Weekly Report on

JU-DNCC Mosquitoes Surveillance Program

Week 104 (May 22-25, 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.

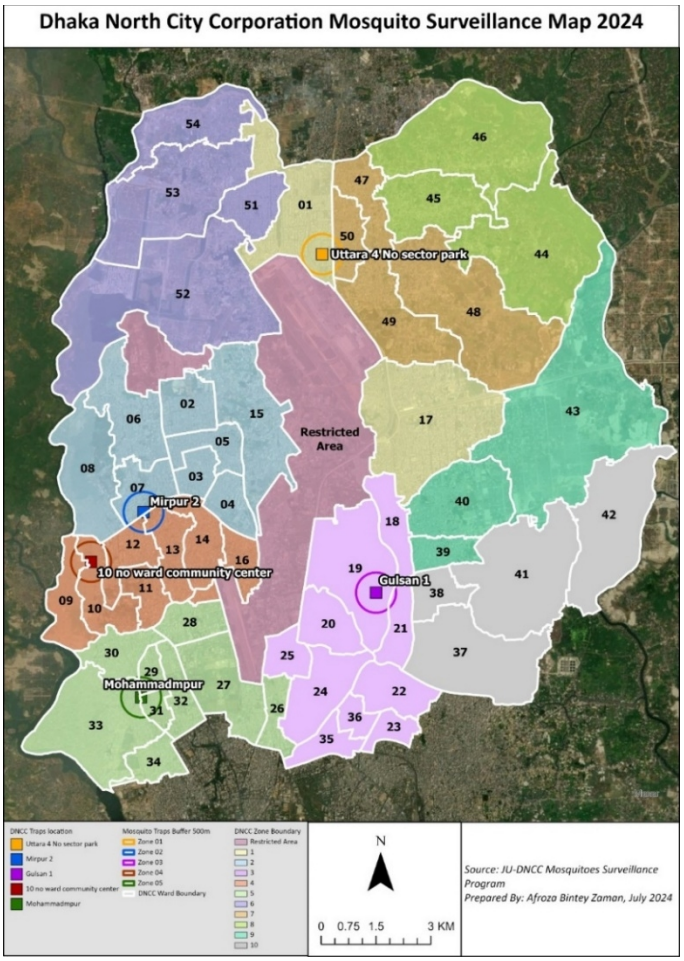
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 (CO_2) traps in Week 104 (May 22-25, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Cx. tritaeniorhynchus*	*Ar. subalbatus*	*An. vagus*	*An. subpictus*
1	8629	7	3	6800	1700	112	2	5
2	535	5	0	323	165	42	0	0
3	2404	23	4	1605	750	22	0	0
4	429	6	2	195	170	52	0	4
5	2139	15	4	1450	650	18	0	2
Total	14136	56	13	10373	3435	246	2	11
%	100.00	0.40	0.09	73.38	24.30	1.74	0.01	0.08

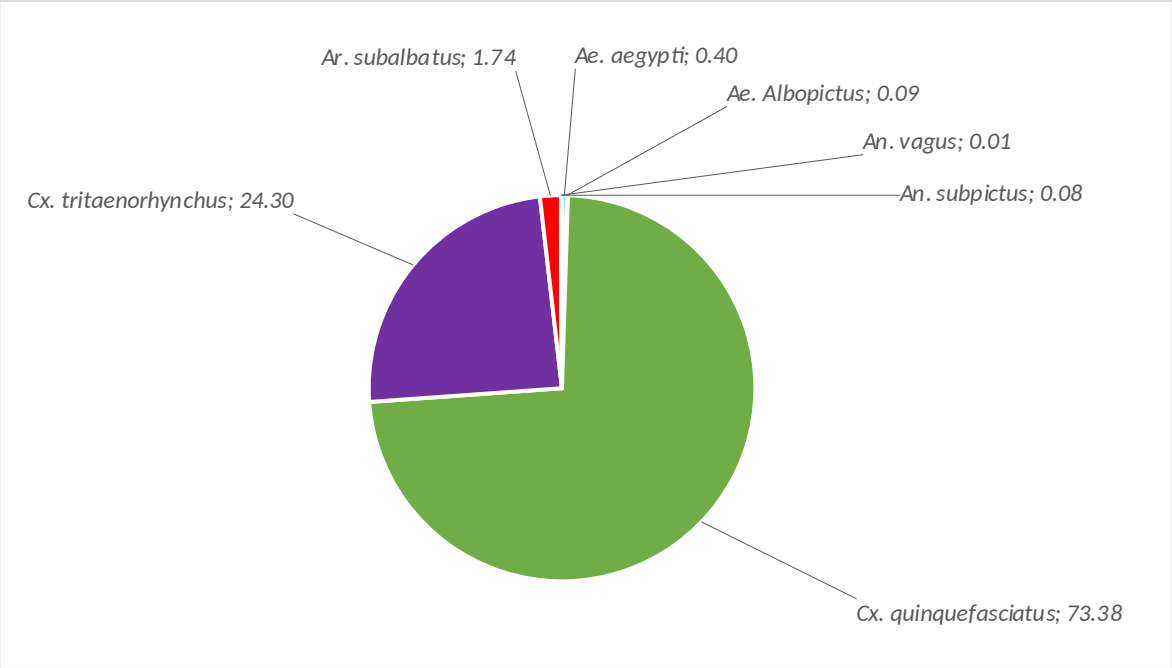


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO_2) traps in Week 104 (May 22-25, 2026)

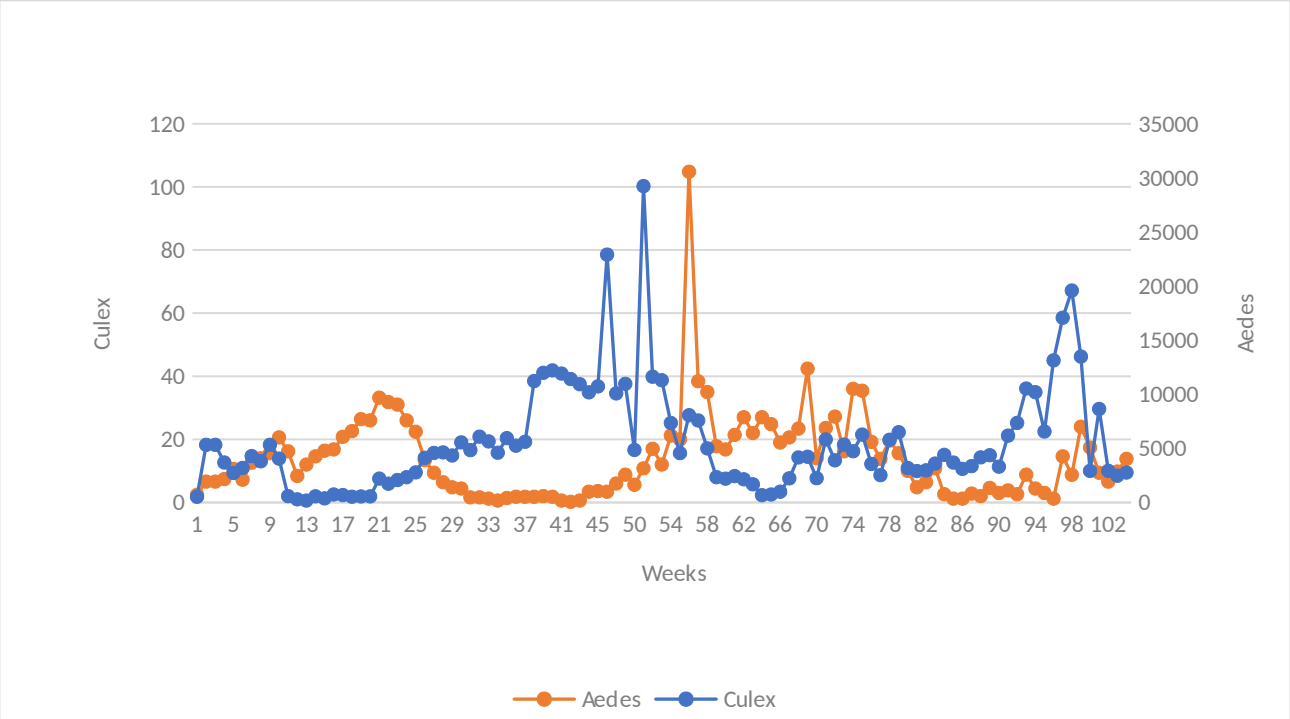


Fig 2: Average number of mosquitoes per Moshar Machine (CO_2) traps from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Week 104 (May 22-25, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*
1	12	0	12
2	8	0	8
3	12	12	0
4	5	5	0
5	9	9	0
Total	46	26	20
(%)	100	56.52	43.48

