

Management of Emerging pests and diseases of Eucalyptus

CESS Fund / IPMA Project

20th Feb 2014

New Delhi

Project Details

Title: Management of Emerging pests and diseases of eucalyptus.

Agency: IPMA / NBAII / Agricultural Univ. (TNAU, Coimbatore, ANGARU, Hyderabad and UAS, Dharwad)

Start date & Duration: 29th April, 2009 & 24 months

Fund: 54.74 lacs (Cess fund 45 lacs + IPMA 9.74 lacs)

Fund released: 22.50 lacs

Eucalyptus Gall Wasp disease

1. Eucalyptus Gall is caused by *Leptocybe invasa*
2. First reported in Pondicherry, India in 2002
3. It affects young shoots
4. No mechanical and chemical treatments work against the gall as it is embedded in the plant system
5. Biological control is one of the options
6. Eucalyptus Gall is naturalized in Australia, where as it has attained epidemic form in other countries including India due to absence of natural enemies (parasitoids)

Leptocybe invasa Fisher & LaSalle



1mm



Taxonomy: Eulophidae: Tetrastichinae
Wasp type: uniparental
Gall type: polythalamous

Severe Gall on Eucalyptus



Emerging of *Leptocybe invasa* (*Eucalyptus* Gall Insect)



Polythalamous gall type

Parasitoides (Natural enemies of *Leptocybe invasa*)

