



The thrust of the presentation was to suggest that the hackneyed African plains mixed species exhibit has been done to death and that zoo design firms are showing a lack of originality and actually undermining the conservation potential of range country zoos.



Douglas Richardson, Zoological Consultant

TIERPARK  
HAGENBECK  
MAY 1907

The 1907 Hagenbeck African panorama was almost definitely the first such mixed species African exhibit.



# BRONX ZOO MAY 1949



Douglas Richardson, Zoological Consultant



Although opened 34 years after Hagenbeck's, the Bronx Zoo's 1941 African Plains exhibit probably did more to trigger the avalanche of such exhibits that were built and continue to be built to this day.

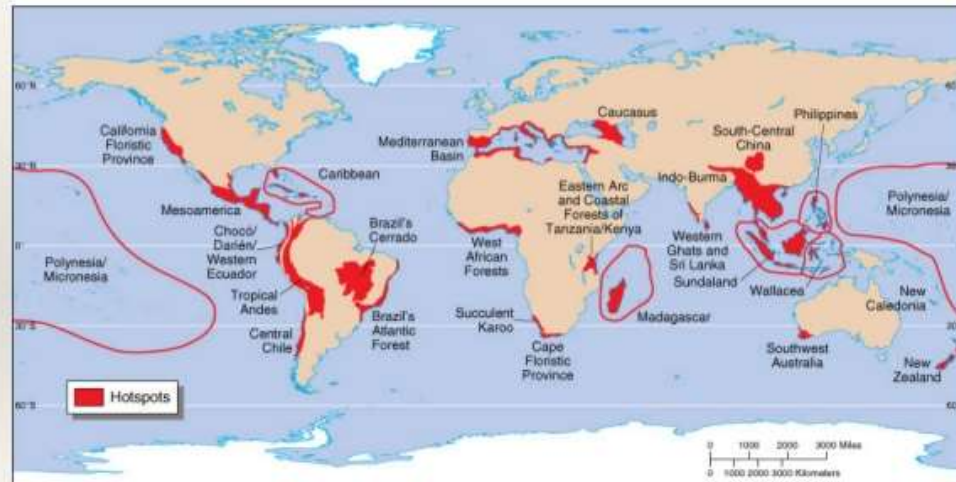


Douglas Richardson, Zoological Consultant

## Bangkok Safari

The above exhibit at Bangkok Safari in Thailand is the African mixed species exhibit taken to a wild extreme and my suggestion is that though popular, huge resources of this park are expended on a project that does nothing for conservation and just perpetuates what I suggest is an outdated idea.

# BIODIVERSITY HOTSPOTS



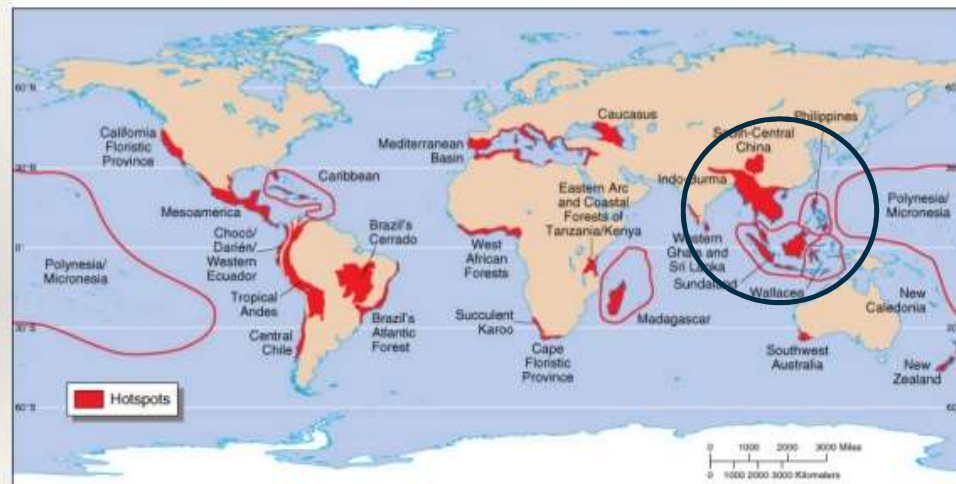
(b)

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With a few exceptions the hotspots for species diversity do not exist in the traditional zoo culture regions, e.g. northern Europe, and so the zoos in those regions generally ignore their own wildlife, as western zoos did until about 15-20 years ago.



# BIODIVERSITY HOTSPOTS



(b)

Douglas Richardson, Zoological Consultant

Because of the speed and scale of habitat destruction and trade in wildlife and its products, I am choosing to focus on what is arguably the most important and most threatened hotspot, Southeast Asia.

