

A FEW WORDS FROM THE PRESIDENT

# President's Message

**By Bill Cooper** 



Now that 2013 has ended, it is a good time to reflect on some of the accomplishments of the past year. The AZFA continues to grow and we continue to sharpen our business practices. This past year we continued to improve and expand our educational opportunities. We were able to add to our conservation

efforts by increasing the Clark Waldram fund awards. We continued to improve communication to our members by making advancements with the website and through social media. We have improved and sharpen our Bylaws; enabling the Board to operate more efficiently. This past year also saw the formation of a Conference Committee whose job it will be to help host organizations facilitate our annual conference. All of these accomplishments are driven by our long range plan where the Board continues to focus. As a total volunteer organization it is gratifying to be able to see progress. Everyone who contributes their time knows how difficult it can be to find the time to keep our organization moving forward, and their commitment is imperative to the business of the AZFA.

All of that said and moving forward, I am pleased to announce that John Kanzia has agreed to host our mid-year board meeting at the Brookfield Zoo in Chicago. One of the focuses of this meeting will be to discuss how we can get more organizations interested in hosting our annual conference. Every year it is a

challenge to find a future hosting facility. With the formation of the new Conference Committee we are hoping that more folks will step up to the plate and host. If you are reading this and thinking that it is too big of a challenge, too big of a job, or simply more than you have time for, please let us show you how easy it can be. There are no out-of-pocket expenses to your institution as the AZFA guarantees your financial success for the conference. The Conference Committee of the AZFA will help with all of the programming. They will help find a venue, they will help negotiate the contact with the venue, they will help with the auction, they will help with vendors and sponsors, they will help set up the agenda, and they will fill in wherever you find you need help. If you think you are willing to step up and host, please contact John Kanzia, chairperson of our Site Selection Committee (john.kanzia@czs.org) or for questions about hosting please contact Grace Rettig, chairperson of our Conference Committee (grace.rettig@cincinnatizoo.org).

Again I want to give a shout out to John Kanzia for hosting our mid-year meeting. I want to thank our Board of Directors for their commitment of time, energy, and expertise without which, the organization would stagnate; and I want to thank you, the member for your continued support. Please give some thought into hosting a future conference. Your efforts and contributions will be greatly appreciated!

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# The Secrets of Zoolights and More

#### By Kali Raisl

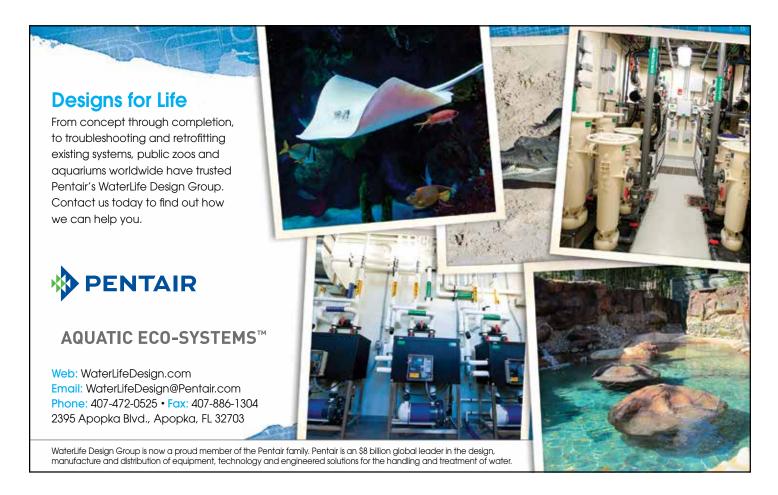
Point Defiance Zoo & Aquarium's Zoolights is an event that, even in my adult years, I look forward to as the kick off to the holiday season. Zoolights began in 1988, making 2013 the 26th annual edition of this Puget Sound holiday season favorite.

