

SKATEK[®]
Bed Bug Innovation

ExHale[®]

Human in a can



Study

Dr. Richard Naylor study

- Two infrared cameras recorded bed bug activity around the bed overnight.
- Adult bed bugs from a Malmö (Sweden, 2013) colony maintained by Dr. Naylor at 26°C, 70% RH, fed weekly on humans were used.
- To establish infestation, 100 unfed adult bed bugs were released under the bed at night, with a volunteer (Naylor) sleeping to stimulate natural foraging.



Figure 1: Test bedroom

Experiment 1/2 Control - no Exhale

Richard Naylor study #1



Appendix 1 - Stacked Images

Experiment 1. - Night 1.

Richard Naylor study #1



Experiment 1. - Night 2.

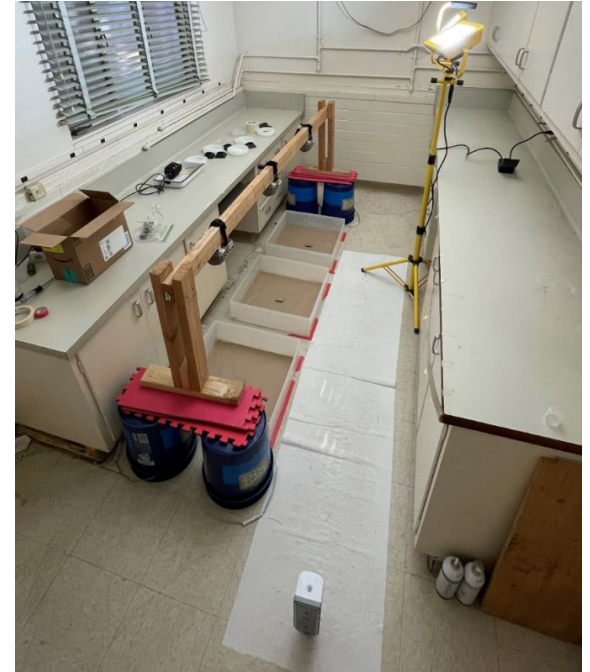
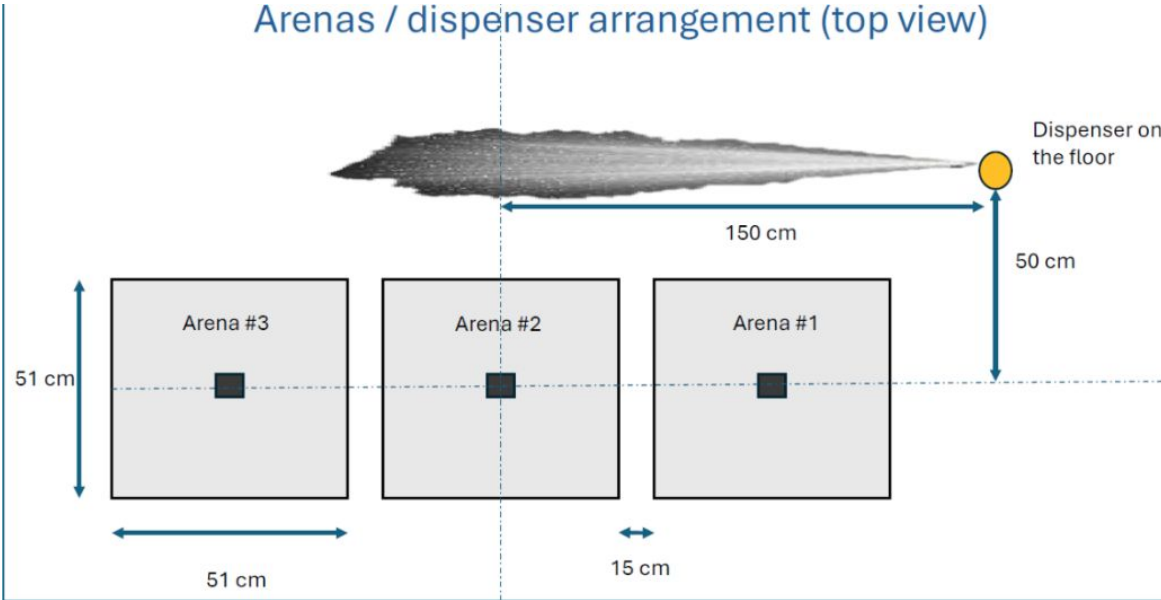
Richard Naylor study #1