ASAP Species | Asian Specie Mammals Archives | Asian S IUCN Red List of Threat

Names - common, scientific, regions etc...

Grid List Map Stats Relevance

TYPE

- Species
- Featured Regions
- Documents

SEARCH FILTERS

Taxonomy

Search...

< Animalia - Kingdom

< Chordata - Phylum

Chordata

- Actinopterygii class (425)
- Aves class (381)
- Reptilia class (244)
- Amphibia class (288)
- ☒ Mammalia class (398)
- Chondrichthyes class (96)
- Myxini class (0)
- Cephalaspidomorphi class (0)
- Sarcopterygii class (2)

Red List Category

- EX - Extinct (5)
- ☒ EW - Extinct In The Wild (0)
- RE - Regionally Extinct (regional category) (2)
- ☒ CR - Critically Endangered (65)
- ☒ EN - Endangered (150)
- ☒ VU - Vulnerable (183)

RESULTS (398)

Taxonomy

Mammalia - Class

Red List Category

CR - Critically Endangered EN - Endangered EW - Extinct In The Wild VU - Vulnerable

Land Regions

South and Southeast Asia

Include

Amazing Species Species Subpopulations Subspecies and varieties

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Striped Hyaena

*Hyaena hyaena*

Decreasing

Calamian Deer

*Axis calamianensis*

Decreasing

Indian Rhinoceros

*Rhinoceros unicornis*

Increasing

Javan Rhinoceros

*Rhinoceros sondaicus*

Unknown

Pygmy Slow Loris

*Nycticebus pygmaeus*


Decreasing

Chinese Goral


*Naemorhedus griseus*

Decreasing


According to the current version of the IUCN Red List, there are 398 mammalian taxa in a high threat category from South and Southeast Asia.




Black Crested Gibbon



Black-spotted Cuscus




Bornean Orangutan



Cao-vit Crested Gibbon

Douglas Richardson, Zoological Consultant



Asian Species Action Partnership  
Conserving species on the brink

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ASAP Species

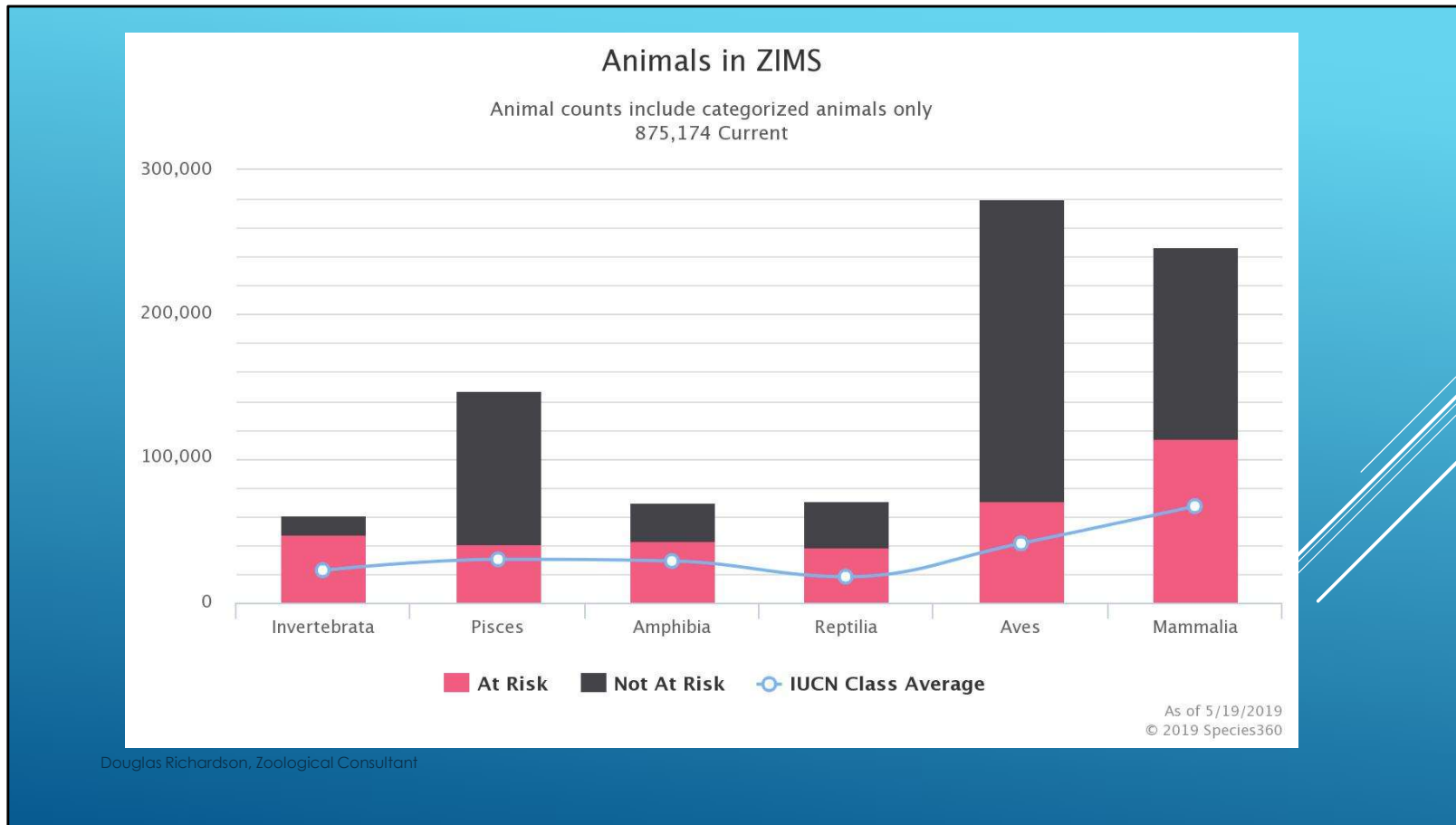
List of ASAP species as of November 2018

