Weekly Report on

JU-DNCC Mosquitoes Surveillance Program

Week 110 (July 11-15, 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.

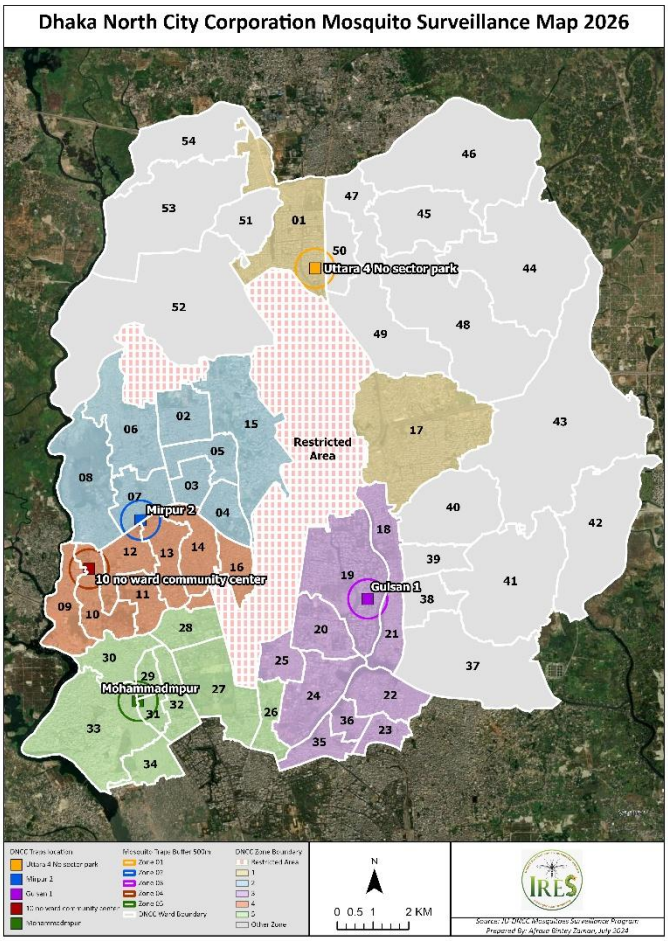
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 110 (July 11-15, 2026)

Zone	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Cx. tritaeniorhynchus*	*Cx. gelidus*	*Ar. subalbatus*	*An. vagus*	*An. subpictus*	Total	%
1	22	6	7658	1256	322	12	2	3	9281	66.16
2	24	6	767	169	0	16	0	0	982	7.00
3	25	6	1165	265	0	36	0	0	1497	10.67
4	6	1	183	38	0	12	0	0	240	1.71
5	26	6	1642	347	0	6	0	2	2029	14.46
Total	103	25	11415	2075	322	82	2	5	14029	100.00
%	0.73	0.18	81.37	14.79	2.30	0.58	0.01	0.04	100.00	

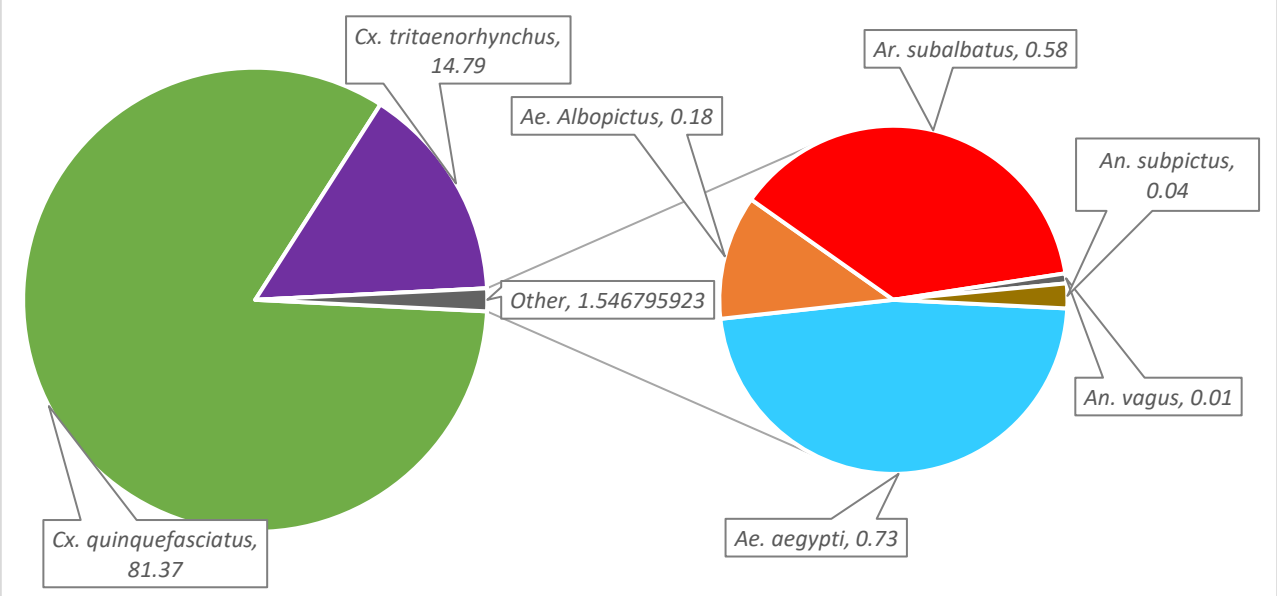


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO_2) traps in Week 110 (July 11-15, 2026)

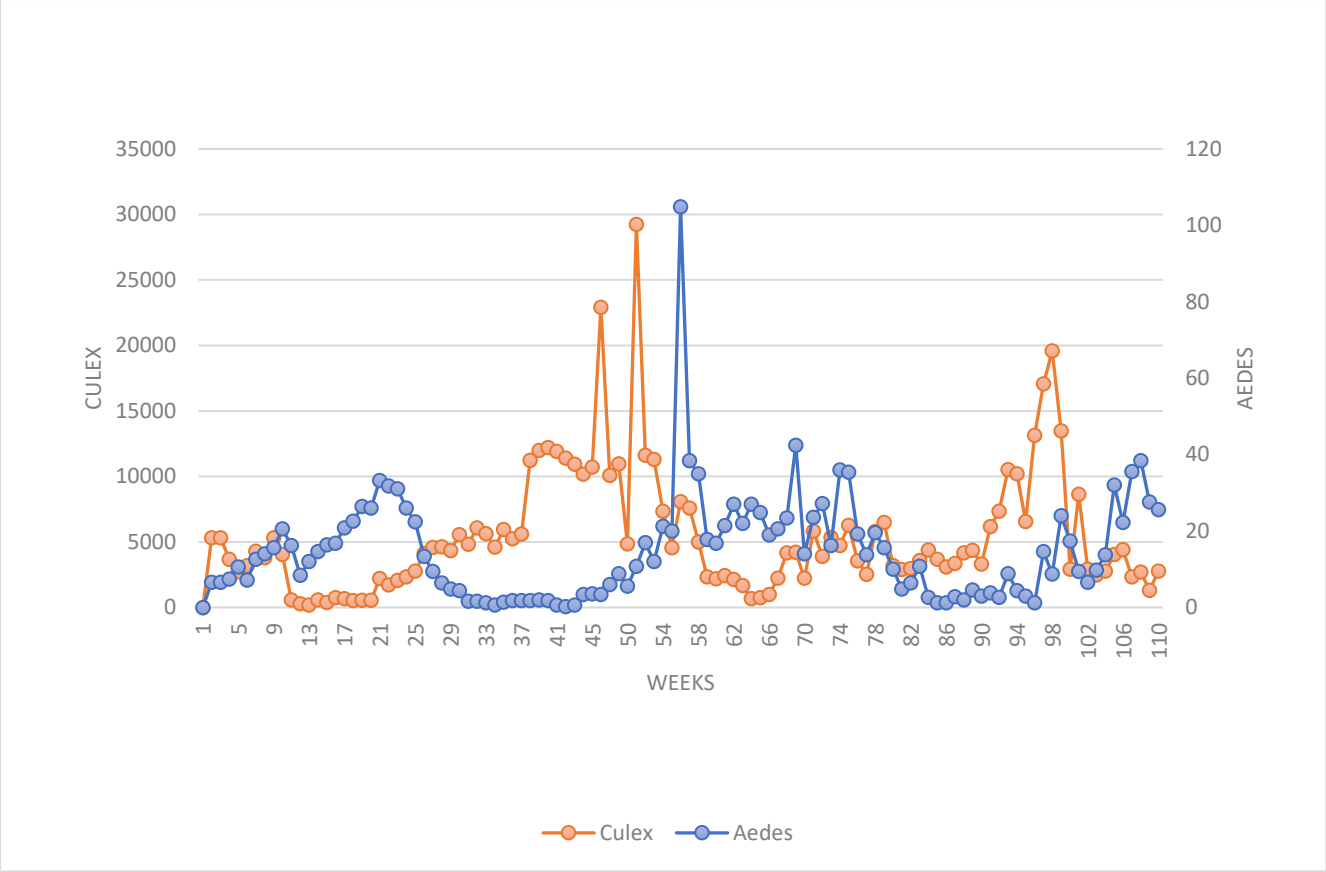


Fig 2: Average number of mosquitoes per Moshar Machine (CO_2) traps from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Week 110 (July 11-15, 2026)

Zone	N	*Ae. aegypti*	*Ae. albopictus*
1	11	0	11
2	8	0	8
3	0	0	0
4	7	0	7
5	17	17	0
Total	43	17	26
(%)	100.00	39.53	60.47

