

AMBIKA PRASAD RESEARCH FOUNDATION, ODISHA

ANNUAL REPORT

2022-2023



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AMBIKA PRASAD RESEARCH FOUNDATION

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LET'S ACT BEFORE ITS TOO LATE



DR. SANJEET KUMAR
CEO, AMBIKA PRASAD RESEARCH FOUNDATION, ODISHA

Today's environment is rapidly changing. When we were young, the air we breathed, the water we drank, and the food we ate were all pure and healthy, and those were the golden decades of our lives. The songs, poems, and beauty of nature were truly immense and so not many would care about the importance of mother nature, the forest, trees, animals, or their associated lives. The rules were for us to develop more, earn more, and compete with one another. This competition has gone too far, and our greed to have more and gain more has never ended but accelerated to a very extreme level. And in the course of time, our environment—forest, trees, animals, food, water, weather, etc.—has tremendously changed. Somehow, we have forgotten that ultimately, we are the ones who are suffering and will suffer at an extreme level in the near future for the greed we have vested in. Although nature has come up with new plans, we no longer care about or hesitate to pollute the environment. The loss of forest, flora, fauna or other associated life has greatly affected the food that we eat, the water that we use, weather conditions, rainfall, etc. The time is very limited for us to save this earth. I want to convey to everyone, on behalf of the Ambika Prasad Research Foundation, Odisha, that we must all work together to protect the environment and the forest in order to improve the quality of life on Earth. I would like to send the message to all that not just me or you, but all of us need to join hands to save the environment and make our earth a better place for all. If it isn't now it will never be tomorrow, because we have already made so many changes against the rule of nature. Let's act now to save and protect our forest, trees, and environment and release our greed for ourselves and the next generations to come.

Sanjeet Kumar
(Sanjeet Kumar)

WORK WITH FOREST DEPARTMENT



Odisha in India



Map representing all districts of Odisha

Odisha possesses a diverse landscape with varied forest ecology. So far, Ambika Prasad Research Foundation (APRF) has worked in different forest areas of Odisha state, in different aspects like conservation, protection, restoration, awareness and assessment of the diversity of flora and fauna. The importance and current scenario of the forest resources have been continuously observed. In the time frame of 2022-2023, the organization has been working in districts like Mayurbhanj, Sundargarh, Keonjhar and Cuttack in Odisha.



SUNDARGARH DISTRICT

BONAI FOREST DIVISION

ROURKELA FOREST DIVISION

KEONJHAR DISTRICT

KEONJHAR FOREST DIVISION

MAYURBHANJ DISTRICT

BARIPADA FOREST DIVISION

KHORDHA DISTRICT

STATE MEDICINAL PLANTS BOARD

STATE BOTANICAL GARDEN,
NANDANKANAN

Different Forest Divisions of Odisha under respective district
where APRF has been working



APRF Team working with Forest Officials

SURVEY ON DIVERSITY OF ORCHIDS & ITS RESTORATION

Odisha state is blessed with diverse orchid species. There is a gap in the documentation of the diversity of orchids from different landscapes in the state. Ambika Prasad Research Foundation (APRF) has started the initiative to fill the gap in such documentation with the help of the state forest department. So far, the organization has documented the diversity of orchids from Bonai Forest Division, Mayurbhanj and Keonjhar Forest Division, Odisha.



Papilionanthe teres, an epiphytic orchid from Bonai Forest Division



Zeuxine strateumatica, a ground orchid from Keonjhar Forest Division

Due to the ignorance or unawareness of orchids, its importance and value, many orchids are disappearing with the deforestation, natural processes or other reasons in urban areas. There is a need for awareness for the identification of orchids and their importance to the ecosystem and for human. People in many cases, think that the habit of orchids is only epiphytes or parasites of trees. Such a wrong conception needs to be cleared. So, such awareness could let people involve with the conservation and protection of orchids.



