

# **Recent Advances in Biological Science : Biodiversity and Human Welfare**

Proceedings of the National Seminar on  
"Recent Advances in Biological Science: Biodiversity and Human Welfare"  
(November 18th-19th, 2022)

*Organized by :*

**Department of Zoology, Darrang College, Tezpur, Assam**

Financed by Assam Science Technology and Environment Council (ASTEC)

Science Technology and Climate Change Department, Govt. of Assam

*Editors:*

**Dr. Chittaranjan Baruah**

**Dr. Rabindra Hazarika**



**RECENT ADVANCES IN BIOLOGICAL SCIENCES : BIODIVERSITY & HUMAN WELFARE** : A collection of Research articles on Biological Sciences as the Proceedings of National Seminar on "Recent Advances in Biological Sciences: Biodiversity & Human Welfare" (November 18-19, 2022) organized by Department of Zoology, Darrang College, Tezpur, Assam in collaboration with Zoological Society of Assam (ZSA) and IQAC-Darrang College, Tezpur

Edited by Dr. Chittaranjan Baruah & Dr. Rabindra Hazarika and published by Global Net Publication, (An Imprint of Asian Humanities Press), 3rd Floor, 4736/23 Ansari Road, Daryaganj, New Delhi-110002 in collaboration with "Darrang College Publishing House".  
*Financed by Assam Science Technology and Environmental Council (ASTEC), Science Technology and Climate Change Department, Govt. of Assam*

First Impression : 2023

**Publisher : Global Net Publication**

(An Imprint of Asian Humanities Press)

3rd Floor, 4736/23 Ansari Road, Daryaganj, New Delhi-110002

Contact No : 80113-48501, 75770-73317

Tel. No. : +9101143074469

&

**Darrang College Publishing House**

Darrang College, Tezpur-784001, Assam

©: Editor

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the publisher, in writing.

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 of 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.

Online Contact : [globalnetpublication@gmail.com](mailto:globalnetpublication@gmail.com)

ISBN : 978-81-960385-4-0

Printed at : Das offset, Assam, India

Price: ₹ 600/-



## Chapter 14 :

# STUDIES ON FEEDING DETERRENT PROPERTIES OF PLANTS IN KALIABOR SUB-DIVISION, ASSAM AGAINST ASSAMESE MACCAQUE (*Macaca assamensis*)

Abhijit Sonowal<sup>1</sup>,  
Chiranjeev Bezbaruah<sup>2</sup>,  
Aakrit Kashyap<sup>1</sup>,  
Madhurya Das<sup>1</sup>

1. Department of Zoology, Kaliabor College, Kuwaritol-782137, Nagaon, Assam, India

2. Department of Botany, Kaliabor College, Kuwaritol-782137, Nagaon, Assam, India

\*Corresponding authors' e-mail: abhijitsonowal7@gmail.com

## ABSTRACT

A study of plants having feeding deterrent properties against Assamese macaque (*Macaca assamensis*) in Kaliabor sub-division, reveal that water extracts in various concentration of the plants *Bacopa monnieri* 30% W/V (Brahmi), *Cymbopogon nardus* 30% W/V (Citronella), *Azadirachta indica* 30% W/V (Neem) shows high deterrent properties whereas *Colocasia esculenta* 50% W/V (Taro) shows mild deterrent properties. Also, Essential Oils of *Cymbopogon nardus*, *Cinnamomum verum* showed feeding deterrent property against Monkeys. All the plants showed to have active deterrence for a maximum of 72 hours. Crude extract obtained from the plants and were diluted with water at various concentration (W/V). Ripe Bananas were dipped for 15 mins in the diluted sample and were offered to the monkeys.

**Keywords :** Plant Extract, Monkey, Anti-feedent properties, Assamese Macaque, Essential oils.

## INTRODUCTION

Primates are often cited as one of the major agricultural pests, which cause efficient damage to the agricultural fields and crops, in addition it impose more time and energy costs on farmers who have to protect their crops against them (Boulton et al. 1996; Naughton-Treves 1997). Farmers use several strategies to protect their crops from devastating wild animals worldwide but none of them had provided complete protection because of varied nature of the animals and the taxa involved (Kolowski and Holekamp, 2006). Protective measures like modification in cropping patterns, cultivation of medicinal and ornamental



