

**LIST OF THE TREES, SHRUBS
AND LARGE CLIMBERS
FOUND IN THE DARJEELING
DISTRICT, BENGAL**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649453801

List of the Trees, Shrubs and Large Climbers Found in the Darjeeling District, Bengal by J. S. Gamble

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

J. S. GAMBLE

**LIST OF THE TREES, SHRUBS
AND LARGE CLIMBERS
FOUND IN THE DARJEELING
DISTRICT, BENGAL**

#

LIST

OF THE

TREES, SHRUBS AND LARGE CLIMBERS

FOUND IN THE

DARJEELING DISTRICT, BENGAL.

By J. S. GAMBLE, M.A.,

ASSISTANT CONSERVATOR OF FORESTS, BENGAL.

Calcutta:

PRINTED AT THE BENGAL SECRETARIAT PRESS.

1878.

5966
22

PREFACE.

IN January 1873, when on tour in the Darjeeling Terai with Dr. W. Schlich, the Conservator of Forests in Bengal, we found considerable difficulty in determining the names of the large number of different species of trees which we came across. The native names did not help us much. No Paharia,* Lepcha, or Mechi names were to be found in such books as were then available, and of which Balfour's "Timber Trees" was the principal. We then determined to commence at once to collect specimens, as well as notes on the native names and on the economic uses of which we could obtain any information. The information thus collected is by no means complete, and it would scarcely have been published so soon had it not been for my transfer from Darjeeling, and the consequent orders of the Government of Bengal that I should prepare as complete a list as possible before leaving. Only about six weeks have, however, been available for the work, and the result is that the list is very incomplete; but I hope that Darjeeling Forest Officers will not allow the collection of data to drop, but add to the information herein given such further notes as they may be able to make with a view to the ultimate preparation of a more complete list. There are many gentlemen about Darjeeling, especially planters, from whom I have received much information; and I have no doubt that many of them would again consent to help and add any facts which may come before them. For the determination of the scientific names I am indebted to the kindness of Dr. G. King, the Superintendent,

* The emigrants from the eastern parts of Nepal who have settled in the Darjeeling district are called "Paharias."

and Mr. Sulpiz Kurz, the Curator, of the Herbarium at the Royal Botanical Gardens, Calcutta; and Mr. C. B. Clarke, M.A., of the Educational Department, has given me much help by a nearly complete set of his own Darjeeling collection. Specimens of almost all the plants mentioned in this list have been filed by me in the office of the Conservator of Forests, Bengal, and will be always available for inspection and consultation.

In cases where there is any doubt of the correct scientific name, either generic or specific, it has been written in brackets: thus—

(*Melia composita*, Willd.) means that both the correct generic and specific names are uncertain, but that I consider it may possibly be that species.

Acacia (ferruginea, DC.) means that though the plant undoubtedly belongs to the genus "Acacia," yet it is not quite certain, though very probable, that it is the species "*ferruginea*, DC."

The native names must be received with a certain amount of caution. "Lepcha" names are generally to be pretty well depended on; but those given by Paharias as often as not are given on the spur of the moment, and in many cases merely invented to mean "a pretty tree," "bitter leaves," "medicine bark," or some such name, derived only from the appearance or use of the plant. Paharias, too, especially "chaprasis" or other servants, on being questioned, often think they are bound to give a name of some kind, especially if they think the questioner is anxious to find one, and consequently invent them for the plant on the spur of the moment, quite as readily as they invent new names for themselves at each place where they find work. I have done my best to verify constantly the correctness of the names given, but I have very little doubt but that in many cases they will prove to be wrong, or at any rate useless, as already described. The following are the letters used to designate the different languages: *P.* = Paharia, *L.* = Lepcha, *H.* = Hindi, *Bg.* = Bengali, *Bh.* = Bhutia.

