Weekly Report on

JU-DNCC Mosquitoes Surveillance Program

Week 094 (March 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.

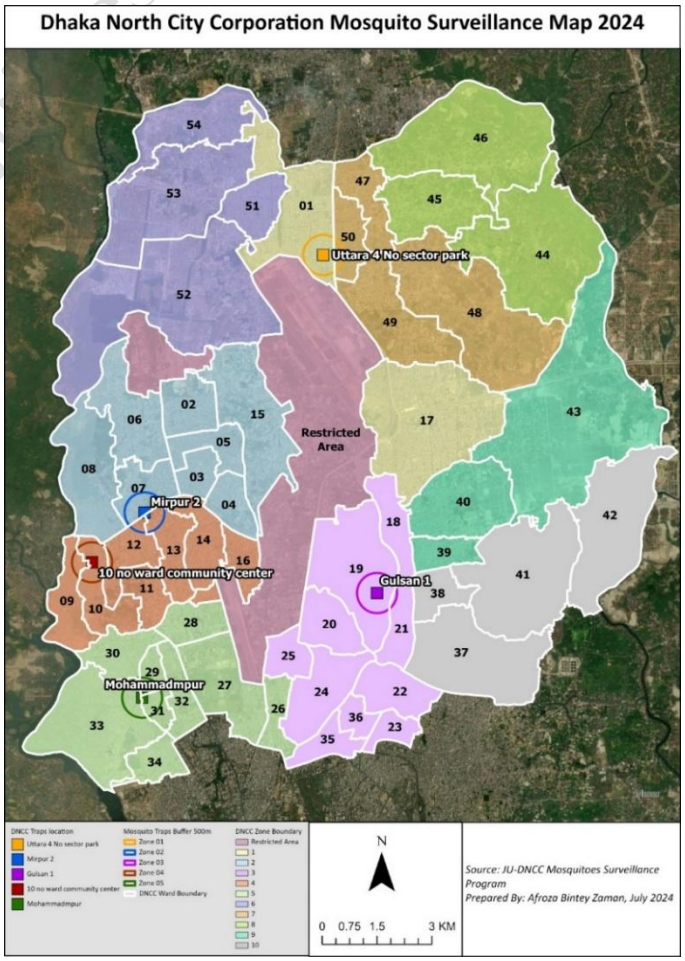
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 (CO_2) traps in Week 94 (March 6-10, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Cx. tritaeniorhynchus*	*Ar. subalbatus*	*Mn. uniformis*	*An. vagys*	*An. subpictus*	*An. annularis*	*An. philippinensis*
1	17390	0	0	13104	3696	361	3	89	24	98	15
2	7100	1	2	4992	1408	677	0	4	0	16	0
3	20415	13	0	17233	2575	571	1	5	8	9	0
4	5781	0	0	4436	1324	4	0	3	5	9	0
5	2250	6	0	1782	412	46	0	3	1	0	0
Total	52936	20	2	41547	9415	1659	4	104	38	132	15
%	100	0.04	0.004	78.49	17.79	3.13	0.01	0.20	0.07	0.25	0.07

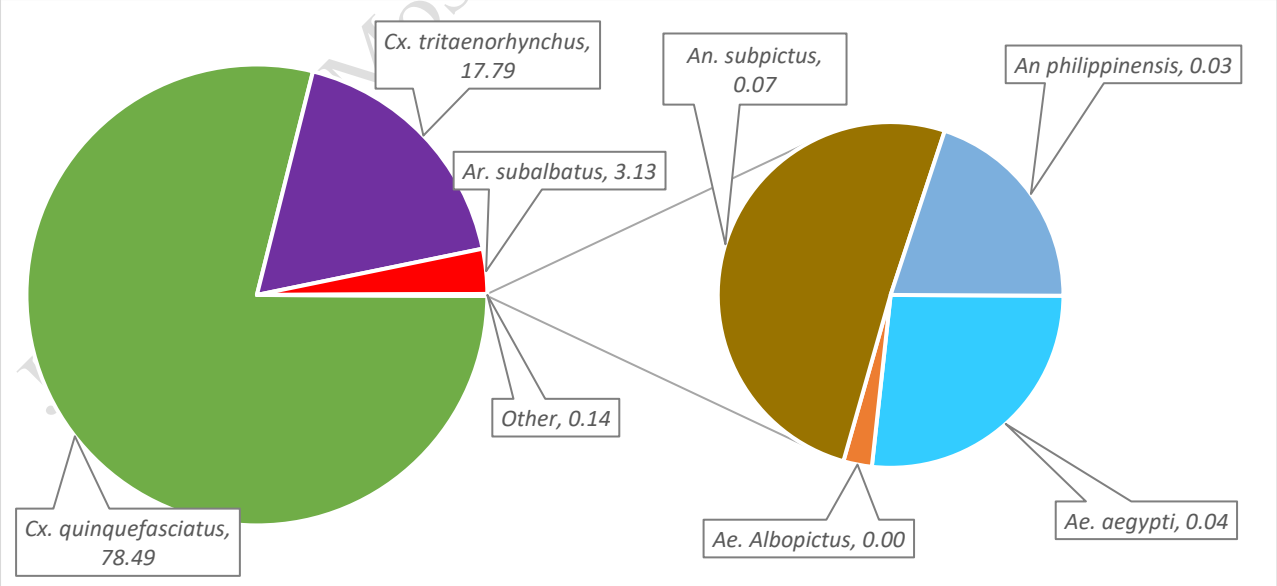


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO_2) traps in Week 94 (March 6-10, 2026)

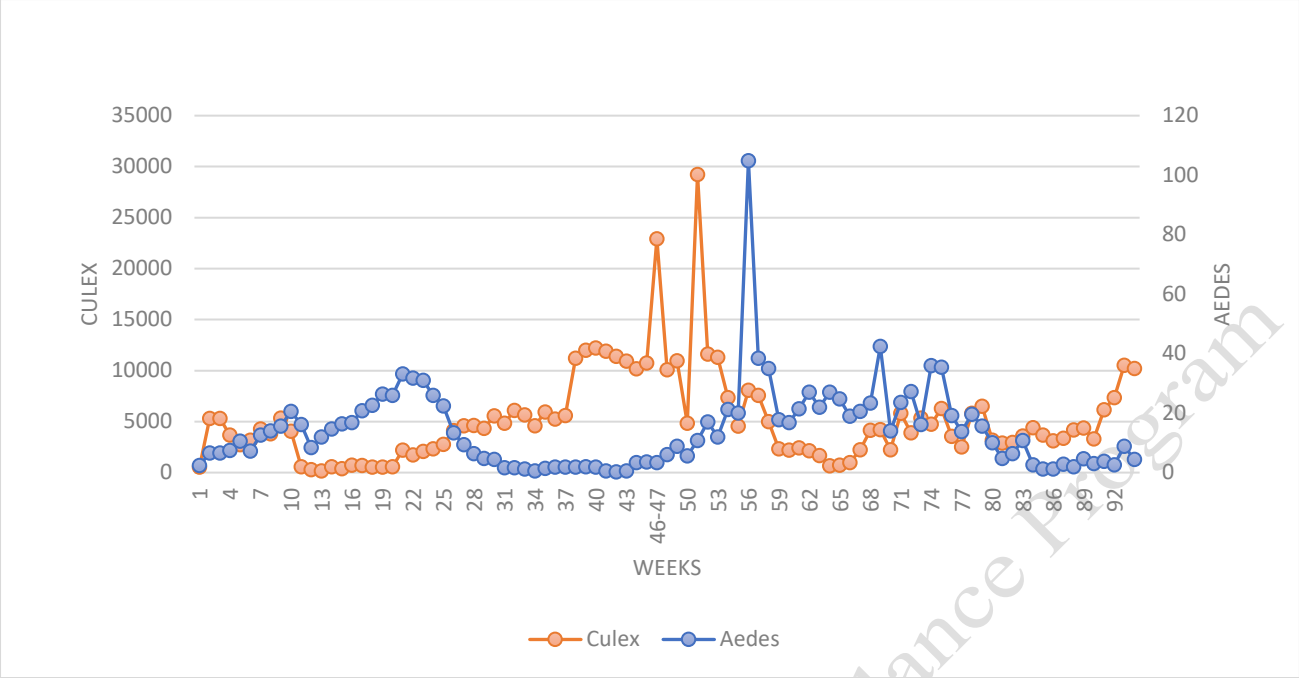


Fig 2: Average number of mosquitoes per Moshar Machine (CO_2) traps from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Week 94 (March 6-10, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*
1	3	0	3
2	18	0	18
3	27	27	0
4	0	0	0
5	11	11	0
Total	59	38	21
(%)	100	64.41	35.59

