



The Manifesto for Zoos

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“ Today more and more of us live in cities and lose any real connection with wild animals and plants. ”

Sir David Attenborough, 2004



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Introduction and Background

This study constitutes the first attempt ever to establish the overall value and true 'public good', actual and potential, available to British society through the progressive UK zoos.

Who exactly is represented in the initiative?

The Manifesto has been commissioned by a consortium of nine leading British zoological societies. All of these are charitable trusts; they do not distribute profit, and plough any charitable surplus back into their ethical purpose. The following grouping also very nearly approximates the UK's largest zoos in financial terms:

- The Zoological Society of London (Regent's Park Zoo & Whipsnade Wild Animal Park)
- The North of England Zoological Society (Chester Zoo)
- The Royal Zoological Society of Scotland (Edinburgh Zoo)
- The Bristol and Clifton Zoological Society (Bristol Zoo)
- The Whitley Wildlife Conservation Trust (Paignton & Newquay Zoos and Living Coasts)
- Marwell Preservation Trust (Marwell Zoo)
- Twycross Zoo East Midlands Zoological Society
- Dudley Zoological Society
- Zoological Society of Wales (Welsh Mountain Zoo).

Methodology has included a review of the available literature, a new collation of data plus consultation and interviews with appropriate specialists.

The current grouping is grateful that this exercise has been facilitated through the 'British & Irish Association of Zoos and Aquaria' (BIAZA). However, the study does not officially or directly represent BIAZA or its membership as an entirety (which embraces privately run zoos, and institutions of many varying shapes, sizes, missions and constitutions). This is part due to the practical difficulty of quickly gaining consensus amongst a large number of busy organisations of diverse nature. However, it has also been determined that this specific overture to Government should initially be confined to organisations with charitable status: the 'Consortium of Charitable Zoos' (CCZ).

The CCZ would wish to emphasize however that there are many privately operated zoos excellent in terms of ethos, quality of delivery and every other respect. Thus, although technical status may differ, the values espoused in this document do largely apply to them.

Conversely, the CCZ is aware that there remain a diminishing number of organisations in the UK coming under the all too broad classification of 'zoo', where standards in animal welfare, conservation and education remain poor. Thus, whilst the CCZ remains willing to engage with these to help develop their standards, such organisations are not represented by the educational, ethical and social framework described here.

In sum, this document officially represents nine specific institutions, but is also symptomatic of a general movement led by progressive elements for the continual improvement of UK zoos in partnership with Government. Such progress should be seen within the framework of forward looking and reformist agenda at an international level, including the recent publication of the World Zoo & Aquarium Conservation Strategy. This was in turn driven by Agenda 21 and the Convention on Biological Diversity. The use of the generic expressions 'UK zoos', 'progressive zoos' or 'the Zoos' in the rest of this document is to be understood in this context.

Thank you to Chester Zoo for the kind use of their images.



What are the origins, purposes, and content of this document?

There has been significant recent debate around the fact the great zoological societies of the UK, despite multiple contributions and huge future potential, lack the full official recognition by Government due to their role. The open, high level and consistent dialogue that one might expect between representatives of charitable zoos and a cross section of Government departments simply does not exist. This lack of engagement by both parties is illogical and conspicuous by its absence. The study will conclude that, with the right encouragement and discussion, Zoos can partner more effectively and more consistently with Government to deliver even greater social and environmental benefit.

Zoos can partner more effectively and more consistently with Government to deliver even greater social and environmental benefit.

UK zoos do enjoy a very purposeful and valued dialogue with DEFRA via the Zoos Forum. However this is largely confined to the context of animal welfare and technical zoo licensing issues. The Manifesto will contend that at senior Government level there has been insufficient awareness of:

- the overall socio-economic, cultural, scientific and educational output of these organisations

- their central role in the life of the British public and their place in the national affections
- the unexploited potential inherent in the mass appeal of zoos in terms of community involvement and the voluntary sector to a representative cross section of the British public.

The absence of this debate is especially obvious when contrasted with the strong and legitimate focus by Government on adjacent areas such as Museums, Science Centres, Sports and the Arts. An offer will be extended to engage with Government to explore the possibility of a broader and closer partnership to mutual benefit.

In the sections that follow, therefore, each area of zoo operation is overviewed with specific examples and indicative statistics provided. There will be outputs in respect of wildlife conservation, education, tourism, culture, economic regeneration, job creation, leisure provision, regional identity and scientific research. Exemplar data will be provided on the membership of the CCZ, and, to allow a wider background picture, where that information is available, on the membership of BIAZA as a whole.

The study will also look at some financial factors surrounding zoos' successful delivery and growth.

It will briefly examine the future visions of the zoological community and the various further waves of benefit resulting from their ambitions.

It will strive to dispel a number of semi-articulated but persistent mis-conceptions about the leading charitable zoos: such as that they receive some form of public subsidy; or that they are run by profit making businesses. It will also examine the reality behind animal welfare at zoos.





As the various issues are engaged with, a number of 'invitations' to Government will be seen to naturally emerge. These will be in respect of overlooked areas where UK zoos would be eager to work more closely with Government to provide even greater value to the public, and to act as a conduit for social agenda pursued by the Government.

In conclusion, through the release of this first edition of 'The Manifesto for Zoos'. The progressive UK zoos would very much like Government to both 'take more notice of them', and to 'take more advantage of them' Whilst the progressive zoos would deplore a culture of financial dependency, they do look to have their contribution recognised, and their entrepreneurial disposition endorsed. In view of this the study will end with thoughts as to certain general avenues of financial and fiscal encouragement that, in partnership with Government, might permanently secure and develop the positive delivery of the progressive UK zoos.

John Regan, Sunday, 1st November 2004

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The Manifesto will suggest that a fundamental cultural re-assessment of the relationship between Government and the zoo community is long overdue and will reflect a general societal change.





Executive Summary and Overview of Findings

The progressive UK zoos lie at a fortuitous strategic ‘crossroads’ within the general life of the UK. The range and depth of their deliveries are striking, and a number of critical social agenda, important to both Government and Society as a whole, converge at the Zoo.

Every year over 14 million visitors are admitted to a UK zoo, aquarium or wildlife park, very nearly as many people as regularly attend a professional football match (15.2 million), more than the number of dog and cat owners put together (13 million) and more than four times the number of anglers (3 million) (Source: Target Group Index).

Every element of society goes to the zoo. A defined, thoroughly democratic and socially inclusive audience is available to, and through, zoos.

More critically, every element of society goes to the zoo. A defined, thoroughly democratic and socially inclusive audience is available to, and through, zoos.

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The tradition of the family zoo visit is stimulated by a superb, ‘socially binding’ recreational experience. Significantly, very nearly every child in the UK passes through the zoo gates at some formative point.

The progressive zoos have dug deep into the resources represented by their surrounding communities. They

support an especially committed core constituency in over 70,000 zoo members, and have proven especially effective contexts for volunteering and community development.

The CCZ wishes to discuss with Government ways in which access to their audience might benefit generally accepted social agenda consistent with their ecological mission.

The subject matter of zoos, the living world, is of evident educational priority both as an end in itself and as a vocational entry point to the bio-sciences. The contemporary zoo deploys a wide variety of self-funded educational resources and affords a learning dialogue for every group which seeks it. This existing educational ‘channel’ into the mainstream of the British public could be capitalised on by Government much further. In particular, the interface between the information society and the vivid ‘life defining’ learning experience available at the zoo remains a tantalisingly unexploited possibility.

Zoos are a keystone in the UK’s growing dependence on tourism and leisure. These labour intensive operations create lasting jobs invulnerable to overseas outsourcing and of an increasingly varied nature; they purchase major volumes of goods, materials and services, and generate operating surpluses reinvested in their mission. In addition to direct job creation, they stimulate local employment and earn much needed foreign exchange through overseas visitors.

Although commercially vulnerable to certain external factors, zoos are, compared to other areas of cultural output, extremely financially independent and admirably entrepreneurial. Whilst well run and financially stable, given their ethical purpose and inclusive ethos, the progressive zoos can never simply pursue the maximum commercial return. Rather are they obliged to strike a fine balance between an enterprise culture to maximise income and a gate pricing policy that preserves the democracy of their audience.

The progressive zoos take direct ‘in the field’ conservation action throughout the UK and all over the world, as well as managing ‘ex situ’ insurance breeding programmes on



site. A strategic and cooperative approach to species and eco-system survival is their central and driving motive force. Further development of environmental agenda held in common with Government, a greater integration of the environmental dimension into the UK's overseas development agenda, and the profiling of joint initiatives before the huge and representative zoo audience would all be of great interest.

'Zoo science' is yet another untapped asset, both in the potential transfer of a unique human knowledge equity to other fields (conservation NGOs, academe, etc) and the vast store of biological data available, in both living and artefact form. Zoo based research has applications not only for conservation and animal welfare, but also for health, agriculture and a number of vital Governmental and societal concerns.

The establishments surveyed in this document offer the highest standards in animal welfare in any form to be found in the British Isles. The zoo welfarist agenda and the specialist knowledge as to the proper management of exotic species should be celebrated, further profiled and shared with like-minded organisations.

people both to derive pleasure and fulfil their own potential and broaden their horizons. Equally, cultural services play a crucial role in tackling social exclusion, contributing to regeneration, to promoting safer communities, encouraging healthier lifestyles, providing opportunities for voluntary and community activity and stimulating lifelong learning" (www.culture.gov.uk/PDF/cultural_strategy.pdf). Zoos fulfil every single one of these criteria and would seek full acknowledgement as a cultural provider.

The zoo community has developed a variety of exciting new visions for a new century. The development of sophisticated and innovative wildlife attractions based on contemporary ecological thinking must offer attractive platforms within the Government's urban and rural regeneration agenda.

