Small Trap: compact version with dorsal and ventral capture

The Domobios small trap is a compact version of the large trap, developed to meet space constraints while maintaining high capture efficiency.

Indeed, the large model is effective: previously validated in the laboratory and in residential conditions, it has an average efficiency of between 84 and 89% after 48 to 72 hours of exposure in a controlled arena.

In order to meet the constraints of space space, a compact version has been developed. Like the large model, it does not contain any insecticides or chemical attractants added. Its effectiveness is based on an internal architecture that guides the insect to an adhesive surface positioned on the internal ceiling and floor, promoting irreversible dorsal and ventral bonding.

The trap is fully closed, the glue is not accessible to children or pets, and captured insects are not visible from the outside.

The comparative tests were carried out according to a protocol strictly identical to that used for the large model. Detailed test reports (protocols and complete results) can be sent to professional partners on request.

The studies mentioned in this sheet can be consulted online via the articles and technical documents deposited on Zenodo: https://zenodo.org/records/18891783

1. Laboratory Benchmarking Study – Large Model vs Small Model (2023)

Protocol: Plastic arenas 64 × 40 × 35 cm

- 3 repetitions, Periplaneta americana
- Evaluations at 12 p.m., 24 p.m., 48 a.m., 72 p.m.
- Controlled conditions (≈23°C, 40% RH)

Average results (% of individuals glued)

Time	Large model	Small model
12 p.m.	80 %	53 %
24 hrs	80 %	76 %
48 h	84 %	76 %
72 hrs	89 %	84 %

At 12 p.m., a statistically significant difference was observed ($p < 0.05$). At 24 h, 48 h and 72 h, no statistically significant difference was detected between the two models.

2. Interpretation of the results

The small model shows a more gradual initial effectiveness during the first few hours of exposure. From 24 hours, its capture level becomes comparable to that of the large model. The difference observed at 12 o'clock can be explained by several architectural factors, including a more compact entrance, a different internal geometry, and a slightly smaller bonding surface.

Under prolonged exposure conditions (≥ 24 h), the performance of the two models no longer shows a statistically significant difference.

3. Technical constraints respected

The small model was designed to meet the constraints of space while maintaining the mechanical principles of the large model. Its compact design allows for easy insertion under refrigerators or base cabinets, while reducing the overall volume of the device.

The internal gluing surface is maintained at 130 cm^2, with an internal ceiling and floor arrangement. The closed design of the trap ensures that there is no direct access to the glue, increasing the safety of use in the presence of children or pets.

Conclusion

This makes the small trap a suitable solution for tight spaces. It is a non-toxic mechanical device, which can be integrated as a complementary tool in a monitoring or infestation pressure reduction strategy.

Its experimental efficiency, although slightly more gradual in the first few hours, reaches a level comparable to that of the large model after 24 to 72 hours of exposure.