Weekly Report on

JU-DNCC Mosquitoes Surveillance Program

Week 093 (February 27- March 3, 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.

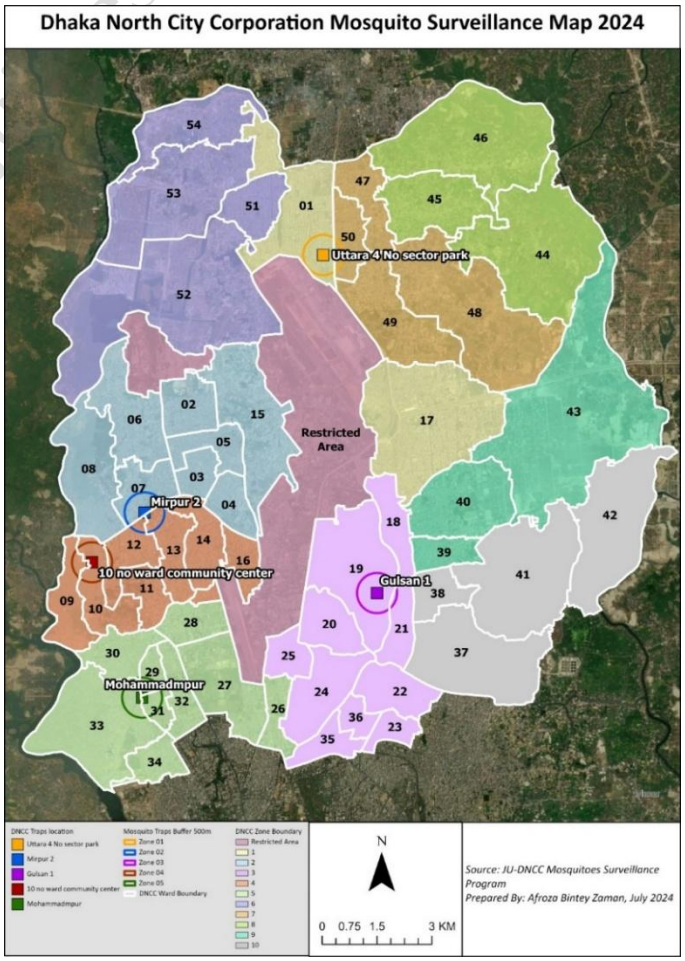
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 93 (February 27- March 3, 2026)

Zone	N	*Ae. aegypti*	*Cx. quinquefasciatus*	*Cx. tritaeniorhynchus*	*Ar. subalbatus*	*An. vagys*	*An. philippinensis*
1	14225	6.00	11035.00	3164.00	9.00	8.00	3.00
2	11411	14	8781	2178	431	0	7
3	10057	7	8012	1991	47	0	0
4	11029	2	8684	2308	0	11	24
5	6622	15	5067	1429	108	2	1
Total	53344	44.00	41579.00	11070.00	595.00	21.00	35.00
%	100	0.08	77.95	20.75	1.12	0.04	0.07

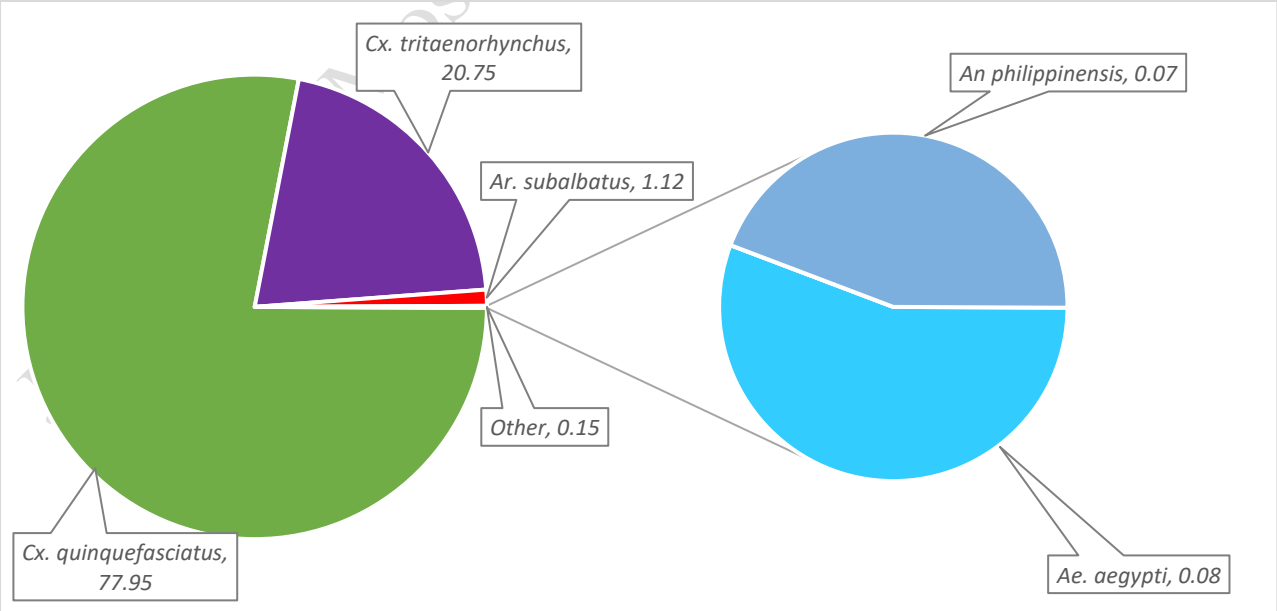


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO_2) traps in Week 93 (February 27- March 3, 2026)

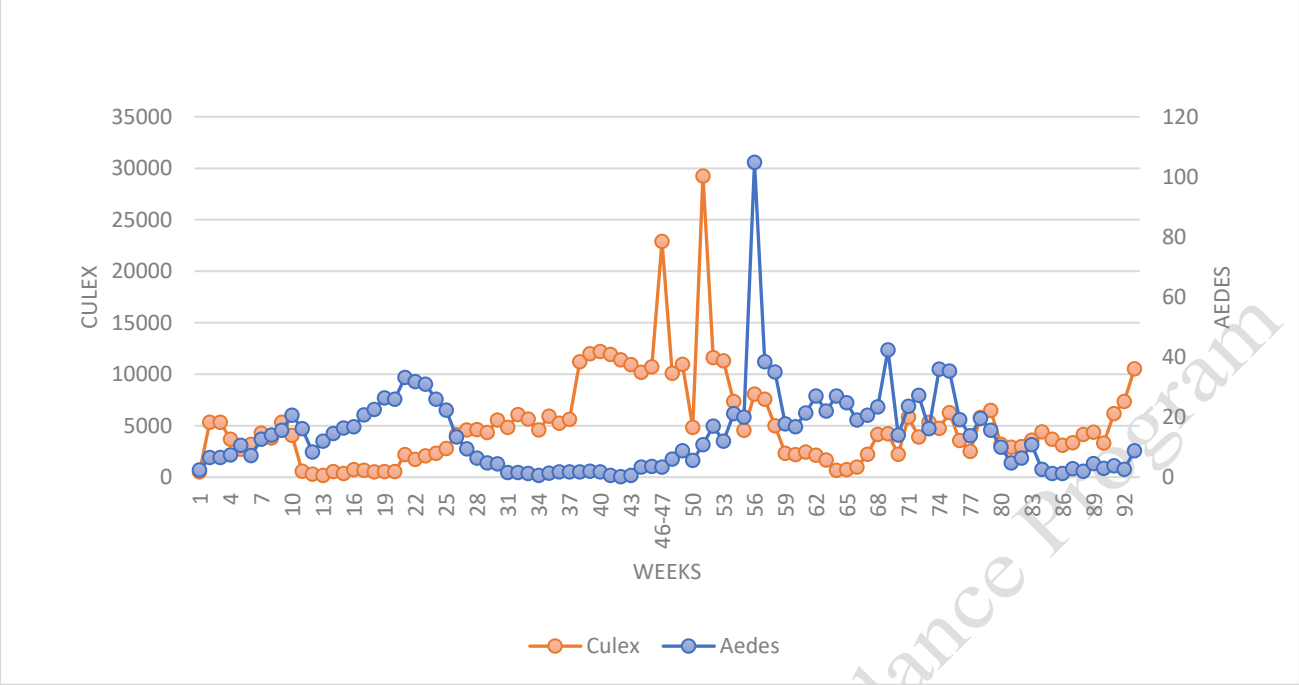


Fig 2: Average number of mosquitoes per Moshar Machine (CO_2) traps from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Week 93 (February 27-March 3, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*
1	3	0	3
2	18	0	18
3	8	8	0
4	0	0	0
5	18	18	0
Total	47	26	21
(%)	100	55.32	44.68

