

THE TALON

June 2018, Volume I, Issue II



IN THIS ISSUE

Welcome!

In this spring issue of the Raptor TAG newsletter, we've highlighted articles covering nest boxes and innovative perching. We hope that you'll draw some inspiration from the authors for your work at your organization that will improve how you design and build nest boxes and perching for your raptors. We're especially excited about the two different types of quick-change perching related here, and we hope that you'll find additional perching inspiration, from rope or pvc, to astroturf and sisal, to dynamic and swinging perches, by visiting our **Pinterest** board for Raptor Perching at [Pinterest.com/raptortag/bird-of-prey-perching](https://www.pinterest.com/raptortag/bird-of-prey-perching).

We're also already pulling together resources for the summer issue, which we hope to have out in early August. This next issue will focus entirely on Vultures in preparation for International Vulture Awareness Day as well as to kick off the African Vulture SAFE program. If you have any fun vulture education activities or programs you'd like to share, from introducing the public to their adaptations, highlighting the ecosystem services they provide or the threats they face, or even how you care for them through husbandry or veterinary care at your facility, we'd love to hear from you! We're putting together a full educational Vulture Toolkit for IVAD and would love to share any lesson plans or activities you have up your sleeve. Check out last year's toolkit at the Raptor TAG website here, under Activity Resources: RaptorTAG.com/vultureday.

And don't forget to check out the **Call for Articles on page 4!**

Sincerely,

The Raptor TAG Education Advisors

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Lily Mleczko, Wildlife Conservation Society, Queens Zoo, lmleczko@wcs.org, Burrowing Owl Education Advisor

Sarah Gemmer, Buffalo Zoo, sgemmer@buffalozoo.org, Spectacled Owl Education Advisor

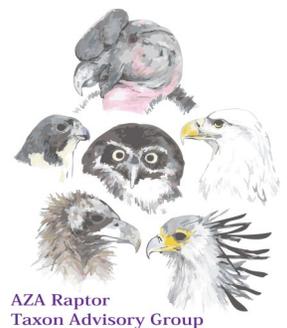
**Questions? Comments?
Suggestions? Let us
know!**

**E-mail us at
RaptorTAGroup@gmail.com**

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RaptorTAG.com



AZA Raptor
Taxon Advisory Group



Cover photo of a Queens Zoo Burrowing Owl by Julie Larson Maher. Facebook.com/RaptorTAG Pinterest.com/RaptorTAG
This Issue layout "big thanks" goes to Lily Mleczko, Queens Zoo!

TAG UPDATES

Raptor TAG Updates



Scott Tidmus, Raptor TAG Chair, Disney's Animal Kingdom (Scott.Tidmus@disney.com)

If you missed the Raptor TAG meeting at AZA mid-year or the EAZA/AZA Joint TAG Chair Meeting in Budapest...don't worry! Here is a quick recap of what was discussed.

AZA Mid-Year:

The TAG will need to look at our institutional spaces before the next RCP (Regional Collection Plan) due in 2020 to determine what we have to work with. This will be a longer process very similar to the first RCP write up that was done. So if you have a real interest in working more with the TAG and a willingness to torment other institutions please contact Scott Tidmus.

There are some open positions available! First, the TAG is looking for a vice chair. This must be filled by someone on the Steering Committee, so with elections coming up soon, please contact Scott Tidmus or Steve Sarro (SarroS@si.edu) if interested. Also, Mike Wallace from San Diego Zoo is retiring from the California condor program manager position. This has been posted within AZA and a decision of candidates will be addressed through the Steering Committee.

We heard an update from the spectacled owl program leader, Steve Sarro. The current population is "ok." Approximately $\frac{1}{3}$ of spectacled owls are participating in education programs. Unfortunately, the genetic diversity of the captive population is not great, and the population is aging. The SSP is investigating the possibility of import from Trinidad. Mike Maxcy from Los Angeles Zoo is the point person for this investigation. The idea would be to start with 4 birds with the possibility of expanding. Please talk to Steve Sarro or Ashley Graham (Grahama@si.edu) if you're interested in more information about spectacled owls.

...and speaking of Ashley Graham, she has been named Eurasian Eagle Owl SSP coordinator! Congratulations to Ashley!