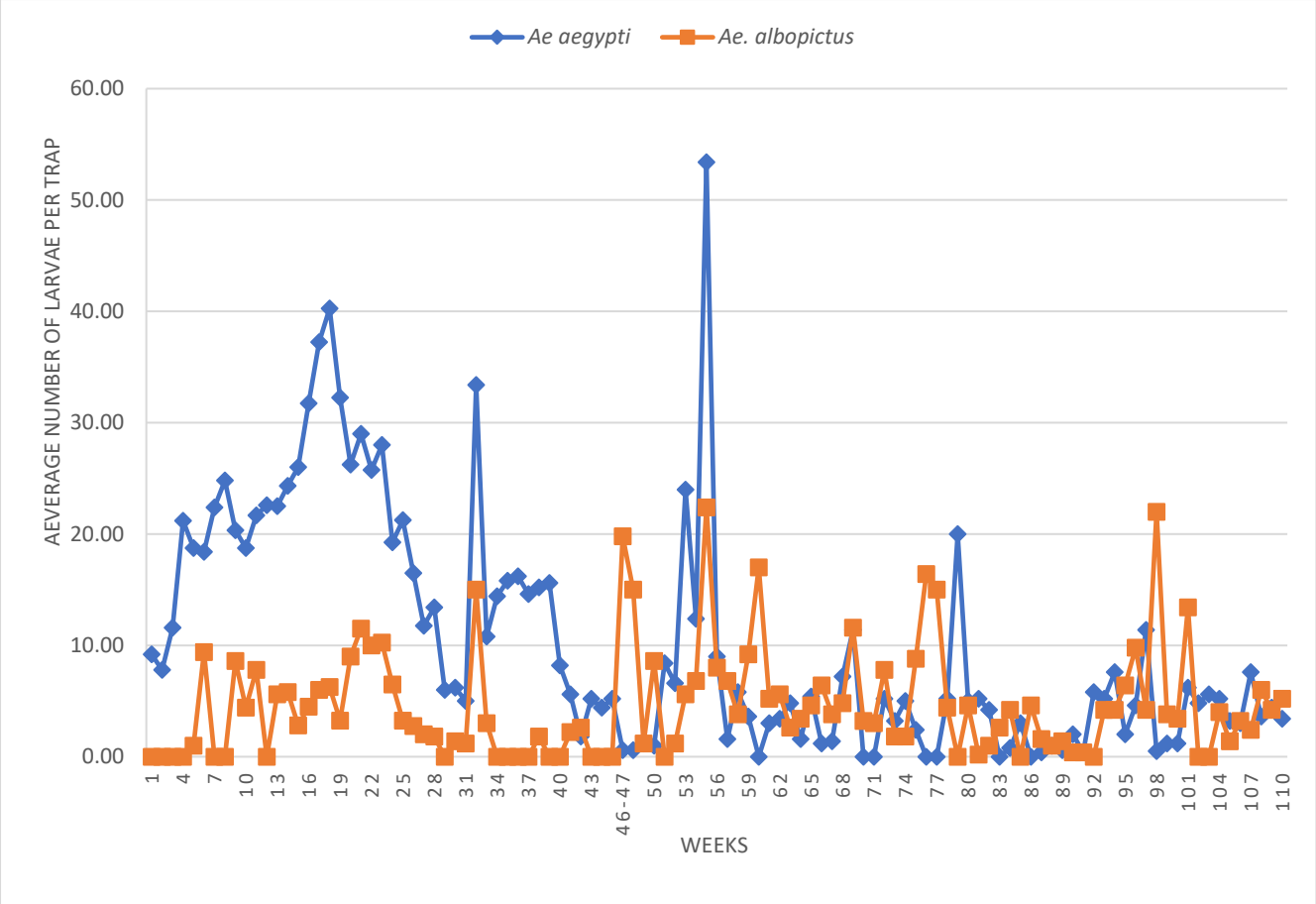


Fig 3: Average Number of *Aedes* Larvae per *Aedes* X Smart Trap in Zones 1-5 from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Week 110 (July 11-15, 2026)

Zone	Number of Mosquitoes	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*
1	1	1	0	0
2	2	0	0	2
3	3	2	1	0
4	2	0	0	2
5	2	1	0	1
Total	10	4	1	5
(%)	100.00	40.00	10.00	50.00

