

WII in the Field

A day of Orchid hunt in the Jharkhand Jungles

- Pankaj Kumar

What's common between Vaccination, X-rays, Penicillin and even Viagra? All of these and a lot more have been discovered accidentally!! Even science has coined the phrase, "the Principle of Limited Sloppiness" to describe these fortuitous or accidental discoveries. Here is one such incident of discovery that took place during my field work in the State of Jharkhand.



Nervilia aragoana Gaudich
(flowering stage)



Nervilia aragoana Gaudich
(vegetative stage)

It was the beginning of south-west monsoon in the month of late June, 2004. I left my base camp early in the morning for a day trip to a place called Kalamati, Fudi (23°10'59.17"N 85°16'38.28"E), 26 km away from Ranchi town. This place is adjacent to a popular tourist destination. One of my colleagues from Czech Republic was accompanying me. She was working on the genus *Curcuma* (the turmeric genus). We reached the spot at around 10.00 a.m. and started looking for orchids. It was a small

patch of pure sal (*Shorea robusta*) – mature trees on one side and young sal with a mixture of Ason (*Terminalia alata*) and Kendu (*Diospyros melanoxylon*) on the other. Soil is mostly sandy with rocks and boulders as river Kalamati flows adjacent to this patch. There are some signs of deforestation and recent encroachment by the tribals for cultivation. This place harbours some interesting terrestrial orchids namely *Geodorum recurvum*, *Habenaria commelinifolia*, *Habenaria*

marginata, *Eulophia spectabilis*, *Eulophia explanata* and a big patch of *Nervilia aragoana*. There are some epiphytic orchids too namely *Vanda testacea* and *Vanda tessellata*. Deforestation has resulted in soil erosion due to which exposed corms of several orchids such as *Geodorum recurvum*, *Eulophia explanata* and *Eulophia spectabilis* can very often be found in the area. Corms of these orchids do not grow deep in the soil. On my first trip in 2002, I had spotted a big patch of *Nervilia aragoana* here

Welcome Guests

- ◆ 30 students of B.Sc. from G.B. Pant Institute, Ranichauri on April 10, 2006.
- ◆ Four M.Sc. (Forensic Science) students from Punjab University, Patiala on April 17, 2006.
- ◆ 42 Forest Guard Trainees of 88th batch with two instructors from Natural Resource Management Centre (NRM), Forest Department, Haryana, Sohna (Gurgaon) on May 3, 2006.
- ◆ 15 P.G. students and faculty members from Department of Zoology, Cotton College, Guwahati on May 4, 2006.
- ◆ 45 IFS officers of 1989 batch from IGNEA, Dehradun on May 10, 2006.
- ◆ 30 Range Forest Officer Trainees and two faculty members from Kurseong on May 12, 2006.
- ◆ 44 students and four teachers from Methodist High School, Kanpur on May 19, 2006.
- ◆ 31 IFS officers of 1975 batch from IGNEA, Dehradun on May 29, 2006.
- ◆ 50 students from Veterinary College, Anand, Gujarat on May 31, 2006.
- ◆ 49 IFS officers of 1996 batch from IGNEA, Dehradun on June 6, 2006.
- ◆ 35 students from SFS College, Dehradun on June 13, 2006.



Shri V.L. Chopra, Member of Planning Commission on May 18, 2006.



Dr. Kamlesh Joshipura, Vice Chancellor, Saurashtra University on May 19, 2006.



Peristylus constrictus (Lindl.) Lindl.
(flowering stage)



Peristylus constrictus (Lindl.) Lindl.
(vegetative stage)

in Kalamati, Fudi, but only leaves were present. This species is supposed to flower between pre-monsoon and monsoon rains in the leafless condition, that too just for 3-4 days and then flowers whither. This is followed by emergence of a single, solitary, cordate leaf. This is one of the unique characters of the genus *Nervilia*. I used to visit this place very often but I was never able to find this species flowering because I reached either a few days before or after flowering.

On the day, I was hoping to see *Nervilia* bloom. There were a few tribal children collecting *Lycoperdon* (Mushroom). I talked to those children about the forest and trails going inside. I also asked them whether they had seen peculiar plants on the ground. For their convenience I made a few drawings of the leaves and flowers of orchids, which I had seen in that locality. They couldn't identify the plant from my description. After wandering in the area for a long time, I was about to give up thinking that this time too I was early. Suddenly, I heard a strange call. On turning

around, I noticed that one of the girls was calling us with a strange scream. It was one of the strangest voices, I had ever heard in my life. Initially, I ignored her because I was confident that it was not for *Nervilia* in bloom. So, I moved forward, but I heard her screaming again and this time, I decided to turn back to her to see what she had found. Often, it is difficult for a layman to differentiate an orchid from other plant groups, such as *Liliaceae*, *Zingiberaceae* and *Commelinaceae* etc. Unwillingly, I went near this girl to find out why she was so persistent. She just waved at me indicating to follow her. At a few meters distance she turned aside a few shrubs on ground and pointed her finger to a small plant growing underneath. I went closer and saw a small juvenile plant, around 4 cm tall with all leaves folded upwards to form a cone like structure and in the middle was a young juvenile spike. It was something I had never seen in that area before. With some more efforts, I could find two more individuals of it but they were much younger than the one that the girl had shown. It was very different from the sketch of orchid I

had shown to the children earlier during the day. But on my first impression, I realized that it was an orchid and it was new to my collection from Jharkhand! I was too happy to find it and I asked the girl for her name only to realize that she was dumb! That is why she was screaming in a strange voice. But she was the only kid, who was trying to speak to us while others were too shy.

I took home one of the plants and planted it in my garden. After two weeks, the plant grew up to 40 cm and gave very beautiful, dense, fragrant, white flowers with globular spur and it turned out to be *Peristylus constrictus*. This is the only species with such big flowers in the genus *Peristylus* in Jharkhand. Moreover, this plant was new to Ranchi district. Later, I found this plant in Gangaghat and Barkapahar (Ranchi), Lohardaga, Natarhat and Mahuadanr (Latehar), Sundar Pahar (Santhal Parganas), Parasnath (Koderma) and Bandagaon, Porihat, Karampada, Saranda and Chotanagra (Singhbhum). This plant is very unique as it produces single axillary spike and leaves simultaneously on the onset of pre-monsoon from its geophytic tubers and takes a long time of 2-4 weeks to develop, and blooms on the onset of monsoon. In the early stages, the leaves are curved upwards and at a later stage leaves enlarge and flatten to become perpendicular to the axis but raise above ground.

Finally, in 2005, I was able to find *Nervilia aragoana* just after the pre-monsoon showers in bright fluorescent green flowers at Kalamati forest, where I had met the girl, who lead me to an important finding. Unfortunately this time, I was unable to find her. I wanted to know her name and thank her for her help in my orchid research. As for the orchid hunt - it is still on, despite all the risks, adventures and thrills and I look forward to many more such interesting discoveries. **Contact:** pankaj@wii.gov.in.

"The greatness of nations can be judged by the way its animals are treated."

- Mahatma Gandhi