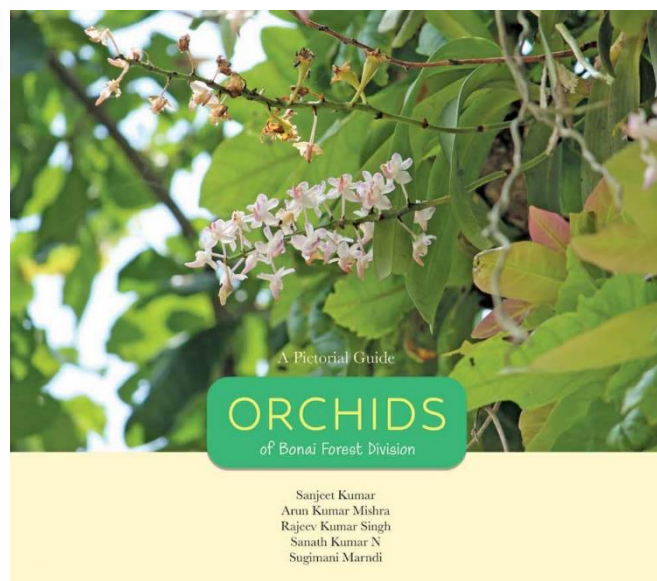
The team of APRF has worked on the restoration of orchids that would otherwise be loss with the fallen trees, fallen due to anthropogenic activities or natural processes in the wild. The restoration of orchids has been carried out at Tensa Nature Camp, Bonai Forest Division, Sundargarh; Anjar & Anjar Nature Camp, Keonjhar Forest Division, Keonjhar; State Botanical Garden, Nandankanan.



Restoration of Orchids

SURVEY ON DIVERSITY OF ORCHIDS & ITS RESTORATION

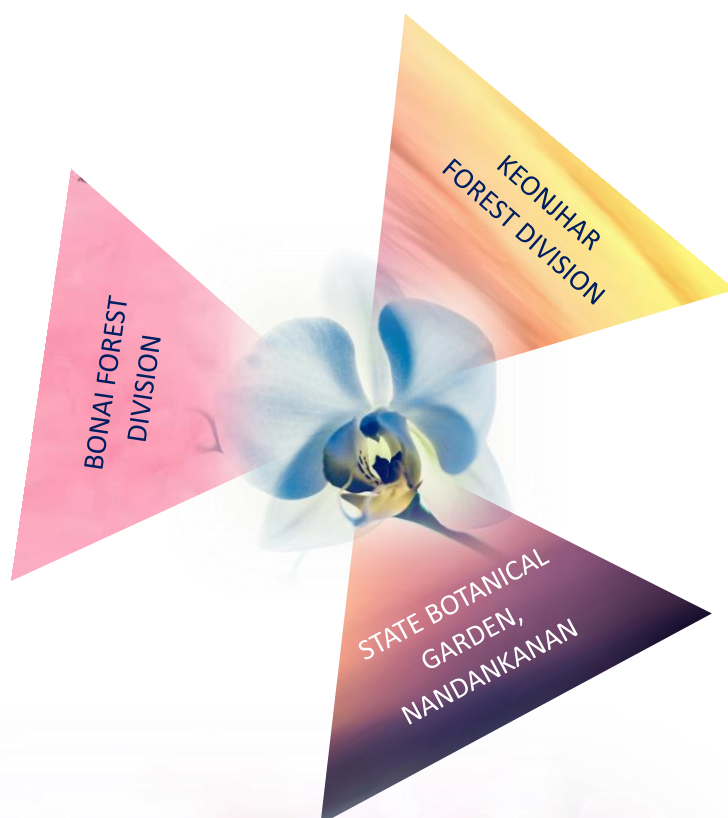
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BOOK PUBLISHED
"ORCHIDS OF BONAI FOREST DIVISION"



