

Dr. R. Yasodha

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**Research Interests**

- Tissue culture and clonal production
- Application of DNA markers in tree improvement
- Genomics based solutions for conservation and tree breeding

Awards

- Received (a team of six researchers) Forest Biotechnology award from ICFRE (awards for the excellence) for the year 2001-2002.

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 Recent Publications

- Yasodha R, Galeano E and Win TT (Eds) (2021) The Teak Genome. Springer International Publishing Switzerland AG, p. 265. doi: 10.1007/978-3-030-79311-1.
- Maheswari P, Kunhikannan C, Yasodha R (2021) Chloroplast genome analysis of Angiosperms and phylogenetic relationships among Lamiaceae members with particular reference to teak (*Tectona grandis* L.f). Journal of Biosciences. <https://doi.org/10.1007/s12038-021-00166-2>.

- Swathi Balakrishnan, Suma Arun Dev, Ambothi Rathnasamy Sakthi, Balasubramanian Vikashini, Reshma Bhasker T, Nochyil Sivan Magesh & Yasodha Ramasamy (2021). Gene-ecological zonation and population genetic structure of *Tectona grandis* L.f. in India revealed by genome-wide SSR markers. *Tree Genetics & Genomes* 17, 33 <https://doi.org/10.1007/s11295-021-01514-x>.
- 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 M, 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 Méryllon 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.
- Chezhan 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., Chezhan, 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* 19, 217-222. <https://doi.org/10.1007/BF03263343>.

International Visits

- Study tour on tree crop improvement sponsored by MoEF/USAID/USFS to USA from 2-12 September 2014.
- Participated in 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".
- Participated in XXIII IUFRO World Congress at Seoul, Republic of Korea held from 23 to 28 August, 2010 with the theme of Forests for the future: Sustaining Society and the environment.
- FAO Fellowship on Forest Genetics, University of Melbourne, Australia, April 1995- July 1995 under World Bank-FREE Project.