

Science for Your Protection

Field data of monitoring *Aedes albopictus* in Fürth, Germany with
BG-GAT and BG-Pro traps

Dr. Silke Göttler¹, Dr. Martin Geier¹ & Dr. Judith Auer²

silke.goettler@biogents.com

Judith.auer@apc-ag.de

¹Biogents AG, Weissenburgstr. 22, 93053 Regensburg, Germany

²APC AG, Ostendstr. 132, 90482 Nürnberg, Germany



Science for Your Protection

- **Introduction**
- Material: BG-Pro and BG-GAT
- Results
- Conclusion

Tigermücke in Fürth Bavaria

Klein und aggressiv: Tigermücke in Fürth lässt sich nicht mehr ausrotten

von Erik Stecher

3.7.2020, 11:53 Uhr



Eine Asiatische Tigermücke auf der menschlichen Haut: In den Tropen kann das aggressive Insekt Krankheiten wie Zika und Dengue Fieber übertragen, hierzulande besteht dieses Risiko noch nicht.

Bekämpfung

Kampf den Tigermücken: Fürth will Insekten an den Kraken

von Alexandra Volgt

27.5.2021, 06:00 Uhr



17:30 SAT1 BAYERN

1:1:1:5 MERVDI

ASIATISCHE TIGERMÜCKE IN BAYERN? SO SCHÜTZEN SIE SICH

01.07.2021 • 17:30

Ideales Mücken-Wetter in Bayern - in Fürth vermehrt sich eine Mückenart, die es bei uns eigentlich gar nicht gibt: die asiatische Tigermücke. Wie gefährlich ist diese neue Art? Wie können wir uns schützen? Biologen klären auf



16 Gefällt das

0 Gefällt das nicht

Merken

Moskito-Plage

Tigermücken in Fürther Kleingartenanlage

BR Fernsehen
16.07.2020, 17:10 Uhr
3 Min

Online bis 16.07.2021, 19:02 Uhr Warum?

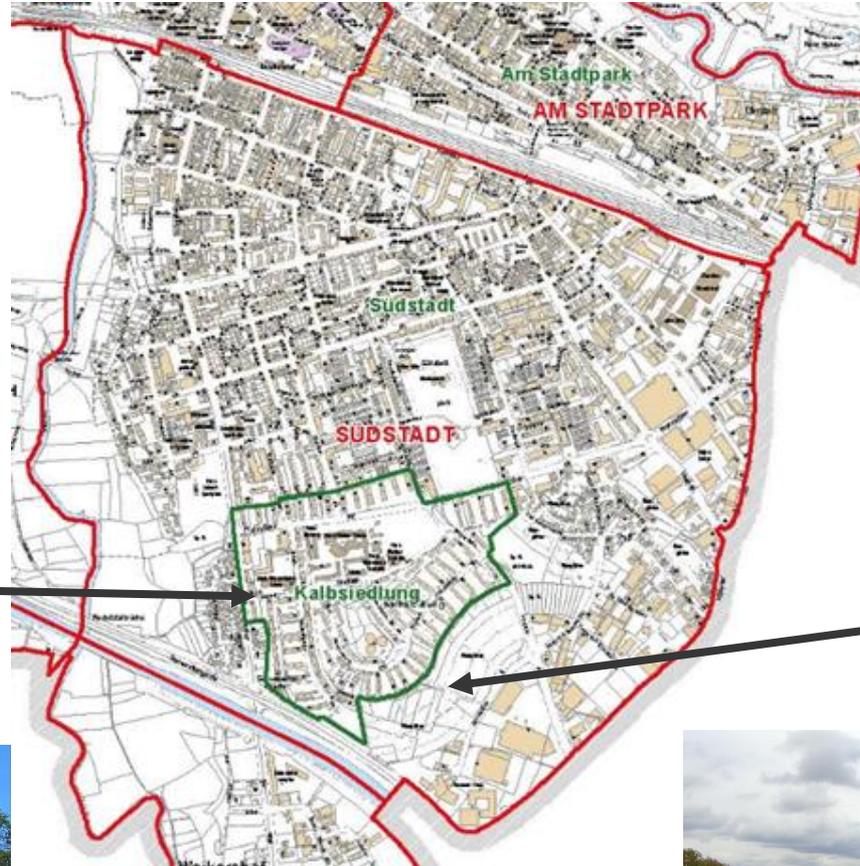
In einer Kleingartenanlage in der Fürther Südstadt hat eine Tigermückenpopulation überwintert. Da die Insekten Krankheiten übertragen, können sie für den Menschen gefährlich werden. Das Ordnungsamt startet ein Monitoring-Programm.



Locations



Residential area



Allotment area



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Monitoring



BG-Pro New Mosquito Trap Development



Advantages to Conventional Traps

- ✓ Easy and Flexible to Use
- ✓ Collection bag above the fan so that specimens are not damaged
- ✓ Automatic shutter system to assure caught mosquitoes cannot escape
- ✓ High quality electrical parts including ventilator and power supplies
- ✓ Low power consumption
- ✓ Three bladed fan: design causes less damage to the collected mosquitoes



