Weekly Report on

JU-DNCC Mosquitoes Surveillance Program

Week 081 (December 5 - 9, 2025)

Submitted To

Chief Health officer
Dhaka North City Corporation
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Submitted By

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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.

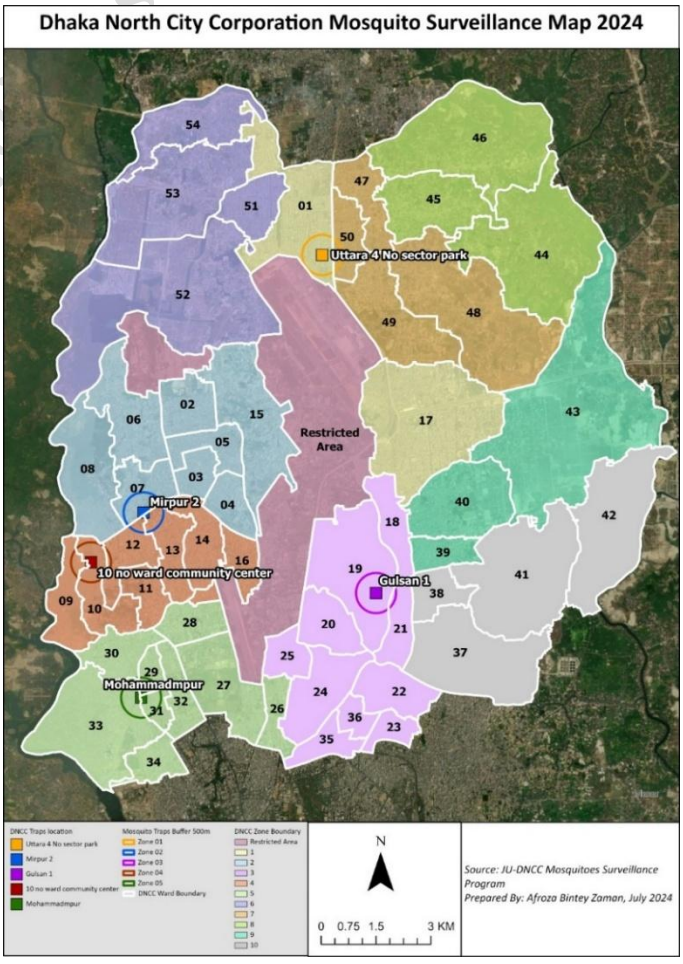
Zone	Traps Location	GPS Location
01	Uttara-4 No sector park	23.8613672,90.4035528
02	Mirpur-2, Vander office, DNCC	23.8036248,90.3601995
03	Gulsan 1, Purantan Vander office	23.7860557,90.4164024
04	10 No ward community center, Mirpur-1	23.7922967,90.3467992
05	Mohammadpur regional office of DNCC	23.7618721,90.3590884

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 Weeks 81 (December 5-9, 2025)

Zone	N	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Cx. tritaeniorhynchus*	*Ar. subalbatus*	*Mn. uniformis*	*An. barbumbrosus*	*An. Jamesii*
1	5441	1	1	4712	704	21	2	0	0
2	3072	13	0	2264	224	571	0	0	0
3	841	4	0	731	93	12	0	1	0
4	1568	2	0	1385	171	5	1	0	4
5	4220	3	0	3453	751	12	0	1	0
Total	15142	23	1	12545	1943	621	3	2	4
%	100	0.15	0.01	82.85	12.83	4.10	0.02	0.01	0.03

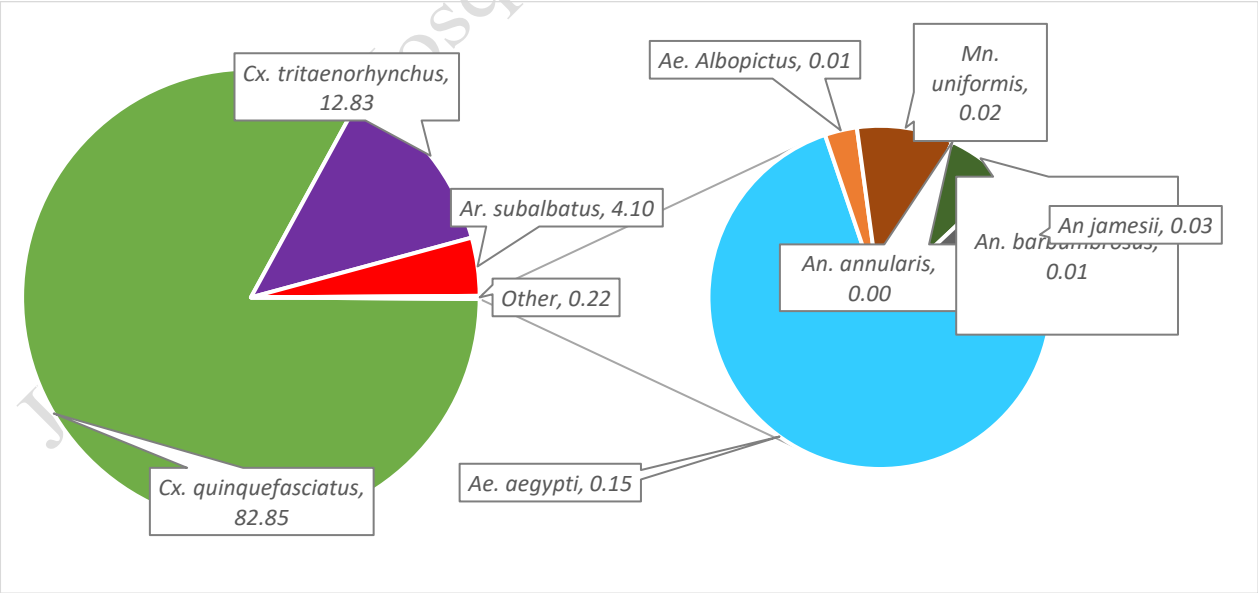


Fig. 1: Percentage of Adult Mosquitoes Collected by Moshar Machine (CO_2) traps in Weeks 81 (December 5-9, 2025)

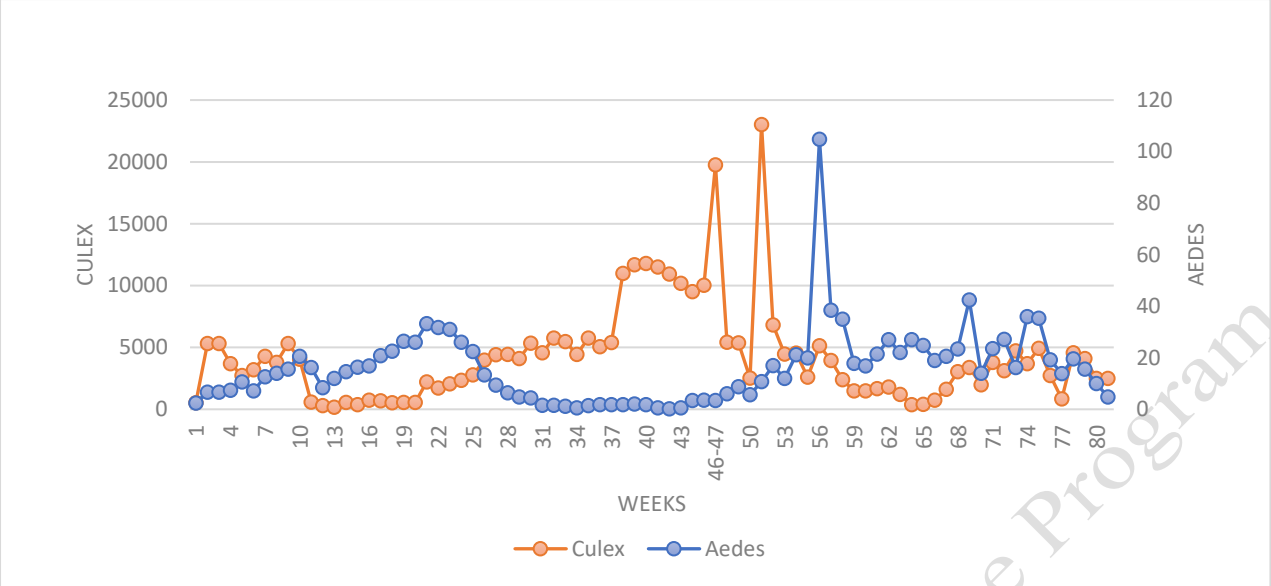


Fig 2: Average number of mosquitoes per Moshar Machine (CO_2) traps from Week 1 to Week 81 (May 2, 2024 - December 9, 2025)

