#098

Celine Robert
S. Bothorel, S. Luce,
A. Lauvernay, M. Leflon,
G. Delvare, J. C. Streito,
E. Pierre, P. Cruaud,
M. Ollivier, G. Genson,
A. Cruaud, J. Y. Rasplus

Terres Inovia, Thiverval-Grignon, France

Development of molecular tools for identification and monitoring of main weevil pests and natural enemies in OSR

Conservation biological control is a sustainable approach to pest management that can contribute to reduce our dependence on chemicals. A good understanding of the interactions between pests and their natural enemies which means, on oilseed rape (OSR), between weevils and parasitoid wasps is a prerequisite to implement such approach. However, weevils and their parasitoids are difficult to identify to species by non-specialists which limits our understanding of their interactions. The main objectives of the project Coleotool was to develop tools to identify weevil pests and their parasitoid wasps and methods to quantify parasitism rate.

Several methods and tools (rearing, identification keys, high-troughput molecular identification ...) were used and developed during the project. The main outputs are publicly available through the Coleotool website: http://www1.montpellier.inra.fr/CBGP/coleotool/index.html .

During this project, many specimens were collected all over France. Then, it was possible to update our records on parasitoids: their distribution, their phenology and their potential to control weevils associated with oilseed rape.