

Biogents
Mosquito Control

Mosquito Trap

BG - GAT

Instruction manual

EN

The BG-GAT trap was developed by Dr. A.E. Eiras from the Universidade Federal de Minas Gerais, Belo Horizonte, Brazil and Dr. S.A. Richie from the James Cook University, Cairns, Queensland 4870, Australia.

Publications:

Eiras, A.E., Buhagiar, T.S., and Richie, S.A. (2014). Development of the Gravid Aedes Trap for the Capture of Adult Female Container–Exploiting Mosquitoes (Diptera: Culicidae). *J. Med. Entomol.* 51(1): 200-209

Richie, S.A., Buhagiar, T.S., Townsend, M., Hoffmann, A., Van den Hurk, A.F., McMahon, J., and Eiras, a.E. (2014) Field Validation of the Gravid Aedes Trap (GAT) for Collection of *Aedes aegypti* (Diptera: Culicidae). *J. Med. Entomol.* 51(1): 210-219.

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Contact

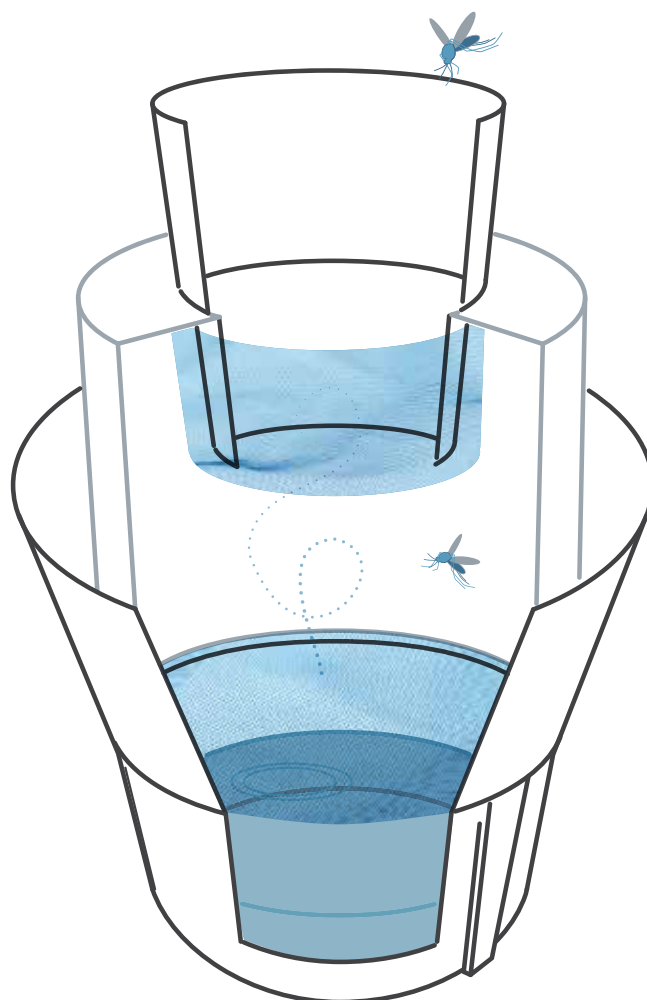
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Function

Female mosquitoes are attracted by water and oviposition cues and enter the transparent chamber where they are contaminated by insecticides. The transparent chamber makes it difficult for the mosquitoes to escape and the black mesh screen provides a barrier between mosquitoes and the infusion as well as retains dead mosquitoes without damaging them. There are two possibilities of killing the mosquitoes:

1) A killing agent (e.g., residual surface spray insecticide) can be applied to the inner wall of the translucent chamber to kill mosquitoes through contact (for example Mortein Outdoor Barrier Surface Spray, imiprothrin 0.3 g/kg and 0.6 g/kg deltamethrin Reckitt Benschkiser Pty. Ltd.)

2) In addition to the black mesh screen LLINs (long-lasting insecticide-treated nets) can be placed inside the transparent chamber to kill mosquitoes through contact. A round LLIN on the bottom of the chamber and a rectangular net wrapped around the black entrance funnel provide good results.