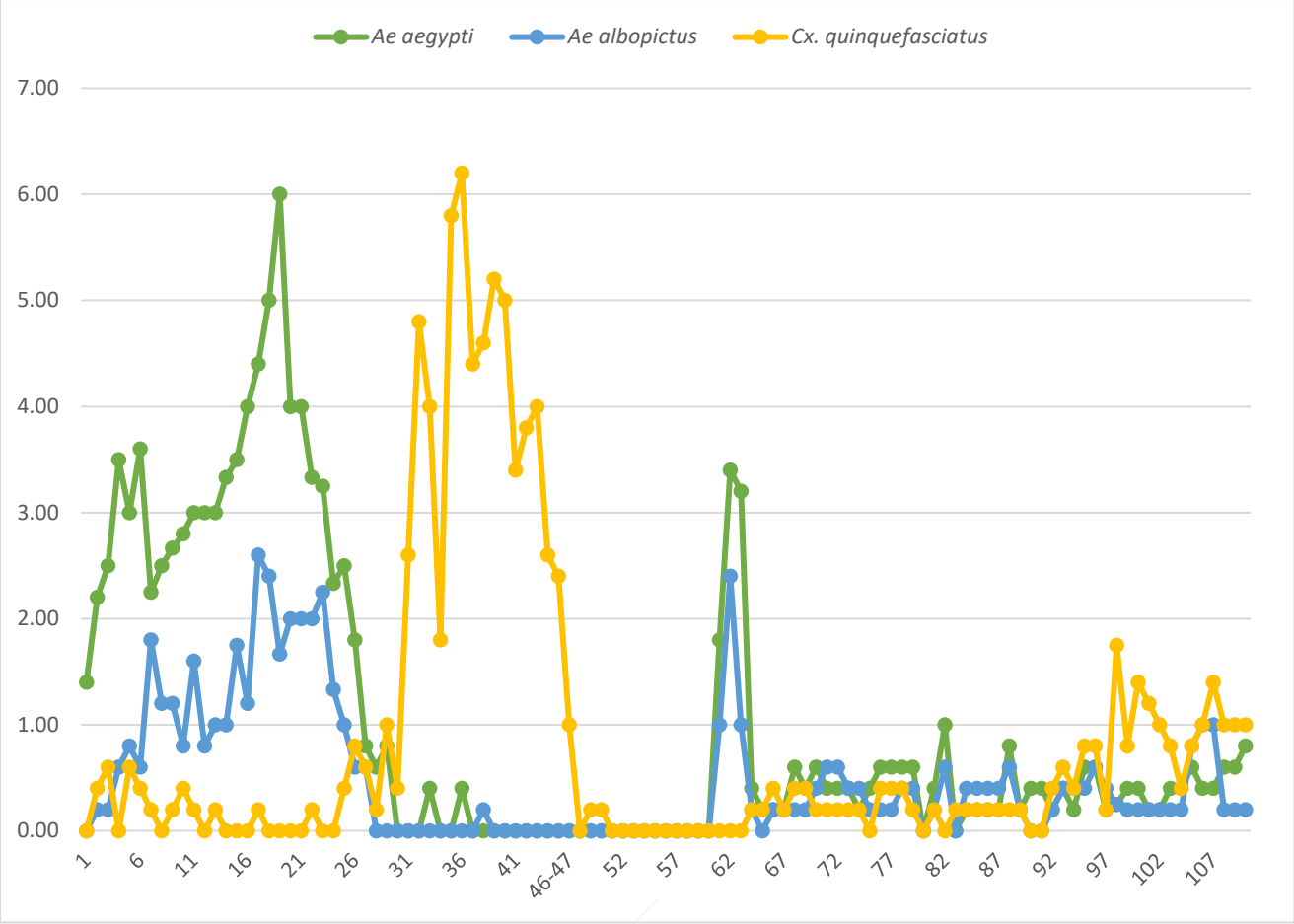


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

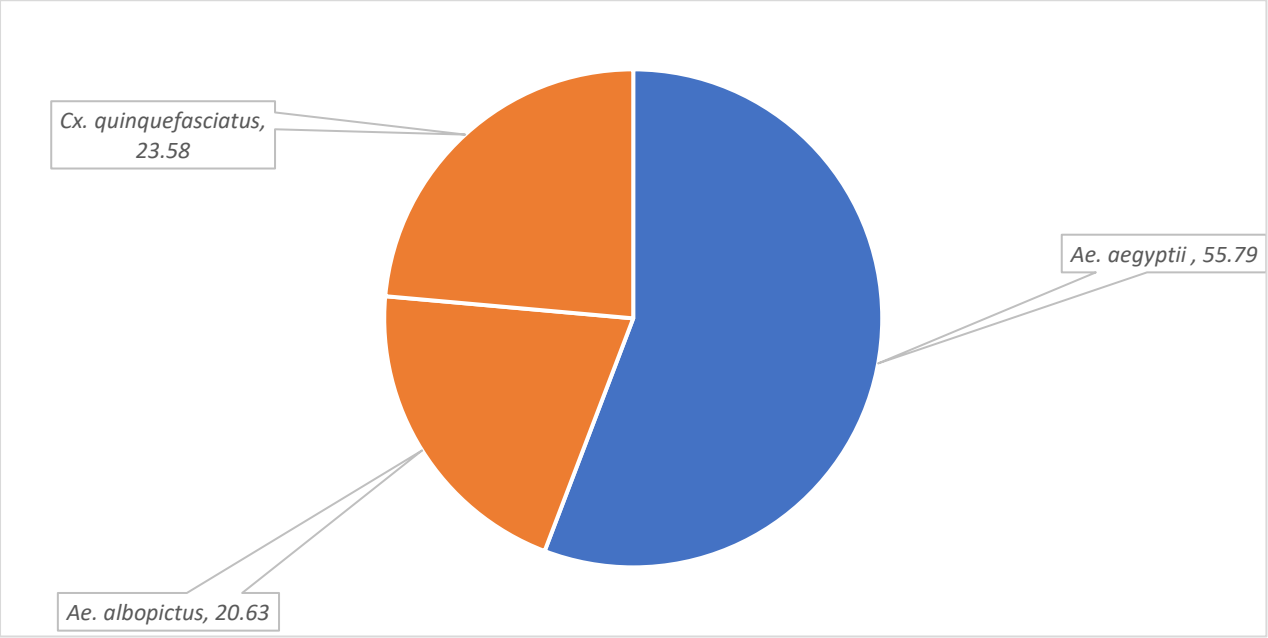
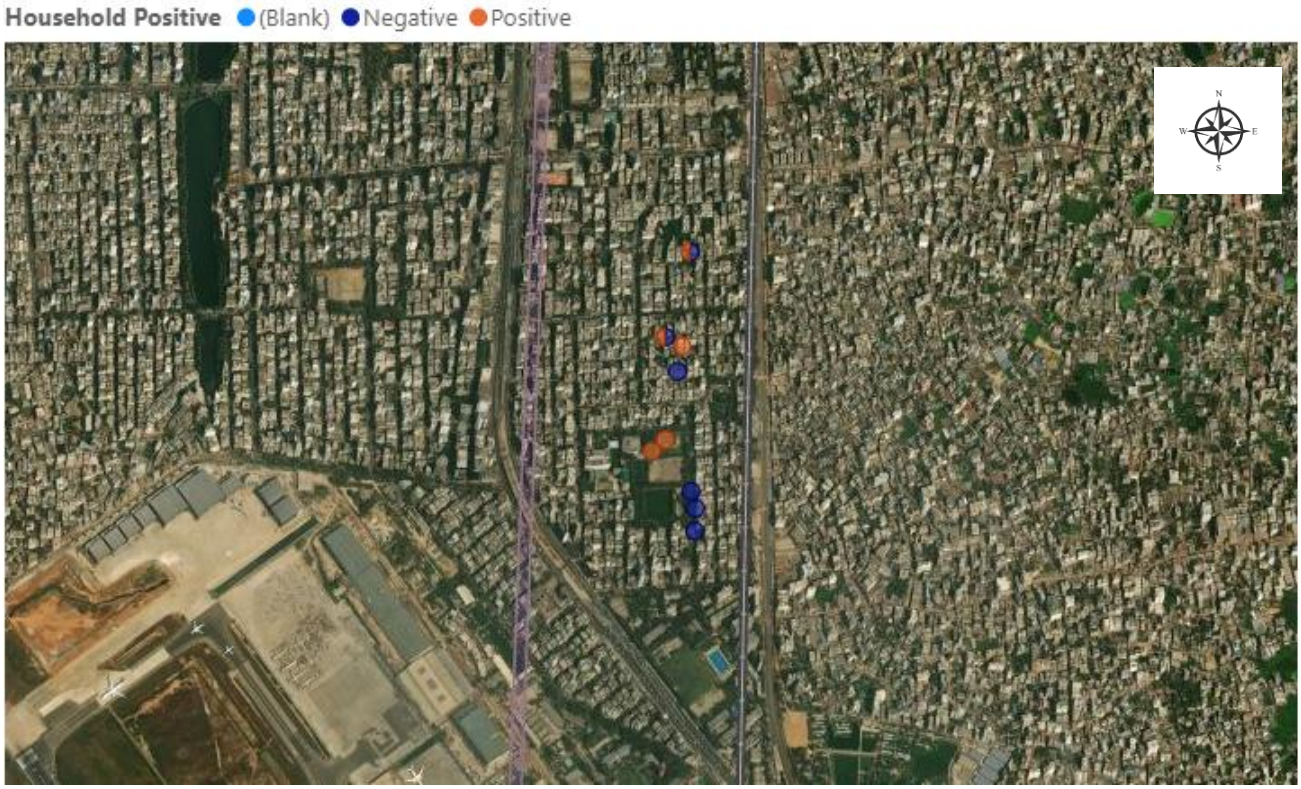


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Week 110 (July 11-15, 2026)

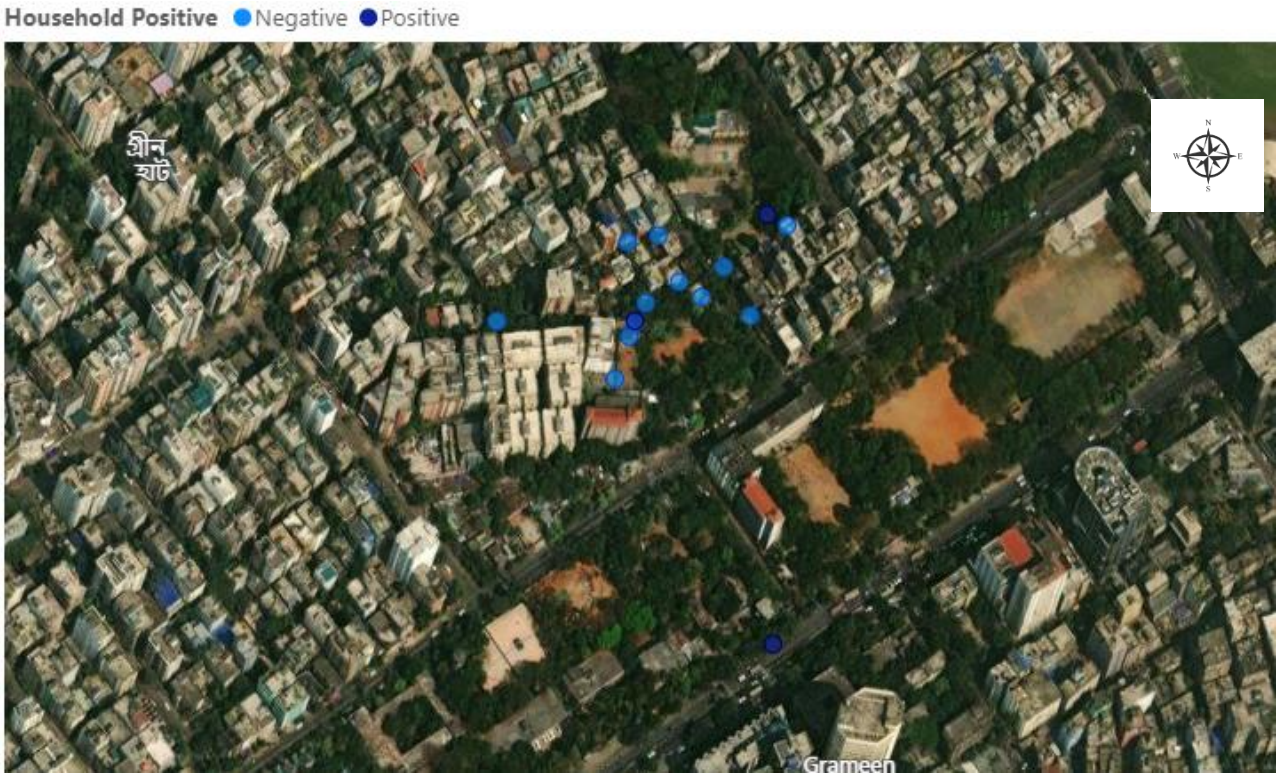
Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Week 110 (July 11-15, 2026)

Zone	GPS Location	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Source*
1	23.8616013 90.4035131	20	0	0	Metal bucket
	23.8618511 90.4038302	5	0	0	Earthen jar (Motka)
	23.8640818 90.4038302	12	0	0	Flooded floor (basement or otherwise)
	23.8640818 90.4038302	5	0	0	Plastic Mug/pot/Bodna
	23.8638894 90.404228	15	0	0	Plastic drum (Sealable)
	23.8659393 90.4044191	0	10	0	Basement/Parking
	23.8659393 90.4044191	411	0	0	Flooded floor (basement or otherwise)
	total	57	10	0	
2	23.8033558 90.3605335	11	0	0	Used Discarded Tires
	23.805727 90.3604996	235	0	0	Water tank (Cement)
	23.8051413 90.3596998	0	58	0	Plastic drum (Sealable)
	total	246	58	0	
3	23.7853832 90.4187588	63	0	0	Flower tub & tray
	23.7849941 90.419341	0	25	0	Basement/Parking
	23.7852979 90.4194887	0	52	0	Manhole Basement/Parking
	23.7852878 90.4197548	56	0	0	Flower tub & tray

