



Neornithes News

A Newsletter from the Department of Ornithology, WCS, Bronx Zoo
Volume 4, Issue 2: April, 2017

GOLDEN JUBILEE FOR ASA WRIGHT NATURE CENTRE

Curator's Notes

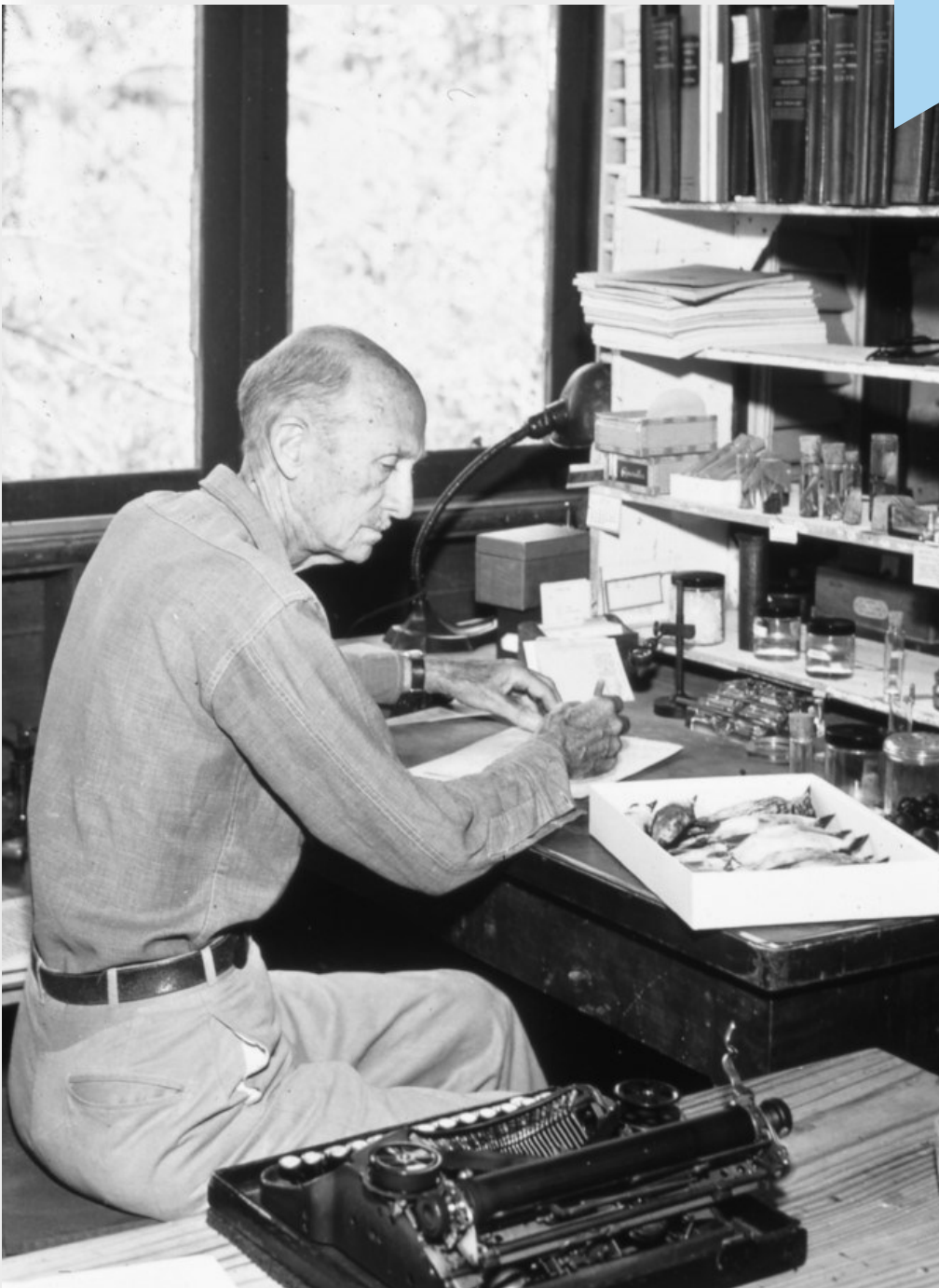
Submitted by, David A. Oehler

Curator of Ornithology, WCS,
Bronx Zoo

The Asa Wright Nature Centre (AWNC), was established in 1967, by an energetic group of naturalist to protect the Arima Valley, Trinidad, and this year is celebrating its Golden Jubilee. AWNC is one of the first nature centers created in the Caribbean and now boasts thousands of visitors that come to enjoy the picturesque setting and birding hotspots. Today over 12,000 visitors from Trinidad & Tobago, North America and Europe visit AWNC each year.

AWNC's main facilities are located on what was the Spring Hill Estate, a cocoa, coffee, and citrus plantation, owned by Newcomb and Asa Wright. The Estate was famous for hosting many visitors that came to see the avifauna and stay for the wonderful food and afternoon tea. Ornithologists would gather to enjoy the hospitality and relatively uncomplicated viewing of Oilbirds, *Steatonis caripensis*, numerous hummingbirds and other Neotropical avifauna.

