	3	4	0.08	0.06
Curd's Pot (Doi Patro)	3	0	4	4	0.08	0.08
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 90 (May 2, 2024 - February 10, 2026)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.05	2.09	2.32	2.92	2.40
Basement/Parking	2.82	1.58	2.90	1.12	2.57
Water tank(Cement)	1.37	1.74	1.45	3.21	3.07
Plastic drum (Sealable)	1.41	2.30	1.64	2.22	2.01
Plastic Mug/pot/Bodna	1.45	1.43	1.58	2.32	1.35
Other	2.65	1.41	2.14	0.73	1.14
Flooded floor(basement or otherwise)	1.47	1.26	0.95	0.62	1.39
Hole of water meter	0.60	0.95	0.21	1.33	1.47
Plastic bottle	0.56	1.00	0.62	1.12	1.00
Flower tub & tray	1.12	0.62	1.10	0.48	0.31
Pit	0.66	0.27	0.81	0.33	0.31
Manhole	0.87	0.25	0.66	0.23	0.10
Clay pot	0.25	0.44	0.64	0.25	0.52
Gate Channel	0.73	0.21	0.56	0.08	0.44
Water tank (Plastic)	0.00	0.85	0.19	0.17	0.15
Tin/metal can	0.31	0.29	0.21	0.21	0.06
Polyethylene sheet	0.29	0.29	0.21	0.19	0.08
Small Plastic/ Tin Kouta	0.27	0.19	0.29	0.12	0.15
Used Discarded Tires	0.37	0.27	0.19	0.08	0.06
Paint Pot Tin/Plastic (Rong Kouta)	0.23	0.10	0.29	0.21	0.12
Metal drum	0.17	0.10	0.23	0.29	0.10
Cemented Tank	0.17	0.12	0.21	0.25	0.10
Metal pan	0.19	0.15	0.27	0.08	0.15
Metal bucket	0.12	0.08	0.23	0.17	0.17
Mineral Water Jar	0.04	0.02	0.06	0.17	0.08
Plastic bags	0.04	0.02	0.08	0.12	0.10
Elevator shaft/ Hole of Elevator/Lift Hole	0.15	0.08	0.06	0.00	0.06
Cement pot	0.04	0.00	0.12	0.02	0.10
Ceramic pot	0.06	0.02	0.06	0.02	0.12

