

MSc STUDY OPPORTUNITY

CROP BIOLOGY RESOURCE CENTRE

Biodiversity of lepidopteran stem borers and associated parasitoids in natural habitats surrounding cultivated graminaceous crop fields in southern Africa

● The Problem

There are many lepidopteran stem borers and their associated parasitoids in wild habitats around cultivated graminaceous fields in different agro-ecological zones in East and southern Africa. The former pose potential threats to graminaceous crops, while the latter are potential biological control agents in the crops. In addition, the introduction of transgenic graminaceous crops as a stem borer pest management strategy has been proposed on the basis that there is gene flow between populations in the two habitats-reducing the development of resistance to transgenics amongst the target borers. However, such management strategies have been proposed with little knowledge on population exchange between wild and cultivated habitats.

● The Project

Covering ecosystem and biological diversity, this three year study (which has already commenced) will generate data that would be used to reconsider our knowledge of the role and/or potentials of natural habitats within the framework of integrated pest management, especially in terms of refuge biology and crop biosecurity.

This study running from 2009-2011, will be conducted through the School of Biological and Conservation Sciences of the University of KwaZulu-Natal. While Northwest University (Potchefstroom Campus) and the University of Eduardo Mondlane, Maputo, will be investigating these aspects in maize agro-ecosystems, the South African Sugarcane Research Institute (SASRI) will be investigating these aspects in the sugarcane agro-ecosystem. The three institutes will work closely with the French Institut de Recherche pour le Développement (IRD), which is funding the project through their CORUS programme.

● The Candidate

The ideal candidate must hold a BSc Honours degree in Entomology and/or Ecology and be enthusiastic about field work and insects and their population biology and ecology. This is a team-orientated project and the ability to get on with others is essential.

● The Position

The successful candidate will be provided with a competitive bursary and a dynamic, well-resourced and friendly working environment based at SASRI. Candidates who have secured or applied for NRF funding are strongly encouraged to apply.

● The Contact

A resumé and covering letter, outlining why the candidate is suited to the position, should be sent as soon as possible, to:

Dr. D.E. Conlong, Crop Biology Resource Centre, SASRI, Private Bag X02, Mt Edgecombe, 4300. KZN. South Africa. (des.conlong@sugar.org.za).