Cross-sectional view

Product components

1. Mounting ring + net

2. Funnel

3. Transparent chamber

4. Trap bucket

5. Optional: blue LLINs
(treated with Alphacypermethrin)



Assembling the trap

1. Unpack all parts [F1].
2. Fill the black bucket with water up to the overflow (about 10 cm high). Insert organic material, hay infusion, organic brewer's yeast, or other organic materials (for example 10 mg of alfalfa pellets per liter) as oviposition attractants [F2].
3. Place the black net on the open end of the transparent chamber to ensure that the mosquitoes won't reach the water [F3].
4. Fix the black net to the transparent chamber with the mounting ring. Start by laying the ring over the net on one side [F4]. While holding this side fixed, press the opposite side of the transparent chamber together to attach the rest of the ring [F5]. Then press the ring equally on all sides down over the chamber [F6] to lock it tightly in place [F7].



F3

Please note:
The fit of the ring is very tight to ensure that the black net stays taut and does not loosen over time. It may take a few attempts to fix the ring over the chamber.



F1



F2



F4



F5



F6



F7

5. Turn the chamber around and place your pesticide of choice inside the chamber [F8].
6. Insert the funnel in the chamber [F9].
7. Rotate the funnel clockwise to secure it [F10].
8. Mount the trap by placing the funnel and transparent chamber on the black, water filled trap bucket [F11].



F8



F10



F9



F11

Optional: Assembling the blue treated LLIN (long-lasting insecticide-treated net), treated with Alphacypermethrin

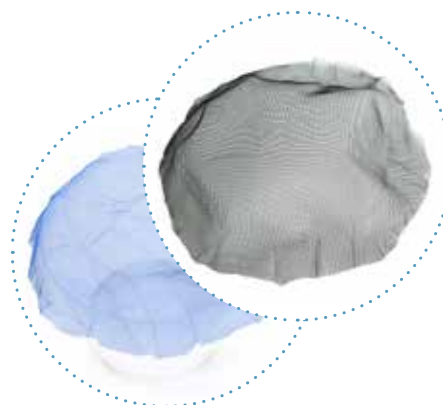
1. Unpack all parts [F1].
2. Fill the black bucket with water up to the overflow (about 10 cm high). Insert organic material, hay infusion, organic brewer's yeast, or other organic materials (for example 10 mg of alfalfa pellets per liter) as oviposition attractants [F2].
3. Place first the round blue LLIN (diameter about 28.5 cm) on the open end of the transparent chamber [F3].
4. Then place the black net over the LLIN [F4] to ensure that the mosquitoes won't reach the water.
5. Fix both nets with the mounting ring [F5].



F3



F1



F4



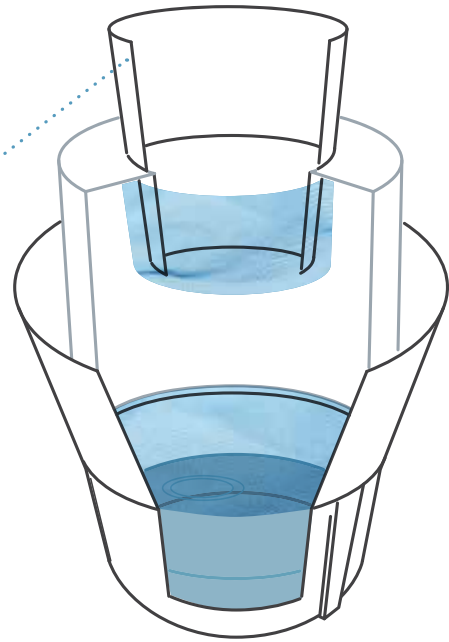
F2



F5



F6



F7

1. Wrap the rectangular LLIN (dimensions about 40 x 10 cm) around the the lower half of the black funnel funnel [F6].
2. Insert the funnel in the chamber [F7].
3. Rotate clockwise to secure the net and the funnel [F8].
4. Assemble the trap by placing the mounted parts on the black, water filled trap bucket [F9].



F8



F9