Table 2. Collected Mosquito Larvae from *Aedes* X smart Traps in Weeks 81 (December 5-9, 2025)

Zone	N	*Ae. aegypti*	*Ae. albopictus*
1	4	4	0
2	1	0	1
3	14	14	0
4	0	0	0
5	8	8	0
Total	27	26	1
(%)	100	96.30	1.28

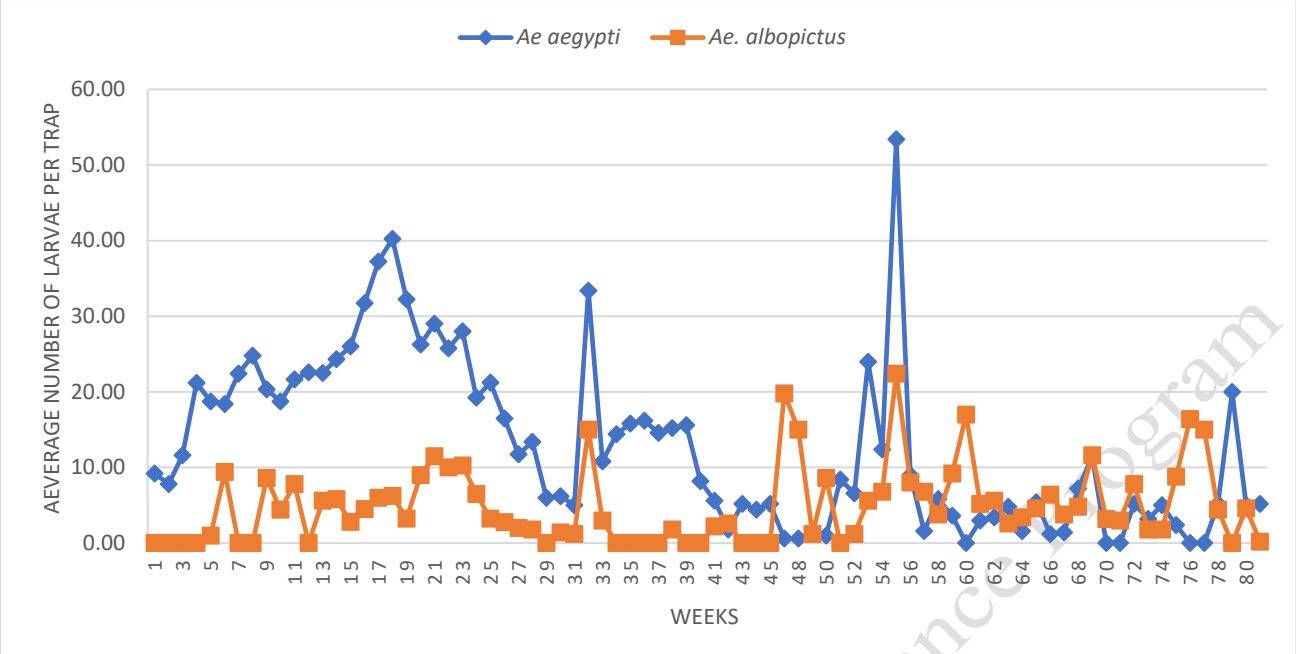


Fig 3: Average Number of *Aedes* Larvae per *Aedes* X Smart Trap in Zones 1-5 from Week 1 to Week 81 (May 2, 2024 - December 9, 2025)

Table 3. Collected Adult Mosquitoes from Gravid Trap in Weeks 81 (December 5-9, 2025)

Zone	Number of Mosquitoes	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*
1	1	0	1	0
2	1	1	0	0
3	1	1	0	0
4	0	0	0	0
5	1	0	0	1
Total	4	2	1	1
(%)	100	50.00	25.00	25.00

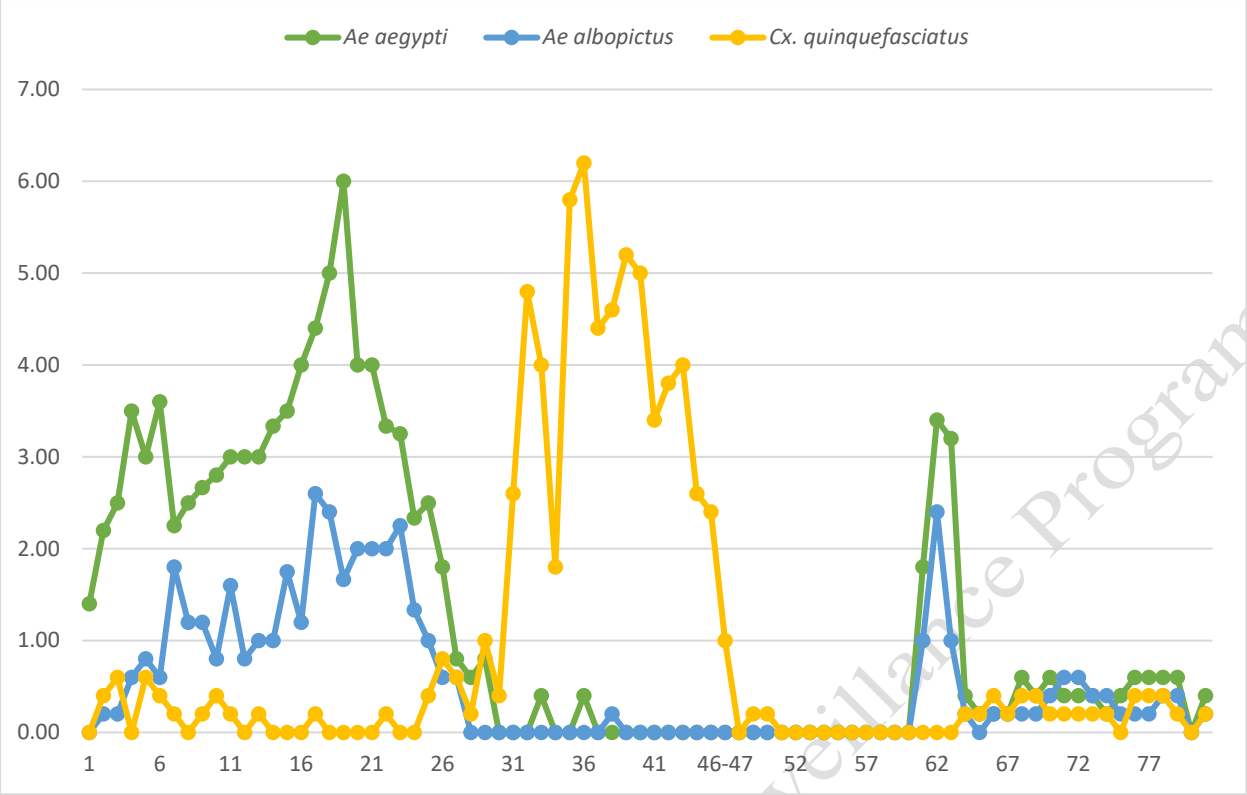


Fig 4: Average number of adult mosquitoes per Gravid trap in zones 1-5 from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