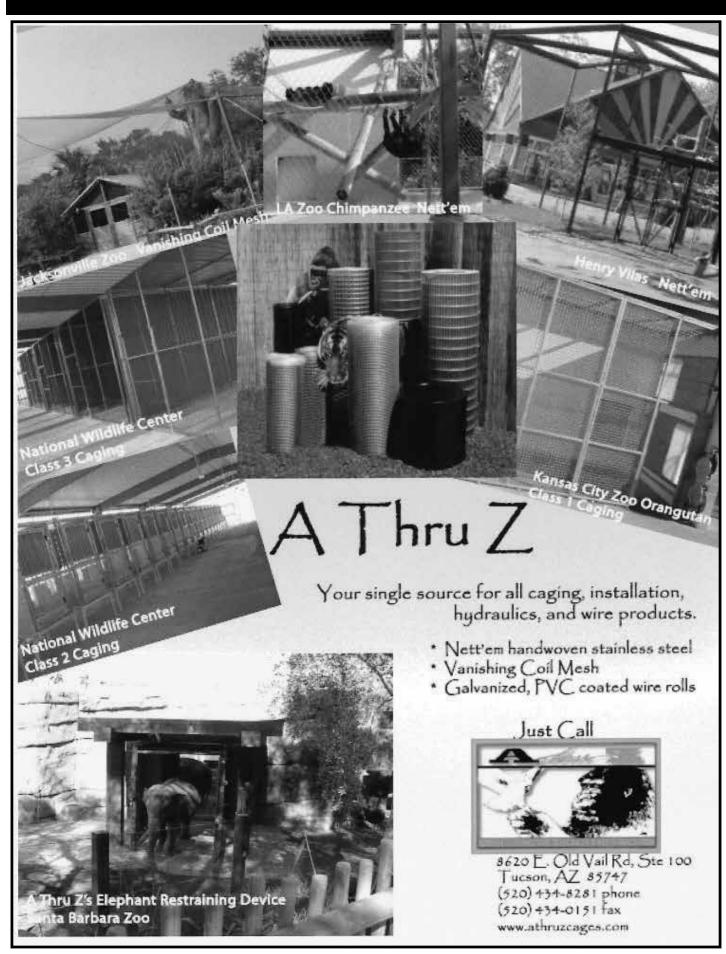
The display of more than half a million lights gives the Zoo a festive glow but have you ever stopped to think about everything going on behind the scenes? I started to wonder just how all this illumination comes together. Not just setting up and maintaining Zoolights, but also the everyday electrical upkeep at the Zoo. My questions were answered when I was granted a peek behind the curtain by the Zoo's head electrician, Andy Peterson.



Andy has been with the Zoo since 1989 and his deep connection and investment with the Zoo was infectious and inspiring. As we moved in and out of the animal habitats and Zoolights displays, my eyes were opened to how integral he and the Zoo operations team are to keeping the Zoo visitors and animals happy and safe.

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#### **AZFA Officers**

#### **President**

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#### **Publications/Website**

Jennifer Golden · Zoo New England 617-989-2084 · jgolden@zoonewengland.com

John Kanzia · Brookfield zoo 708-485-0263 · john.kanzia@czs.org

#### **Site Selection**

John Kanzia · Brookfield zoo 708-485-0263 · john.kanzia@czs.org

## Zoolights (cont.)

Andy uses an energy management program to oversee all electrical aspects of the Zoo. He can zoom into a specific location on the map and check everything from the water temperature in a tiger exhibit to making sure the Education Building's air system is functioning properly.



You wouldn't necessarily think of water when you think of electricity, but especially during our colder season, proper heating and cooling of water relies on efficient electricity management, and is vital to ensuring the health of Zoo animals.

Andy and other Zoo staff track any fluctuation in habitat activity down to the minute. This helps the electricians to know if certain systems are working properly or need maintenance.