Collection of Orchids from fallen trees



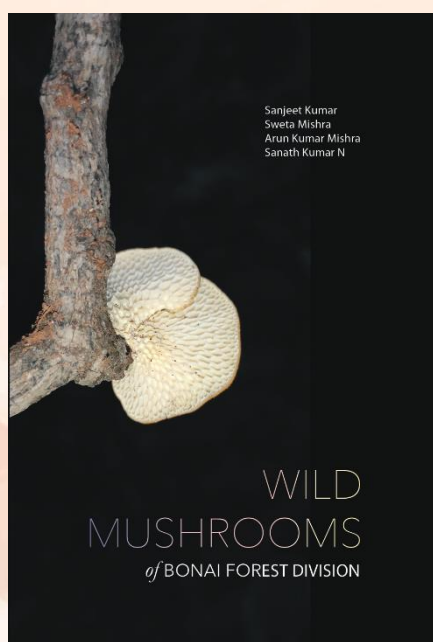
Restoration of Orchids at the above three places

SURVEY AND DOCUMENTATION OF MUSHROOM DIVERSITY

Wild mushrooms are the major Non-Timber Forest Products (NTFPs) with rich nutrients and high economic values as food and medicines. However, less documentation has been done on the medicinal values of wild mushrooms. The team of APRF with the help of the Forest Department surveyed the diversity of wild mushroom from Mayurbhanj and Sundargarh districts. Economic importance of wild mushrooms of Mayurbhanj district of Odisha had been documented. Here, about 10 species of wild mushrooms have been enumerated with economic values with the highest economically valuable mushroom being *Astraeus hygrometricus*. Again, wild edible mushrooms have been documented from Bonai Forest Division.



Astraeus hygrometricus, locally known as Rugda mushroom selling in local market



Sanjeet Kumar
Sweta Mishra
Arun Kumar Mishra
Sanath Kumar N

WILD MUSHROOMS of BONAI FOREST DIVISION

BOOK PUBLISHED
"WILD MUSHROOMS OF BONAI FOREST DIVISION"

The book entitled "Wild mushrooms of Bonai Forest Division" enumerated and described about 50 mushrooms from different ranges of Bonai Forest Division. Some of the common edible wild mushrooms include *Amanita caesarea*, *Amanita egregia*, *Russula rosea*, *Termitomyces medius*, etc.

SURVEY AND DOCUMENTATION OF MUSHROOM DIVERSITY

5



Wild edible mushrooms collected by the tribal communities from forest areas and dried them to prepare a powder and preserve it for long term use. This helps to sustain their food (mushroom) during food scarcity.



Termitomyces microcarpus



Tamariopsis pulchella



Drying of wild edible mushrooms





Gmelina arborea

Documentation of the flora from different landscapes is very important to find the basic knowledge of the region which are directly or indirectly affected by the biotic and abiotic factors of the area. This provides a platform for interaction studies. Ambika Prasad Research Foundation (APRF) has carried out the assessment of floral diversity in different forest patches of the state particularly Bonai Forest Division and nearby forest of various parts of the state. The team of APRF has also surveyed the flora of urban areas including Bhubaneswar which is also known as the Temple City. The several field surveys resulted in the documentation of indicator plants, new addition to the flora of state and the enumeration of flora of the Temple City.