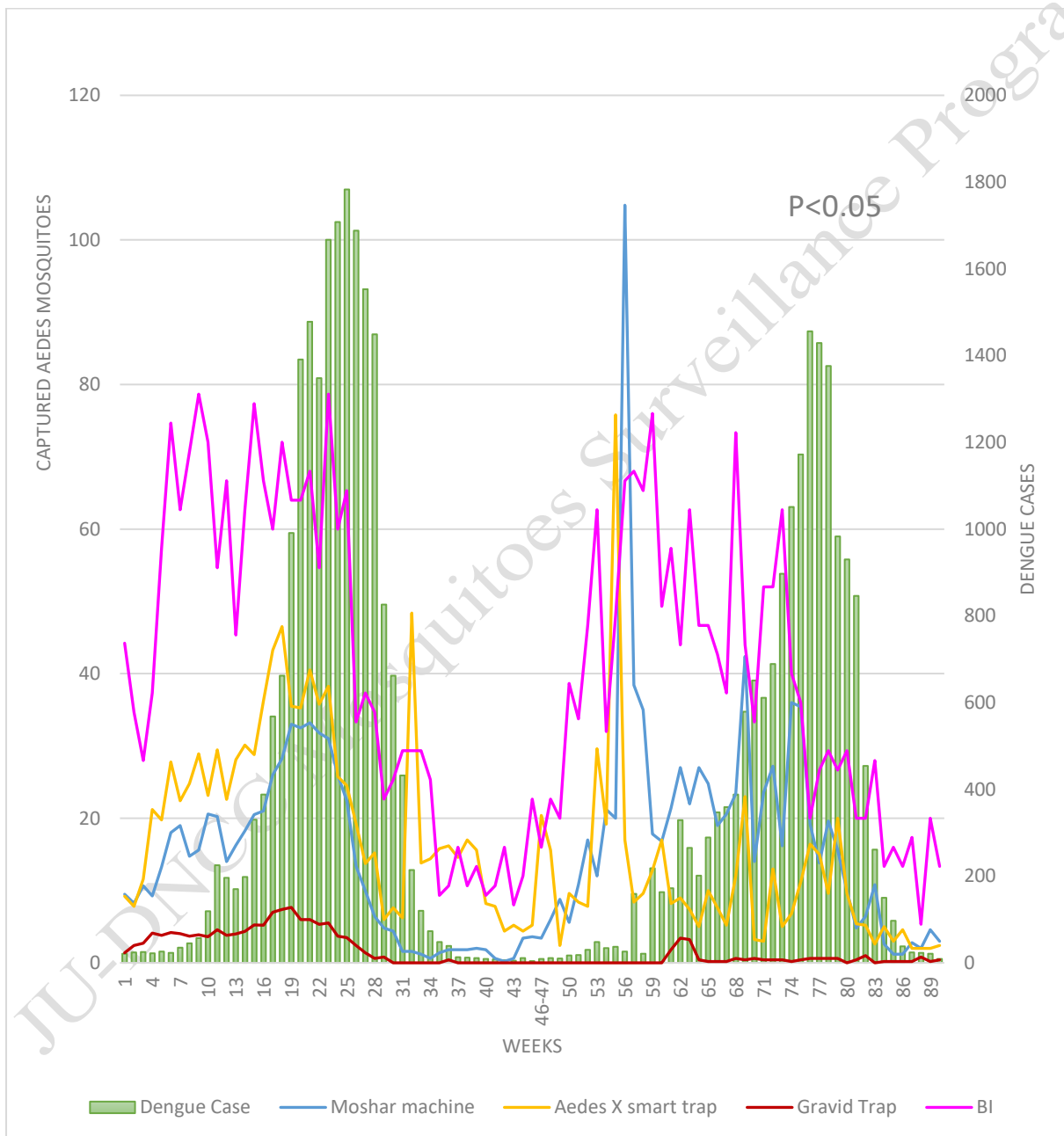
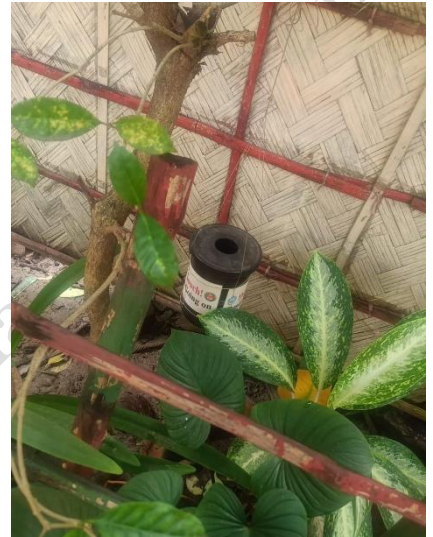


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO₂ traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance



Samples Collection from Field



Samples Processing and Identification



Comments:

Overall mosquito density is rising but the dengue cases now declining rapidly. The Breteau Index (BI) is has gone lower again. 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

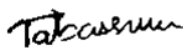
- Drainage systems should be kept flowing to prevent stagnant water accumulation.
- Canals, ponds, lakes, and muddy lowlands should be cleaned of waste, weeds, and organic matter.
- Septic tanks must be covered and regularly maintained.
- Emphasis should be placed on slum areas and waterlogged urban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



(Tabassum Mostofa Mim)

Entomologist

IRES

JU-DNCC Collaboration Center



(Prof. Dr. Kabirul Bashar)

Focal person

IRES

JU-DNCC Collaboration Center