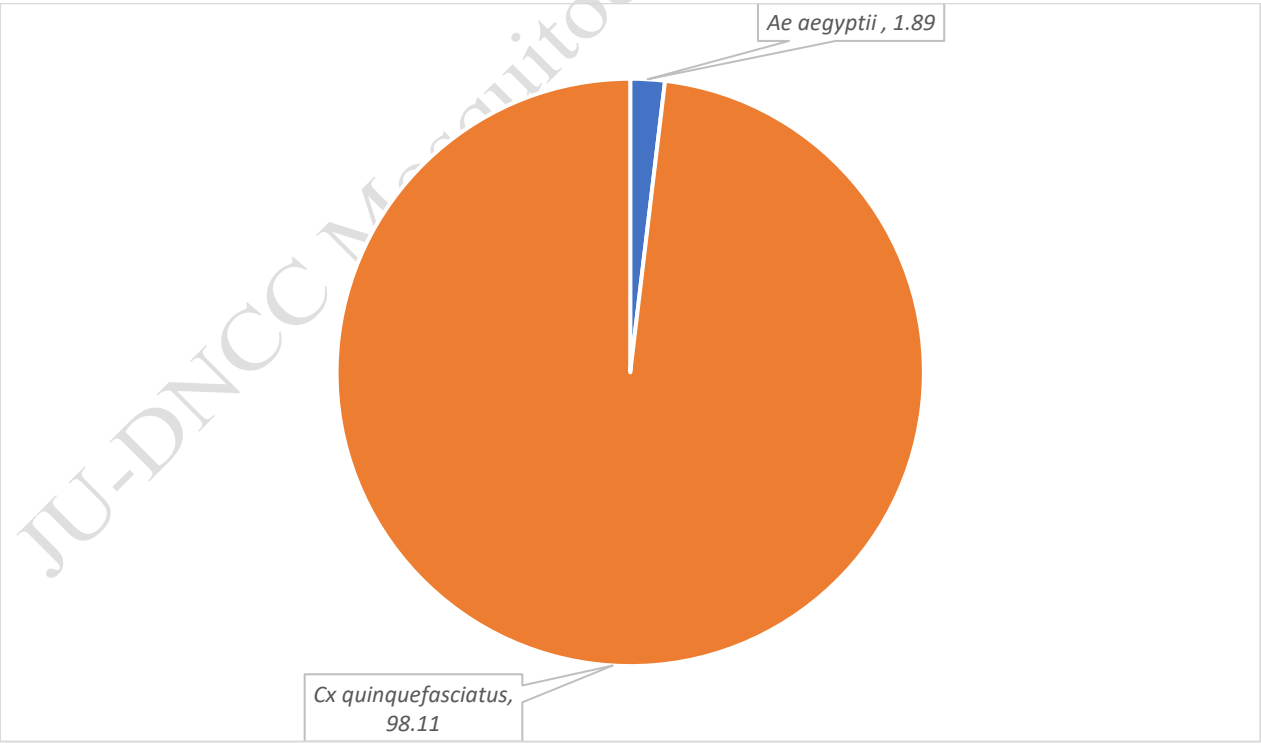
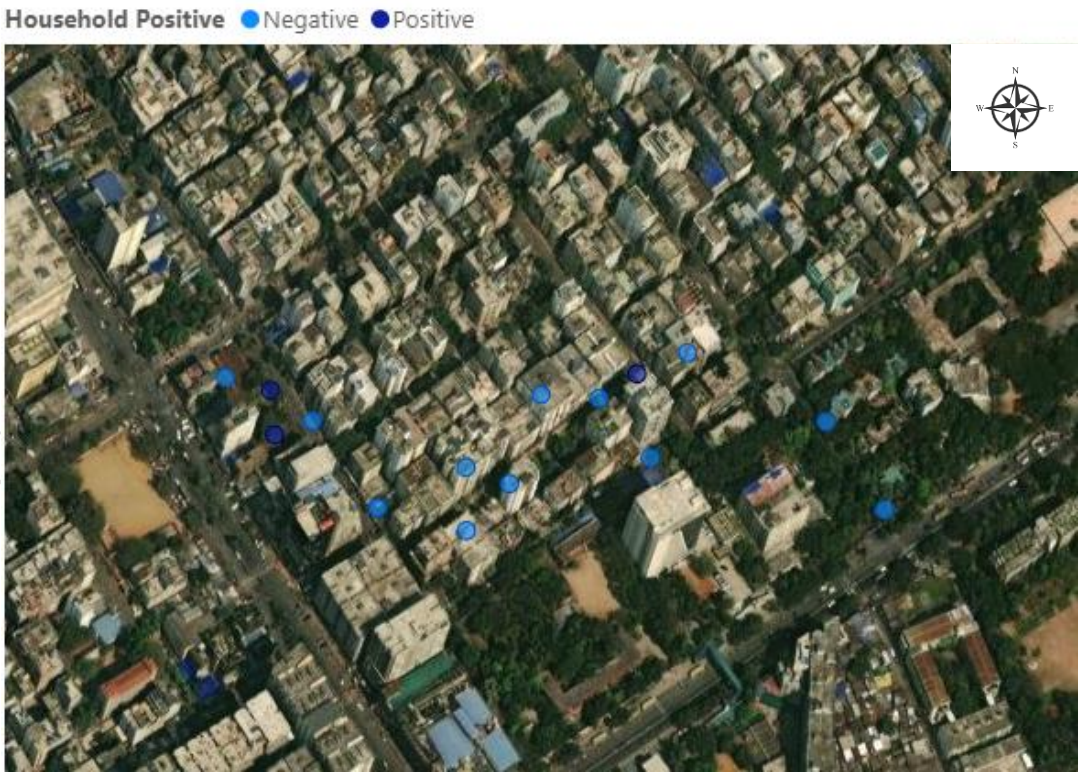


Fig. 5: Percentage of Mosquito Larvae from Zones (1-5) in Weeks 81 (December 5-9, 2025)

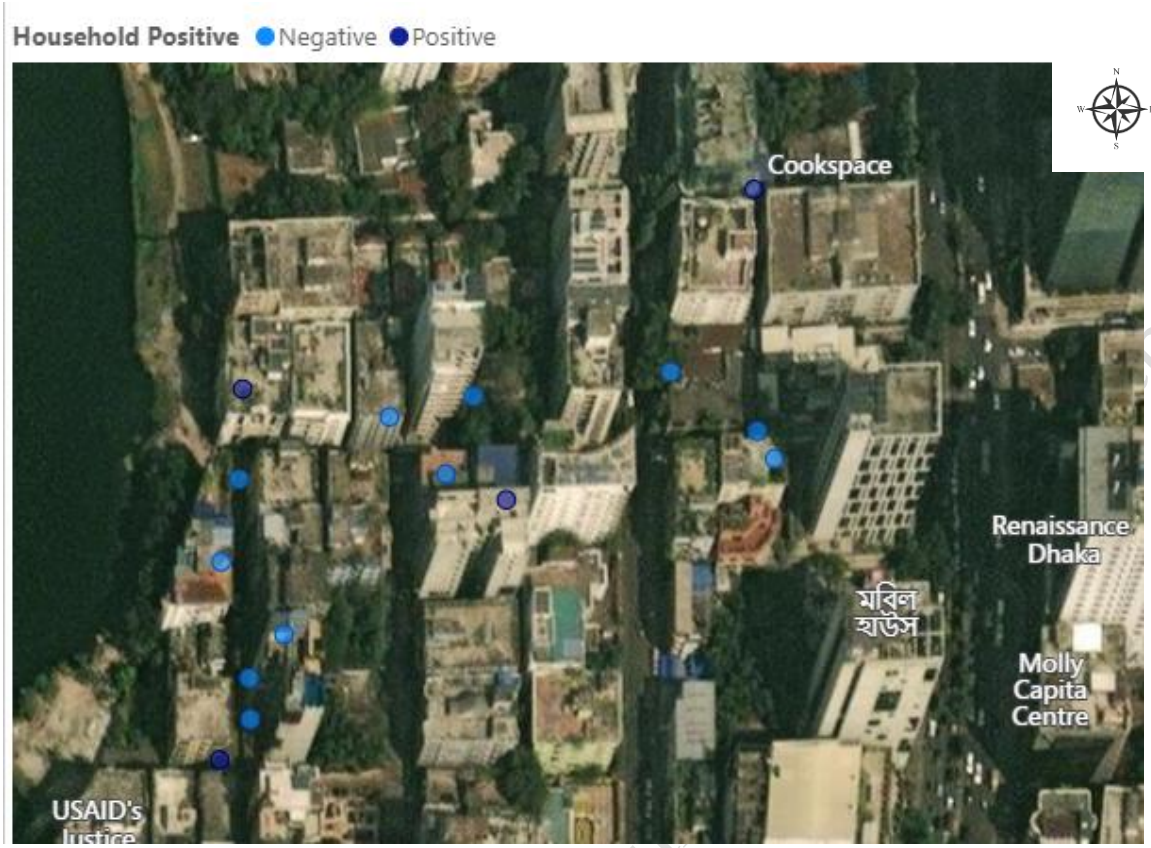
Table 4. Positive Larval Spots in Different Zones (1-5) with Estimated Number of Larvae in Weeks 81 (December 5-9, 2025)

