



INDIA

The use of the Lantana weed to benefit India's wildlife sanctuaries

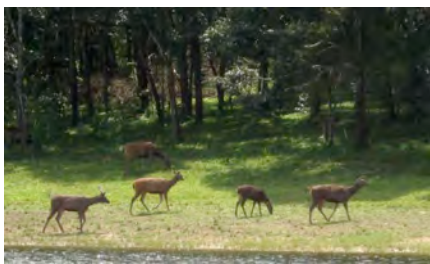
by R. Uma Shaanker, Ramesh Kannan, Gladwin Joseph, N.A. Aravind and K.N. Ganeshiah of the Ashoka Trust, Bangalore

Over two centuries ago, the famous American poet and philosopher, Ralph Waldo Emerson (1803-1892) quipped, "What is a weed? A plant whose virtues have not been discovered."

One of the country's three biodiversity hotspots the Western Ghats, a mountainous chain that hugs the western coastline of India, is home to more than 25% of the country's plant species. Despite its wealth of flora and fauna, and the protection afforded by the establishment of National Parks, Wildlife Sanctuaries and Reserves – the tiger reserves of the Western Ghats are now widely recognized as being one of the last bastions of these majestic animals – the area is under threat from several fronts.

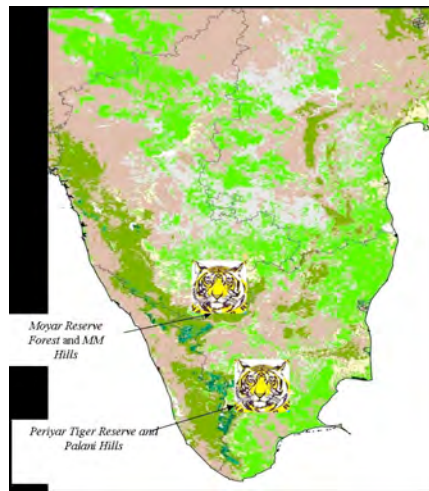
One of these threats comes from the introduction of invasive plant species that have successfully encroached into the native ecosystems. The most voracious and widespread of these plants is the genus known as *Lantana camara** which has displaced scores of plants and threatens indigenous wildlife. (*hereafter referred to as lantana).

Originally introduced into the country from South America in 1807 for its ornamental flowers, the plant has spread like wildfire across the length and breadth of the country. Numerous studies have documented lantana's negative effects on the native flora and fauna and rural livelihoods of those who depend on this unique ecosystem. Several efforts to control the plant including chemical, physical and manual measures have met with little success. The continued spread of lantana and the inability to either eradicate or manage it has led to a sense of despair.



Sambar deer in Periyar Tiger Reserve

It is against this general ground swell of dependency, that ATREE (www.atree.net), an NGO dealing with conservation issues in India, decided to deploy an ingenious approach to managing lantana. Instead of trying to eradicate it ATREE actively encourage the use of lantana as a substitute for the area's scarce bamboo and rattan resources. By effectively managing this invasive species, this innovative approach has helped to improve the livelihood of a large number of communities living within and on the fringes of the forests of the Western Ghats. The areas from which lantana has been cleared for human use has, both actively and passively, helped to restore the area's native biological diversity.



The tiger reserves of Western Ghats

For the last four years Lantana has been used to replace bamboo and rattan to make a variety of products ranging from baskets to high-end furniture. Over 60 different products have been designed and produced by the local communities and over 400 families have been trained and employed in the making of substitute rattan and bamboo products. This has resulted in the establishment of a successful network of rural and urban markets. In association with local forest departments, efforts are currently underway to actively restore native plant diversity in those areas once affected by lantana. Monitoring the restoration of those sites to ensure native biological diversity is now under way.

In 2008, with support from Rainforest Concern, a number of lantana craft centres have been established. Situated in the forest regions they have been instrumental in training local artisans in the use of lantana. Thanks to the support we have received, employment in the area has increased from an average of five to nine months per year; resulting in a three to fivefold increase in annual cash income. While it is too early to fully assess the benefits of this approach and the impact it will have on restoring native biological diversity, the use of lantana has led to a significant reduction of this invasive plant and presumably its ability to spread with such ferocity in the future.

Two of southern India's premier wildlife sanctuaries; the Periyar Tiger Reserve, Kerala and the Moyal Reserve Forest abutting the Bandipur Tiger Reserve, Karnataka, are home to elephants, sambar (*Cervus unicolor*), spotted deer and gaurs (*Bos gaurus*). In both these reserves impenetrable thickets of lantana have displaced native vegetation, preventing the free movement of animals and severely hindering the ability of park managers to effectively record the movement of wildlife.

Thanks to recent support from Rainforest Concern, efforts have been made to encourage the use of lantana by those communities living on the forests fringes. The results have been positive, both environmentally and economically. Biological diversity is being restored and the sizable number of people dotted around the forest fringes, are now benefiting from the creation of new jobs. It appears that the virtues of lantana, promoted by ATREE, might indeed turn this weed into a plant.



Furniture manufacture using Lantana