It is normally held that the UK's progressive zoos would look askance at any prospect of generalised public subvention. This might undermine their 'self help' philosophy and threaten to gradually weaken their valued financial independence and enterprise culture over a period of time. The stability and track record of these organisations should however represent tempting conduits for specific future developments and defined areas of project investment. The Zoos would also naturally welcome a general financial or fiscal encouragement that would require their own entrepreneurial stance and underwrite their continued delivery of a spectrum of public goods.

Collectively, zoos have an enormous social, cultural, community, educational and economic impact on the British public. With the right encouragement and partnership however, they have the potential to do much more.



It is striking that many of the most successful projects supported by National Lottery or EU Structural funds (Eden Project, The Deep, The Web of Life, Living Coasts) have actually been natural history attractions.

In the past wildlife attractions have not always been prioritised as potential drivers for economic and social regeneration. Unlike many 'start up' regeneration projects in the arts and museum world, falling far short of projected success, the flagship zoological societies are 'pre-existing', proven and stable propositions. It is striking that many of the most successful projects supported by National Lottery or EU Structural funds (Eden Project, The Deep, The Web of Life, Living Coasts) have actually been natural history attractions.

Combining many of the above elements, the progressive zoos fit well into the Government's own definition of 'culture': "Culture is about improving the quality of life for all, allowing



Economic Output

This section provides a representative picture of the various economic impacts of the membership of the Consortium.

Employment

These nine zoos support over 1600 full time employment equivalents jobs, which in turn represents a wage bill fed into the overall UK economy of over £23 million. An indicative figure of 85% has been taken as the percentage of employees living within 15 miles of the respective zoo.

It is to be noted that the jobs created by zoos rooted in the growth tourism industry represent a permanent and growing prospect compared with employment in other sectors. These jobs are not likely to be directly threatened by competition from cheaper labour markets overseas. Furthermore the kind of employment offered by our leading zoos has widened dramatically in the last decade as these organisations have become more professional. In the 1970's 'zoo jobs' were almost exclusively geared towards animal management and hospitality. As the management outlook of these organisations has become more sophisticated, a representative sample of the nine organisations today shows positions in:

- marketing and communications
- education
- scientific research
- management of conservation programmes in the wild

- finance, administration, business development, IT, and human resources
- estates and maintenance
- botany and horticulture
- retail
- animal welfare, veterinary/conservation medicine
- veterinary care.

The interest in working, at one of the nine zoos is intense, and most zoos switchboard receives several enquiries every day as to possible employment.

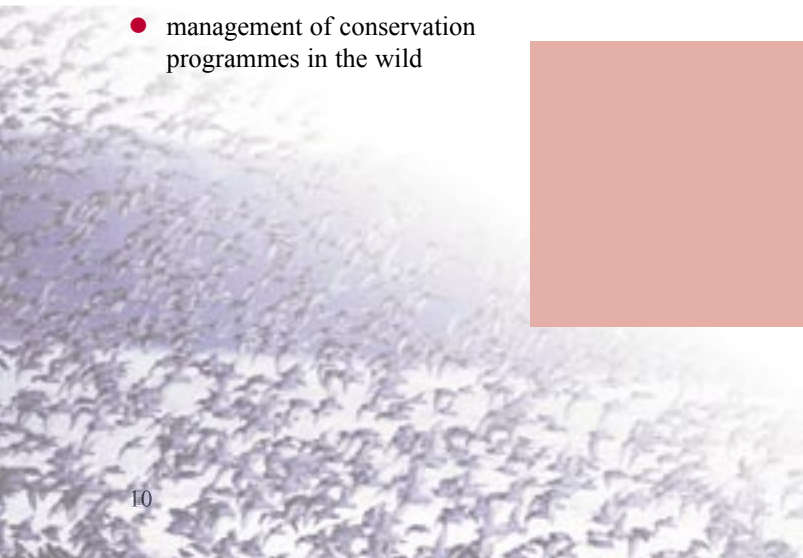
Some 777 volunteers make an average contribution of 39 days every year, whose value has been estimated at £1.2 million.

Capital expenditure

These organisations have all had impressive capital expenditure programmes in recent years which are now growing exponentially. Their collective annual construction spend is estimated at £8.2 million into the local, regional and national economies

Operating expenditure

The operational expenses of the nine zoos have steadily increased over the last decade. In addition to labour, in a given year, the Zoos purchase goods and services to the



sum of over £31 million. Based on an indicative sampling some 68% of this spend has been estimated as local expenditure, in turn representing 247 FTE jobs divided between the Zoos' sub-regional economies.

Education expenditure

As detailed in the dedicated sections, the progressive zoos feed a sum in the region of £1 million into their education and training activities. A total of 300,000 education episodes were managed for children in primary and secondary education. A total of 745 career development, vocational training and academic students were hosted by the members of the CCZ in 2003, representing some 264 institutions of higher education.

Conservation expenditure

In 2003 the progressive zoos fed over £6 million into in situ conservation work, benefiting both UK and global biodiversity, and the economies of developing countries. In addition to direct investment UK Zoos also make a growing contribution to developing nations in terms of training and support for overseas educationalists.

Secondary expenditure effects of visitors

The accumulator effect of visitors to the zoos spending on other businesses (hotels, shops, restaurants, transport, etc) in the vicinity of the Zoos has been calculated at £3.2

million. This in turn represents a further 376 FTE jobs.

Added value

The Zoos all add value to their local, regional and national economies other than in directly quantifiable ways. They enhance the general image of their respective regions and the UK as a whole in scientific, educational and recreational terms and contribute to quality of life as well as civic pride, regional distinctiveness and good citizenship.

Conclusion and Future Outlook

The UK zoos are valuable contributors to the overall prosperity of the UK in many different ways. In addition to their current output however, the progressive zoos have a number of exciting individual future projects which will 'raise the bar' in terms of their economic benefit to UK plc. These are detailed in section 10 'Zoos as vehicles for regeneration strategy'.

In the context of both such future ambitions and the spectrum of current activities detailed throughout the rest of this document, the progressive zoos would seek Government recognition of their economic contribution.





Economic Environment

The progressive UK zoos need secure revenue streams to survive. They need capital funding to grow and deliver ever greater value.

How are zoos generally funded?

Broadly speaking the progressive zoos derive their revenue income from:

- admissions, catering and retail
- memberships and adoptions schemes
- commercial sponsorship, private philanthropy and fundraising
- borrowing
- sales of assets

Admission prices have historically been kept low to maintain access for a wide social and economic spectrum. Despite an inevitable pressure, the progressive zoos remain staunchly opposed to compromising their conservation mission by wholeheartedly dedicating themselves to commercial public entertainment in the manner of profit distributing organisations.

Within this context however, the Zoos pride themselves on an entrepreneurial attitude and a tradition of good service. Ensuring an excellent experience for the visitor from when they park their car to their eventual departure, on average four hours later, is a valued discipline, constantly honed and developed.

The progressive zoos strive to exploit every avenue compatible with their charitable mission and inclusive outlook to increase their funding base. Appendix 2 provides

some illustrations of how the Zoos have moved to multiply their capital and revenue options.

Contrary to widespread misconception however, UK zoos have not normally received any generalised revenue subvention from Government. This contrasts sharply with analogous organisations such as Museums, Libraries Science Centres, National Parks, Art Galleries etc.

What factors determine the financial well being of zoos?

Self generated visitor revenue is the main source of revenue for these charities. However tourism and leisure in general, and the attractions sector in particular, are experiencing considerable change due to an increasingly competitive ‘experience economy’. The overall macro-economic factors impacting on admission revenue to the CCZ might be summarised as:

- general state of the UK economy
- growth of ‘short city breaks’ for couples as opposed to ‘family days out’
- cheap holidays abroad
- value of sterling relative to overseas currencies
- growth in rival attractions
- unpredictable factors such the recent Foot & Mouth epidemic
- variable weather conditions
- competition from TV and New Media experiences
- Sunday shopping and otherwise extended retail opportunities
- changes in available leisure time and disposable income
- legislative environment.



How do zoos perform?

The Zoos are very labour intensive and have a high ‘break even’ point. Despite this and the above factors, in recent years, zoos have managed to ‘keep their heads above water’. 2003 saw a 13 % increase in visits to wildlife attractions in general, although this came after the previous year’s 6% downturn due to the Foot & Mouth disaster (Survey of Leading Visitor Attractions 2004).

Within their ethical context of conservation and focus on animal welfare, prudent and imaginative management allows the Zoos to maintain their position. Few other groups of UK charities derive nearly all of their income from solid trading practice; a financial self reliance cannot be ascribed to most other cultural organisations. As non profit distributing bodies, the progressive zoos are extremely proud of this. The ‘downside’ is, that, as these charities ‘charge admission’ and run cafes and shops, they are frequently confused by the public with profit distributing businesses. Despite the fact that these organisations are registered charities in as full and authentic as sense as Oxfam or the NSPCC, their true non-profit distributing nature is always in danger of being obscured by their very entrepreneurial culture.



Conclusion and Future Outlook

The members of the CCZ are proud of their efficiency and entrepreneurialism and would deplore a culture of financial dependency. Conversely, the progressive zoos are not, and never will become, merely ‘themed’, profit-distributing, leisure attractions.

Self generated funding alone cannot ever be sufficient to radically expand the Zoos’ activities as detailed in the later sections. The robust, well managed nature and ‘self help’ attitude of these organisations must however represent attractive platforms for future Government focus.



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Who Goes to the Zoo?

The size of the audience

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Very nearly one quarter of all the consumers, voters and ultimate decision makers in the United Kingdom absorb the zoo message every year (BIAZA). Over a five year period, this ascends to over half the UK public (Shackley 1996). A 1993 street survey in Edinburgh claimed that 96.3% of respondents had visited a zoo at some point in their lives (Reade 1993).

Overwhelmingly this massive constituency attends in either a family or an educational group. Perhaps most significantly of all, between the determinative ages of three and ten, very nearly every child has the zoo experience.