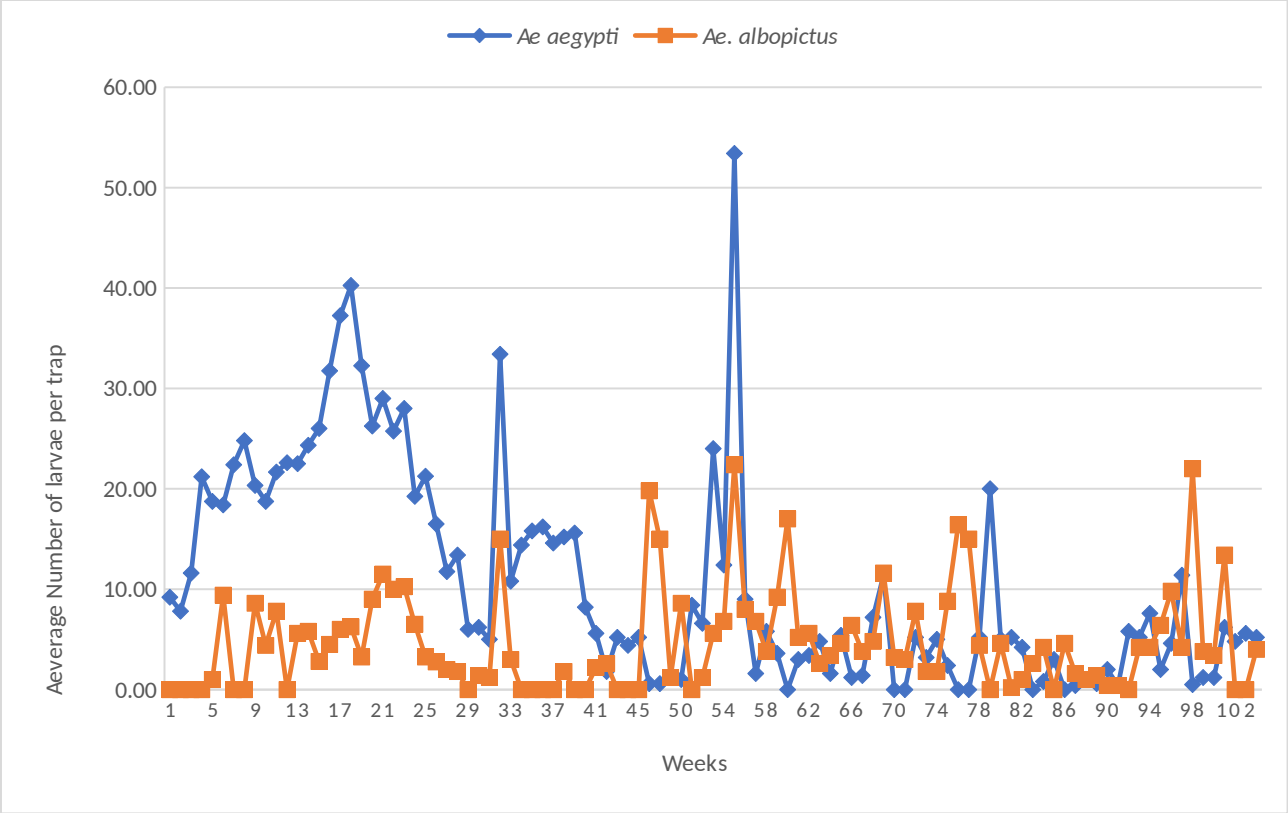


Fig 3: Average Number of *Aedes* Larvae per *Aedes* X Smart Trap in Zones 1-5 from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Week 104 (May 22-25, 2026)

Zone	Number of Mosquitoes	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*
1	1	1	0	0
2	1	0	1	0
3	0	0	0	0
4	1	0	0	1
5	2	1	0	1
Total	5	2	1	2
(%)	100	40.00	20.00	40.00