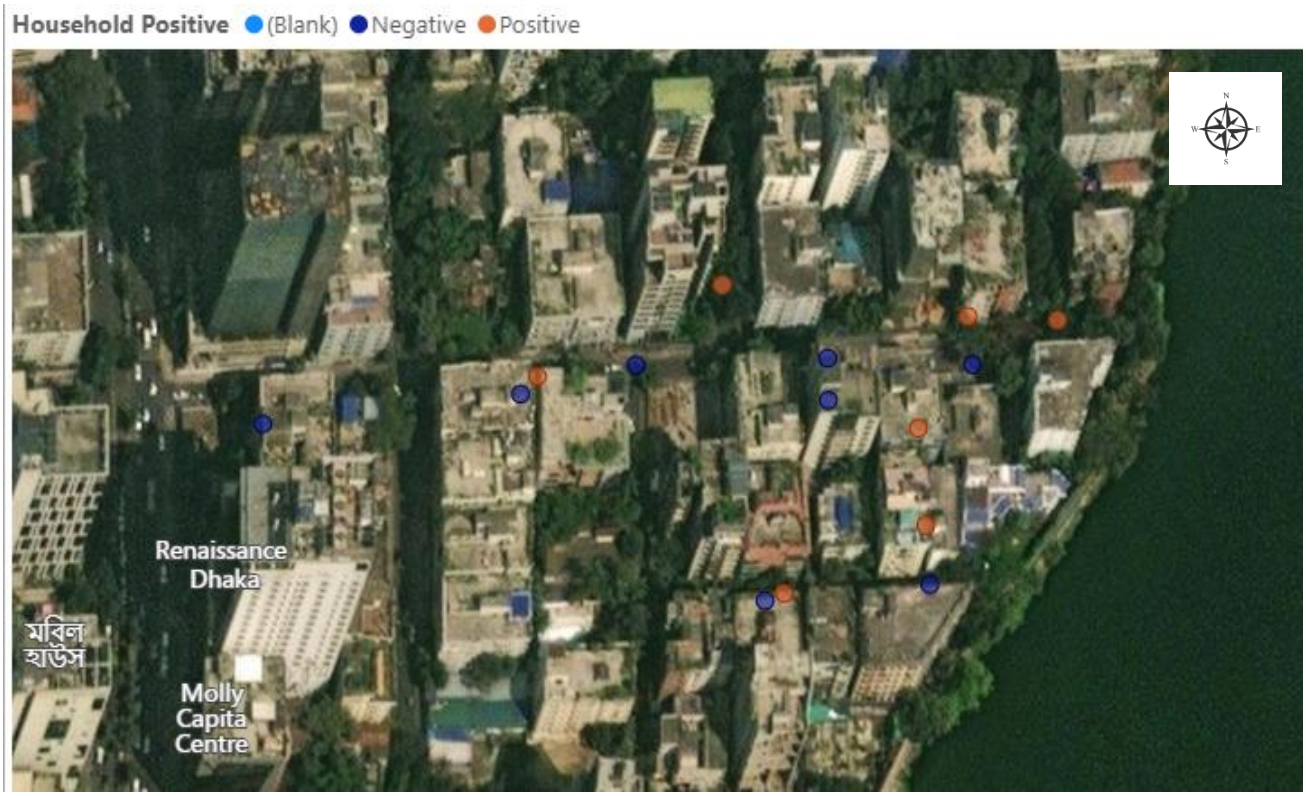
	23.7847299 90.4193634	47	0	0	Hole of water meter
	23.7845459 90.4189427	0	254	0	Used Discarded Tires
	total	166	331	0	
4	23.7894654 90.3475591	124	0	0	Hole of water meter
	23.7908178 90.3483024	56	0	0	Flower tub & tray Basement/Parking
	23.7911906 90.3478651	0	0	456	Clay pot
	total	180	0	456	
5	23.7618426 90.3593521	52	0	0	Basement/Parking
	23.76104 90.3563292	56	0	0	Gate Channel
	23.7610777 90.3562873	124	0	0	Basement/Parking
	23.7609538 90.3557893	5	0	0	Clay pot
	23.7609568 90.3556709	23	0	0	Manhole
	23.7609316 90.3555048	62	0	0	Pit
	23.7609368 90.3544769	56	0	0	Plastic bucket
	23.7609691 90.3538208	52	0	0	Plastic drum (Sealable) Plastic Mug/pot/Bodna
	total	430	0	0	
Grand Total		1079	399	456	



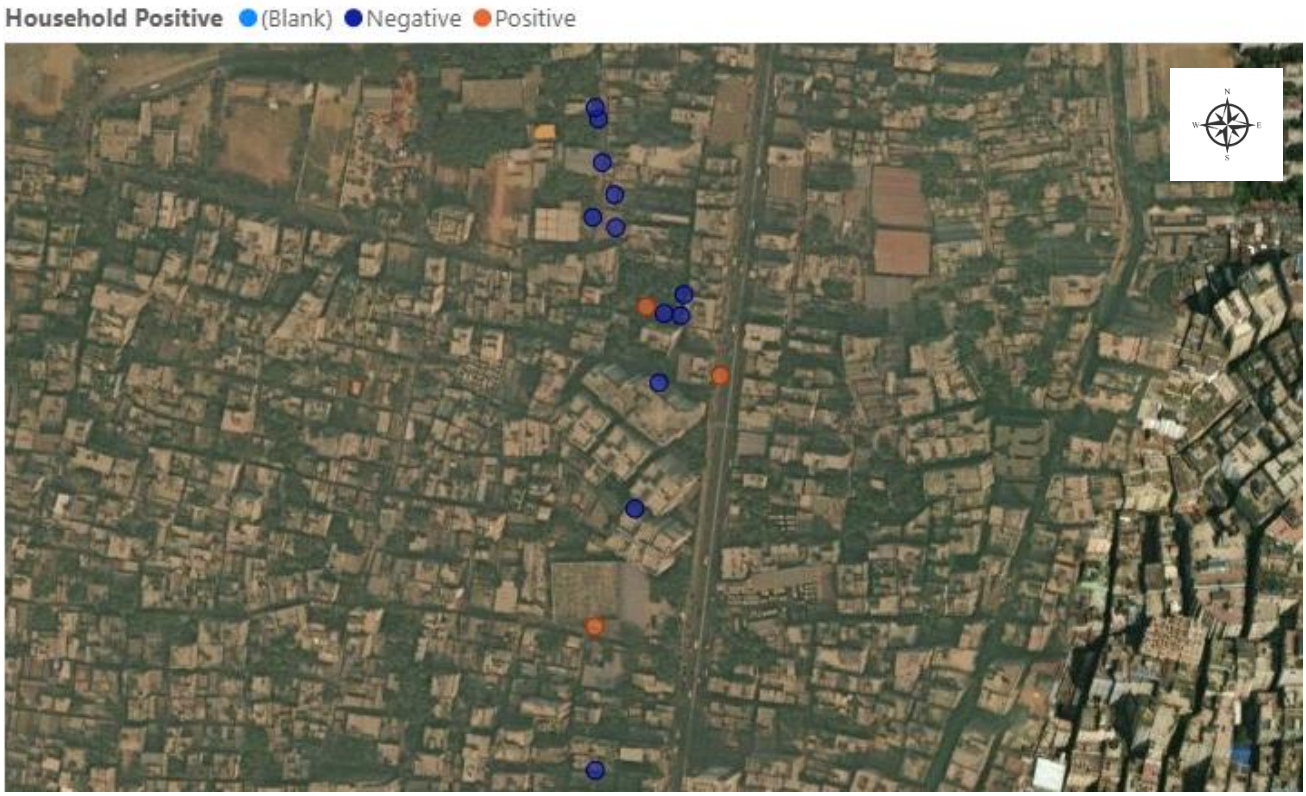
Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 110



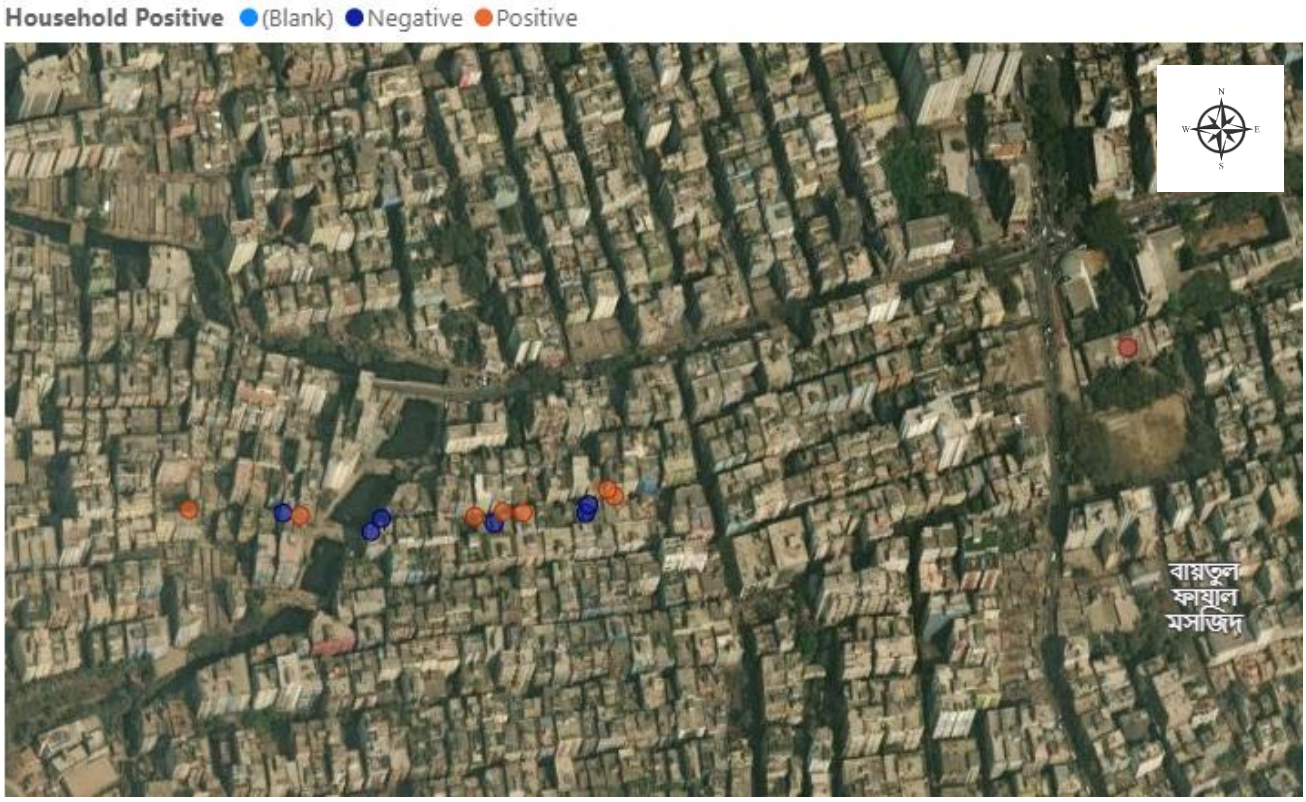
Map 2: Positive and Negative House of Mirpur 2 at Weeks 110



Map 3: Positive and Negative House of Gulshan 1 at Weeks 110



Map 4: Positive and Negative House of Mirpur 1 at Weeks 110



Map 5: Positive and Negative House of Mohammadpur at Weeks 110

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Week 110 (July 11-15, 2026)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	7	63	8	53.33	12.70	46.67
2	15	3	42	3	20.00	7.14	20.00
3	15	7	72	9	60.00	12.50	46.67
4	15	2	64	2	13.33	3.13	13.33
5	15	8	51	10	66.67	19.61	53.33