We also heard an update from the African pygmy falcon program leader, Nicole LaGreco. There are currently 52 birds at 17 institutions—check out the recently-published studbook! Unfortunately, the genetic diversity of the captive population of African pygmy falcons is also not great. AZA zoos imported 8 birds (3.5) from Europe last year to try and combat this issue. Offspring have been produced already...and they're looking for homes! Contact Nicole (NLaGreco@sandiegozoo.org) if you're interested.

We discussed some updates from your friendly education advisors. We are still working hard to make the Raptor TAG website (www.raptortag.com) a central hub for all things raptor. First up, we're working on finishing up the natural history content for each SSP species page. We're also working on coming up with some position statements about topics such as jesses on vultures, raptors as program animals, and enrichment for birds of prey. Finally, we'd like to add some contact information for the TAG's steering committee, program leaders, and advisors. If you have ideas or suggestions about any of these topics, please e-mail Jacques Williamson (Jacques.Williamson@state.de.us). We're also on the hunt for education advisors for African pygmy falcons and Steller's sea eagles, so if you want to join the team, e-mail Jacques!

Finally, we heard a great presentation by Kerri Wolter of VulPro about their amazing program in South Africa (vulpro.com). VulPro is one of our four African vulture SAFE program facilities that we will be focusing on during this next year.

Call for Articles

Submission Due Date: July 15, 2018

We are accepting submissions for the next edition of The Talon! The theme for the next issue is International **Vulture Awareness Day and the African Vulture SAFE program**. If you would like to contribute an article, please contact the point person listed below by July 15, 2018.

We're looking for the pieces to include in the sections below but, these sections are not meant to be restrictive – so if you have something else you'd like to contribute, feel free to contact this issue's editors...Please Visit RaptorTAG.com/Newsletter for full section descriptions.

Trending Topics-Summer Issue: Vultures! Point People: Taylor Rubin (trubin@zooatlanta.org) and Jacque Williamson (Jacque.Williamson@state.de.us)

Field Updates Point person: Erin Stotz (EStotz@denverzoo.org)

Species Spotlight Point people: Molly Maloy (mmaloy@denverzoo.org) and Erin Stotz (EStotz@denverzoo.org)

Education, Engagement, and Ambassador Animals: Point People: Taylor Rubin (trubin@ZooAtlanta.org), Chriss Kmiecik (cdk@clevelandmetroparks.com), and Sarah Gemmer (sgemmer@buffalozoo.org)

Enrichment and Training: Point person: Taylor Rubin (trubin@ZooAtlanta.org)

Conservation Action Point people: Erin Stotz (EStotz@denverzoo.org) and Lily Mleczo (lmleczo@wcs.org)

TAG or SSP Program Leader Updates & Supplementary articles: : Point person: Jacque Williamson (Jacque.Williamson@state.de.us)

Submission Guidelines

Word Count: 300-750 words (can be over with approval from section point people).

Photos: please include at least one photo with photographer name and short caption.

Contact Information: please include the email address of all authors, which will be included in the article.

Organization Logo: please include a .png or .eps (preferred), or .jpg if neither of those are available, of your organization's logo with your submission.



Photo by Sarah Patterson, St. Augustine Alligator Farm

Call for Photos!

Every month, we take hundreds of photos of the awesome raptors in our zoos. We would love to feature them here.

Please send featured photos with subject line "photo submission" to:

RaptorTAGroup@gmail.com

Or drop them here:

<https://tinyurl.com/yb5uls6u>

FIELD UPDATES

Urban Box Owl Project

Karla Bloem, Executive Director, International Owl Center (karla@internationalowlcenter.org)



In South Africa, Jonathan Haw of EcoSolutions directs the Urban Owl Box Project, an innovative approach to the public health problem of rat infestations in urban and agricultural areas. The project uses native Barn Owls and Spotted Eagle Owls, rather than rat poisons, to control rodent populations. The Barn Owl is an extremely efficient ratter and healthy owl populations are effective in rodent control. Rat poison, a powerful anticoagulant, can be fatal to humans that ingest it. Owls, domestic animals, and other wildlife often ingest poisoned rats and are likely to die. The project installs and maintains nest boxes to provide breeding support to owls, enabling growth of owl populations. Nesting owls are ringed (banded) whenever possible. The project is the largest of this kind in the world, with more than 3,000 GPS and database coordinated owl boxes.



