

**SYSTEMATICS AND ECOLOGY OF  
BERBERIDACEAE IN UTTARAKHAND STATE**

**THESIS  
SUBMITTED TO THE  
FOREST RESEARCH INSTITUTE UNIVERSITY  
DEHRA DUN, UTTARAKHAND  
for  
THE AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN FORESTRY  
(FOREST BOTANY)**



**By  
Umeshkumar L. Tiwari  
Wildlife Institute of India,  
Chandrabani, Dehradun,  
Uttarakhand, India  
2011**



**भारतीय वन्यजीव संस्थान  
Wildlife Institute of India**



**Research Fellow (JRF and SRF): SURVEY AND MAPPING OF COMMERCIALY  
IMPORTANT MEDICINAL AND AROMATIC PLANTS IN UTTARAKHAND  
Funded by : Forest Department, Uttarakhand (2008- July 2012)**

# AAP Project: Flora of East Kameng district, Arunachal Pradesh



<b>Date of initiation of the project and completion of the project:</b>	July 2015-March 2019
<b>Executing Scientist:</b>	Dr. Umeshkumar L. Tiwari, Scientist 'B'
<b>Tour conducted</b>	3 field tours

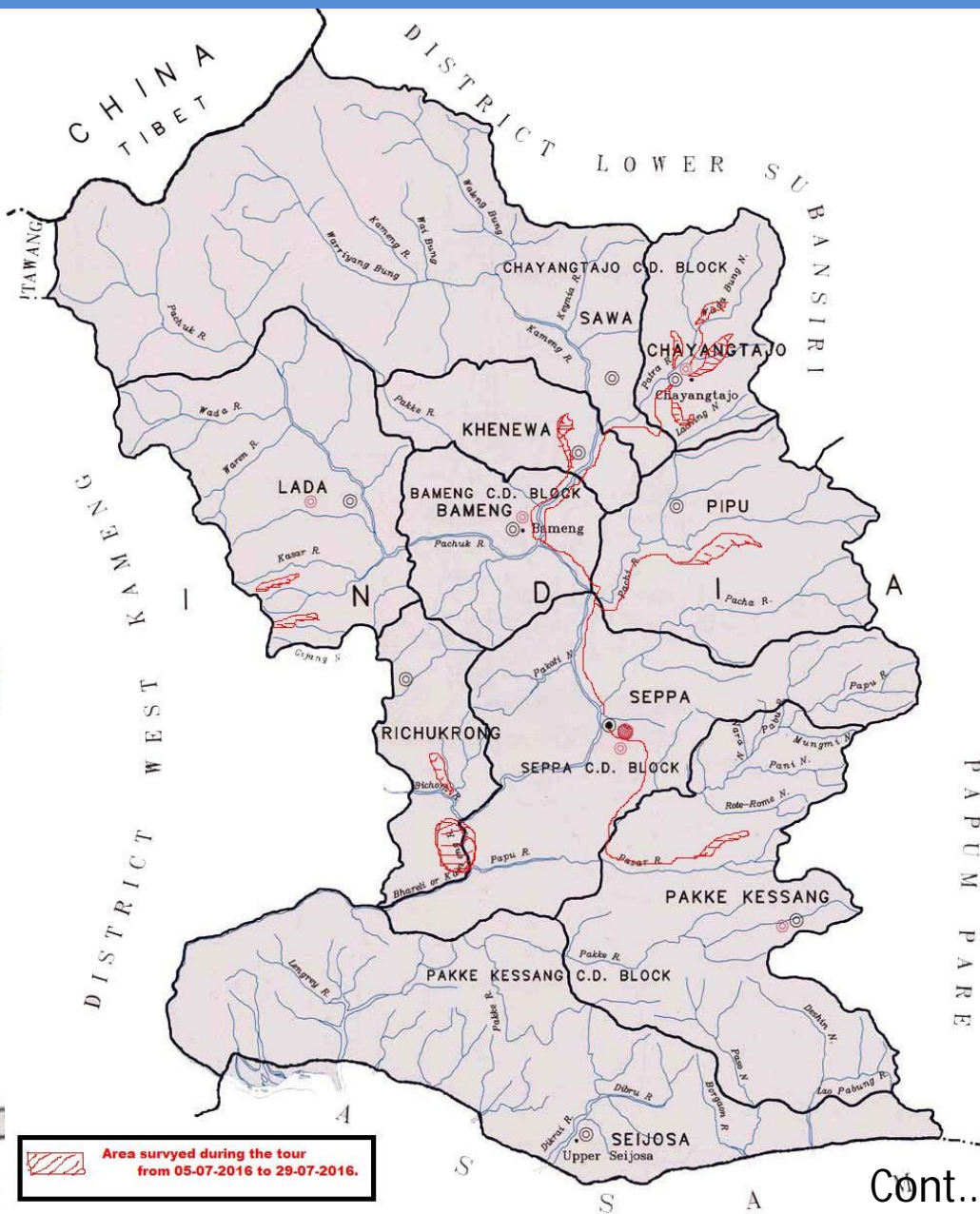
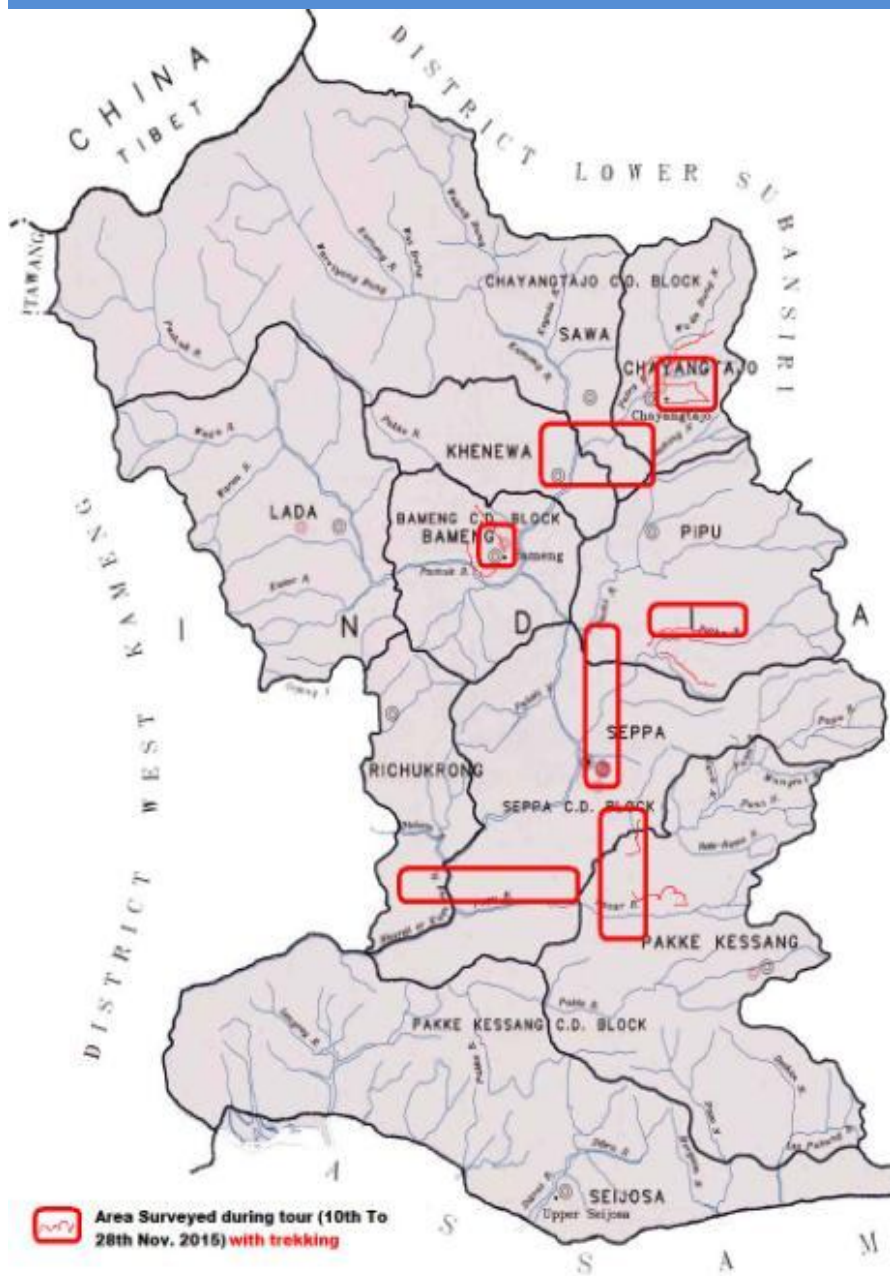
# Objectives



1. Preparation of Master Check List for the E. Kameng District
2. Conduct Field tours covering different habitats in the district and
3. Identification of all the collections and manuscripts preparation
4. Compilation and submission of Final report.

