



*The IZE is an association dedicated to expanding the educational impact of zoos and aquariums worldwide. Its mission is to improve the education programs in the facilities of its members, to provide access to the latest thinking, techniques, and information in conservation education and to support excellence in animal care and welfare.*



## Journal of the International Zoo Educators Association Number 49 - 2013

**Mission:** *to improve the education programs in the facilities of its members, to provide access to the latest thinking, techniques, and information in conservation education and to support excellence in animal care and welfare. IZE facilitates communication and professional development among zoo/aquarium educators and supports liaison with related organisations such as WAZA (the World Association of Zoos and Aquariums), IUCN, in particular the IUCN/SSC-CBSG (Conservation Breeding Specialist Group), and others.*

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**Submissions:** The IZE welcomes articles by zoo and aquarium educators from across the world at any time. Final deadline for the next issue is 31<sup>st</sup> March.

To submit an article please contact the appropriate regional editor. Contact details on the back cover.

Editor: Stephen Woollard

**Contact IZE:** For general enquiries please visit the IZE website: [www.izea.net](http://www.izea.net) Members can also contact their regional representatives - as listed under the 'Board Members' page of the website.

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## From the IZE President, Rachel Lowry

The 2012 IZE membership survey highlights that the **IZE journal** is highly valued by our members. Upon reflecting on this year's publication, it's easy to see why. The IZE journal provides a unique insight and snapshot into our industry each year, capturing many of the zoo-based education milestones and challenge of our time.

Having recently reviewed the past 5 issues, it is evident that as a collective we are recognising that we are one of the single most powerful conservation education movements across the world. What other industry has the face to face reach that we do? What other industry has the privilege of connecting people to some of the world's most rare and precious species in the ways that we can?

I'm incredibly excited to be President of IZE at this point in time, and proud to be working in an industry that strives to not only connect people with nature, but influence them to protect it.

As the IZE board prepares for the **2014 conference to be hosted by Hong Kong Ocean Park**, we're working to ensure that the composition and quality of the speakers, workshops and papers will help us tackle some of the big questions of our time. What does a successful zoo-based learning experience look like? Can they be fun, meaningful and financially sustainable? How do we evaluate whether we are influencing the right attitudes, knowledge and behaviours? How do we make the best use of technology and social media? And are we really building a social movement that benefits wildlife? Should we? Could we? I'm really looking forward to seeing you all in Hong Kong next year to participate in the next wave of discussions, networking and inspiration that as zoo and aquarium educators we can't get by without! See you there?!

I hope that you find lots of inspiration in this journal, and wish you all the very best as you identify innovative ways to support the **United Nations Decade on Biodiversity**.

Congratulations must go to Stephen Woollard, our Journal Editor, and the talented team of regional representatives that have helped bring this journal to our membership.

Please do continue to renew your membership as an institution or individual, your support really does help to build a more effective and united zoo and aquarium-based education network.

I look forward to working with you in upcoming years. We certainly have a lot to look forward to as we continue to minimise our ecological footprints and utilise education as a tool to fight extinction.



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## Editorial, Stephen Woollard [swoollard@rzss.org.uk](mailto:swoollard@rzss.org.uk)

The International Zoo Educators association is now into its 5<sup>th</sup> decade, having been founded in 1972, and I am honoured and delighted to be the 21<sup>st</sup> IZE journal editor. Over the years each editor has helped to advance the profession of zoo and aquarium education and I have a tough act to follow. Fortunately, I am supported by a great team of regional editors and a vibrant and active IZE membership, as demonstrated at our IZE Chester conference last year and by the diversity and strength of articles in this edition of the journal.

As readers of previous journals will notice, I have made some changes to layout and design which hopefully meets your approval and continues to represent our profession well. The articles show the global reach of IZE with submissions from all the continents (except Antarctica - unlikely we'll have a member based there I think). I am already looking forward to reading submissions for the 2014 journal - send them in to your regional editors please.

In this modern age of social media and internet communication some may wonder if we still need a printed journal. Whilst we do make our past journals accessible online, the printed copy is a valuable tool and resource. Whilst some of you may walk around everywhere with a smartphone or tablet device, there is something special about the physical act of holding and reading a journal, and it has the advantage of being able to be left for others to read, to pass onto colleagues and share with senior staff. Having been involved in zoo education for over a quarter of a century I have seen many changes in society and technology and the ability to travel and communicate globally and many innovations in our work, but it is clear, and reflected in the articles, that our work in connecting people with nature and providing real experiences and activities, is needed now more than ever.

The importance of providing learning opportunities is well summarised by the oft quoted Senegalese environmentalist Baba Dioum, "*In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we have been taught.*" I think we can add definition to what is meant by being 'taught' - it's not about lecturing or preaching, its about engaging with and experiencing nature and the world around us. Hopefully the content of this journal goes a small way to support Zoo, Aquarium and Reserve educators using the opportunities we have to really affect the future of our planet.