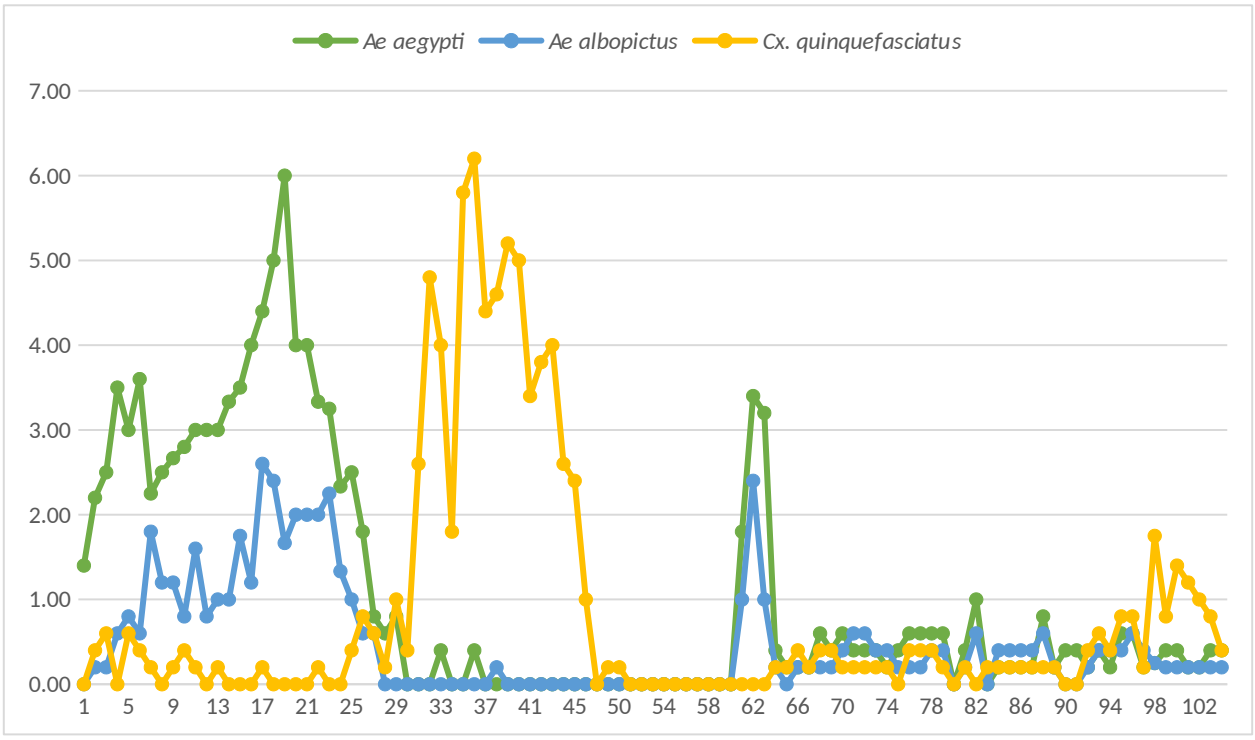


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

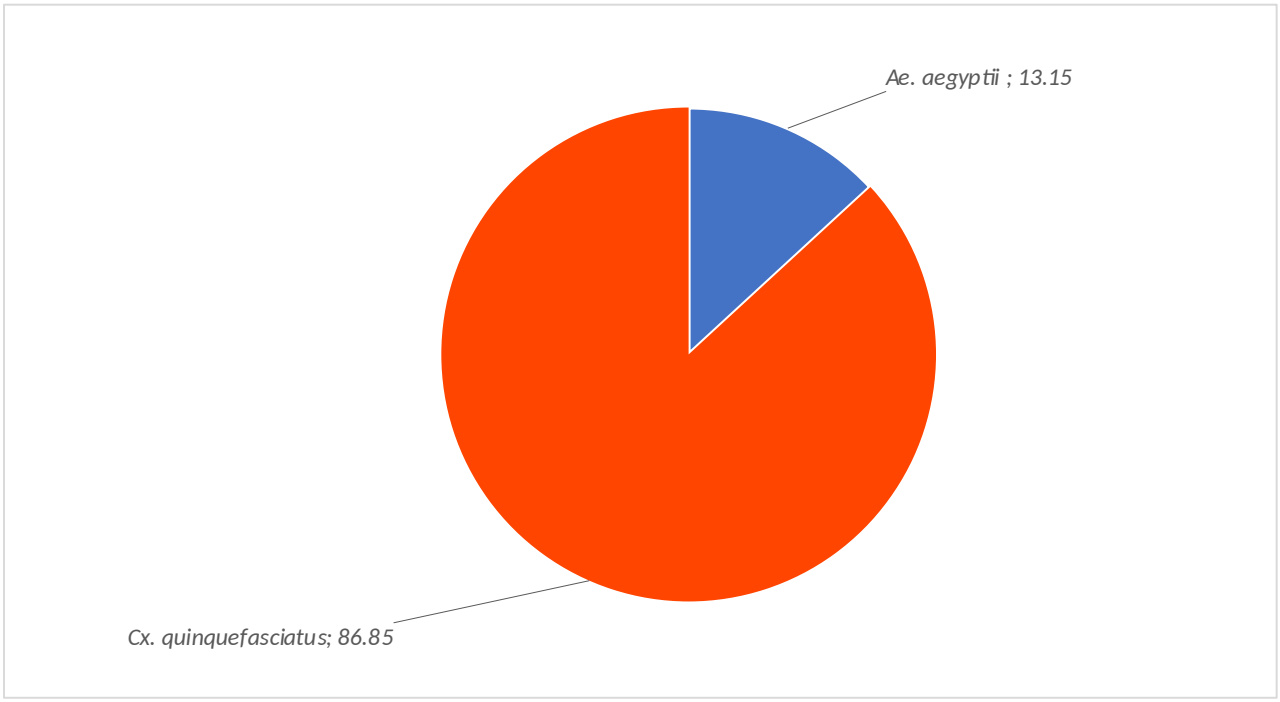


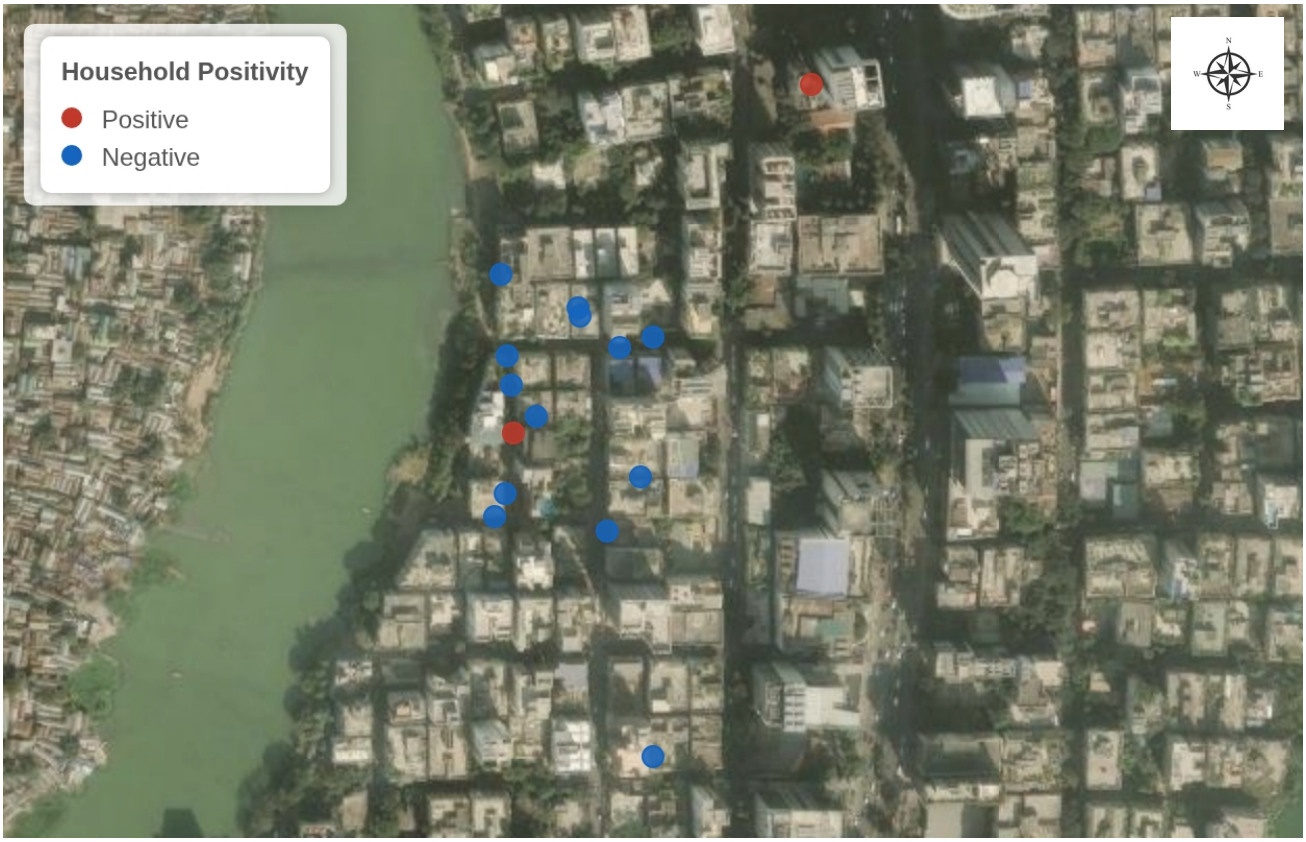
Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Week 104 (May 22-25, 2026)

Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Week 104 (May 22-25, 2026)