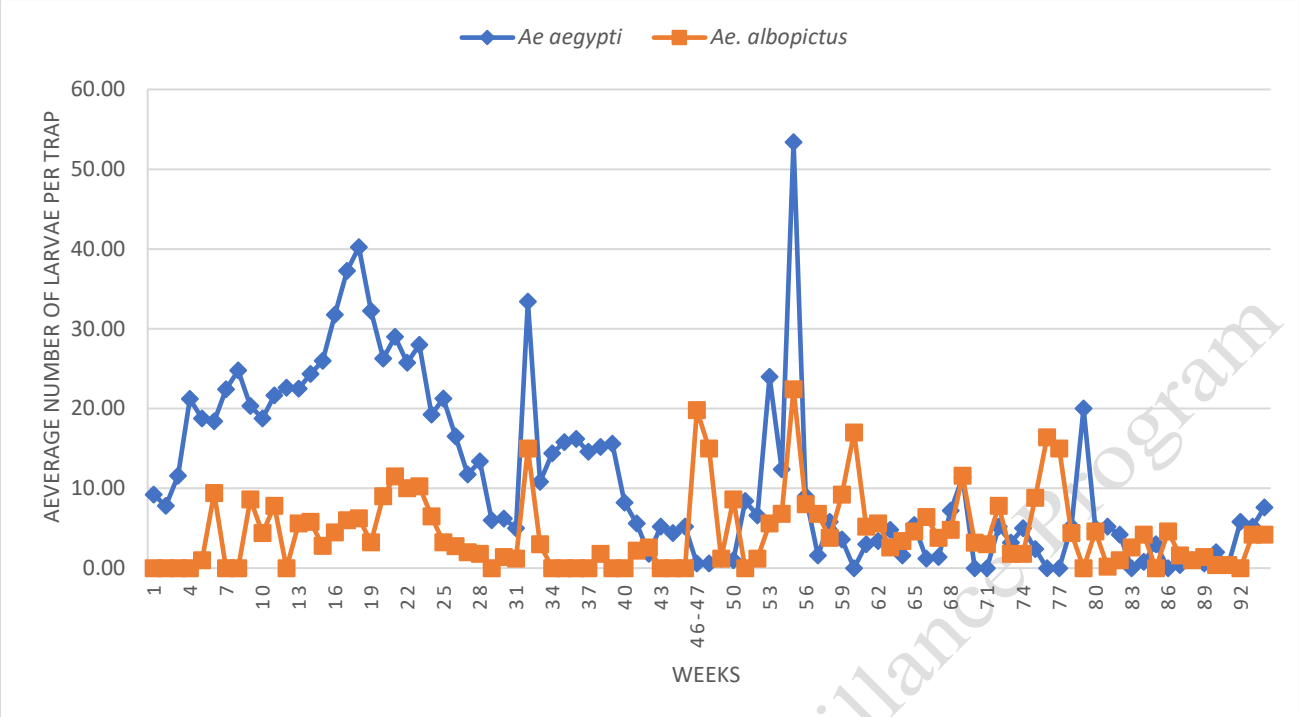


Fig 3: Average Number of *Aedes* Larvae per *Aedes* X Smart Trap in Zones 1-5 from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Week 94 (March 6-10, 2026)

