Floristic diversity of Ahobilam forest

Ahobilam, one of the famous temple villages of South India, is located in Andhra Pradesh (AP). The Ahobilam forest is divided into upper and lower Ahobilam. It is situated between long. 78°23′–78°56′E and lat. 14°55′–15°–24′N. According to Hindu mythology, Lord Narasimha is present in nine forms in nine temples which are on the hill ranges of Ahobilam forest (Figure 1).

Ahobilam is a catchment area of the Nallamalais Reserve Forest of the Eastern Ghats. It attracts several devotees from different states. The forest is rich in floristic diversity.

The Ahobilam forest is a dry deciduous forest about 800 m amsl, luxuriant in vegetation and enriched with many medicinal, rare, endemic and threatened categories of plants. A total of 250 wild and naturalized important plant species, belonging to 71 families have been collected and deposited in the herbarium at Osmania College, Kurnool. The study was undertaken from June 2007 to May 2008, for 11 days covering almost all seasons in one year. The following plants are worthy of mention.

Cyathula prostrata Blume[1] (Figure 2): A rare taxon that occurs in the upper Ahobilam forest stream (SM&KB& DNP OCK 197 herbarium mount board), a new record for Rayalaseemsa and Telengana and a subsequent new record for AP. It was reported from Vishakapatnam about four decades ago[2] and the herbarium mount board was deposited in Madras Herbarium, Coimbatore. It is under the Theatened Category of plants. The following plants which are resources for anti-diabetic drugs[3] are present in the forest: *Pterocarpus marsupium* Roxb., *Andrographis paniculata Wallex* Nees. *Tinospora cordifolia* (Willd) Hook. f & Thoms and *Aerva sanguinolenta* (L.) Blume[4]. The other medicinal plants include *Pseudarthria viscida* (L.) Wt & Arn (Aphrodisiac), *Rhinacanthus nastus* (L.) Kurz. (anti tumour) and *Mallotus philippensis* Mueill. Arg[5] (oral contraceptive, anti-fertility). Some of the endemic and economically potential plants are *Pterocarpus santalinus* L., a global endemic (restricted to Kurnool and Kadapa districts of AP) and North Arcot of TN, *Desmodium pulchellum* (L.) Benth and *Pterospermum xylocarpum* (Gaertn) Sant & Wagh, which are local endemics. Chenchus earn their livelihood from *Bauhinia vahlii* Wt & Arn (make paper plates from leaves), *Chochlospermum religiosum* (L.) Alston and *Sterculia urens* Roxb. (for gum extraction), *Strychnos potatorum* (seeds called chillaginajalu sold for water purification) and bamboo, *Bambusa arundinacea* (for making baskets). Grass *Cymbopogon martini* (Roxb.) Wats. (thatching huts) is also a good source of income. Besides these, a few bryophytes, pteridophytes and other plants of botanical interest are also present in the forest.

In order to protect the plant wealth, we suggest the following few conservation measures for implementation. Grazing by animals may be prevented by providing subsidy from Government to cultivate forage crops as an alternative. Smuggling should be controlled (specially red sanders) immediately to save the endangered and global endemic plants. Tribals appointed by the Government on temporary basis as forest protection force should be made permanent for better protection. *Vana Samrakshna Samithies* are to be constituted involving tribals and other villagers. In order to stop exploitation of timber-yielding trees, permission should be given for procuring honey, gum, bamboo, etc., which is an indirect conservational measure. Exploitation of medicinal plants by tribals and pharmaceutical companies should be stopped. Forest fires which destroy both flora and fauna should be prevented. Social forestry may be developed for domestic and agriculture purpose. Keeping in view the threatened category of plants, entry should be prevented in protected areas of identified medicinal plants to avoid exploitation. Only students and researchers should be allowed for study purpose.

Thus the Ahobilam forest which is rich in floristic diversity and a treasure trove of rare, endemic, threatened, medicinal and economically useful plants can be

Figure 1. Ahobilam temple amidst the forest.