Changing cultural norms .Photo by K. Bloem

Because of the negative mythology surrounding owls in South Africa, public education is critical to the success of projects involving owls. Many South Africans view owls as a curse or omen of death and traditional healers may use owl parts in ceremonies. To counter these myths, Mr. Haw created **Owlproject.org** in 1998. The project is a collaborative effort between Mr. Haw, EcoSolutions, owl rehabilitation facilities, and school systems. The focus is educating children in township schools...“to create owl friendly children, who go on to become owl friendly adults, living within owl friendly environments.” The program installs nest boxes for orphaned Barn Owls on school property. Students participate in classes; name, raise, and release owls, and analyze owl pellets. Owls are ringed before release and autopsied if found dead.

Owlproject.org has dispelled myths about owls and captured the imagination of students and the public. It has expanded to townships across South Africa. Over 100,000 school children have participated in Owlproject.org and approximately 4,000 orphaned Barn Owls have been released.

Mr. Haw is a registered wildlife rehabilitator and collaborates with national efforts to assure best practices in owl rehabilitation and conservation. He serves as a resource to the government, public, and business communities. His many television, radio, print, and social media interviews have greatly expanded public awareness of the hazards of rodenticides and the role of owls in rodent control.

Conservationist Spotlight: Jonathan Haw, World Owl Hall of Fame



Jonathan with a young Spotted Eagle Owl

Jonathan Haw is originally from Zimbabwe but now lives in Johannesburg, South Africa. He has loved and lived with raptors ever since he was a boy, becoming a falconer by age 12 and starting to rehab raptors shortly thereafter. After embarking on a career in accounting, he decided to change course and follow his passion instead and is currently completing his master's degree in the roost site selection of insectivorous bats. After working as a researcher with the Endangered Wildlife Trust, he started EcoSolutions Urban Ecology to address urban wildlife problems in Johannesburg. EcoSolutions maintains a network of over 3,000 GPS owl nest boxes across South Africa and manages over 300 bat houses in commercial agriculture nationally. In order to give back to the community, he started the Township Owl Project to connect children in very poor schools with owls to overcome negative cultural attitudes and at the same time help control the rat problem. To date, over 100,000 school children have participated in the owl project.

Jonathan received a 2018 World Owl Hall of Fame Special Achievement Award for his efforts, the Birdlife Eagle Owl award for a lifetime contribution to conservation in 2016 and Jane Goodall's Roots and Shoots foundation has supported his work.

ENRICHMENT & TRAINING

Perching

Sara Gemmer, Spectacled Owl Education Advisor, Buffalo Zoo (sgemmer@buffalozoo.org)



At the Buffalo Zoo, switching out perching used to be a daunting task. With a little bit of creativity, our keepers were able to install a system that allows us to easily switch out perching. With the proper measurements, we are able to find different branching, cut a branch long enough and utilize them appropriately. Since we can take them on and off in seconds, it also allows us to sanitize perching more often and keep our birds' feet healthy. We've installed multiple base systems set-up in one enclosure allowing us to change the variation of where the perch goes. We can place them low, high, or even in a different direction to offer our birds a different view of their enclosure.



Quick Change Perching

Justin Eckelberry, Keeper III, Verreaux's Eagle Owl SSP Program Coordinator, Zoo Atlanta
(jeckelberry@zoatlanta.org)



A challenge we are constantly facing at Zoo Atlanta is perching changes in our mews and in buildings attached to aviaries. This becomes especially problematic when we have birds that require frequent perching changes. So, we have adapted a system that allows us to change perching even daily in an incredibly time efficient way of.