5 V



Different CO₂ sources

Dry ice in carrier bag



Gas bottle



BG-Generator



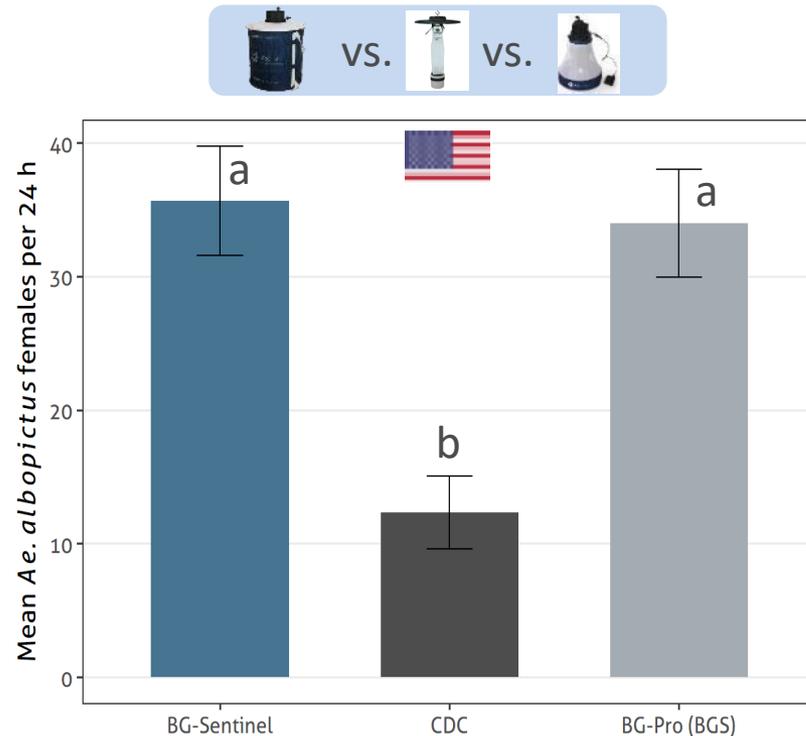
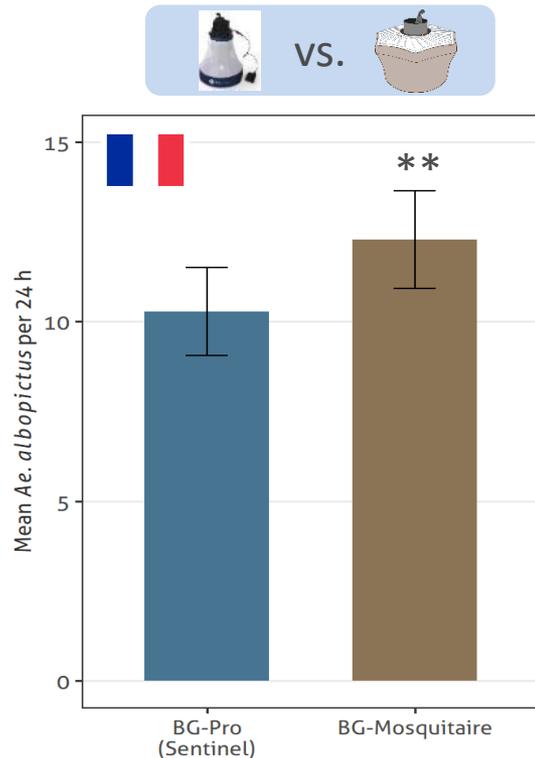
Variable Power sources