Zone	GPS Location	*Ae. aegypti*	*Ae. albopictus*	*Cx. quinquefasciatus*	*Ar. subalbatus*	*Source*
1	23.8635763 90.4037703	0	0	2548	0	Drain
	23.8636561 90.40411	0	0	558	0	Drain
	Sub Total	0	0	3106	0	
2	23.8022854 90.3565671	52	0	0	0	Plastic drum (Sealable)
	23.8012829 90.3552064	0	0	24	0	Water tank (Cement)
	Sub Total	52	0	24	0	
3	23.7855029 90.4163984	28	0	0	0	Other Plastic bucket
	23.7846958 90.4156937	52	0	0	0	Other
	23.7849838 90.4149436	23	0	0	0	Basement/Parking
	23.7842319 90.4149624	0	0	4757	0	Drain
	23.7840201 90.4148783	0	0	5487	0	Drain
	Sub Total	103	0	10244	0	
4	23.7926247 90.3491497	25	0	0	0	Water tank (Cement)
	Sub Total	25	0	0	0	
5	23.7608075 90.3600697	85	0	0	0	Hole of water meter
	23.7616519 90.3611677	0	0	355	0	Elevator shaft/ Hole of Elevator/Lift Hole
	Sub Total	85	0	355	0	
Grand Total		265	0	13729	0	

Map 1: Positive and Negative House of Uttara 4 No. Sector at Weeks 81



Map 2: Positive and Negative House of Mirpur 2 at Weeks 81



Map 3: Positive and Negative House of Gulsan 1 at Weeks 81

Map 4: Positive and Negative House of Mirpur 1 at Weeks 81

Map 5: Positive and Negative House of Mohammadpur at Weeks 81

Table 5: Positive House, Wet Container, BI, CI and HI in Zones (1-5) in Weeks 81 (December 5-9, 2025)

Zone	Total House	Positive House	Total Wet container	Positive Wet Container	BI	CI	HI
1	15	2	26	2	13.33	7.69	13.33
2	15	2	29	2	13.33	6.90	13.33
3	15	6	30	7	46.67	23.33	40.00
4	15	1	19	1	6.67	5.26	6.67
5	15	2	31	3	20.00	9.68	13.33