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

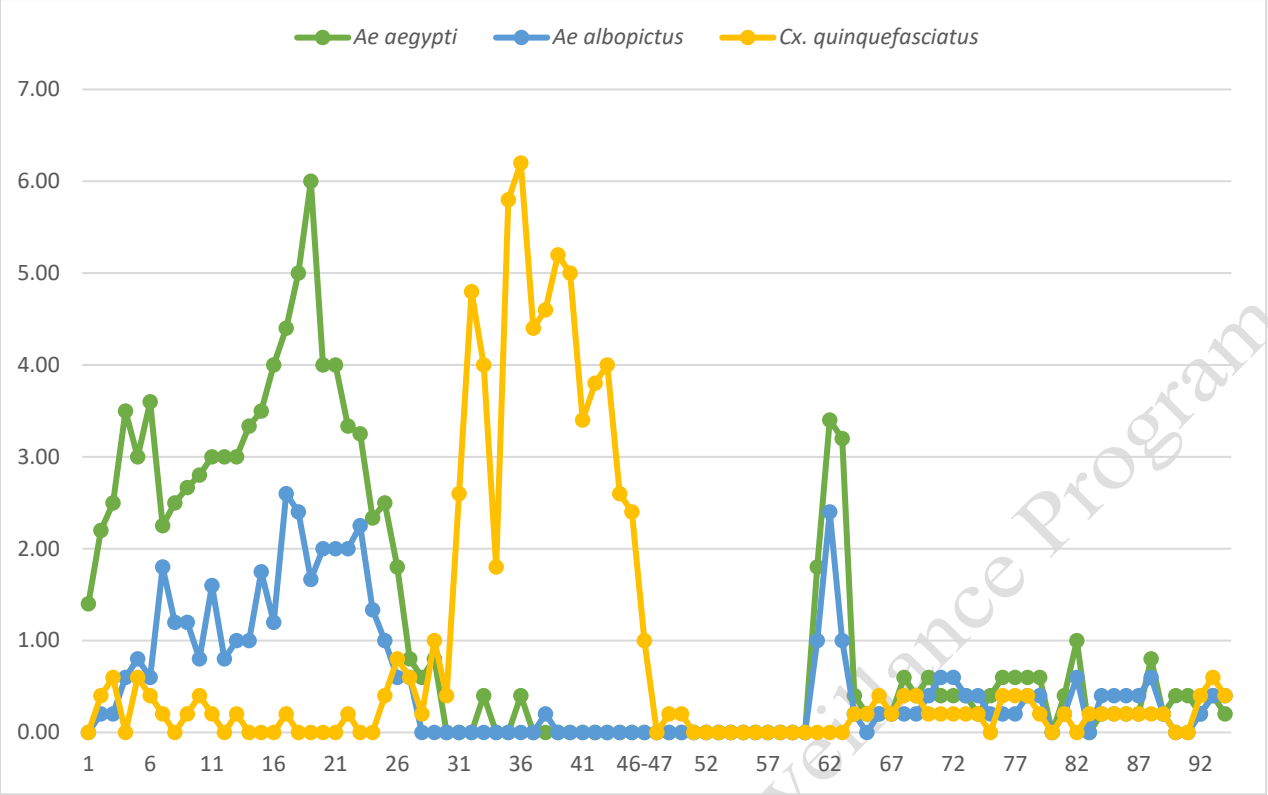


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

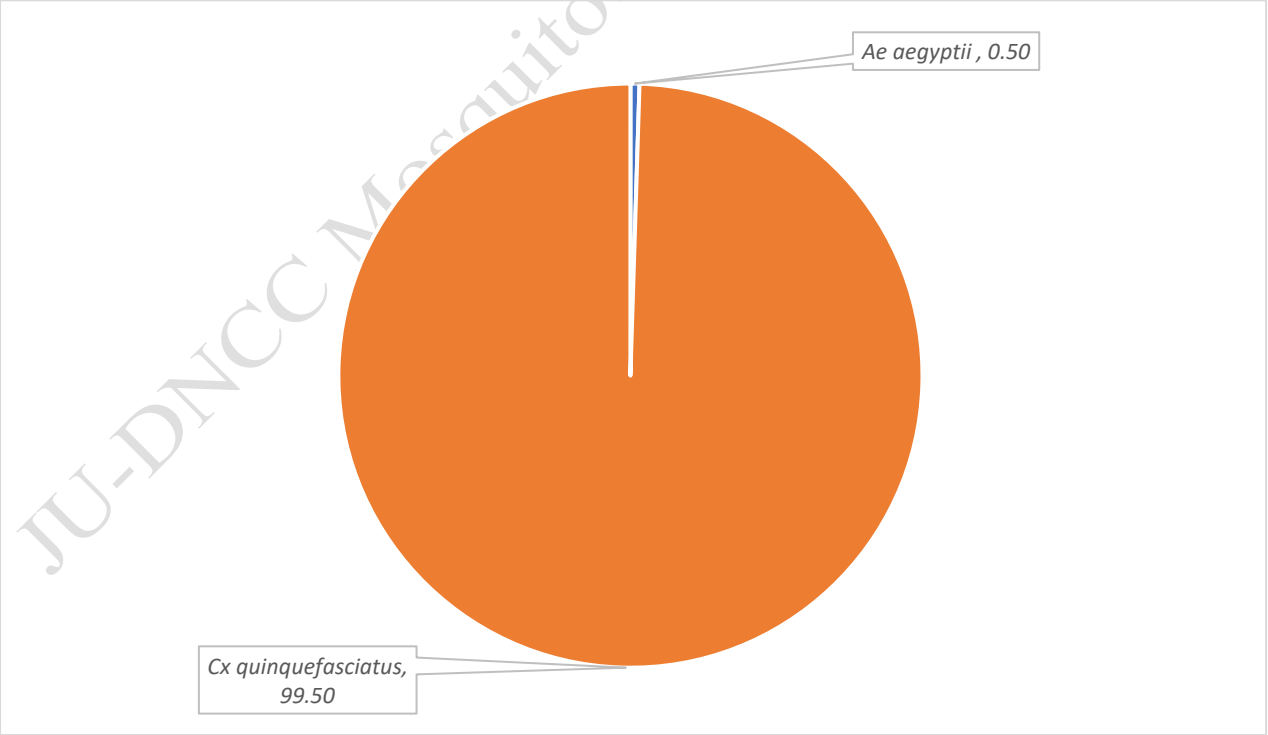


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Week 94 (March 6-10, 2026)

Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Week 94 (March 6-10, 2026)

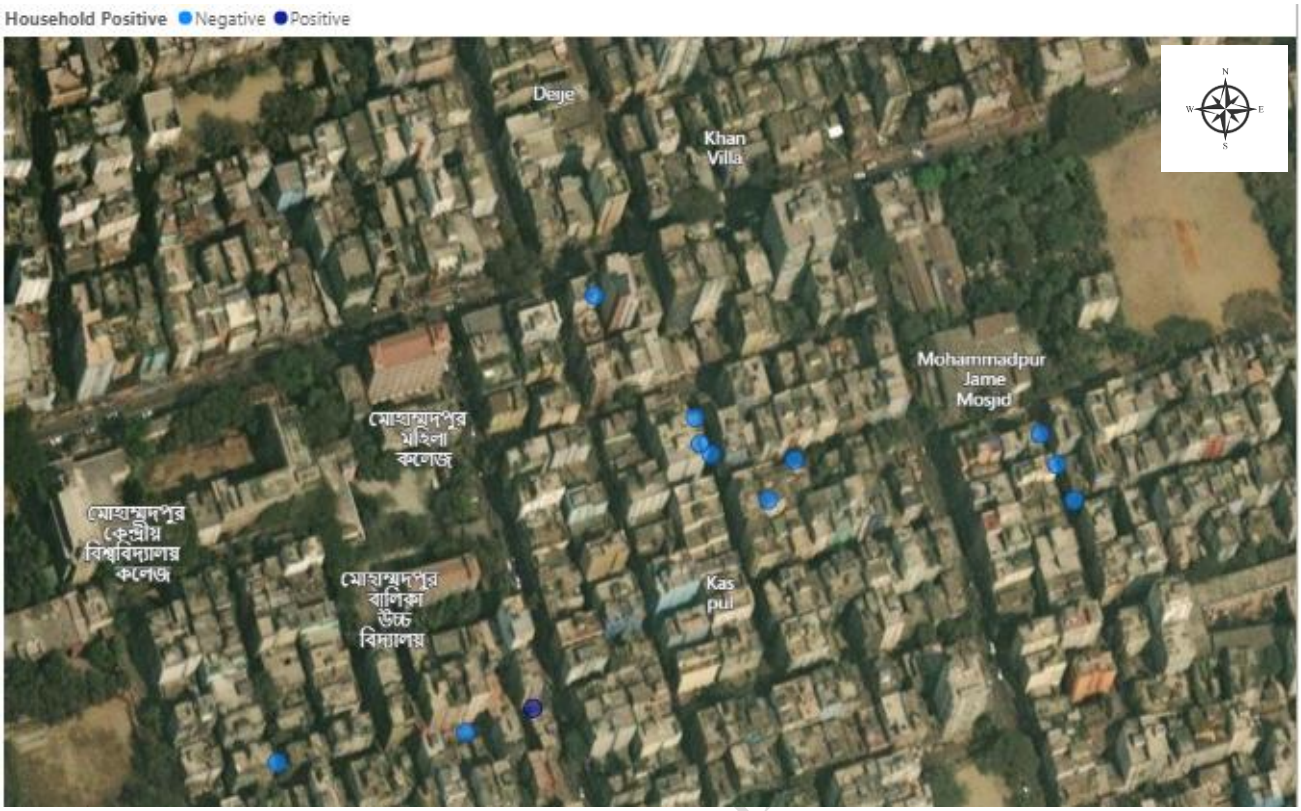
Zone	GPS Location	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Source*
1	23.8625983 90.4022817	24	0	0	Other
	23.8627449 90.4032525	0	0	5897	Drain
	23.8630066 90.4022573	0	0	52	Hole of water meter
	Total	24	0	5897	
3	23.7857257 90.4159896	0	0	24	Other
	23.7861575 90.4155532	0	0	54	Basement/Parking
	23.7857572 90.4160629	0	0	5840	Drain
	23.7854777 90.4155983	0	0	4578	Drain
	Total	0	0	10496	
5	23.761561 90.3612902	58	0	0	Plastic bottle, Plastic bucket
	Total	58	0	0	
Grand Total		82	0	16445	

Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 94

Map 2: Positive and Negative House of Mirpur 2 at Weeks 94

Map 3: Positive and Negative House of Gulsan 1 at Weeks 94

Map 4: Positive and Negative House of Mirpur 1 at Weeks 94



Map 5: Positive and Negative House of Mohammadpur at Weeks 94

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Week 94 (March 6-10, 2026)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	3	31	4	26.67	12.90	20.00
2	15	0	25	0	0.00	0.00	0.00
3	15	4	33	4	26.67	12.12	26.67
4	15	0	21	0	0.00	0.00	0.00
5	15	1	25	1	6.67	4.00	6.67