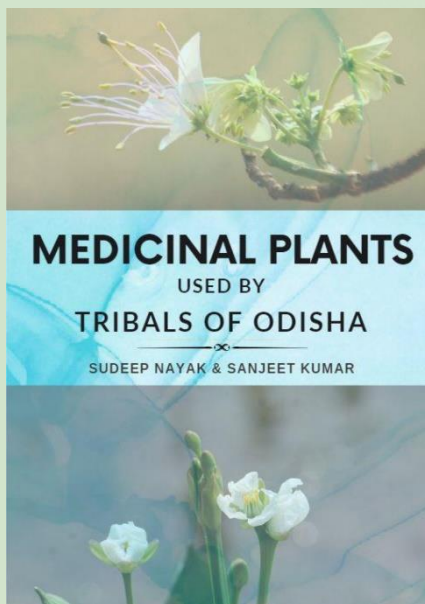


Tribal women informing the medicinal uses of *Dioscorea bulbifera*



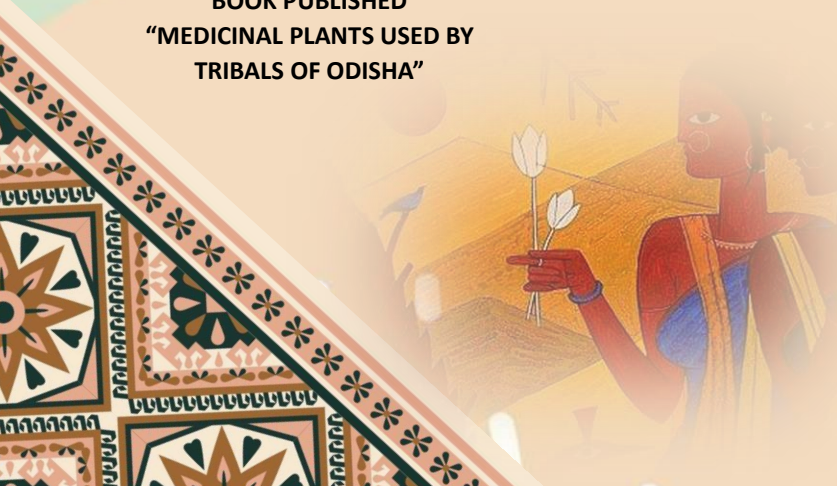
Indigenous Traditional Knowledge with respect to food and therapeutic system are deeply rooted in most indigenous communities and most tribal people of the country. Such precious knowledge has been diminishing with urbanization and migration of people to cities and towns. **Ambika Prasad Research Foundation (APRF)** has taken the initiative to document the medicinal plants used in the traditional therapeutic system by the tribal communities of the state with the help of **State Medicinal Plants Board (SMPB), Odisha**.

Tribal women informing the medicinal uses of *Biophytum sensitivum*



BOOK PUBLISHED
"MEDICINAL PLANTS USED BY
TRIBALS OF ODISHA"

The team of APRF visited different districts of Odisha and interacted with the tribal communities and collected many information on the medicinal plants used by them. The book entitled "Medicinal Plants used by Tribals of Odisha" had been published. This documentation would be beneficial for protecting and conserving the indigenous knowledge on medicinal plants used by the tribals of Odisha.





**15th Kalinga Herbal Fair 2023 organized by
State Medicinal Plants Board (SMPB),
Bhubaneswar, Odisha**

**Active involvement of Ambika Prasad Research
Foundation (APRF) at the 15th Kalinga Herbal Fair
2023, Bhubaneswar, Odisha**



<https://www.youtube.com/watch?v=bDKNZyDQFY>

**A documentary film by Ambika Prasad Research
Foundation in association with State Medicinal
Plants Board (SMPB), Odisha on the selected
medicinal plants used by tribals of Odisha as an
awareness to the people on the occasion of 15th
Kalinga Herbal Fair, Bhubaneswar, 2023**



Plant saplings for Medicinal Plants & Butterfly Garden

Development of “Medicinal Plants Garden” & “Butterfly Garden”

Development
of Medicinal Plants
Garden & Butterfly
Garden at Tensa Nature
Camp, Bonai Forest
Division, Odisha



Medicinal Plants & Butterfly Garden development



Elaeocarpus angustifolius





Prachi River, Odisha

Prachi river is one of the oldest rivers situated in Odisha. It is also associated with Hindu religious and holy places and the length of the river passes many important sacred places & temples. The holy poem i.e., “The Geeta Govinda” was written by Shri Jayadev Goswami, a 12th Century Indian poet at the bank of the Prachi River where it describes the eternal love of Krishna, Radha and the Gopis (female cowherds) of Vrindavan.



