

# Dealing with new invasive pests of forestry trees:

## The Leptocybe gall wasp as an example

By Dr Bernard Slippers

The Eucalyptus gall wasp, *Leptocybe invasa*, is the most recently introduced *Eucalyptus* pest in South Africa. Its



Galls caused by *Leptocybe*

introduction and establishment has been long anticipated, and feared, given its steady movement southwards in Africa from its original introduction in Israel.

The early warning has most likely contributed to its early detection in South Africa, in Pretoria in 2007. It has steadily spread outwards from this centre, and was identified from northern KwaZulu-Natal in late 2009. This identification was done from tiny larvae in developing galls using molecular tools developed by the TPCP.

Unlike many other current forestry pests in South Africa, there appears to be genetically-based host resistance to the *Eucalyptus* gall wasp. For this reason, the TPCP launched a pilot

to page 17 →



### See the trees beyond the wood

Postgraduate studies in forestry

The Faculty of Natural and Agricultural Sciences at the University of Pretoria, one of South Africa's foremost research universities, calls on prospective postgraduate students in forestry-related fields.

South African students are invited to apply for Postgraduate Bursaries for MSc or PhD available for the 2011 Academic year that include:

A maximum of 8 bursaries (valued at R60 000 pa) will be allocated for Master's Students for the MSc (Option: Forest Management and the Environment) or MSc (Forest Science by Research) and a maximum of 4 PhDs bursaries (valued at R60 000 pa)

PhDs can be in any Forest Science field including the following:

- Forestry Resource Economics
- Forest Genetics
- Forest Pathology
- Forest Entomology
- Forest Engineering
- Forest Wood Products Science & Utilisation
- Social Forestry & Agroforestry

At least 60% of the bursaries will be awarded to previously disadvantaged groups in both categories.

Further enquiries and details of the degree programme can be found on the website and direct enquiries to:  
SAFCOL Forest Chair  
Email: forest.science@up.ac.za  
Tel: 012 420 3213  
Website: www.up.ac.za/forestry



**UNIVERSITEIT VAN PRETORIA**  
**UNIVERSITY OF PRETORIA**  
**YUNIBESITHI YA PRETORIA**  
Faculty of Natural and Agricultural Sciences

Universiteit van Pretoria • University of Pretoria • Yunibesithi ya Pretoria  
Pretoria 0002 Suid-Afrika • South Africa • Africa Borwa  
Tel: +27 (0) 12 420 3111 • Faks / Fax: +27 (0) 12 420 4555  
info@up.ac.za

[www.up.ac.za](http://www.up.ac.za)

17991 Wood 11/2010

**From page 15:**

*Dealing with new invasive pests of forestry trees: The Leptocybe gall wasp as an example*

project to develop tools for screening *Eucalyptus* material. This study clearly showed the dramatic differences between resistant and susceptible material. Subsequently a much larger trial has been conducted to assess the resistance in representative *Eucalyptus* material from different industry partners. Especially *E. camaldulensis* and its hybrids, and *E. nitens* hybrids appear to be highly susceptible. Some *E. grandis* clones and hybrids with this species are also susceptible. A third trial to screen still more breeding material will be conducted in the 2010/2011 season.

The introduction and dramatic damage of the Eucalyptus gall wasp in Israel, has led to a strong focus on biological control. A number of parasitoids have been successfully introduced and released there by Dr Zvi Mendel. The TPCP continue to work closely with him to bring *L. invasa* parasitoids into quarantine in South Africa. Two batches have been successfully imported and incorporated into research programmes. Furthermore, during a recent visit to Australia, Prof Stefan Naser, an extraordinary Professor linked to FABI and a biological control specialist, made a very exciting discovery of a parasitoid that appears to have much promise as a potential biological control agent. Now that breeding procedures have been optimised and the biology studied, specificity tests on related South African wasps are being conducted. These experiments are part of the process to apply for permission to conduct field assessments under controlled conditions.

Using an integrated approach of sanitation, resistance breeding and biological control, the potential devastation of large *Eucalyptus* plantations by *L. invasa* can be avoided. It will, however, take a continued effort for a number of years to reach a point where these control strategies can be applied in a focused manner. The continued collaboration between industry and the University of Pretoria brings this goal within reach. AMN

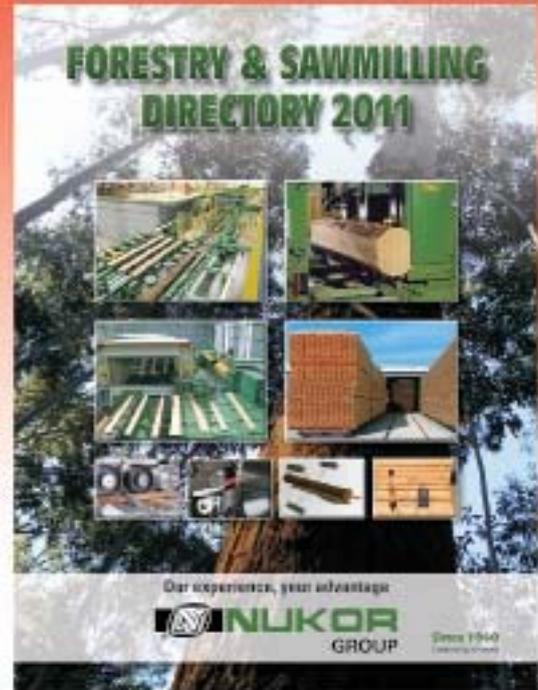


Picture of heavily infested, stunted plant in Uganda

**FREE FREE FREE**

**ORDER  
YOUR COPY OF**

**FORESTRY & SAWMILLING  
DIRECTORY 2011**



**Now Available**

Fax completed form to: **Wood SA & Timber Times**  
 Fax: **011 726 5911** or **011 726 3304** or  
 e-mail: **pontsho@malnormags.co.za**

Company: .....

Name: .....

Postal address: .....

.....

Tel: ..... Fax: .....

E-mail: .....

Nature of business: .....

**NB: Please note that the Directory is sent parcel post\* and has to be collected at your local post office upon receipt of notification**

**\* You will be notified by e-mail of the posting date and tracking number**