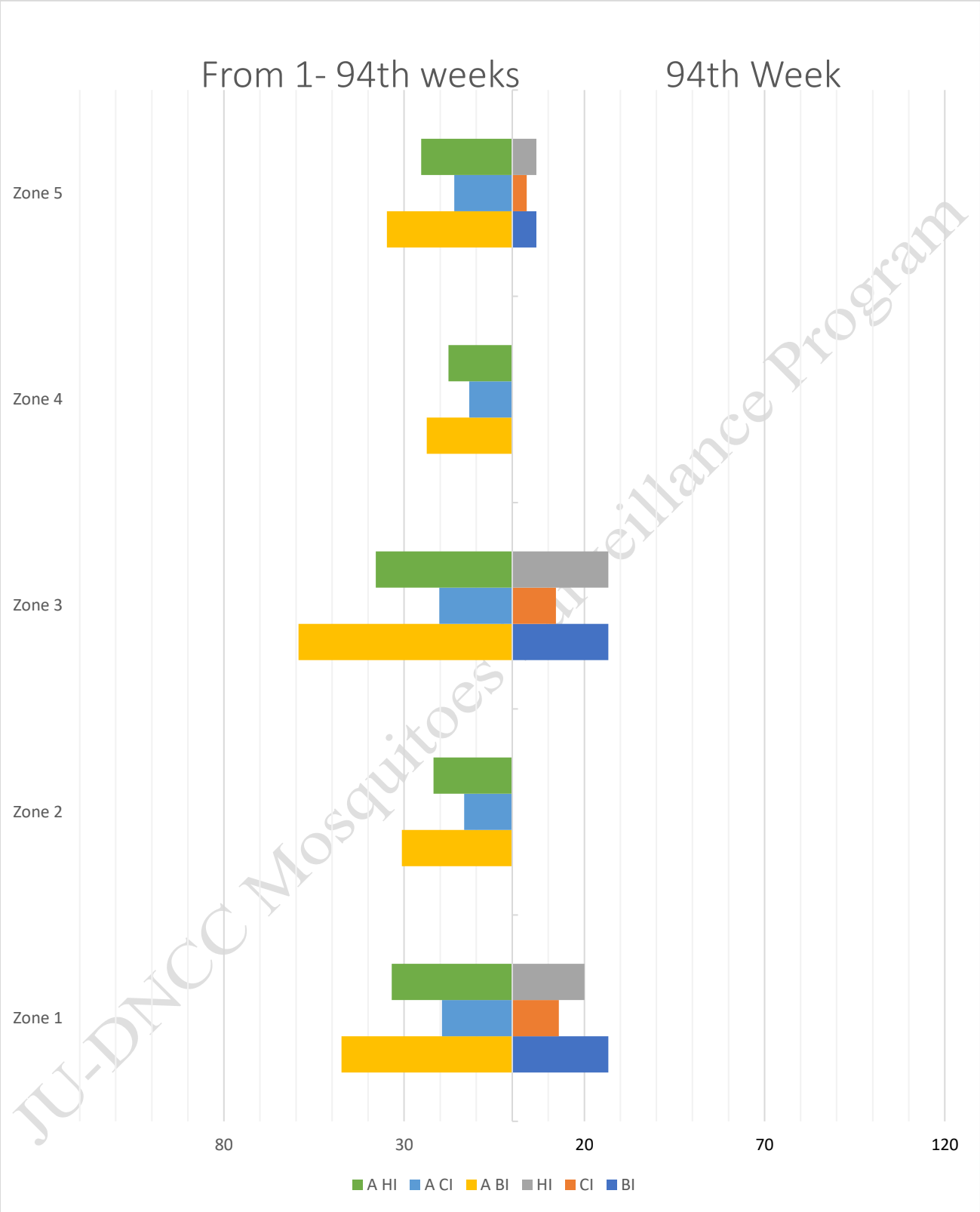


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

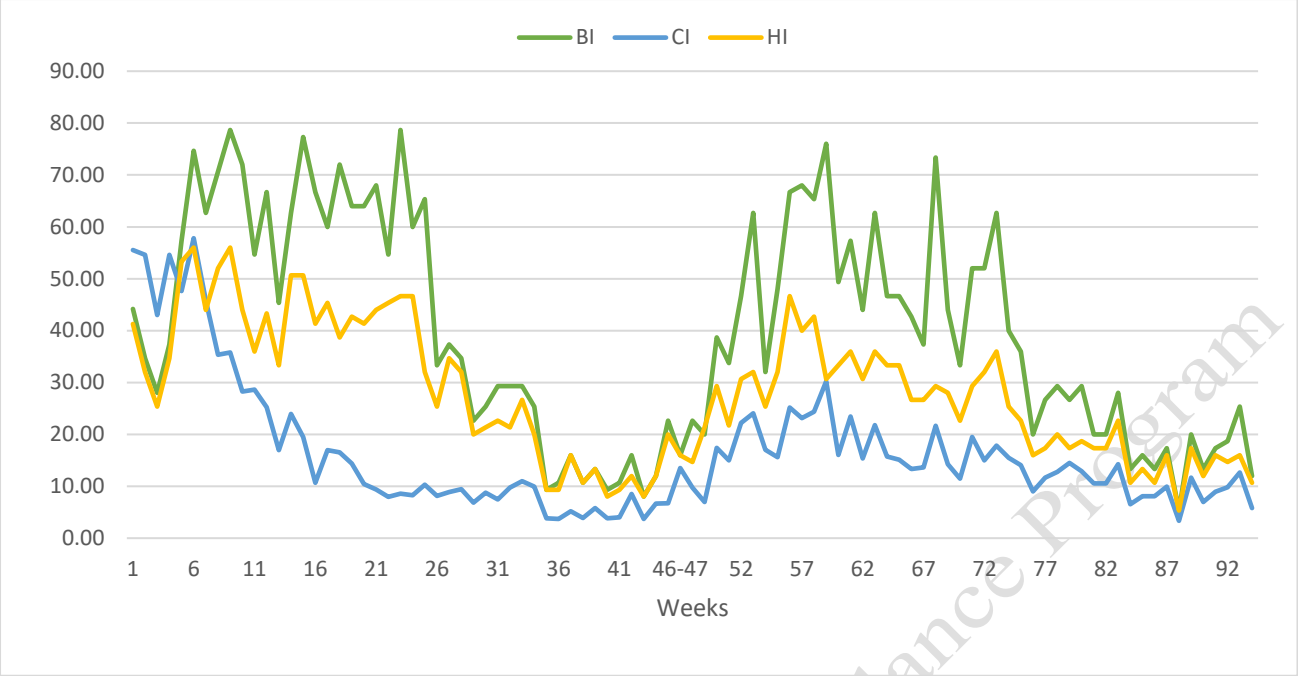


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

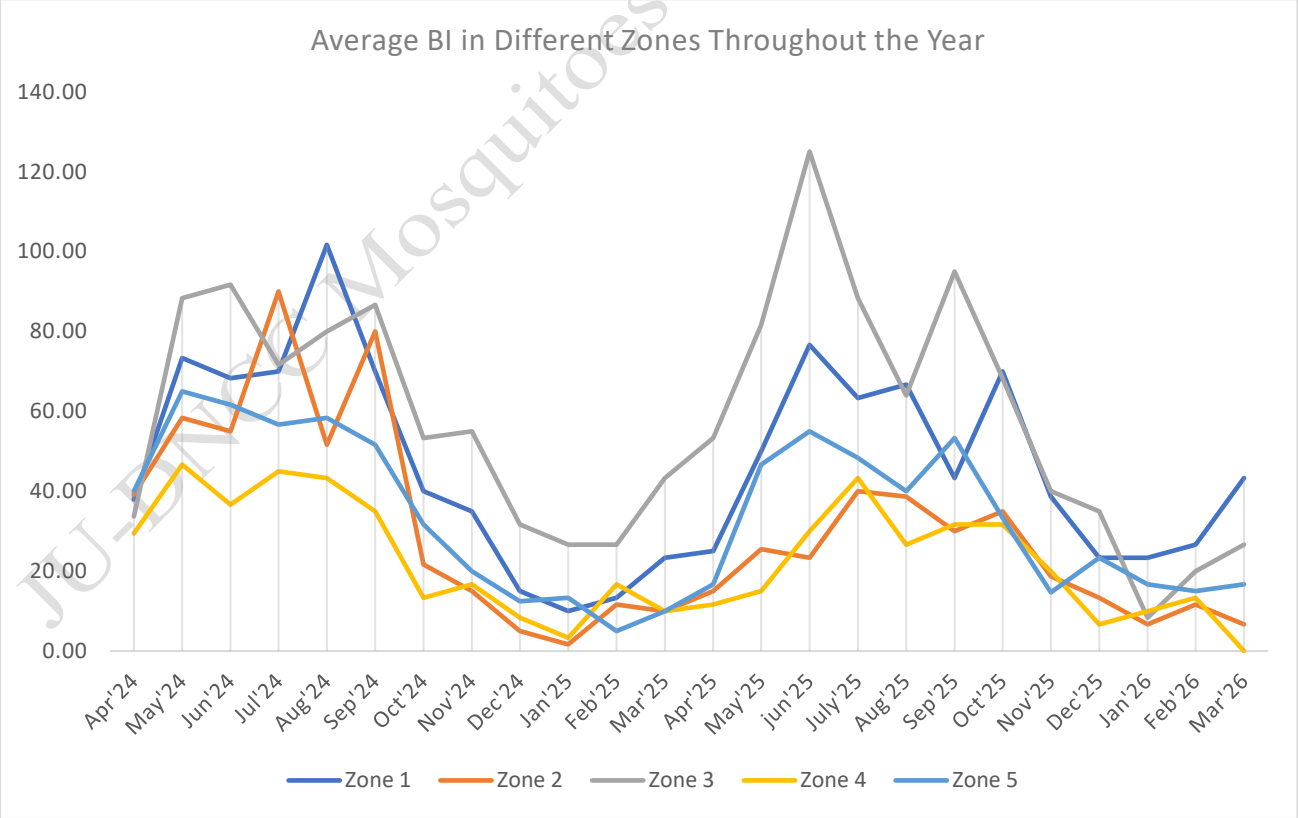


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

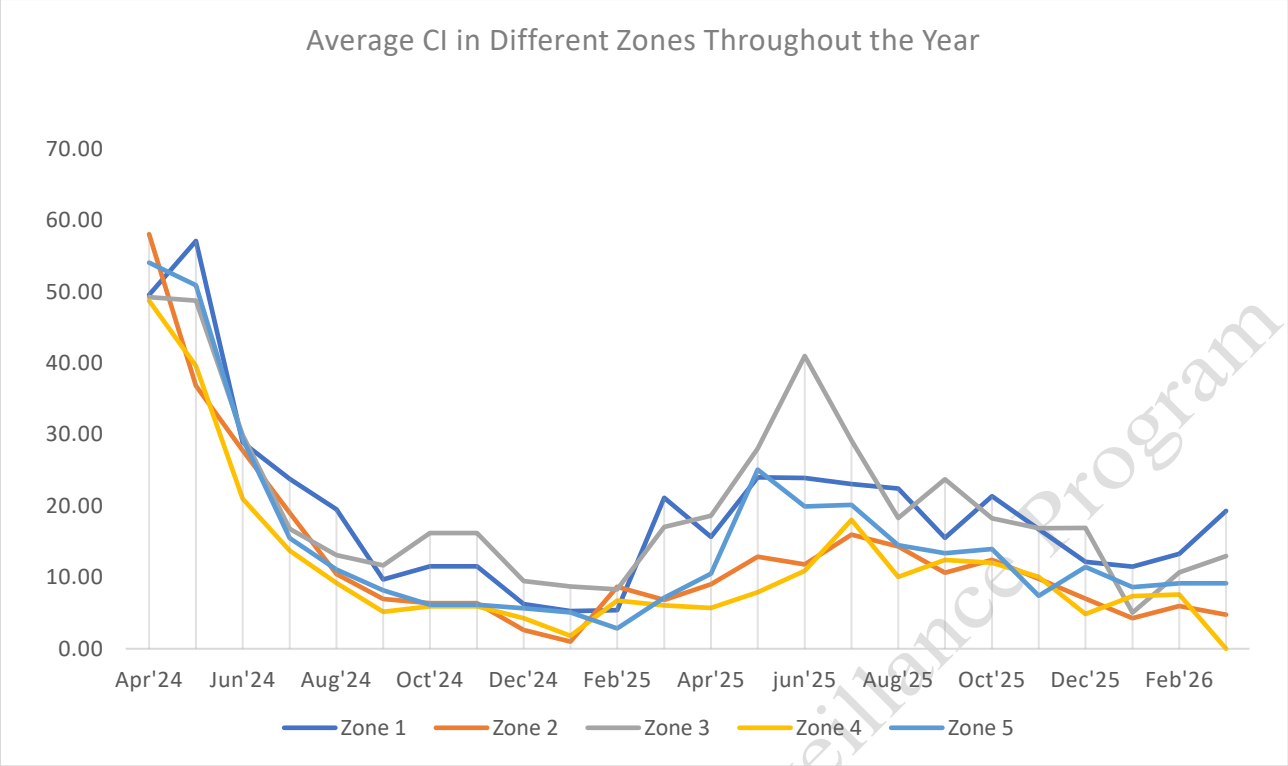


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

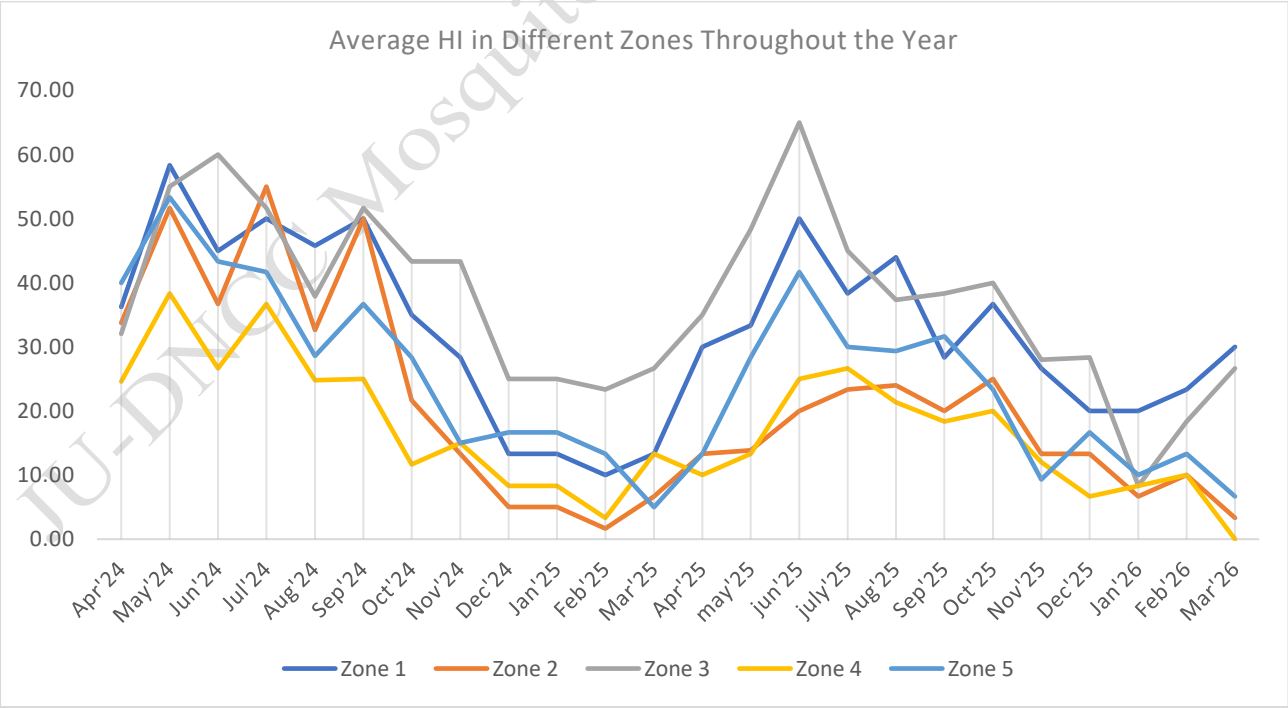


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

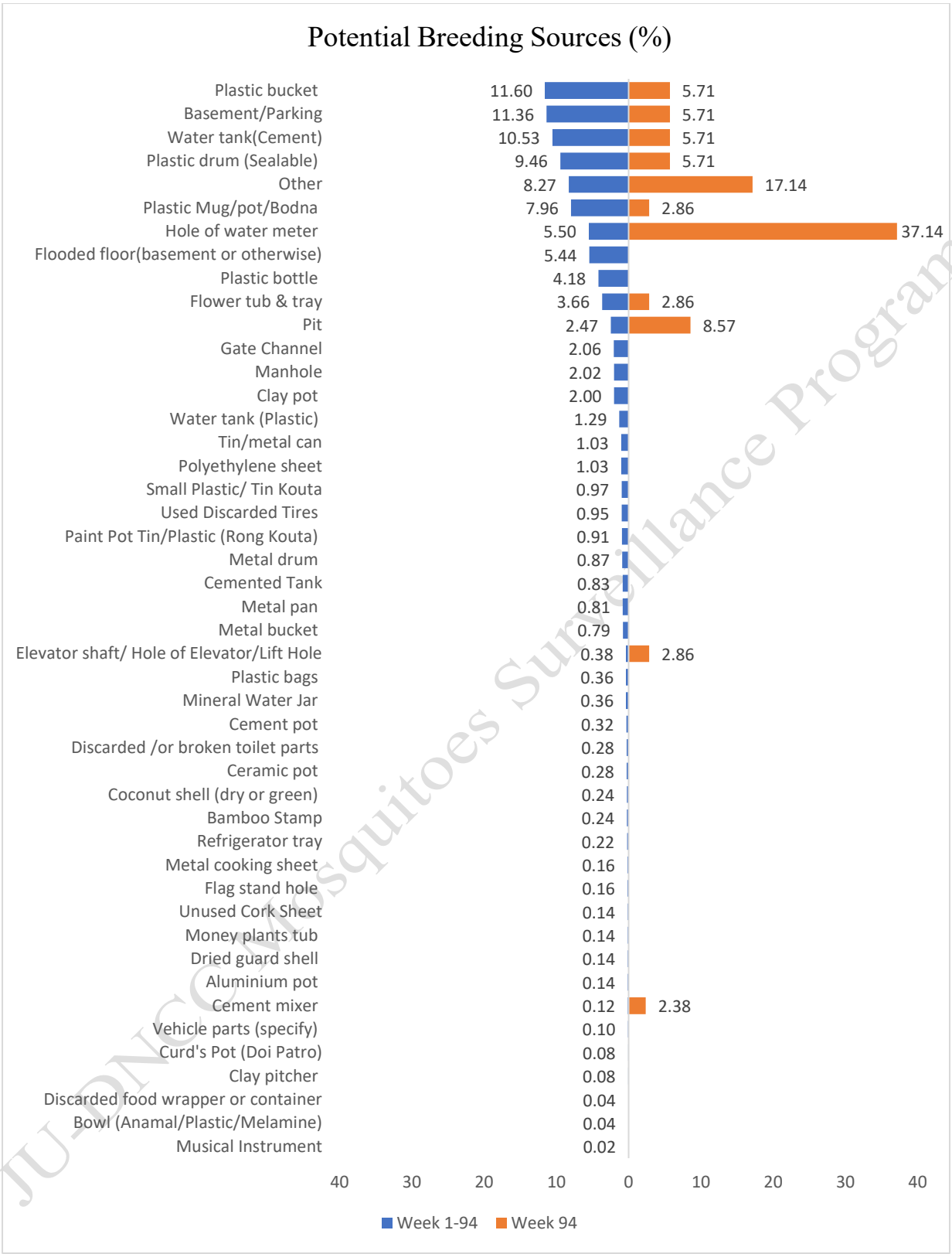


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

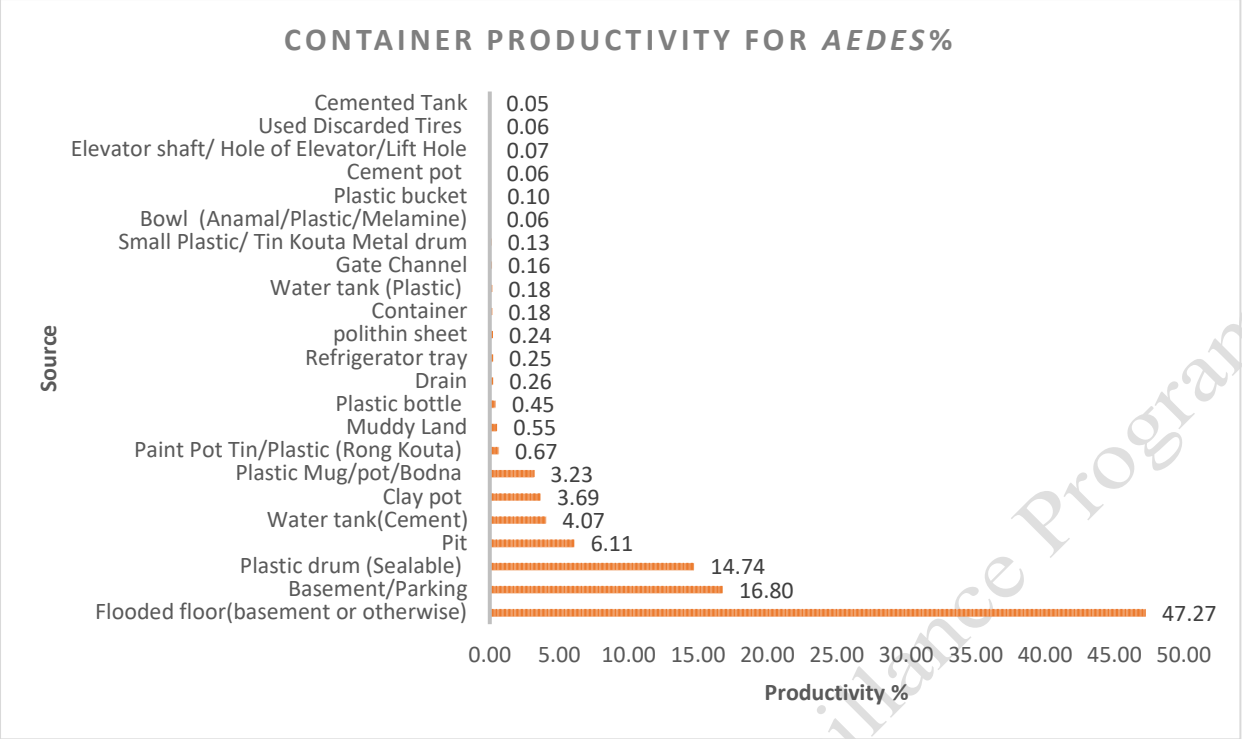


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

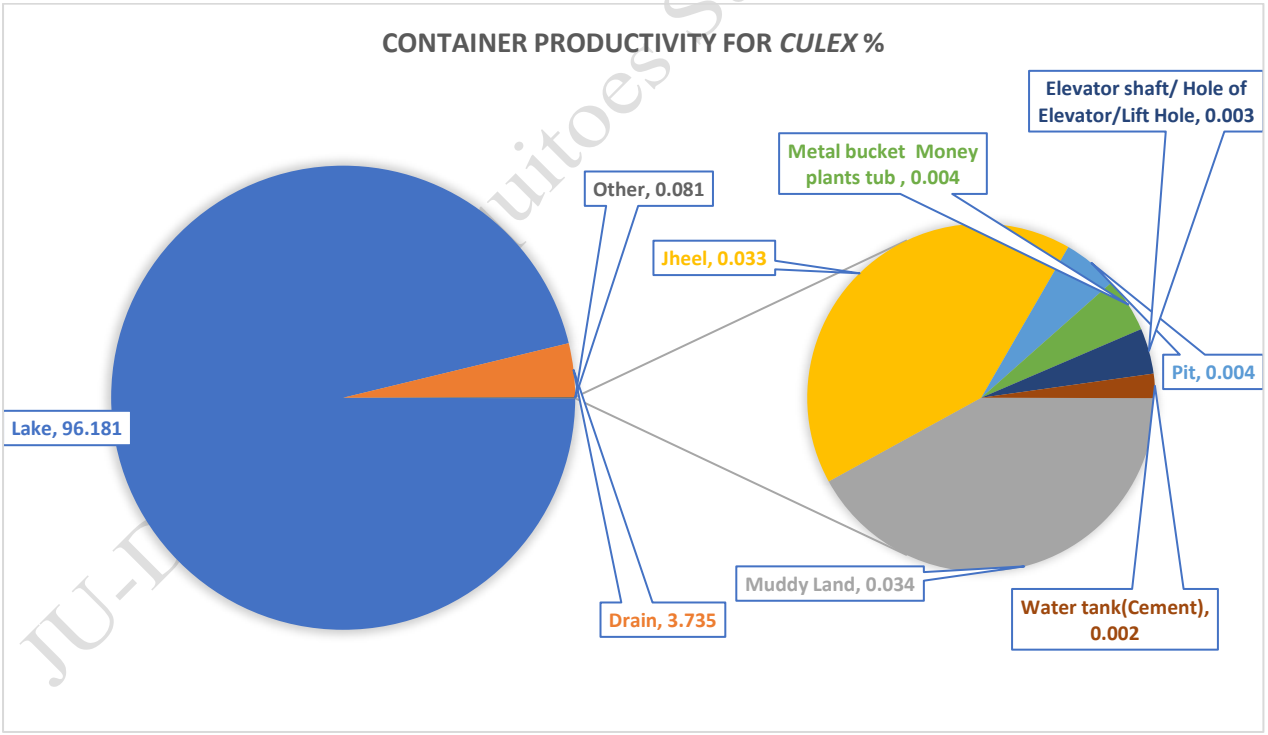


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 94 (May 2, 2024 - March 10, 2026)

Sources	+House	-WC	+WC	**Total WC**	% WC	% PWC
Plastic bucket	195	261	325	586	11.60	6.43
Basement/Parking	209	41	533	574	11.36	10.55
Water tank(Cement)	164	252	280	532	10.53	5.54
Plastic drum (Sealable)	226	78	400	478	9.46	7.92
Other	202	128	290	418	8.27	5.74
Plastic Mug/pot/Bodna	165	82	320	402	7.96	6.33
Hole of water meter	54	6	272	278	5.50	5.38
