

the role of zoos

The existence, and purpose, of zoos represents a fundamental debate within conservation circles. Should we attempt to mitigate the damage that we have already done by instituting captive breeding, research and reintroduction of endangered species, or is a policy of utter separation of nature and mankind a better option? This discussion was at the heart of this year's Wildscreen festival, with passionate advocates on both sides. It reflects a wider philosophical struggle; is it too late for mankind to live sustainably with nature, or can we still achieve some sort of balance? The search for this balance is central to many of the key issues facing the modern world; climate change, food shortages and deforestation illustrate similar situations where a gross inequity in the relationship between man and nature has led us to the brink of ruin.

Zoos perform several roles, the most obvious of which is education. 'See it, sense it, save it', the tagline of Bristol Zoo, represents a widespread mentality which hopes that by bringing people into contact with endangered and vulnerable species they will be moved to take some action to increase the wild population of these animals (ostensibly by donating to the zoo in question). Furthermore, zoos hope to foster some sort of passion for the wild in a largely urban generation. Arguably, with the growing accessibility of truly wild experiences, such as safaris, zoos are outdated in this; but, equally, they could be said to offer a viable and far more economically and environmentally friendly alternative to such ventures, which often have profound effects upon the local ecosystem. Zoos also offer a focal point for the public sides of other ventures; for instance, London Zoo hosts events such as a recent crisis summit for amphibians, led by Sir David Attenborough and reflecting 2008's status as 'The Year of the Frog'.

Secondly, zoos play a key role in research into the animals to which they play host. It is hoped that by studying the animals in captivity, and by funding research in the wild, zoos can help to increase our knowledge of and decrease our impact upon the species concerned. For London Zoo, it is the Institute of Zoology which performs this function. The IoZ is further affiliated to UCL and Cambridge University, reinforcing the idea that zoos are part of a serious academic and practical effort to conserve biodiversity. The Institute of Zoology describes its covenant as including research into 'evolutionary biology, genetics, ecology, reproductive biology and wildlife epidemiology', giving some idea of the breadth of research undertaken by such organizations. The public face of zoos is integral to this research, as it provides funding to areas that would otherwise be ignored by the general public.

Lastly, captive breeding and reintroduction programs illustrate a tangible positive impact of zoos upon the ecosystems they strive to preserve. These two activities are themselves fraught with difficulty. The former must be strictly monitored by the use of stud books to prevent inbreeding and preserve genetic diversity, whilst the second requires that animals be kept in an environment where return to the wild is feasible; that is, they must retain a degree of independence whilst in captivity so as to allow survival and reproductive success in the wild. For instance, the reintroduction of ruffed lemurs (*Varecia variegata variegata*) back into their natural habitat of Eastern Madagascar encountered problems with predation and adaptation to freedom, leading to the comment: 'Preliminary analyses of behavioural data indicate that individuals with early or long-term experience in enclosures that simulate the natural forest environment of this species adapt better to life in the wild'. This demonstrates how important it is that captive conditions closely simulate those that would be encountered by animals in the wild, and emphasises that, unless such programs are carried out with due care, reintroduction may lead merely to the death of captivity bred animals that have become domesticated, wasting thousands of pounds and many lives.

Ultimately, zoos tackle the symptoms of mankind's callous treatment of his environment, and no extent of reintroduction can hope to preserve critically endangered species whilst the wholesale destruction of habitat that caused the predicament continues unabated. Without widespread, local political support, the decentralised efforts of zoos can do little to halt the slide towards extinction of thousands of species. In this sense, it is education that is the most important role of zoos; for if the next generation grows up with as little consideration for the environment as its predecessors, then the Earth is in serious trouble.