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The British have been enjoying the traditional family visit to the zoo for over 140 years now. Deeply rooted in our way of life, this 'rite of passage' is one of few recreational and cultural experiences to remain hugely popular despite fashion and technology. Although numbers across the field dipped slightly during the late 1970s and 1980s (Pollock 1994), these recovered strongly in subsequent decades (Stevenson 1996; UK Statutory Tourist Board 2002). In 2002 the popularity of a visit to a zoo or a wildlife attraction (202 minutes) was ranked in terms of dwell time well ahead of Museums/Galleries, Country Parks, Historic Houses and all other types of categories of attraction with the exception of fully commercial themed attractions (Key Facts for Visitor Attractions 2002).

The spread of UK zoos tends to follow the regional pattern. Wales and Scotland have their own respective national zoological societies. In England only Yorkshire and the North East are not immediately served by one of the institutions represented in this study.

The make-up of the audience

However significant the popularity of, and enormous numbers involved in the zoo experience, this report would suggest that the unique makeup of the zoo-going public is even more compelling. With little pro-active effort on their part, the Zoos attract an impressively democratic and inclusive clientele, not one easily available to comparator organisations such as Museums, Sports, Science Centres, Arts, etc, as evidenced by the enormous energies targeted to this end within these sectors.

The proportions of ethnic minorities visiting the Zoos in this study show a healthy reflection of the overall cultural make up of the UK. Unlike other areas of cultural, educational or even recreational activity, there is no sense on the part of Afro-Caribbean, Asian, Chinese or other immigrant communities that this experience is somehow 'not really for us', the exclusive province of the white middle classes. On the contrary, many immigrant originating groups are pro-active in viewing the zoo experience through the lens of their own cultural and heritage frameworks.



The 'open plan' nature of zoo sites and a determined attitude toward inclusivity and access has led to the Zoos being especially 'disability friendly'. Chester although occupying some 110 acres, has disabled access to every part of its site, as do Paignton and Dudley despite their 'hilly' terrain.

Equally, the social and economic spectra of British society are well represented in those visiting zoos (Ament 1994). On any given day in the height of the season at any one of the large UK zoos, families of many different backgrounds rub shoulders. The tradition of the family day out at the zoo transcends social and economic barriers.

With the exception of a few years in the teenage bracket, zoos have no difficulty in attracting all ages. Museums, Arts, Sports, Science Centres, faith based organisations, political parties and the educational system as a whole make strenuous efforts to engage children at as young

an age as possible to win a lifetime's commitment to their agenda. Crucially, the progressive zoos do not have to actually try hard to do this. There is a primal demand on the part of children to learn about, and be splendidly immersed within the animal world. In time this early exposure can lead into a life long commitment to the environment and to 'green' principles.

Thus for all elements of society, the basic premise of the zoo visit is a disarmingly straightforward one: the profound thrill of being reconnected with Nature and the animal kingdom. This is not a 'difficult' concept that has to be cleverly packaged, marketed or patiently persuaded for: it is immediately understood and embraced.





The leisure proposition that attracts this audience

It has been determined not to dedicate an entire section to 'the recreational output of zoos', but to deal with this important subject here within an overall exploration of the zoo audience.

This is not because the leisure and relaxation offer of the Zoos is insignificant, but rather because this charitable community has in the past been miscast and its work trivialised as exclusively concerned with entertainment. The very popularity of these organisations has risked obscuring two of its own most important and positive consequences:

- a considerable financial independence from Government
- the ability to disseminate an educational message to vast and representative audiences.

The Manifesto seeks to redress this imbalance, whilst still according enormous value to the restorative release from every day urban life that the Zoos afford. Furthermore, the overwhelming majority of zoo visitors see their experience as a social activity with strong family cohesion benefits (Edinburgh Zoo's visitor survey showed 77% of groups comprised children and adults).

In the final analysis, the Zoos are extremely proud of the superb leisure and relaxation experience they deliver to millions of British families.

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Zoos as community hubs and volunteering centres

The progressive zoos all have long established links into their communities. Groups of core supporters especially committed to the Zoos and their values include:

- Over 70,000 members contributing some £3 million revenue annually. Members and Junior Members both organise and enjoy a broad programme of events
- Adopters supporting programmes associated with particular species
- Over 750 Volunteers who donate some 234,000 hours of service, contributing to the visitors' experience and supplementing the Zoos' general education initiatives. Zoos offer especially appealing agencies to develop volunteering in the UK. The US zoo model involves thousands of volunteers or 'docents' supplementing hundreds of remunerated staff.

In addition to such specific groupings, the Zoos offer support for a whole variety of community groups from the expected (photography clubs, artists associations or naturalist societies) to groups of every shape and form (mother and toddler clubs, children's and medical charities, the Territorial Army, Rotary Circles, local history groups, etc).

The UK zoos are basically large open green 'oases', brimming with exciting activities and exotic possibilities, found in the middle of the substantially urbanised British landscape. It is natural that they should act as a magnet for community activities of every shape and form. Their role as focal points for their neighbourhoods and regions could be expanded.

Conclusions and Future Outlook

Zoos are part of the warp and weft of the British way of life. They offer a unique channel into the heart of UK society.

They would welcome a dialogue with Government as how this exclusive access to the British public might further Government agenda such as education, career development, vocational entry into the bio-sciences, social exclusion, sustainable communities and good citizenship.





Educational Output: The 'Living Classrooms'

From the most pragmatic vocational training through to a general philosophical engagement with the natural world, the culture of UK zoos is 'shot through' with the educational ethos.

Few UK citizens can have fully forfeited the memory of that intensely exciting 'first visit to the zoo', a seminal childhood event imprinting indelible attitudes and understandings as to the living world and our place therein.

The responsibility of acting as this critical educational portal is at the heart of all nine of the institutions represented here. The leading zoos find themselves 'besieged' by a representative cross section of British society as a whole, needing and demanding to know more about the biological world.

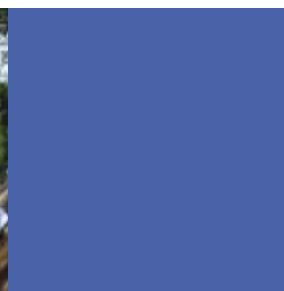
The response is the campaign of educational initiatives detailed below. However this study finds that, at a strategic level and in a consistent fashion, the opportunity to deliver education and training through zoos is not fully exploited by Government.

Who do zoos teach?

The educational experience cannot be fundamentally disentangled from the recreational experience; and so all 5.5 million visitors in the Consortium (plus a further 8.5 million in BIAZA as a whole) profit from a multi-layered learning experience with benefits at both conscious, factual and deeper, emotional levels.

To ensure this, most CCZ members now deploy 'Presenters' who provide talks and demonstrations. Recent research at Chester Zoo showed that almost half of all visitors are impacted on by Presenters (McKeown 2002).

Education departments also take the lead in designing permanent 'interpretation' and information systems. These contextualise the species accommodated and provide a 'wrap around' for the entire zoo visit. Following research demonstrating that "people only remember 10% of what they read, but 90% of what they do" (McKeown 2002), much of this interpretation is interactive and multi-sensory so visitors become active and interactive in their own learning experience.





When developing new exhibit concepts, once the overriding priority of animal welfare has been addressed, zoo designers think in terms of “narrative adventures” with strong educational elements. Recent visitor research is leading to a greater integration of the aesthetic dimension with space provided for public art and theatre to engage the public at a visceral and emotional level.

In addition to educating the general visitor, special provision is made for the following groups:

- primary and secondary school children
- special needs groups
- teachers
- pre-school groups
- higher Educational students
- post-graduate students
- the academic and scientific research community as a whole
- individuals seeking careers working with animals and wildlife or in the leisure industry
- individuals seeking work experience to develop careers in the general job market
- special interest groups such as photographic societies or niche wildlife enthusiasts
- the business and political decision making community (in terms of advocacy on environmental issues).

The most important group, children in primary and secondary education, received 300,000 formal classroom sessions taught by qualified zoo teachers in 2003. This constituency, whilst of immediate importance, also represents the decision makers of our society thirty years hence.

Zoo educators strive to extend their offer wherever it might be beneficial.

Teachers themselves are supported with pre-visit sessions and planning material. Many zoo education teams will actually visit schools and other groups, who cannot easily travel, and certain zoos even extend their educational offer abroad. In summary, the Zoo education constituency is even more universal and inclusive than their general visitors. A representative sampling of zoo education programmes, resources and facilities is provided in Appendix 4.

What do Zoos teach?

In keeping with the extent of its audiences, the ‘zoo prospectus’ is also extremely wide.

The interpretative programme designed into everyone’s zoo visit is focused on:

- the overriding zoo ethos: the conservation and bio-diversity message and the everyday role of the individual within this
- a factual and scientific approach to understanding the animal world
- the place of animals in human history and the intertwining of the living world with culture, tradition, religion and art
- the role and history of good zoos in wildlife conservation and a privileged view of how zoos carry out their mission.

Zoo programmes for school children reflect the key stages of the National Curriculum whilst extending beyond these confines into any area where their resources and expertise may be of benefit. Irrespective of the immediate subject, the fundamental zoo message, the need to be aware of, and to address, the looming conservation crisis is always underscored.

Many of the larger zoological societies offer modules within University degrees in zoology, ecology, biology and associated subjects. The progressive zoos also generally support courses at higher education institutions well beyond the biological and ecological subjects to provide training and experience in tourism, leisure & hospitality, business studies and human psychology. A veterinary student seeking experience of exotic species will have been obliged to spend time studying at one of the large UK zoos.

Zoos offer their facilities for non-invasive research programmes for students pursuing first or secondary degrees and research programmes, and have a variety of bi-lateral links with practically every University in the UK.



