



**On the cover**

Bright, unpalatable 'Hitler' bugs, part of our little-known, but threatened diversity. Photographer: Hira Punjabi

# Call of the wild Sanctuary

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A S I A

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*Design*  
Flagship Advertising Pvt. Ltd.  
*Art Director*  
Shekhar Pitale

*Processing*  
Jasras, Mumbai

*Printing*  
Pragati Art Printers, Hyderabad

*Distribution*  
India Book House, Mumbai

*Institutional Sales*  
Natraj Publishers, Dehra Dun



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Sanctuary Asia  
602, Maker Chamber V, Nariman Point,  
Mumbai 400 021  
Tel. (91-22)2830061/81  
Fax (91-22)2874380  
Email: <sanctuary@vsnl.com>

## Cover Story

### 30 **Wildlife:** Blueprint for Survival

India has some of the world's best wildlife laws. What we must work on is better enforcement. The Ministry of Environment and Forests has instituted several initiatives, some well known (Project Tiger) and others lesser known, such as the Environmental Information System (ENVIS). On the occasion of National Wildlife Week 1999, *Sanctuary* examines the potential of India's Wildlife Action Plan.



### 14 **Travel:** The Untamed Forest Forts of Rajasthan

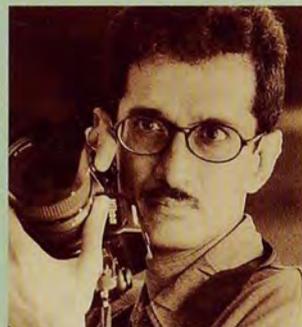
Shailendra Yashwant visited the forest forts of Rajasthan on assignment for *Sanctuary*. In this, the second of a two-part report, he writes of this rich historical and ecological heritage and of government plans to restore the forts. When the battlements of yore were constructed they were designed to ward off enemies. What is more, the forts were constructed so as to ensure an uninterrupted water supply to withstand long sieges. Forest officers, well versed in the art of managing forests to enhance water reserves, suggest we have a lot to learn from history.



### 44 **Tiger Secrets:** Science for Conservation

To find out how modern science is being used to save the tiger, **Anish Andheria** visited Nagarahole, where Dr. Ullas Karanth and his team with 'Wildlife First!' are involved in conducting long-term ecological studies. He writes of changing technologies and of the interrelated nature of the forest upon which creatures great and small are dependent. Walking along line transects and checking infra-red camera traps, he learned about the ranging behaviour of tigers and of the many species like spiders and giant squirrels that have made Nagarahole their home.

## Contributors



### **Shirish Shete**

A freelance photographer who works out of Mumbai, he is currently pursuing a career in photo-journalism with the Press Trust of India. **8**



### **Taej Mundkur**

After working for seven years on the ecology of waterbirds in Gujarat, he is now the Asia Pacific coordinator for Wetlands International. **40**



### **Anish Andheria**

Aside from pursuing a Ph.D in surface chemistry, he is also an expert photographer with a passionate interest in wildlife. **44**

A Sanctuary report

# Blueprint *for* survival

*As we approach the new millennium, Sanctuary explores some of the wildlife protection mechanisms already in place in India and examines efforts to make them more effective.*

*For conservationists and wildlifers to play a meaningful role in defending India's wilds they must first understand how the Central and State Governments work, how our laws are structured and who they can team up with to enhance the collective strength of the environmental movement.*

Despite all the doomsday predictions the tiger, elephant, lion and rhino are still here with us on the eve of the 21<sup>st</sup> century.

Stalwarts such as Dr. Salim Ali, Kailash Sankhala, Dharmakumarsinghji, S.P. Shahi, S.K. Roy and S.R. Choudhury, who fought to save these animals and their forests decades ago, would have been relieved.