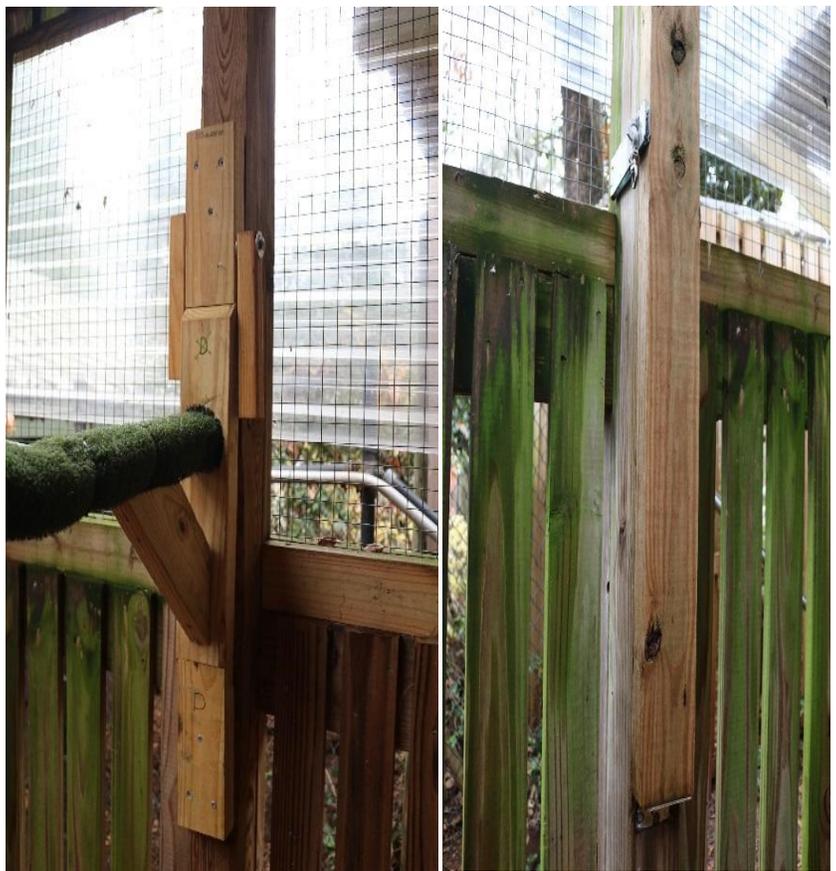
The first system uses a wooden base installed in the bird holding area or mew. The base consists of an upper and lower piece of 2x4. They are cut at 45 degree angles and spaced at 2 feet apart vertically. These are screwed to building or mew wall. Attached to one side of the top 2x4 is an 8in 2x2 secured to the 2x4. On the other side is the same size 2x2 that is through bolted to allow for rotation. This will secure the perch into the station later. All perching intended for these stations are attached to 1ft 11in 2x4s also cut at 45 degree angles that slide into the stations. If you build all of these to the same size 2x4, they can be readily switched out whenever you'd like in a matter of seconds. This system makes it incredibly easy and fast to switch perching without causing permanent damage to your habitat structure. Though we have not used it in this case, we have heard of institutions using this in concrete walled habitats as well.



A second system we employ is a drop-down system. This avoids the need for bringing in ladders to change high perching. The concept is simple.

- The perch itself is attached to a long 2 x 4 that is attached to a hinge at keeper height. The hinge is screwed to the mew/exhibit structure at easy height for a keeper.
- The 2x4 is locked in place with a latch and when the latch is released the 2x4 can be swung down bringing the perch with it, so it can be changed on the ground without needed to climb to it.
- This also greatly helps in cleaning higher perches.
- In cold weather if a bird's favored roost perch has "drop-down" ability the perch can be dropped requiring the bird to roost in a heated or more sheltered perch elsewhere in its housing space. This is how we currently manage a pair of hooded vultures in extreme cold.

These are just two simple concepts that can be adapted to fit any institution's needs. They can also be combined and changed however necessary. We also use eye hook, bungee, and L-bracket systems. If you would like any more information or have any questions, feel free to contact me or James Ballance, jballance@zoatlanta.org.



CONSERVATION ACTION

American Kestrel Nest Box Program

Jacque Williamson, Curator of Education, Brandywine Zoo, Raptor TAG Education Advisor
(Jacque.Williamson@state.de.us)



American Kestrel populations have been declining across North America for more than four decades, and the Mid Atlantic region has experienced the greatest population decline of any region in North America, with a population falling more than 88% from their levels in the 1970s. With American Kestrels confirmed in only 61 of 156 blocks in the 2012 Breeding Bird Atlas for Delaware, the American Kestrel was listed as Endangered in Delaware in 2013. Varying theories accompany the Kestrel's nationwide decline, with main culprits likely a combination of loss of suitable nesting habitat, pesticide accumulation, climate change, increased exposure to zoonotic diseases, or nest site competition with invasive European starlings, however, more research is necessary.

Since 2014, the Brandywine Zoo has been installing and monitoring Kestrel nest boxes around Delaware and sharing data with the American Kestrel Partnership, a project of The Peregrine Fund. More recently, other nonprofit and governmental organizations have joined the Brandywine Zoo in monitoring and researching Kestrels, and together we have formally formed the **Delaware Kestrel Partnership (DKP)**. This partnership now consists of the Brandywine Zoo (and the Delaware Zoological Society, the Zoo's nonprofit arm) and Delaware Fish and Wildlife (DFW) as program leaders, with support from Delaware State Parks, Tri-State Bird Rescue and Research, Delmarva Ornithological Society, Delaware Nature Society, and the American Kestrel Partnership. More at BrandywineZoo.org/DKP.