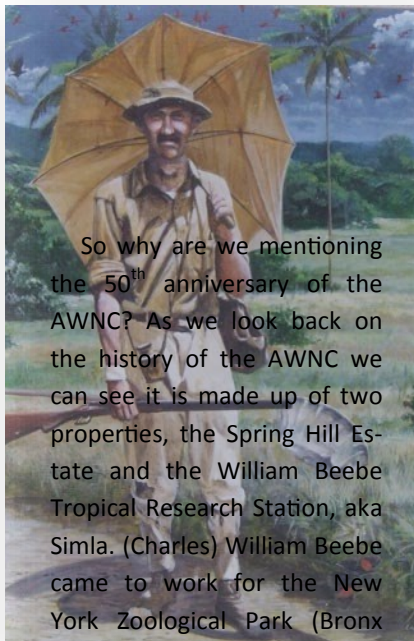
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William Beebe at Simla (William Beebe Tropical Research Station)

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GOLDEN JUBILEE FOR ASA WRIGHT NATURE CENTRE (Continued from cover)



So why are we mentioning the 50th anniversary of the AWNC? As we look back on the history of the AWNC we can see it is made up of two properties, the Spring Hill Estate and the William Beebe Tropical Research Station, aka Simla. (Charles) William Beebe came to work for the New York Zoological Park (Bronx Zoo) in 1899 as the Assistant Curator of Birds and would move into the position of full Curator in 1902. In 1949, Beebe purchased the an estate and renamed it Simla, a reference to Rudyard Kipling's stories in the *Plain Tales from the Hills*, based on Kipling's visits to Shimla (then known as Simla), the site of the summer capital of British India. Beebe worked directly with Asa and Newcomb Wright, particularly during the period when he was provided accommodations while the water and electrical supplies were being connected to Simla. In 1953, Beebe would donate the properties that he had purchased to the New York Zoological Society for the sum of one dollar, although he retained the position of "Benefactors in Perpetuity." In February 1974, Simla was

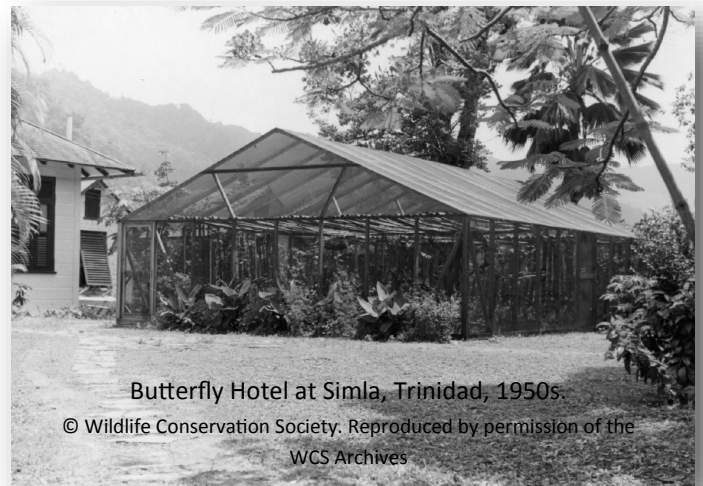
The William Beebe Research Station, located at Simla in the Arima Valley, Trinidad

officially donated to the AWNC and is maintained as a field station for tropical research.

Visitors to AWNC have an opportunity to view over 170 species of birds, including 14 hummingbird taxa.

Research also continues, as monitoring efforts have recorded via camera traps and have identified 16 species of mammals, including the elusive Ocelot. Bat surveys are also conducted, cataloging 22 species of bats and we are expanding these efforts with newly acquired bat acoustic recording equipment.

It is with great pride that I represent the WCS, Bronx Zoo, as a board member of AWNC. To walk the grounds of Simla and view the portrait of William Beebe is a humbling experience. To know that we continue the tradition of Neotropical research, in the Arima Valley of Trinidad, is a great honor. Happy anniversary to AWNC.



Butterfly Hotel at Simla, Trinidad, 1950s.

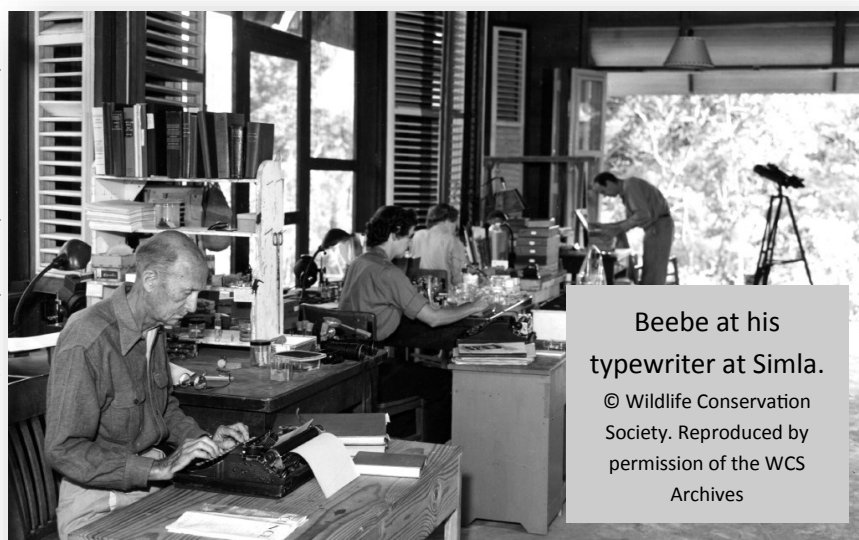
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RESEARCH AT SIMLA

The World's first Neotropical Ecologist

Research at Simla really began to move forward in 1950, as Beebe began to investigate and document the natural history of the avifauna of Trinidad, and also include studies of the flora, mammals, and invertebrates. Beebe would be called the first Neotropical Ecologist by David Goddard, author of Saving Wildlife: A Century of Conservation. The New York Zoological Society would continue supporting the Tropical Research Station for twenty more years and actually increase the land holdings to 265 acres. In correspondence with Dr. William Conway, he describes Simla as the smallest of three properties that consisted of the lab, butterfly house and dormitories. Simla grew with the addition of the St. Pat's property, located across the road where David Snow conducted important manakin research and was the largest of the properties acquired by Beebe. The property called Verdant Vail was also acquired and added to the Simla complex.

