

## Biodata

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### Education

1989 Master of Science in Botany, Bharathiar University, Coimbatore (I Rank)  
1990 Master of Philosophy in Botany, Bharathidasan University, Tiruchi (Distinction)  
2005 Doctor of Philosophy in Botany, Bharathiar University, Coimbatore

### Professional Positions

Details of posts held

Sl No.	Institution	Position	From (Date)	To (date)
1	Institute of Forest Genetics and Tree Breeding	Scientist G	01.07.2017	Till date
2	Institute of Forest Genetics and Tree Breeding	Scientist F	01.01.2012	30.06.2017
3	Institute of Forest Genetics and Tree Breeding	Scientist E	01.01.2006	8.6.2012
4	Institute of Forest Genetics and Tree Breeding	Scientist D	01.01.2002	01.01.2006
5	Institute of Forest Genetics and Tree Breeding	Scientist C	31.07.1997	31.12.2001
6	Institute of Forest Genetics and Tree Breeding	Scientist B	31.07.1992	30.07.1997
7	Institute of Forest Genetics and Tree Breeding	Research Assistant Gr-I	26.11.1990	30.07.1992

## **Research Interests**

Tissue culture and DNA markers for genetic improvement of trees.

## **Awards**

- Study tour on tree crop improvement sponsored by MoEF/USAID/USFS was undertaken to USA from 2-12 September 2014.
- Received Scientist Assistance Program Award from IUFRO for attending XXIV IUFRO World Congress at Salt Lake City, Utah in USA held from 5-11 October 2014 with the theme of "Sustaining Forests, Sustaining People: The Role of Research".
- Received Scientist Assistance Program Award from IUFRO for attending the XXIII IUFRO World Congress; Forests for the future: Sustaining Society and the environment, 23-28 August, 2010, Seoul, Republic of Korea.
- Received (a team of six researchers) Forest Biotechnology award from ICFRE (awards for the excellence) for the year 2001-2002.
- FAO Fellowship on Forest Genetics, University of Melbourne, Australia, April 1995- July 1995

## **Patent**

Obtained a **Patent** (a team of four researchers) on "A process for *in vitro* plantlet production of the bamboo, *Oxytenanthera stocksii*" The patent was granted on 31.08.2006 for a term of 20 years. The financial support was granted by the National Research Development Council (NRDC), New Delhi.

## **Consultancy**

A consultancy was provided on DNA profiling of Acacia hybrids and Eucalyptus species was provided to Mysore paper mills Ltd., Bhadravathi, Karnataka during 2009 to 2010.

## **Selected Publications**

- Subashini V, Bachpai VKW, Mayavel A, Nagarajan B, Sivakumar V, **Yasodha R** (2018) Quantitative trait loci (QTL) for salinity tolerance traits in interspecific hybrids of *Eucalyptus*. Indian Journal of Plant Physiology. <https://doi.org/10.1007/s40502-018-0403-7>.
- Sumathi M1, Bachpai VKW, Deeparaj B, Mayavel A, Dasgupta MG, Nagarajan B, Rajasugunasekar D, Sivakumar V, **Yasodha R** (2018) Quantitative trait loci

- mapping for stomatal traits in interspecific hybrids of Eucalyptus. *J Genet.* 97(1):323-329.
- **Yasodha R**, Vasudeva R, Balakrishnan S, Sakthi A. R., Nicodemus A, Nagarajan B, Rajashekar B, Bachpai VKW, Pillai PKC, Dev SA (2018) Draft genome of a high value tropical timber tree, Teak (*Tectona grandis* L. f): Insights into SSR diversity, phylogeny and conservation. *DNA Research* 25 (4), 409–419.
  - Sumathi M, Bachpai VKW, Mayavel A, Dasgupta MG, Nagarajan B, Rajasugunasekar D, Sivakumar V, **Yasodha R** (2018) Genetic linkage map and QTL identification for adventitious rooting traits in red gum eucalypts. *3 Biotech*, 8(5):242. doi: 10.1007/s13205-018-1276-1. Epub 2018 May 8.
  - Sumathi M, **Yasodha R** (2017) Microsatellite allele length variations in interspecific hybrids of Eucalyptus *Acta Botanica Croatica* 76 (1), 103-106.
  - Shanthi K, Bachpai V. K. W., Anisha S., Ganesan M., Anithaa R. G., Subashini V., Chakravarthi M., Sivakumar V, **Yasodha R** (2015) Micropropagation of Eucalyptus camaldulensis for the production of rejuvenated stock plants for microcuttings propagation and genetic fidelity assessment. *New Forests*. DOI: 10.1007/s11056-014-9465-1
  - Modhumita Ghosh Dasgupta and **Yasodha R** (2014) DNA Markers in Tree Improvement of Tropical Plantation Species. In Tree Biotechnology (eds: K. G. Ramawat Jean-Michel Mérillon M. R. Ahuja) CRC Press 2014, DOI: 10.1201/b16714-24.
  - Sumathi M and **Yasodha R** (2014) Microsatellite resources of *Eucalyptus*: current status and future perspectives. *Botanical Studies* 2014, 55:73
  - Shanmugapriya A., Bachpai VKW., Ganesan M., **Yasodha R.** (2014) Association analysis for Vegetative Propagation Traits in Eucalyptus tereticornis and Eucalyptus camaldulensis Using Simple Sequence Repeat Markers. *Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.* DOI 10.1007/s40011-014-0360-5.
  - Shanmugapriya A. and **Yasodha R.** (2014) Unique Pattern Information Combinations for Clonal Discrimination in *Eucalyptus camaldulensis* using Microsatellite Markers. *Indian Journal of Biotechnology* Vol 13, pp 75-80
  - Subashini V., Shanmugapriya A and **Yasodha R** (2013) Hybrid purity assessment in Eucalyptus F1hybrids using microsatellite markers. *3 Biotech* 08/2013;DOI 10.1007/s13205-013-0161

