



Scorpion fly male using captured native budworm as part of mating ritual. Image: DPIRD.

# Protecting WA crops

**Issue #40**

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## Researching beneficial insect canola pest management

### At a glance:

- Beneficial insects such as lady beetles, carabid beetles, hoverflies, and parasitic wasps have the potential to control canola pests.
- A 5 year CSIRO-led project is exploring beneficial insects for canola pest management, and one aim is to determine the impact of early pesticide applications on beneficial insect populations.

Managing pests in moisture stressed canola is particularly challenging because the crop is vulnerable to over 30 different invertebrate pest species. Growers predominantly depend on non-selective pesticides to manage this risk, but this practice has led to increased levels of pesticide resistance among pest species. As a result, growers now face even greater challenges in protecting their crops.

DPIRD is participating in a 5 year project led by CSIRO and supported by the Grains Research and Development Corporation (GRDC). This project, in collaboration with the South Australian Research and Development Institute, New South Wales Department of

Primary Industries and Murdoch University, is researching the use of predatory insects that target canola pests to manage those pests.

Lady beetles, carabid beetles, hoverflies and parasitic wasps are examples of beneficial insects that consume canola pests.

In the first year of this project, DPIRD will determine whether early season pesticide applications impact the arrival time of beneficial insects that help control late season pests, and whether the early arrival of late season beneficials can help reduce late season pest populations.

Monitoring is an important tool for growers to determine threshold levels of insect pests. This project aims to encourage growers and consultants to also monitor for beneficial insects. Doing so could lead growers to delay spraying, keep tracking insect pest populations changes, or use more selective pesticides that protect beneficial insects.

To learn more about beneficial insects refer to the [GRDC Back Pocket Guide Beneficial Insects](#).

Project findings will be disseminated through the PestFacts WA newsletter, so stay tuned. To subscribe for this newsletter, [click here](#).

## Meet crop protection team member - Carla Wilkinson



Carla is a Research Scientist specialising in nematology, based in South Perth. She has nearly 30 years of experience researching plant pathogens or diseases found in soils and has worked on plant parasitic nematodes at DPIRD for 12 years.

She earned a Bachelor of Biological Science with first-class honours from Murdoch University and began her career in 1991 at the Department of Agriculture in the DDLS Plant laboratories as a Technical Officer.

She then spent 12 years conducting research on Phytophthora in native ecosystems, working with the Department of Conservation and Land Management, Alcoa, and Murdoch University.

Carla later moved to the USA to work at the University of Berkley, California. In 2006, Carla and her partner rode their BMW motorcycles for 27,000 km over 6months from Vancouver to Buenos Aires. Unfortunately, her bike broke down and needed to finish the last 100 km on the back of a truck.

After this adventure, Carla lived on Christmas Island for 4 years, working for National Parks as an Admin Assistant and Technical Officer specialising in ant identification. During her time there, the highlights included witnessing the red crab migration, swimming with whale sharks, community engagement, fishing and diving.

In 2012, Carla returned to the department to work on nematology research within the Crop Protection Portfolio, where she has been ever since.

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