

INTERNATIONAL AQUARIUM CONGRESS 2012

AQUARIUM EDUCATION - QUO VADIS?

Good morning Ladies and Gentlemen,

Firstly, a big thank-you to Pat and Michael for their commitment to education by having a session on education on the first day of the IAC. And for giving me this special opportunity to share with you some thoughts on aquarium education. I have titled my talk Education Quo Vadis? Now, if you are anything like my husband you will be asking Quo what?

Quo Vadis means – where to from here?

This story will be divided into four parts – the introduction will start with a broad overview of Aquariums internationally, I will then look at the growth of education in aquariums, I will spend some time focussing on the current educational situation before moving on to providing some challenges to ensure the sustainability of aquariums into the future.

Lets start with a quick quiz? How many aquariums are there in the USA? Canada? Europe? Japan? China? Australia?

Aquariums

There are over 300 substantial public aquariums, probably more than 500 if the smaller ones are included, in the world and this number is increasing each year. Geographically the spread of aquariums reveals an interesting distribution. A rough study shows that the USA tops the list with over 100 aquariums, while Japan and China follow with over 60 facilities each, the United Kingdom has almost 30, Australia has 18, Spain and India have more than 10 each, while France and Germany have over 15 each. Europe has over 100 in total while Eastern Europe has over 10. Africa has about 3!!

Aquariums are now often being used as anchor attractions in areas with high visitor flows including regenerated inner cities and docklands, experience orientated shopping malls and hotels. Examples include the uShaka Marine World complex in Durban, South Africa, the Sydney Aquarium in Darling Harbour, Australia and the National Aquarium in Baltimore's Inner Harbour, USA.

Unlike in the past, many aquariums are now owned or operated by commercial, for-profit companies. Examples include the Aspro Ocio group, which operates 24 aquariums, the Merlin Entertainments group, which operates over 30 SeaLife attractions in Europe, UK and the USA, Australia's Oceanis group, which operates 3 aquariums around the world, and the Spanish based Parques Reunidos group, which owns more than 12 parks. In the USA, Busch Entertainment Corporation operates three Sea World marine theme parks while Kerzner International Resorts Incorporated operates two large aquariums in its hotel complexes in Dubai and the Bahamas.

It is clear that aquariums are now a worldwide, multimillion dollar industry. The existence of aquariums in high visitor flow areas, variety of settings and in all regions of the world, creates many opportunities for conservation and educational goals to be achieved amongst a diverse and multi-cultural audience representative of all socio-economic categories.

In order to better understand the diversity of aquariums internationally, I attempted to find the websites of the world's larger (with respect to visitor numbers) stand-alone aquariums. 44 aquarium websites were analysed to obtain a mission statement and to determine the ease with which the terms conservation, education and sustainability could be found. If the terms could be easily located on the front page or within a second page, the website was noted to have the component. If it required more than a cursory search, then the terms were considered to be absent.

I considered education to have been included if the site or mission statement included words such as inspire, instil, motivate, understanding, teaching, knowledge and inform, while conservation related words such as protect and stewardship were noted.

The mission statements of 34 of the aquariums were located. 33 mentioned education and or conservation.

Of the 44 aquarium websites analysed, 34 held easy reference to education and 30 mentioned conservation.

A review of information via 'expanded adverts' on 40 aquariums in China revealed that 34 mentioned education and about half mentioned conservation or research, or related words.

This is a significant finding, as for many people the first contact with an aquarium is through its website or via an advert. If over half of the websites, or in the case of the Chinese aquariums an advert, feature both conservation and education relatively prominently, the first impression of many visitors may well be an introduction to these important concepts.

Unfortunately my review covered less than a quarter of the number of aquariums worldwide and the ones that I reviewed were primarily based in the USA, Australia and China, and were primarily the more 'traditional' aquariums, which inevitably skewed the results.

However, this informal review showed that while 'typical' aquariums do exist, there are many different organizational types of aquariums, including for-profit and not-for-profit models; those operated by local authorities and those privately or society owned; and purely commercial enterprises with aquariums embedded in commercial marine theme parks or hotels, and many variations on the mix. The trend of aquariums being owned and/or operated by purely commercial enterprises has both positive and negative implications for the future of education in aquariums.

Should these companies be committed to the principles and goals of conservation, their enormous visitorship across a wide spectrum of countries and cultures would bode well for the future of aquariums.

Conversely, should these holding companies be primarily focussed on profit, with lip service being paid to the principles of environmental sustainability and education, we all run the risk of being viewed as commercial enterprises that utilise captive animals purely for profit.