But can we ensure that past successes are built up on and not eroded? Going by India's past performance, the *Sanctuary* team believes we can. But, and there is a big 'but', this is dependent on the ability of the nation to drum up the kind of political will that we saw emerge between the early '70s and '80s. Project Tiger was born and the *Wildlife (Protection) and Forest (Conservation) Acts* were notified in this period. The Ministry of Environment and Forests (MoEF) was created. Silent Valley was

#### Building new green bridges

Today these are no longer debating points. Children are taught such truths every day. Yet, as the nation prepares to vote in a new Parliament, we must accept that there are cracks in the foundations of India's environmental renewal. Mechanisms to monitor and ensure compliance with environmental legislation need strengthening. We also need to thrash out a 'common minimum environmental programme' that crosses political lines and involves government, industry and environmental groups.

As of now while one set of citizens, and part of the government, works furiously to save our natural heritage,

others are convinced that the short-term problems surrounding poverty and development justify the sacrifice of irreplaceable river valleys, forests, coasts and wetlands.

On the cusp of a new millennium it is in the interests of India, and the nations that share the productivity of our subcontinent, that green bridges of communication are built between both camps, and between nations.

After all, the living standards of our people can only rise if they are healthy and for this we need clean and reliable hydrological systems; systems that are dependent on the tiger and elephant forests that desperately need protection.

