

Investigations of semiochemical attractants for the apple blossom weevil, *Anthonomus pomorum*

Paul Innocenzi^{1,2} Jerry Cross¹ and David Hall²

¹*Horticulture Research International, East Malling, West Malling, Kent ME19 6BJ UK*

²*Natural Resources Institute, University of Greenwich, Chatham Maritime, Kent ME4 4TB UK*

Several species of the weevil genus *Anthonomus* are known to produce aggregation pheromones and be attracted to host-plant volatiles. Work was initiated to identify possible semiochemical attractants for the apple blossom weevil, *Anthonomus pomorum*, a damaging pest of apples. Live baiting studies and comparisons of volatile collections from males and females failed to show any intraspecific attraction or chemicals typical of previously identified pheromones within the genus. During GC-EAG analyses using volatile collections from weevils on apple foliage several active chemicals were detected, the majority being known apple volatiles. One highly active component remains to be identified. A two-choice walking bioassay using various combinations of volatiles from weevil and apple foliage showed female weevil plus apple foliage to be significantly attractive. In field trapping studies synthetic mixtures of the electrophysiologically active chemicals did not show any significant attraction of weevils, although there were indications that certain mixtures were influencing weevil distribution within a tree.