

NEW DATA ON HORNETS' PREDATION AND TRAPPING IN COMBINATION WITH HONEYBEES' DRIFTING AND ROBBERY USING THE APIBURG® TRAPS*

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This study describes in detail the application of Apiburg® bottom-hive traps against the hornet *Vespa velutina* and the wasp *Vespula germanica* in Bordeaux and Saujon, France, during 2009 and 2010 (Figure 1). During 2009, Apiburg® traps were applied to 20 colonies in an apiary of 68 colonies, along with 12 baited funnel traps. From April to November, the trapping of hornets and the survival of colonies was recorded on a weekly basis. A total of 5334 *V. velutina* hornets and 456 *V. germanica* wasps were entrapped. Furthermore, the number of colonies which survived the predation season and the following winter was compared with survival rates during 2007 when no traps were applied and 2008 when only 4 funnel traps were placed at the apiary. Additionally, the monitoring of daily trapping density allowed us to create curves concerning the predation density and behaviour of hornets and wasps.

During 2010, two apiaries of 16 colonies each were sited in the area of Saujon, France (Figure 2). Colonies at apiary A were equipped with Apiburg® whilst colonies without traps (control) were placed at apiary B. All colonies survived the predation period and the following winter at both apiaries and no differences in their strength were observed, despite the fact that the apiary with the experimental colonies faced twice the predation pressure of the control.

In Greece during 2009, field trials were conducted with Apiburg® traps to evaluate the number of robber and drifter bees entrapped, using *Apis mellifera ligustica* (yellow) and *Apis mellifera macedonica* (black) honeybees for discrimination purposes. Results showed that significantly more robber than drifter honeybees were entrapped in Apiburg® ($P=0.0214$). The number of drifter bees was drastically reduced when the lateral openings of the traps remained closed for a period of at least 48 hours.

Fig 1



Fig 2



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