More than 300 scientific papers were generated from these studies and that work continues today.



Beebe at his typewriter at Simla.

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Saving Uganda's National Bird

Submitted by, Miguel Leal
Albertine Rift REDD Program Manager,
WCS & Hamlet Mugabe, Ornithologist Officer, WCS

The Grey Crowned Crane, *Balearica regulorum*, features on the national emblem, and flag of Uganda. The national football team is called the Uganda Cranes. Only 17% of the interviewed rural poor knew the crane was *the* national bird of Uganda. Imagine a similar outcome in New York State for the American Bald Eagle. Pretty pathetic! I am sure you'd think. Unfortunately, this is the reality for the Grey Crowned Crane in Hoima in western Uganda, where we held this survey.

The rural poor are so completely focused on

with the impact of climate change without the need to plant their crops in wetlands.

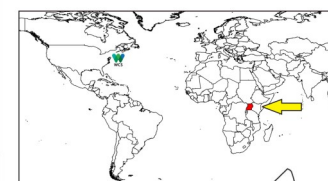
To measure the effect of this conservation action, WCS needed first to know the numbers of cranes in the project area and the status of the wetlands. This was never done in the project area as the two national surveys previously did not cover the area. With funding from the Darwin Initiative (UKAID), Hamlet Mugabe, the in-house ornithologist carried out a baseline survey in April and May 2016 and surveyed 87 wetland sites in 22 parishes across the Hoima district.

The results are hopeful. Cranes were observed 145 times in 19 out of the 87 sites (22%) and in 16 out of the 22 parishes (73%). The status of the wetlands varied from undisturbed (34%), partially disturbed (36%) and severely disturbed (30%). In other words, cranes are wide spread over the project area but their population is low.

This survey shows that conserving wetland is important for crane conservation and training smallholder farmers hopefully will relieve some of the pressure on wetland, but many more farmers in the project area are not yet participating. It is difficult to inspire people about

wildlife when their focus is on making it to the next growing season.

Therefore, WCS follows a livelihood improvement approach where people will benefit from conservation through increased income and climate proved enterprises. The farmers who participate sign a pledge to conserve their natural forest and not to encroach in wetlands. In return, WCS trains them in conservation farming and put them in contact with profitable buyers for their produce. Farmers have seen their income increase by 15-fold. So, maybe next time when they see a Grey Crowned Crane in their neighboring wetland they will appreciate its presence.



The Murchison-Semliki REDD+ project, located in western Uganda (located in the area in red) is trying to save Chimpanzees and their forests as well as Grey Crowned Cranes and their wetlands. Forest and wetland habitat are large carbon sinks and when converted a big source of Green House Gasses (GHGs) emissions and they represent important ecosystem structures to stabilize the regional impact of climate change.



Grey Crowned Crane, the national emblem of Uganda

day to day survival that wildlife does not enter their minds; let alone be inspired by it. The last season was particularly hard on them as climate change destroyed their harvests and households are looking for coping mechanisms. One of the coping mechanisms is to convert papyrus wetlands to agricultural fields. Although this may reduce their risk of harvest failure caused by drought it unfortunately also destroys the Grey Crowned Crane habitat and causes more greenhouse gasses stored in the wetland to be emitted.

To stop this trend, WCS is training smallholder farmers who joined the Murchison-Semliki Reduced Emission from Deforestation and forest Degradation (REDD+) project in conservation farming. Conserving farming is a climate smart agricultural practice which helps farmers to cope



A Grey Crowned Crane forages in undisturbed wetlands.

AVIAN INFLUENZA SURVEILLANCE IN MONGOLIA

Learning more about the prevalence and ecology of avian influenza

Submitted by, Barkhasbaatar Ariunbaatar, WCS

The highly pathogenic avian influenza virus (HPAIV) subtype H5N1 has caused the deaths of more than 6,000 wild birds at Qinghai lake in 2005 and this pandemic infected wild birds and poultry in at least 55 countries in Asia, Europe, and Africa. WCS Mongolia program responded to the wild bird mortality in Qinghai lake and started surveillance in Mongolia among wild birds and detected the first H5N1 positive Whooper Swan, *Cygnus cygnus*, at Erkhel lake in the central part of Mongolia.

Mongolia is a great country that provides an opportunity to study the wild bird virus in absence of domestic bird and abundance of migratory waterbirds, which creates an ideal location to study the epidemiology of highly pathogenic avian influenza virus (HPAIV) in a purely wild bird system.

Since 2005 we have been actively surveying lakes and wetlands of Mongolia for HPAI by collecting samples from live

captured birds, making and tagging birds and from fresh fecal samples. We have identified hotspot areas where infected birds are likely to migrate. Most infected birds come from Central Asia flyway. When there are epidemics in the region we are very likely to detect in Mongolia and when the epidemic is not present we do not see outbreaks in Mongolia as well.