ASAP focuses attention on the species most at risk of extinction according to the IUCN Red List of Threatened Species™. An ASAP species is a Critically Endangered vertebrate that occurs regularly in Southeast Asia in land or freshwater habitats.

| Category   | Count |
|------------|-------|
| Total      | 199   |
| amphibians | 15    |
| birds      | 54    |
| mammals    | 41    |
| reptiles   | 41    |
| fishes     | 48    |

The Asian Species Action Partnership focuses on terrestrial and freshwater species from Southeast Asia that are in the highest threat category, and there are 199 taxa that are Critically Endangered, all need a conservation breeding component to their survival plan, but most do not exist in any zoological collection.





These bar graphs show the number at risk and least concern species on the ZIMS database, which is primarily data from western zoos, and it can be plainly seen that the majority of taxa kept are of no conservation value and so a significant amount of space and resources are expended on species that are not threatened in the wild. I would suggest that the percentages are likely to be worse in most Asian collections.



## Are we suggesting new exhibit ideas to the client?

Douglas Richardson, Zoological Consultant

What follows are a series of questions that attempt to create a different approach. When zoos, new or established, approach a zoo design firm they often have an idea of what they want and because the understanding of the 21<sup>st</sup> century role of zoos is unknown to them, coupled with a very basic understanding of what is possible, an African exhibit is usually on the list of requirements. I am suggesting that the design firms have an obligation to suggest alternatives. Although the Bronx gave us their African Plains in the 1940s, in the late 1970s they opened Wild Asia which consist of a number of large mixed species exhibits with an exclusively Asian theme. As many Asian ungulates that were until recently classed as common and not under threat, e.g. sambar or hog deer, most are now in a high threat category and need to be managed cooperatively in far larger numbers.



VS



## Are we suggesting alternate species to the client?

Douglas Richardson, Zoological Consultant

Perpetuated by the media, white tigers are still seen as a popular “species” by the uninitiated, so we should be suggesting taxa that are of genuine conservation importance, as opposed to a genetic mutant, and enhancing the resources available for genuine candidate taxa like Sumatran or Malayan tigers.

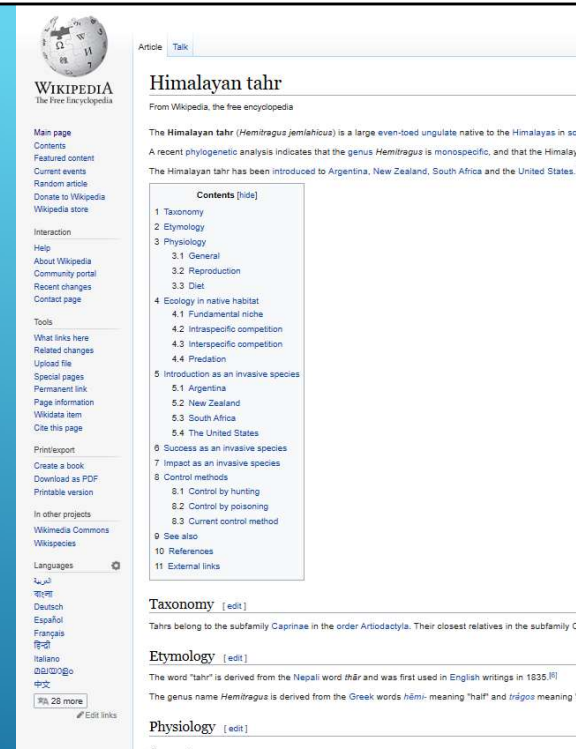
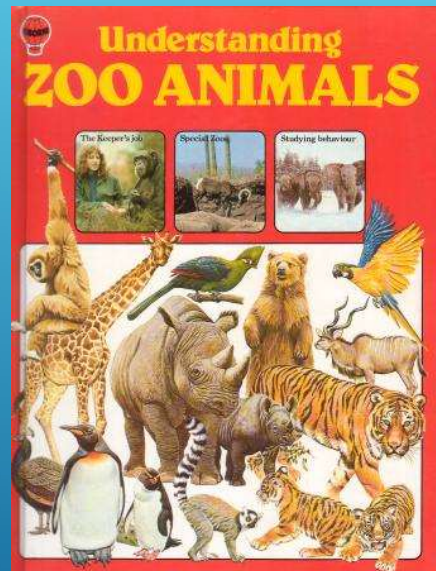
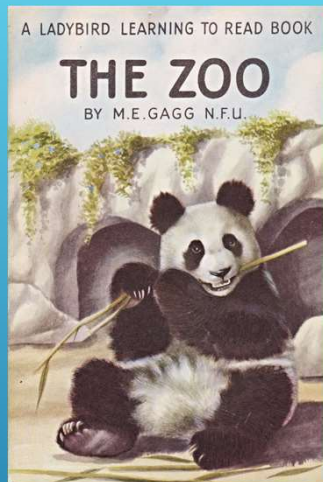