*Storage of power bank
in carrier bag / dry ice bag*

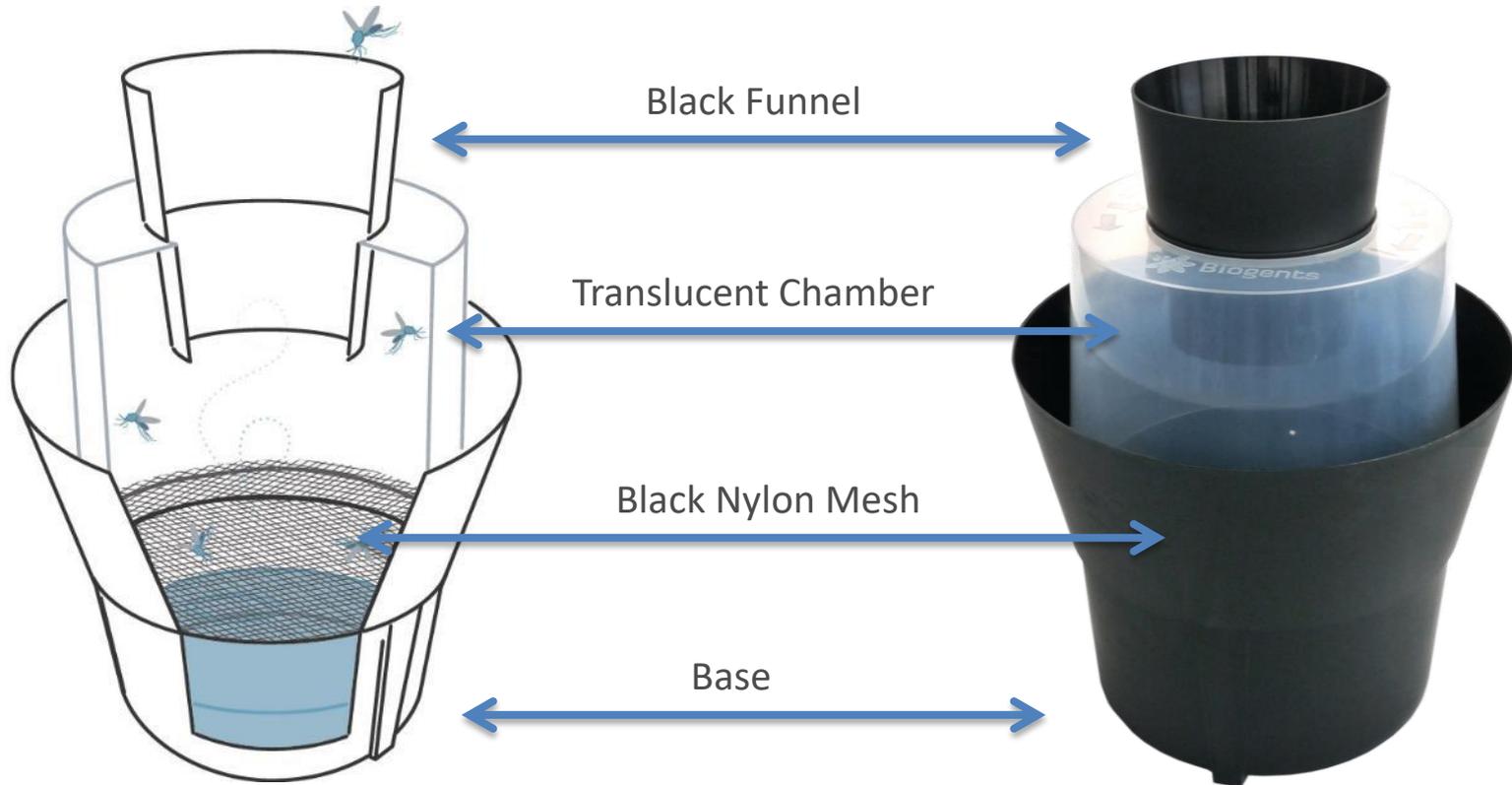
Catch Efficacy for *Aedes albopictus*

- Location: Antibes, France and Suffolk, VA, USA
- Targeted species: *Ae. albopictus*
- Trap configuration:



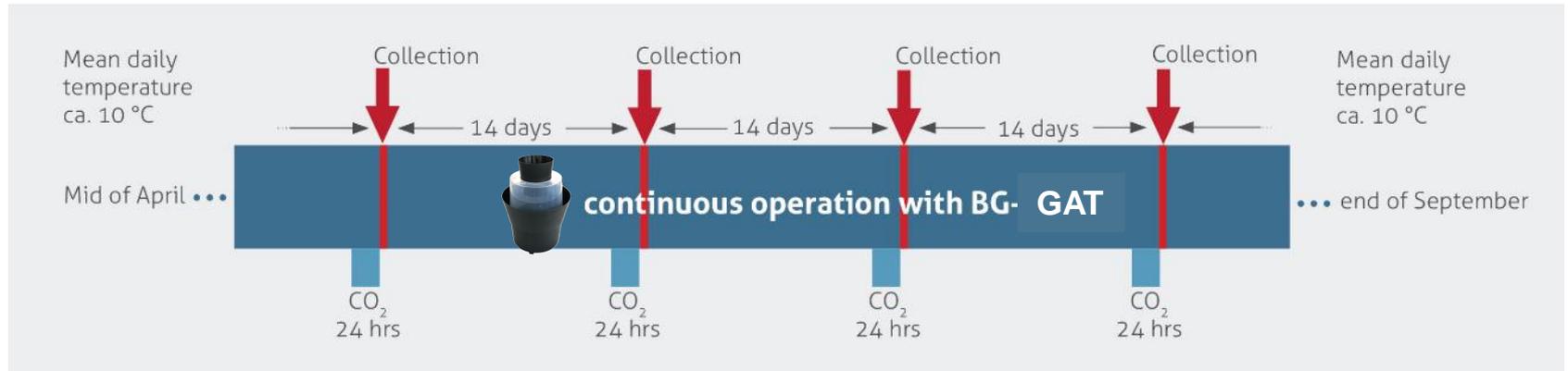
The BG-Pro is as good or better than the BG-Sentinel trap at catching *Ae. albopictus*.

BG-GAT (*Gravid Aedes* Trap)