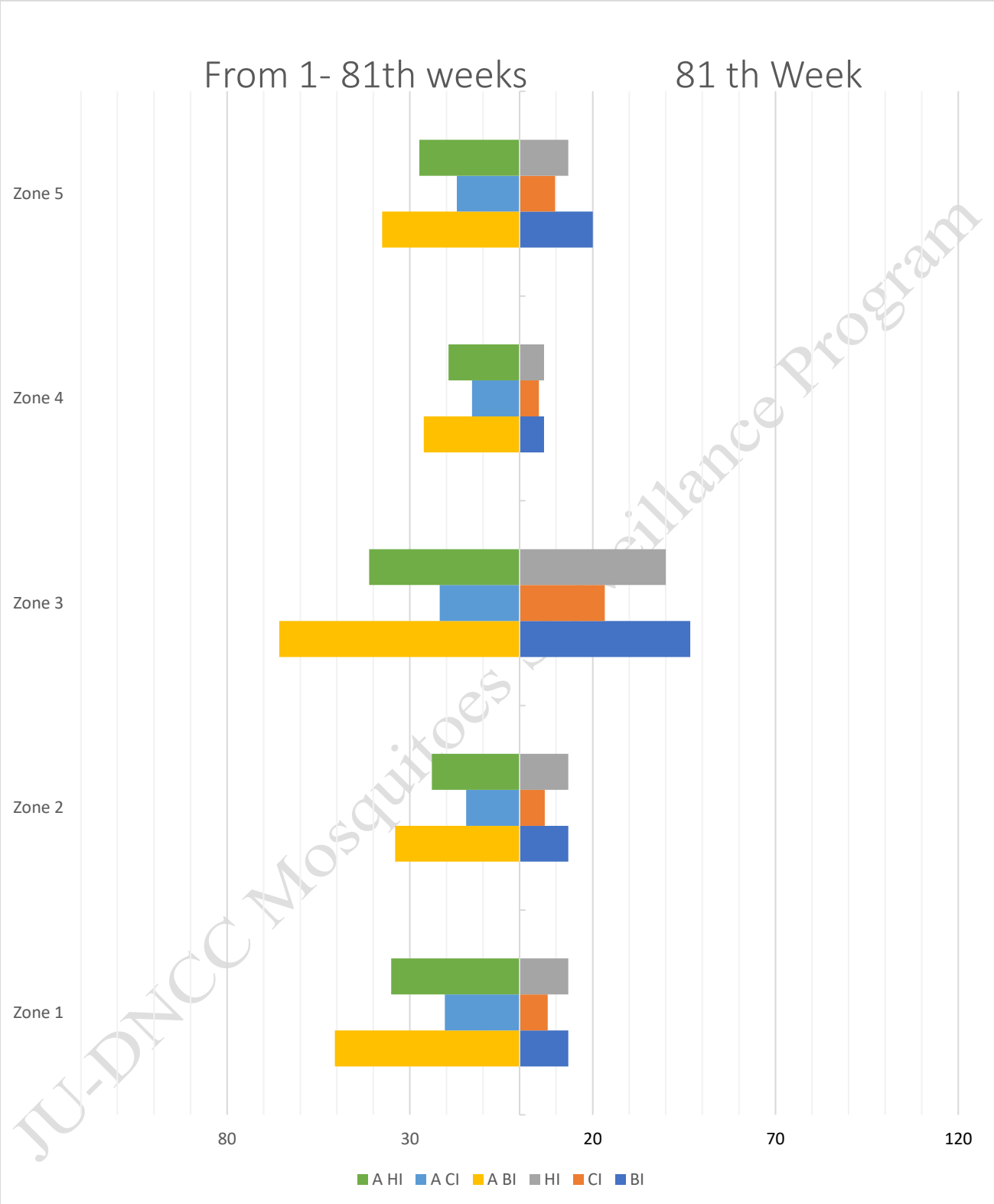


Fig. 6: BI, CI and HI in Different Zones (1-5) of Dhaka north City Corporation

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

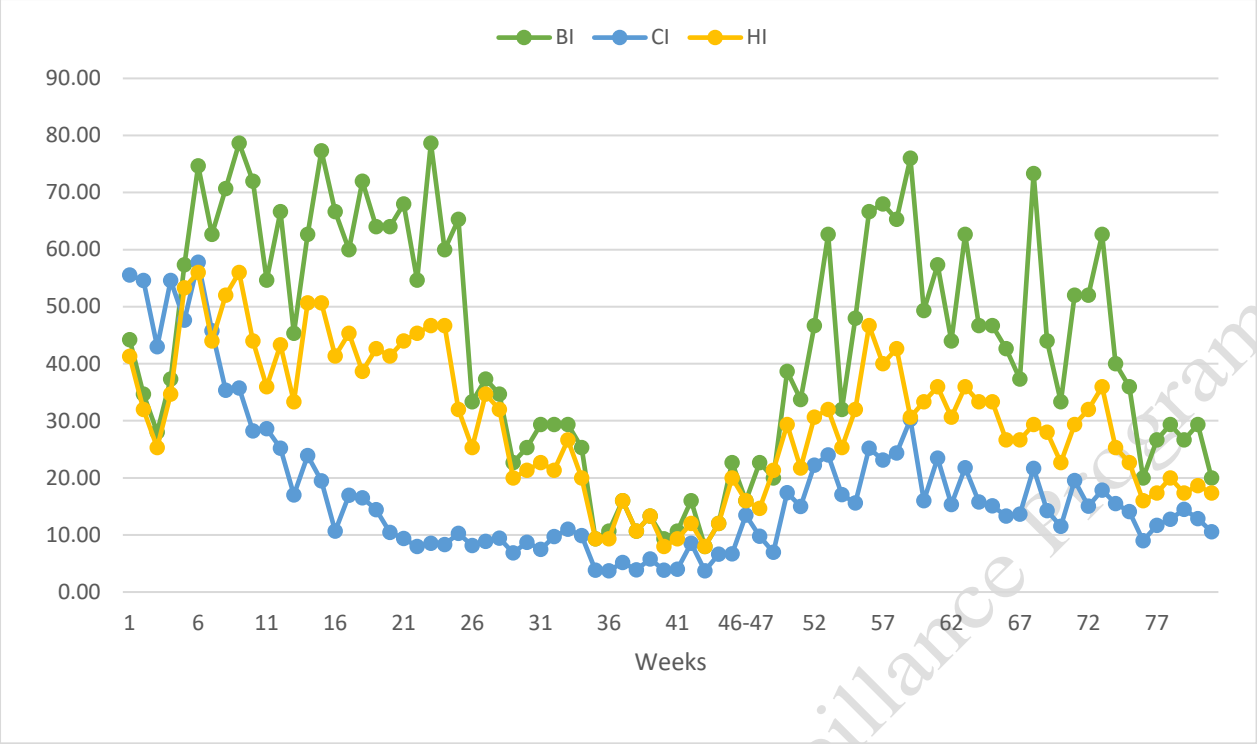


Fig 7: Mosquitoes population fluctuation (BI, CI, HI) from Week 1 to Week 81 (May 2, 2024 - December 9, 2025)

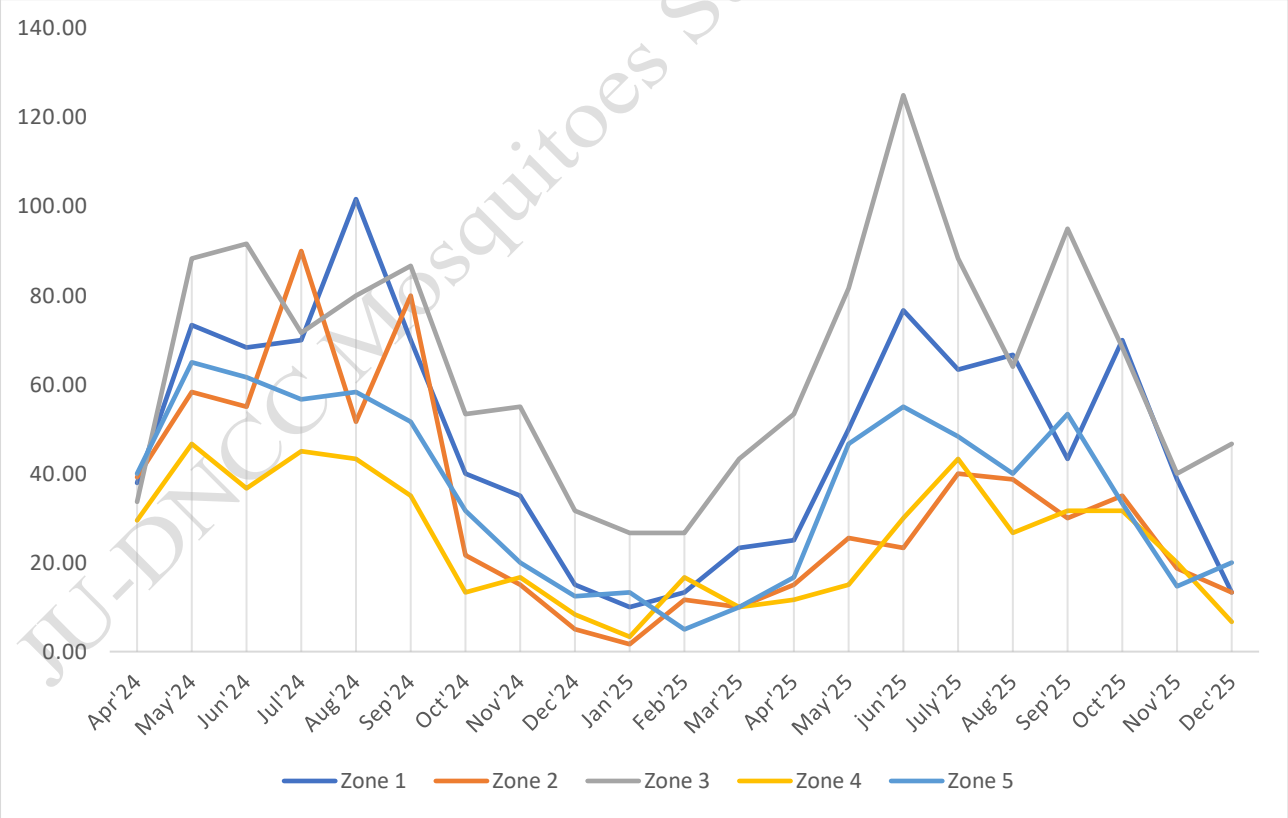


Fig. 8: Breteau Index (BI) in Different Zones from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

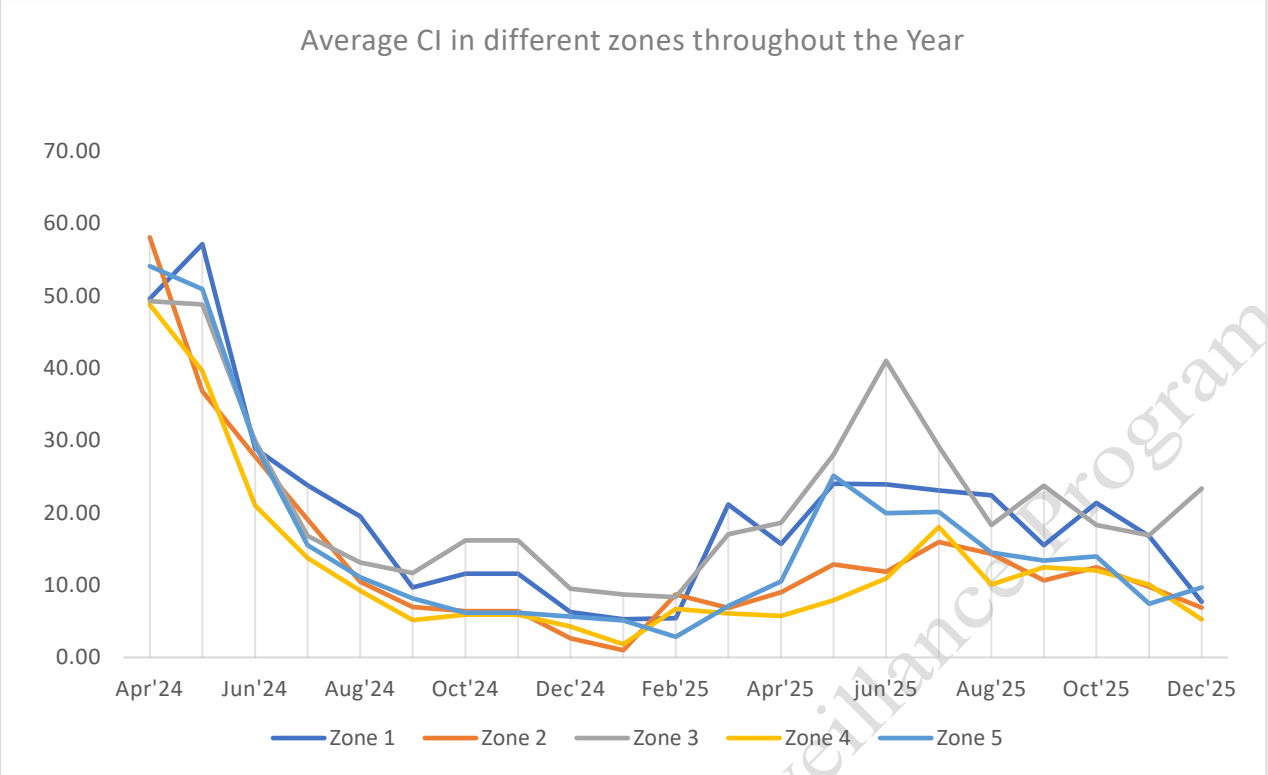


Fig. 9: Container Index (CI) in Different Zones from Week 1 to Week 81 (May 2, 2024 - December 9, 2025)