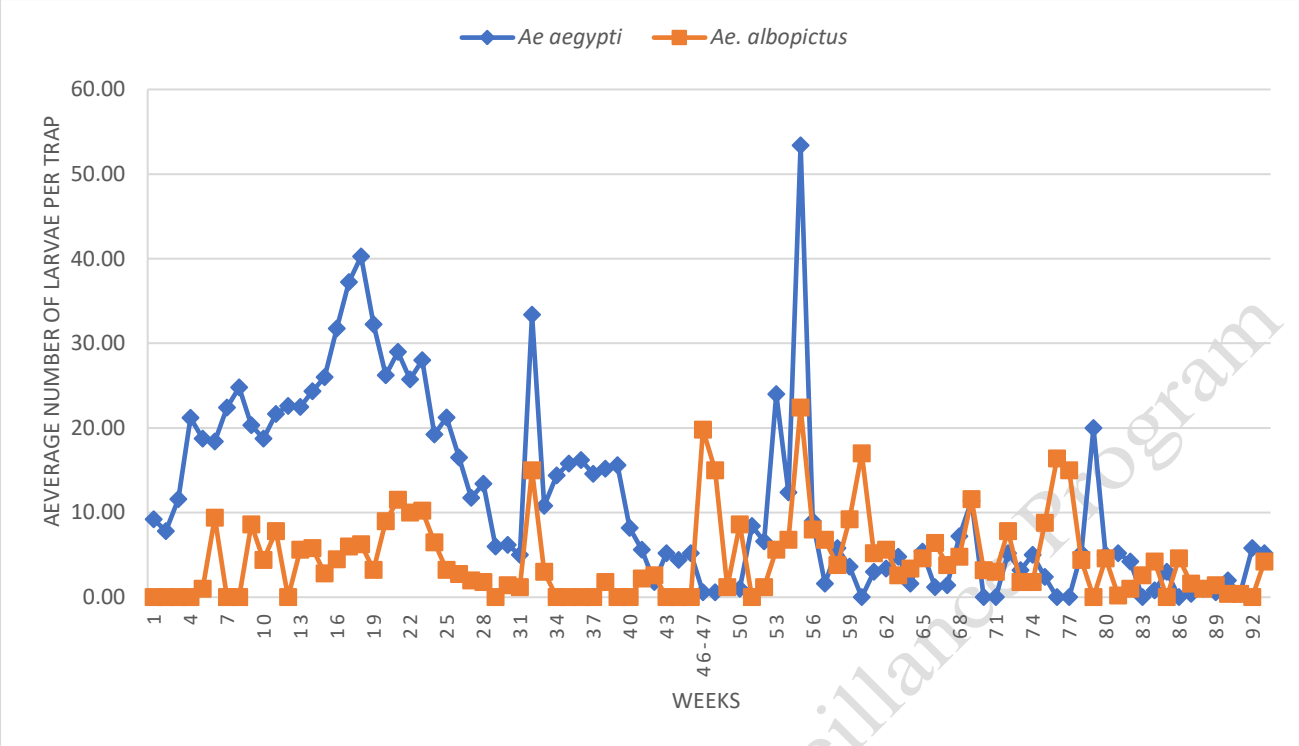


Fig 3: Average Number of *Aedes* Larvae per *Aedes* X Smart Trap in Zones 1-5 from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Week 93 (February 27- March 3, 2026)

Zone	Number of Mosquitoes	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*
1	2	2	0	0
2	1	0	1	0
3	3	0	0	3
4	0	0	0	0
5	1	0	1	0
Total	7	2	2	3
(%)	100	28.57	28.57	42.86