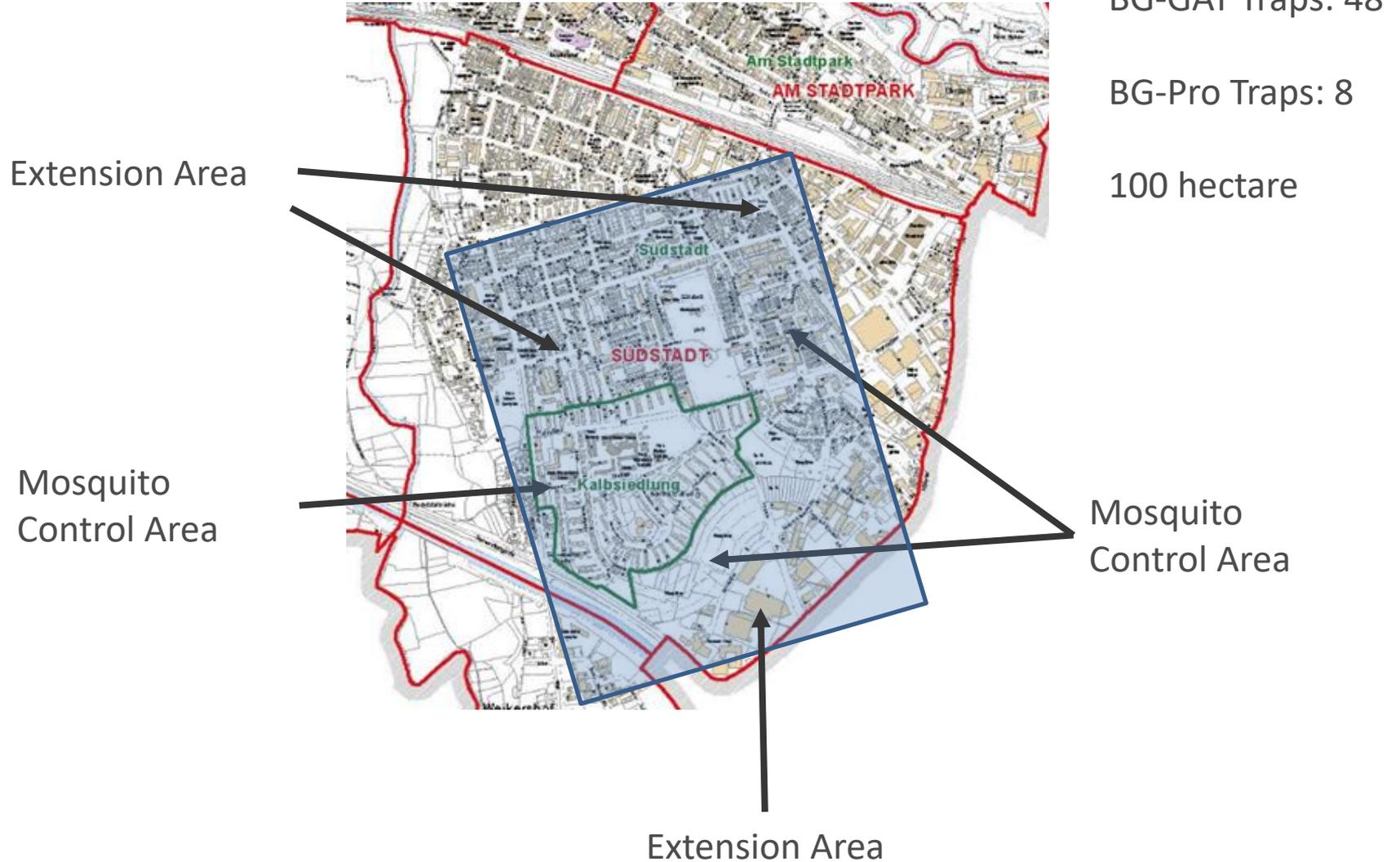


Female mosquitoes are attracted by water and oviposition cues and enter the transparent chamber where they are contaminated by killing agents.

Monitoring with BG-Pro and BG-GAT



Monitoring 2021



Mosquito Control – APC AG

- Reduction of breeding sites



- BTI



- BG-GAT Traps (n=510)



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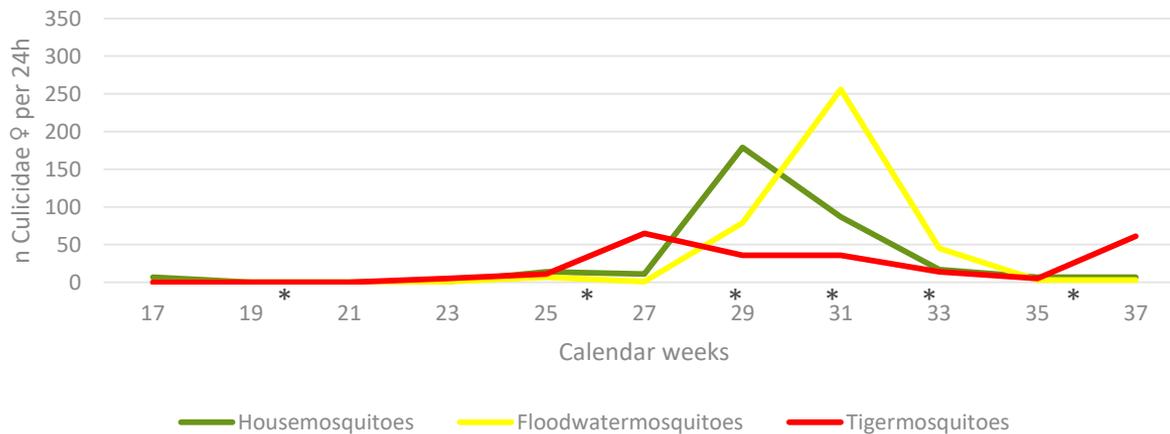
- Introduction
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Course of the year BG-Pro Traps