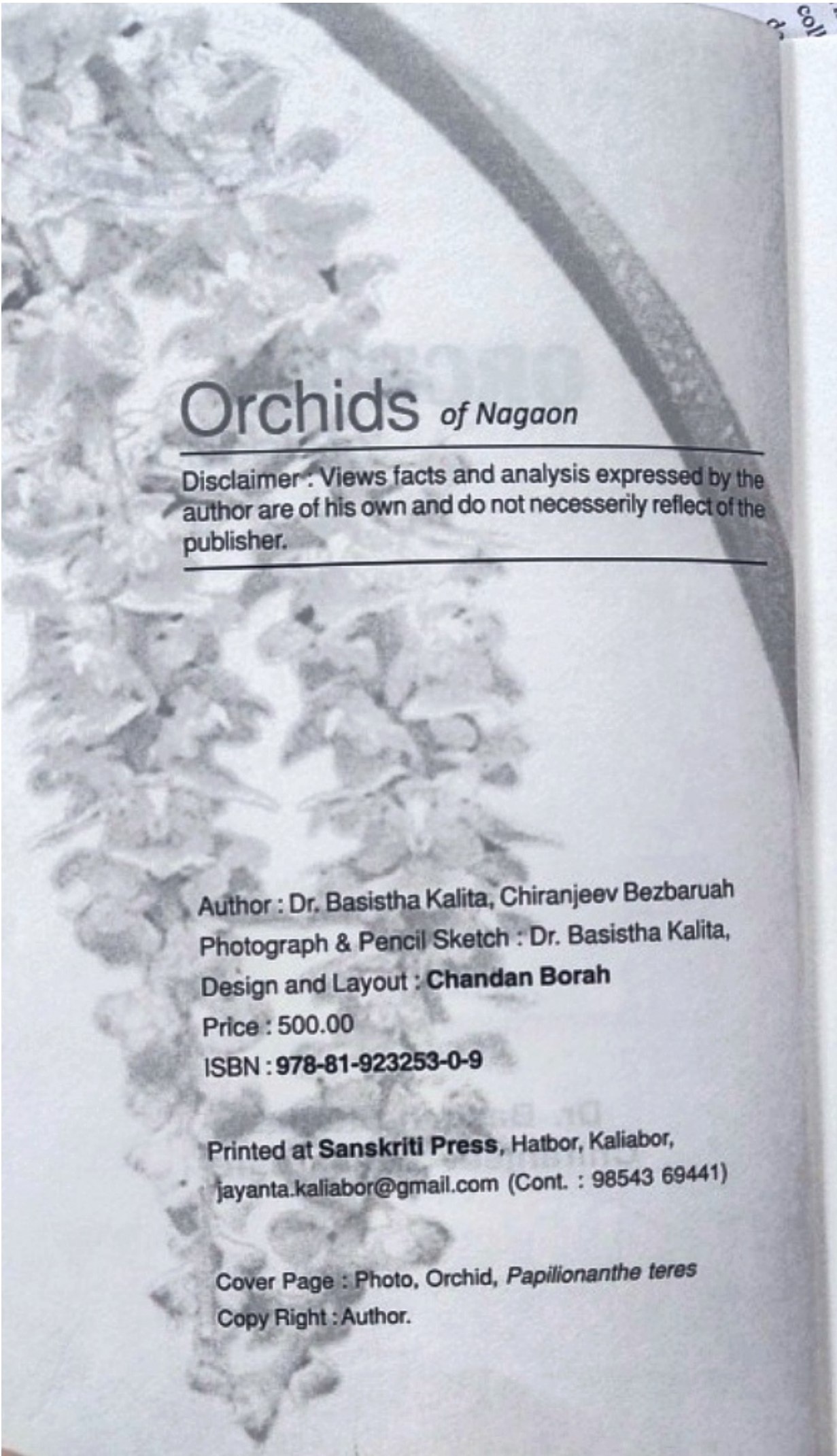


# ORCHIDS of Nagaon

**Dr. Basistha Kalita  
Chiranjeev Bezbaruah**

*Rapilionathetores (Roxb)*





# Orchids *of Nagaon*

Disclaimer : Views facts and analysis expressed by the author are of his own and do not necessarily reflect of the publisher.

Author : Dr. Basistha Kalita, Chiranjeev Bezbaruah

Photograph & Pencil Sketch : Dr. Basistha Kalita,

Design and Layout : **Chandan Borah**

Price : 500.00

ISBN : **978-81-923253-0-9**

Printed at **Sanskriti Press**, Hatbor, Kaliabor,

[jayanta.kaliabor@gmail.com](mailto:jayanta.kaliabor@gmail.com) (Cont. : 98543 69441)

Cover Page : Photo, Orchid, *Papilionanthe teres*

Copy Right : Author.