Development of synthetic training aids for the detection of *Anoplophora glabripennis*

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Abstract

One of the most threatening invasive species is the insect Anoplophora glabripennis (Asian longhorned beetle, ALB). The use of sniffer dogs is a common instrument for the fight against the beetle. As a quarantine pest the use of alive material from ALB is strictly limited. That is a problem for the training of sniffer dogs.

We developed a synthetic ALB-mixture for the use as training aid that does not underlie any quarantine-regulations. We analysed the emitted substances of alive, worked out the specific volatiles and development on that basis a synthetic-mixture. We tested different filter material with sniffer dogs, in order to find an appropriate filter to bring on the synthetic-mixture.

We tested the synthetic training aid with two groups of sniffer dogs: classical long-term conditioned sniffer dogs for the search of ALB and scent discriminating sniffer dogs that had never worked with ALB before. Both groups showed good results.