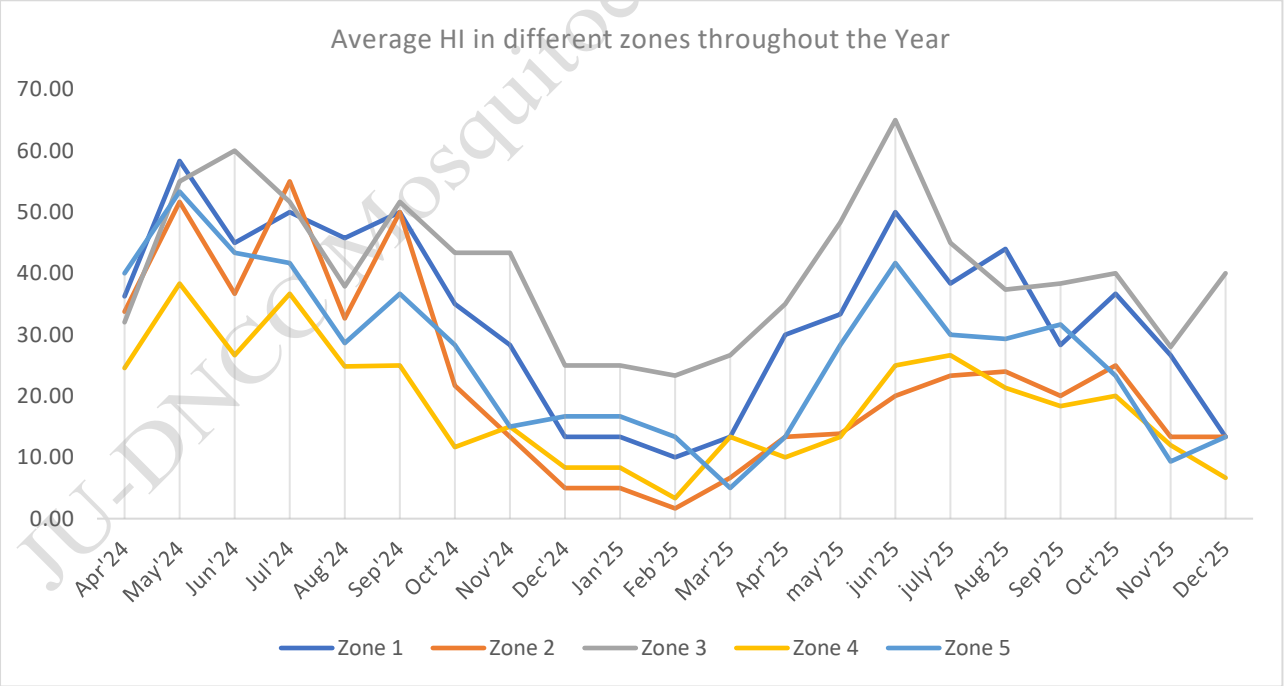


Fig. 10: House Index (HI) in Different Zones from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

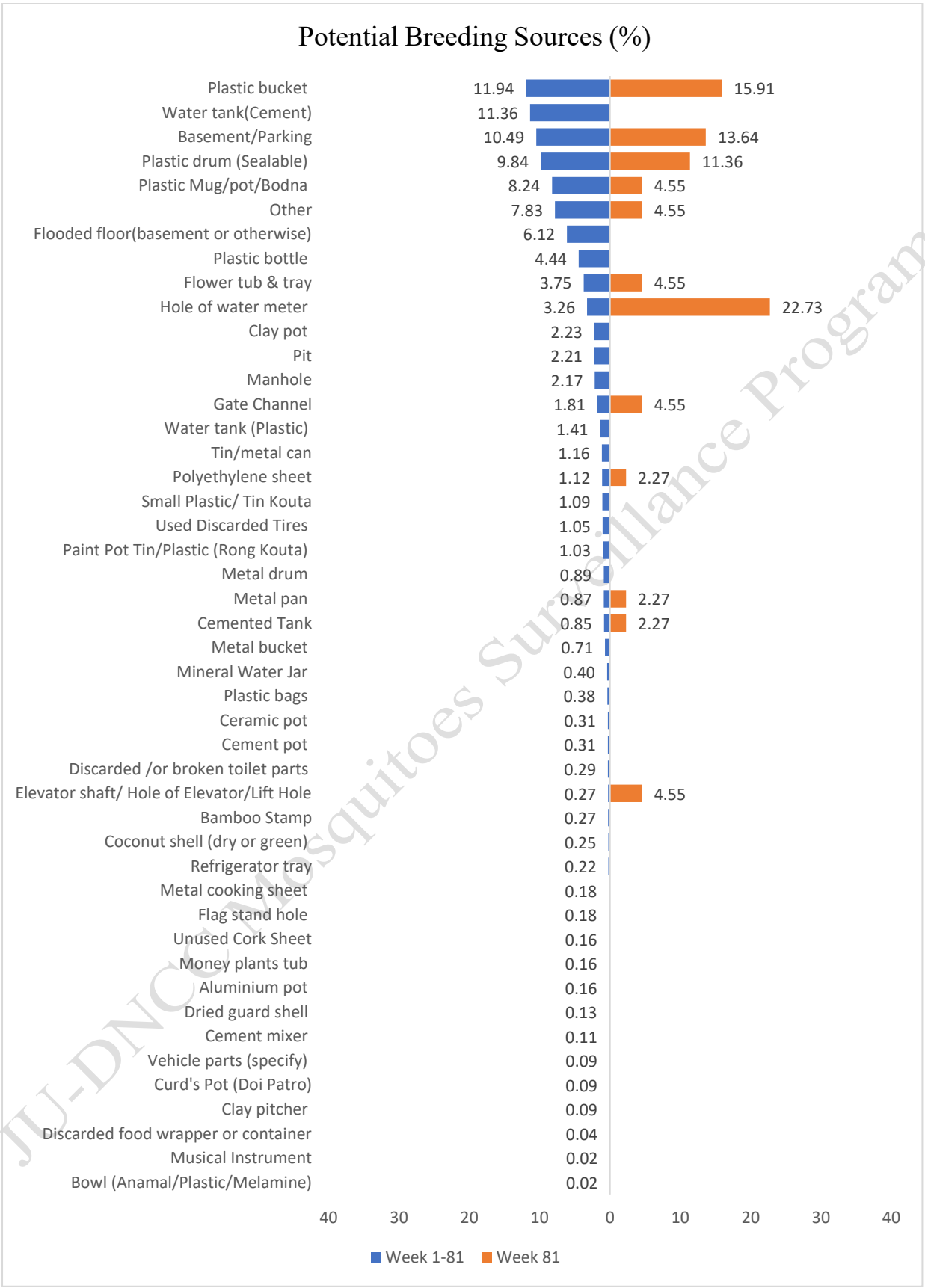


Fig. 11: Container Frequency for *Aedes* mosquitoes in Zones (1-5)