Flooded floor(basement or otherwise)	128	138	137	275	5.44	2.71
Plastic bottle	80	63	148	211	4.18	2.93
Flower tub & tray	66	25	160	185	3.66	3.17
Pit	61	22	103	125	2.47	2.04
Gate Channel	31	33	71	104	2.06	1.41
Manhole	55	29	73	102	2.02	1.44
Clay pot	83	11	90	101	2.00	1.78
Water tank (Plastic)	20	28	37	65	1.29	0.73
Polyethylene sheet	33	3	49	52	1.03	0.97
Tin/metal can	30	0	52	52	1.03	1.03
Small Plastic/ Tin Kouta	24	9	40	49	0.97	0.79
Used Discarded Tires	28	16	32	48	0.95	0.63
Paint Pot Tin/Plastic (Rong Kouta)	30	5	41	46	0.91	0.81
Metal drum	17	7	37	44	0.87	0.73
Cemented Tank	22	13	29	42	0.83	0.57
Metal pan	17	3	38	41	0.81	0.75
Metal bucket	20	5	35	40	0.79	0.69
Elevator shaft/ Hole of Elevator/Lift Hole	7	4	15	19	0.38	0.30
Mineral Water Jar	6	4	14	18	0.36	0.28
Plastic bags	8	1	17	18	0.36	0.34
Cement pot	11	1	15	16	0.32	0.30
Ceramic pot	13	0	14	14	0.28	0.28
Discarded /or broken toilet parts	11	2	12	14	0.28	0.24
Bamboo Stamp	9	0	12	12	0.24	0.24
Coconut shell (dry or green)	4	0	12	12	0.24	0.24
Refrigerator tray	8	0	11	11	0.22	0.22
Flag stand hole	4	1	7	8	0.16	0.14
Metal cooking sheet	2	0	8	8	0.16	0.16