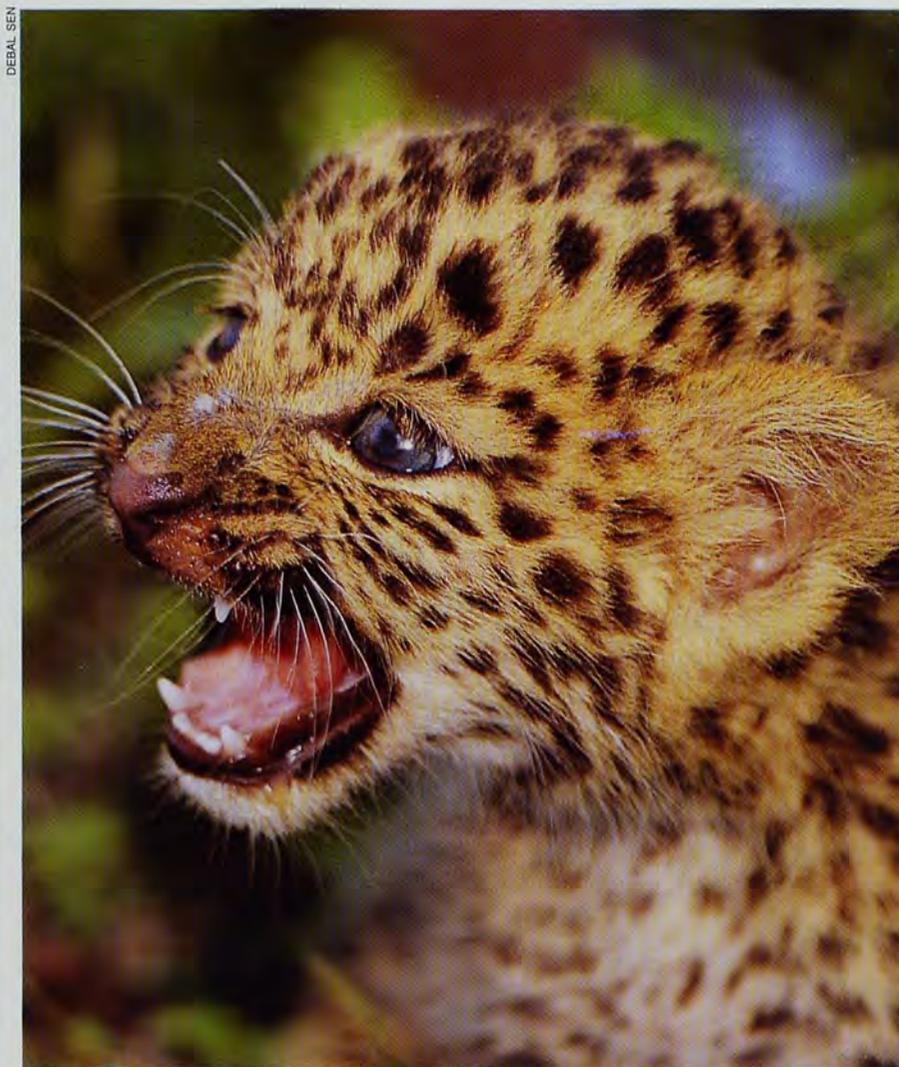


*"Environmentalists view the Ministry of Environment and Forests as industry-friendly and the latter feel we tilt towards the former!"*

Vishwanath Anand, Secretary MoEF

saved from a hydroelectric project and because the Prime Minister's Office was the hub for national wildlife conservation efforts, politicians largely obeyed forest laws.

At the time, very few persons really understood the rationale behind saving forests in which 'only animals' lived. But the visionaries who did know successfully lobbied the late Mrs. Indira Gandhi's support and debated with planners such issues as the connection between water and forests, ecosystems and climate and a balanced ecology and food security.



*Leopard cubs represent a dilemma for wildlife managers. As conservation successes result in fresh litters in protected forests, the cubs will need space for themselves to carve out new territories.*



*The Ministry of Environment and Forests sent timely financial assistance to Assam in 1997 to protect the rhino, but funds did not reach the field. Similar problems arose in Palamau, Bihar. Systemic changes in Centre-State relationships are vital to ensure effective wildlife protection on the ground.*

Nature recognises no boundaries, no nationalities. Nepal and Bhutan hold the key to the water security of millions of Indians who live along the Ganges. And even the World Bank recognises that Bangladesh cannot solve its flood problems without the active cooperation of land managers in the Northeast of India. Even nations as distant from each other as Russia and Sri Lanka must cooperate in saving migratory geese. Acting collectively is in our own best interests and that of generations to come.

The good thing about nature is that the moment we stop mistreating our environment, it rapidly repairs itself. When Project Tiger was launched in 1973, this fact was brought home to naturalists across the world dramatically when once-dry streams became perennial and grasses, shrubs and palatable plants began to regenerate. Natural

regeneration might be true of any environment anywhere, but it is perhaps more true of the Indian subcontinent.

#### **The spirit of India**

We have been blessed by a combination of fertile soils, an extravagant rain-fed river system and moderate climate. More importantly, along with such bounty, our ancestors bequeathed us *attitudes* that evolved over time to appreciate the irreplaceable gifts of nature.

The very identity of India is linked to its biodiversity. Apart from tigers, elephants, orchids and birds, our wetlands, forests, mountains and shores have produced rich and varied societies, ranging from fisherfolk and nomads, to forest dwellers and hill folk. These communities evolved to live with and wisely exploit the resources nature conferred upon our subcontinent. We should be proud of this heritage and

must protect it as zealously as we do our independence or our borders.

This ecological and cultural foundation represents the spirit of India and makes us a viable, self-sufficient nation.

#### **No time to waste**

On the edge of a new millennium, we are confronted by crucial and complicated questions that have not thus far been adequately addressed. In which direction does our development destiny lie? How should we balance the needs of people with the imperatives of nature protection? As of now, despite their shortcomings, India probably possesses some of the finest nature protection laws in the world. The *Forest (Conservation) Act 1980*, the *Wildlife (Protection) Act 1972*, the *Environment (Protection) Act 1986* and the *CRZ Rules*, if used together effectively could arrest our ecological slide.



The immediate strategy is clear. Without delay, wildlifers must cooperate with each other to work with whichever part of the system is responsive, to implement current laws with tenacity. Simultaneously, communicators from among us need to convince economists and planners that living ecosystems have a value far in excess of their commercial worth. Human survival and well being, not just the future of the tiger, depends on this realisation dawning.

