



TREE

Directory of Punjab

Avtar Singh
Neelima Jerath
Satnam Singh Ladhar
Gurharminder Singh
Raj Kumar Luna

Trees

Some trees look like sons to me.
Some like mothers.
Some are daughters, brides,
A few like brothers.

Some are like my grandfather,
Sparsely leafed.
Some like my grandmother
Who threw choori to the crows.

Some trees are like the friends
I used to kiss and embrace.
One is my beloved
Sweet and Painful.

There are trees I would like
To throw on my shoulder playfully,
There are trees I would like
To kiss and then die.

The trees sway together
When strong winds blow.
I wish I could render
Their verdant, leafy language.

I wish that I could
Return as a tree and
If you wanted to listen to my song
I would sing it in the trees.

The trees are like my mother,
May their shade live forever.

(Shiv Kumar Batalvi)

ਰੁੱਖ

ਕੁਝ ਰੁੱਖ ਮੈਨੂੰ ਪੁੱਤ ਲਗਦੇ ਨੇ
ਕੁਝ ਰੁੱਖ ਲਗਦੇ ਮਾਵਾਂ
ਕੁਝ ਰੁੱਖ ਨੂੰਹਾਂ ਧੀਆਂ ਲੱਗਦੇ
ਕੁਝ ਰੁੱਖ ਵਾਂਗ ਭਰਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਮੇਰੇ ਬਾਬੇ ਵਾਕਣ
ਪੱਤਰ ਟਾਵਾਂ ਟਾਵਾਂ
ਕੁਝ ਰੁੱਖ ਮੇਰੀ ਦਾਦੀ ਵਰਗੇ
ਚੂੜੀ ਪਾਵਣ ਕਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਯਾਰਾਂ ਵਰਗੇ ਲਗਦੇ
ਦੁੱਮਾਂ ਤੇ ਗਲ ਲਾਵਾਂ
ਇਕ ਮੇਰੀ ਮਹਿਬੂਬਾ ਵਾਕਣ
ਮਿੱਠਾ ਅਤੇ ਦੁਖਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਮੇਰਾ ਦਿਲ ਕਰਦਾ ਏ
ਮੇਢੇ ਚੁੱਕ ਖਿਡਾਵਾਂ
ਕੁਝ ਰੁੱਖ ਮੇਰਾ ਦਿਲ ਕਰਦਾ ਹੈ
ਦੁੱਮਾਂ ਤੇ ਮਰ ਜਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਜਦ ਵੀ ਰਲ ਕੇ ਝੂਮਣ
ਤੇਜ਼ ਵਗਣ ਜਦ ਵਾਵਾਂ
ਸਾਵੀ ਬੋਲੀ ਸਭ ਰੁੱਖਾਂ ਦੀ
ਦਿਲ ਕਰਦਾ ਲਿਖ ਜਾਵਾਂ

ਮੇਰਾ ਵੀ ਇਹ ਦਿਲ ਕਰਦਾ ਏ
ਰੁੱਖ ਦੀ ਜੂਨੇ ਆਵਾਂ
ਜੇ ਤੁਸਾਂ ਮੇਰਾ ਗੀਤ ਹੈ ਸੁਣਨਾ
ਮੈਂ ਰੁੱਖਾਂ ਵਿਚ ਗਾਵਾਂ

ਰੁੱਖ ਤਾਂ ਮੇਰੀ ਮਾਂ ਵਰਗੇ ਨੇ
ਜਿਉਂਦੇ ਰੁੱਖਾਂ ਦੀਆਂ ਛਾਵਾਂ

ਬਿਵ ਕੁਮਾਰ ਬਟਾਲਵੀ

Azadirachta indica
(Nim)



Tree Directory of Punjab

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Punjab Agricultural University,

Ludhiana-141004

Tel. : 0161-2401960 Fax : 0161-2400945

Website : www.pau.edu

&

Punjab State Council for Science and Technology,

MGSIPA Complex, Sector 26, Chandigarh-160019

Tel. : 0172-2792325 Fax : 0172-2793143

Website : www.pscst.gov.in

Authors

Avtar Singh, Punjab Agricultural University, Ludhiana;

Neelima Jerath, Satnam Singh Ladhar & Gurharminder Singh, Punjab State Council of Science & Technology and

Raj Kumar Luna, IFS (Retd.), Department of Forest and Wildlife Preservation, Govt. of Punjab

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Back Cover Photo : *Mangifera indica* (Amb) in wild at District Hoshiarpur

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Dr. P.P. Bhojvaid
Director, Forest Research Institute (FRI) &
Vice-Chancellor, FRI University, Dehradun, Uttarakhand, India

Foreword

Trees are the most precious gift of God to mankind as they provide myriad of services. Trees contribute to our environment by providing oxygen, sequestering carbon dioxide, improving air quality, conserving water, preserving soil and supporting wildlife. According to the U.S. Department of Agriculture, "One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen". The countries which have thoughtfully preserved and regulated the use of their tree wealth are the most prosperous countries of the World today.

