

## PROJECT PROFILE

**Title:** **Determination of the target genes in *Leptocybe invasa* for engineering resistance in Eucalyptus through gene-silencing approaches**

**Principal Investigator:** Dr. N.V. Mathish, Scientist- E

**Co Investigators:**

Dr. John Prasanth Jacob, Scientist - E  
Dr. Shanthi Arunachalam, Scientist- B  
Mr. A. Balasubramanian, Research Assistant I

**Associates :**

Ms. M. Sangeetha, JRF (2010-11)  
Ms. K. S. Sowmiya Rani, CSIR JRF  
Mr. V. Aravintha Kumar, Skilled Assistant (2010-11)  
Mr. S. Balaji, Skilled Assistant

**Start and Completion dates:** 4 Years (2010- 2014)

**Objectives:**

1. To identify genes involved in growth and development of *Leptocybe invasa*
2. To test the potential of dsRNA molecules of the identified genes for inhibiting growth of *L. invasa*.

**Funding Agency:** Indian Council of Forestry Research and Education (ICFRE)

**Total Budget:** Rs. 23.50 lakhs

### Summary

During the last decade *L. invasa* has emerged as the most serious pest of Eucalyptus. As the insect feeds within the gall tissues for four months of its life cycle, RNAi based incorporation of resistance in eucalyptus becomes a promising strategy for control of this insect. An important prerequisite for RNAi based gene silencing approaches is the sequencing of *L. invasa* genes that could be targeted for silencing. Through generation and analysis of the transcriptome sequences of *L. invasa* the project enabled identification of genes involved in growth and development of *L. invasa* so that they could be targeted for RNAi approaches.