### Working on political will

It goes without saying that our vanishing wilds cannot, however, afford the luxury of indefinite debate. While ecological issues struggle to be included in the agenda of national planners, therefore, one set of citizens have taken it upon themselves to defend our wilderness and all the species contained therein, with whatever means, legal, financial or social, that they have at their disposal. Such people work within both

government and non-government organisations. They now seek more political strength and that is why they have begun to see the wisdom of strategies that seek to reach out to local communities living in and around our sanctuaries and national parks. One positive outcome of this has been the no-forced displacement policy (from protected forests) accepted by the Indian Board for Wildlife and Project Tiger, both of which have offered to finance voluntary village relocation.

Given the right leadership and the ability to act in concert, it is within the realms of feasibility that political support for wildlife will return to India. In the course of Parliamentary Sessions held between May-August 1998, November-December 1998 and February-March 1999, for instance, the MoEF was asked as many as 71 starred and 537 unstarred questions! These were an opportunity to highlight the



VIVEK SINHA

*Government, industry and NGOs will have to agree on common objectives to secure a safe future for the tiger.*

problems confronting those in charge of protecting our heritage. In the same period, more media reports on environmental issues were published in India than ever before. Public opinion has led to an enhanced annual budget allocation for the MoEF, from Rs. 300 to Rs. 700 crores. A Standing Committee comprising 14 Members of Parliament has already been monitoring

### Vishwanath Anand, Secretary Ministry of Environment and Forests, spoke to Bittu Sahgal, Editor, Sanctuary

#### Why is the Ministry of Environment and Forests continually being criticised by NGOs for not doing its best to protect wildlife, or clean up the environment?

The current state of the environment is the result of years of build up. Public awareness has risen tremendously and people expect immediate results. The Ministry of Environment and Forests has taken several initiatives to correct the situation, but we cannot expect results overnight. While heightened public expectation serves a useful watchdog role, we also need people to play a much greater role in the discharge of their own civic obligations. On the wildlife front, even you in your weaker moment admit that in spite of some aberrations there have been some overall gains. But I agree there is much more to be done and that is what we are doing... continually striving for improvement.

#### But in the case of the Coastal Regulation Zone Rules the MoEF is actually diluting the law. That is not striving for improvement.

I can categorically say there has been no dilution. Somebody suggested, I see you smiling, that permitting toilets in CRZ III areas will provide a loophole that some may use to build homes or hotels above them. This to me seems the perception of a somewhat fertile imagination. Amendments made in 1997 were intended to remove real hardships and meet genuine public needs. If these are not met then there will be a hiatus between legislation and enforcement.

#### Be that as it may, environmentalists do express a sense of frustration in their dealings with the MoEF. They feel that instead of helping, it places obstacles in their path, often choosing to cloud issues and doubts rather than clear them up.

Environmentalists are fired by a fine sense of idealism which we all respect. Who does not want to make the world a healthier place to live in? But remember it takes time to bring about change howsoever fast you may want results. So a certain sense of frustration is inevitable. As I said earlier, there is always scope for improvement. But it is unrealistic to expect a situation in which everyone expresses



BITTU SAHGAL

*International NGOs participating in an MoEF seminar on the tiger.*

satisfaction to the point where nothing more needs to be done.

At another level, there is a general perception that bureaucrats are uncaring and insensitive with some individuals furthering personal agendas. I can speak for the Ministry of Environment and Forests. We strive to be as transparent as possible. We have public hearings, expert committees — with critics like you on them — we post the progress of clearances on the Internet and we have an Appellate Authority to which an aggrieved person can appeal. Environmentalists view us as industry-friendly and the latter feel we tilt towards the former. Perhaps, we are not doing too bad a job of striking a balance between both!

Let me also say that the Government seeks to eradicate poverty through rapid, but sustainable development. Unless we are able to meet the economic needs of this crucial segment of society, there will always be an overwhelming pressure on our biotic resources.

