

**Title:** Impacts of pesticide use on insect pollinators in agroecosystems: a case study for the selected areas of the Western Cape Province

**Description:** Insects are major role players in the functioning of the various ecosystem processes. Some of the well-known functions include pollination, predation, nutrient cycling and decomposition. Over the last two decades or so, the importance of insects to the environment, agriculture and food security has been well publicised. Similarly, the numerous threats and challenges facing insects globally. The threats range from the overuse of agrochemicals, poor nesting sites and nutrition, climate change and many others. Furthermore, the global attention on insect deaths due to pesticide use has become increasingly evident. At the same time, there is poor assessment and lack of reporting insect deaths resulting from chemical (pesticide) use in South Africa. Also, little is known as to how these deaths impact on the different ecosystem services and processes performed by these insects. This project will use a multidisciplinary assessment approach for the different insect groups in three crop types, within the selected fruit production areas Western Cape Province. The project will also aim to record and quantify pesticide use during and outside the crop production window to account for all year round pesticide application. In addition, assess insect densities pre and post pesticide application(s).

**Field:** Entomology/Ecology

**Supervisors:** Dr T. Masehela (SANBI) & Dr R. Veldtman (SANBI & SU)

**University of registration:** University of Stellenbosch

**Level:** MSc