The Zoos host conferences, seminars and symposia on matters of critical zoological and conservation interest drawing the finest minds from all over the world to convene in the UK. A recent major event was “The Future for Zoos in the 21 Century: Catalysts for Conservation” February 2004.

Naturally zoos also offer training and education for their own staff and for their colleagues overseas. ‘The Advanced National Certificate in the Management of Zoo Animals’ was launched in 2002 in conjunction with Sparsholt College, Hampshire.

What specific educational resources do Zoos actually offer?

Staffing

The Zoos represented in this study employ some 80 full time educational professionals, many of who are qualified teachers. In addition, librarians, administrators, presenters and often keepers support the educational purpose.

Programmes & Events

Throughout the year the Zoos run special educational experiences. They seize on ‘National Science Week’, ‘Science Year’, ‘Ocean Week’, ‘International Environment Day’ and similar opportunities as platforms for tailored events. All the Zoos provide calendars of lectures and talks.

These range from prestigious speakers presenting scholarly papers through to talks designed for the general public.

The latter may be led by keepers speaking about their day to day routines, authors in conservation or popular science, wildlife filmmakers or photographers, or academic specialists.



Buildings and facilities

Forms of educational amenity embrace:

- purpose built educational centres with fully equipped classrooms
- animal contact centres with ‘phobia therapy’ programmes
- new media initiatives
- play facilities and activity trails invariably integrating some form of education message.

In addition, extensive zoos libraries are often available to the public.

The On-Line education offer

The Zoos regularly produce on-line materials, such as CDs for educational use, and their websites lay a special emphasis on educational delivery. Teaching materials, information sheets and educational games are all available on line. Web cams tracking animal activities are increasingly popular. Paignton Zoo has been especially progressive in an educational website (rainforestlive.org.uk) dedicated to increasing awareness of rainforests and the pressures upon them.

This report places a special emphasis on the potential future contribution of progressive zoos to the information society.

This report places a special emphasis however on the potential future contribution of progressive zoos to the information society. The experience of visiting the zoo can of course never be replicated by an on-line experience, however dazzling the software; and it would be dangerous to miss those life-defining first visits to see real animals in a real landscape. However the ‘raw material’ of that zoo visit lends itself extraordinarily well to be ‘rolled out’ on-line. Furthermore it is generally accepted that e-learning is best exploited through ‘blended learning’, a combination of pedagogical models that meshes together both face-to-face and remote delivery systems.



The Zoos are well placed to extend a superb offer of a sustained educational support for learners who have visited their sites by building complementary on-line resources. These would extend well beyond self-study CDs and Web Sites and would encompass a continuing active and interactive role in which the educational advisers in the Zoos are both available for continuing e-mail contact; and are part of zoo teams who create 'bulletin boards' with news items aimed at particular educational sectors. Web cams, often already in place, would be highlighted, so that individual learners can follow up their interests in particular animals or birds by tracking their activities.

Since the DfES (through BECTA) has hugely invested in, and encouraged, the development of electronic materials (through initiatives like the National Grid for Learning and Curriculum OnLine), it is perhaps timely to embed the obvious resources that spin out of the Zoos'

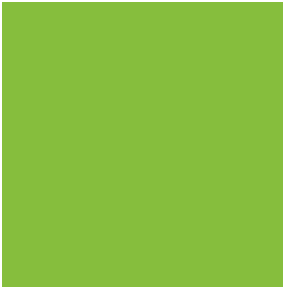
educational programmes into these programmes. Moreover, the Zoos may play a particular role within the new overall educational paradigms developing in response to ICT initiatives.

Conclusion and Future Outlook

The Zoos look to continually expand, improve and strategise their educational output and to be acknowledged as conduits for relevant education programmes of agreed social benefit.

They would value research cooperation on visitor psychology and opportunities to key into various cultural traditions and needs within the wider UK society.

It was actually local government that originally catalysed the development of many leading zoo education departments, and the Zoos would be keen to once again explore partnership possibilities with all relevant education and training initiatives within the Government's portfolio. They see a particular convergence with Government's wish to radically raise public levels of environmental awareness. They would also be especially eager to dialogue with BECTA as to the dramatic synergy of their activities with Government strategies for the development of the Information Society.





Conservation Output

“Support for the sustained survival of populations of wild animals and their habitats” serves as a generally accepted definition of ‘conservation’. This ethic is an overriding priority for all the zoos in the current consortium and reflects a dramatic change in the roles of zoo worldwide over the last three decades. Conservation action was mandated as a necessary activity by the EU Zoos Directive, and in turn the Secretary of State’s Standards for Modern Zoo Practice in 1999. It is important to signal that this legislation was developed at the behest and with the support of leading UK zoos, rather than imposed upon them. Zoos are managed by passionate conservationists who have led this process of culture change, rather than having been driven by it. Progressive zoos are leaders in conservation, not followers.

The zoo educational programme is a conservation action in its own right in that it raises awareness and changes behaviour on crucial conservation issues. However, ‘direct’ conservation action is normally categorised as:

- **‘in situ’**: action to mitigate species and eco- system damage in the wild range
- **‘ex situ’**: strategic ‘within zoo’ breeding programmes on selected species cooperated on a national and international scale.

All three strands of conservation action feed into one another. The members of the CCZ are intent on effectively profiling their ‘in situ’ and ‘ex situ’ activities before the huge attendant educational audience to maximise synergies. They also work closely with international conservation NGOs such as the Worldwide Fund for Nature and Fauna & Flora International. The Progressive Zoos’ audience of 5.5 million visitors is of course the one element, the ‘unique selling proposition’ that other conservation NGOs do not have access to and thus value enormously.

‘In situ’

Direct ‘in country of origin’ conservation action is a growing priority for all responsible UK zoos. ‘In situ’ projects embrace work in the field, captive breeding adjacent to a

species’ wild range, veterinary support, education, training and community work, reintroduction, scientific research and welfare activity in support of conservation. The CCZ members are committed to a process of continual evaluation and appraisal as to their programmes’ effectiveness.

The CCZ is increasingly focused on an integrated attitude to conservation. In addition to focusing on habitat rather than species, they address the economic, social and cultural needs of the adjacent human population. In this context, they would particularly welcome discussion as to supporting the Government’s overseas development and poverty alleviation programme.

Comparative surveys on zoos conservation projects in 1995 & 2000 showed an 61 % increase in number of projects undertaken and a 41% in the number of countries supported. This survey will be henceforth be updated on an annual basis. Other recent investigations have been directed at evaluation of the beneficial output, rather than financial input.

In 2003 the CCZ directly contributed more than £6 million to over 235 ‘in situ’ conservation projects in excess of 167 countries as well as drawing down major amounts from external funders.

It is important to underline that the progressive zoos do not solely work with exotic species overseas, but are also important contributors to indigenous UK wildlife with involvements in a number of official Biodiversity Action Plans including Corncrakes, Dormice, Harvest Mice, Field Crickets, and the House Sparrow.

All the funding for work overseas and in the UK is ultimately dependent on the paying zoo visitor. UK zoos are therefore major net financial contributors to wildlife conservation overseas and in the UK.

'Ex situ'

A strikingly cooperative element in the Zoos' management of species in their keeping is the concept of 'the National Collection'. Most progressive collections have come to regard legal ownership or monetary value as an irrelevance. Thus for instance the 50 or so reproductively viable Asian Elephants, a highly threatened species, are managed collectively as part of the 'UK herd'. A co-operative system of breeding loans and general sharing of resources, managed by a UK 'stud book holder', acts as a safety net against the prospect of total extinction. All individuals belonging to an endangered species are logged onto the International Species Information System (ISIS) based at the Minnesota Zoological Gardens. ISIS currently logs 1.65 million individual animals representing 10,000 different species held at 586 institutions in 72 different countries.

Zoos look to the possibility of eventual re-introduction of such populations, but do not underestimate the many complexities therein. Particular emphasis is laid against the genetic arithmetic mandated by healthy population management. The aim of each programme is to retain at least 90% of the overall genetic diversity of the species over a period of 100 years. This UK wide cooperation (largely involving the members of the current consortium) is then mirrored on a European and global scale. A sampling of cooperative programmes is listed in Appendix 5.

The Consortium zoos do not claim that through captive breeding they can maintain anything more than a minority of endangered species: the holding spaces available are just too limited. However they would contend that the saving of even one species is surely worthwhile. All of the funds that support these projects are ultimately generated by the zoo visitor, and would not be available if there were no zoo to visit. There is thus no question of competition for resources between 'in situ' and 'ex situ' programmes. Furthermore when a species faces a proximate threat of extinction, it is shortsighted to rely entirely on one means to address the issue. Zoos look on the conservation problem holistically and endeavour to pursue all possible solutions in an integrated fashion.

The Zoos also accept that an additional focus for conservation is at the level of the ecosystem or holistic landscape within which non-human animals, plants, micro-organisms and human beings interact. Ex situ programmes necessarily tend to focus on single species and often large charismatic mammals. Zoo based species survival programmes are therefore carefully counterbalanced and contextualised by education and in situ projects, stressing the protection of eco-systems, rather than species.

Conclusion and Future Outlook

The progressive zoos would seek greater collaboration between their conservation programmes and the Government's own environmental agenda, especially in areas where profiling initiatives in front of the visiting public would be of interest to both parties. They would also look for ways in which their holistic approach to global biodiversity might support the Government's overseas development programme.

Government incentives to help build further and deeper partnerships with conservation NGOs and to attract high calibre graduates to the Zoos in order to increase technical and professional delivery would be well received.



Scientific Output

Why carry out scientific research in zoos?

Zoos offer opportunities to study and gather information on a wide variety of exotic species at close quarters in ways that are not available in any other context.

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The layman, exposed to the vast store of knowledge that is human biology or agricultural science, is often surprised to learn how relatively little the scientific world knows of the physiology, anatomy, behaviour, diseases and parasitology of wild species. Compared to our comprehensive scientific understanding of, for example, Gallus (the domestic chicken), mankind is alarmingly ignorant as to the overwhelming majority of animal life on Earth.