BG-Pro Traps (n=5) 2020



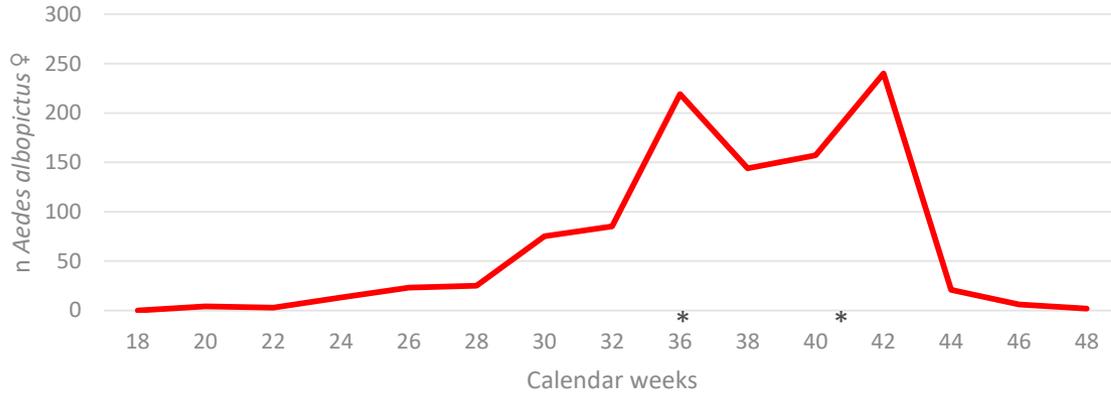
BG-Pro-Traps (n=8) 2021



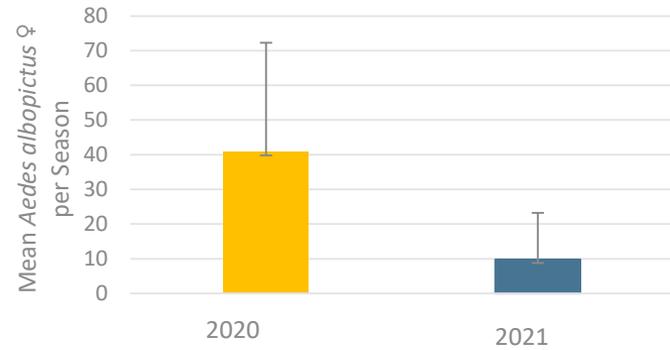
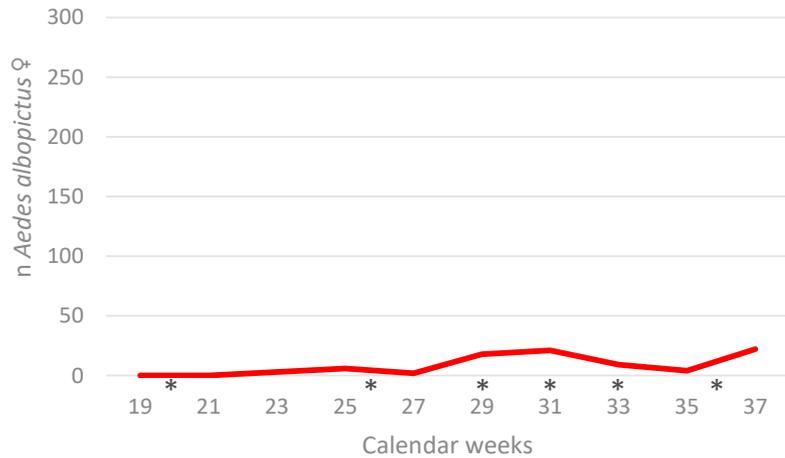
* Control

Garden plot „Süd I / II“

BG-GAT Traps (n=7) 2020



BG-GAT Traps (n=7) 2021

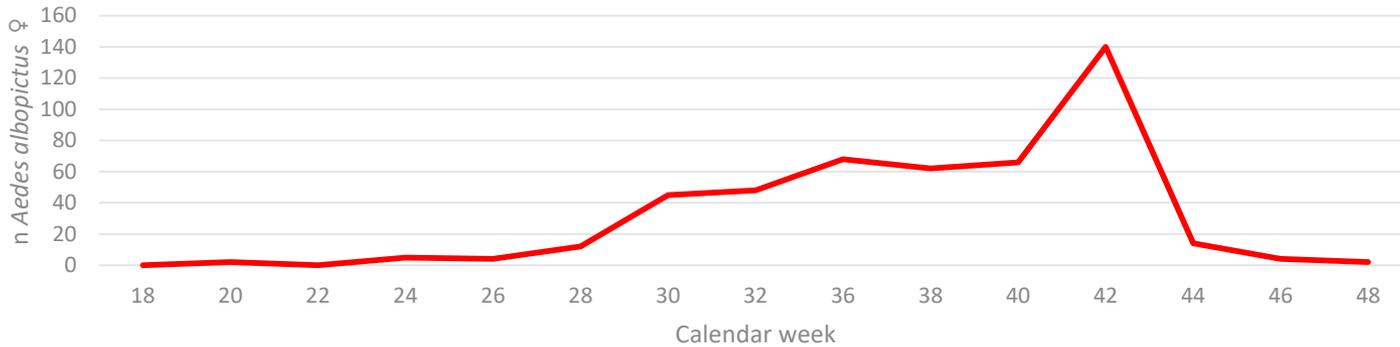


 Reduction of *Aedes albopictus*

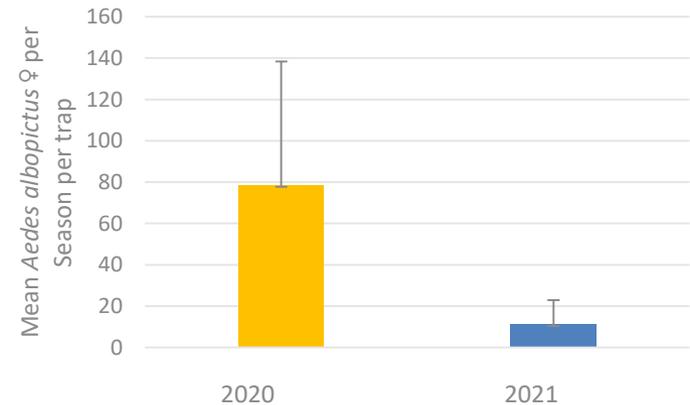
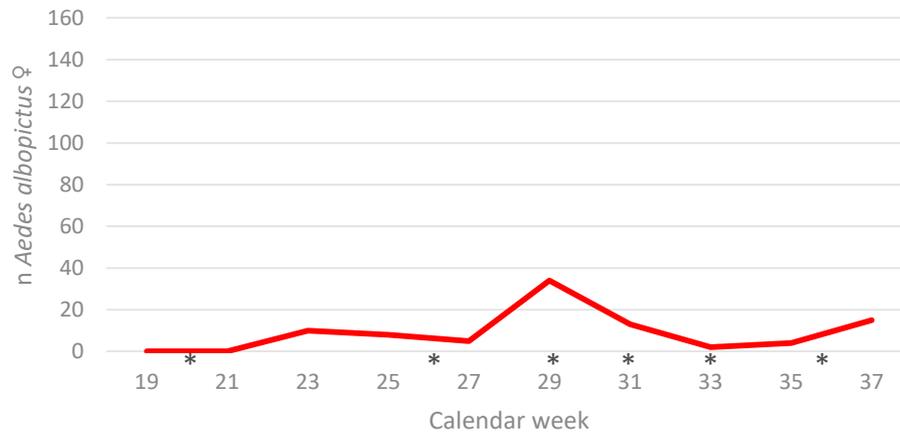
* Control