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Above, Martin Gilbert (in the boat) and Dulam Purevsuren capture swans on Erkhel Lake, Western Mongolia. Lower image: A Bar-headed goose being prepared for release after testing.

WCS STAFF IN ACTION

Collecting samples in the field to better understand disease transmission

The latest 2016 surveillance was conducted at 19 locations. A total of 1202 samples were collected during this study including 1,171 environmental fecal samples (including shelducks, geese, swans, and ducks), 20 from live birds samples (from a live Cinereous Vulture, *Aegypius monachus*), 11 from dead birds samples.



Whooper Swans on Erkhel Lake, Mongolia

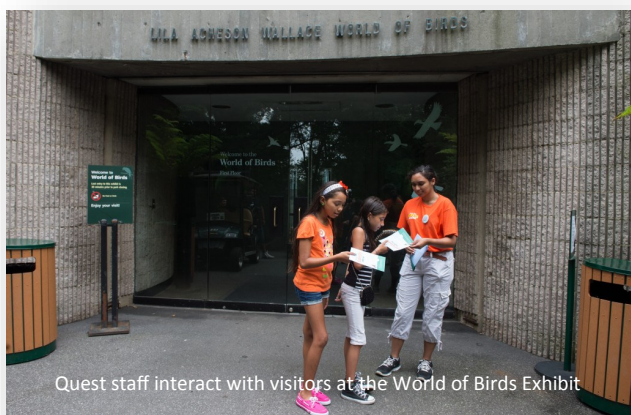
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QUEST PROGRAM- MAY INCREASE VISITOR STAY TIME IN THE WORLD OF BIRDS

Submitted by, Sarah Dunifon, Research & Evaluation Associate, Brian Johnson, Director of Education Research & Evaluation and Jason Aloisio, Project TRUE Program Coordinator, WCS

WCS Education's Research and Evaluation team implemented a direct observation study in summer 2016 to measure visitor engagement with zoo exhibits in



Quest staff interact with visitors at the World of Birds Exhibit

World of Birds. The study compared the prevalence of engagement behaviors as well as stay time of visitors participating in semi-facilitated educational experiences (Quests) and regular visitors. Two-hundred and eight observations were collected as a part of the Quests program evaluation. Of these observations, 101 were conducted on Quest participants (referred to as "Quest group") and 107 were conducted on regular visitors (referred to as "non-Quest group"). Stay time and engagement behavioral data were analyzed in R.

In Flight!, staff highlighted a number of main messages, including bird watching, observation skills and the importance of observing animals, bird research methods, cool science, local birds, bird conservation, and how WCS researchers study birds. Guests primarily reported learning about different types of birds and bird identification, flight patterns and bird calls.

On average, Quests participants stayed double the amount of time in both the bee-eater exhibit space and the second-floor free-flight space. In the bee-eater exhibit area, average stay time for the Quest group was 150 seconds versus 52 seconds for the non-Quest group ($p < 0.001$). In the second-floor exhibit area, average stay time for the Quest group was 145 seconds versus 89 seconds for the non-Quest group ($p = 0.002$).

Levels of engagement behaviors were similar between groups, though some differences were observed. For example, subjects belonging to the Quest group were more likely to "ask a question on animal(s) or exhibit" ($p = 0.006$), while subjects belonging to the non-Quest group were more likely to "point at animal(s) or exhibit" ($p = 0.005$) and "take photo" ($p = 0.004$).

The findings suggest a relationship between participation in Zoo Quests and exhibit engagement and stay time.

Book Review



Submitted by, Christine Sheppard, Bird Collision Campaign Manager, ABC (former Curator of Ornithology, WCS)

The enjoyable book *Good Birders Don't Wear White: 50 Tips from North America's Top Birders* came out in 2007. It was a compendium of essays, often amusing, by people who, in one way or another, have lives that revolve around birding (nobody from a zoo, though). Ten years on, a companion volume, *Good Birds Still Don't Wear White: Passionate Birders Share the Joys of Watching Birds*, is equally engaging. Still no bird keeper authors, but there is an essay on how bird photography can change your view of the world by Marie Read, who took the photo of an alarmed looking fish in the talons on an Osprey, on display in the 'Is Nature Cruel?' gallery (aka Death Gallery II) in World of Birds.

I am passionate about birds, but have always felt I wasn't a real birder – I hate taxonomy, don't keep lists and don't love getting up before dawn. This book celebrates backyard birding, birding with spectrograms, birding with kids, birding as a teaching tool, drawing birds, and leading bird tours. We hear about a vendetta against a male House Sparrow that was taking over occupied Bluebird boxes, reasons to be kind to novice birders and from someone who, like me, only discovered birds decades into their lives. Each essay is only a few pages long, and each ends with tips drawn from the author's experiences, many with amusing sketches – my favorite features a Woodcock. A great book to dip into, more than a page turner. Keep it by your bed and go to sleep every night thinking of the different ways birds fit into your life.

RED THROATED & READY TO GO

Sometimes conservation begins in your own backyard

Submitted by, Ken Huth, Supervisor of Ornithology, WCS, Bronx Zoo

The Wildlife Conservation Society (WCS) is a worldwide leader in conservation. That includes conservation here at home. This past summer I was fortunate enough to volunteer with the Adirondack Cooperative Loon Program which is supported by WCS and The Biodiversity Research Institute (BRI) as well as a few other conservation groups. The Loon program studies these iconic birds of the northern lakes and ponds.