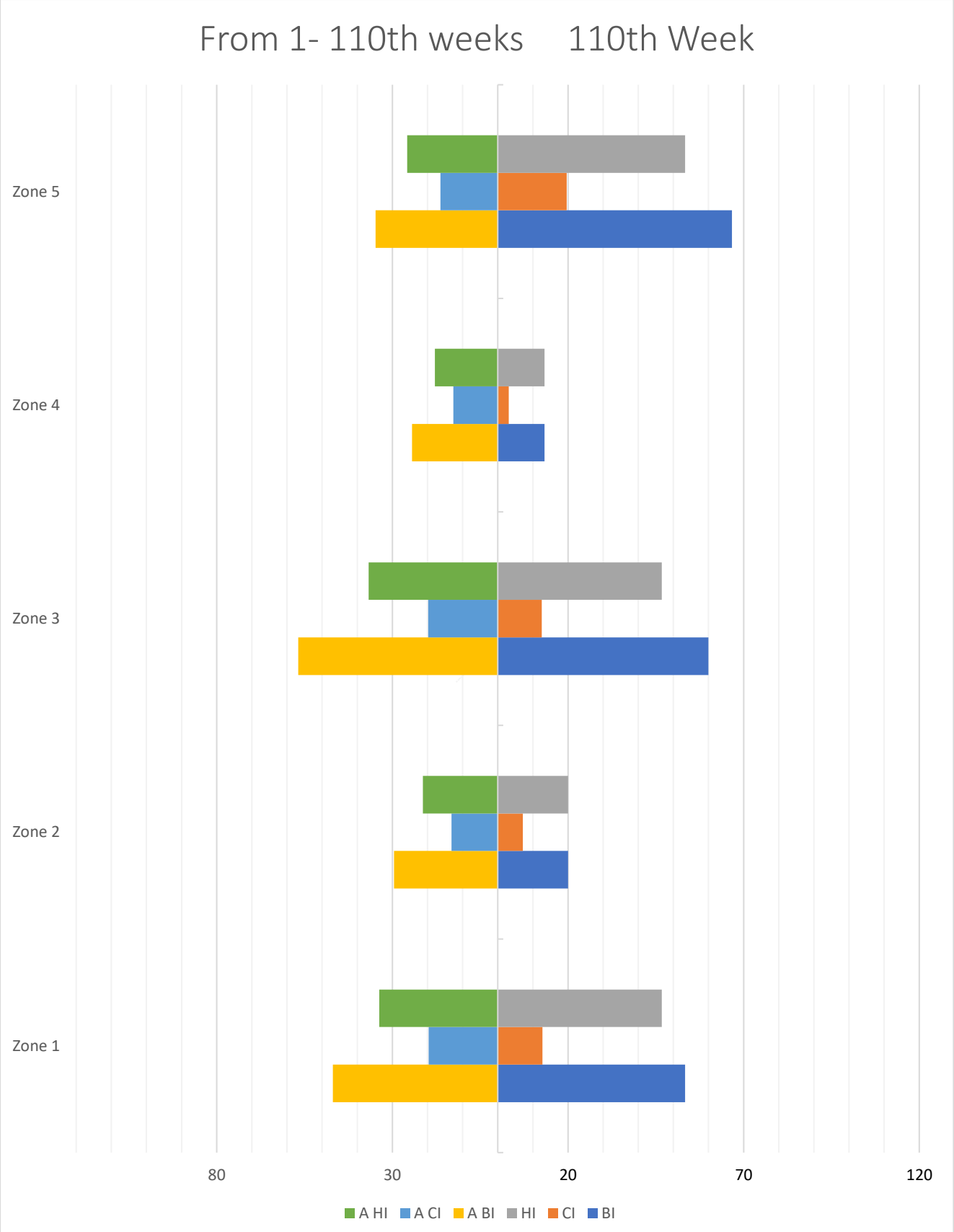


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

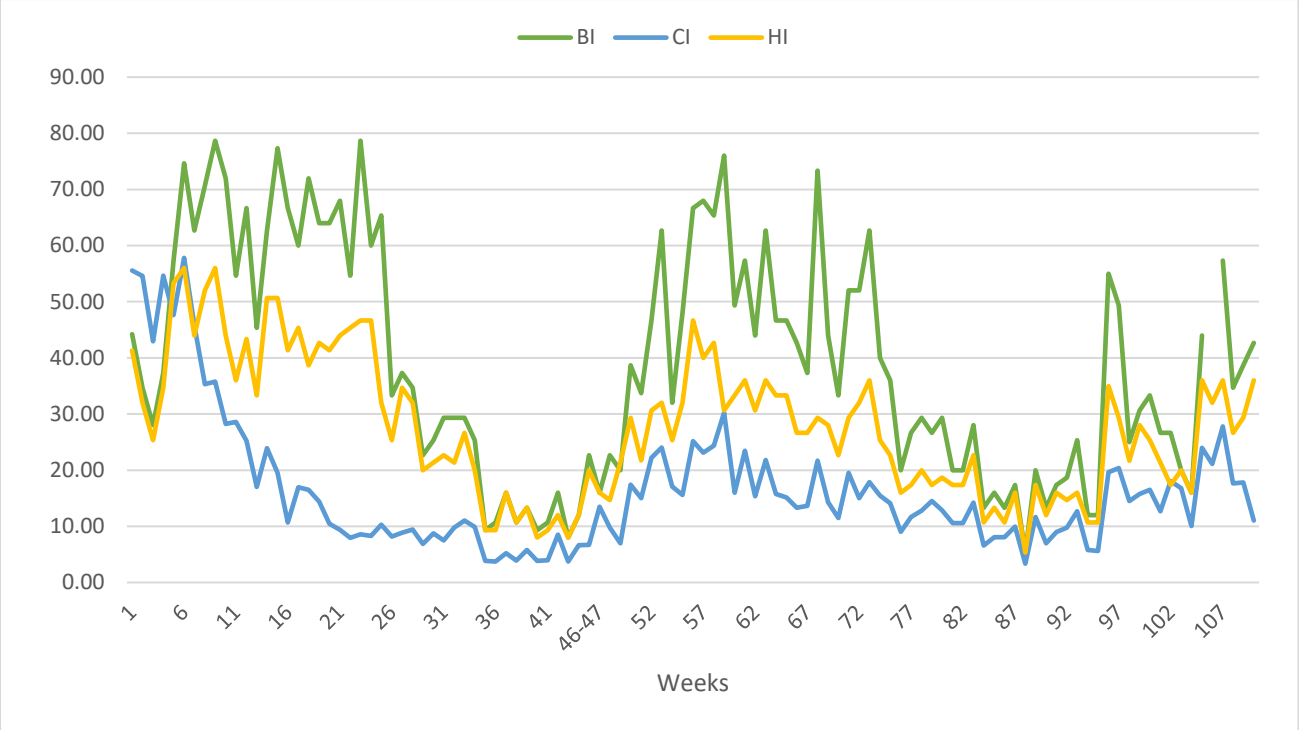


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

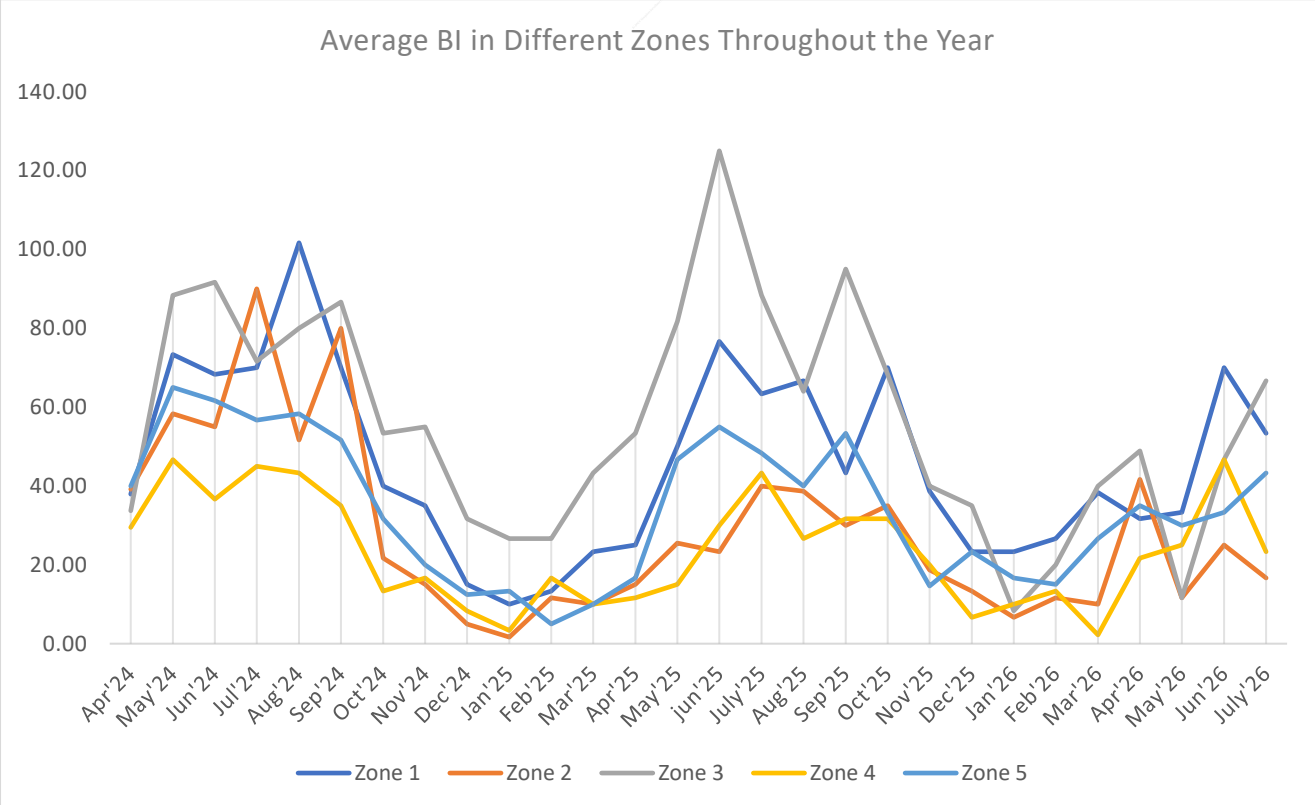


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

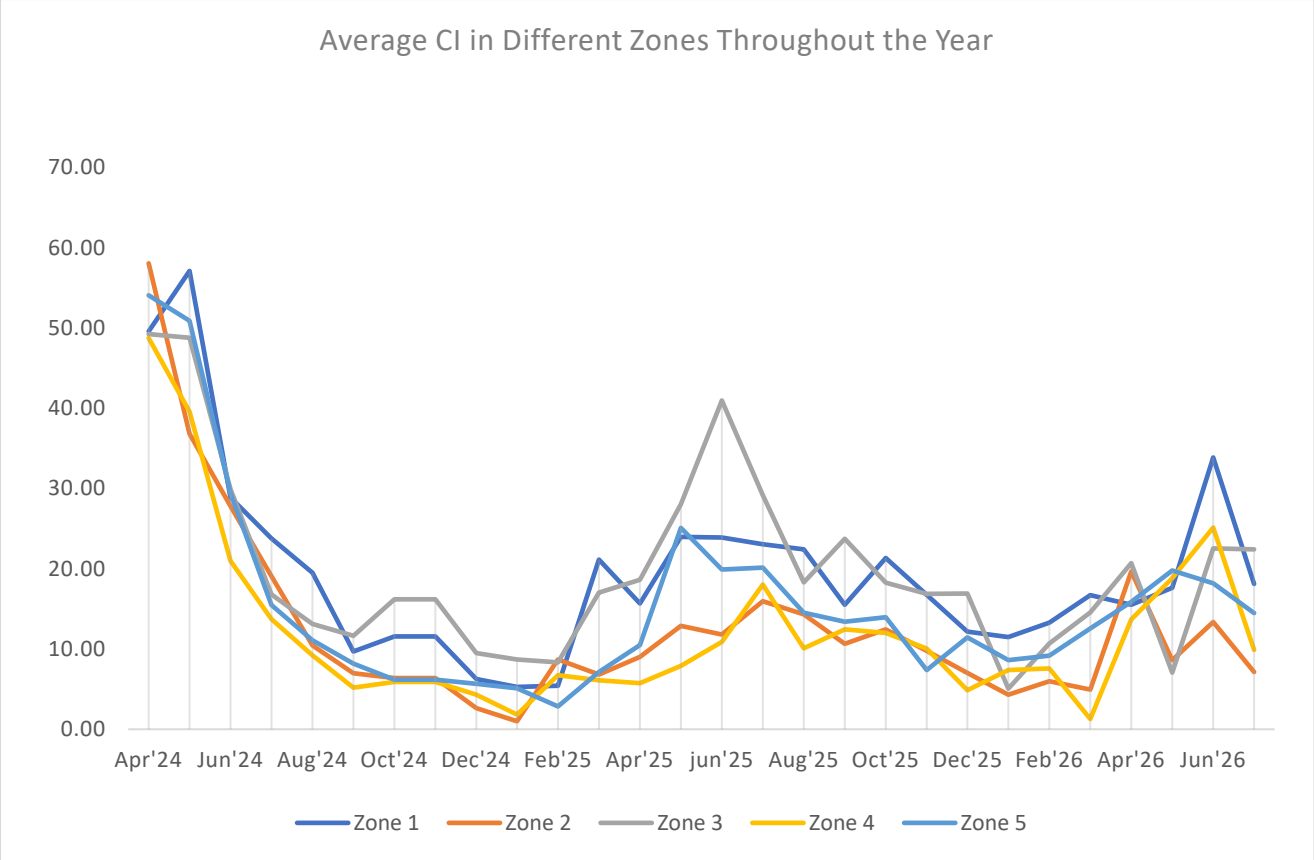


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

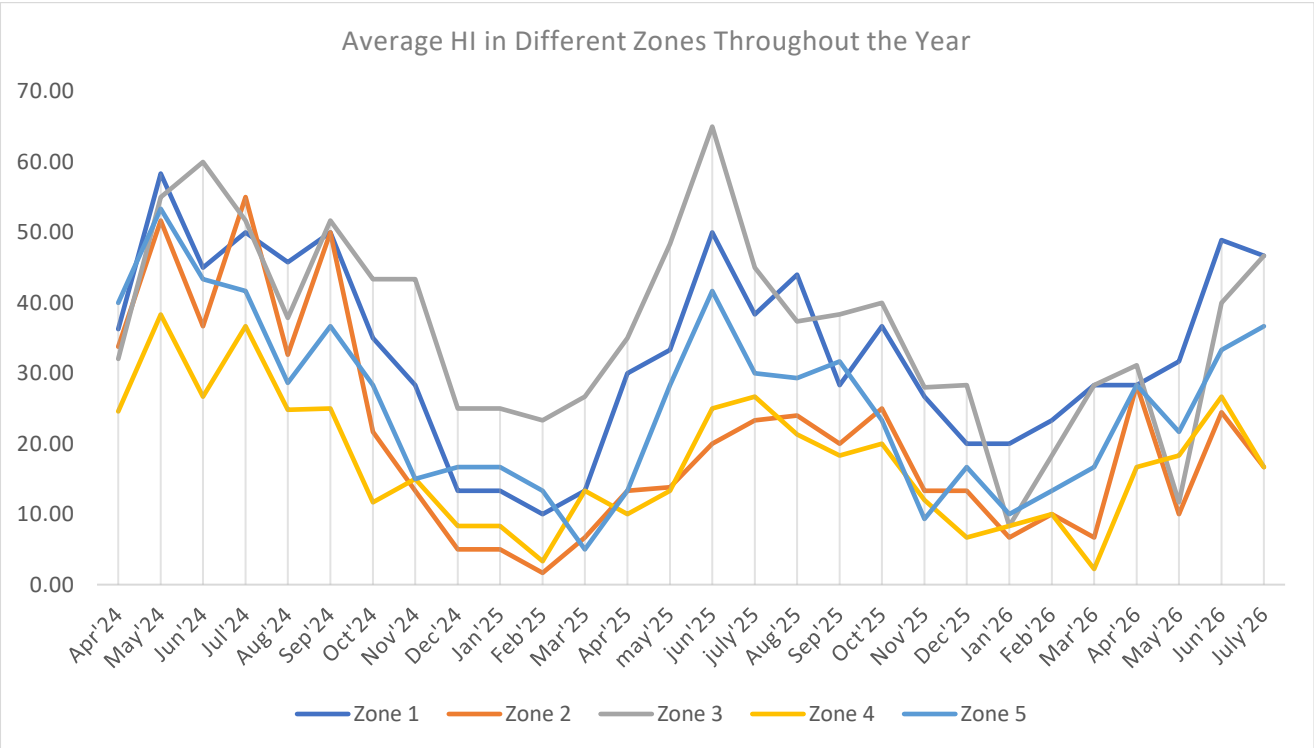


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

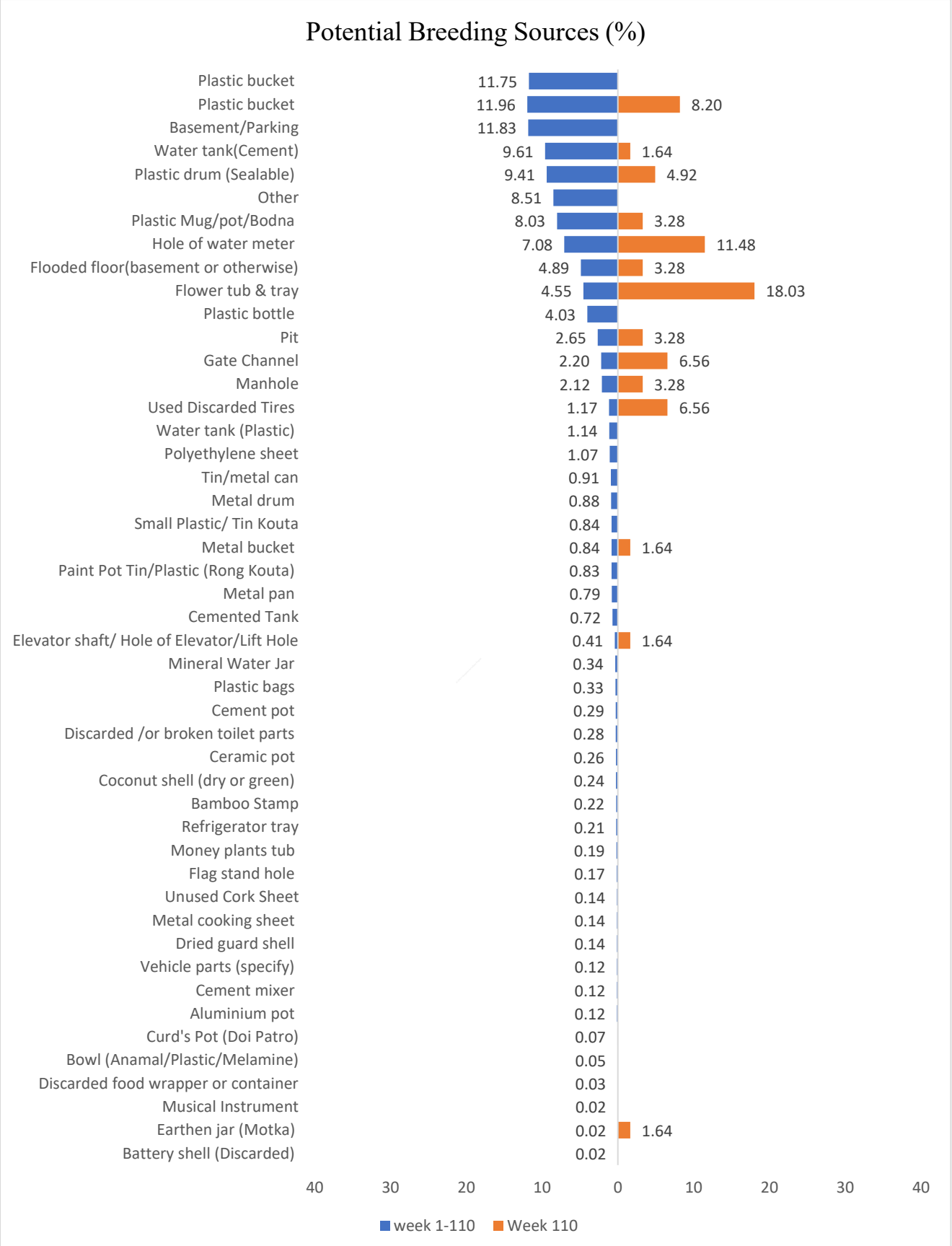


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

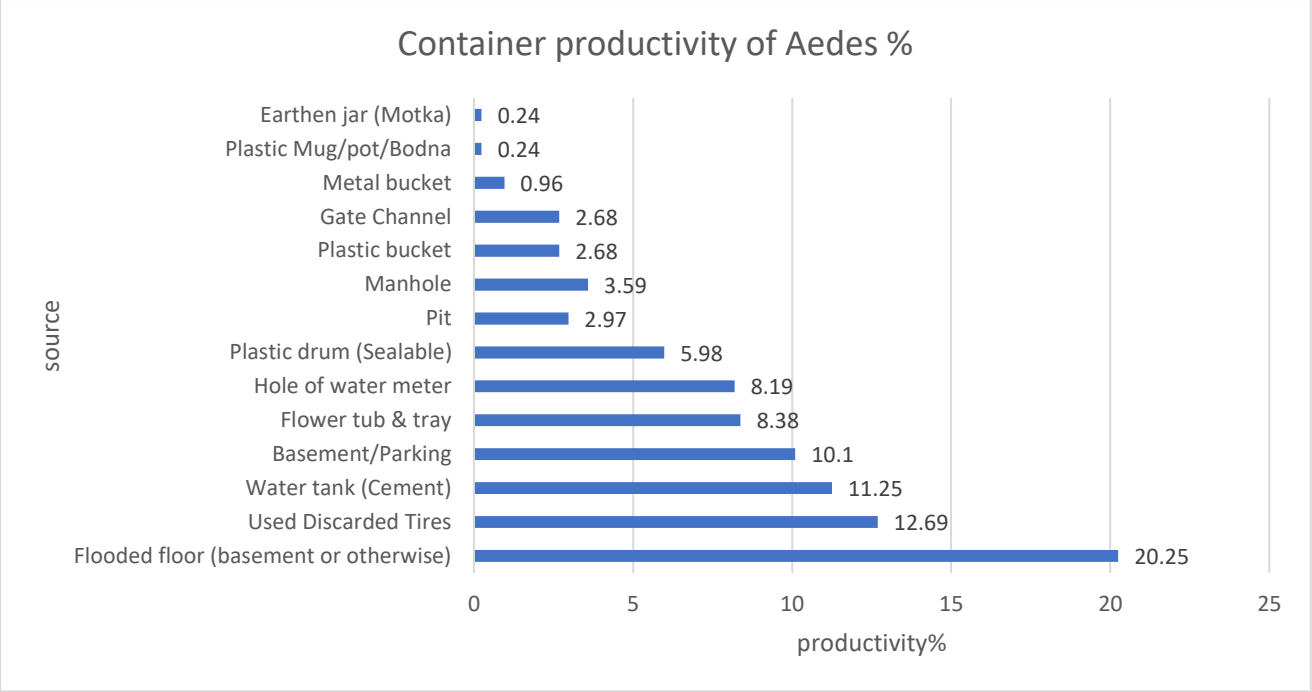


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC Week 110 (July 11-15, 2026)

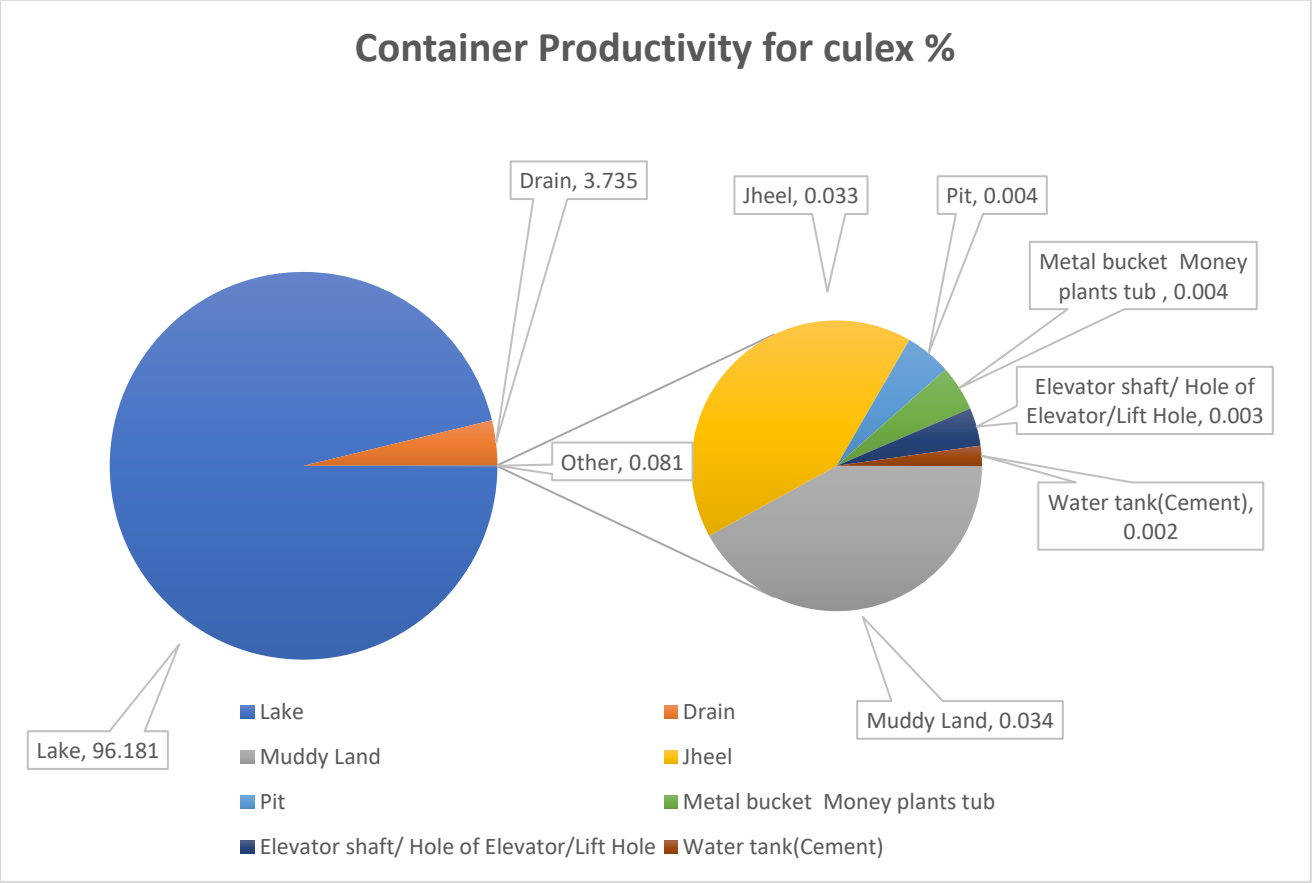


Fig. 13: Container Productivity of *Culex* mosquito in DNCC Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

Sources	+House	-WC	+WC	**Total WC**	% WC	% PWC