The scientific role of zoos has developed in keeping with their conservation role. Every step within an 'in situ' conservation programme needs to be underpinned by solid knowledge. This might include work into the genetics of small populations or the taxonomic boundaries between sub-species. Studying diseases in all affected species ex situ can be vital in understanding and controlling diseases in the wild.

'Ex situ' breeding programmes also need to be knowledgeable. Reproductive physiology, endocrinology and ethology are especially important. A new field has opened in recent years in cryobiology and associated advanced techniques to store the genetic inheritance (eggs, sperm or embryos) of vanishing species. Even whilst this report was being compiled, yet another tier has been added to the struggle against total extinction in the form of a 'species by species' DNA preservation programme: "The Frozen Ark".

In addition to the overriding conservation issue, an increasing knowledge of the physical and behavioural requirements of zoo species is vital for the highest standards of day to day animal welfare itself. A scientific focus on the welfare of the individual animals under zoo care leads to a more compassionate attitude to the preservation of species as a whole. Relevant areas of investigation include diet and nutrition, contraception, wildlife medicine and behavioural studies.

Finally, zoo based research has great relevance to fields other than the purely zoological, including agriculture and human medicine. Economically vital agricultural populations and human society can be subject to pathologies seen also in wild and feral populations. The recent Foot & Mouth epidemic and threat posed by Avian Influenza show up a persistent dearth of information on diseases in wild animals. West Nile Virus was first detected in the USA in zoo populations by the zoological veterinary community. Furthermore the basic data required even in the most modern branches of biological sciences, can be easily harvested from a multitude of species in zoos.

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Ultimately it is in the nature of scientific endeavour that one can never predict the final application of any given piece of research.



What is the current scientific programme carried out at zoos?

In collaboration with Universities and other institutions, Zoos carry out work, or offer facilities for work in the following fields;

- ethology
- ecology
- nutrition
- population biology
- reproductive physiology
- taxonomy and morphometrics
- wildlife medicine
- epidemiology
- research methodology (developing and testing research methods before application in wild populations).

Given the enormous and appropriate sensitivity around ‘animal experimentation’, the potentially misleading expression ‘research’ requires careful definition. In the zoo context this relies largely on observational techniques and sample collections occurring either naturally in the day-to-day management of the species in question, or when an individual has been anaesthetised for veterinary treatment. Great care is taken to minimise any disruption of the animals’ natural diurnal or nocturnal rhythms.

Zoo science offers advantages that neither field biology nor laboratory work can rival: ease of access to a large number of wild species with individuals of known age, sex, parentage and background living in natural social groups in relatively natural conditions.

Zoo science offers advantages that neither field biology nor laboratory work can rival: ease of access to a large number of wild species with individuals of known age, sex, parentage and background living in natural social groups in relatively natural conditions. Endangered species are simply not available in laboratories and the only realistic access to such animals would be through a zoo collection or in the wild. In the latter the bias of captivity-modified behaviour can of course be eliminated. However, there remains the ethical risk of disrupting a fragile population and the enormous logistical challenge of wild range study. In simulating wild conditions to the best of their ability, zoos present an excellent compromise for animal study, especially in the instance of endangered species.



What specific scientific activities are zoos engaged in?

Many of the Zoos have designated scientists on staff, and all have relationships with a number of universities. In 2003, the CCZ published over 250 significant scientific publications (theses, conference proceedings, articles, etc) and hosted 7 major scientific conferences and symposia.

All of the zoos represented in this study cooperate fully via the BIAZA Research Group. This body supports, stimulates and co-ordinates research activities, and organises an annual Zoo Research Symposium convening academics, students and zoo biologists. The group liaises closely with Chairs of the British & Irish Taxon Advisory Groups to optimise research relevance to respective species survival plans.

Cooperation between zoos is increasingly vital. This is not only due to the importance of sharing data and making it as accessible as possible. The number of animals within a given collection may often be too small to generate data applicable to the wider population. The legitimate focus must therefore often be an inter-institutional study on the 'national collection' of the species in question.

In addition to Universities, zoos co-operate closely with Government agencies involved in science based conservation on a national (e.g. DEFRA Global Wildlife office) and international basis (e.g. CITES).

Some brief examples of recent research projects are listed in Appendix 6. Although all the zoos in the CCZ have significant and growing scientific programmes, the Zoological Society of London does, due to historical factors, via the Institute of Zoology (IoZ), constitute a unique provider. The other members of the Consortium naturally celebrate, endorse and capitalise upon this unique resource within their charitable community. The other scientific initiatives associated with leading UK zoos vary widely in model. These would however also value the Government's encouragement to develop the necessary critical volumes of research staff and programmes to extend and complement IoZ's delivery. The IoZ brings an international profile to London and the UK and stimulates overseas demand for UK expertise. It would be beneficial to roll out this distinctive asset to the rest of the UK.





Conclusion and Future Outlook

Despite its long history, the greatest contribution to Society of ‘zoo science’ may still perhaps lie in the future.

‘Knowledge management’ is a new field and the development of new database systems will provide critical links between knowledge gained through species management in zoos and its use in the wild. The intellectual capital of zoo veterinarians, scientists and husbandry experts could thus be transferred to other arena (in situ conservation; institutional research; academia; the public debate on various welfare issues). The Government’s facilitation of such partnerships would allow information learned at the progressive zoos to be applied to scientific users and all relevant decision makers worldwide.

There are plenty of bilateral relationships between individual Universities and zoos, but no consistent associative pattern, or UK equivalent of the ‘Consortium of Universities, Aquariums and Zoos’ in the USA. A Government role in brokering and financially incentivising a systematic partnership programme with the University system would be of great interest.

Society could generally capitalise much further, strictly within the limits of benign research, upon the huge ‘databases’ of exotic fauna that constitute zoos collections.

Society could generally capitalise much further, strictly within the limits of benign research, upon the huge ‘databases’ of exotic fauna that constitute zoos collections. This might extend beyond the pursuit of conservation and education to the service of science in general. Fundamental data and genetic resources at the cellular level required by cutting edge bio-science could easily be gathered on zoo sites. The CCZ would wish to work with all parties to make their collections more available for ethically responsible research that would increase the global information available.

Zoo leaders want to and are capable of doing more science, but are fundamentally restricted by lack of budget. Members of the CCZ would generally welcome a greater Government recognition and encouragement of the relevance of zoo science.



Zoos as Champions of Animal Welfare

The charitable zoos represented in this study, objectively viewed, are animal welfare organisations.

The well being of individual animals is a driving principle for these organisations: a concern and sympathy for animal kind constitutes the chief motivation of most of the individuals who work in the good UK zoos.

In the context of the overall history of wild animals in captivity and, the distressing state of some zoos abroad, the Members of the Consortium would recognise that:

- in former times, the overall record of wildlife in captivity was not laudable in animal welfare terms
- there sadly remain in the UK a small and diminishing number of organisations that struggle to meet the standards set by the Zoo Licensing Act 1981. The progressive zoos are working by example, encouragement, and through the licensing inspection process, to bring such zoos up to standard
- there is a small but vociferous minority of lobbyists wishing to close all zoos down irrespective of their commitment to animal welfare
- no zoo worldwide is perfect in its animal welfare delivery. New knowledge and experience means that zoos are constantly adapting and improving, but there is no place for complacency or self satisfaction on such a critical issue.

These considerations aside, the exotic animals in the care of the CCZ are cared for to a standard comparable to, or even in excess of that which they would experience in their wild estate. Levels of well-being in progressive zoos are far in advance of those to be found in agriculture and in the situation of many domestic pets. There is of course no comparison at all with the conditions of laboratory animals, or those in circuses. The greatest repository of understanding as to the care of exotic animals lies within the province of the good zoos.

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How do progressive zoos pursue and promote animal welfare?

A tenacious focus on the complex, varied needs of a host of mammals, birds, reptiles, amphibians, fish and invertebrates necessarily subtends and elides with all other key aims of the progressive zoos such as conservation, education and science.

Consequently there is a general tendency amongst the progressive zoos to reduce and optimise the number of species kept, and to co-operatively concentrate on species of conservation significance. In keeping with this they have also allocated larger and better spaces to groups of individuals.

The aim of all welfare strategies is to maintain natural and 'species typical' behaviour by providing an appropriate range of physical, biological and mental stimuli. Activities and disciplines in pursuit of these aims are listed in Appendix 3.

It is important to fully appreciate that animals in the wild do not live in some kind of 'paradise'. Their lives are constantly beset by threats from predators, parasites, disease, starvation, climactic extremes, and all wild animals finally succumb to one or other of these, usually in a good deal of distress or pain. These random elements are all removed in a good zoo environment.

Clearly zoo life, however sophisticated the accommodation, must, in contrast to the wild, involve some form of restriction of movement for its inhabitants. However, many wild living animals also live in relatively small and tightly defined territories: their 'freedom' is radically restricted by the daily battle to survive. Although certain species by contrast do traverse enormous distances on a daily basis in search of food, or to defend territory, contrary to popular mythology, wild animals do not make long and exhausting journeys 'for fun'. Ironically with many of these latter species (big cats or elephants for example) the challenge in zoos is often to somehow persuade or motivate them to take the exercise their long term health requires.

The conception that there is a welfare value in the state of wild living itself is a dubious one, and clearly feeds from an anthropocentric view of the world. The animal is only interested in the physical and visual environment to which it has access. If this satisfies its psychological and physiological needs, the notions of 'wild' and 'captive' are irrelevant to that individual. When anthropomorphic notions of 'freedom' and 'dignity' begin to tempt, it is vital for the objective commentator to remember that a lion is not somehow 'a human dressed up in a lion suit': it is a lion with all its fascinatingly alien attributes. It is generally that which makes animals different that makes them so intriguing, not the imposition of one dimensional human caricatures. It is also these distinctive and complex requirements that a welfare regime should address, not patronising and simplistic analogies with human needs.