Here at the Wildlife Conservation Society's Bronx Zoo, I reached out to the BRI to let them know that we would be interested in a non-releasable loon – meaning a loon that was too badly injured to go back into the wild and would likely be euthanized – for display in our exhibit. One evening I got a call from one of the wildlife

veterinarians associated with BRI to let me know that she had a Red-throated Loon, *Gavia stellata*, with a drooping wing that appeared to be broken rendering it non-releasable. It was being held in the Saranac Lake Region of the Adirondacks. This is about five hours away from the Bronx so we met halfway for the hand-off. Once back at the Zoo we had our veterinary staff examine the bird and it was determined that the drooping wing was not broken and that she could be returned to the wild. With the blessing of the wildlife veterinarian, the Red-throated Loon was released at Orchard Beach near City Island, NY where it swam off into the surf. Though we are still waiting for a loon that will allow our guests to experience the grace and beauty of these birds I couldn't think of a better ending.



The juvenile Red-throated Loon was successfully released back into the wild.



AVIAN ANCESTORS

Submitted by, David A. Oehler

Curator of Ornithology, WCS, Bronx Zoo

Scientists in China have described an extraordinary fossilized bird from the Early Cretaceous Jehol Biota, dating back 131 to 120 million years. The specimen has been designated as *Eoconfuciusornis* and is the oldest and most primitive member of the *Confuciusornithiformes*, a group of early birds that first developed an avian beak. Making this find so special are the preserved soft tissues involving the ovary and wings. The varied sizes of the fossilized follicles, on the ovary of this specimen, indicates that this specimen had rapidly developing eggs, similar to modern birds that lay a clutch of eggs at specific intervals. *Eoconfuciusornis* has a preserved postpatogium, the fleshy aerodynamic surface of the wing. Making up this surface are flaps of skin, or patagia, that are well preserved and are found in modern birds and assist in their capability to fly. More impressive is the finding of a network of a collagenous network that provides a structure shaping the skin flaps, giving the wing a greater aerodynamic shape. Along with the soft tissue, the plumage of this specimen was also preserved well enough to determine the microscopic structure and suggest that the *Eoconfuciusornis* may have donned gray feathers with black spotted wings and a red throat patch.

See: Xiaoting Zheng, Jingmai K. O'Connor, Xiaoli Wang, Yanhong Pan, Yan Wang, Min Wang, Zhonghe Zhou; Exceptional preservation of soft tissue in a new specimen of *Eoconfuciusornis* and its biological implications. *Nat'l Sci Rev* 2017 nwx004. doi: 10.1093/nsr/nwx004

Notable Hatchings

Submitted by, David A. Oehler

Curator of Ornithology, WCS, Bronx Zoo

African Spoonbill Many birds that live in an aquatic environment appear to be related based on morphological adaptations, such as long legs and beaks that function in a similar manner to take food from the water. The male African Spoonbill, *Platalea alba*, that hatched on 2 March 2017, is one such bird and these spoonbills were once thought to be closely related to storks, flamingos, and ibis based on similar physical and behavioral attributes. Molecular evidence (DNA-DNA hybridization phylogeny) has now properly separated these groups of birds and now associate the spoonbills with the ibis and herons, and distance them from the storks and flamingos.



The juvenile African Spoonbill hatched 2 March 2017 at the Aquatic Bird House

Julie Larsen Maher ©WCS

Raggiana Bird of Paradise

In the wild, the female Raggiana Bird-of-Paradise, *Paradisaea raggiana*, must build her own nest, incubate her eggs alone and rear the offspring without assistance from the male. The female Raggiana will forage exclusively for invertebrates to feed her newly hatched offspring for the first five days. Every hour she feeds her chick and the amounts increase substantially when the chick reaches four days of age. Our Raggiana Bird of Paradise hatched in the Asian Rainforest habitat of the World of Birds on 28 March 2017. To assist the female in her efforts to rear her chick, the Ornithology Staff provided additional insects and separated molting mealworm, by hand, which appeared to be a favorite food item.



The female Raggiana Bird of Paradise looks around for insects to feed the chick hatched on 28 March 2017.

Julie Larsen Maher ©WCS

Additional Hatchings:

2 Band-tailed Pigeons (7 January and 6 February 2017)

2 Red Bird-of-Paradise (14 January 2017)

2 Green-winged Macaws (9 March 2017; Hatched at the Queens Zoo and transferred to Bronx Zoo)

7 Long-tailed Finches (March 2017)

3 Superb Starlings (March 2017)

1 Pheasant Pigeon (8 April 2017)

1 Victoria Crowned Pigeon (20 April 2017)

Guira Cuckoo Sometimes it does take a village to properly raise a family, but why do we see this in strategies used by the Guira Cuckoos, *Guira guira*? When visitors came through the World of Birds Exhibit in March, they may have noted a group of five adult Guira Cuckoos actively foraging for food and taking those insects back to the two juveniles that hatched on 8 March 2017. The behaviors observed are actually more complex than just a communal breeding strategy to maximize resources. The complex behaviors began earlier, as several eggs and chicks were tossed from the nest, in an attempt to reduce the reproductive success of specific birds within the group. In the end, the group effort allowed the birds to maximize the resources at hand and utilizing a fundamental social foundation that may have a positive impact on their long-term reproductive success.



One of two Guira Cuckoos hatched in March perches by an adult.