Aluminium pot	4	0	7	7	0.14	0.14
Dried guard shell	4	0	7	7	0.14	0.14
Money plants tub	5	0	7	7	0.14	0.14
Unused Cork Sheet	5	1	6	7	0.14	0.12
Cement mixer	2	0	6	6	0.12	0.12
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 94 (May 2, 2024 - March 10, 2026)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.00	2.04	2.26	2.93	2.38
Basement/Parking	2.81	1.72	2.95	1.15	2.73
Water tank(Cement)	1.35	1.70	1.41	3.09	2.99
Plastic drum (Sealable)	1.41	2.26	1.62	2.22	1.96
Other	2.69	1.41	2.28	0.73	1.17
Plastic Mug/pot/Bodna	1.46	1.41	1.52	2.26	1.31
Hole of water meter	0.71	1.11	0.26	1.70	1.72
Flooded floor(basement or otherwise)	1.41	1.21	0.91	0.59	1.33
Plastic bottle	0.53	0.97	0.59	1.11	0.97
Flower tub & tray	1.09	0.61	1.21	0.46	0.30
Pit	0.63	0.34	0.83	0.32	0.36
Gate Channel	0.75	0.20	0.61	0.08	0.42
Manhole	0.83	0.24	0.63	0.22	0.10
Clay pot	0.24	0.42	0.61	0.24	0.49
Water tank (Plastic)	0.00	0.81	0.18	0.16	0.14
Polyethylene sheet	0.30	0.28	0.20	0.18	0.08
Tin/metal can	0.30	0.28	0.20	0.20	0.06
Small Plastic/ Tin Kouta	0.26	0.18	0.28	0.12	0.14
Used Discarded Tires	0.36	0.26	0.18	0.08	0.08
Paint Pot Tin/Plastic (Rong Kouta)	0.22	0.10	0.28	0.20	0.12
