

PRIORITIES FOR ARBORICULTURE MANAGEMENT IN A ZOO SETTING

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Abstract

Have you ever wondered what goes on in a Zoo when the public have left for the day and the animals are off limits sleeping?

I hope to give you an insight into what Horticulture activities actually occur to enable the standard of grounds that you see to be presented in the best possible ways for both the animals and publics enjoyment.

These grounds and exhibits don't just appear overnight, there is a lot of meticulous planning and hard work involved in the design and construction of each area.

Consideration needs to be taken into account for the animals health and welfare, are the plants toxic? Will the animals be able to use the plant material for escape? A host of issues that most landscapers would never have to consider, but are part of the planning that is undertaken in every single exhibit within the zoo.

I will also discuss the considerations we have to take into account with maintaining our large amount of significant trees, how do they integrate into animals exhibits and what extra care is required to maintain their health.

Introduction

Steeped in more than 135 years of history, Zoos SA has long been established as an integral part of the South Australian community's heritage and social history and is one of the state's oldest conservation organisations.

The original name chosen was The Acclimatisation Society of South Australia. It later became known as the SA Acclimatisation and Zoological Society and the government granted land for a zoological garden on eight hectares obtained from the Botanic Gardens of Adelaide. In 1882, the name changed again to SA Zoological and Acclimatisation Society.

In 1937, to celebrate the society's Diamond Jubilee, King George VI granted the society a Royal Charter and with it came the right to use the prefix 'Royal'. At this time the opportunity was taken to remove 'Acclimatisation' and we became 'The Royal Zoological Society of South Australia'. While we officially retain this name we're today more commonly known as Zoos SA.

Adelaide Zoo is Australia's second oldest zoo and was opened to the public in 1883. The zoo retains many of its original buildings, significant trees and landscape features, some of which are state heritage listed.

It was established at a time of great resurgence and interest in natural history and was modelled on the major European zoos of that time, particularly, Regents Park Zoo in London.

The Zoological gardens were laid out with the assistance of J.L Sterling and George Boothby and the work was done taking care not to compromise the existing plantings laid out by the Botanic gardens, in fact without removing a single shrub or tree of importance according to the Annual Report.

My current role as one of the custodian of the grounds, like the Zoo over the past 135 years has evolved considerably, no longer is it acceptable to display animals in concrete and steel boxes, devoid of any vegetation purely for the entertainment of the general public.

Zoos are now far more accountable to the way we house and display animals, large amounts of time and money is invested to ensure the exhibits try to replicate the animals natural habitat as much as possible.

One of my key responsibilities is to design and construct world class exhibits combining all the elements of nature animals require to exist in their new habitats, to incorporate features that provide as many natural features as possible which will allow animals to move through the exhibit and display to the public as they would in the wild.

As you can imagine these challenges test our skills to the very limit, who here as landscapers/arborists developing suburban blocks of land would have to consider things like “can this tree enhance the mating of a particular critically endangered animal species”? “Will the plants in the exhibit provide all the habitat requirements of the individual animal”? Also one of the most critical questions is “are these plants toxic” and if so can they still be used in the exhibit?

Research in Japan has shown a troop of chimps lived amongst toxic plant species without any health issues, did they know the plant had toxicity through evolution or is the poisonous sap bitter enough to stop them from eating it.

All of these questions are discussed in every exhibit developed or built within the Zoo grounds, often influencing what we can plant and where we can plant it.

Along with the responsibility of managing the landscaping of exhibits our team of Horticulturist manage the extensive grounds that make up the Adelaide Zoo site. We have over 8 hectares of land situated in a unique site bounded by a Adelaide Botanic Gardens of which we were originally part of prior to our succession and the River Torrens on our Northern boundary.

Distributed throughout these grounds are over 200 Genera of trees with in excess of 500 species and several thousand trees, some within the exhibits and some in the landscape surrounding, there are significant trees from the original Botanic gardens plantings of 1865 which must be managed to ensure their health and vitality remains good and with pressures from animals living amongst the canopy this places added stress on some of these trees and requires individual health programs to be put in place.

This can also bring a variety of complexities that are very unique to our situation at the Zoo, trimming trees to ensure the minimum jumping distance for a Sumatran tiger is maintained to ensure we don't have potential escape.

Planting a large specimen tree in our Giant Panda exhibit to enable the female Panda to carry out her natural mating ritual where the female Panda climbs a large tree and male Panda's circle at the base fighting for the right to mate with the female, to providing large live trees to replace historic zoo exhibits of steel and concrete where primates can bracteates through the branches exhibiting naturalistic behavior.

All of these complexities are day to day problems posed to our team of horticulturists and which makes our role in the Zoo a vital link in the chain that has the Zoo displaying animals in world class Naturalistic exhibits.