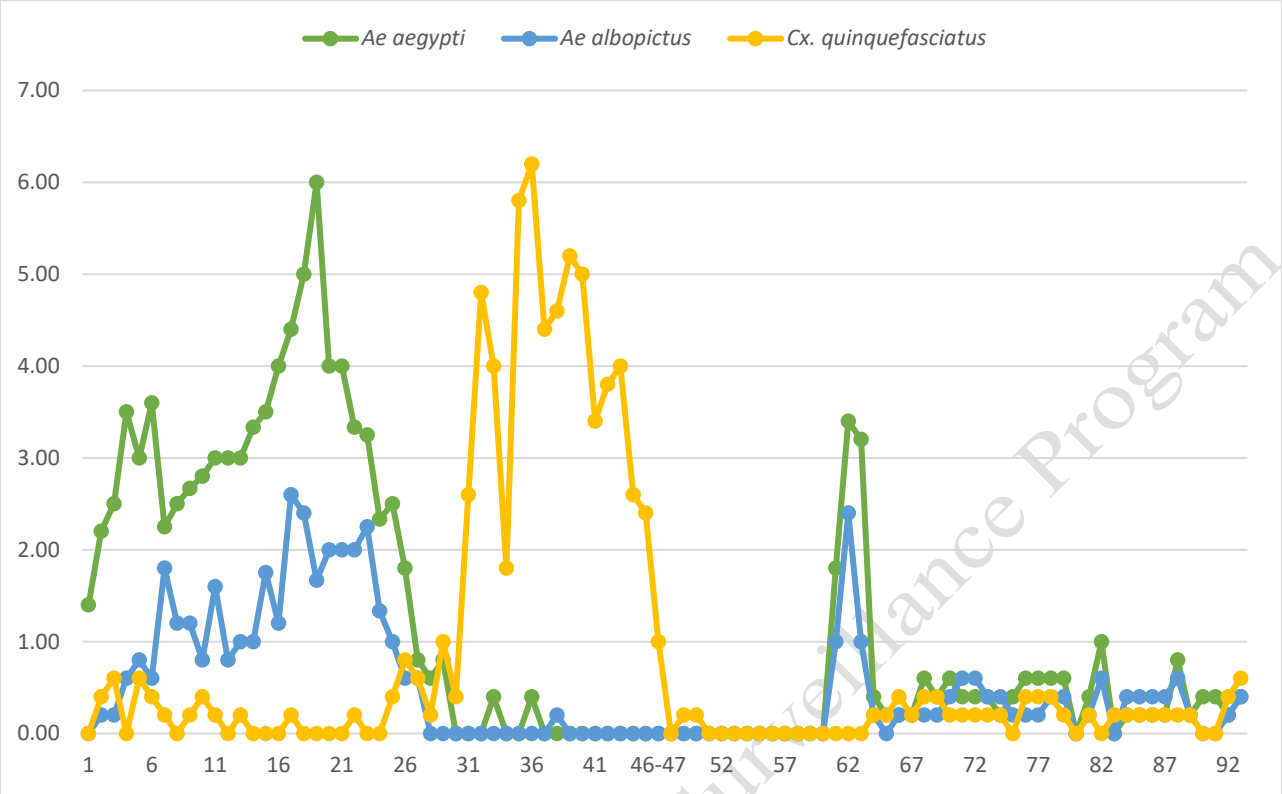


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

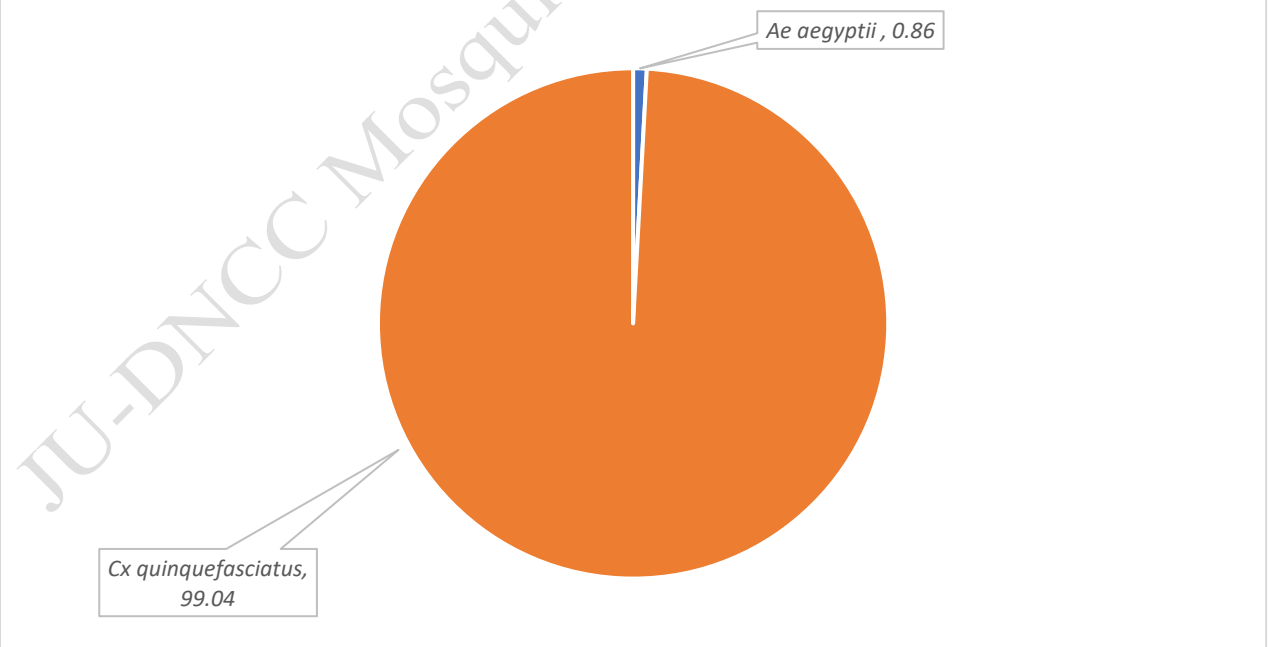
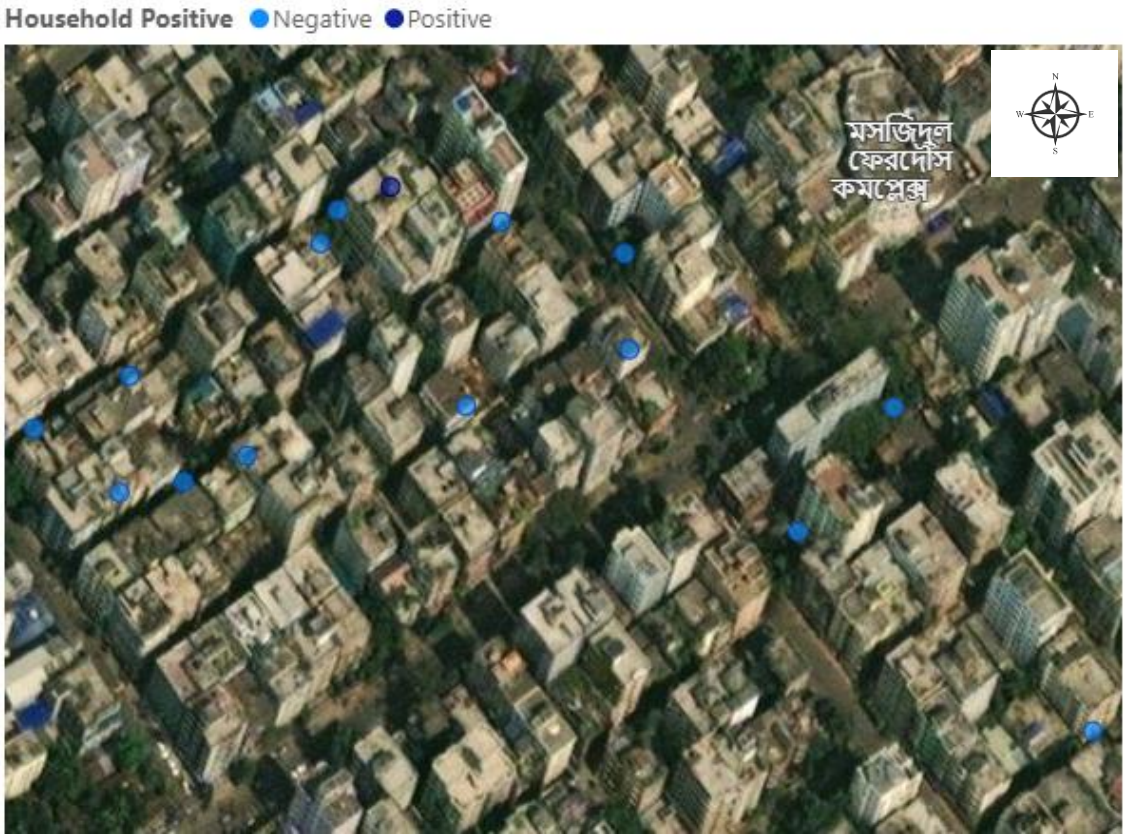


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Week 93 (February 27- March 3, 2026)

Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Week 93 (February 27- March 3, 2026)

Zone	GPS Location	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Ar. subalbatus*	*Source*
1	23.8607094 90.4025361	0	0	2548	0	Drain
	23.8602842 90.4021449	5	0	0	0	Plastic Mug/pot/Bodna
	23.8605143 90.4027018	0	0	548	0	Drain
	23.8595089 90.4019743	21	0	0	0	Other
	23.8608209 90.4014594	0	0	2164	0	Drain
	23.8613285 90.4011827	0	0	21	0	Other
	Total	26	0	5281	0	
2	23.8044977 90.3546261	0	21	0	0	Other
	Total	0	21	0	0	
3	23.7857059 90.4166313	0	0	8907	0	Drain
	23.7857174 90.4166508	0	0	5886	0	Drain
	23.7863025 90.4177779	54	0	0	0	Basement/Parking
	23.7858698 90.4193331	42	0	0	0	Other
	Total	96	0	14793	0	
5	23.7607023 90.3626226	52	0	0	0	Hole of water meter
	Total	52	0	0	0	
Grand Total		174	21	20074	0	