AQUARIUM EDUCATION – THE PAST

Let us now look briefly at the evolution of aquarium education

Education in aquariums has followed the evolution of aquariums themselves. Aquariums have evolved from rows of glass tanks in the walls of damp and dark concrete buildings

to the modern immersive oceanariums with enormous acrylic windows and tunnels providing views of animals such as the majestic whale shark.

Tanks – Labels – Listen - Inform

Early aquarium education focussed on formal education and the acquisition of facts – people were taught about the animals on display, with the most attention being paid to charismatic or unusual species. This gave people a skewed view of nature – unless it was cute, large, unusual, ugly or interesting in some way, it held no value. Education occurred either via labels around the tanks or through staff members, often called docents or guides. In both cases the information was transmitted from the sign, or docent, to the visitors, with little regard for the individual needs of

different visitors. Visitors were thought of as strangers – who were privileged to be allowed to view our collections.

We then went through the naturalistic diorama stage with text heavy signage- remember the banners?- – we wanted the visitor to read or listen and learn all about our wonderful animals. Still, visitors were seen as strangers and our animals were our focus.

As exhibits changed to become more representative of nature, so too have educational techniques evolved. Ecosystem exhibits enabled us to exhibit multiple species together and education became more participative to include presentations that engaged visitors. Visitors became more welcome guests in our facilities, but still we were there as the experts to guide them.

We then went onto the immersion exhibit phase – where the guest became immersed in the exhibit – such as this coral reef exhibit. Educational techniques came to include touch screens and the principles of psychology were applied to get visitors to do something about issues facing those particular ecosystems.

THE PRESENT

Our planet is facing enormous environmental challenges and the increasing need for changes in human behaviour to secure the future of the planet has given aquariums both greater relevance and an additional responsibility. It is no longer enough to help visitors to understand ecosystems and animals and to encourage a love of nature; aquariums need to go beyond awareness and knowledge, and into the realms of behaviour change. Captive animal facilities are now being called on to use the animals to engage and inspire the visitor and to focus the educational message on the broader environment with an emphasis on promoting the development of pro-conservation attitudes, knowledge and behaviour in visitors.

We are asking our visitors to THINK! This challenge is causing us to reTHINK our educational programmes and to explore new techniques for visitor education.

Despite this changing focus, education about the animals and ecosystems will always be a critical component of aquarium education. After all, people are there to see the animals and enjoy themselves. The challenge is to ensure that visitors' need to see animals is met, while achieving the broader conservation goals of the facility.

So, while still firmly based on educational principles and theories, aquariums are now looking to social marketing techniques to guide their visitor learning programmes. Most recently has been the call to extend the impact of the visit beyond the physical time spent at an aquarium. The focus of current research is looking at how we can make the experience last beyond the few hours of the actual visit?

The increasingly popular seafood selection programmes are an example of a post visit resource. These include the well-known Monterey Bay Aquarium's Seafood Watch programme, the South African Sustainable Seafood Campaign, the Seafood Choices Alliance in Europe and Australia's Sustainable Fish Guide, which, amongst others all offer science-based suggestions about seafood choices via a pocket guide and smart phone app. It is important to note here that over two thirds of the world's fish consumption is in Asia, yet Asia has very few seafood choice campaigns. The potential for the development of new sustainable seafood campaigns amongst Asian aquariums is, therefore, considerable.

Increasingly, aquariums are bringing attention to another conservation issue that will arguably have the greatest impact on the future of the ocean, climate change. Exhibitions on climate change and

the ocean have been mounted at NAUSICAA in France, Ocean Park in Hong Kong, uShaka Sea World in South Africa and the Monterey Bay Aquarium in the USA; amongst others.

At uShaka Sea World we have found that many guests have an awareness of climate change, but a limited understanding of the links between personal behaviour and climate change.

Our EcoHouse is providing guests with this link and through the Penguin Promises campaign gives visitors an opportunity to pledge to change their behaviour. The penguin is an icon for conservation – one that visitors can relate to personally.

In Africa though we have a few interesting challenges. I would like to introduce you to Mrs Skhosana. Gladness visited us with her then young son in 2001, because she wanted to learn more about the sea. She was one of the first teachers involved in the Treasure Chest project which worked together with teachers to design educational resources about the sea for students who had never seen the sea. She participated in all of our workshops and helped us to inspire hundreds of teachers to use the sea in their teaching. When she was transferred far inland we thought that we would not see her again – but she is so passionate about the oceans and Sea World that each year she helps the local schools to fundraise for a visit to the coast, such is her conviction of the educational value of a visit to uShaka Sea World. She arranges workshops for children and teachers in her inland region and has built up a huge resource centre – with a strong focus on the ocean, proving that you can care about the oceans even far from the sea. Her son even volunteers at the aquariums during his university holidays! Relationships with individuals such as Mrs Skhosana, that have been developed over years, form the foundation of the work by our education team. Ultimately it is the commitment of inspired individuals like Mrs Skhosana that will make a difference in Africa – where single aquariums can never meet the desperate needs for education.

