

on leave when I visited these zoos that I wondered if all of them were getting some rare disease from the computer itself. Many "tracking trips" were in vain.

By this time Nate and Dr. George Rabb, who was Chair of the Steering Committee, were not happy with me because I had generated interest in ISIS that did not result in productive memberships but cost ISIS a lot of money. They took me aside at a meeting and explained the difficulties this caused them with the ISIS Board. I could understand so I backed for awhile !

When Central Zoo Authority was started I decided to try again. I thought if CZA were to endorse this system and bought into it, the zoos would have to comply with the requirements. CZA would also find the system useful as data can be used in a variety of ways to fulfill their reporting needs and also so that CZA could be proactive in linking up animal exchanges. However when I took ARKS (ISIS's Animal Record Keeping System) and SPARKs (ISIS's Studbook management programme) and demonstrated it to a very senior person in the Ministry who was a member, his response was "yes, that's very good but we will develop one of our own" ! The whole impact of an international system failed to impress.

From time to time this has come up when Member Secretary met ISIS staff at CBSG and WAZA meetings and a plan was made for some zoos to give it a trial under CZA stewardship but it has not materialised.

Today, two major zoos in other South Asian countries are using ISIS software and services, the Central Zoo in Nepal and the National Zoological Gardens in Sri Lanka. They are paying membership on their own and regularly send in data. If two zoos can do it in our region, why not all zoos ? It turns out that India is not the only country (by far !) that has had trouble getting into the groove with ISIS. ISIS found that keeping up with the new conservation sciences and their demands for zoos was very difficult and also that serving everyone's needs — including that of countries with different administrative systems and capacity in their institutions —

required a far greater level of cooperation and commitment than ever before. ISIS and the World Association of Zoos and Aquaria rose to the challenge along with hundreds of individuals and many dozens of institutions to create the best records system "plus" in the world.

Now ISIS is transforming into something incredible ... unbelievable. Even before now, its potential to help zoos and conservation was enormous. Now, no zoo in any country can afford to ignore the benefits which can accrue to species coordination, zoo animal medicine, national-, regional-, international- cooperation and all levels of staff professional development. It is doing so only with all kinds of help and input from around the world.

It is time for Indian and other South Asian zoos to really join the international zoo community. This means more than attending a meeting once a year, whether it be WAZA or SAZARC. SAZARC as a regional association and Zoo Outreach Organisation as an affiliate member of the World Zoo Association and host of SAZARC is going for it and I hope Central Zoo Authority with its 180 zoos should do so as well.

In my "tenure" in Indian zoos, which covers almost 25 years, and in South Asian zoos, which covers over five years, all I have wished and worked for is cooperation between zoos — in countries, between countries of the region and between South Asia and other regions. Today, with the internet and with cooperation and partnership being major values of the international zoo community, it is so much easier for individuals, institutions and associations to communicate and cooperate that when I began. Central Zoo Authority has brought about some cooperation between Indian zoos. SAZARC has brought about much good will and some sharing of information and expertise between the South Asian zoo personnel and can create a real bridge between the zoos of this region and the zoos of the world. The new ISIS combined with the new World Zoo and Aquarium Conservation Strategy will only serve this end in an exponentially better way.

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## **Collaborative processes to achieve better information for conservation and management (The Secret History of ZIMS)**

**Bob Lacy \***

The article below was generated from a Power Point presentation by Dr. Bob Lacy who is a Conservation Biologist with Brookfield Zoo & Chairman of the IUCN/SSC Conservation Breeding Specialist Group. He has been very close to Dr. U.S. Seal in his career and to ISIS and its staff. Bob was one of the first to see that ISIS needed review and rebirth and his work going around to zoos, interviewing people and reporting back, and - most of all - applying his thinking cap to his considerable brain - resulted in much of the action which has brought about the evolution of ZIMS and its various sister concerns. The presentation was given at the SAZARC meeting held in Lahore, Pakistan in 2005 where Bob was a primary resource person for Zoo Population Management.

We need good data on our animals. It's our inventory, and it's a valuable one. Good data, captured in animal records affects many aspects of zoo management, such as :

- Management of animal health and welfare
- Breeding recommendations
- Transfer recommendations
- Documentation (legal, ethical, scientific)
- Long-range planning
- Advancing the profession of animal care, exhibition, and conservation

"Good data" could be defined as data that is complete, accurate, shared, accessible, useable, documented, safe, and used. Maintaining this "good data" requires that those responsible for and who "own" the data are actively involved in decisions about it. "We" (meaning those of us fortunate enough to be professionally involved with the zoo community in its myriad roles) have made significant personal and

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professional commitments and are the experts and we need all of these roles in order to do justice to our profession !