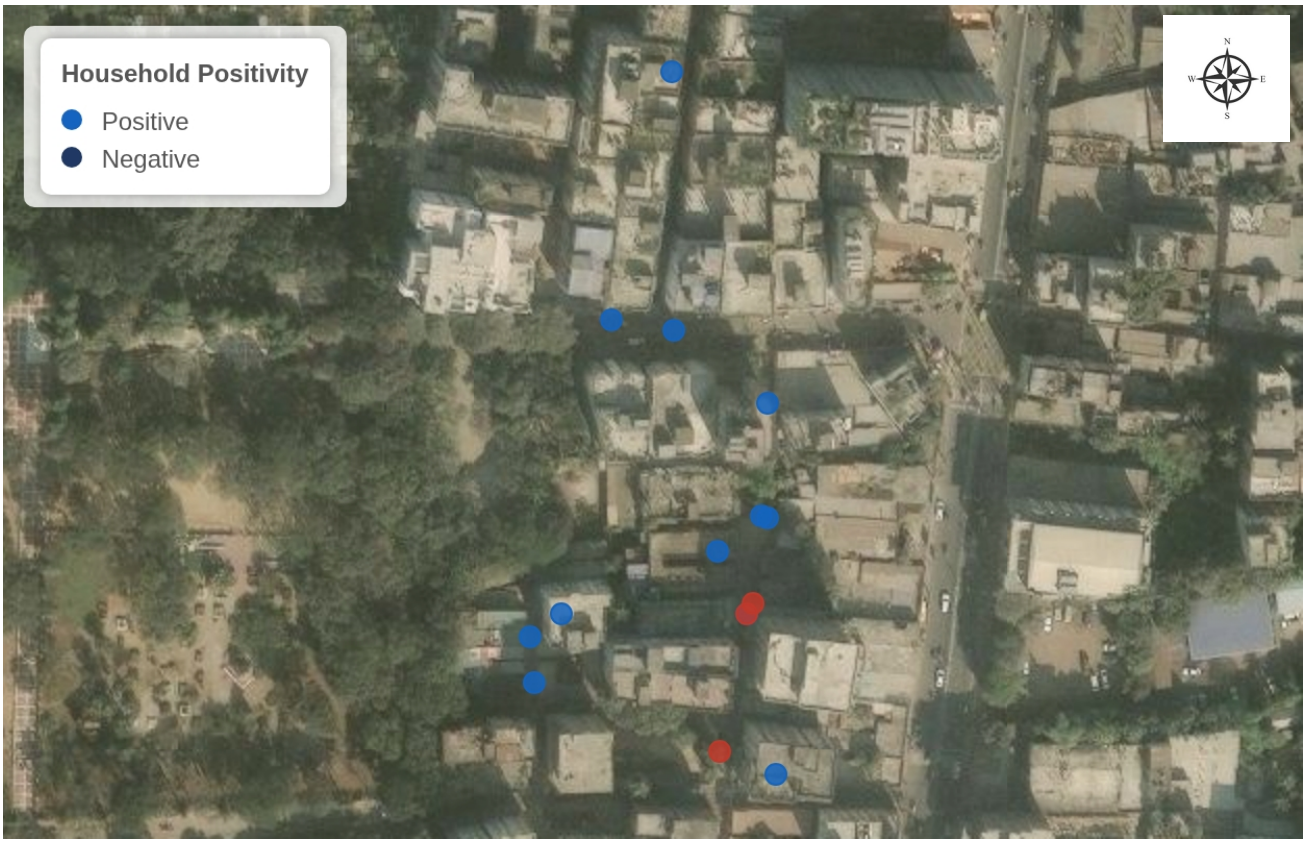
Zone	GPS Location	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Source*
1	23.8606505 90.4021774	52	0	0	Clay pot
	23.8603823 90.401507	12	0	0	Other
	23.8607444 90.4013647	21	0	0	Plastic Mug/pot/Bodna
	23.861405 90.4014862	21	0	0	Plastic bucket Plastic Mug/pot/Bodna
	Total	106	0	0	
2	23.8013129 90.3580917	23	0	0	Plastic drum (Sealable)
	23.8013759 90.3574496	52	0	0	Plastic drum (Sealable)
	Total	75	0	0	
3	23.7860025 90.4165171	0	0	2548	Drain
	23.7843678 90.414976	52	0	0	Other
	Total	52	0	2548	
4	23.7928819 90.3480765	24	0	0	Polyethylene sheet
	23.7932301 90.3481637	52	0	0	Unused Cork Sheet
	23.7932056 90.3481473	82	0	0	Plastic bucket
	Total	158	0	0	
5	23.7613425 90.3602372	0	0	34	Drain
	Total	0	0	34	
Grand Total		391	0	2582	

Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 104

Map 2: Positive and Negative House of Mirpur 2 at Weeks 104



Map 3: Positive and Negative House of Gulshan 1 at Weeks 104



Map 4: Positive and Negative House of Mirpur 1 at Weeks 104

Map 5: Positive and Negative House of Mohammadpur at Weeks 104

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Week 104 (May 22-25, 2026)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	4	24	4	26.67	16.67	26.67
2	15	2	24	2	13.33	8.33	13.33
3	15	2	23	2	13.33	8.70	13.33
4	15	3	26	3	20.00	11.54	20.00
5	15	1	20	1	6.67	5.00	6.67