Julie Larsen Maher ©WCS

Tawny Frogmouth

At my house, we turn down the thermostat in the winter to save energy. The Tawny Frogmouth, *Podargus stigoides*, has developed another way to save energy by entering a shallow torpor (decreased physiological activity, usually by a reduced body temperature and metabolic rate) when ambient temperatures drop and the insects they feed on may not be abundant. Activity levels and fewer bouts of torpor occur during the summer, which is the rainy season. We use water misters to increase our bird's activity levels and appetites, which now has resulted in the hatch of a Tawny Frogmouth chick on 7 April 2017 at the World of Birds Exhibit.



The Tawny Frogmouth broods its chick at the World of Birds Exhibit

Julie Larsen Maher ©WCS

White-breasted Woodswallow

Depending on the specific range of the White-breasted Woodswallow, *Artamus leucorhynchus*, these birds may nest communally or as individual pairs. The divergent behaviors could be linked to the environmental conditions, with lush, food rich areas supporting group efforts, while harsh conditions support pairs working independently. The White-breasted Woodswallows at the Bronx Zoo appear to appreciate working in pairs with our original pair producing two chicks on 16 February 2017. Like their counterparts in the wild, they tend to a series of nest sites until they choose one to lay their eggs.



A White-breasted Woodswallow, hatched in February, is examined upon fledging.

Julie Larsen Maher ©WCS

Featured Keeper: Elaina Crocitto, Wild Animal Keeper

We talk to one of our featured staff members: an ongoing series of interviews submitted by Kevin Hils, Collection Manager, WCS, Bronx Zoo

What is your Ornithological Background?

I began as a volunteer at the Bronx Zoo in 2007. My initial interest was in working with all animals, in particular wolves, but I quickly came to realize that my life was for the birds and dedicated my work to them.

When did you realize this was what you wanted to do?
Since the age of eight, I have wanted to work in animal welfare. My mother bought me my first book about animals, Animal Watching by Desmond Morris.

What would you be doing if you weren't an animal keeper?
I would be a nurse (humans), botanist (plants), or geologist (the earth).

Describe your favorite part of the job?
My favorite part is making the animals content, to see them actually enjoying their surrounding, growing, socializing, living their lives.

What is a normal day like for you?
Because I am a keeper in a rotation, my routine changes from day to day, so that is my normal. One day I pass the day feeding and looking after baby chicks, in another I am feeding penguins, but every day consists of maintaining or improving the well-being of birds through meticulous and repeated routine, keen observation at all times, learning from experiences, clear and recorded communica-

tion, and developing new practices from the combination of all of these.

How do you like working with the present Ornithology team?
I have never been happier working with the current team and management. I feel supported in my work as well as in my education and my development as a keeper.

Favorite memory or story?
I have too many to choose from and most these memories have to do with interacting with the children. They enrich my work in countless ways. One memory, in particular, is a little boy who ran up to me and hugged me and would not let me go. His mother tried several times to pull him from my waist, but he kept running back, his mother explaining, "He just loves zookeepers." So for no less than 20 minutes, I found myself observing a Capercaillie introduction while a little boy stuck to me like glue as we slowly walked back and forth for our observation.

Do you have any advice you would give to others?
Do not try to learn

Mandarin Chinese while oil painting and wearing sparkle bands.

What is your favorite animal to work with?
The bird in front of me is always my favorite.

Any hobbies or other interests?
Traveling, collecting sparkle bands, oil painting, and my continued futile efforts to learn Mandarin Chinese.



Elaina Crocitto feeds a Superb Starling in the World of Birds Nursery.

Julie Larsen Maher ©WCS

Australian Brush Turkey Arrive

Submitted by, Natasha Hook, Senior Keeper, Ornithology, Bronx Zoo, WCS

When I stand on my deck and look out into the yard, I might see a Cardinal or a Crow. Every so often, a White-breasted Nuthatch or Red-bellied Woodpecker will show up. They are “backyard birds,” easily spotted and often taken for granted. In eastern Australia, there is a backyard bird that commands a little bit more attention, primarily due to its nesting behavior.

With dull black plumage and a bald, reddish head, the Australian Brush Turkey, *Alectura lathamii*, isn't the most handsome creature. To be honest, I wasn't too impressed when our pair arrived last year. They were shy, and just not that exciting to look at. Over the winter they became more comfortable with keepers and were thrilled to get back into their yard at the Pheasantry when temperatures became more clement. And that's when they became interesting.

Brush Turkeys, like other Megapodes, incubate by constructing a temperature controlled environment for their eggs. Basically, they build an incubator in the form of a large mound of soil and vegetative debris. The decomposing debris generates microbial heat, which can be increased or decreased by adding or removing debris. The responsibility of mound building and maintenance is that of the male, and our male wasted no time in getting to work. We add debris on a daily basis, usually by the barrel. By the next day, he has added most, if not all of it. Factors such as mound size and choice of materials

enable wild males to build mounds with fairly well-sustained core temperatures for incubation (about 34°C.) Both males and females have specialized temperature sensing organs in the upper palate, allowing birds to sample for temperature in the mound by mouth.

The female Brush Turkey locates the best mound in the area and lays her eggs. She digs into the mound and samples for the proper temperature, then lays one egg every 2-3 days. Our female has laid only one egg so far this season, so it's possible that our male's mound is less than ideal for egg laying. We are offering various mound materials such as deciduous leaves, pine needles, bamboo leaves, sticks and twigs, and dried grasses. Hopefully, we will be able to provide what he needs to be successful.

