

## Domobios Linear Detector: Professional Bed Bug Monitoring

The Domobios linear detector is a passive mechanical device designed for the detection and monitoring of *Cimex lectularius* infestations. It does not contain any insecticides or chemical attractants added. Its effectiveness is based on guided interception within a linear structure associated with an internal adhesive surface.

Its performance has been validated in an independent laboratory, confirmed in a semi-real environment and studied on a behavioral level. 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/18630357>

### 1. Independent Laboratory Validation – Germany (2018)

In an independent study conducted by BioGenius, with three replicates, the linear detector captured on average 67% of the insects after 24 hours. Under the same conditions, a standard adhesive detector captured only 4%.

A second study conducted by BioGenius (Germany, 2019), using a comparable protocol (three replicates), confirmed these findings: the linear detector captured on average 40% after 24 hours, whereas the other type of adhesive device reached only approximately 1% capture.

These results demonstrate a substantially higher capture performance compared to the standard device under the experimental conditions tested.

### 2. Full Room Study – USA (2021)

An independent study carried out by Snell Scientific in a room equipped with bed and furniture, confirmed the device's ability to detect in environments close to real conditions.

Over three independent iterations: the linear detector detected bed bugs in 3 out of 3 cases while a monitor with an attractive pheromone detected nothing.

### 3. Behavioural Study – Pull Effect (2020)

An additional study, carried out by Domobios, showed that the presence of already captured bugs increases the attractiveness of the detector:

50% attraction with 1 insect present 72% with 10 insects 87.5% with 20 insects

This observation suggests an aggregation effect that can gradually strengthen detection in infestation situations.

#### Conclusion:

Marketed to professionals since 2019, the Domobios linear detector is a documented mechanical solution, suitable for early detection and post-treatment monitoring in a professional context.