

## Domobios cockroach traps: Mechanical cockroach monitoring

The Domobios cockroach trap is a passive mechanical device designed for the capture and monitoring of infestations of house cockroaches (including *Blattella germanica* and *Periplaneta americana*).

It does not contain any insecticides or chemical attractants added. Its effectiveness is based on a two-level internal architecture guiding the insect to an adhesive surface positioned in such a way as to cause irreversible back bonding.

Its performance has been validated in an independent laboratory, compared to standard adhesive traps and insecticidal bait stations, and confirmed in a real residential environment. 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 validation – Germany (2018)

In an independent study by BioGenius (1 m<sup>2</sup> arena, three replicates), the Domobios trap captured an average of 85% of individuals after 24 hours. Under the same experimental conditions, a standard flat adhesive trap captured only 13% of individuals after 24 hours.

These results show a significantly higher capture capacity than the standard adhesive device compared under the conditions tested.

### 2. Laboratory – USA Comparison (2019)

An independent study carried out by i2L Research (USA), using a comparable protocol (1 m<sup>2</sup> arena, four replicates per species), compared the Domobios trap to insecticidal bait stations.

At 72 hours:

- 100% *Blattella germanica* caught
- 93.6% of *Periplaneta americana* captured

Under the same conditions, the bait stations immobilized:

- 71.3% *B. germanica*
- 67.5% *P. americana*

## Experimental performance and field validation – Large cockroach trap

These results indicate that under controlled conditions, mechanical capture by back contact is at least equivalent, and in these trials, superior to the efficacy observed for the insecticide baits tested.

### 3. Field Validation – Florida (2019)

A field trial was conducted in residential homes in Florida over a period of approximately four weeks.

87 Domobios traps were compared to 90 standard commercial adhesive traps.

Main results:

- Trap occupancy rate: 74% for both schemes
- Total number of cockroaches caught:
  - Domobios: 2891 individuals
  - Standard trap: 1848 individuals
- Average number per trap occupied:
  - Domobios: 99.7 individuals
  - Standard trap: 45.1 individuals

The Domobios trap captured about 1.6 times more individuals in total, with a significantly higher capacity in high infestation situations (up to 1113 individuals in a single trap).

The most commonly captured species were *Blattella germanica* (mostly juveniles), as well as *Periplaneta fuliginosa* and *Blattella asahinai*.

These results confirm the effectiveness of the device in a real residential environment.

## CONCLUSION

Marketed to professionals and distributors since 2019, the Domobios cockroach trap is a documented mechanical solution, suitable for monitoring, infestation monitoring and pressure reduction in a professional or residential context.