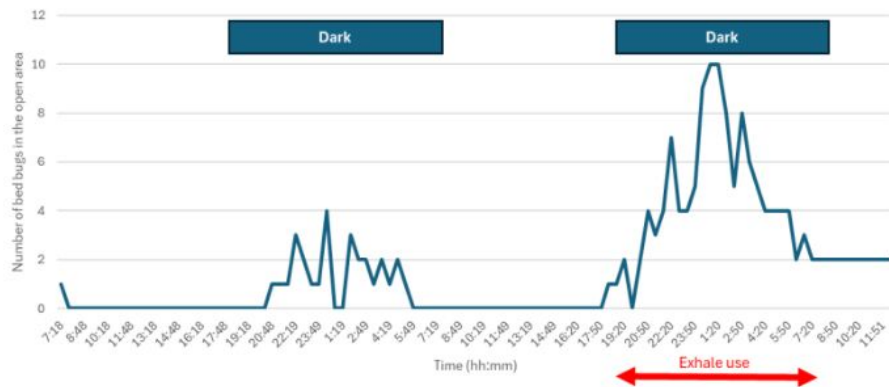
Study

Dong-Whan Choe, University of California

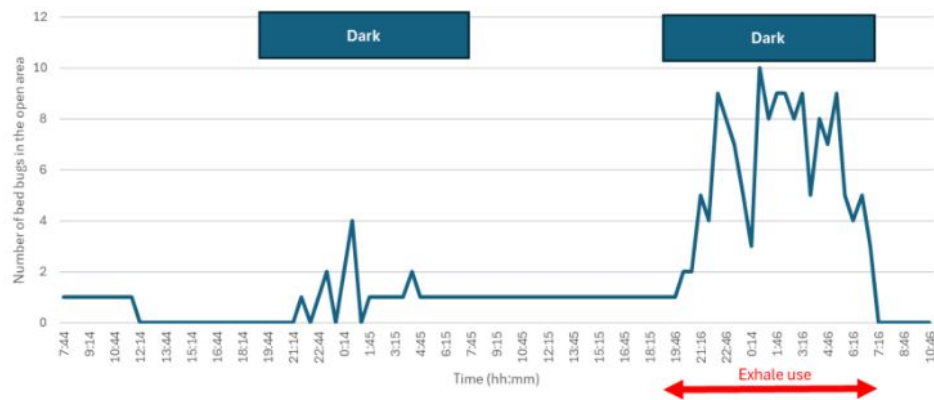
Arenas / dispenser arrangement (top view)



Number of bed bugs in the open area (treatment - Exhale was used, 15 min interval, during dark pahse only)



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EXHALE

- A resistant bed bug strain was maintained on rabbit blood, housed at 25°C. Adult males (unfed ≥ 7 days) were placed in large Bugdorm cages containing cardstock harborages.
- Treatment cages had Exhale units dispensing every 20 mins with glue traps aligned nearby; control cages had identical inactive devices.
- After 24 hrs in darkness, bed bugs remaining in harborages and traps were counted.

Independent study #2

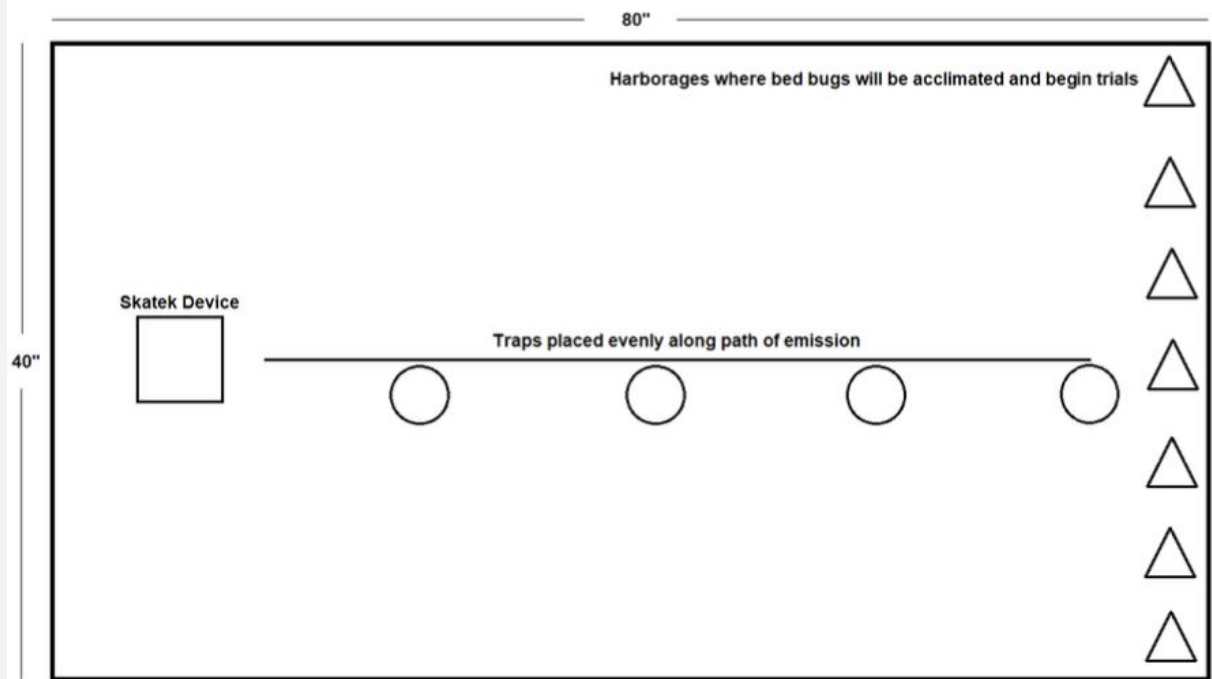


Figure 1. Schematic of experimental arena used to evaluate Skatek – Exhale devices.

Conclusion

Independent study #2

- **With Exhale:** Bed bugs in the treatment cage **with** Exhale induced 74.9 percent of adult, male bed bugs to leave their harborages.
- **Without Exhale:** Bed bugs in the treatment cage **without** Exhale induced 4.7 percent of adult, male bed bugs to leave their harborages.
- Bed bugs left harborages nearly 16 times more often in treatment than control cages.