# 'Fear' As An Educative Tool

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Animals such as bats, mice, spiders and snakes cause feelings of fear and disgust, but most of the time people don't know that they play important roles in their habitats. At the Zoológico Jaime Duque we take advantage of this situation and decide to use fear as an educative tool.

## Materials and methods

A dark tunnel with terrariums was the perfect scenario to show a toad, a snake, crickets, spiders, mealworms and mice. Decoration was also important, and Halloween characters were our inspiration: pumpkins, giant spiders, spider webs, bats, and halogen lights complete the experience (Figure 1).

*Figure 1. A dark tunnel with terrariums and decorations Halloween type was the scenario for the terrifying experience. Photo by Zoológico Jaime Duque.*



At the entrance we warned people about which animals they were going to see inside the tunnel, to prevent phobic persons to get in. With small groups our education personnel did tours through the exhibition, illuminating each terrarium with a lantern and explaining curious facts about each animal and the important role they play within their ecosystems (Figure 2).



*Figure 2. Bugs inspire fear and curiosity, feelings on which we take advantage to educate. Photo by Zoológico Jaime Duque.*

To evaluate the activity we chose an easy way to measure attitudinal changes. We implemented a pre-evaluation and post-evaluation. For the pre-evaluation we chose to ask people about bats because 2012 was the "Year of the Bat"; what we did was to give people a piece of paper where they wrote their thoughts about these animals.

For post-evaluation we put a billboard at the end of the tunnel, where people could write now that they had information about these animals, what they thought about them (Figure 3).

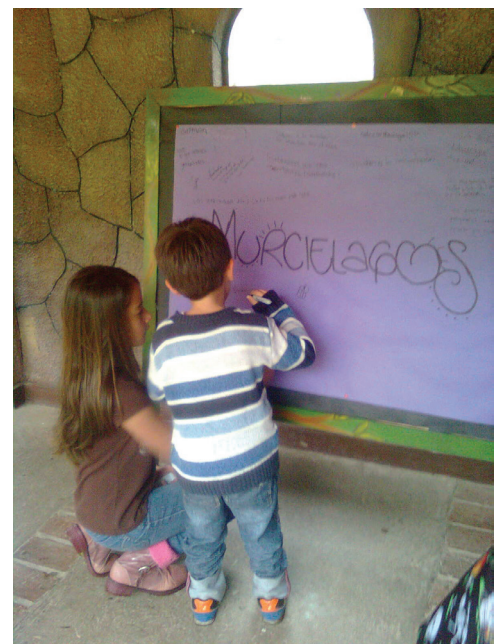
*Figure 3. All that we needed was a billboard where people could write about his experience. Photo by Zoológico Jaime Duque.*

Analysis of the results obtained at the evaluation was made through a technique called Content Analysis. This is a qualitative analysis technique, consisting in categorize the answers based on its explicit and implicit contents and reflecting the purpose of the research; categories are established after a preliminary analysis of the data obtained, because they must represent the principal content areas (Cohen & Manion, 1994; Krippendorff, 2004). What we did was to review the answers identifying common topics among them and with that information we create the categories.

## Results

For the pre-evaluation we classified the answers in three categories: Reject (people don't like bats), knowledge (people know some information about bats) and admiration (people like bats). Categories of the post-evaluation were: To take care of the animals, to take care of the environment and about the activity.

Only one person wrote that although these animals give us benefits, they are still disgusting.



**Table 1. Categories established based on the answers gave by people to the question: What do you know about bats? as a way to evaluate previous conceptions.**

Content category	Results
Reject	Bats are ugly and evil They are dangerous Bats are dirty They are symbols of darkness, fear and Halloween
Knowledge	Bats eat fruits, insects and blood Bats have good hearing Bats live in caves and are nocturnal
Admiration	They are scary Bats feed on blood They transmit diseases Flying mammal Guano is produced by bats
	Fast! Pretty, funny Attractive animal, perfect for science fiction themes I don't like bats because they live in the darkness, but I admire them because they can live under these conditions Fantastic animals

**Table 2. Answers gave by people who participate in the activity, sorted by content categories.**

Content category	Results
To take care of the animals	My thoughts changed, now I know that every animal is necessary Animals are important and every species plays a key role Animals are also living beings and deserve respect Don't hurt or kill animals, even if they are ugly Bats are ugly but cute Only few bat species eat blood Thank you spiders for the spider webs Hurrah for the bugs!
To take care /environment	We must care nature It is important to recycle in order to prevent plagues like mice
About the activity	I like the experience It was very interesting I like that this is a place where you not only exhibit animals, but beside you educate people.

## Discussion

Scary animals such as these that we used provoke fear but also fascination, feelings on which we take advantage to teach people about them and convert them in ambassadors of environmental issues.

Evaluation showed us that people do changed his points of view, and support the idea that sometimes people don't care about the environment because of ignorance. Once more, it was proof that zoos and aquariums represent a great opportunity to increase knowledge and awareness.

## Conclusion

We, as zoo educators, can contribute to change the way people approach themselves to wildlife and to caring for the environment, but what is more important is that you don't have to design a complicated activity or spend a large amount of money, our creativity is the only limit.

## Acknowledgments

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