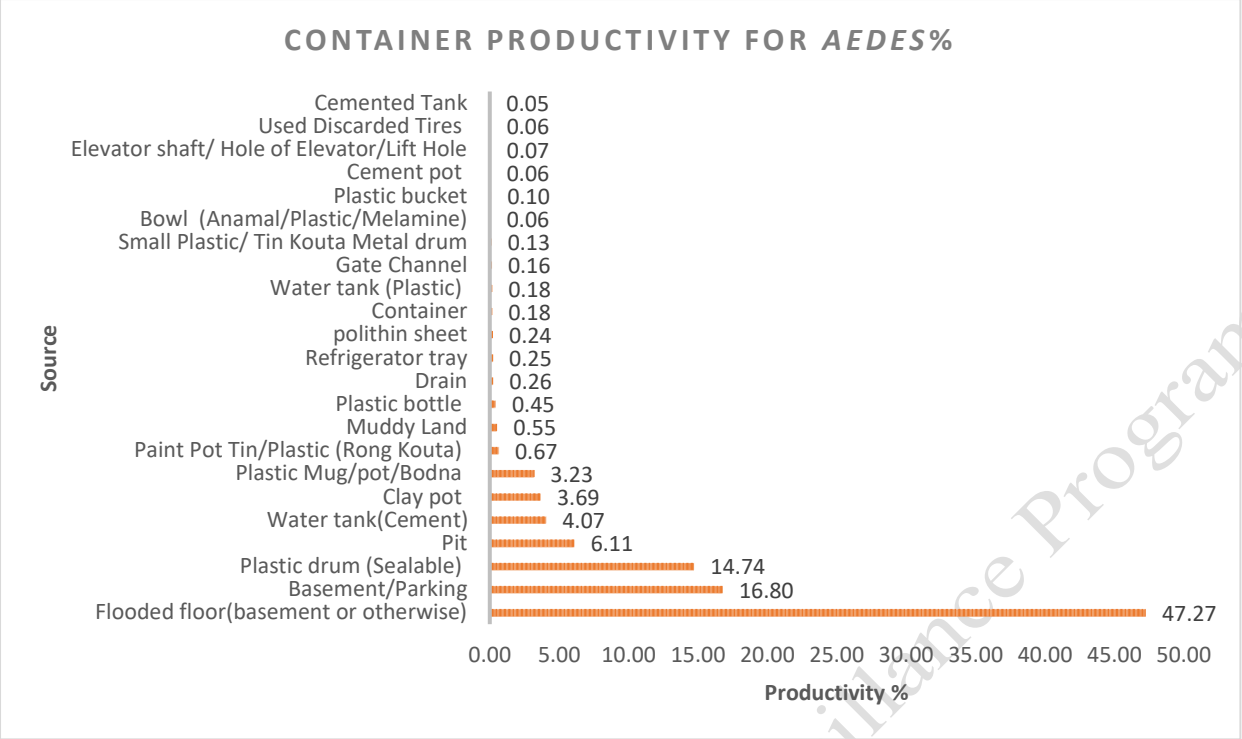


Fig. 12: Container Productivity of *Aedes* mosquito in DNCC from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

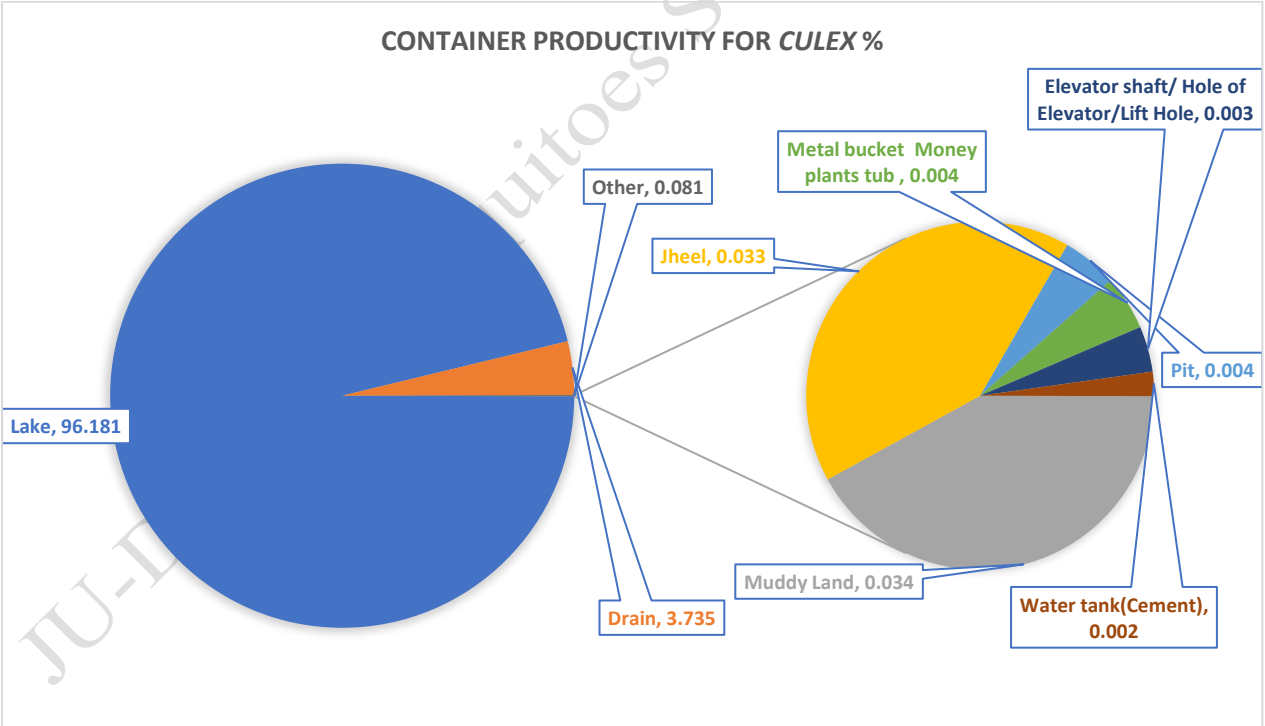


Fig. 13: Container Productivity of *Culex* mosquito in DNCC, from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

Table 6: Container Frequency & Probable potential Wet Container in zones (1-5) from Week 1 to Week 81 (May 2, 2024 -December 9, 2025)

Sources	+House	-WC	+WC	**Total WC**	% WC	% PWC
Plastic bucket	190	261	274	535	11.94	6.12
Water tank(Cement)	158	252	257	509	11.36	5.74
Basement/Parking	195	36	434	470	10.49	9.69
Plastic drum (Sealable)	217	78	363	441	9.84	8.10
Plastic Mug/pot/Bodna	158	82	287	369	8.24	6.41
Other	177	125	226	351	7.83	5.04
Flooded floor(basement or otherwise)	127	138	136	274	6.12	3.04
Plastic bottle	78	63	136	199	4.44	3.04
Flower tub & tray	64	24	144	168	3.75	3.21
Hole of water meter	33	2	144	146	3.26	3.21
Clay pot	83	11	89	100	2.23	1.99
Pit	56	21	78	99	2.21	1.74
Manhole	52	29	68	97	2.17	1.52
Gate Channel	28	31	50	81	1.81	1.12
Water tank (Plastic)	20	28	35	63	1.41	0.78
Tin/metal can	30	0	52	52	1.16	1.16
Polyethylene sheet	33	3	47	50	1.12	1.05
Small Plastic/ Tin Kouta	24	9	40	49	1.09	0.89
Used Discarded Tires	28	16	31	47	1.05	0.69
Paint Pot Tin/Plastic (Rong Kouta)	30	5	41	46	1.03	0.92
Metal drum	17	7	33	40	0.89	0.74
Metal pan	17	3	36	39	0.87	0.80
Cemented Tank	21	12	26	38	0.85	0.58
Metal bucket	19	5	27	32	0.71	0.60
Mineral Water Jar	6	4	14	18	0.40	0.31
Plastic bags	8	0	17	17	0.38	0.38
Cement pot	11	0	14	14	0.31	0.31
Ceramic pot	13	0	14	14	0.31	0.31
Discarded /or broken toilet parts	11	2	11	13	0.29	0.25
Bamboo Stamp	9	0	12	12	0.27	0.27
Elevator shaft/ Hole of Elevator/Lift Hole	5	4	8	12	0.27	0.18
Coconut shell (dry or green)	4	0	11	11	0.25	0.25
Refrigerator tray	8	0	10	10	0.22	0.22
Flag stand hole	4	1	7	8	0.18	0.16
Metal cooking sheet	2	0	8	8	0.18	0.18
Aluminium pot	4	0	7	7	0.16	0.16
Money plants tub	5	0	7	7	0.16	0.16
Unused Cork Sheet	5	1	6	7	0.16	0.13
Dried guard shell	4	0	6	6	0.13	0.13
Cement mixer	2	0	5	5	0.11	0.11
Clay pitcher	3	1	3	4	0.09	0.07
Curd's Pot (Doi Patro)	3	0	4	4	0.09	0.09
Vehicle parts (specify)	3	1	3	4	0.09	0.07
Discarded food wrapper or container	1	0	2	2	0.04	0.04
Bowl (Anamal/Plastic/Melamine)	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 81 (May 2, 2024 -December 9, 2025)