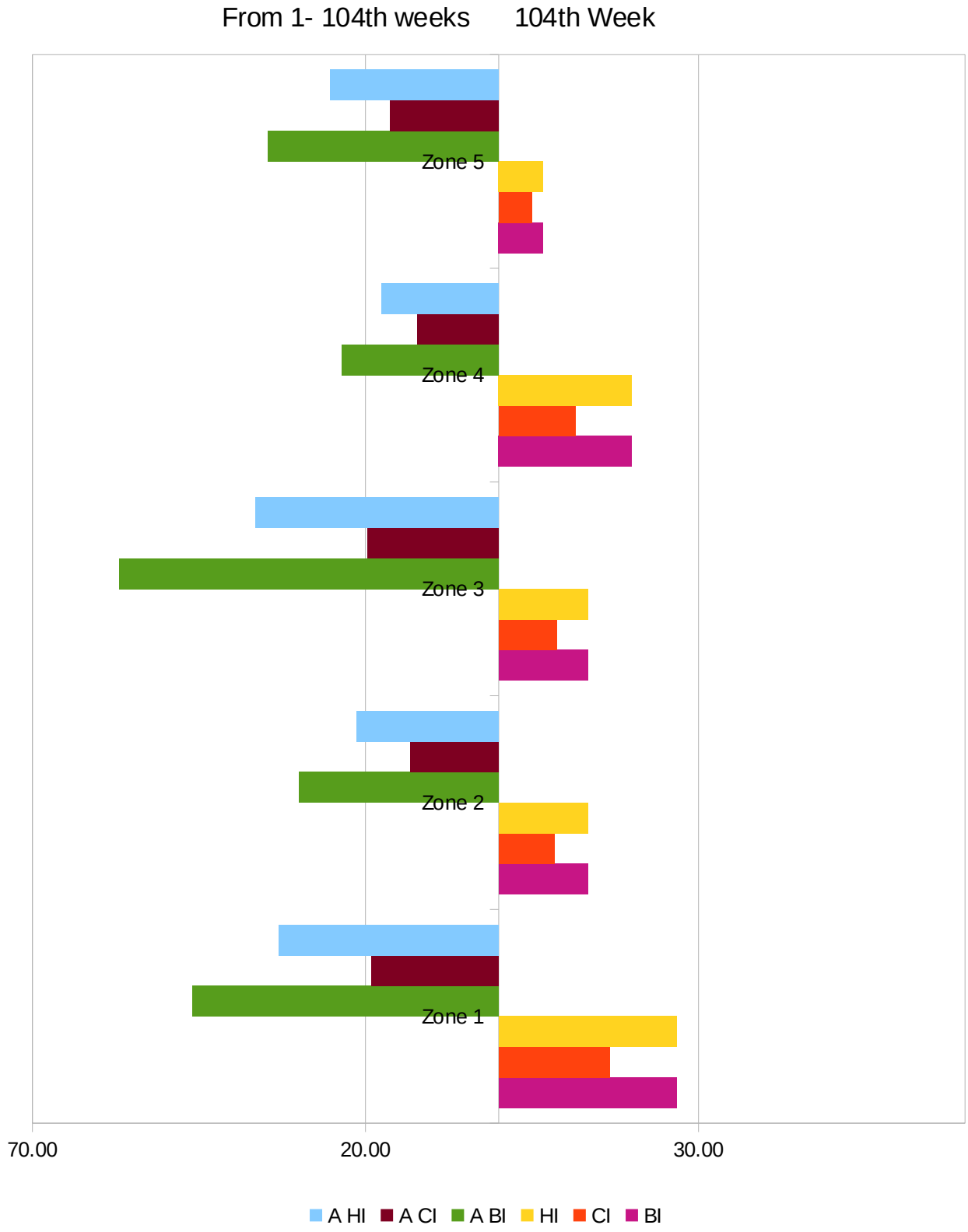


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

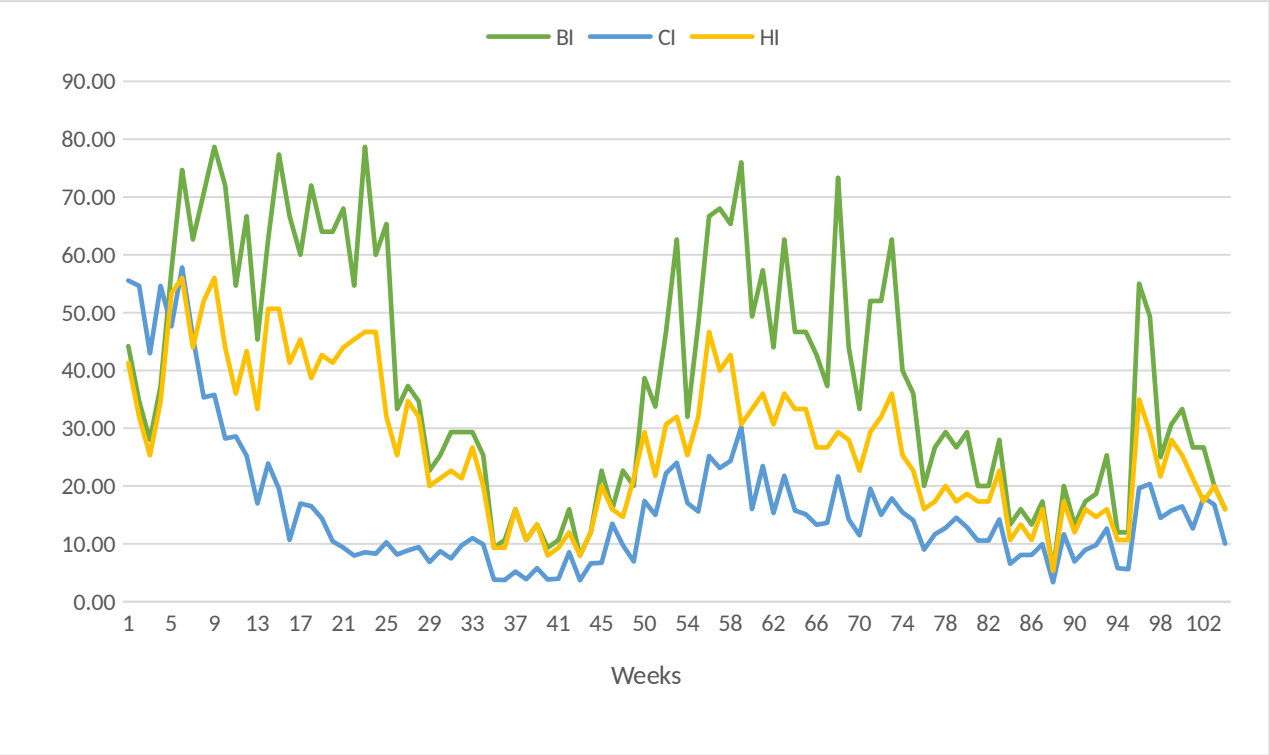


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

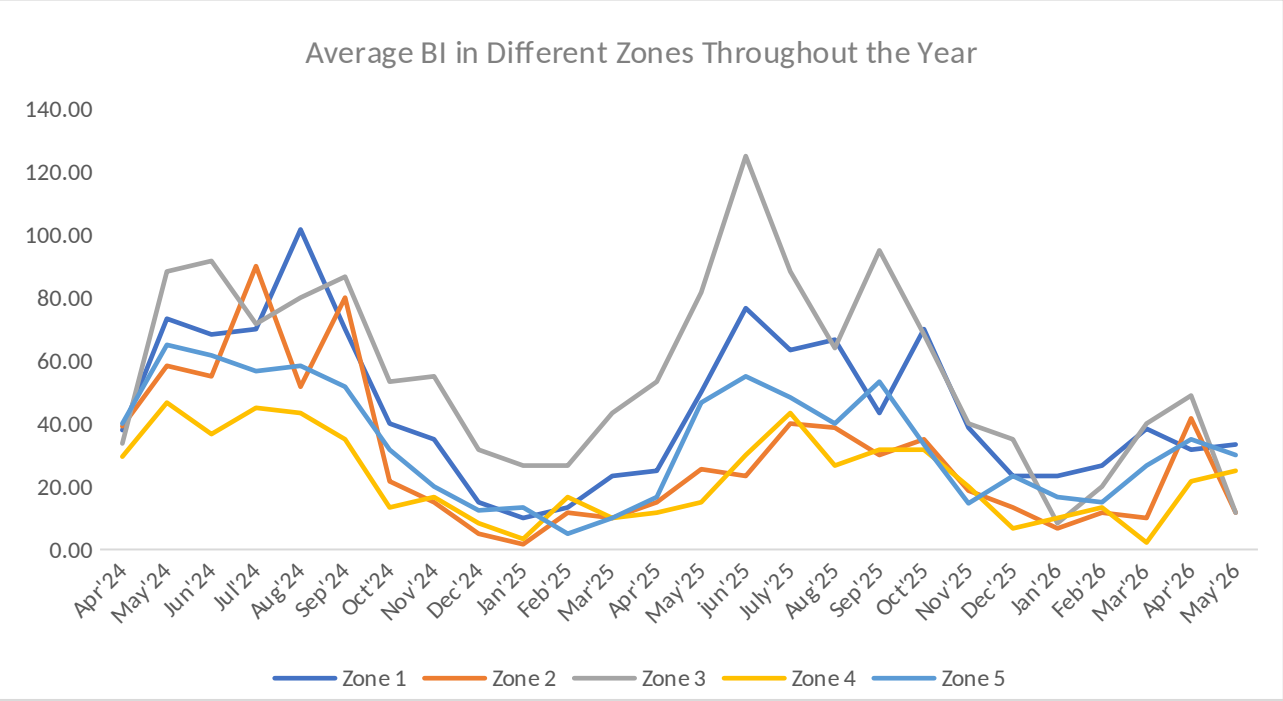


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

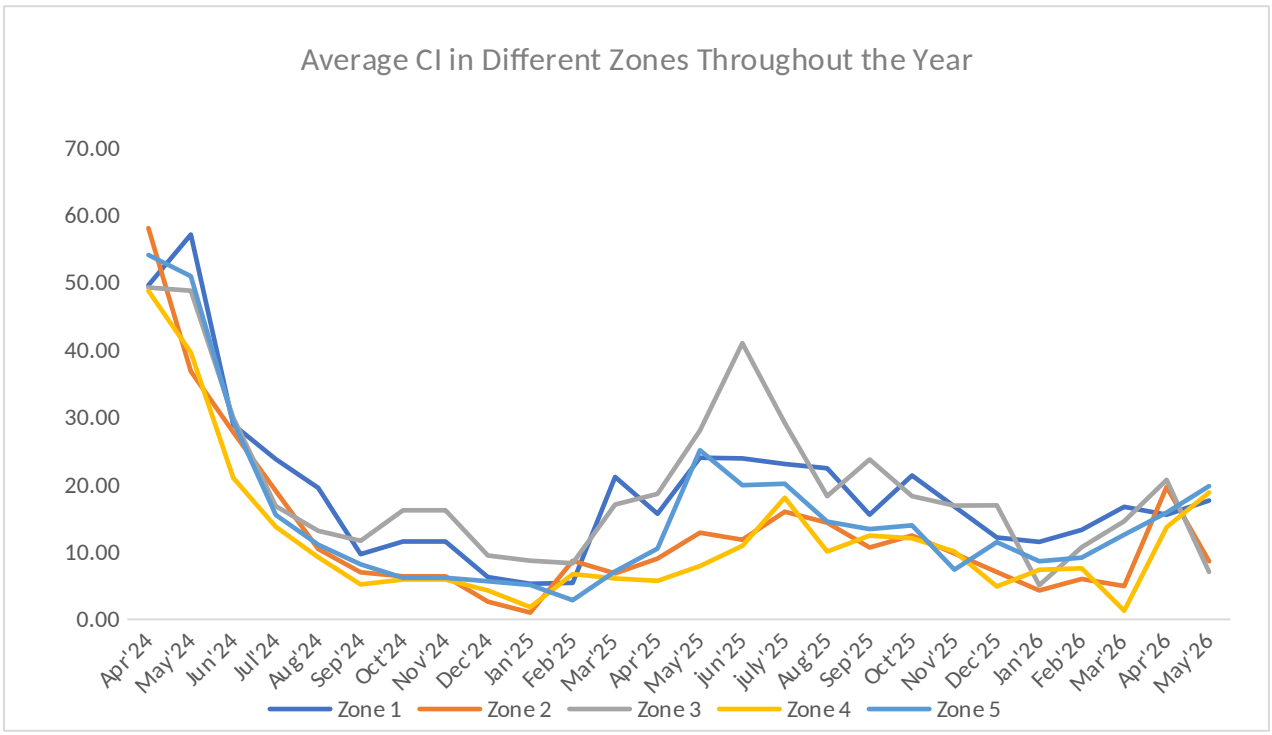


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

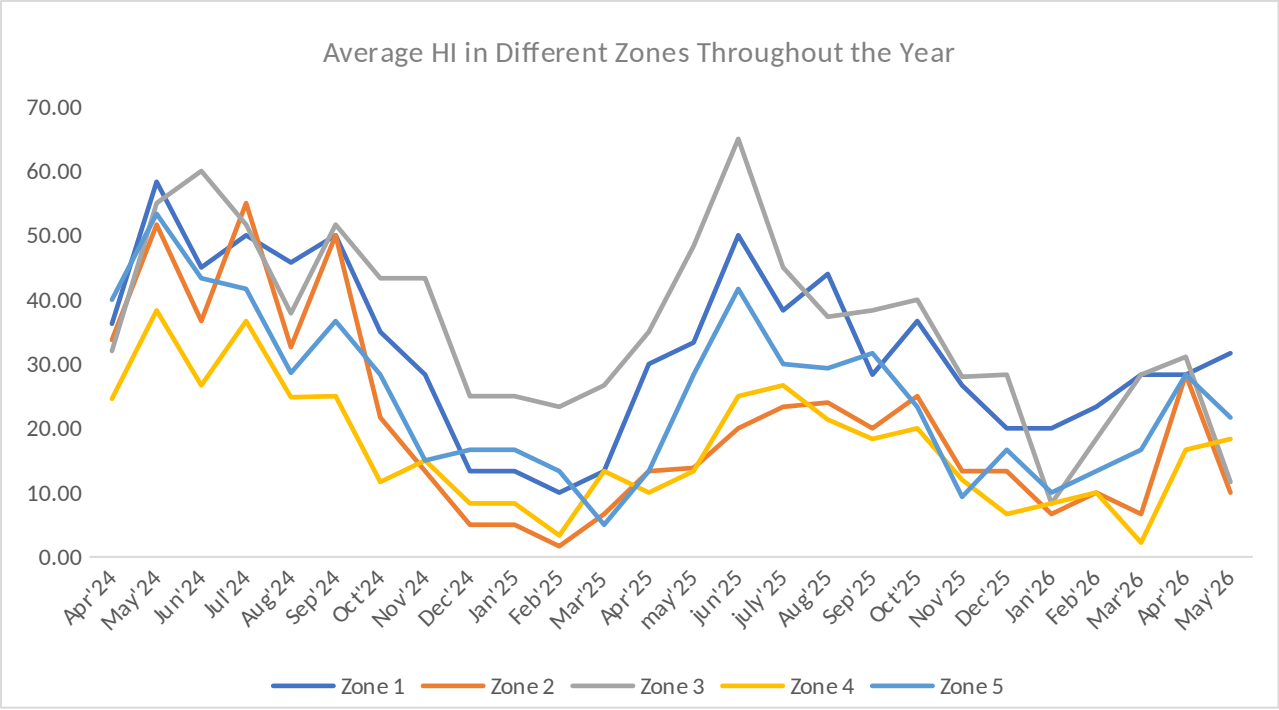


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

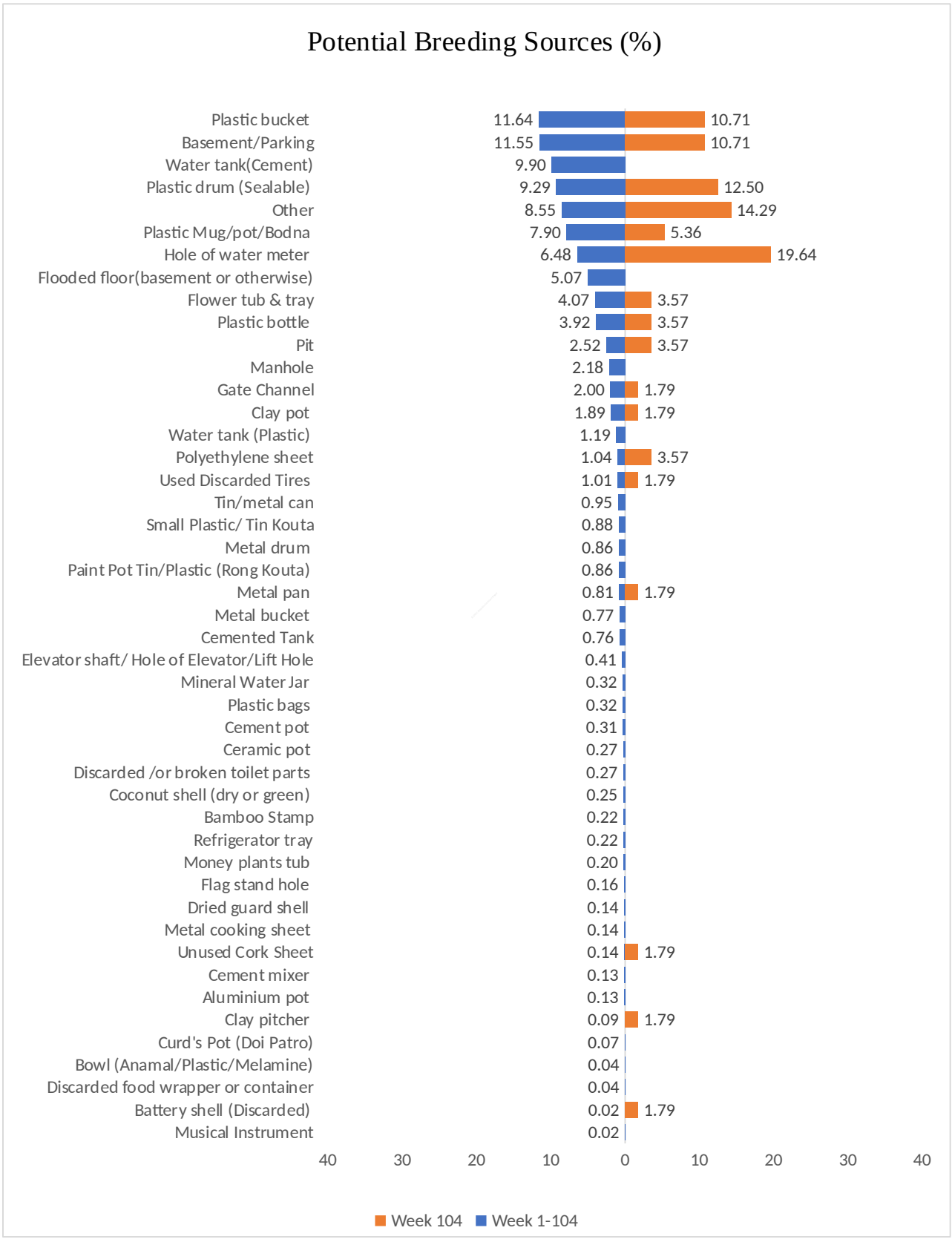


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

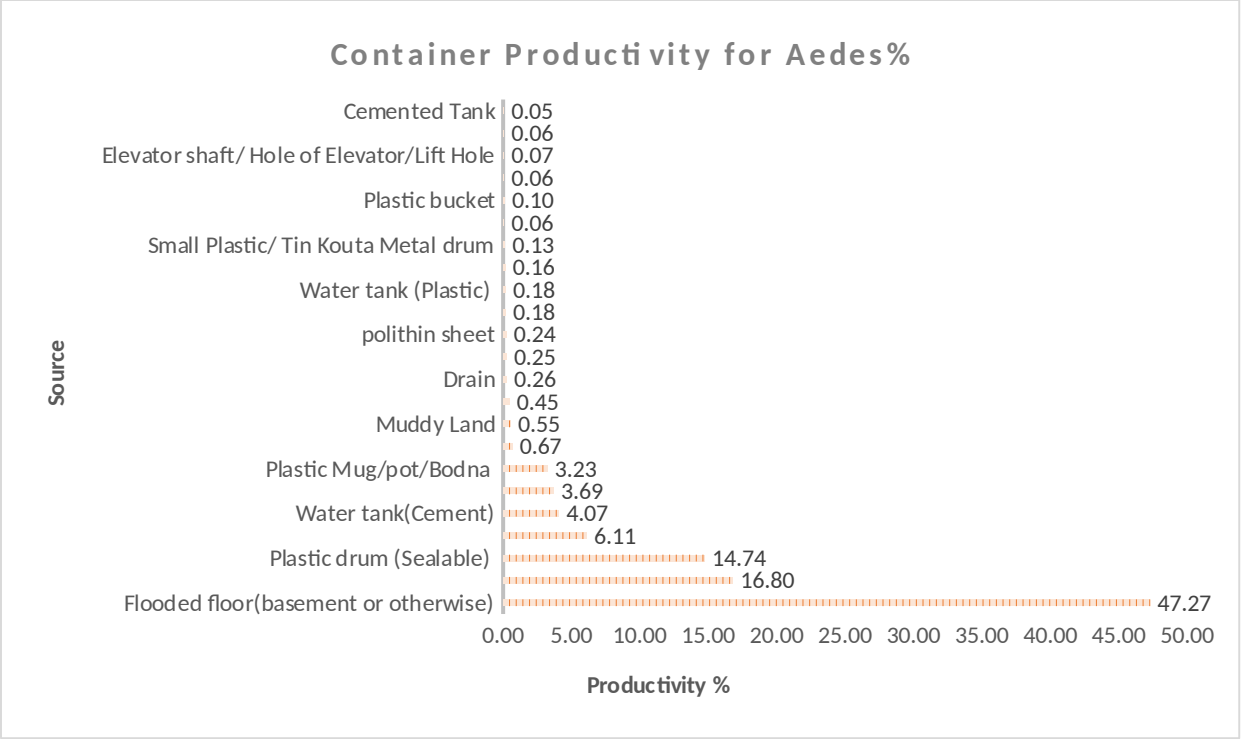


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

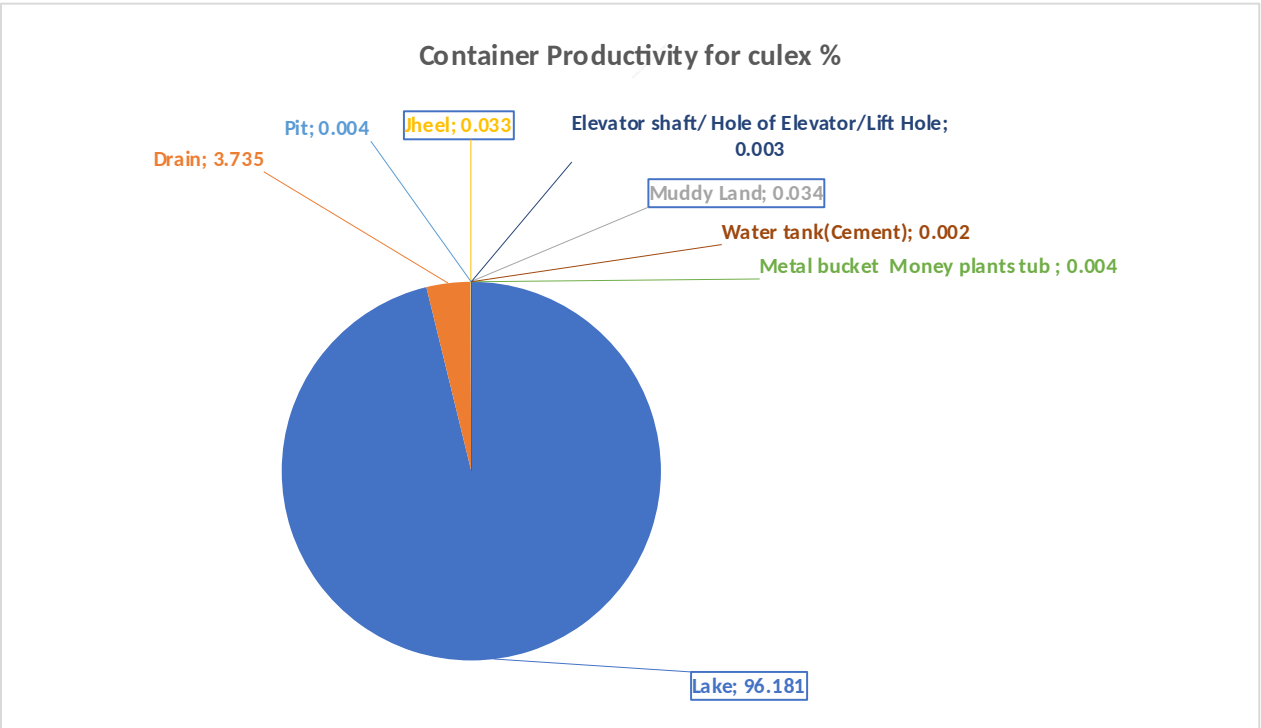


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

Sources	+House	-WC	+WC	**Total WC**	% WC	% PWC
Plastic bucket	217	280	367	647	11.64	6.60