Plastic bucket	234	280	414	694	11.96	9.37
Basement/Parking	244	67	620	687	11.83	14.04
Water tank (Cement)	176	256	302	558	9.61	6.84
Plastic drum (Sealable)	253	82	464	546	9.41	10.50
Other	237	138	356	494	8.51	8.06
Plastic Mug/pot/Bodna	195	93	373	466	8.03	8.44
Hole of water meter	82	23	388	411	7.08	8.78
Flooded floor (basement or otherwise)	132	143	141	284	4.89	3.19
Flower tub & tray	99	32	232	264	4.55	5.25
Plastic bottle	91	64	170	234	4.03	3.85
Pit	74	23	131	154	2.65	2.97
Gate Channel	41	34	94	128	2.20	2.13
Manhole	61	43	80	123	2.12	1.81
Used Discarded Tires	35	19	49	68	1.17	1.11
Water tank (Plastic)	21	28	38	66	1.14	0.86
Polyethylene sheet	39	3	59	62	1.07	1.34
Tin/metal can	31	0	53	53	0.91	1.20
Metal drum	20	8	43	51	0.88	0.97
Metal bucket	24	5	44	49	0.84	1.00
Small Plastic/ Tin Kouta	24	9	40	49	0.84	0.91
Paint Pot Tin/Plastic (Rong Kouta)	30	5	43	48	0.83	0.97
Metal pan	18	3	43	46	0.79	0.97
Cemented Tank	22	13	29	42	0.72	0.66