- Chezhian P, **Yasodha R**, Ghosh Dasgupta M. (2012) Molecular Discrimination of Eucalypt Clones Using the ISSR Marker System. *Journal of Sustainable Forestry* 31 (6) 537-548.
- Arumugasundaram, S. , Ghosh, M, Veerasamy S, **Yasodha R** (2011) Species discrimination, population structure and linkage disequilibrium in *Eucalyptus camaldulensis* and *Eucalyptus tereticornis* using SSR markers. *PLoS ONE* 6:12, OI: 10.1371/journal.pone.0028252.
- Ghosh, M., Chezhian, P., Sumathi, R., **Yasodha, R** (2011) Development of SCAR marker in *Casuarina equisetifolia* for species authentication. *Trees - Structure and Function* 25 (3) pp. 465-472.
- **Yasodha R**, Kamala S, Kalaiarasi K (2010) Anatomical and Biochemical Changes Associated with in vitro Rhizogenesis in *Dendrocalamus giganteus*. *Journal of Plant Biology and Biochemistry*.
- Chezhian P, **Yasodha R** and Modhumita Ghosh (2010). Genetic diversity analysis in a seed orchard of *Eucalyptus tereticornis*. *New Forests*. **40**: 85–99.
- **Yasodha R**, Sumathi R, Modhumita Ghosh and Gurumurthi K (2009) Identification of simple sequence repeats in *Casuarina equisetifolia*. *The Icfai University Journal of Genetics & Evolution*, Vol. 2, No. 1, 46-55.
- **Yasodha R.**, Sumathi R., Chezhian P., Kavitha, S. and Ghosh, M. 2008 *Eucalyptus* microsatellites mined *in silico*: survey and evaluation. *Journal of Genetics* 87:21-5.
- **Yasodha R**, Kamala S., Anand Kumar S.P., Durai Kumar P., Kalaiarasi K. (2008) Effect of glucose on *in vitro* rooting of mature plants of *Bambusa nutans*. *Scientia Horticulturae*. 116: 113-116.
- Balasaravanan, T., Chezhian, P., Kamalakannan R, **Yasodha R**, Varghese, M., Gurumurthi, K. and Ghosh, M. (2006). Identification of species-diagnostic ISSR markers for six *Eucalyptus* species. *Silvae Genetica* 55:119-122.
- Kamalakannan, R., Barthwal, S., Chezhian, P., Balasaravanan, T., **Yasodha, R.**, Gurumurthi, K. and Ghosh, M. (2006) Morphological and molecular diversity among *Casuarina* and *Allocasuarina* species. *Biotechnology* 5:301-307
- Balasaravanan T, Chezhian P, Kamalakannan R, Ghosh M, **Yasodha R**, Varghese M and Gurumurthi K (2005) Analysis of inter- and intra-species genetic relationships among six *Eucalyptus* species by inter-simple sequence repeats (ISSR). *Tree Physiology* 25:1295-1302.