Sometimes we forget the basics in our desire to teach them all about the oceans. This photo shows the excitement of the children when we gave them bags of old clothing – donated by our staff.

Internationally, while our aquariums have evolved over the years, so too have our visitors changed. In the past, the aquarium was the only place to see aquatic animals, now the media - television and the internet - provide daily opportunities to experience exotic animals and places. The average visitor is now familiar with a wide range of animal species and wild places, and is more aware of issues of habitat loss, species extinction and global conservation. Aquariums have an even greater challenge today, as they compete with both mainstream media and social media for the hearts and minds of visitors. However, the trump card remains our unique capacity to exhibit live animals.

How to capitalise on this capacity is the focus of the relatively new field of research for aquariums – visitor studies. Our hope is that visitors enter our facilities as little environmental devils, and after a few hours emerge as environmental angels. But does this happen?

We need to know more about Who visits us, why they visit us, What they really do learn and most importantly, How we can improve their experience? We are starting to view our visitors as clients – who have needs which we need to meet. As clients they are seen as vital to our operations and we need to be accountable to them.

SUSTAINABILITY FOR THE FUTURE

Challenge 1 – Animal Care

Our live animals are our most valuable asset – it is the animals that inspire our visitors to care for our planet. Our challenge is to place animal care and ethics at the heart of our operations – we need to show that we care.

Challenge 2 – Real Education

Many aquariums are committed to education but in others there is often a vast gap between the ideals of education and operational realities – what happens on the ground. Education should not be used as a form of ‘greenwash’ to placate critics. This is challenge number 2 we MUST demonstrate that we take education seriously – both in word and in deed.

Action Point We need to each assess our own commitment to education – and this applies to every employee – from aquarist to CEO. Imagine if we could include education in the job description of every employee – that would send such a powerful message to everyone – we are truly committed to inspiring our visitors

Challenge 3 Expand our educational repertoire

We need to explore the myriad of new educational techniques available – from visitor apps to mobile phone tours, to engaging with social marketing experts and conservation psychologists to help us do better education. We also need to explore our offsite programmes – how can we extend the visit into our visitors homes – and make the inspiration last.

Action Point – Embrace technology and look at ways to extend the visit.

This leads me on to the next challenge..

Challenge 4 – Visitor Studies

The recognition of the need to understand the visitor – potentially the most powerful ally in the quest for conservation and a more sustainable future for the planet – is one of the more recent breakthroughs in the evolution of aquariums. Studies on the visitors to aquariums have increased exponentially over the last decade. However, there remains much that we do not know about the impact of a visit to an aquarium on a visitor's attitude to the environment and if the visit plays any role in changing behaviour at home. In the absence of evidence in the form of reliable data, the justification for keeping animals in captivity remains subjective. This would be challenge number 4. If we want to be able to prove our worth, we need to critically analyse and measure our effectiveness in conservation - in all facets including education - in order to honestly address our shortcomings.

Action Point This one is easy. Just start with a simple visitor studies programme – even if we just find out why our visitors are visiting our facilities we will have taken a step in the right direction. And there are many of us who can help...

Challenge 5 – The bigger picture

The last challenge is the most uncomfortable one of all – we need to reach out the hundreds of aquariums that do not even bother to pay lip service to education or conservation. Every aquarium that uses (or abuses) animals for profit gives those of us who are working so hard for conservation a very bad name. We are often judged by our weakest associates, we need to work out how to include them in our work and ensure that they too integrate conservation and education into their ethos. I

have used a picture of our old Sea World here but great looking aquariums can also be bad if the animals are viewed as disposable assets, like an art work or a chandelier.

Action Point – we need to work together with our countries conservation and environmental legislators, and even rational animal activists, and collaborate with them for better laws to govern aquariums. Those facilities that do not deserve the privilege of holding animals in captivity should be closed, and we need the support of legislation to achieve that goal.

My Dream

Imagine a world in which every single aquarium places animal ethics and welfare, conservation and effective education at the heart of their operations. This will attract the most valuable asset that we have, the positive goodwill of current and future visitors. I know that this will generate the profits that we need to keep our facilities not only alive but thrive.

The world is changing, people are changing and we are changing with it. If we embrace the challenges, we stand on the brink of such an exciting future.

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