Other activity in the shop includes building new displays that have been selected for this year's Zoolights. While

the Zoo operations team designs and builds new light displays, it is the electricians' job to come up with ways to make the figurines move and come to life.



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### Zoolights (cont.)







Each Zoolights display has its own PLC microprocessors, steppers and faders put inside sealable boxes in order to protect the power connections from the elements. Due to our damp Northwest winters, condensation can accumulate inside the box, but when on, the heat from the power quickly dries up any moisture.

Zoolights comes together through a lot of collaboration, including partnerships outside of the Zoo. Some of the control boards for the light displays have been designed by students at Bates Technical College. Control boards like this allow certain lights to be on timers and are used in displays where the animals are to appear to be moving.

Outside of the shop, the electricians work to maintain power in each of the specialized animal habitats. Each animal has different and specific temperature and lighting needs. Switches and timers are usually added to make sure the animals are receiving the necessary amounts to reflect their normal habitat.

The electrician's purview includes everything from habitat maintenance to food preparation. Large shipments of fish must be kept frozen to prevent spoiling. The fish then has come out of the first, and coldest, freezer into a slightly warmer freezer to thaw. The thawed seafood is then prepared according to the animal who will be receiving it.

Proper monitoring of the ozonation system is important because its function is to disinfect and put oxygen back into the water for exhibits. It is essential that all of the instruments used to monitor the health of the animals work properly. If not, we would not know how much the beloved Pacific walrus E.T. weighs (among other things).

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LED spotlights, above the aquatic displays, have numerous color settings. This allows the electricians to create the perfect theatrical effect and give the illusion that you have dove down into an underwater cavern.

Power has to be set up to not only light the display, but to continually keep the proper water and nutrients flowing into the tank. The electricians work with the Zoo staff to create the best environmental setup for each specific animal.

Experiments are continuously occurring behind the scenes. The staff will work with

Behind the scenes in the Kids' Zone, you can see how each 'critter' display has its own light, heat and humidity. This way, adjustments can be made without disrupting other environments. Heated rocks and indoor heat lamps can be controlled by switches surrounding exhibits, but their usage can also be monitored by the main computer in the electricians' shop.

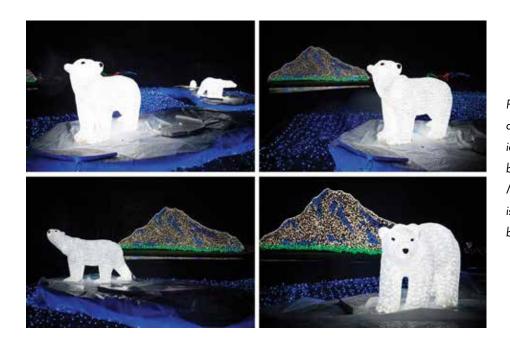
New LED lighting over the North Pacific Aquarium changed what used to be a very overall yellow glow to now a beautiful pale blue. With more controllable spot lights, certain areas of the underwater world can be highlighted.





the electricians to design special, one of a kind set ups for the work they are doing. Point Defiance Zoo & Aquarium is one of only a handful of aquariums in the country that is experimenting with growing coral using only LED lighting.

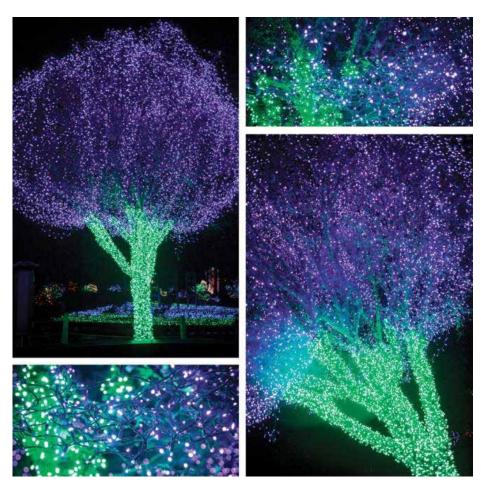
When funding is granted for new buildings at the Zoo, the architect must work with the electrician to be sure that the proper lighting will be incorporated into the final design. Here track lighting was installed in the gift shop. Each individual light can be moved in order to highlight displays.