In the description of size of tree, I have used the formula invented by Mr. Kurz in his "Preliminary Forest Report of Pegu," only considerably simplified. The letters E. and L. denote "evergreen" and "leaf-shedding" respectively; and, as an example of how the formula is to be read—

L. $\frac{100-120}{80-90+10-15}$ means a leaf-shedding tree growing to the height of from 100 to 120 feet, having a clear stem of from 60 to 80 feet, and an average girth, at four feet from the ground, of from 10 to 15 feet.

The letters denoting forest are thus explained:—

S. F.=Sál forest.

K. S. F.=Khair and Sissu forest.

Sv. F.=Savannah forest.

M. P. F.=Mixed plains forest. This may be either *w.*, "wet," like the "Dalka Jhar;" or *d.*, "dry," like the forests about the Balasun river, and between it and the Hurlia nadi.

L. H. F.=Lower hill forest, generally found from the plains to 3,000 feet elevation. It may be "ridge" forest, or "valley" forest.

M. H. F.=Middle hill forest, generally found between 3,000 and 6,000 feet.

U. H. F.=Upper hill forest, from 6,000 to 8,000 feet, sometimes called "oak" forest.

R. F.=Rhododendron forest, about 8,000 to 10,000 feet.

F. F.=Fir forest, generally from 9,000 to 12,000 feet.

These different kinds of forests were described by Dr. Schlich in his "Memorandum on the Forests of Sikkim" in 1873, and by myself in an article in the "Indian Forester," Vol. I, No. 2.

The flowering and fruiting seasons are described by the number of the months, thus: fl. 3, fr. 7, mean "flowers in March and ripens its fruit in July."

The present list merely relates to the political district of Darjeeling, a district which is separated on the north from Sikkim by the Rumaun, Great Rangit, and Rangpo rivers; on the west from Nepal by the Singalila mountain range and the Mechi River; and on the east from Bhutan by the Jaldoka River. To the south lie the British districts of Purneah and Julpigori.

In conclusion, I would suggest the application of a similar plan of local lists of trees to other divisions of the provinces of Bengal and Assam: they would prove of great value if ever a forest flora of North-Eastern India is compiled to complete the series of forest floras already published for Madras, Burma, and North-Western and Central India.

J. S. GAMBLE.

DARJEELING,

The 31st March 1877.

LIST
OF THE
TREES, SHRUBS, AND LARGE CLIMBERS
FOUND IN THE
DARJEELING DISTRICT, BENGAL.

RANUNCULACEÆ

CLEMATIS SMILACIFOLIA, Wall. Climber of the M. Hills up to 5,000 ft. Fl. 10; red, very handsome.

CLEMATIS GOURIANA, Roxb. Climber of Terai forests, and up to 3,000 ft. Fl. 9.

CLEMATIS ACUMINATA, DC. Climber; common about 4,000 and up to 7,000 ft. Fl. 9-12.

CLEMATIS BUCHANANIANA, DC. *Tungbongrik*, L. Climber of M. and U. H. F. 5,000 to 10,000 ft. Fl. 10-12; cream colour.

CLEMATIS GREWIAEFLOA, DC. Climber of M. and U. H. F. 5,000 to 7,000 ft. Fl. 11-1; very woolly.

CLEMATIS MONTANA, Ham. Climber of U. H. F. about 7,000 to 8,000 ft. Fl. 7.

NARAVELIA ZEYLANICA, DC. Climber of Terai, near streams and L. H. F. up to 3,000 ft. Fl. 6-7, fr. 10.

DILLENIAOEÆ

DILLENIA INDICA, L. *Chalta*, P.; *Phamsikol*, L. E. ³⁰⁻⁴⁰₁₀₋₂₀₊₄₋₅ of the M. P. F. *v.* in Terai and L. H. F. valleys. Fl. 9, fr. 3-4. Bark red, peeling off in large flakes, and easily recognized in the swamp forests, where the leaves are only seen with difficulty. Wood red-brown, hard, heavy, with numerous medullary rays; rarely used. Fruit very large, like a big apple; outside formed of the fleshy leaves of the calyx; is not unpleasant when nearly ripe. Flowers white, very big. Leaves big, rough, with numerous parallel veins.