For the 2018 nesting season (March-July), our team will be monitoring nearly 80 nest boxes across all three counties in Delaware. The monitoring project itself is conducted by one seasonal/part time field biologist from DFW, one year-long research apprentice from the Zoo, and 7-10 volunteers who are assigned nest boxes for the season. Monitors use GoPro style cameras on telescoping poles to quickly check the contents of a nest box with minimal disturbance to the birds. Boxes that produce chicks are banded with USGS bands between 16-24 days old, and feather samples are collected from one chick from each box for the American Kestrel Full Cycle Phenology Project (aka the Kestrel Genoscape project - FullCyclePhenology.com). Annually, our monitoring data is also submitted to the American Kestrel Partnership's citizen science monitoring project (more at kestrel.peregrinefund.org).

The DKP follows the protocols established by the American Kestrel Partnership to construct and install nest boxes for Kestrels. One 1"x12" pine (or cedar) board is used to construct each nest box. Boxes are side-opening, with either a fixed side-stop or inside "lip" so that when the door is opened, substrate (either pine shavings or



BRANDYWINE ZOO DE FISH & WILDLIFE
DELAWARE NATURE SOCIETY AMERICAN KESTREL PARTNERSHIP
TRI-STATE BIRD RESCUE & RESEARCH DELAWARE STATE PARKS
DELMARVA ORNITHOLOGICAL SOCIETY



Photo: DKP member checks a nest box with a GoPro style camera on telescoping "selfie stick"

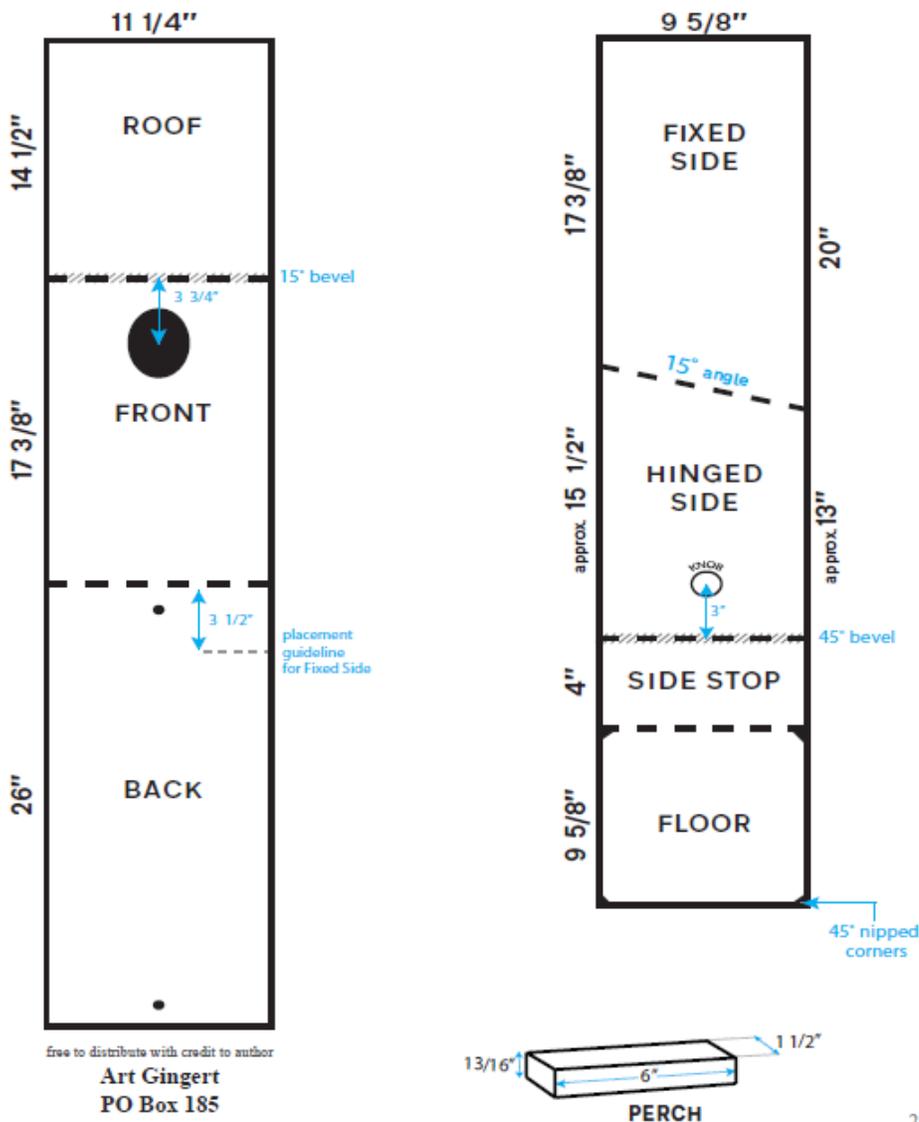
Conservation Action continued...