In their natural habitat, Brush Turkeys have numerous options as far as mound placement and materials. In some cases, their choices bring them into contact with people, and literally into backyards. They are a common sight on public and private property in New South Wales and Queensland. Some homeowners embrace them as a native wonder; others curse them for their garden destruction and mound mayhem. As much as I am in awe of the Australian Brush Turkey's capacity for construction, I'm happy to stick with my local Chickadees and Flickers and have my tulips remain unscathed.



A male Australian Brush Turkey atop a nest mound in Australia.



A Bolivian Swallow-tailed Cotinga photographed in Madidi National Park, Bolivia.

The Bolivian Swallow-tailed Cotinga

Submitted by, Elvira Salinas, Coordinator of Monitoring and Communication, WCS

The Bolivian Swallow-tailed Cotinga, *Phibalura bolivi-ana*, is an endemic bird species from Madidi National Park, the most biodiverse protected area in the world. A forked and elongated tail gave rise to the name Palkachupa, in Quechua. This beautiful bird with feathers of intense yellow tones, green streaks and bluish-black tips only inhabits montane savannas and adjacent humid forests between 1,250 and 2,000 meters above sea level. It measures between 20 and 23 centimeters, has slender legs, and its beak is broad and short, with bristles around the jaw.

It was first described in 1902 and, in the absence of information, was thought to be a subspecies of *Phibalura flavirostris*, which inhabits the eastern end of the continent in the Atlantic forests of southeastern Brazil, Paraguay and Argentina. In 2000, after 98 years, it was observed again by Bennett Hennessey, from a scientific organization called Armonía, during a scientific expedition organized by the WCS. This finding prompted researchers to describe and discover aspects of its ecology and conservation status. It is an endangered species due to its endemism, small population of just 800 individuals, extremely restricted distribution, and threatened habitat due to cattle ranch expansion, and thus is a conservation priority.

These monogamous and solitary birds are remarkable due to the special care they give to their offspring and their ability to build nests, preferably in a Yuri Tree, *Byrsonima crassifolia*, which also serves as food. They use the lichen that grows on the branches of these trees to make their nests. The newborns spend their first 15 days receiving food beak to beak, and after another fortnight, the entire family leaves the nest. At the end of the breeding season the entire population migrates in small groups to unidentified areas, probably into the humid forests of the Yungas.

Prospect Park Zoo welcomes Wreathed Hornbills

Submitted by, Sarah G. Parker, Senior Keeper, WCS, Prospect Park Zoo



Prospect Park Zoo has welcomed our pair of Wreathed Hornbills, *Ryticeros undulates*, to the Animal Lifestyles building in the central exhibit area under the iconic domed ceiling. Previously, they were moved seasonally between an outdoor exhibit and a winter holding area, but are now permanently housed in a lush exhibit renovated for them as well a pair of Victoria Crowned Pigeons, *Goura victoria*. The new exhibit is well planted with many species found in Southeast Asia including Ruffled Fan Palm and Traveler's Palm. The background mural depicts more plant species characteristic of Wreathed Hornbill habitat, such as Staghorn Ferns and Mangrove Fan Palms. These plantings are sure to make the couple feel right at home. In the wild, Wreathed Hornbills nest in flocks and so the mural even includes other nesting hornbills. Be sure to look for them on your next visit to Prospect Park Zoo.

Our pair has been together for some time and are well bonded. However, they have not reproduced to date and we hope that their new exhibit encourages them to breed. In addition to the many elements which are intended to immerse visitors in the natural beauty of Southeast Asia, we have included a nest box covered in bark. This nest box is an amalgamation of designs from several institutions, measures 31in x 31in x 48in, and has a small opening for the female to enter. It is hung as high as the exhibit will allow as this species nests in tree cavities in the wild. Natural wood perching in the exhibit is arranged to allow for access to this nest box as well as maximum flight for exercise and healthy body condition.

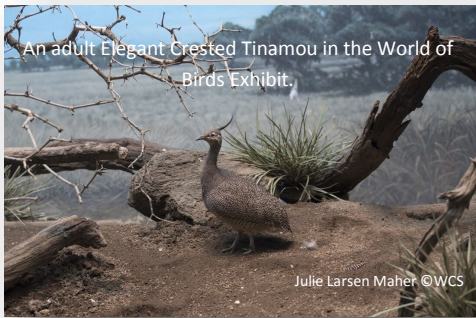
Upon being released into the new exhibit, the female showed immediate interest in her nest box but has not spent much time in it as of yet. This is not unusual. In the first captive breeding of this

species at the Bronx Zoo, the pair made no real attempt to nest until the year after they were introduced to their exhibit despite being a devoted pair. Should our Wreathed Hornbills choose to nest, we would expect the female to settle into her nest box sometime near the end of winter. At this time she will seal the entrance with material brought to her by the male until only a small opening remains through which she and the chick will be fed. She will remain in the cavity for months until she emerges with her chick. Wreathed Hornbill chicks initially resemble males, though their plumage may reveal them to be female after they mature.

Our Wreathed Hornbills appear to be enjoying their new exhibit thus far and have gotten along famously with their Victoria Crowned Pigeon neighbors. Prospect Park Zoo looks forward to continuing the success that the WCS has had in breeding this species.