Metal drum	0.16	0.10	0.22	0.30	0.10
Cemented Tank	0.16	0.12	0.20	0.24	0.12
Metal pan	0.18	0.14	0.26	0.10	0.14
Metal bucket	0.12	0.08	0.24	0.20	0.16
Elevator shaft/ Hole of Elevator/Lift Hole	0.14	0.10	0.08	0.00	0.06
Mineral Water Jar	0.04	0.02	0.06	0.16	0.08
Plastic bags	0.04	0.02	0.08	0.12	0.10
Cement pot	0.04	0.00	0.12	0.02	0.14
Ceramic pot	0.06	0.02	0.06	0.02	0.12
Discarded /or broken toilet parts	0.02	0.14	0.04	0.00	0.08
Bamboo Stamp	0.06	0.08	0.04	0.06	0.00
Coconut shell (dry or green)	0.06	0.04	0.06	0.04	0.04
Refrigerator tray	0.08	0.02	0.06	0.04	0.02
Flag stand hole	0.08	0.02	0.02	0.00	0.04
Metal cooking sheet	0.00	0.02	0.06	0.04	0.04
Aluminium pot	0.02	0.04	0.00	0.06	0.02
Dried guard shell	0.04	0.00	0.08	0.00	0.02
Money plants tub	0.06	0.04	0.04	0.00	0.00
Unused Cork Sheet	0.00	0.02	0.04	0.02	0.06
Cement mixer	0.00	0.04	0.04	0.02	0.02
Vehicle parts (specify)	0.02	0.00	0.06	0.02	0.00
Clay pitcher	0.04	0.00	0.02	0.02	0.00
Curd's Pot (Doi Patro)	0.02	0.02	0.04	0.00	0.00
Bowl (Anamal/Plastic/Melamine)	0.02	0.02	0.00	0.00	0.00
Discarded food wrapper or container	0.00	0.00	0.04	0.00	0.00
Musical Instrument	0.02	0.00	0.00	0.00	0.00