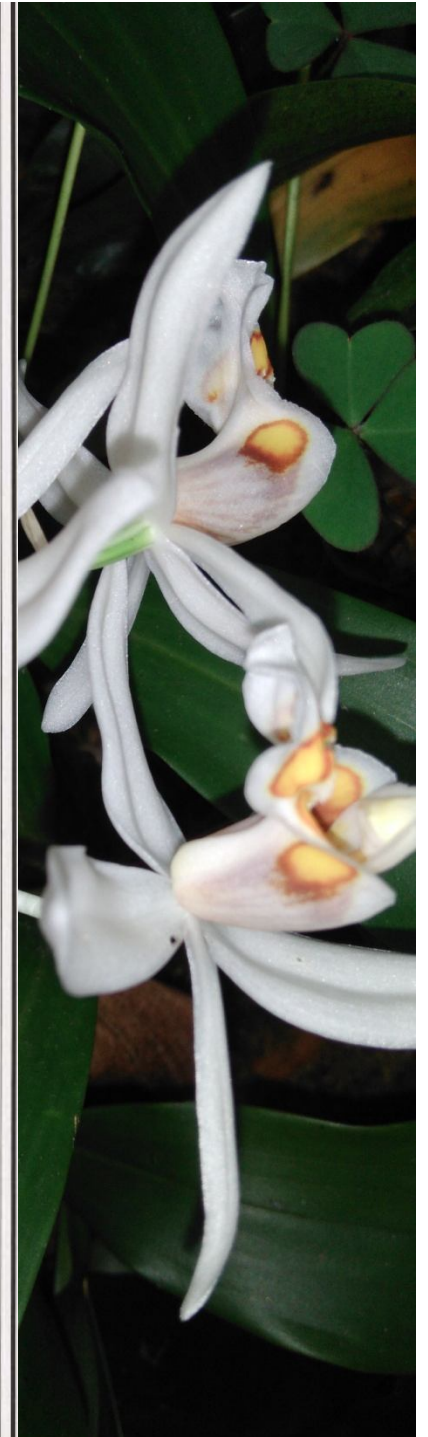


# Study Area Map: Surveyed area from July 2015 to January 2017 (3 Field Tours)



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# Progress of work: July 2015 to January 2017



Number of Field Tours	03
Field no. collected/identified	758/143
Descriptions prepared	84
Illustrations prepared	02
Papers pub. & comm.	06/01
Herbarium Consultation tour	01



# Progress of works (July 2015 to January 2017)

- I. Labeling of 208 herbarium sheets,
- II. ARUN and SIKKIM herbaria (251 accessions),

## Help to Scholars:

- I. 69 species were identified for research scholars, scientist and other students.



# Publications during the period of 2015-17

1. Balachandran N., Ravikumar K., Dhatchanamoorthy N., Gokul S., Tiwari Umeshkumar L. and Noorunnisa B.S., 2015. Some Interesting Addition to the flora of Tamil Nadu, India. *Journal of Economic Taxonomic Botany* 39(2): 338-341. (December 2015),
2. Ravikumar K., Gnanasekaran G. and Tiwari Umeshkumar L., 2015. Rediscovery and lectotypification of *Phyllanthus megacarpus* (Phyllanthaceae), an endemic species from the Western Ghats, India. *Rheedea* 25(2): 116-119. (December 2015),
3. Tiwari Umeshkumar L., Ravikumar K. and Balachandran N., 2016. Some New record of plants from the state of Rajasthan, India. *Journal of Threatened Taxa* 8(3):8632-8637. (March 2016),

Cont..