Residential area „Kalbsiedlung“

BG-GAT Traps (n=6) 2020



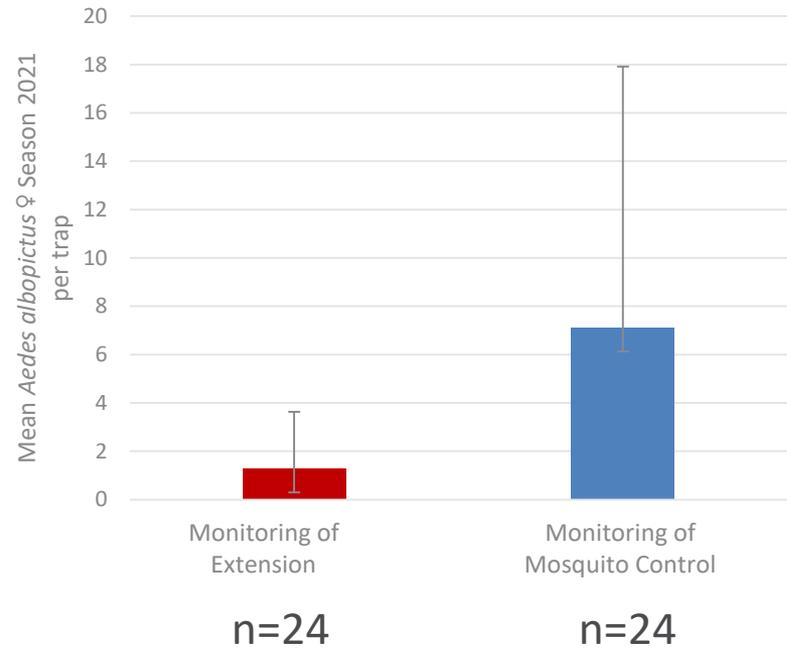
BG-GAT Traps (n=8) 2021



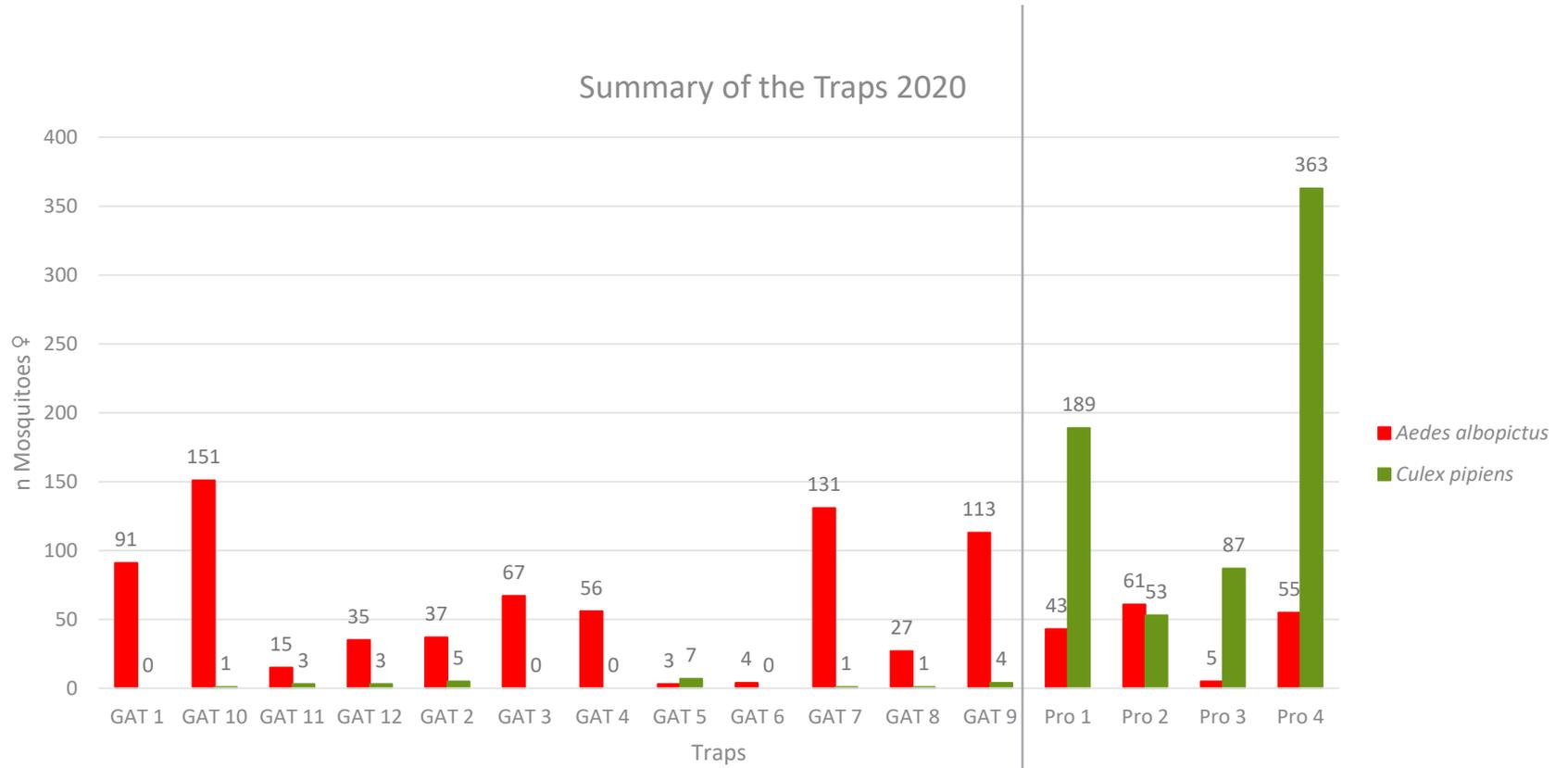
* Control

 Reduction of *Aedes albopictus*