A lion is not somehow 'a human dressed up in a lion suit': it is a lion with all its fascinatingly alien attributes

Conclusion and Future Outlook

Animals in good zoos are some of the best cared for animals of any species in the UK, and for those who truly value the ethos of animal welfare, good zoos must be seen as part of the solution, not the problem. The Community of Charitable Zoos values the closer and more productive dialogue that is developing with sophisticated animals welfare charities and is pleased to work towards a shared agenda.



Zoos as Vehicles for Regeneration Policy

Over the last several decades successive UK governments have rightly focused on the potential for tourism and culture as an economic development tool. Support for tourism, heritage and leisure facilities as well as for those projects that add to a locality or region's unique and authentic identity have been seen as means to alleviate serious social problems, to develop prosperity and to reinforce a sense of unique place and cohesive community.

A wide variety of projects were funded through various statutory sources, most notably the National Lottery. Typically the focus for such investment included:

- garden festivals
- waterfront developments
- regional outpost of National Museums and Art Galleries (Tate Liverpool, National Armouries at Leeds, Imperial War Museum North, Manchester).

Unfortunately some projects fell far short of initial expectations. The Centre for Popular Music, Sheffield; Urbis, Manchester; the Royal Armouries, Leeds; Chelsea World of Sport and the Earth Centre, Doncaster are amongst those that have faced difficulties, including closure.

Nearer to the 'zoo world' however, The Deep in Hull and the National Marine Aquarium in Plymouth have been successfully established. Indeed throughout Europe, Japan and North America, prestigious aquariums have consistently proven viable regeneration projects and civic pride investments. A major new conservation led aquarium is planned for Silvertown in London.

The success of the Eden Project has also turned minds to the virtues of natural history attractions as regeneration vehicles. Even more recently, Living Coasts in Torquay has proven that a zoological attraction other than an aquarium can prove an exciting and viable component in an economic regeneration programme.

Living Coasts is a conservation led aquatic animal exhibit owned and managed by the Whitley Wildlife Conservation Society. It features seals, aquatic mammals and seabirds and tells the story of coastal life in general and the South West Coast in particular. As part of the wider regeneration of a deprived and run down area of Torquay, it has proven highly successful. Architecture, setting, planting and use of materials are all consonant with the specific locality, and Living Coasts features many species native to the Devon and Cornwall shores. In this way it presents a "must do while in area" offer, a required sampling of the authentic flavour of the English Riviera. Living Coasts also uses its exhibits to further invite visitors to sample the natural heritage of the entire region in a classic 'attract and disperse' tourism marketing strategy.

Over the next few decades a number of other major transformational zoo projects are proposed. Some of which are briefly detailed in Appendix 7. In certain instances, this will mean redevelopment of an existing site: in others new locations will become home to 21st Century ecological tourist attractions. In each and every case the progressive zoos are looking to :

- move even further away from the nineteenth century menagerie model
- concentrate on fewer species needful of greater conservation attention





The zoo concept weds a simple, guaranteed recreational proposition on the one hand with a deeper meaningful educational, environmental and social purpose on the other. In lying at such a fortuitous juncture zoos have few competitors



- give greater weight to UK and European biodiversity issues
- use technology to ‘up the educational ante’
- partner with Government on issues such social inclusion, vocational training, regeneration and tourism.

As exemplified in Living Coasts, and in contrast to the disappointing projects mentioned above, the established zoological societies offer a number of advantages as reliable platforms for regeneration investment:

- the fundamental tourism and leisure proposition of the zoo visit is ‘tried and tested’; it does not require elaborate feasibility analysis; it does not demand ‘a leap of faith’
- unlike Museums, Botanical Gardens, Science Centres, or most other large attractions, the progressive zoos do not fear a fall off in numbers in years subsequent to inception due to a public satiation with their fundamental proposition. Organic growth and natural development of the animal collection (birth of new animals, strategic movement into new species) presented in seasonally changing parkland surroundings guarantees the public a fresh experience at least every two years. Zoos are especially competitive within the experience economy due to this automatic self-reinvention
- the zoo concept weds a simple, guaranteed recreational proposition on the one hand with a deeper meaningful educational, environmental and social purpose on the other. In lying at such a fortuitous juncture zoos have few competitors

- the great flagship zoological societies are already undoubted contributors to the essential distinctive ‘personalities’ of their respective cities, towns and localities. As they move to further differentiate themselves one from another, and develop their individual branding, perhaps through engagement with natives species, perhaps through strategies in product development and marketing, they will develop this affirmation of a unique sense of place on behalf of the regeneration aims of their regions
- the intensive nature of animal husbandry means that wildlife attractions necessitate a relatively high number of core jobs plus numerous ancillary employments in catering, retail and other support functions
- wildlife initiatives are eminently suitable projects to ‘green’ environmentally degraded areas. The ‘re-injection’ of the natural and emphasis on a variety of open spaces and mixed use central to regeneration theory sits well alongside modern zoo design concepts
- as detailed in sections 5 & 6 on audience and educational potential, zoos draw an attractively inclusive constituency and offer multiple opportunities for education and skilling in general and ICT training in particular.

Conclusion and Future Outlook

The Consortium of Charitable Zoos is working hard to endow the UK with a vibrant new generation of tourist attractions and conservation centres with all the economic and social benefits detailed elsewhere

The UK zoos would welcome discussion as to how they might further mould their own ambitions to offer even greater regeneration value to the respective Nations and regions where they are situated. A strategic and consistent partnership between Government and the Consortium of Charitable Zoos might yield huge benefits in terms of future urban and rural regeneration policy.



Potential Avenues of Financial Encouragement

Funding Options

In this section, alternative means of providing central government funding support to the Zoos are considered.

In the recent pre-budget report (02.12.04) the Chancellor moved to curtail the existing system linking Gift Aid to Day Membership. A system has been proposed whereby a donation at least 10% in excess of standard admission would render the entire transaction tax effective. The Consortium welcomes this flexibility and its members will look at the potential for making such a system work. However the current 'status quo' in terms of Gift Aid linked to visitor numbers has been the only period in UK zoo history when it has been possible for the charitable zoos to develop and extend their social, educational and environmental deliveries; the severing of this link remains a severe financial blow. The CCZ would therefore wish to continue to explore other funding options as below, and would request, that, for all the reasons stated elsewhere, the charitable zoos be judged on their own merits as a distinct sector within a distinct dialogue.

Although two specific options are tabled below (one in respect of revenue income, one in terms of capital), the Consortium's aim is simply, on the basis of a new recognition of the Zoos' contribution, to provoke a dedicated discussion with Government. This would be without committing to, or pre-empting any particular avenue at this stage.

Proposal 1: A form of tax refund linked to zoo visitors to assist revenue flow

A system of tax relief is proposed reflecting numbers of visitors to the charitable zoos. This would have some of the features of the current Gift Aid regime, but would be tailored specifically to promote engagement with conservation, the environment and green lifestyles. Such an initiative would also be intentionally designed to reward success by the zoo bodies and be the fruit of a dialogue specific to this unique and perhaps overlooked charitable sector.

Tax effective giving has proved that providing a tax relief which links the action of individuals directly with good causes brings benefit to both the individual and the organisation involved.

For the individual and in turn British society as a whole, participation in such causes can only be positive, strengthening social awareness and encouraging real engagement with (in the case of zoo bodies) conservation and environmental issues.

For the organisations themselves, encouraging giving, and linking with it tax refunds, clearly brings financial support, providing funds to allow the zoos to further their aims of education and conservation.

Most importantly with this general type of relief, it is possible to encourage and reward those organisations that help themselves through best practice, continual improvement and sound financial management. The reasoning here is simple: if a zoo is progressive, well managed and contributes strongly and positively to the overall tourism offering in its area, it will attract more visitors. In turn, this will, under a system which provides relief based on the visitor's tax position, translate to increased funding for the organisation. In brief, the system rewards success and this ties in very closely with Zoos' ethos of independence and progression through success in the marketplace. For this reason, the Zoos would welcome some system of tax relief which is linked to their entrepreneurial approach and which generates real engagement with the British public. Such a relief may involve reform or refinement of the current Gift Aid day membership scheme or the development of a new approach.

Reform of the system

Some refinement of the system might be appropriate and the Consortium of Charitable Zoos would be keen to work with Government to effect the appropriate changes.



It is beyond the scope of this document to make detailed submissions on the nature of a replacement system but as a general approach, the Consortium members would recommend that any reform or new generation relief should have two aims:

- to continue to encourage engagement between the individual and the zoos
- to limit the scheme to these organisations that can demonstrate, through constitution and practice, that the funds obtained will be directly used in the continuance and improvement of the organisations' charitable aims and objectives.

Limitations of the type set out in second bullet have been successful in the VAT legislation in limiting the use of reliefs to the organisations they were intended for. Although such limitations may lead to some increased compliance cost in terms of record keeping, the overall benefit to the zoos will still be significant and the integrity of the relief will be protected.

Conclusion:

- a system of tax reliefs linked to individuals visiting the zoos should be available
- the system must encourage independence and efficiency in the organisations making claims
- the system must encourage giving and promote a feeling of engagement with environmental issues to the wider British public.