- Cont.4. Tiwari Umeshkumar L., 2016. *Oxygraphis delavayi* Franchet new generic record for state and new species record for India. *Journal of Threaten Taxa* 8 (4): 8739-8741.
5. Tiwari Umeshkumar L. and A.A. Mao, 2016. *Beesia calthifolia* a new generic record for India from Arunachal Pradesh. *Indian Forester* 142 (5) : 507-508.
6. Tiwari Umeshkumar L., 2016. *Arnebia nandadeviensis* Sekar & Rawal (Boraginaceae) a new synonym of *Onosma bracteata* Wall. *Journal of Threatened Taxa* 8(11): 9391–9393.

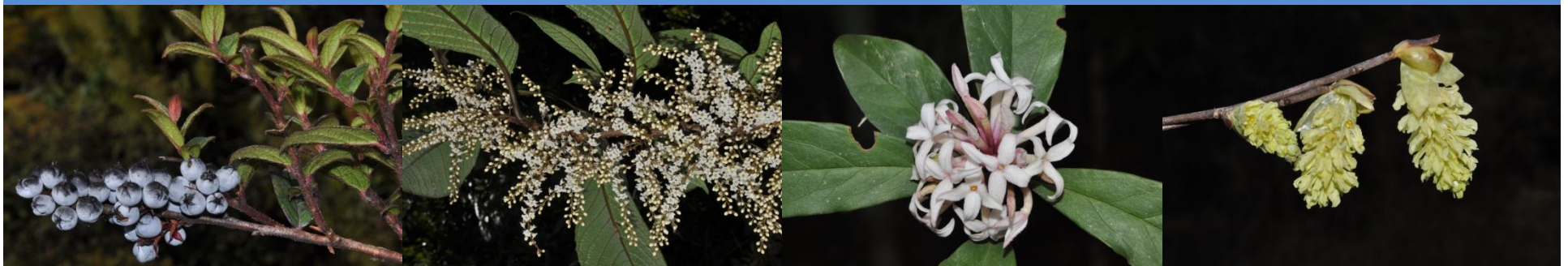
**Communicated:**

1. Notes on some new distributional records of plants from State of Arunachal Pradesh to Bulletin of Arunachal Pradesh

**Report Prepared:** Inspection and report for Cheesa Botanic Garden, SFRI, Itanagar

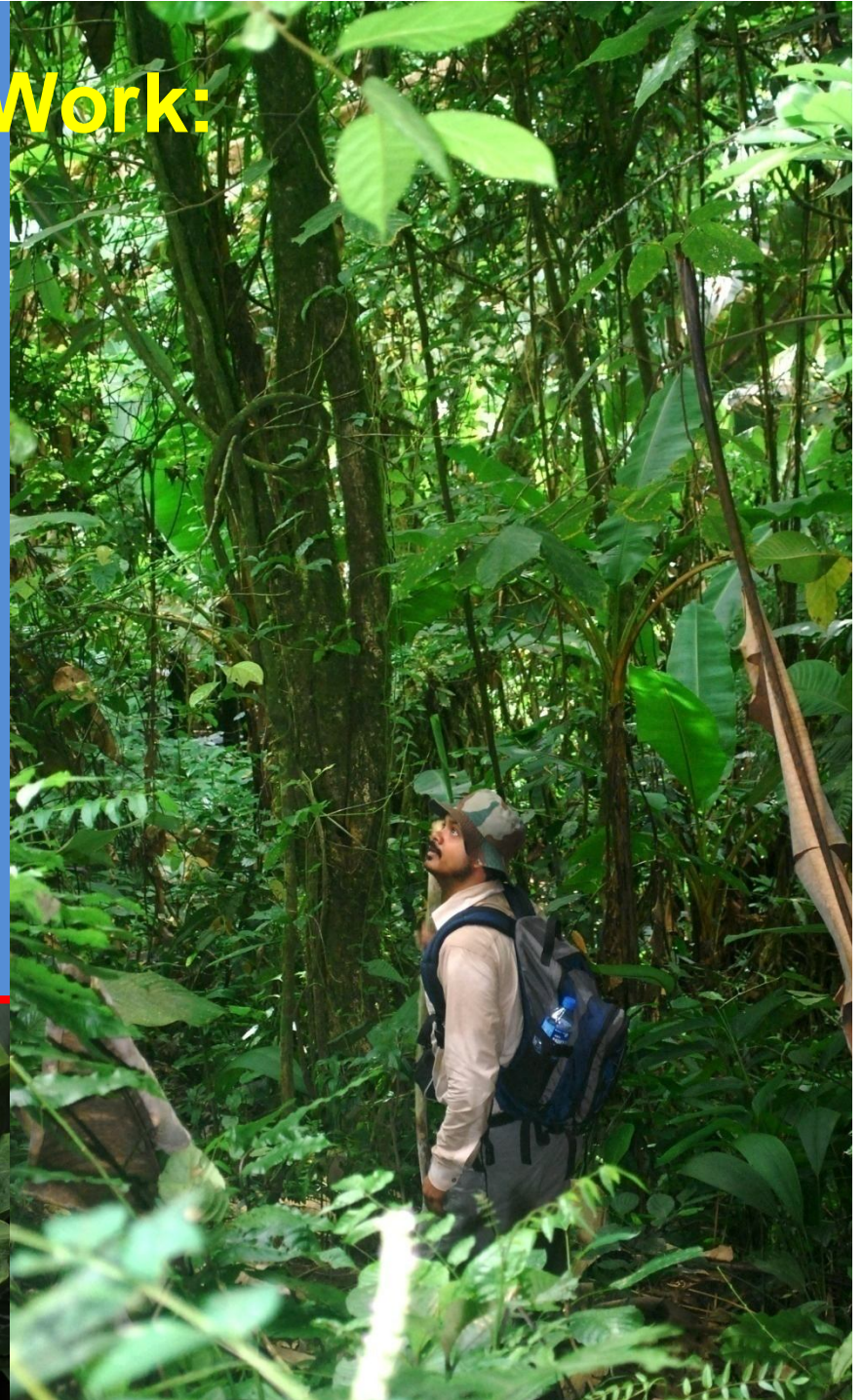
**Technical Inputs:** Helping SMPB for the preparation of Harvest plan for MAP's of Arunachal Pradesh.

