

A Case for 'Zoo Counterparts'

**Starting with a survey of conservation achieved by 15 zoos in England and Wales
Funded by the Rufford Foundation, UK**

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This presentation is about a survey carried out among 15 Zoos in the UK.

It all began when I met with the CEO of Fauna and Flora International, an International Conservation NGO, and we both came to the conclusion that his sector was somehow missing out on the potential help that Zoos might be able to offer. I wrote a quick proposal for a, 'Zoo Counterpart Initiative', providing opportunities for British zoos to expend their conservation funds where it counted most – in the range of the species concerned – and was awarded a grant from the Rufford Foundation to investigate further.

The first thing to be done was to find out what zoos were already doing in conservation.

Zoos have a conservation mandate as described by the Convention on Biodiversity, at the Earth Summit, 1992, Rio de Janeiro, Article 9, which I am sure you all know by heart ... *to adopt measures for ex-situ conservation preferably in country*. In other words, if you have a zoo in Europe and you want to do something worthwhile for conservation, and you need advice where to do it, CBD Article 9 is telling you to do it at a zoo and to do it somewhere like Africa.

Out of fifteen zoos visited, only two were following this advice. However, from evaluating conservation outcomes my impression is that species recovery is more likely to be successful if it is conducted within relatively easy reach of the species' natural range. Sounds obvious, but like many simple truths someone has to collect the data.

Hence this survey, during which I asked the simple question – *"tell me about the conservation work you are most pleased about"*. The answers I got created their own categories and these headings may give you a few ideas on how to respond to the conference theme today, 'Positive Solutions for Animal Institutions'.

First came the six 'Conservation Measures' with which we in Europe have to comply, Research, Training, Breeding *for Release* (my addition), Reintroduction, and Information Exchange. In fact Information Exchange did not arise in its own right, because it requires one of the other, 'primary', categories on which to inform.

Others arose as we progressed; Welfare, Sustainability, Campaigning, Population Management, and Habitat Management. Please note that 'Fundraising' was not assigned a conservation category. There were so many variations of donations in cash, in kind and mixes of the two, they could usually be assigned to one or other of the primary categories. To what extent the zoo physically 'did', or paid for the project 'to be

done' became rather irrelevant, so long as the job was done, and wouldn't have been done without the zoo's support.

I only had a problem with the generic regional fundraising campaigns like 'lion tamarins' and 'shellshock', and if PAAZAB uses this method, I would urge you to identify how your money is spent – at the very least you owe it to report back to your donating public. Four zoos had no idea how their money had been expended.

As we really wanted to know *where* the projects had been conducted before asking if, 'in the opinion of the zoo', they were successful or not, I had prepared four definitions which will be familiar,

- In-situ / in-range – meaning in the wild, in the natural range of the species
- In-situ / ex-range – meaning in the wild, not in the natural range of the species
- Ex-situ / in-range – meaning in captivity, in the natural range of the species
- Ex-situ / ex-range – meaning in captivity, not in the natural range of the species

We were not attempting to evaluate the success of conservation projects. We wanted to make a connection between which projects conservation officers '*perceived*' to be successful and if they were conducted *in-range*.

The result demonstrates, at best, an 8% advantage to projects carried out in-range; not dramatic at this stage but heading in the right direction. I would like to focus on some examples of what's happening where.

BREEDING FOR RELEASE

In-situ / in-range

4 zoos described 4 breeding components conducted in-situ/in range. The outcomes of 2 were considered successful, 2 unknown.

Something close to paranoia may be spreading among European Zoos, especially the little ones, as they contemplate the black hole of 'in range' conservation, releasing their indispensable curator of birds to double clutch parrots in Ghana, or their head of maintenance to install a plumbing system in a chimpanzee refuge in the Congo. What a relief it is when they discover that they can do perfectly valid in-situ / in-range conservation without going anywhere.

I found three zoos, in fact, managing this category from *inside* their zoos. One was breeding harvest mice, another stag-beetles, and a third, the lesser horseshoe bat (conveniently roosting in the manor house boiler room), all of which are free to migrate at will.

Ex-situ / in-range

13 zoos described 24 breeding components that were conducted ex-situ/in-range. The outcomes from 13 were considered successful, 6 unsuccessful and 5 were unknown.

Larger European zoos, like Chester, Bristol and Moulouse in France, may choose to put their funds and expertise the way of people like William Oliver, who has masterminded the concept of Biodiversity Conservation Centres, now established on three of the main

Philippine islands to breed rare species of warty pig, leopard cat, and a variety of the extremely cute cloud rats.

These biodiversity conservation centres, not quite zoos but which do encourage visitors, come under the auspices of Fauna and Flora International, who often seem surprised to find themselves in the captive breeding business.

Ex-situ / in-range

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I have come across a rather discriminating attitude towards zoos by a few of the other conservation sectors.