Elevator shaft/ Hole of Elevator/Lift Hole	8	4	20	24	0.41	0.45
Mineral Water Jar	7	4	16	20	0.34	0.36
Plastic bags	8	2	17	19	0.33	0.38
Cement pot	11	2	15	17	0.29	0.34
Discarded /or broken toilet parts	12	2	14	16	0.28	0.32
Ceramic pot	13	0	15	15	0.26	0.34
Coconut shell (dry or green)	4	0	14	14	0.24	0.32
Bamboo Stamp	9	0	13	13	0.22	0.29
Refrigerator tray	9	0	12	12	0.21	0.27
Money plants tub	8	0	11	11	0.19	0.25
Flag stand hole	6	1	9	10	0.17	0.20
Dried guard shell	5	0	8	8	0.14	0.18
Metal cooking sheet	2	0	8	8	0.14	0.18
Unused Cork Sheet	6	1	7	8	0.14	0.16
Aluminium pot	4	0	7	7	0.12	0.16
Cement mixer	2	0	7	7	0.12	0.16
Vehicle parts (specify)	5	1	6	7	0.12	0.14
Curd's Pot (Doi Patro)	3	0	4	4	0.07	0.09
Bowl (Anamal/Plastic/Melamine)	3	0	3	3	0.05	0.07
Discarded food wrapper or container	1	0	2	2	0.03	0.05
Battery shell (Discarded)	0	0	1	1	0.02	0.02
Earthen jar (Motka)	1	0	1	1	0.02	0.02
Musical Instrument	1	0	1	1	0.02	0.02

