DÉCORATION LÉON-PROVANCHER, CATÉGORIE JEUNE CHERCHEUR
Emma Despland, jeune chercheure hautement appréciée

par Jacqueline Bede

C'est un grand plaisir pour moi de pouvoir présenter la décoration Léon-Provancher, catégorie Jeune chercheur, à une entomologiste hautement respectée, la Dre Emma Despland.

But, before she is given this award, I must take this opportunity to tell you about her background and why Emma is highly deserving of this honour.

Emma is from Quebec and studied Environmental Biology at Macdonald campus, McGill University. From there, she went to Laval University for her Master's studies. At Laval, Emma conducted her research on the ecology of the Jack Pine, *Pinus banksiana*, and, specifically, what climatic and ecological influences affect the species distribution of Jack Pine in Northern Quebec. During this research, she looked at pine fecundity, so pine cone number and seed production, and was instrumental at popularizing the sport of "Poohsticks" in Northern Quebec. For those of you who do not know what Poohsticks are, you must ask Emma!

De gauche à droite :
Emma Despland et Jacqueline Bede

Emma was then awarded an FCAR doctoral fellowship to work with Dr. Steve Simpson at Oxford University and so for a brief time, she left Canada. At that time, she was interested in the ecology and behaviour of the locust, *Schistocerca gregaria*.

Now, we all know that when locusts become gregarious, they become more mobile and can cause immense amounts of agricultural damage. And Emma was interested in the "switch" mechanisms – what factors contribute to the solitary, cryptic locust to undergo this transition to gregarious aposematic pests. In other words, what factors contribute to insect outbreaks. This basic theme underlies here research interests, even today.

During this phase transition, not only is there a move towards gregarious swarming behaviour, but the locust offspring are more brightly coloured. The locusts are going from a solitary behaviour associated with a cryptic colouration to a gregarious behaviour associated with aposematic colouration. Emma was also interested in exploring these research issues.

Emma's doctoral and post-doctoral research in Simpson's laboratory was extremely productive; this collaboration led to over ten publications in highly-respected journals such as *Science* and the *Proceedings of the National Academy of Sciences*.

In 2002, Emma began her tenure-track career in the Department of Biology at Concordia University as an Assistant Professor. In 2007, she was awarded tenure and became an Associate Professor.

At Concordia, her fundamental research questions remains looking at the ecology and behaviour of outbreaking insect pests and though she still loves locusts, most of her present research is conducted with forest pest, the forest tent caterpillar, *Malacosoma disstria*. One area of interest is how plant nutritional quality affects forest tent caterpillar feeding behaviour. Again, forest tent caterpillars have an interesting gregarious behaviour where they lay pheromone trails to find food sources. Emma is continuing to investigate issues involved in social foraging. A key concept in Emma's research is to understand the behaviour of the individual and then apply that to understand the factors that contribute to outbreak cycles of pest insects. So, all and all, Emma would like to know "what it would be like to be a forest tent caterpillar"!

Since 2002, a number of undergraduate and graduate students and research post-doctoral fellows have been involved in research with Emma. They have often participated in these Société d'entomologie du Québec conferences.

Lately, however, Emma has been involved in a rather demanding side project. So, we may not see her for a little time, while she investigates the nutritional ecology and foraging behaviour of her three month old baby, Daphné Despland Cliche!

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