Paradise Park zoo in Cornwall is keen to release female choughs to boost the population of a single wild group of five, of which four are males. This non-viable, wild group of five birds represents the last of Cornwall's county symbol.

An international conservation NGO and a British Government Agency refuse to provide a licence for the release, or to collaborate with the zoo in any way. As neither the NGO nor Government agency appear to be offering a reason, I suspect that it may be that a zoo, in their opinion, is not considered to be an appropriate institution for serious conservation endeavour.

However, this is what one University based scientist said to me, having worked with the small Welsh Mountain Zoo on a red squirrel breeding-for-release programme.

"I think we are missing out here. Scientists are not paying enough attention to the captive breeding work going on and the discoveries made, sometimes accidentally, which can help piece together an understanding of what is happening. I don't know why this is. Perhaps because the information is largely anecdotal, and has not been written up, perhaps because the animals are released rather than truly wild." Perhaps it is because a zoo supplies the data?

The Trust Secretary of one UK conservation NGO observed *"a good zoo has the advantage over private breeders because of the professional routines and disciplines in place to record data consistently."*

Ex situ / Ex range

8 zoos described 16 breeding components that were conducted ex-situ, ex-range. The outcomes from 9 were considered successful, 4 unsuccessful, and 3 were unknown

Whilst it would seem sensible to manage your breeding programme within reasonable reach of the release area, especially for megavertebrates, there are one or two notable exceptions, Howletts and Port Lympne Zoos, being one.

They have sent seven Przewalski horses to Mongolia, two Sumatran rhinos to Sumatra, three Eastern black rhinos to a holding sanctuary on the edge of Kruger National Park, and nine captive bred Western Lowland gorillas to Gabon. Their dedication to the principle of ex-situ, ex-range is admirable. The real excitement for them, however, after

many years of trial and error, was the first successful *wild* births of confiscated and captive bred Western Lowland gorillas in a protected area in Gabon.

CONSERVATION EDUCATION

In-situ / In-range

6 zoos described 9 education components that were conducted in-situ, in-range. The outcomes from 4 were considered successful, 1 unsuccessful and 4 were unknown.

Most of a zoo's education budget is expended on its own education department, which is why it is important to differentiate between zoo and conservation education. These conservation officers would appear to recognise the distinction as 69% of conservation education examples given were overseas.

Paignton Zoo has been supporting an environmental education programme in primary schools in the Omo Forest, Nigeria, including funding the salaries and expenses of two local educators and a forest warden. In fact, it can be the zoo education department that takes a zoo's first, tentative, 'in-range' conservation steps.

RESEARCH

Ex-situ / Ex-range

5 zoos described 5 research components that were conducted ex-situ, ex-range. The outcomes from 2 were considered successful, and 3 were unknown.

A high proportion of 'Conservation research' was given as being undertaken overseas showing a determination to underpin conservation breeding with good field science. Another survey might, however, usefully look more closely at what research is being done *in* zoos. Baseline research is badly needed on breeding biology, bio-chemistry and physiology. Even some animal behaviour can usefully be studied in captivity, especially when it compliments observations in the field.

Some examples given by zoos seem to illustrate confusion over the definition of, or need for, 'Conservation Research'. It should go without saying that incubation, double clutching, hacking, introduction, reintroduction, translocation, head starting or any other management intervention from the captive breeding stable, must be supported by good information.

By definition, 'Conservation Research' is not an end of itself.

WELFARE

Ex-situ / In-range

5 zoos described 8 welfare components that were conducted ex-situ, in-range. The outcomes from 6 were considered successful, and 2 were unknown

Bristol Zoo collaborates with and supports Cameroon Wildlife Aid Fund that works at two sites, Mvong Betsi Zoo and Mefou National Park.

They have two sanctuaries caring for gorillas, chimpanzees and other primates that are confiscated by the authorities, without which the Government would be unable to enforce laws against hunting and keeping great apes. That *is* conservation.

Here is an interesting crossing of paths between sanctuaries and zoos, with which we too are currently grappling in DR Congo... but that's another paper for another conference.

TRAINING

Ex-situ / in-range

5 zoos described 7 training components that were conducted ex-situ, in-range. The outcomes from 4 were considered successful, and 1 unsuccessful.

I was immensely impressed by some of the work that really quite small zoos were doing, especially in the field of training.

Newquay Zoo sends a member of staff to the Uanu rescue centre for Sloths, in Colombia, South America. The centre works closely with Columbia City Zoo, which conducts x-ray and DNA analysis to identify the sub-species. Infants, taken at the time of parent kills, have seen a greatly improved survival rate since training began.

The Monkey Sanctuary, near Looe in Cornwall, began as a sanctuary for woolly monkeys. The Sanctuary advised on establishing a rescue centre in Chile, while bringing funds, equipment and training to the centre.