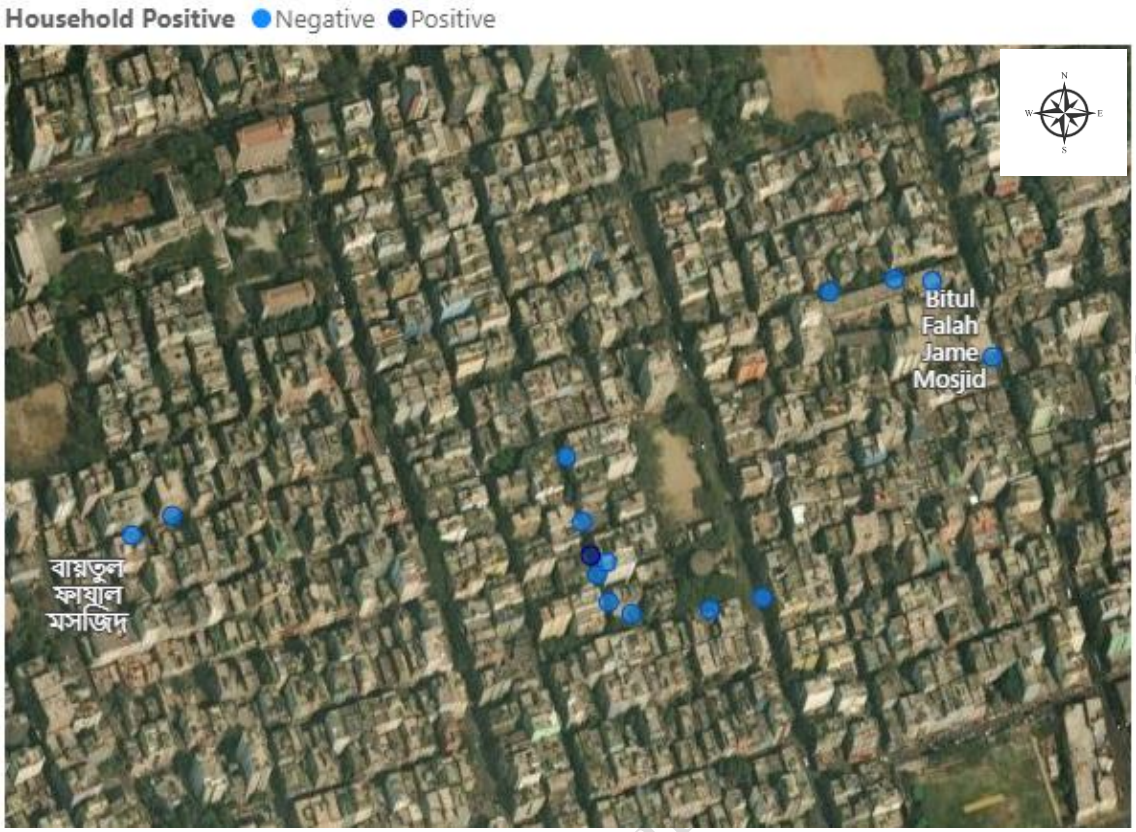
Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 93



Map 2: Positive and Negative House of Mirpur 2 at Weeks 93

Map 3: Positive and Negative House of Gulsan 1 at Weeks 93

Map 4: Positive and Negative House of Mirpur 1 at Weeks 93



Map 5: Positive and Negative House of Mohammadpur at Weeks 93

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Week 93 (February 27-March 3, 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	2	37	3	20.00	8.11	13.33
3	15	1	22	1	6.67	4.55	6.67
4	15	3	29	3	20.00	10.34	20.00
5	15	2	23	3	20.00	13.04	13.33