*India's coastal habitats (facing page) support 60 million people. The MoEF often faces pressure from State Governments to relax the CRZ Rules.*

several initiatives including Project Tiger, the lions of Gir and the pollution of rivers and lakes.

The historic Supreme Court order dated December 1986 banning the felling of trees in natural forests acts to guide administrators today and has already resulted in a slow down in the pace of forest destruction.

#### A blueprint for survival

The bottom line, however, remains this: Only when the mass of Indian people bring their desire to protect ecosystems to the notice of leaders can political will to protect nature emerge.

In the meanwhile, responding to a clutch of reports that emerged from the Wildlife Institute of India, field biologists and conservationists, the MoEF has decided to fine-tune its wildlife protection strategies to take into account the changed scenario in which our national treasures need protection.

B.G. Deshmukh, ex-Cabinet Secretary, has been appointed to lead a team to update the National Wildlife Action Plan (NWAP). This could become a blueprint for the survival of natural India. The NWAP builds on past experience and resurrects vital, but ignored, advice of the Subramaniam Committee (Poaching and Illegal Trade), JJ Datta Committee (Project Tiger), Delhi High Court Committee (Wildlife Protection) and the Working



#### S.C. Sharma, Additional Inspector General of Forests (Wildlife) speaks to Sanctuary

Why are MoEF budgets so low compared to other Ministries?

Perhaps because ecosystem values of conservation have not been adequately publicised, the common man and woman are unable to appreciate the benefits of wildlife conservation. In a democracy government priorities are determined by public perception. Unless nature conservation gets public support there is little hope of dramatically higher financial allocations. There are hard economic benefits that forests offer, such as soil fertility,

fresh air and water. The contribution of mangroves, particularly in areas like the Sundarbans of West Bengal has never been fully tabulated. We spend far too little on forest protection and this situation should be changed.

Why are trained wildlife officers transferred so frequently to non-wildlife postings?

I do not agree with the position taken. Very often officers themselves ask for postings away from wildlife areas because they face problems with schooling for their children or health care hardships. Sometimes, particularly if they are unsupported in the face of poaching gangs, they understandably ask for softer postings. These transfers are in the control of State Governments and it is true that wildlife areas are not given the high priority they deserve. As a result the best officers tend to be transferred to high priority sectors. We need to change the perception of the importance of wildlife.

What is the MoEF doing to resolve man-animal conflicts like the loss of life or property?

The MoEF reimburses the compensation paid by the State governments to claimants for incidents within national parks and sanctuaries. But State Governments must streamline procedures for swift action. We would not be averse to the idea of Park Directors operating a ledger account into which Central funds could flow for quick compensation. Long-term ecological solutions, in consultation with local communities, must be sought. The MoEF finances studies to help evolve such solutions.

Group on Wildlife (Ninth Plan).

It presents a clear vision for India that could be adopted as a part of a National Conservation Strategy to protect our natural heritage in the coming century. It asks for pro-active steps to counter new threats, such as those that arise from the industrial destruction of habitats and the renewed tiger bone and ivory trades.

The NWAP re-emphasises the importance of wildlife corridors. These vital links between the best breeding habitats of tigers and elephants (Nagarahole and Wynaad, Melghat and Kanha) are fast vanishing. Such forests require special protection as the genetic vibrancy of species depends on them. Other threats being dealt with include



Without the protection afforded to Kanha (the southern source of the Narmada River) by Project Tiger, the hardground (Branderi) barasingha deer seen here could well have become extinct. Kanha typifies the promise of conservation initiatives that protect habitats, thus benefitting several species of plants and animals in the process of saving one.



Now that a policy against forced displacement of local communities is in place, wildlifers must work to win their support for the protection of wild species such as these teal and their wetland and forest habitats. Natural allies for wildlifers might be anthropologists who wish to see traditional cultures survive the large-scale deforestation of India.

the impact of organochlorines on the breeding biology of species.