Monitoring of Extension with BG-GAT



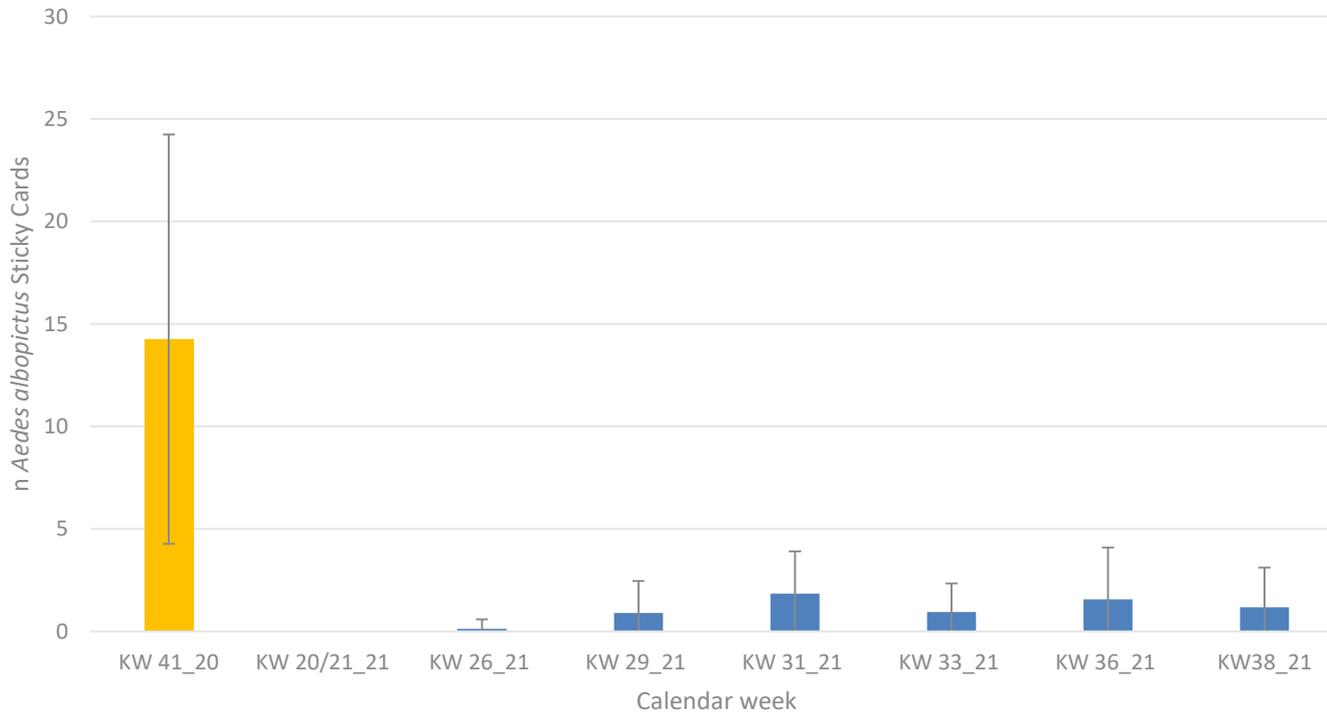
Specificity of the BG-GATs



The BG-GAT traps are specific for *Aedes albopictus*.

Results APC – BG-GAT Traps

Garden plot "Süd 1"



