

## **Abstract for Apimondia**

### **Development of an attractant lure for monitoring of the small hive beetle, *Aethina tumida*, to support contingency planning for invasive species in the UK.**

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The introduction of the small hive beetle (SHB), *Aethina tumida*, in North America and Australia has had a significant economic impact on the apiculture industry. A similar scale of impact is anticipated in the UK and the EU if SHB is imported into these regions. Contingency planning and risk based surveillance for an exotic pest requires not only detailed biological information, but also methods to monitor for the presence of the pest and evaluation of control methods. Traps containing attractant lures may provide early warning of pest presence. Using laboratory based behavioural bioassays and electrophysiological techniques we have investigated volatiles from a number of naturally occurring attractant sources to establish the key volatiles required for attraction of SHB. This has led to the development of a prototype lure for the SHB, which is currently being evaluated in field trials in South Africa. This lure can be incorporated in a variety of trap types to increase the likelihood of detection of SHB. Establishment of an SHB culture within a secure quarantine facility has also enabled studies on the biology and behaviour of the SHB to be undertaken. In addition, preliminary investigations have examined novel control methods. The data obtained will be used to support the contingency planning for SHB in the UK and is applicable throughout the EU.