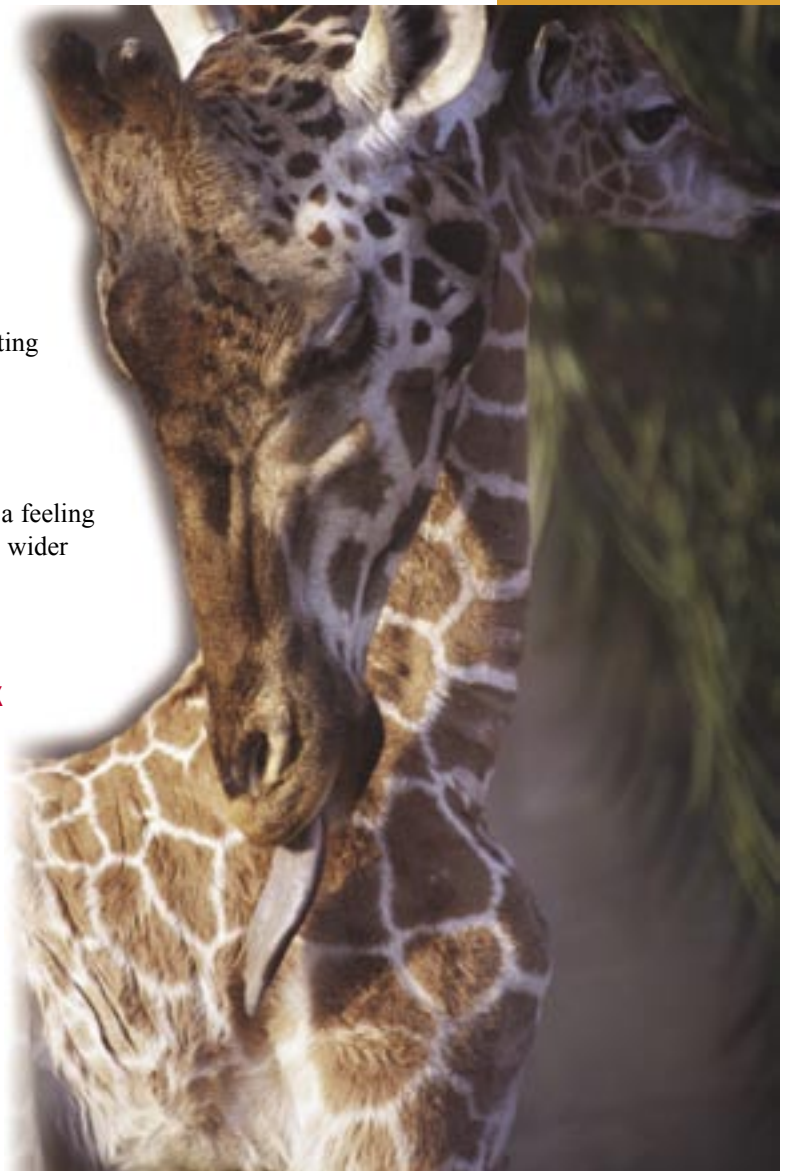
Proposal 2: optimal Value Added Tax regime to boost capital investment

The Consortium would value discussion around the most appropriate rate of VAT on admissions.

Although the Zoos would not wish at this stage to commit to a particular model, one possible way forward would be for the Treasury to consider an amendment to the VAT law which would impose VAT on admission to UK zoos at the rate of 5%.

At present admission to charitable zoos is exempt from VAT. This exemption has, in principle,

been available since 1 January 1990. However, it should be noted that only in recent years, following a case taken to the ECJ by the Zoological Society of London, have the zoos received the benefit of the exemption. Whilst the exemption for admission has provided a welcome financial boost for the zoos, there are some aspects of it which create difficulties.





The major issue is that VAT on costs and expenses ('input tax') is not eligible for deduction against VAT liabilities (or refund from Customs & Excise) if it is linked to exempt activities. In brief, this means that (in a worst case scenario) the cost of capital projects may be 17.5% higher for a VAT exempt organisation than for a 'taxable' organisation. This is exceptionally important for those zoos considering increasing their delivery to society through major capital expenditure in the context of wider urban and rural regeneration projects or upgrading developments to boost current tourism product.

The zoos would not wish to return to a position where VAT at 17.5% was chargeable on admissions because whilst this would solve any issues of VAT recovery, the overall effect would be negative due to the major impact on gate receipts. However, it is arguable that the problem might be resolved and the overall financial position of the zoos improved by imposing VAT at the current lower rate of 5%.

The use of the lower rate is strictly governed by EU law. However, its application to zoo admissions should be

permissible under the provisions of EC Sixth Council Directive 77/388/EEC, Annex H (list of supplies of goods or services which may be subject to reduced rates of VAT). Category 7 of Annex H covers:

'Admissions to shows, theatres, circuses, fairs, amusement parks, concerts, museums, zoos, cinemas, exhibitions and similar cultural events and facilities'.

Introducing the lower rate for zoo admissions would, of course, require careful consideration of a number of issues such as:

- implications for the current exemption for admission charges (and other cultural bodies)
- should both charitable and commercial zoos be included?

Advising on the approach to these and other associated matters is beyond the scope of this document. However, the Consortium of Charitable Zoos would, of course, be pleased to assist in the consideration of the issues.





Financial impact of lower rate

The effect of imposing VAT at the lower rate would vary according to the size and trading performance of the zoos concerned, but would in each case be advantageous in terms of ongoing benefit.

Much greater benefit would be expected however during periods of major capital expenditure. For example during development of new sites and the extension of existing facilities. At present, budgeting for the VAT cost of such expenditure is difficult and requires projection of future recovery rates (which can vary and might be subject to agreement with local Customs officers).

Other benefits

Apart from the relief that lower rate VAT would provide in the form of input tax deduction, it would also assist by creating greater clarity and certainty for the charitable zoos. VAT accounting and compliance for an organisation making exempt supplies can be complex as the organisation will have to apportion input tax between exempt and taxable income streams and agree apportionment methods with Customs & Excise. This can lead to disputes and the

way that the exemption rules operate mean that adjustments to input tax can be required up to 10 years after the initial deduction.

Such issues are greatly reduced if lower rate VAT is introduced because full deduction would be allowed automatically and the likelihood of subsequent adjustments would be greatly reduced.

Conclusion:

- lower rate VAT is allowed under EU law
- provides a cash boost for zoos by allowing full input tax deduction
- particularly beneficial for large capital projects
- reduces compliance costs
- assists budgeting by creating certainty on VAT accounting
- lower rate VAT is applied in a number of EU States.

Rates comparison – Europe

Country	Current VAT Rates		
	Not-For-Profit Zoos	Other Zoos	Standard Rate
Belgium	Exempt	6	21
Denmark	Exempt	Exempt	25
Finland	8	8	22
France	5.5	5.5	19.6
Germany	7	16	16
Italy	Exempt	20	20
Netherlands	6	6	19
Spain	Exempt	7	16
Sweden	6	6	25



Concluding Remarks

The basic thesis of this study has been that Government could and should engage more fully with the progressive zoos. The preceding pages have delineated the very positive role played by zoos in a list of areas where Government and Society at large have vested interests.

Why is such an obvious partnership not already of long standing?

This has perhaps been due to a semi-formulated notion held in the past by some to the effect that even the most progressive zoos were somehow ‘not entirely respectable’. Certainly they did not easily fit into an existing wider mental category: the general ‘high brow’ area of opera, heritage and the arts on the one hand; or the ‘uncomplicated and straightforward’ arena of sport on the other.

It is arguable that charitable zoos have always suffered by ‘falling between two stools’, and that consequently no single Government department has ever taken full responsibility for them. Are these organisations environmental bodies? Or are they tourist attractions? Are they there for scientific research? Or for education? Are they more akin to parks? Or museums? The Manifesto would offer the view that actually the progressive zoos are all of these, and very much more, a fact that should hardly be seen as liability, but rather as an exciting untapped possibility.

It is probably also true however that the approach to Government represented by this document has never before been made by the zoological community in this particular

form. The Consortium of Charitable Zoos is a recent phenomenon which, working closely with the wider British & Irish Association of Zoos & Aquariums, has already provided cohesive delivery on a number of fronts.

What is the Consortium of Charitable Zoos specifically asking of Government?

The members of the CCZ have a strong wish to continue to control their own destiny: they certainly do not wish to lose their valued commercial sharpness or become reliant on the state. However, they would value a more structured and considered relationship with Government to permit long term planning and the stable future outlook that has proven elusive in the past. The CCZ would therefore appreciate careful consideration around two matters:

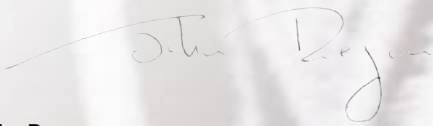
- the initial fiscal suggestions in the preceding section, which would help to generally underwrite continued delivery across a broad front
- a new form of ongoing dialogue with Government at a higher level than previously. This would work on a no-commitment basis to explore how Government and the Consortium can work more closely together on the issues of clear mutual interest laid out in this Manifesto. Departments and agencies of most relevance to the work of zoos would, in addition to Defra, include:
 - DfES
 - Learning & Skills Council
 - ODPM
 - DTI
 - DCMS
 - Office of Science & Technology
 - DfID

'A Parting Word'

The recent EU Directive on Zoos was developed whilst the UK was in the European Presidency chair, a successful collaboration between the UK Government, a grouping of UK zoos very like the current coalition and the European Association of Zoos and Aquariums. It is regarded as a model of its type, and is in the process of being applied and enforced all over Europe. The UK as a whole can thus be extremely proud of being a European leader as to a new conception of what constitutes a modern, progressive zoo.

Such a conception is clearly moving on: it has moved on in the philosophy and attitude of zoo leaders; it has self evidently moved on in the minds of the millions who visit good UK zoos in ever increasing numbers.

It is now timely for it to move on in a new form of partnership between progressive zoos and the UK Government.



John Regan

1st November 2004



Appendix 1

Acknowledgements

The Manifesto acknowledges the critical assistance of all nine participating charities in compiling this report. The guidance and support of Dr Miranda Stevenson, Director of the British and Irish Association of Zoos has also proven especially important.