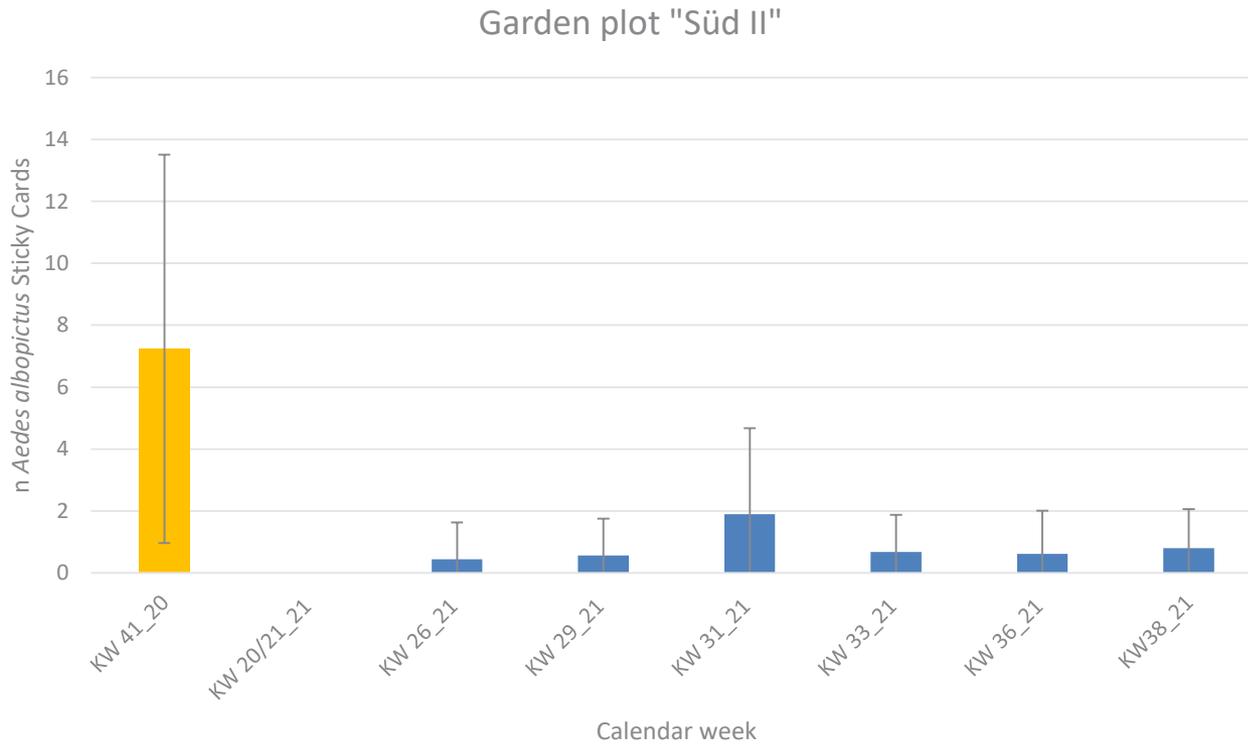
191 BG-GATs



Reduction of *Aedes albopictus*



Results APC – BG-GAT Traps



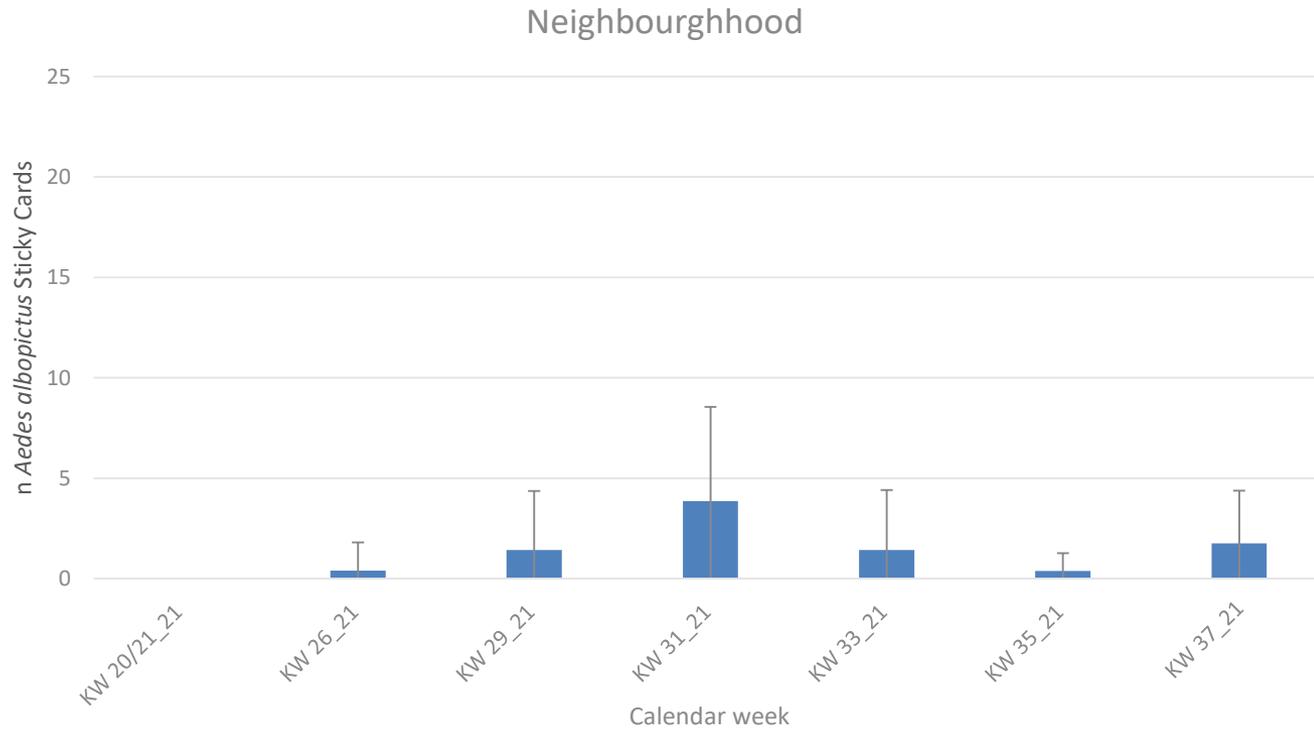
157 BG-GATs



 Reduction of *Aedes albopictus*



Results APC – BG-GAT Traps



162 BG-GATs



Results Fürth 2021



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Concluding Remarks

The GAT is a useful tool for capturing adult *Ae. albopictus*:

- affordable
- easy to set up
- no electricity required
- no CO₂ needed

The high catch rates make the BG-GAT suitable for control and monitoring.

Hotspots of mosquito abundance can be detected in time to apply control measures.

The BG-GAT trap catches the adult *Aedes albopictus*.



Concluding Remarks

The adult suction traps collect a wide range of mosquito species.

The trap collection provides fast and reliable information about spatial and temporal dynamics of mosquito populations.

Conventional adult suction traps have many disadvantages over other methods as they are relatively expensive and require electricity which may not be available in certain areas.

The new BG-Pro trap offers new opportunities:

- Lower costs
- Power bank
- Variable CO₂ sources



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Thank you for your attention!