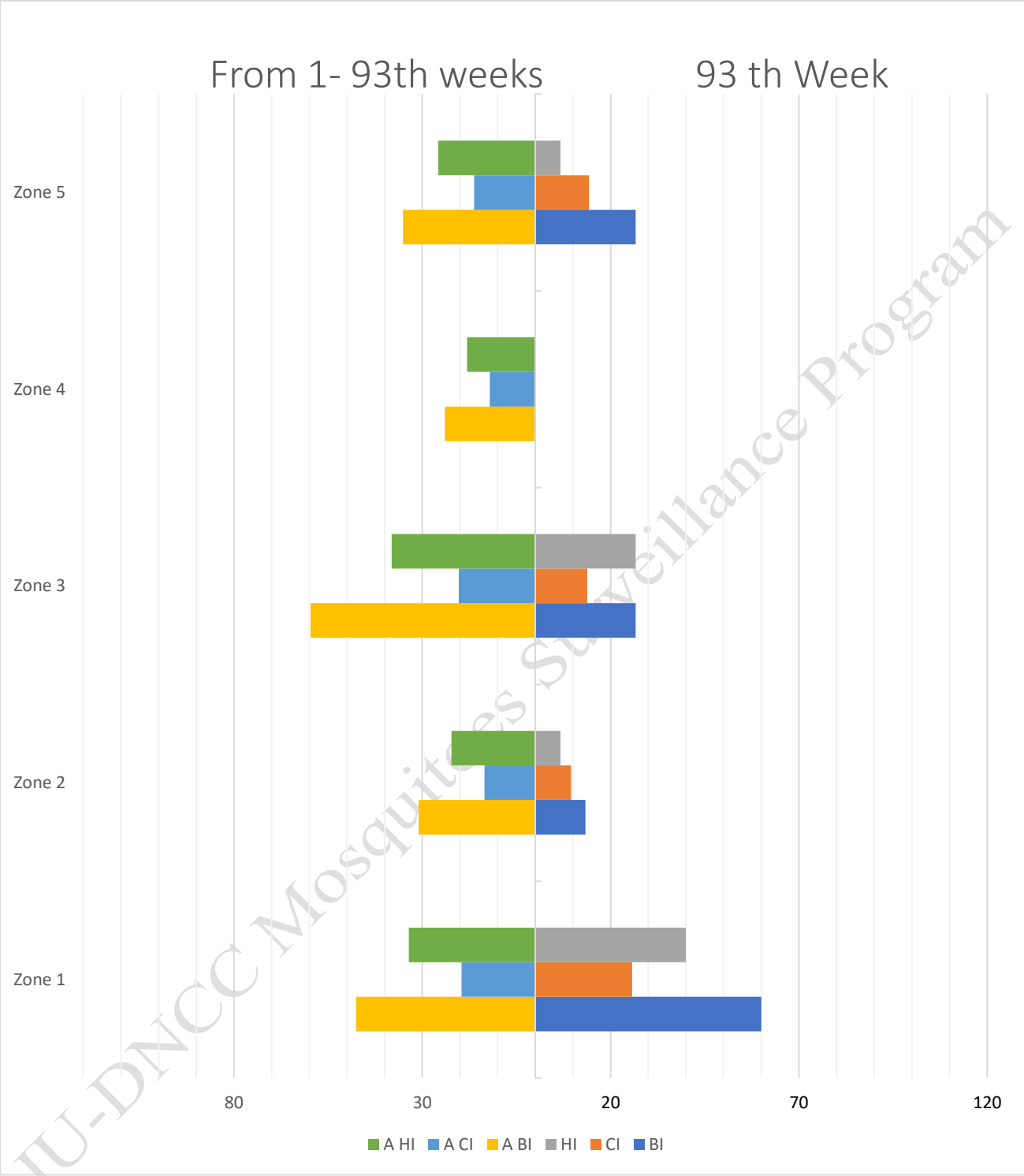


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

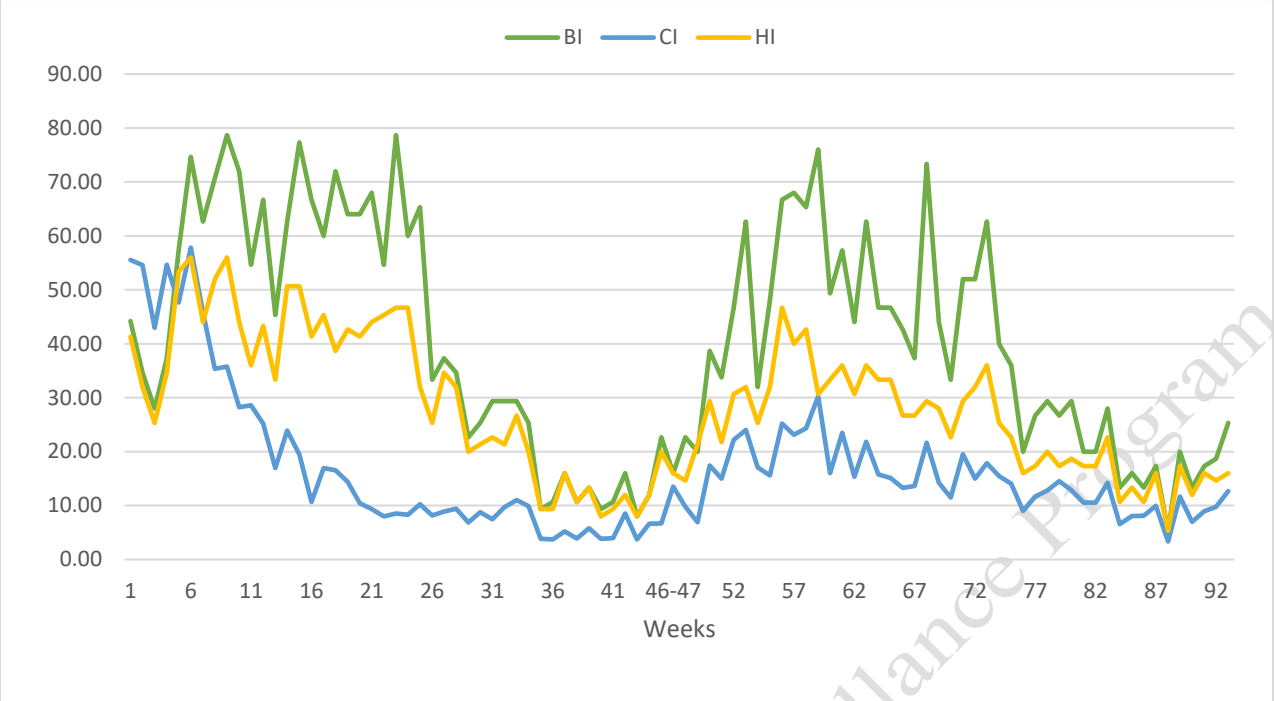


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

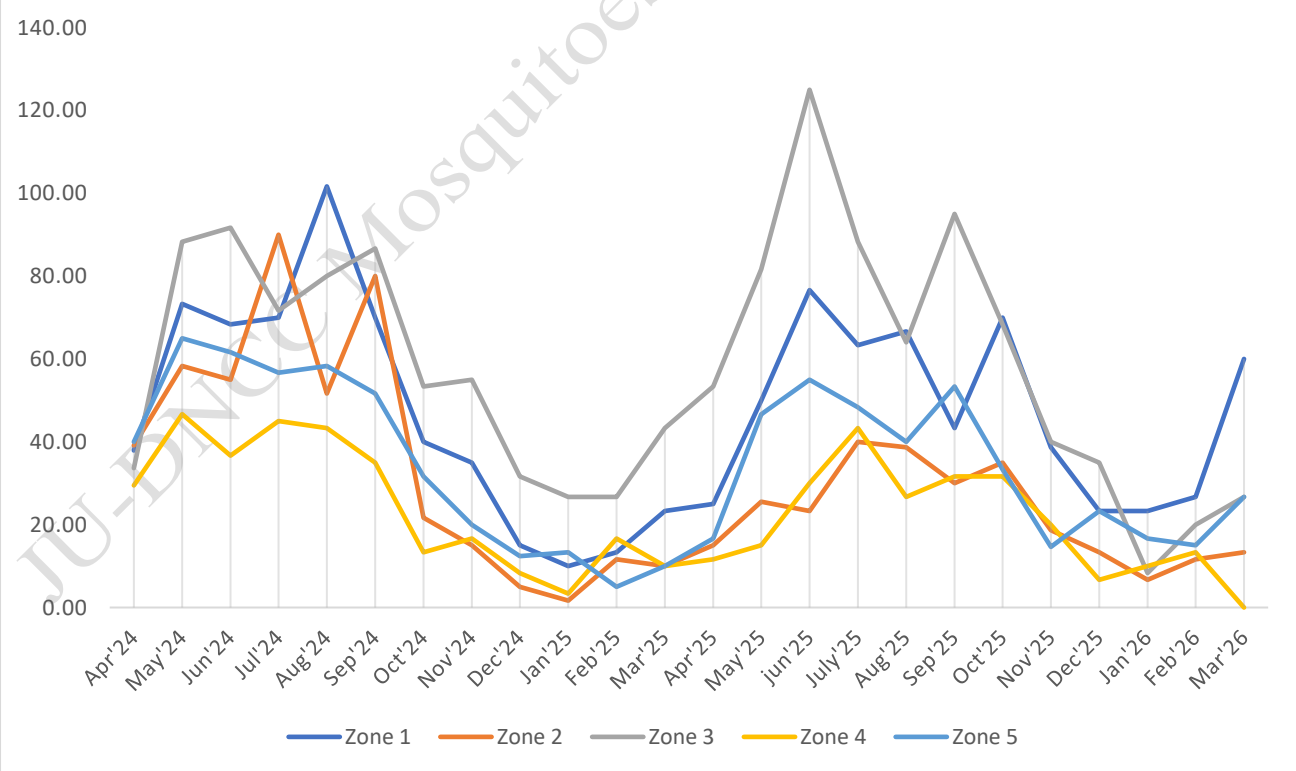


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