APRF have surveyed Prachi River for different aspects like assessment of floral diversity, importance of the river by interaction with the local people, etc. for the sole purpose of making strategy for the conservation of this river.



Important Temple near Prachi River, Odisha



Temple near Prachi River & informing about the flora w.r.t religious aspects

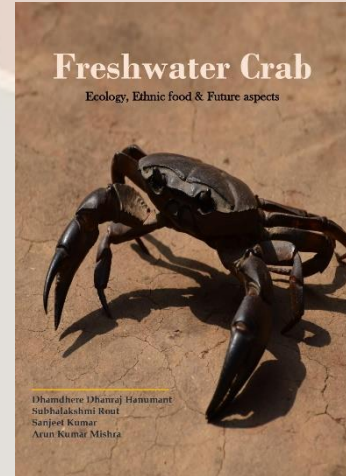


The increasing urbanization and anthropogenic activities have led to the threat of the Prachi River, diminishing its area and increase in pollution to a large extent. This also resulted in a habitat loss of many flora and fauna or biowealth associated to the river.





Fresh water crab



BOOK PUBLISHED
**"FRESHWATER CRAB ECOLOGY,
ETHNIC FOOD & FUTURE ASPECTS"**

Minor fauna has been a major source of food in many regions of the world. APRF had taken an initiative to document the minor edible fauna or less known food. The survey carried out from Keonjhar Forest Division. As a result, the book was documented on Freshwater Crab.



Tribal children enjoying fresh water crabs as snacks



Red weaver ants nest on trees

Red weaver ants, a less known food of the tribal communities of Odisha.



Survey for minor edible fauna



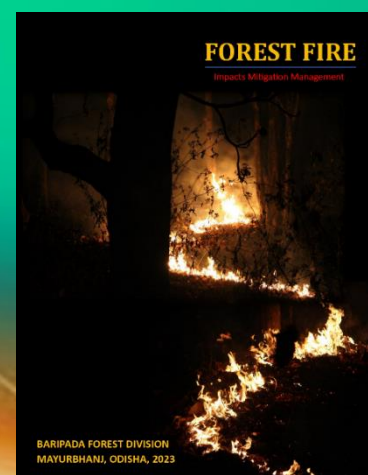
Forest fire incidences of Deuli Range of Baripada Forest Division

Forest Fire has been an age-old issue throughout the world. The nature of fire and its intensity depends on the forest type, landscape and many other factors. The team of APRF with Baripada Forest Division carried out a case study on Forest Fire of Baripada Forest Division. As a result, a report had been prepared on the Forest Fire impacts, mitigation and management of the said Forest Division.



Forest fire at Baripada Forest Division

**REPORT PUBLISHED
"FOREST FIRE IMPACTS
MITIGATION
MANAGEMENT"**

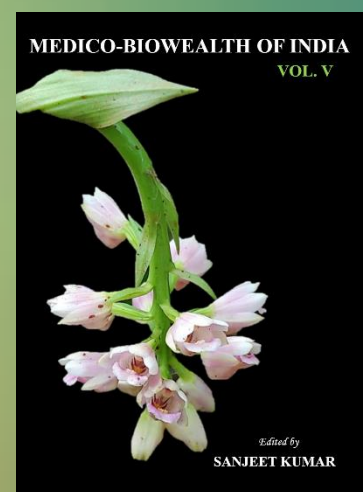
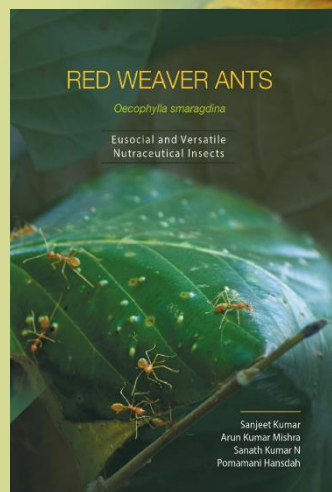
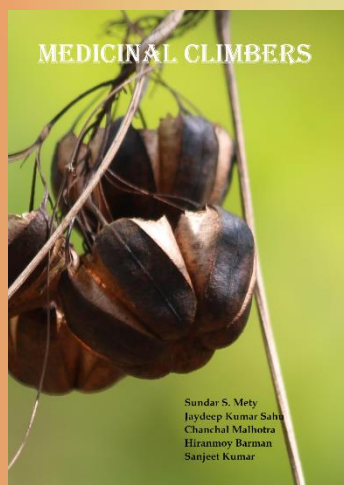
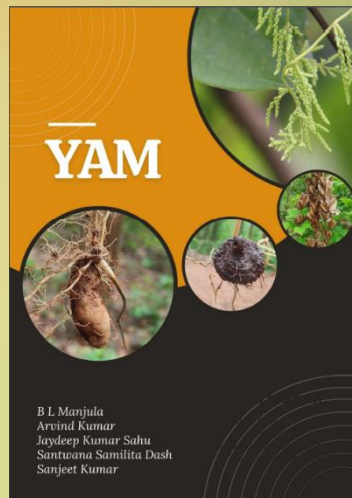