The International Species Information System (ISIS) is responsible for data including animals' names, parents, birth dates, moves to new zoos, medical records, death dates and much more. The data for ISIS is kept in computers in Minnesota, but available to all zoos. There are more than 600 zoos in 72 countries which are members of ISIS, and ISIS has records on 1,650,000 animals !

There are problems in ISIS and their member zoos however. Some of these problems are that

- the database and computer programs are old, made for old style computers
- many mistakes exist in the data sent from member zoos
- Some animal information was never provided to ISIS
- different zoos entered information in different ways
- the system didn't work for aquariums
- there have been conflicts
- some zoos, individuals and organisations worried that other countries had different needs or capabilities

There wasn't an obvious consensus. No one knew what to do to answer the questions ? How are you going to fix ISIS? ARE you going to fix ISIS? Finally the answer became obvious : 'You may want to "fix ISIS" but you aren't' — at least not by yourself !

The problem was communication, which is not easy when you are talking about the world and also about something as complex as zoo animal records. Someone needed to listen on users or potential users terms, on their ground, in their words, to open up the process — and report back to all. I began this process by using informal networks, pending development of more formal processes. I took a road trip ! supported by Chicago Zoological Society and talked with a range of people for several hours or more. I tried to understand and document the problem, to perceive the problem in terms of needs, fears, hopes, ideas, responses to ideas of others, I talked with all these organisations : American Zoo and Aquarium Association, Australian Zoo Association, British Zoo Federation, London Zoo, England Toronto Zoo, Canada, People at zoos in New York, Illinois, Ohio, Maryland, Michigan, Texas, Minnesota and ISIS; and I talked with all these kinds of people : Zoo Directors, Zoo Association staff, Scientists, Curators, Animal Keepers, Records Officers, Zoo Veterinarians, Computer experts

What did I learn? I learned that there was

- No agreement about the "problem"
- Much agreement about needs
- Considerable agreement on fears and hopes
- Many good ideas
- Can't get everyone to agree quickly, but can begin the process of listening
- Good will is valuable when there are conflicts. (It is important to have friends!)
- I didn't need permission or "authority" to start to do something about the problem.

I learned that people felt that the Problems were that the

- Data are bad (missing, entry errors, system errors)
- Software is bad (outdated, incomplete, incompatible)
- Service is inadequate

### Needs

I gathered a partial list of "needs" based on the premise that in the world, species are declining but our management is not yet up to the task of keeping data about them as systematically as required. We need the ability to handle diverse types of species with complete accuracy. We need a system that is easier to use, no redundancy It should have Security and reliability, defined standards, a single, modular system, buy-in; a common, global system !

### Fears

I also gathered a list of Fears of the various zoo professionals with regard to our existing and future records system : the worst-case scenario was that we end up exactly where we are today ...or much worse. Or that we will make a poorly coordinated and poorly funded effort, and end up with chaos. In attempting to fill the void, independent efforts will proliferate and diverge... We will end up with multiple incompatible systems that cost large amounts of money, do not work well, and still are not making use of the available technology. ... The effort will have lost all credibility, and zoos and aquariums will stop making even an effort to collect, share, and use data. We will have undermined our standing in the conservation community.

### Hopes

I gathered hopes and dreams. Life is easy. We can do our jobs well and without much strain and stress. We can save the world (or at least the world's species) ... and lots of technical things. I collected 5 pages of suggestions on process, design, implementation, issues still to be resolved

From these discussions and more came GADG or the highly ad hoc and informal yet effective for its time "Global Animal Data Group" which met, defined a structure for continued input, guidance, and energy behind the project, made recommendations to and got commitments from ISIS, AZA, EAZA, others and decided to create a more formal group.

Therefore it was decided to disband GADG and create IADISC (International Animal Data Information Systems Committee). In IADISC there are representatives from many zoo associations (EAZA, ARAZPA, AZA, JAZPA, AMACZOA, FUNZPA, SAZARC, CAZA, UK), and representatives from professional associations (vets, records-keepers). This is a lot of work, but essential to the process. In IADISC there is an elected Chair which serves on ISIS Board of Directors.

### And now ! .... what is ZIMS & IADISC

ZIMS stands for Zoological Information Management System which is a joint project by ISIS, Zoo Associations, and networks of professionals. ZIMS is guided by IADISC and others. It is designed by all, to meet the needs of all. ZIMS is getting funding from zoos, governments, and other organisations.

Phase I of ZIMS starts in 2006 with institutional records, studbooks, vet records, etc. Phase II of ZIMS will start "later" and may include things like nutrition? behavior? and other topics ? Now, instead of ISIS with a lot of problems, there is ZIMS with a lot of potential solutions, albeit in the future.