Rendezvous with Tinamou

Submitted by, Patricia Cooper, Senior Keeper, Ornithology, Bronx Zoo, WCS



The Elegant Crested Tinamou, *Eudromia elegans*, is a charismatic terrestrial bird from the scrublands of southern Chile and Argentina. Tinamou are closely related to ratites (i.e. Ostriches and Rheas), though unlike ratites they can fly short distances. The scientific name "*Eudromia elegans*", besides being a great name for an NPR correspondent, is loosely defined as "neat, running escape" which describes the Tinamou's habit of bursting up and scattering to avoid a dangerous situation. Their diet consists of seeds, leaves, fruit, and insects.

Elegant Crested Tinamou are polyandrous, one female breeds with multiple

males. Males establish calling areas, within which they dig a nest bowl; females visit the calling male for copulation and egg laying. The eggs, considered by some to be the most beautiful of all bird's eggs, are a glossy olive green. The male incubates the eggs and raises the precocial chicks.

The ancestry of Tinamou is among the oldest of the steppelands inhabitants, probably derived from a lineage that dates back 100 million years. "Our earth has circled the sun 40 million times since their kind first walked upon it", William Conway poetically writes in his book *Act III – In Patagonia*.

WCS's Bronx Zoo has been stewards of the Elegant Crested Tinamou for several decades. Though often described as being shy and secretive, our collection birds tend to be outgoing and welcoming of attention. They are currently housed in our South American scrubland exhibit at the World of Birds, along with Guira cuckoos. The exhibit is eye level with children, and both Elegant Crested Tinamou and Guira Cuckoo are happy to greet the delighted faces of visitors each day.

A Second Chance for Pelicans

Submitted by, Susan Schmid, Assistant Supervisor, Ornithology Department, Bronx Zoo



The Brown Pelican, *Pelecanus occidentalis*, is the smallest of eight pelican species and is found in coastal areas of the southern and western United States. This is one of the only two species of pelicans that actually dives into the water to feed on fish.

Historically, they were listed under the US Endangered Species Act from 1970-2009. This was due in large part to the use of chemicals such as DDT and Dieldrin. The use of these chemicals was ban by the US government in 1972, since then the population has continued to grow, with the current population now at 650,000 individuals.

The Brown Pelican is especially impacted by the use of monofilament line, used by fishermen. Most often they are accidentally hooked by a fisherman trying to steal the bait from their hooks. The line is

often cut and the bird is left with monofilament line impeding its mobility. Or they can be tangled in discarded line that has been left hanging from trees or piers.

The Gulf Coast Wildlife Rescue (GCWR) was founded 27 years ago and has been helping wildlife with a mission to rescue and release birds once they have been healed. Approximately, 80% of the Brown Pelicans that come into the center have had injuries relating to monofilament issues. These are typically young birds, one and two years of age. The center has a 50-70% release rate with a 20% placement rate. The birds being placed have healed from their injuries but are not always releasable because of the consequence of severe injury that will affect their livelihood in the wild.

The Bronx Zoo's Ornithology Department was contacted by the director of the GCWR, Dana Simon, to ask if we would be interested in providing permanent homes for non-releasable pelicans. So far we have been able to provide a home for nine Brown Pelicans that otherwise may have had a tough time finding a permanent home. It is a great feeling to know that we are not only helping animals to survive in the wild but giving them a second chance at life in a zoo environment. This summer, the Brown Pelicans will be residing at the New York Aquarium to celebrate coastal conservation themes.



Green-winged Macaws journey to the Children's Zoo

Submitted by, David A. Oehler, Curator of Ornithology, Bronx Zoo, WCS

Two juvenile Green-winged Macaws, *Ara chloropterus*, hatched on 9 March 2017, and were transferred from the Queen's Zoo to the Nursery at the Bronx Zoo for hand-rearing. These juveniles have been transferred to the Special Animal Exhibits for display in the Children's Zoo.

These macaws will be joining other South American animals in the newly renovated Children's Zoo and highlight the plight of these birds in the wild. Over the last fifty years, the Green-winged Macaw populations in northern and Central America have been reduced by 50% due to habitat loss. WCS is working hard in areas, such as Madidi National Park, Bolivia, to protect the extraordinary amount of biological diversity found there, including the Green-winged Macaws.

These particular macaws were produced at the Queen's Zoo, where they have several species of macaws in their conservation management programs. The chicks were transferred to the Bronx Zoo's Ornithology Departments nursery at three weeks of age. This allowed for the uncomplicated transfer of the birds to the Children's Zoo, once they were weaned. Stop by the Children's Zoo, this summer, to see these new additions and to find out how you can do more to help save these magnificent birds in the wild.



Neornithes News

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WCS saves wildlife and wild places world-wide through science, conservation action, education, and inspiring people to value nature.

The Cinereous Vulture, A Mongolian Icon

The Cinereous Vulture, *Aegypius monachus*, is the most endangered species of raptor in Europe. Development of agricultural practices reduced their food supply as these birds of prey scavenge the dead carcasses of European bison and other large mammals. They persevere in Mongolia (above, at a carcass with ravens), although we need to learn more about their general ecology to ensure their survival.

For see the full posting go to: <http://blog.wcs.org/photo/2017/03/30/the-cinereous-vulture-a-mongolian-icon-mongolia-asia/>

WCS envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on earth. Our goals are to conserve over half of the planet's known biodiversity and some of its most iconic and threatened species, while benefiting the well-being of the people residing in these regions



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