Basement/Parking	228	65	577	642	11.55	10.38
Water tank(Cement)	169	256	294	550	9.90	5.29
Plastic drum (Sealable)	238	81	435	516	9.29	7.83
Other	228	138	337	475	8.55	6.06
Plastic Mug/pot/Bodna	178	93	346	439	7.90	6.23
Hole of water meter	65	23	337	360	6.48	6.06
Flooded floor(basement or otherwise)	130	143	139	282	5.07	2.50
Flower tub & tray	86	32	194	226	4.07	3.49
Plastic bottle	81	64	154	218	3.92	2.77
Pit	67	23	117	140	2.52	2.11
Manhole	59	43	78	121	2.18	1.40
Gate Channel	33	34	77	111	2.00	1.39
Clay pot	86	11	94	105	1.89	1.69
Water tank (Plastic)	21	28	38	66	1.19	0.68
Polyethylene sheet	36	3	55	58	1.04	0.99
Used Discarded Tires	31	19	37	56	1.01	0.67
Tin/metal can	31	0	53	53	0.95	0.95
Small Plastic/ Tin Kouta	24	9	40	49	0.88	0.72
Paint Pot Tin/Plastic (Rong Kouta)	30	5	43	48	0.86	0.77
Metal drum	19	8	40	48	0.86	0.72
Metal pan	18	3	42	45	0.81	0.76
Metal bucket	21	5	38	43	0.77	0.68
Cemented Tank	22	13	29	42	0.76	0.52