**Herbarium in-charge:** Soft copy preparation



## Other than the Scientific Work:

1. Administrative Work (eg. Scientist incharge, DDO, Member of Purchase Committee),
2. Clerical work (eg. Office letter drafting and account work),
3. Tackling local nuisance



# Publications

a.	Projects (PI and Co-PI)	03/04
b.	Books (Jointly)	02
c.	Paper published	28*
d.	Articles published	05
e.	Project reports	06

comb. nov.	01
Lectotype	01
Neotype	01
New Species to the Science	02
New variety to the Science	01
Endemic species recollected after 100 years	02
New record to India	03
New record to states	15

\* Details of publications



# Books and Project Reports:



S  
M  
FC

Dr. G.



**STATUS AND SURVEY OF  
DHARMAPURI FOREST  
TAMIL NADU BIODEIVERSITY GREENING PROJECT (TBGP)**  
(Activities under component 1.1.3.1)

Dr. K. Ravikumar, Ph.D.  
Professor and Head - RMR

Dr. Umeshkumar Tiwari, Ph.D.  
Young Investigator

National Herbarium of Medicinal Plants and Repository of Raw Drug,  
Institute of Trans-Disciplinary Health Sciences and Technology University,  
74/2, Jarakabande Kaval, Post: Attur, Via - Yelahanka,  
Bangalore - 560 106



**STATUS AND SURVEY OF SELECTED CR/EN/DD TAXA IN WILD  
HOSUR FOREST DIVISION, TAMIL NADU UNDER  
TAMIL NADU BIODEIVERSITY GREENING PROJECT (TBGP)**  
(Activities under component 1.1.3.1)



By

**Dr. K. Ravikumar, Ph.D.**  
Professor and Head - RMR

**Dr. Umeshkumar Tiwari, Ph.D.**  
Young Investigator

National Herbarium of Medicinal Plants and Repository of Raw Drug,  
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74/2, Jarakabande Kaval, Post: Attur, Via - Yelahanka,  
Bangalore - 560 106; Website: [www.jhstuniversity.org](http://www.jhstuniversity.org)



Umeshkumar Tiwari  
Ravikumar Singh Rawat  
Ravikumar Singh Adhikari

**Plants in  
Upper  
Tribes**  
Harvest plan

**MBERT**  
emic Publishing



## Future Plan of Research work for next 2 years:

- 4-5 field tours
- Identification of all the collections
- Preparations of Manuscript for each species
- Preparation of final report.





THANK  
YOU

SUGGESTIONS  
ARE  
WELCOME