## Does the client have the necessary expertise?

Douglas Richardson, Zoological Consultant

At the 2017 conference I asked a group of established zoo designers if they had an experienced animal management person on their teams and the response was no because the client zoo provided that expertise. This may be fine if one is working in an established European or Australasian collection, but in many parts of the world there is not a long-established zoo culture and they often do not understand what is required or their ideas are wildly outdated.



## Does the design firm have the necessary expertise?

Douglas Richardson, Zoological Consultant

I have been at meetings where the design firm was sitting in on the collection planning discussions and watched a senior member of that firm surreptitiously looking up species names on Wikipedia; this does not instil confidence. I strongly recommend that any such companies have suitably experienced zoo people on their teams or available for advice to both review what is required and what they are suggesting. As important, having an animal person with a depth of experience reviewing plans for new facilities is crucial to avoid the many errors that occur that compromise animal welfare and keeper safety.


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## Zimbabwe selling baby elephant calves to China, says environmental group

by Alexander Montoro on 17 April 2015

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*Frightened*

and malnourished female elephant calf in an enclosure in Zimbabwe prior to exportation to China. Photo courtesy of ELEPHANTS DC.

A hundred thousand African elephants were killed by poachers for their ivory between

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# Is the legitimate western zoo community a help or a hinderance?

Douglas Richardson, Zoological Consultant

Because of a combination of ignorance and a degree of prejudice, many legitimate western zoos and the individuals who run the various programmes are loath to direct surplus stock to collections outside of the primary global zoo community. This triggers a renewed increase in the wildlife trade especially as many new zoos are being built and they need to stock their collections. For many of the species that are being exported in very large numbers and sometimes under circumstances that are less than ideal, the western zoo community could meet that need and at the same time develop constructive relationships with the zoos concerned and help them to raise their game.





## Are we designing for inappropriate group structures?

Douglas Richardson, Zoological Consultant

The uninformed zoo director or curator loathes an exhibit with a single individual or just a single pair. Many species are not highly social and their welfare is negatively impacted and the likelihood of successful breeding is compromised at the very start. With the assistance of the afore-mentioned need for an animal management expert on the team, they will be in a position to spot such a mistake early on and recommend an alternate approach.



## Are we ensuring that animal welfare is built into the design?

Douglas Richardson, Zoological Consultant

The above exhibit matches the best for this species, South American sea lion, that can be seen in any western zoo or aquarium and the size and complexity of the social group enhances the dynamics of the situation for the animals. What is missing, and this will be true of probably all pinniped exhibits around the world, the body of water is basically a featureless cube and the beach area is a hard concrete surface that bears little resemblance to a beach with a range of substrates that are comfortable to sleep on and aid the annual moult. There is much pressure on facilities that maintain cetaceans, and in most cases rightly so, but no one to my knowledge has spotted the issue with seals and sea lions, which are much more commonly kept than whales and dolphins. My point here is that we are usually not taking both a fresh and informed look at all our design approaches to create better living spaces for the animals in our care, which also hampers the evolution of zoo design.





Douglas Richardson, Zoological Consultant

At the moment it is primarily the informed western zoo community that is driving conservation efforts in the various biodiversity hotspots. If we help the process in the zoos within these regions and get their conservation involvement up to a similar level, because of geographic proximity and national political connections, they are likely to create a more significant impact than we can achieve without them.





# THANK YOU

Douglas Richardson, Zoological Consultant