

## Résumé

### Evaluation de l'exposition aux pesticides de l'environnement et de la biodiversité dans un territoire agricole français

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The massive use of pesticides in modern agriculture has led to their presence in ecosystems with residuals found in the environment as well as in various taxa. But, few studies have investigated the contamination levels of pesticides in diverse taxa as well as several compartments of the environment in the same farmland, and even less have related the levels of contamination to the use of pesticides. Here, we present for the first-time data on pesticides residuals detected in different environment matrices (air, soil, water, pollen) and taxa (birds, earthworms, rodents) of an intensive cereal plain located in the South of Niort (South-West France). Among the pesticides detected, fungicides were the most frequently found in all types of samples. Some of them were among the most frequently and heavily used by farmers. Pesticides known to be harmful for biodiversity and human health such as neonicotinoids and fungicides from the SDHI families were also detected. Some of banned or restricted pesticides (BRPs) were also found in several samples. The most common molecules were epoxiconazole, pendimethalin and fenpropidin. Finally, this study rises up the importance of investigating the interconnections between environment, biodiversity and humans and highlights the interest of the OneHealth approach.