The role of UK zoos in overseas conservation is not entirely straightforward. Much good conservation has been achieved because of the cause driven, species-specific approach of zoo personnel and institutions, for example, the Monkey Sanctuary drafted the primate welfare legislation for Chile. The question arises, although a zoo was not necessarily required to achieve this result, would the result have been achieved without a zoo?

What seems to be beyond doubt is that zoos provide one means by which passions for particular taxa can be transformed into hard conservation results.

CAMPAIGNING

Ex-situ / Ex-range

Two campaigning components were conducted ex-situ, ex-range. The outcomes from 1 was considered successful, 1 unsuccessful.

Parrot trading in the UK is still legal despite bans in range countries, seriously undermining international conservation efforts. The World Parrot Trust, headquarters at Paradise Park, Cornwall, lobbies for a ban on the trade in the UK and for the licensing of sanctuaries. A conservation issue that positions a zoo or zoo-based Trust more strongly than its International Conservation NGO equivalent gives some pause for thought.

POPULATION MANAGEMENT

In-situ / In-range

3 zoos described 3 population management components that were conducted in-situ, in-range. The outcomes from 2 were considered successful, 1 was unknown.

On hearing about the local extinction of African wild dog, in the Serengeti, and the near local extinction of lions from an outbreak of distemper and rabies, the director of Paradise Wildlife Park in Hertfordshire took the matter into his own hands. \$120,000 was needed to assemble and mobilise a veterinary team, and the resulting appeal brought in \$500,000.

Lions are now back to pre-epidemic levels; domestic dogs are healthier and live longer; painted dogs have returned to the Serengeti; and rabies, as a cause of child mortality, is down by 90%. (I make no apology for this rather one-sided account from my interviewee, and look forward to hearing another point of view. The point is, however, this zoo perceives its role to be positive – which is good for the case I am trying to make for supporting in-range conservation.)

Ex-situ / In-range

1 zoo described 1 population management component that was conducted ex-situ, in-range. The outcome was unknown.

I am proud to note that Jersey is still at the peak of the sector, putting the final touches to a species recovery programme on one Galapagos island for the endemic mangrove finch. By a process of double clutching, head starting, and translocation on the same island, and with a concurrent training programme for Darwin Research Centre field staff, they hope to hand over a re-secured population of mangrove finches, secure in their micro biome. A zoo operating at its conservation best.

I would like to conclude with two points raised by the survey. There is an apparent trend in some zoos to become something – anything – other than a zoo, be it an international conservation NGO, joining the hazy world of socio-economically driven environmental sustainability, or a quasi academic institute doing field research - as if there weren't enough Universities doing what they know and do best (although sometimes keeping critical conservation information to themselves), rather than working with the appropriate conservation sector.

From an evaluation perspective it is surprising that the wealth of practical know-how that zoos have, and for which zoos are undoubtedly bade most welcome by the other sectors, is kept rather quiet and has barely arisen in this survey. I would call this "hiding a million megawatt searchlight under a bushel". Ask Debby Cox, Director of Jane Goodall Institute, Uganda, for whom Taronga zoo built an electric fenced highway for full grown chimpanzees to get from their night quarters into the forest on Ngamba Island, Lake Victoria.

Zoos have had to learn to be self-sufficient in many ways that could catalyse effective conservation results. Beyond Zoos' accomplished skills in animal husbandry, propagation, veterinary care, and close observational research mentioned already, here are a few more skills that could easily be added:

- Enclosure, including water features, electric fencing, metal work etc
- Way marking, lighting and sign-writing
- Budgeting, book-keeping and accounting
- Education materials, innovative learning, teaching experience
- Marketing
- Market research and surveys
- Building (with almost any material)
- and maintaining main and auxiliary services
- Data base managing and servicing
- even Human resource management

The list goes on. And if the necessary talent is not available in-house, the urban zoo in particular has a whole townsworth of specialised skills and good will from which to draw, starting with its membership.

Finally, on our list of Positive Solutions for Animal Institutions, just to return to my main point. I have noted some inconsistency in the zoo mindset. Whereas zoos in the UK vigorously defend their role as conservation focused organisations, in my sample there were only two that could see the same potential and value among zoos 'in-range'.

The WAZA Conservation Strategy maybe justified in pointing out that *"It is not appropriate for a well-resourced zoo involved in a field project to ignore or snub poorly maintained or under-resourced animal institutions in the region."*

The old zoos and botanic gardens left behind after the colonies pulled out are your colleagues now and they represent an opportunity for conservation. As an outsider it appears to me that some zoos in Africa may already have given away their role in the field of breeding and release – to the game ranches.

Why not move now to secure the next opportunity to contribute to the conservation of African wildlife, by making strategic alliances with less well resourced zoos.

Because, if you don't you may be surprised by who will?