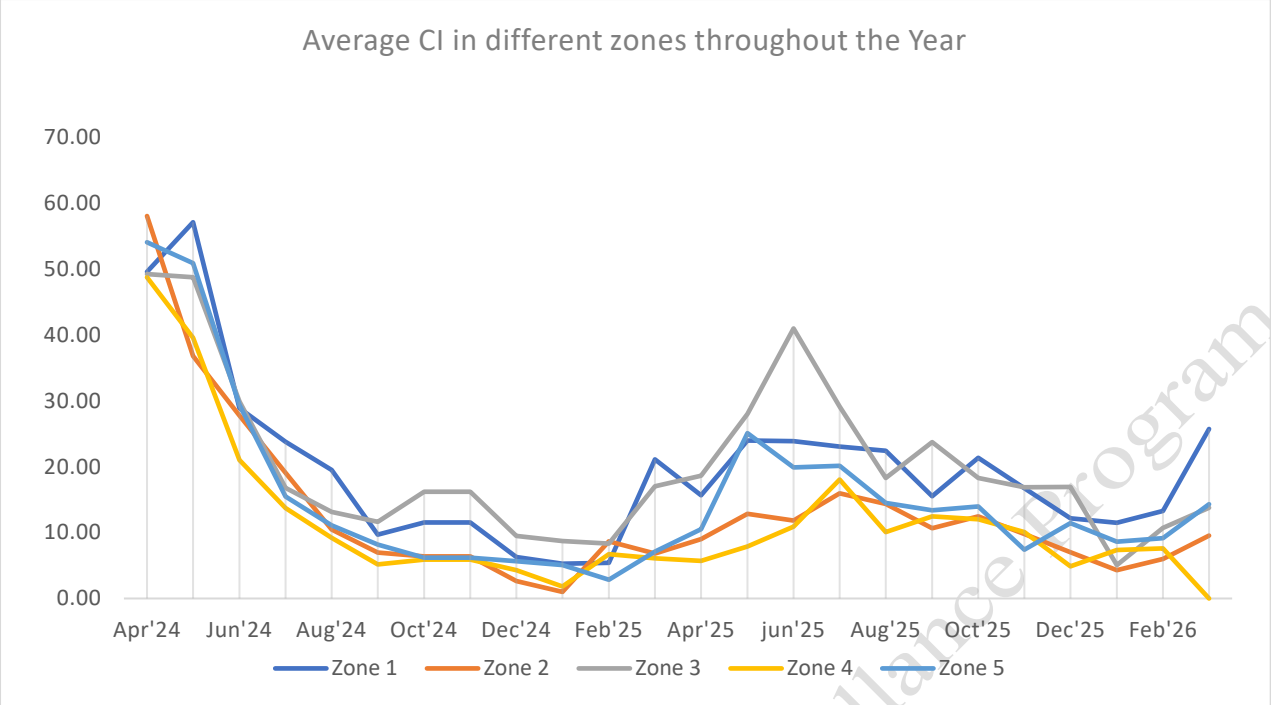


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

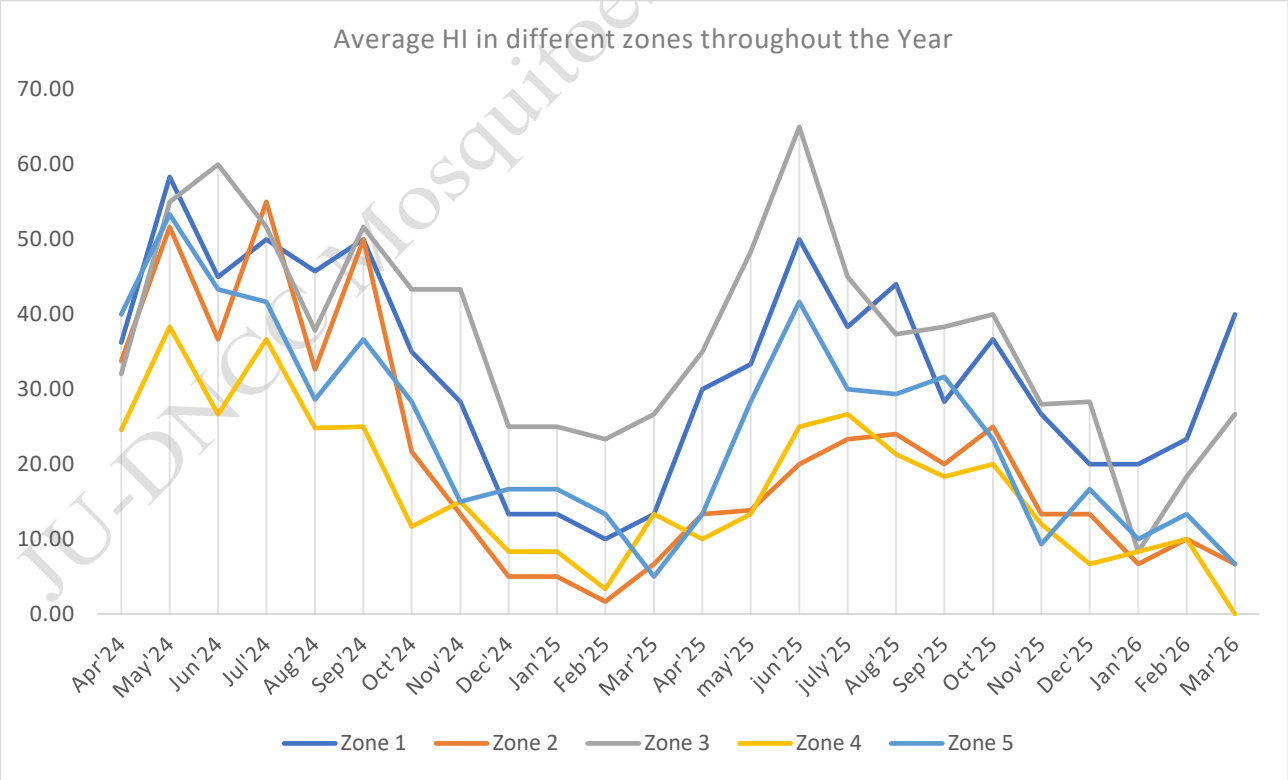


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

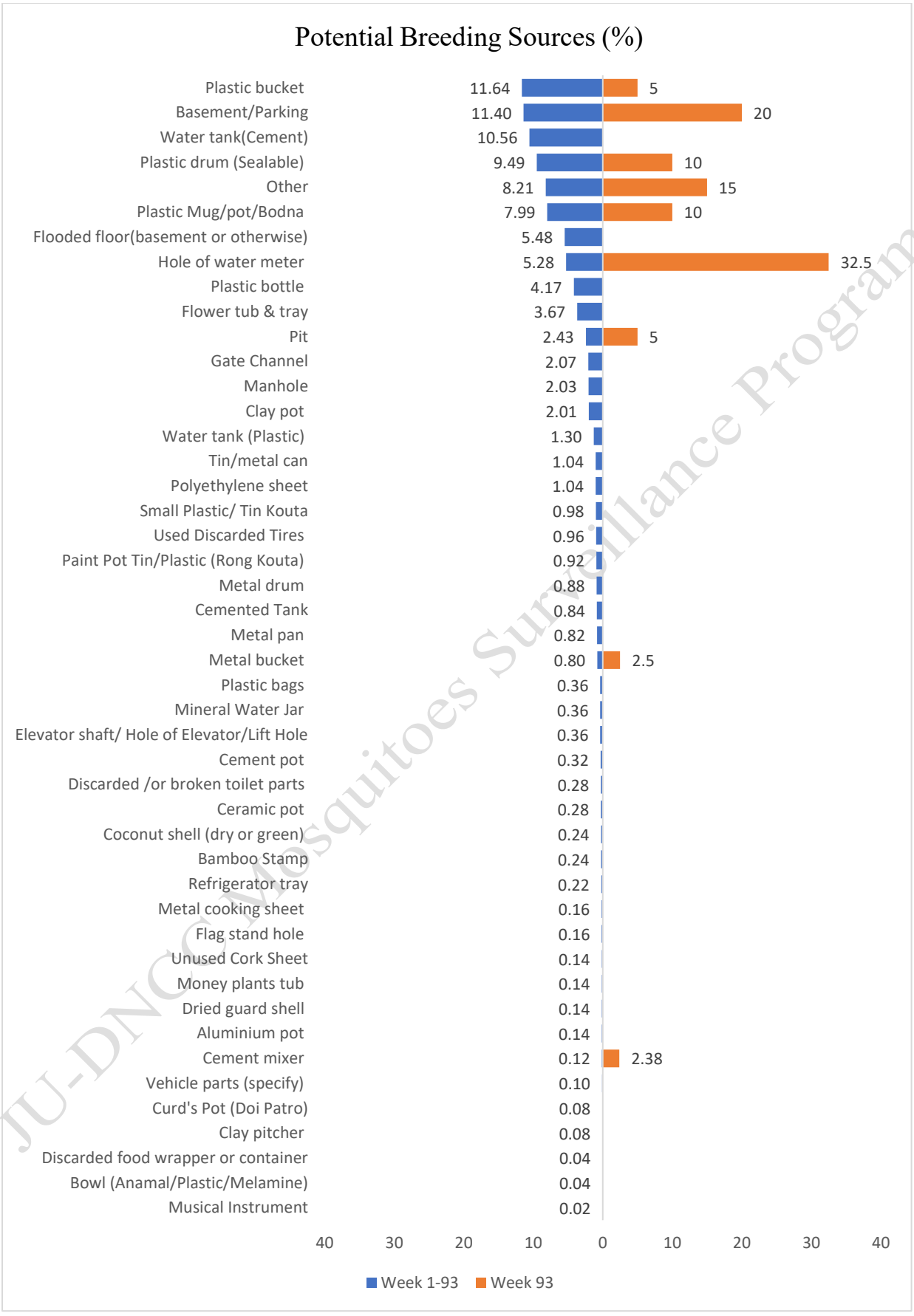