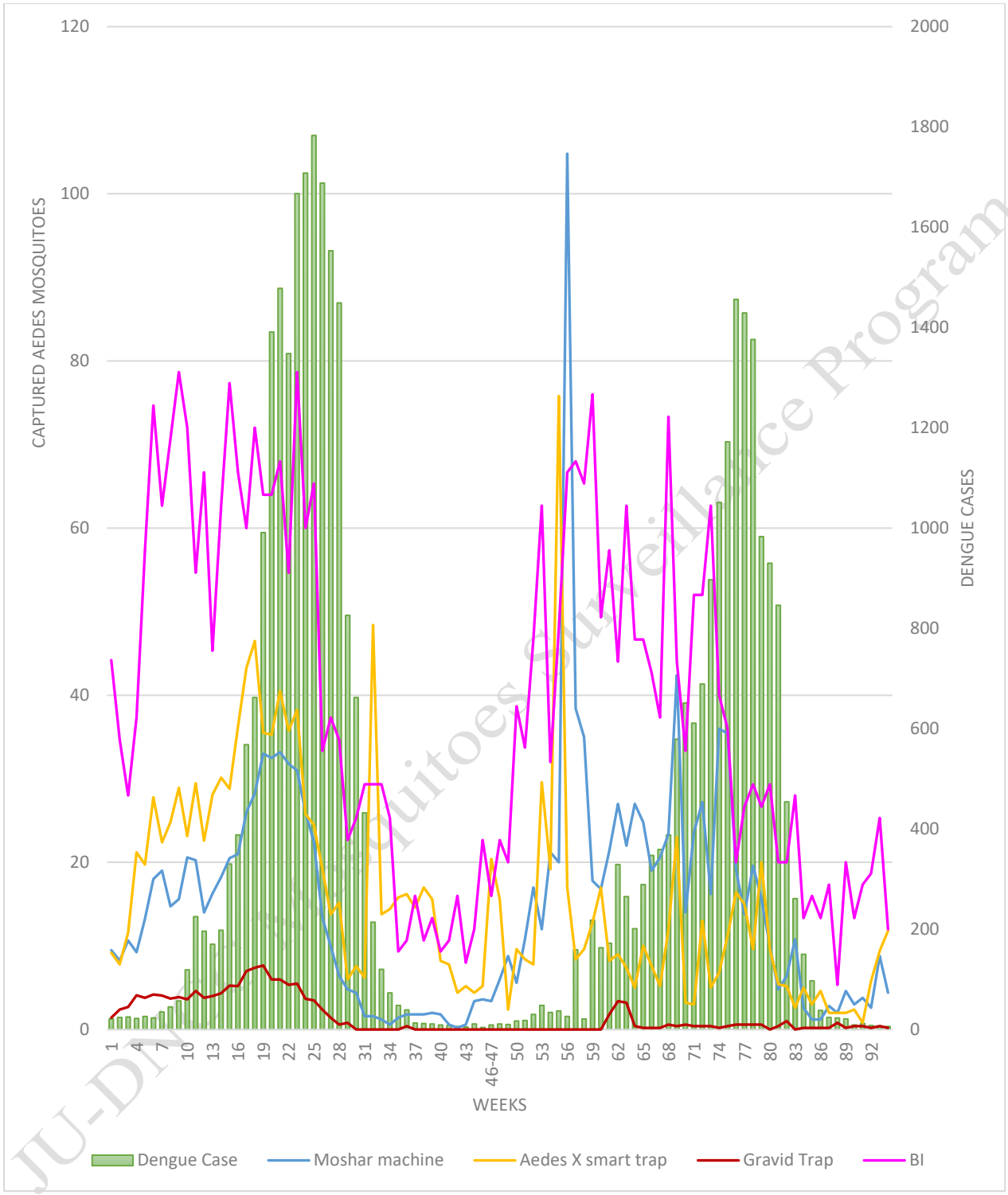


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO_2 traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance



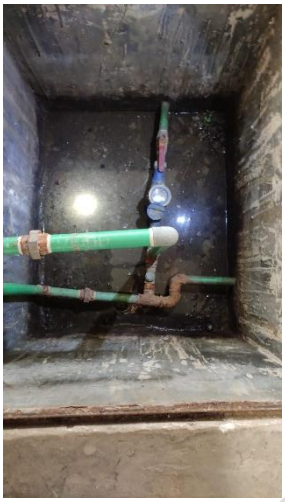






Samples Collection from Field

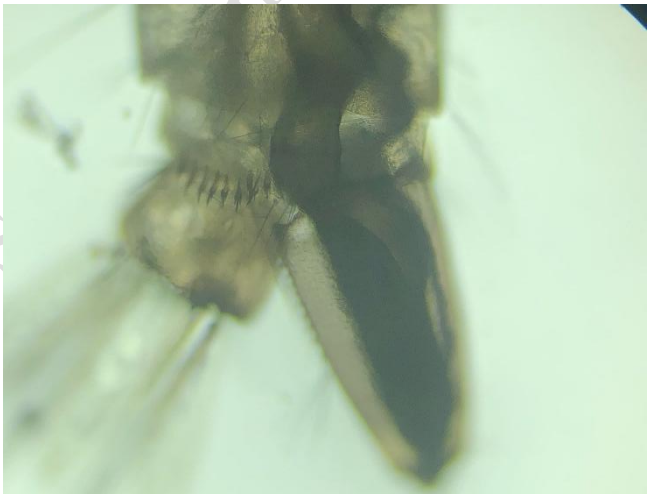








Samples Processing and Identification



Comments:

Overall mosquito density is decreasing and the dengue cases declining rapidly. The Breteau Index (BI) is has gone lower. 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