Figure 2. *Cyathula prostrata* Blume.

conserved for the welfare of local farmers, villagers and for rural development.

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It is wise not to debate on tiger farming

The laws of India, notably the Wildlife (Protection) Act, 1972, strictly forbid farming of any wild animal, and the Government of India has taken considerable effort to explain its position to the world, including China about the adverse impact of farming the tiger – a critically endangered and by far the most charismatic of felines in the world. It is to be noted that this stand is universal as evidenced by the strong objections that are being raised also by NGOs working on conservation. Those propounding the cause of conservation also firmly hold the view that farming of tigers is an unwise strategy, as it proves detrimental to the cause of nature conservation. This being the case, the correspondence by Xavier[1] gives you a jolt.

First of all, the very title of the article is misleading; since the author appears to be clear that we should not grudge China for its programme on tiger farming. He also goes on to recommend that we concede China's right to use tiger parts in therapeutic treatment (perhaps as their own version of bioprospecting). Sadly, the author also holds the view that if the scientific potency of the tiger parts is proved, India should not shy away from farming the tiger.

Farming has that inherent element of profit to it, and hence concepts like 'strict compliance with welfare measures' and 'bold actions', as visualized by Xavier would fizzle away once this profit consideration comes to play. I hold the view that wildlife farming does not auger well for the conservation of megadiversity in India, or in China, for that matter.

We are a country of a billion plus population, and there can never be a situation wherein there is complete unanimity on issues like conservation of tiger, or food production or family planning, etc. As the law of the land is clear with regard to wildlife farming, it is wise not to discuss the merits or demerits of tiger farming, as there would always be people in a populous country like ours, who like to hold a differing viewpoint. Moreover, holding discussions on wildlife farming is like opening a Pandora's box, which in the long run might annul the accomplishments of visionary conservationists like Mahatma Gandhi, who gave 'ahimsa' to the modern world, and leaders who brought out far-reaching legislative measures that have greatly helped in retaining most of the megadiversity of this country.

1. Xavier, N., *Curr. Sci.*, 2007, **93**, 1467.

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Response:

Ramakantha points out that the Wildlife Protection Act, 1972 forbids farming wild animals. He holds that it is unwise to farm them as it harms nature conservation. But the authorities in India have always relaxed the rule by allowing, in deserving cases, certain zoo-bred wild animals to be kept in private enclosures which are not governed by commercial motives, e.g. crocodile, cobra, spotted deer, etc. Also, one should remember that our domestic animals have had their origin in the wild, as is evidenced by the fact that they exist both in domestic environs and in the wild. Buffalo, horse, goat, rabbit, emu, turkey, quail, etc. are some of the instances in point. Coming to the flora, which enrich our forests, herbal gardens, teak, rosewood, sandalwood and other plantations demonstrate man's eagerness to make up for the shortfalls in nature by active intervention in a sustainable manner. Does all this human activism, if judiciously practised, put out of kilter the ecological balance and destroy biodiversity? The answer should be categorically no.

Ramakantha objects to my title. My short article raises a question, whether tiger farming is justifiable and answers it affirmatively, but with a rider attached. In view of the alarming rate at which tiger population in the wild declines, breeding centres ought to be established as expeditiously as possible in India, exclusively for reintroduction purposes, and farming with commercial motives could be resorted to only in case tiger parts should be scientifically proved to be of medicinal value. In China, the authorities should ensure the existence of viable populations of tigers in the wild before they proceed further with farming. Farming tigers in that country could be vindicated because allopathic medicine and ayurvedic medicine in the manner of traditional Chinese medicine are known to make use of animal derivatives, and those of rare and endemic plant species as well which are believed to be having medicinal properties. Even though manufacture of medicine is motivated by an element of profit as well, the great service it does to the mankind when properly regulated far outweighs the disadvantages arising from commercial motives.

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