#### Informed and alert

As the nodal agency for the protection of India's wildlife and natural treasures, the MoEF, which originates legislation, finances technical institutions, promotes inter-ministerial discussions and calls for consultations with NGOs, has its work cut out for it.

A key problem is the chasm between the implementation of laws and the use of Central funds at the State level. This is the root of much of the criticism it faces because when programmes do not get implemented on the ground, habitats suffer and species die. The MoEF does try to close this gap, but probably needs more constructive help from

environment and wildlife groups. Such groups may also find that limited partnerships based on mutual respect for each others' purpose and limitations can go far in defending habitats and species.

Fortunately, of late, the bureaucracy has become more transparent and information is easier to access, particularly through the Internet. Key institutions (see box) now post research data on this site and larger groups are already sharing the knowledge accessed with grassroots organisations. Often with the support of key government functionaries, such information helps the judiciary to respond positively to Public Interest Litigations that have resulted in many landmark judgements.

So, do 'ordinary' people have a role to play in defending wildlife, or is this a task best left to experts and officials? That question is best answered by the work being done by individuals such as Rajinder Singh (see page 24), Ashish Kothari of Kalpavriksh, Debi Goenka of BEAG and the many conservationists whose professions are almost as diverse as the species they seek to protect.

Everyone who cares about our planet has a role to play. Often this role will be adversarial, when the establishment may have to be opposed. Much more often, however, cooperation, coordination and constructive help can achieve the same objectives more effectively. That, after all is how nature's blueprint for survival itself works. 

### Institutions and organisations working on issues concerning forests and wildlife

#### Government-supported

G.B. Pant Institute of Himalayan Environment and Development, Almora.  
Centre for Environmental Education, Ahmedabad.  
C.P.R. Ayar Environmental Education Centre, Chennai.  
Salim Ali Centre for Ornithology & Natural History, Coimbatore.  
Centre for Ecology Research & Training, Bangalore.  
Indian Institute of Forests Management, Bhopal (IIFM).  
Directorate of Forest Education, Dehradun.  
Indian Council of Forestry Research & Education, Dehradun (ICFRE).  
Animal Welfare Board, Chennai.  
Wildlife Institute of India, Dehradun (WII).

The above institutions are contactable through the Internet <[www.nic.in/envfor/](http://www.nic.in/envfor/)>.

For more details on the Web Site contact:

Sanjay S. Gahlout, Technical Director & Head, Environment & Forests Information Division, National Informatics Centre (HQ), Room 351, A3 Bay, 3rd Floor, A Block, Lodhi Road, CGO Complex, NEW DELHI - 110 003 INDIA. Tel: 91-11-4361133 ext 4351, 4364294, Fax 91-11-4362489 E-mail: <[gahlout@envfor.delhi.nic.in](mailto:gahlout@envfor.delhi.nic.in)>

#### Non-government

Bombay Environment Action Group, Mumbai  
<[debi.beag@SoftHome.net.in](mailto:debi.beag@SoftHome.net.in)>  
Bombay Natural History Society, Mumbai  
<[bnhs@bom3.vsnl.net.in](mailto:bnhs@bom3.vsnl.net.in)>  
Kalpavriksh,  
<[ashish@giasdl01.vsnl.net.in](mailto:ashish@giasdl01.vsnl.net.in)>  
TigerLink, Delhi  
<[tiger@vsnl.com](mailto:tiger@vsnl.com)>  
Wildlife First! Bangalore  
<[pbsolus@blr.vsnl.net.in](mailto:pbsolus@blr.vsnl.net.in)>  
Wildlife Protection Society of India, New Delhi  
<[wpsi@nde.vsnl.net.in](mailto:wpsi@nde.vsnl.net.in)>  
WWF-India  
<[root@ind.ernet.in](mailto:root@ind.ernet.in)>

Letters to the above organisations sent to *Sanctuary* will be forwarded.