Awareness programs for identification of flora, medicinal plants, biodiversity conservation, etc.

For students, forest officials and others







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Exacum paucisquamum (Gentianaceae): A New Record for Odisha State from Bonai Forest Division, Odisha, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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New addition to the flora of Odisha state

SPECIES REPORT

Species

23/7/21, 2022

Cajanus elongatus (Benth.) Maesen (Fabaceae): An addition to the legume flora of Odisha, India

Sanath Kumar N^a, Sweta Mishra^b, Sanjeet Kumar^{c*}To Cite:
Kumar S.N., Mishra S., Kumar S., *Cajanus elongatus* (Benth.) Maesen
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ABSTRACT

Intensive field surveys were conducted in Bonai Forest Division, Odisha has yielded several interesting plants. Among them *Cajanus elongatus* (Benth.) Maesen (Fabaceae) extended its geographical distribution in the state of Odisha and is reported here as a new record for the state. The plant was collected from the West Dandpat Reserve Forest, Bonai Range, Bonai Forest Division of Sundargarh district. A detailed morphological description with photographs, distribution, associate flora, and phenology of the taxon are provided for easy identification in the field.Keywords: New record, Fabaceae, *Cajanus*, Odisha

1. INTRODUCTION

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Hatsunai Jubilee Commemorative Volume

Zehneria bodinieri (H. Lév.) W.J. de Wilde & Duyfjes (Cucurbitaceae) – A new addition to the flora of Odisha, India

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ABSTRACT

Kumar S.N., Mishra S., Kumar S. & Singh R.K. 2022. *Zehneria bodinieri* (H. Lév.) W.J. de Wilde & Duyfjes
(Cucurbitaceae) – A new addition to the flora of Odisha, India. Geophytology 51(1&2): 139-142.*Zehneria bodinieri* (H. Lév.) W.J. de Wilde & Duyfjes has been collected from the Baruas Range of Bonai
Forest Division, Sundargarh District, Odisha, India. The species is found to be a new record to the flora of Odisha
after reviewing its distribution through available literature. Detailed taxonomic description and photographs are
provided for easy identification of the species.Keywords: Baruas Range, Bonai Forest Division, Cucurbitaceae, new record, *Zehneria*

INTRODUCTION

The genus *Zehneria* Endl. (Family:
Cucurbitaceae) comprises about 68 species and its
native range is tropical and subtropical Old World to
Pacific (POWO 2022). In India, it is represented by 5specimens and relevant literature (Wilde & Duyfjes
2004, 2006, Renner & Pandey 2013, Druvvedi et al.
2018), it is identified as *Zehneria bodinieri* (H. Lév.)
W.J. de Wilde & Duyfjes, as a new record for Odisha
state. This species is known in India from Karnataka,

Butea superba





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