

# A tropical discussion

Dr Paul Bates, Director of the Harrison Institute, urges the UK to play its part in closing the global biodiversity knowledge gap...

**C**ould a science-based company operate successfully in one country if most of its data were held by different companies in other countries? Could it make well-judged investment decisions if these counterparts were under no obligation to share this information?

The answer is no, yet in the world of biodiversity conservation, for historical reasons, that is exactly what is happening. Most biodiversity information, especially taxonomic (species diversity), is held by institutions in the northern hemisphere, while most of the conservation investment is needed in the biodiversity-rich tropics.

Such is the mismatch that if a zoologist in Lao PDR wishes to assess conservation priorities in his/her own country, he/she would do better to travel to Canada, France or even Mexico than hope to find the information locally. This pattern is repeated for most biological groups for most biodiversity-rich countries. Where is the scientific expertise on Zambia's 750 bird species, including the 21 that are globally endangered? Is it in Lusaka or Livingstone or even in South Africa? No, it is in southern France. Where does the expertise on Arabia's 152 terrestrial mammals reside? That's easy. It is here with us in our institute in the UK. Who is the world's expert on Thailand's amphibians and where does he live? He is a Belgian and currently lives in Gabon.

Perhaps this would not really matter to most people if we were not facing a biodiversity crisis. For example, the International Union for the Conservation of Nature (IUCN) predicts that one-third of terrestrial vertebrates in Southeast Asia will be threatened with extinction by the end of the century. National governments, through the Convention on Biological Diversity, are legally committed to biodiversity conservation. However, how can they conserve what they cannot identify? How can they measure the effect of climate change or forest fragmentation or alien species on extinction rates when they cannot identify the at-risk species?

It is not just nature that is at risk; it is also man. How can clinicians combat the spread of diseases from wildlife to humans if they cannot identify the vectors of disease? In Africa, are primates the reservoir for the ebola virus? If so, is it all monkeys or particular species only? The same goes for agriculturalists with crop pests, both vertebrate and

invertebrate. Furthermore, a rich biodiversity is not a luxury, it is a necessity. In India, most fruit bats are classified as vermin. Yet healthy populations of the 13 different species are crucial for the pollination of many commercial crops, the fruits of which are worth millions of dollars annually to the economy. The same goes elsewhere in Asia and Africa.

Luckily, the developing world is becoming richer, with better communications, a more skilled workforce and in many cases an ambitious and knowledge-hungry university sector with a growing interest in the biodiversity sciences. It is now possible, in many cases, for the centres of biodiversity excellence to be located in the centres of biodiversity richness.

This is the 'Year of Biodiversity' and Ban Ki-moon has called for "a new vision for biological diversity for a healthy planet". Our vision would include knowledge transfer, education and training to empower decision-makers in the tropics to make informed conservation choices.

Can this be done and can Britain play its part? Yes, of course. Britain has a tradition of being at the forefront of biodiversity research, as the 70 million items of London's Natural History Museum attest. We have a talented university sector and the advantage that English is the language of science. Through imaginative programmes such as the British government's 'Darwin Initiative', Royal Society grants, and schemes of the British Council, the process has begun. My own institution, together with some others, is already undertaking training programmes and knowledge repatriation successfully in Asia. However, the scale is currently insufficient in comparison to the need.



Dr Paul Bates  
Director  
Harrison Institute  
Tel: +44 (0)1732 742446  
[www.harrison-institute.org](http://www.harrison-institute.org)