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

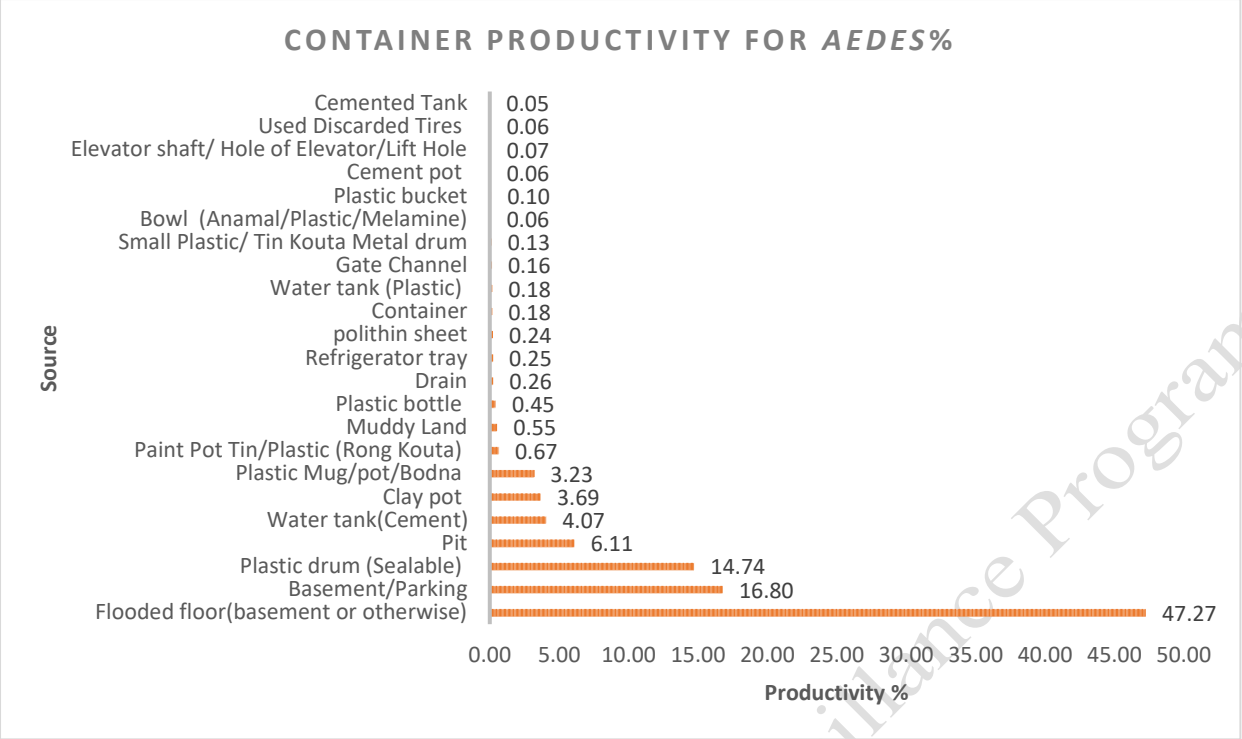


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

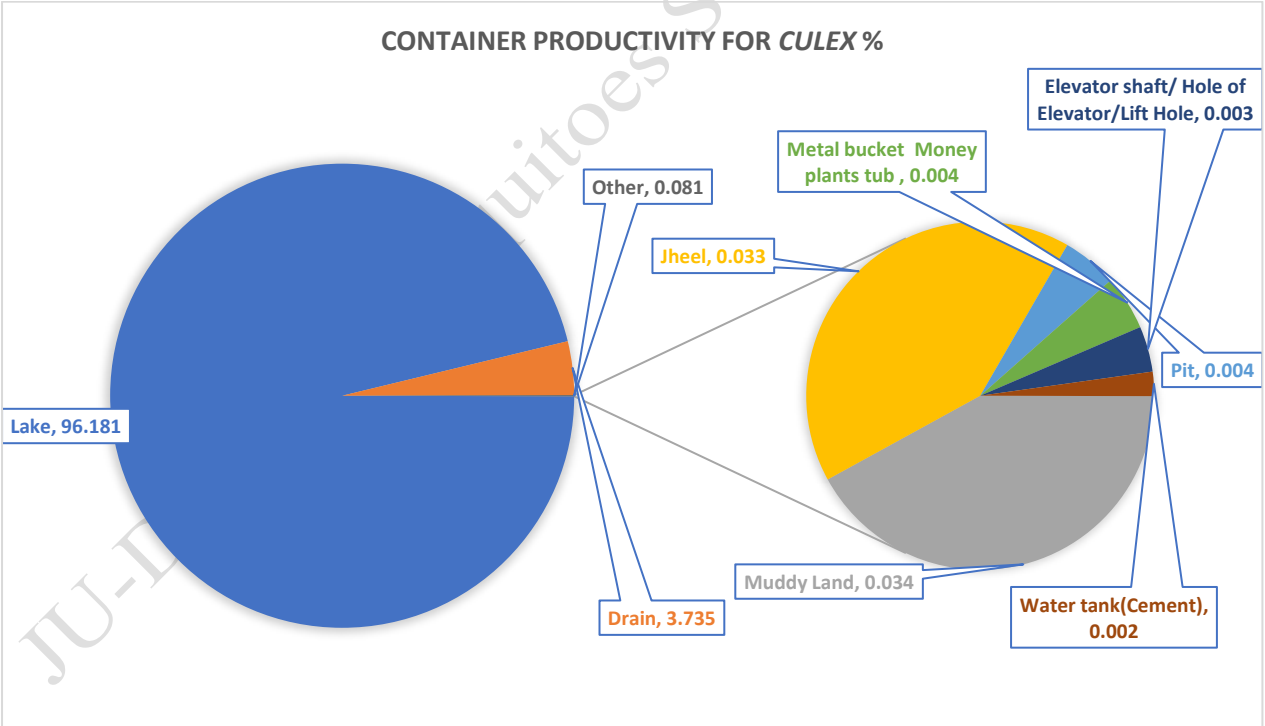


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 93 (May 2, 2024 - March 3, 2026)