is a 3" wide x 4" tall oval. Boxes are left unpainted, as painting the boxes is not recommended as colors could cause overheating. Boxes are filled with around 3" of substrate-we have found that by lining the interior nipped ventilation corners of the floor with screen, this reduces the amount of substrate loss that gets blown out by the wind.

Nest boxes are typically fixed to an 8-10 foot- 2x4" board mounted with two bolts on a twelve foot-4x4" post sunk four feet into the ground. When the bottom bolt is removed, we can cantilever the box down for annual maintenance without having to bring a ladder. Alternatively, they may be mounted on telephone poles (when owned by landowners), barns, or other suitable structures overlooking low growth, open fields or meadows. All boxes have additionally received conical or stovepipe predator guards, depending on the mounting structure, for the 2018 season.

2017 was the first year of this project to successfully produce chicks- with around 15% nest occupancy and about 10% of our nests successfully producing 19 chicks total. We're looking forward to another successful season of monitoring and chicks for 2018 and already have several promising nest boxes.

American Kestrel Nest Box Plan



Above Left: nest box plans from the AKP; Above Right: DKP member servicing a box while tilted down on its cantilever.

SPECIES SPOTLIGHT

Famous Burrowers

Lily Mleczko, Coordinator of Volunteers and Visitor Engagement, Raptor TAG Education Advisor, Wildlife Conservation Society, Queens Zoo (lmleczko@wcs.org)



On March 24, 2018, season two, episode 3, of "The Zoo," aired on Animal Planet featuring the successful Burrowing Owl nesting program at the Wildlife Conservation Society's, Queens Zoo. Viewers got a "first look" at what it takes to raise and breed this species in our parks.

The program began by showing the intricate design involved with constructing artificial burrows for the owls that mimic their habitat in the wild. Keepers explained that in their natural habitats, owls rely on other species – like prairie dogs and gopher tortoises – to create their extensive tunneling system. At our zoos, of course, these systems need to be replicated artificially. At the Queens Zoo, we make our tunnels using 8 feet (4 inch diameter) of corrugated plastic drainage pipe. In the middle of the tunnel these bend at a right angle. They end at a nesting box (irrigation valve holders/electrical box). The box is bottomless, but the green top comes off so keepers can access the birds and eggs.



Now, with successful exhibit implementation, the Queens Zoo has been able to breed burrowing owls for the past 2 seasons. Starting with 6 chicks in May 2016, when the episode aired, the zoo proudly boasted 14 individual owls. The program has been so successful that they decided to open up a second exhibit at the Bronx Zoo. Much of this episode gave viewers a "behind-the-scenes" look into the construction of the new exhibit, from planting the cactus above ground, to the placement of the important nesting boxes below. Equally entertaining, was the featured process of catching the owls in order to transport them between facilities. Keepers pushed hoses through the burrows, imitating snakes, in the hopes that the owls would flush out into a net on the other side. All in all, it was a successful capture, transfer and reintroduction. The new owls are settling in well at Queen's sister zoo in the Bronx.

Animal Planet's "The Zoo" has been extremely successful in helping the public make the connection between collection animals on exhibit and the important conservation work being done at all of our sites to safeguard species.

(Continue on next page)



Species Spotlight continued...

In this episode Zoo Director, Jim Breheny discussed how wild burrowing owl habitat is under siege from development, prairie dog control methods and other anthropogenic factors. The Zoo airs on Animal Planet Saturday nights at 9pm and can also be viewed On Demand and online. Be sure to check it out!



Athene cucularia eggs



Chick—1 week



Chick—2 Weeks