Elevator shaft/ Hole of Elevator/Lift Hole	8	4	19	23	0.41	0.34
Plastic bags	8	1	17	18	0.32	0.31
Mineral Water Jar	6	4	14	18	0.32	0.25
Cement pot	11	2	15	17	0.31	0.27
Discarded /or broken toilet parts	12	2	13	15	0.27	0.23
Ceramic pot	13	0	15	15	0.27	0.27
Coconut shell (dry or green)	4	0	14	14	0.25	0.25
Refrigerator tray	9	0	12	12	0.22	0.22
Bamboo Stamp	9	0	12	12	0.22	0.22
Money plants tub	8	0	11	11	0.20	0.20
Flag stand hole	5	1	8	9	0.16	0.14
Unused Cork Sheet	6	1	7	8	0.14	0.13
Metal cooking sheet	2	0	8	8	0.14	0.14
Dried guard shell	5	0	8	8	0.14	0.14
Aluminium pot	4	0	7	7	0.13	0.13
Cement mixer	2	0	7	7	0.13	0.13
Clay pitcher	3	1	4	5	0.09	0.07
Curd's Pot (Doi Patro)	3	0	4	4	0.07	0.07
Discarded food wrapper or container	1	0	2	2	0.04	0.04
Bowl (Anamal/Plastic/Melamine)	2	0	2	2	0.04	0.04
Musical Instrument	1	0	1	1	0.02	0.02
Battery shell (Discarded)	0	0	1	1	0.02	0.02