Polar Bear panorama: A new installation of a family of polar bears stands amid glowing ice floes and a sparkling blue sea. In the background you can see Mount Rainier's Majesty. The mountain was rebuilt this year and is now composed exclusively of thousands of blue and white LED lights.

# Zoolights, let it glow!

Re-imagined Flame Tree: An old favorite is reborn in a new location and features more than 30,000 purple-and-green LED lights. The new Flame Tree is bigger, brighter, and more visible than its predecessor, and anchors a new area of lit displays.



# **Zoolights Fun Facts:**

- 2.1 million estimated visitors since 1988; 1.5 million of them since 1997
  - 550,000-plus lights strung around the zoo
- 340,000 lights on ground cover and bushes
  - 110,000 lights on pathways around the zoo
- 100,000 lights to make figurines
  - 30,030 lights on the Flame Tree (20,000 purple, 10,000 green)
- 24,000 lights to make the Giant Pacific Octopus glow
  - 125 switches flipped to bring the magic to light every afternoon
- 100-foot span on the giant Pacific Octopus atop the North Pacific Aquarium
  - 95-plus percent of all the lights are energy-efficient LEDs
- 80-plus figurines/displays arranged around the zoo
  - 28 miles of light strings about the distance between Tacoma and Seattle
- 17-foot-tall tiger head
  - 15.5-foot Mount Rainier
- 13 amps to make the Flame Tree (reduced from 90 amps before LED lights were put into use)
  - 5 miles-plus of extension cords
- 2 extension cords to power the Flame Tree (down from 9 before LED lights)
  - 8 people and 10 minutes to power up the lights every afternoon; it would take one person about 30 minutes
- 2 months to install the magic of Zoolights every year



#### **AZFA New Members**

#### **Professional**

**Abilene Zoo** 

Roy Greer

Greg Brooks

**Houston Zoo** 

Chris Lyons

Louisville Zoo Richard Williams

Bermuda Aquarium, Museum & Zoo

Roger Hollis

Mesker Park Zoo & Botanic Garden

Erik Beck

John Ball Zoo

Cincinnati Zoo & Bonatical

Garden Al Aerni

Cincinnati Zoo & Botanical Garden

Wayne Lohmoeller



#### **New Commercial Members**

Engineering & Associates, Inc., Carlsbad, California

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Robert Gluth, President

rgluth@corrim.com



AZFA member since 1997

## **AZFA Officer Nominations**

#### By Rodney Fuller

Nominations are currently being accepted for the 2014 AZFA election of officers, which will be held this fall at the 2014 AZFA Annual Conference in Evansville, Indiana. Nominations are needed for the following positions:

- President Elect
- Vice President
- Secretary
- Director at Large

Please send your nominations to me at rlf@tnaqua. org with the name of the nominee, name of their organization, and the position for nomination. You may also contact me by phone with your nominations at 423-785-4026. Self nominations are encouraged as well. Your participation in this process is greatly appreciated.

## Calendar

Mid-year Board & Committees meeting: Brookfield Zoo, Chicago - April 7th & April 8th

Deadline for articles for the next newsletter: March 28th

## **Publication Schedule**

Summer Issue - July Fall Issue - October Winter Issue - January Spring Issue - April

# www.azfa.org

Don't forget to check out the AZFA website for updates and news.

Website Administrator John Kanzia, john.kanzia@czs.org

# Membership

Membership Administrator
Ann Kaminsky, mak@clevelandmetroparks.com

## **Editor's Note**

By Jennifer Golden

I want to wish all of you and your families a very happy and healthy new year. Articles for the spring issue of The Outlet can be sent to me at jgolden@zoonewengland.com

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