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Appendix 2

Some initiatives aimed at widening revenue and capital funding potential

In a bid to broaden the attending audience, zoos have established ‘out of hours’ or ‘out of season’ events:

- Paignton Zoo provides badger watching during the summer
- Living Coasts runs ‘Sunset Suppers’ during the summer
- Chester Zoo runs a ‘Santa Trail’ at Christmas
- Bristol Zoo mounts a very successful series of summer evening events.

Such initiatives are also increasingly designed as culturally and socially diverse so as to both amplify the available market and better serve the entire community.

Most of the charity zoos now have ‘development’ or fundraising functions. These tend to focus on medium sized capital projects, overseas conservation projects or education programmes, and thus have little direct impact on revenue streams.

Zoo management has on occasion succeeded in attracting injections of external capital funds:

- Paignton Zoo successfully bid for Objective 5 funding (just under £5 million) to develop its site during

the late 1990s and won Objective 2 monies and support from the South West Regional Agency (totalling £4.6 million) to develop Living Coasts in Torquay

- Chester Zoo attracted major sponsorship (£2 million) for its Spirit of the Jaguar exhibit from Jaguar Cars, and raised a further £1 million to support its work with Asian Elephants
- Edinburgh Zoo has also had a successful fundraising programme on behalf of various projects and has recently concluded an agreement with the University of St Andrews and the Scottish Higher Education Funding Council for a £1.6 million Primate Study Centre.



Appendix 3

Animal Welfare

The following activities and disciplines realise the Zoos' commitment to the highest standard of physical and psychological well being for the animals in their care:

- analytic and systematic approach to diet and nutrition: all 25,000 individual animals in the CCZ collections have carefully managed diets based on internationally collated data. Knowledge of nutritional requirement is important at all stages of an animal's life, particularly during periods of rapid development
- optimal structure and size of the social group: attention is paid to individual and species preferences for companionship or solitude. Mixed species accommodation is considered where the benefits outweigh the hazards
- careful attention to design of enclosure to ensure a sense of territory and ownership: retreat from the public gaze, degree of space and an appropriately complex space are all important, as are natural sunlight, an organic and yielding substrate, swimming and climbing facilities (if required by the species)
- professional veterinary treatment and pain relief: comprehensive cover by professionals with relevant knowledge and experience is supported by specialised diagnostic and treatment facilities
- highly trained, and motivated keeping staff, many of whom are species specific and have received specialised training. They are fully resourced to be dedicated to their animals' well-being on a 365 days a year basis
- environmental enrichment programmes: such physical or behavioural beneficial 'stimulations' include:
 - varied feeding times
 - making food challenging to actually find and encouraging natural foraging
 - rotation of enclosure previously occupied by other individuals or species who have left intriguing scents and other stimulating traces
 - carcasses introduced to predators rather than prepared foodstuffs
- every opportunity is taken to introduce variety, beneficial challenge and opportunities for 'play' into animals lives
- promotion of animal welfare to the visiting public, particular organisations and Society as a whole: zoos switchboards are constantly busy with enquiries from wildlife rescue centres, overseas breeding programmes, custom officials, vets, animal welfare officers and the general public as to caring for exotic species. They collaborate with animal welfare groups to train pet shop staff in welfare protocols to hand on to customers. They work closely on the ground with animal welfare charities to further their general mutual welfare mission and animal rescue in particular. Welfare awareness is also actively achieved through their general education programmes.

Appendix 4

Some examples of educational provision

Some examples of the reach of zoo education:

- Edinburgh Zoo runs a special programme for nursery children. Marwell Zoo provides special sensory sessions for Special Needs groups
- The Welsh Mountain Zoo runs a ‘zoo in the community’ service, whilst Marwell Zoo offers a variety of 30–40 minute talks within its ‘outreach programme’. For those who seek a more ‘in depth’ and on site experience, Paignton offers residential courses
- Paignton provides financial support to assist a Nigerian school with its environmental projects. Chester directly funds environmental teaching programmes in the Philippines
- Paignton Zoo jointly runs a one year Masters degree course in Zoo Conservation Biology with Plymouth University. Chester

Zoo manages a module within the MSc programme at Manchester Metropolitan University

- in response to the vast demand for guidance on careers working with animals, ZSL offers a special one day training course, whilst Chester Zoo issues a free pack of advice, guidance and contact information
- combining the education and conservation remits, Bristol Zoo runs summer campaigns on the ‘Bushmeat Crisis’ or the ‘Over-fishing issue’.

Some examples of range of subject:

Typical topics would include:

- ‘colour and pattern in the animal world’ or ‘the variety of life’ (both for younger audiences)
- ‘adaptation’ or ‘conservation and genetics’ (for older school children)
- more unusually in 2003 London ran modules on literacy and citizenship

- Bristol has a special interest in local conservation and recycling issues. Twycross will customise its A Level talks upon request to specific modules on the syllabus.

Some examples of specific major educational resources:

- the £5 million ‘Web Of Life’ at London Zoo, combining state of the art museum techniques with a real life animal experience to explain the interconnectedness of all life
- a purpose built education centre at Marwell Zoo themed on sustainability and showcasing environmentally friendly technologies
- a new high tech Media Centre at the Welsh Mountain Zoo providing access to educational data on the animal world through touch screen technology
- The Zoological Society of London maintains the premier zoological library, archive, and resource base in the world.



Appendix 5

Some examples of co-operative breeding programmes run by UK zoos for endangered species:

- Asiatic Lion
- Rodrigues Fruit Bat
- Black Rhino
- Bali Starling
- Mauritian Kestrel
- Jaguar
- Amur Leopard
- Tiger
- Cotton-top Tamarin
- Black Gibbon
- Western Lowland Gorilla
- Sumatran Orangutan
- Cheetah
- Red Panda
- Andean Condor
- Ring-tailed Lemur
- Griffon Vulture
- Madagascar Tree Boa
- Egyptian Tortoise
- Partula Snails
- Humboldt Penguin
- Rhinoceros Hornbill
- St. Lucia Parrot
- Hyacinth Macaw
- Pygmy Hippopotamus
- Spectacled Bear
- Babirusa
- Przewalski's Horse.

Appendix 6

Some examples of scientific research projects:

- Bristol Zoo in cooperation with the Department of Physics at the University of Bristol carried out innovative research on the incubation of Penguin eggs. This involved the development of an 'artificial egg' which was used to record temperature and humidity
- Marwell Zoo ran a programme to assess novel stimulations introduced into the environment of their Jaguars. The animals' behavioural repertoire developed positively, leading to a wider programme of environmental enrichment at Marwell and elsewhere
- Chester Zoo helped perfect a new method developed by the Wildlife Conservation Society of New York for counting and identifying wild Jaguars via footprints through 'control' samples from its own Jaguars, whose identity, weight, sex and age are known.



Appendix 7

Some examples of major 'transformational' projects currently being developed by the Zoos:

- the renaissance of Edinburgh Zoo will require a radical redesign of its famous hillside site with a new emphasis on ecological interconnectivity and education. Over the twenty years slated for this imaginative and inspiring project, even with adjustments for displacement and additionality, the new zoo's operating activities and construction expenditure will represent nearly 940 full time jobs and generate over £263 million in expenditure. Visitor numbers will increase from the current 550,000 to 850,000 per annum, and the proportion of visitors coming from outside the Edinburgh and Lothian area will also grow
- Silvertown Aquarium (working title), a project of the Zoological Society of London, will not only be the world's first 'conservation aquarium', but will also affirm and reinforce the economic resurgence of London's Royal Docks. The new attraction will stretch out tourism streams beyond traditional 'hot spots' in Central London, and draw economic activity and international focus to the eastern part of the city. The 15,550 square metres complex, scheduled for 2007, will be split into four sections: UK; South Pacific; Red Sea; India. A conservative visitor figure in the region of 1 million is estimated to stabilize after higher figures in the first two years. Silvertown will generate over £80 million in initial capital expenditure, create 224 new jobs and support conservation projects around the world to the tune of £600,000 per year. 725,000 additional visits generating a spend of £13 million will benefit the immediate Newham area
- Bristol & Clifton Zoological Society is advancing plans for its 'Wildlife Conservation Park Development' (working title) on the 135 acres of its 'Hollywood Park Estate'. The WCPD will inspire a greater connection with, and understanding of, the natural world, and provide a new forum for environmental debate. It will act as a 'gateway' attraction to the synergistic cluster of wildlife attractions that the South West can offer (Eden, Paignton Zoo, Living Coasts, @Bristol, Slimbridge, National Marine Aquarium, Plymouth, etc). This project will generate over £24 million in construction spend between 2006 and 2008, and thereafter create demands for supplies starting at £8.7 million (2009) growing to £12.5 million within 15 years. The WCPD will create some 23.8 FTE employments in its capital set up phase and, taking into account displacement and additionality, 268.5 permanent FTEs (rising to 342.5 by year 15). These figures include both direct employees and indirect employments created in the immediate area
- building on its success in Living Coasts, Torquay (see sections 6 and 10), the Whitley Wildlife Conservation Trust recently added Newquay Zoo to its organisational family. It is now looking to invest some £3 million pounds in a much needed boost to the economy of Newquay and the North Cornwall area. A new 'Education and Environmental Interpretation Centre' themed on the African grasslands will include a 'state of the art' 3 acre savannah, incorporate educational facilities for local schools, colleges, universities and showcase new environmental and conservation technologies. A further 10 FTEs will be created, in addition to initial construction jobs and overall spend. The new facility will be on reclaimed brown field sites
- negotiations are currently taking place in Dudley with the Local Authority Regional Regeneration Agency and a private developer for a major capital injection into the Castle Hill site. The total regeneration scheme is some £50 million. Dudley Zoological Gardens will be the centre piece of the development transforming the Hill to become the regional leading zoological establishment. The Society will gain £8 Million of private money to develop its facilities for the improvement of the site, to accommodate its unique collection of animals, scheduled monuments, listed buildings and the unique history of this part of the United Kingdom.

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