- **Yasodha R**, Sumathi R and Gurumurthi K (2005) Improved micropropagation methods for teak. *Journal of Tropical Forest Science* 17 :63-75
- **Yasodha R**, Sumathi R, Dasgupta M and Gurumurthi K (2005) Isolation of high quality DNA for AFLP amplification in *Casuarina equisetifolia* L. *General and Applied Plant Physiology* 31: 127-134
- **Yasodha R**, Ghosh M, Sumathi R and Gurumurthi K (2005) Cross-species amplification of eucalypts SSR markers in Casuarinaceae. *Acta Botanica Croatica* 64 : 115-120
- **Yasodha R**, Modhumita Ghosh, Santan Barthwal, & Gurumurthi K (2004) Importance of biotechnological research in tree species of dashmula. *The Indian Forester* 130:79-88.
- **Yasodha R**, M. Kathirvel, R. Sumathi, K. Gurumurthi, J. Nagaraju (2004) Clonal identification of *Casuarina equisetifolia* using DNA polymorphisms generated by PCR with arbitrary primers. IUFRO NFT News, Working party 2.08.02, Vol. 7(1); 5-6.
- **Yasodha R**, M. Kathirvel, R. Sumathi, K. Gurumurthi, J. Nagaraju (2004) Genetic analyses of Casuarinas using ISSR-PCR and FISSR-PCR markers. *Genetica* 122: 161-172.
- **Yasodha R.**, Sumathi, R and K. Gurumurthi (2004) Micropropagation for Quality Propagule Production in Plantation Forestry. *Indian Journal of Biotechnology*. Vol 3:159-170.
- Ghosh, M., Thangamani, D., Thapliyal, M., **Yasodha, R.**, Gurumurthi, K 2004. Isolation of *Andrographis paniculata* leaf protein with antifungal property. *Acta Phytopathologica et Entomologica Hungarica, 2004 (Vol. 39) (No. 4) 377-38.*
- Ghosh, M., Thangamani, D., Thapliyal, M., **Yasodha, R.**, Gurumurthi, K (2004) Purification of antifungal protein against blister bark pathogen of *Casuarina equisetifolia*. *Acta Bot. Croat.* 63 (2), 75–81, 2004
- Sumathi R, Malliga P, **Yasodha R** and Gurumurthi K (2003) Enhanced somatic embryogenesis and plant regeneration in bamboo (*Dendrocalamus strictus*). *Plant Cell Biotechnology and Molecular Biology* 4(1&2): 9-16.
- **Yasodha R**, Sumathi R & Gurumurthi K (2003) Tissue Culture Strategies for Quality Planting Stock Production of Teak. Proceedings of the International Teak

- Conference on Quality timber products of teak from sustainable forest management at Kerela Forest Research Institute, Peechi, India. pp.303-305.
- **Yasodha R**, Sumathi R., Ravi N. and Gurumurthi K (1999) Optimisation of RAPD assay in *Casuarina equisetifolia*. *Indian J. Plant Physiology*, 4:1 pp.58-60.
  - **Yasodha, R.**, Madhavi Rani and R. Sumathi and Gurumurthi K (1998) Genetic enhancement and commercial production of Bamboos. IUFRO Seminar on Micropropagation and spread of superior genetic material of forest trees. New Delhi, April 1998.
  - **Yasodha, R.**, Sumathi, R. Malliga, P and Gurumurthi, K (1997) Genetic enhancement and mass production of quality propagules of *Bambusa nutans* and *Dendrocalamus membranaceous*. *Indian Forester* 123 : 3 : 303-306
  - **Yasodha, R.** Sumathi, R and Gurumurthi, K (1997) Micropropagation of difficult to propagate clones of eucalypts. Proceedings: *IUFRO conference on Silviculture and Improvement of Eucalypts*, Brazil, 24-29 August 1997 pp.123-128.
  - Preetha N. **Yasodha R** and Gurumurthi K (1995) Peroxidase isoenzymes as markers of organogenesis in *Azadirachta indica*, Juss *Indian J. Plant Physiology*. XXXVIII: 92-93.
  - **Yasodha. R.**, Rao, M.V., Gurumurthi, K (1994) Growth and Metabolism of Ectomycorrhizal fungus grown under salt stress in *in vitro*. In: (Ed. Irfan A. Khan) *Frontiers in Plant Science (Plant Pathology and Microbiology)*. pp. 717-722.
  - Gurumurthi, K., **Yasodha, R.** Ravi, N. Madhavi Rani, A. Ashok Kumar and Verma, R.K (1994) Biotechnological Options in Tree Farming. **In : Trees and Tree Farming** (ed. P.K. Thampan), Peekay Tree Crops Development Foundation, Cochin, India. pp.393-423.
  - Preetha N, **Yasodha R**, Sumathi R and Gurumurthi K (1992) Continuous shoot proliferation of *Dendrocalamus strictus* in stationary liquid cultures. *J. Trop. For.* 8: 105-108