Eulophidae

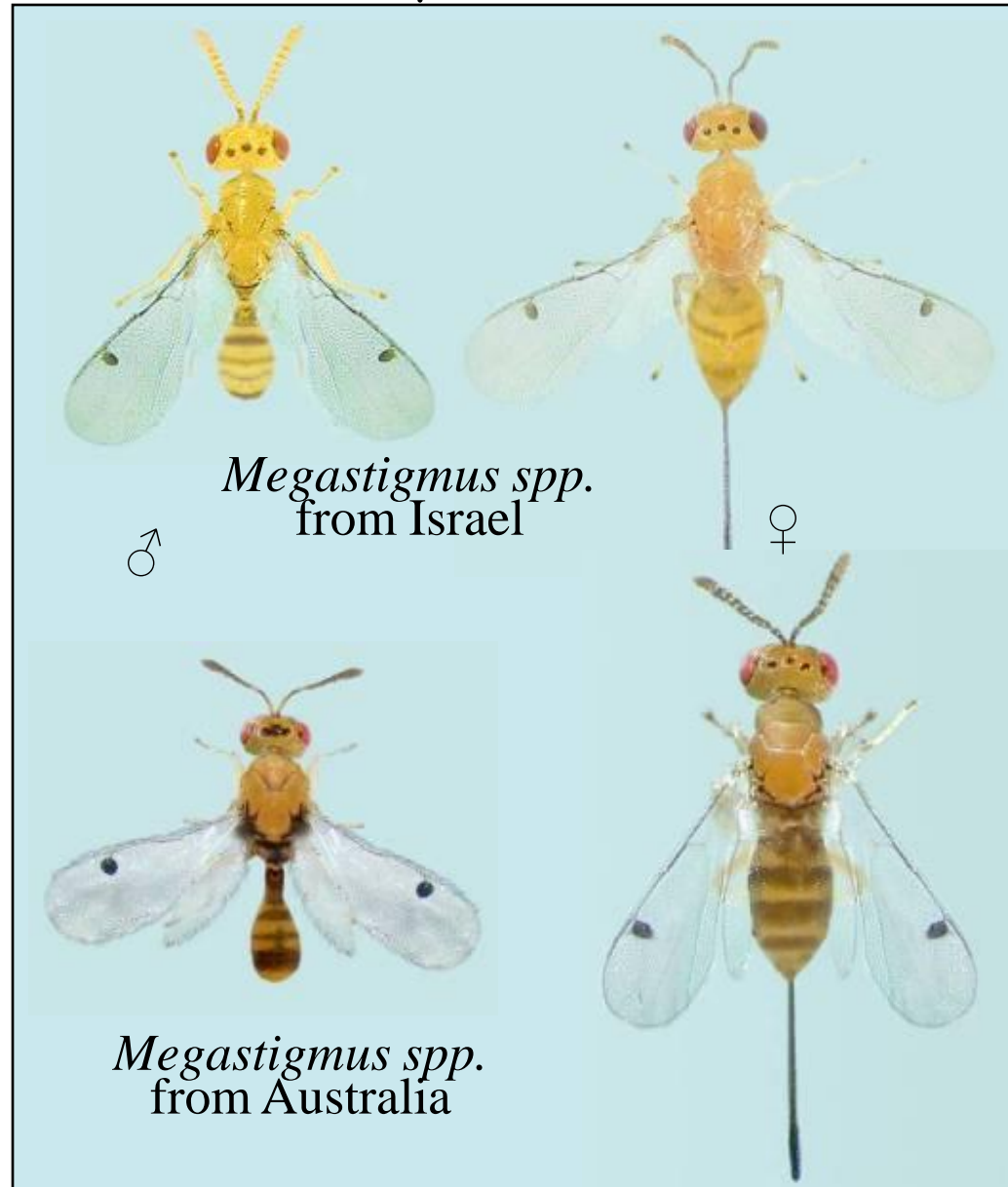


Quadrastichus mendeli
Kim & La Salle



Selitrichodes kryceri
Kim & La Salle

Torymidae



Megastigmus spp.
from Israel

Megastigmus spp.
from Australia

Import Permit Issued by Government of India

Telegram: PROTECTION



Speed Post

Tel: 0129 2418506

Fax: 0129-2412125

F.No. 99-20/2007-PQD

Government of India

Ministry of Agriculture

(Department of Agriculture & Cooperation)

DIRECTORATE OF PLANT PROTECTION, QUARANTINE & STORAGE

NH IV, FARIDABAD – 121 001 (Haryana)

Dated: 13.10.2008

To

✓ Dr. R. J. Rabindra (Project Director),
Project Directorate of Biological Control,
P. O. Box 2491, H. A. Farm Post, Bellary Road, Hebbal,
Bangalore -560024 (Karnataka).

SUB: Issue of Import Permit in respect of *Selitrichodes kryceri* Kim & La Salle (Eulophidae) and *Quadrastichus mendeli* Kim & La Salle (Eulophidae) through Chennai – reg.

D/Sir,

Please refer to your letter No. F.PDBC/TDC63/2007/08/2467 and dated 8.8.2008 on the above subject. The undersigned is directed to send herewith Import Permit No.29/2008 & 30/2008 dated 10.10.2008 issued for the import of *Selitrichodes kryceri* Kim & La Salle (Eulophidae) and *Quadrastichus mendeli* Kim & La Salle (Eulophidae) from Israel. You are requested to send one copy of the permit to the concerned. It is also to inform you that as per provisions under PQ Order, 2003, such Consignments can not be permitted through Bangalore.

The consignment shall be inspected, on arrival on behalf of Plant protection Adviser by any other officer duly authorized by him.

Please acknowledge the receipt of the permit.

Yours faithfully,

(K.S. Gautam)

Joint Director (PP)

for Plant Protection Adviser
to the Government of India

Copy to: Officer-in-charge, Regional Plant Quarantine Station, Chennai for Information along with Two copies of import permit. One copy may please be transmitted to the Collector of Customs Chennai.

TDC
16/10

Receiving Parasitoids from Zvi Mendel and David Brand, Israel



Quarantine in Insect net house at NBAIL, Bangalore



Project Directorate of Biological Control
Bangalore
Inauguration of Nethouse & Polyhouse Complex
by
Dr. P.L. Gautam
Director, National Institute of Plant Quarantine
National Council of Agricultural Research, New Delhi
on 27th February 2008
Dr. J. K. Reddy
Director, National Institute of Plant Quarantine
Bangalore

PHENICARIA ENCLERA
PLANTED ON - 02.03.2008
BY - Dr. P. L. GAUTAM
B & C Comp. Station
I.C.A.R., New Delhi

Multiplication of Parasitoids at NBRI, Bangalore



Release of Parasitoids by NBAIL, Bangalore



Director NBAll handing over Parasitoids with Plants to members of IPMA



Institutional Contributions to the Study

1. NBAII, Bangalore :

- Obtaining Import Permit
- Quarantine
- Host Specificity trial on Economically important plants under Quarantine
- Multiplication/Testing and Release of Parasitoids
- Handing over Protocol for release of Parasitoids in the Field
- Survey and Studies on establishment of Parasitoids in the field
- DNA code development for Parasitoids for identification

2. UAS, Dharwad:

- Survey on Eucalyptus gall in Karnataka
- Studies on natural enemies of Eucalypts gall
- Studies on Indian Megastigmus spp. For biological control
- NBAII handed over parasitoid establishment studies in the field

3. TNAU, Coimbatore:

- Survey on Eucalyptus gall in Tamil Nadu
- NBAII handed over parasitoid establishment studies in the field

4. ANGRAU, Hyderabad: Not Participated

Fund Status

Fund Received

6-5-2010 – Rs. 6,00,000

25-4-2011 –Rs. 16,50,000

Total Rs. 22,50,000

Fund Disbursed

NBAII – 17-12-2009 -5,00,000

UAS Dwr -15-3-2010 -1,00,000

UAS Dwr – 14-8-2010 -3,37,045

TNAU,Cbe – 30-11-2010 -1,83,400

Total Rs-11,20,445

Unspent Rs. 11,29,555

Thank You