Table 7: Percentage of breeding sources in different zone from Week 1 to Week 110 (May 2, 2024 – July 15, 2026)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.08	2.14	2.18	2.90	2.41
Basement/Parking	2.90	1.72	3.04	1.20	2.73
Water tank (Cement)	1.23	1.57	1.22	2.70	2.70
Plastic drum (Sealable)	1.30	2.33	1.55	2.09	1.94
Other	2.72	1.47	2.28	0.69	1.18
Plastic Mug/pot/Bodna	1.47	1.32	1.54	2.18	1.37
Hole of water meter	0.83	1.23	0.42	2.14	2.31
Flooded floor (basement or otherwise)	1.23	1.06	0.78	0.56	1.16
Flower tub & tray	1.22	0.59	1.54	0.78	0.34
Plastic bottle	0.51	0.93	0.56	1.06	0.89
Pit	0.66	0.37	0.86	0.32	0.39
Gate Channel	0.84	0.20	0.59	0.07	0.46
Manhole	0.74	0.20	0.69	0.24	0.20
Clay pot	0.27	0.35	0.52	0.29	0.46
Used Discarded Tires	0.37	0.30	0.19	0.14	0.15
Water tank (Plastic)	0.00	0.69	0.15	0.14	0.14
Polyethylene sheet	0.29	0.27	0.22	0.19	0.08
Tin/metal can	0.25	0.24	0.19	0.17	0.05
Metal drum	0.17	0.14	0.19	0.25	0.12
Metal bucket	0.15	0.08	0.20	0.24	0.15
Small Plastic/ Tin Kouta	0.22	0.15	0.24	0.10	0.12
Paint Pot Tin/Plastic (Rong Kouta)	0.19	0.08	0.24	0.19	0.12
Metal pan	0.15	0.17	0.24	0.08	0.14
Cemented Tank	0.14	0.10	0.17	0.20	0.10
Elevator shaft/ Hole of Elevator/Lift Hole	0.17	0.10	0.07	0.00	0.07
Mineral Water Jar	0.05	0.02	0.05	0.15	0.07
Plastic bags	0.03	0.02	0.07	0.12	0.08
Cement pot	0.05	0.00	0.10	0.02	0.12
Discarded /or broken toilet parts	0.02	0.14	0.03	0.00	0.08
Ceramic pot	0.07	0.02	0.05	0.02	0.10
Coconut shell (dry or green)	0.05	0.07	0.05	0.03	0.03
Bamboo Stamp	0.05	0.08	0.03	0.05	0.00
Refrigerator tray	0.07	0.03	0.05	0.03	0.02
Money plants tub	0.05	0.03	0.05	0.00	0.05
Flag stand hole	0.08	0.02	0.03	0.00	0.03
Dried guard shell	0.03	0.02	0.07	0.00	0.02
Metal cooking sheet	0.00	0.02	0.05	0.03	0.03
Unused Cork Sheet	0.00	0.02	0.03	0.03	0.05
Aluminium pot	0.02	0.03	0.00	0.05	0.02
Cement mixer	0.00	0.03	0.03	0.02	0.03
Clay pitcher	0.05	0.00	0.02	0.03	0.02
Vehicle parts (specify)	0.02	0.00	0.05	0.03	0.02
Curd's Pot (Doi Patro)	0.02	0.02	0.03	0.00	0.00
Bowl (Anamal/Plastic/Melamine)	0.02	0.02	0.00	0.02	0.00
Discarded food wrapper or container	0.00	0.00	0.03	0.00	0.00
Battery shell (Discarded)	0.00	0.00	0.00	0.02	0.00

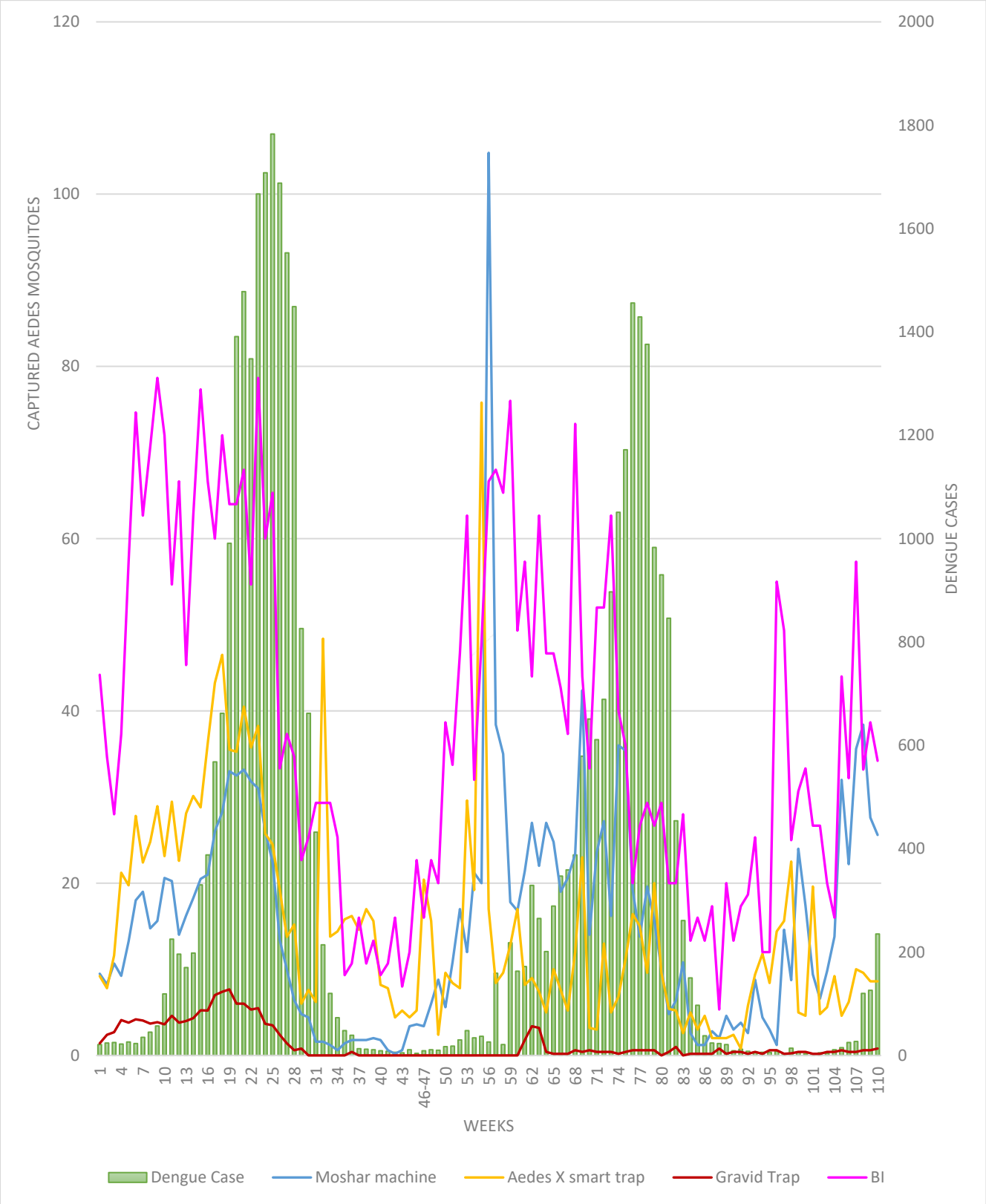


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO_2 traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance










Samples Collection from Field





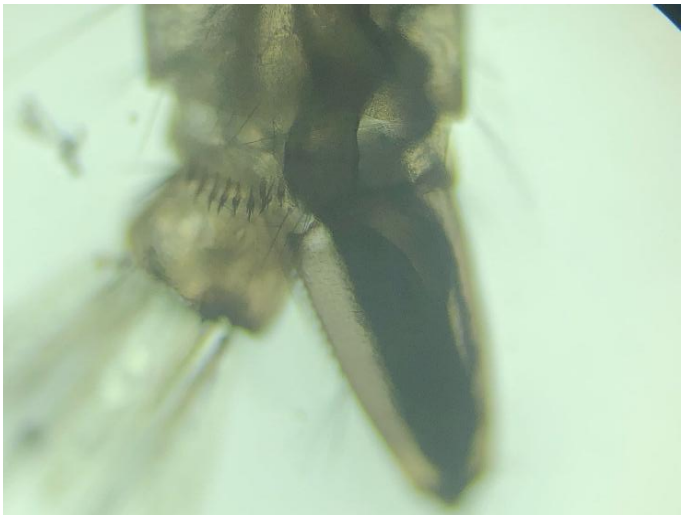



Samples Processing and Identification















Comments:

The mosquito density is increased and the dengue cases increasing rapidly. The Breteau Index (BI) is increased in week 110. 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

(Robin Hossain)
Entomologist
IRES
JU-DNCC Collaboration Center

(Prof. Dr. Kabirul Bashar)
Focal person
IRES
JU-DNCC Collaboration Center