Table 7: Percentage of breeding sources in different zone from Week 1 to Week 104 (May 2, 2024 - May 25, 2026)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.00	2.11	2.20	2.90	2.45
Basement/Parking	2.92	1.73	3.04	1.13	2.74
Water tank(Cement)	1.26	1.62	1.28	2.86	2.88
Plastic drum (Sealable)	1.31	2.32	1.60	2.14	1.91
Other	2.81	1.46	2.36	0.70	1.22
Plastic Mug/pot/Bodna	1.42	1.39	1.53	2.18	1.39
Hole of water meter	0.81	1.21	0.31	2.07	2.09
Flooded floor(basement or otherwise)	1.28	1.13	0.83	0.59	1.24
Flower tub & tray	1.17	0.59	1.35	0.63	0.32
Plastic bottle	0.50	0.94	0.56	1.03	0.90
Pit	0.63	0.36	0.83	0.32	0.38
Manhole	0.79	0.22	0.72	0.25	0.20
Gate Channel	0.79	0.18	0.56	0.07	0.40
Clay pot	0.27	0.38	0.56	0.22	0.47
Water tank (Plastic)	0.00	0.74	0.16	0.14	0.14
Polyethylene sheet	0.29	0.29	0.20	0.20	0.07
Used Discarded Tires	0.38	0.27	0.18	0.07	0.11
Tin/metal can	0.27	0.25	0.20	0.18	0.05
Small Plastic/ Tin Kouta	0.23	0.16	0.25	0.11	0.13
Paint Pot Tin/Plastic (Rong Kouta)	0.20	0.09	0.25	0.20	0.13
Metal drum	0.16	0.11	0.20	0.27	0.13
Metal pan	0.16	0.16	0.25	0.09	0.14
Metal bucket	0.11	0.07	0.22	0.23	0.14
Cemented Tank	0.14	0.11	0.18	0.22	0.11
Elevator shaft/ Hole of Elevator/Lift Hole	0.18	0.09	0.07	0.00	0.07
Plastic bags	0.04	0.02	0.07	0.11	0.09
Mineral Water Jar	0.04	0.02	0.05	0.14	0.07
Cement pot	0.05	0.00	0.11	0.02	0.13
Discarded /or broken toilet parts	0.02	0.13	0.04	0.00	0.09
Ceramic pot	0.07	0.02	0.05	0.02	0.11
Coconut shell (dry or green)	0.05	0.07	0.05	0.04	0.04
Refrigerator tray	0.07	0.04	0.05	0.04	0.02
Bamboo Stamp	0.05	0.07	0.04	0.05	0.00
Money plants tub	0.05	0.04	0.05	0.00	0.05
Flag stand hole	0.09	0.02	0.02	0.00	0.04
Unused Cork Sheet	0.00	0.02	0.04	0.04	0.05
Metal cooking sheet	0.00	0.02	0.05	0.04	0.04
Dried guard shell	0.04	0.02	0.07	0.00	0.02
Aluminium pot	0.02	0.04	0.00	0.05	0.02
Cement mixer	0.00	0.04	0.04	0.02	0.04
Clay pitcher	0.05	0.00	0.02	0.02	0.00
Curd's Pot (Doi Patro)	0.02	0.02	0.04	0.00	0.00
Discarded food wrapper or container	0.00	0.00	0.04	0.00	0.00
Bowl (Anamal/Plastic/Melamine)	0.02	0.02	0.00	0.00	0.00
Musical Instrument	0.02	0.00	0.00	0.00	0.00
Battery shell (Discarded)	0.00	0.00	0.00	0.02	0.00

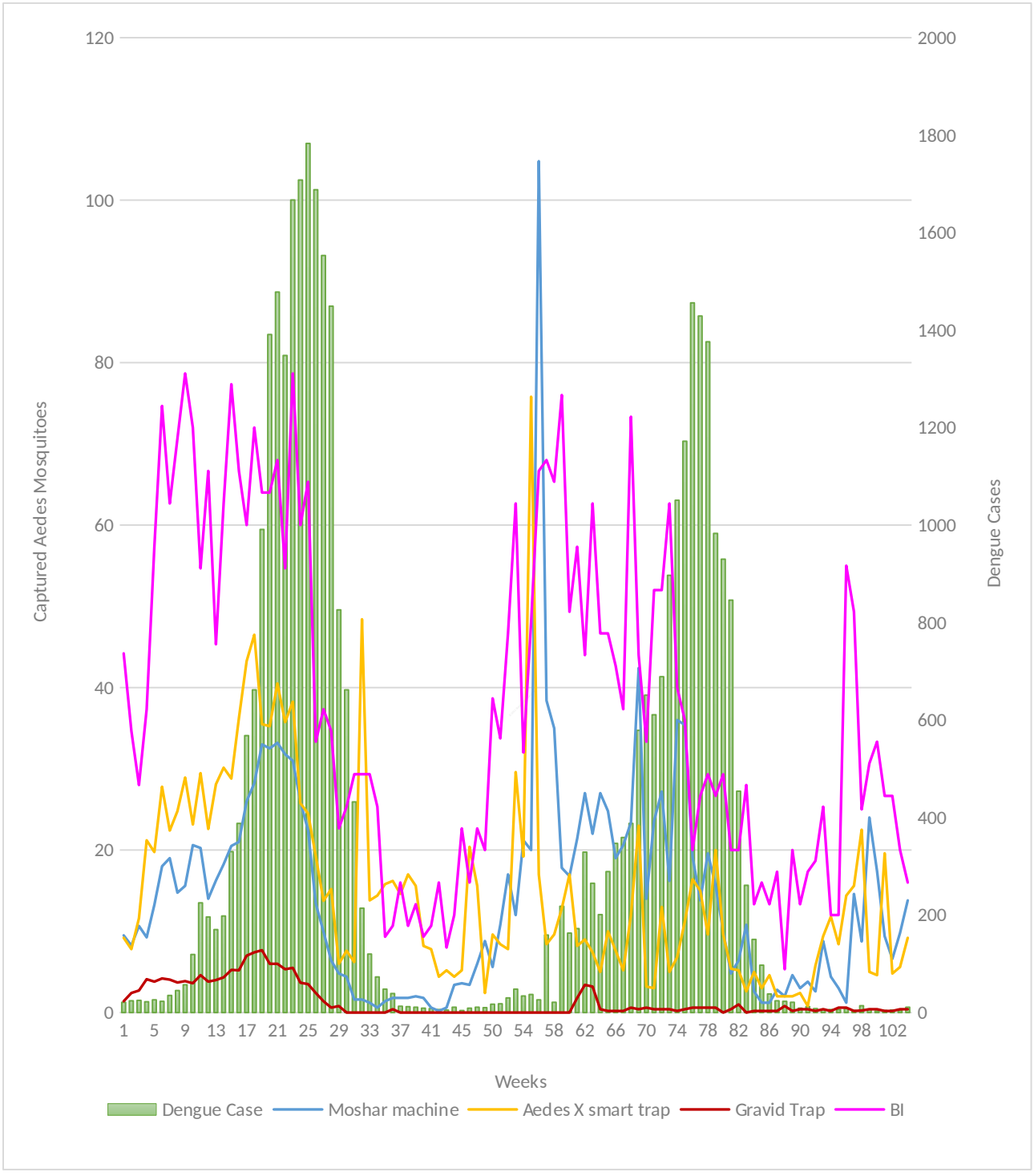


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO_2 traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance









Samples Collection from Field

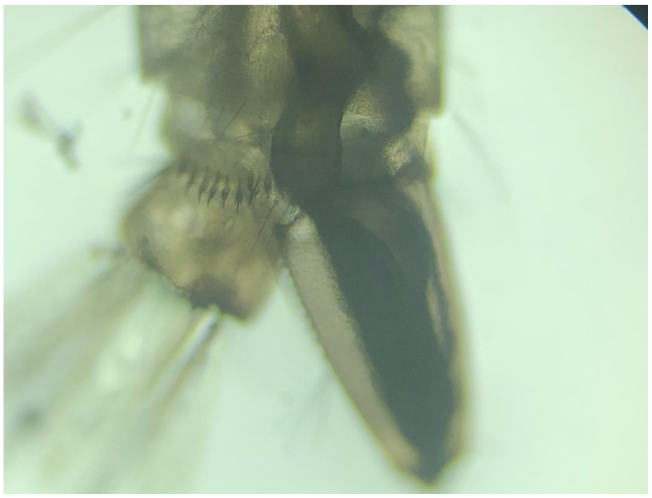








Samples Processing and Identification



Comments:

The mosquito density is slightly increased and the dengue cases declining rapidly. The Breteau Index (BI) is decreased in week 104. It is time for taking precaution and preparation for higher mosquito control. 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