Sources	+House	-WC	+WC	**Total WC**	% WC	% PWC
Plastic bucket	194	261	323	584	11.64	6.44
Basement/Parking	208	41	531	572	11.40	10.58
Water tank(Cement)	164	252	278	530	10.56	5.54
Plastic drum (Sealable)	226	78	398	476	9.49	7.93
Other	200	128	284	412	8.21	5.66
Plastic Mug/pot/Bodna	165	82	319	401	7.99	6.36
Flooded floor(basement or otherwise)	128	138	137	275	5.48	2.73
Hole of water meter	52	6	259	265	5.28	5.16
Plastic bottle	79	63	146	209	4.17	2.91
Flower tub & tray	65	25	159	184	3.67	3.17
Pit	61	22	100	122	2.43	1.99
Gate Channel	31	33	71	104	2.07	1.42
Manhole	55	29	73	102	2.03	1.46
Clay pot	83	11	90	101	2.01	1.79
Water tank (Plastic)	20	28	37	65	1.30	0.74
Polyethylene sheet	33	3	49	52	1.04	0.98
Tin/metal can	30	0	52	52	1.04	1.04
Small Plastic/ Tin Kouta	24	9	40	49	0.98	0.80
Used Discarded Tires	28	16	32	48	0.96	0.64
Paint Pot Tin/Plastic (Rong Kouta)	30	5	41	46	0.92	0.82
Metal drum	17	7	37	44	0.88	0.74
Cemented Tank	22	13	29	42	0.84	0.58
Metal pan	17	3	38	41	0.82	0.76
Metal bucket	20	5	35	40	0.80	0.70
Elevator shaft/ Hole of Elevator/Lift Hole	7	4	14	18	0.36	0.28
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 93 (May 2, 2024 - March 3, 2026)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.01	2.05	2.27	2.93	2.37
Basement/Parking	2.83	1.71	2.95	1.16	2.75
Water tank(Cement)	1.36	1.71	1.42	3.11	2.97
Plastic drum (Sealable)	1.40	2.27	1.63	2.21	1.97
Other	2.67	1.42	2.21	0.74	1.18
Plastic Mug/pot/Bodna	1.47	1.42	1.53	2.25	1.32
Flooded floor(basement or otherwise)	1.42	1.22	0.92	0.60	1.34
Hole of water meter	0.68	1.04	0.26	1.61	1.69
Plastic bottle	0.54	0.98	0.60	1.10	0.96
Flower tub & tray	1.10	0.62	1.20	0.46	0.30
Pit	0.64	0.30	0.82	0.32	0.36
Gate Channel	0.76	0.20	0.62	0.08	0.42
Manhole	0.84	0.24	0.64	0.22	0.10
Clay pot	0.24	0.42	0.62	0.24	0.50
Water tank (Plastic)	0.00	0.82	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	0.08	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

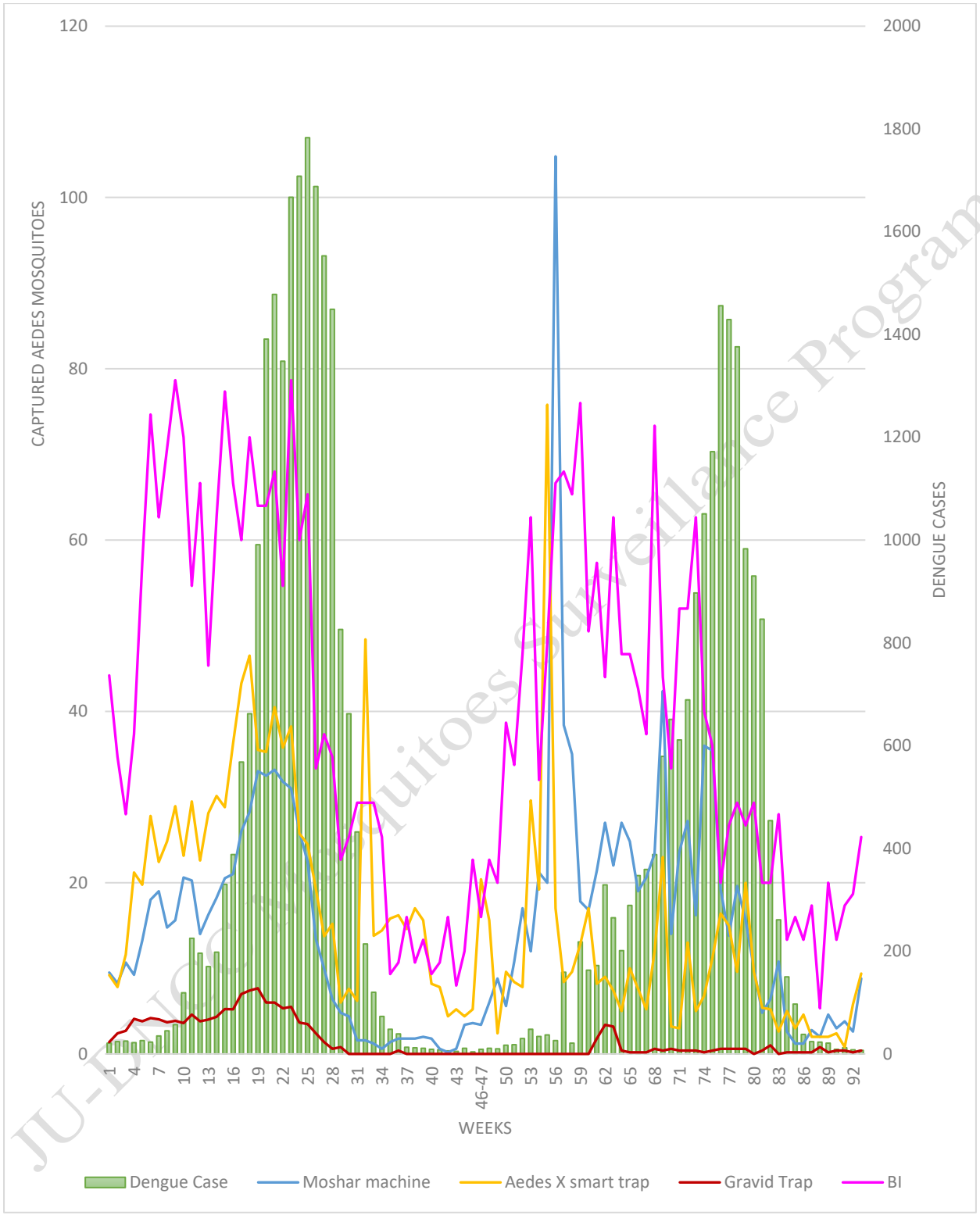


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO_2 traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance



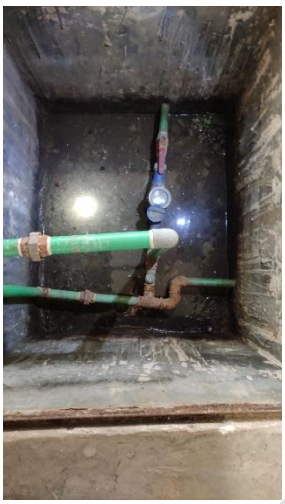






Samples Collection from Field

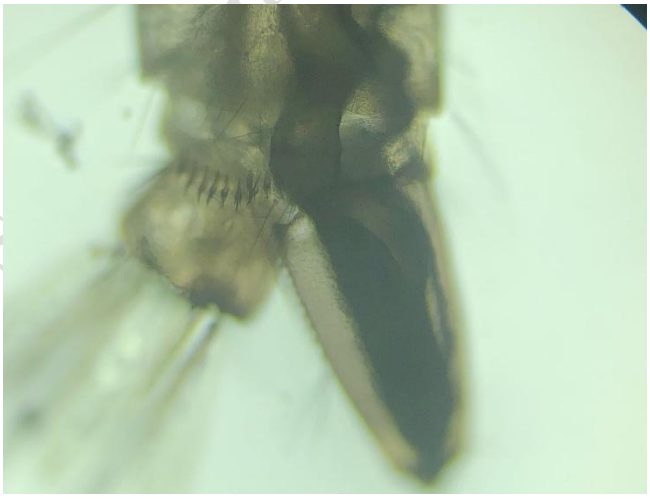








Samples Processing and Identification



Comments:

Overall mosquito density is rising but the dengue cases now declining rapidly. However, the Breteau Index (BI) is has gone Higher. 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