Throughout the world, tree diversity, has always been under threat as result of human activities including population growth, resource consumption, habitat conversion for food production, industrialization and urbanisation. The disturbances created by these activities have been adversely affecting forest dynamics and tree diversity at the local & regional levels and consequently endangering the survival of local tree communities. To address these challenges and achieve true sustainability, tree and forest management programmes need transition from a reactive maintenance approach to proactive management.

Punjab being a predominantly agricultural state though deficient in forest wealth; is rich in tree diversity. Therefore, there is an urgent need to focus on documentation, conservation & propagation of native tree species of the state to accrue all the associated benefits.

I congratulate Punjab Agricultural University, Ludhiana and Punjab State Council for Science & Technology, Chandigarh for jointly undertaking this commendable study to document the tree diversity of Punjab including tree descriptions for easy identification, uses and prominent sites of availability of trees. Being a dominant life form, trees are easy to locate & are also relatively better known, taxonomically. I am confident that this publication will serve as a handy field guide for all the stakeholders for systematic identification of tree species of Punjab for their end uses.

Morus alba (Toot)

Dr. P.P. Bhojvaid

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Authors



Preface

Trees have supported and sustained life throughout our existence. Apart from economic benefits, they provide us with unmatched environmental protection and are an important part of global biodiversity. Their diversity is important to the overall vigour of any forest & urban ecosystem and reduces vulnerability to invasive plants & insects and diseases.

Trees, unlike field crops, are largely undomesticated and provide habitats and support for animals, plants and fungi including symbiotic partners. Unlike most agricultural plants, forest trees can persist and thrive in unmanaged ecosystems and thus they can easily spread into areas for which they were not necessarily intended. Today, their value continues to increase and more benefits of trees are being discovered as their role expands to satisfy the needs created by our modern lifestyles. These renewable resources are, however, under tremendous stress. We cannot afford to treat our forest & tree resources with contempt and expect them to support us in perpetuity. Therefore, there is a need to introspect and take corrective measures for their conservation, management & sustainable utilization.

Punjab is primarily an agriculture state with about 83% land area under agriculture. The state has only 6.49% of area (3271 sq.km) under forests which include 2.98% (1499 sq. km) of tree cover outside forests and 3.56% (1772 sq. km) forest cover (Source: FSI, 2013). Agroforestry is also a key element of cropland ecosystem of the state. The State Govt has launched “Green Punjab Mission” to increase forest cover in the state to 15%. Realizing the crucial role of trees in maintaining the ecological balance in the state, a scientific study was undertaken for documentation of “Tree Diversity of Punjab” jointly by Punjab State Council for Science & Technology and Punjab Agricultural University, Ludhiana with financial support from the Department of Science, Technology and Environment, Government of Punjab. First time, this kind of exercise has been taken up in the state of Punjab. Extensive field surveys were carried out throughout the state to document the first hand information about existing trees in forest divisions, wildlife sanctuaries, botanical gardens, zoological parks, wetlands, along the rivers, national & state highways and in universities & agricultural areas. In all, 165 tree species have been documented which include 117 native and 48 exotic species. Further, these tree species have been categorized into fruit (26), ornamental (74) and timber (65) species. Beside these, 11 species of palms, which are botanically not trees, have been also identified and recorded.

It is hoped that the present publication will serve as useful resource for policy makers & planners, forestry scientists, officers of State Forest Department & Punjab Biodiversity Board, members of Biodiversity Management Committees, students, field level workers and other stakeholders, who are directly and indirectly involved in management & conservation of trees & forests. It is also hoped that publication will also serve as baseline document for conducting climate change studies w.r.t. tree diversity of Punjab in future.

Authors



Ficus racemosa (Gular) plantation near Ropar Wetland

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Sacred Grove near
Ropar Wetland



Ficus religiosa (Pipal) plantation along State Highway-15 (Makhu to Harike)