Containers	Percentage of Breeding Sources				
	Zone 01	Zone 02	Zone 03	Zone 04	Zone 05
Plastic bucket	2.12	2.14	2.30	2.92	2.46
Water tank(Cement)	1.43	1.79	1.52	3.42	3.21
Basement/Parking	2.83	1.47	2.90	0.92	2.37
Plastic drum (Sealable)	1.43	2.37	1.74	2.25	2.05
Plastic Mug/pot/Bodna	1.54	1.47	1.65	2.23	1.34
Other	2.57	1.34	2.14	0.74	1.05
Flooded floor(basement or otherwise)	1.56	1.36	1.03	0.67	1.50
Plastic bottle	0.60	1.05	0.67	1.09	1.03
Flower tub & tray	1.18	0.65	1.09	0.51	0.31
Hole of water meter	0.31	0.74	0.13	0.83	1.25
Clay pot	0.27	0.47	0.69	0.27	0.54
Pit	0.67	0.22	0.69	0.31	0.31
Manhole	0.94	0.22	0.69	0.20	0.11
Gate Channel	0.65	0.16	0.45	0.09	0.47
Water tank (Plastic)	0.00	0.92	0.20	0.18	0.11
Tin/metal can	0.33	0.31	0.22	0.22	0.07
Polyethylene sheet	0.31	0.29	0.22	0.20	0.09
Small Plastic/ Tin Kouta	0.29	0.20	0.31	0.13	0.16
Used Discarded Tires	0.40	0.29	0.20	0.09	0.07
Paint Pot Tin/Plastic (Rong Kouta)	0.25	0.11	0.31	0.22	0.13
Metal drum	0.18	0.11	0.22	0.29	0.09
Metal pan	0.20	0.13	0.29	0.09	0.16
Cemented Tank	0.18	0.13	0.18	0.25	0.11
Metal bucket	0.11	0.07	0.20	0.18	0.16
Mineral Water Jar	0.04	0.02	0.07	0.18	0.09
Plastic bags	0.04	0.02	0.09	0.11	0.11
Cement pot	0.04	0.00	0.13	0.02	0.11
Ceramic pot	0.07	0.02	0.07	0.02	0.13
Discarded /or broken toilet parts	0.02	0.13	0.04	0.00	0.09

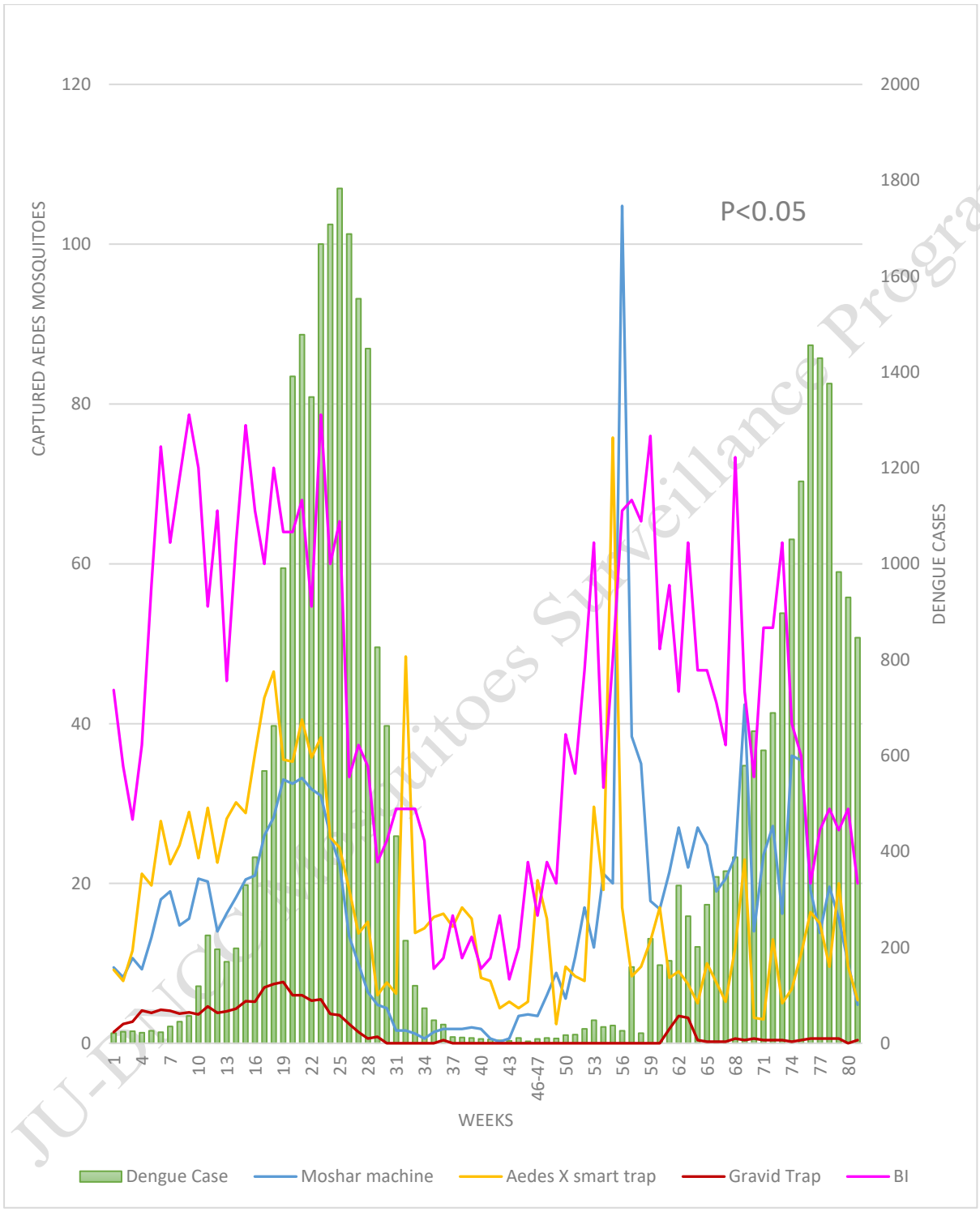
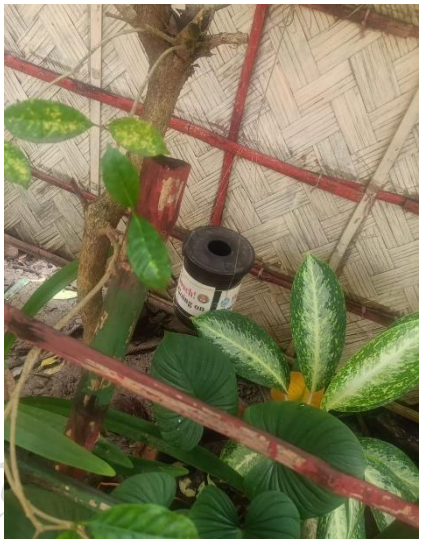


Fig. 14: Correlation between Dengue Cases and *Aedes* Mosquitoes Captured by per Moshar Machine CO_2 traps, Aedes X smart traps, and Gravid traps

NB: DNCC dengue cases only

Photographs of Mosquitoes Surveillance









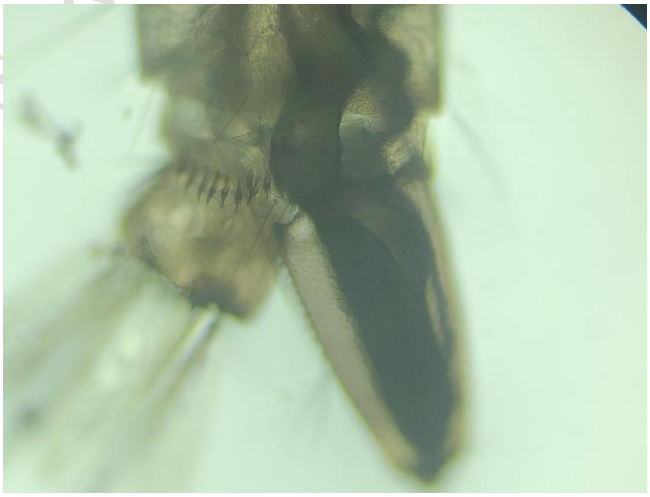
Samples Collection from Field








Samples Processing and Identification



Comments:

Overall mosquito density is rising and the dengue cases now declining. Furthermore, the Breteau Index (BI) is has gone down. It is high time for effective intervention. 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
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