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BACKVARD BIRDS ** THIS WINTER

Here's an easy craft that will make the birds in your backyard happy to be your neighbor



Half a Bagel Vegetable Shortening or Peanut Butter Bird Seed String

- Take one half of a bagel, fresh or old. Tie a 6" piece of string through the center of the bagel.
- Pour bird seed onto a plate.
- \P Spread the bagel with a thick layer of shortening or peanut butter.
- Dip the bagel, shortening side down, onto the bird seed to coat. Make sure the front of the bagel is fully coated with seed.
- Hang in any tree in your yard and watch the birds come by and feed.

Why this is a great winter treat:

The bird seed contains all the nutrients birds need to survive. The shortening or peanut butter is high in fat, which helps the birds keep warm in the cold winter months.



A whole grain or multi-grain bagel provides extra nutrition for the birds!





The latest news from the National Aviary

Volume 3, Issue 1 • Winter 2010

NEW PROGRAMS OFFER PRIVATE ENCOUNTERS WITH RAPTORS, FLAMINGOS

The National Aviary is taking bookings for two new interactive programs that give guests private, personal encounters with two very different classes of birds.

RAPTOR EXPERIENCE, designed for those with a fascination for birds of prey, allows guests the opportunity to spend several hours working with hawks, eagles, owls and vultures.

Participants go behind the scenes, preparing food (not recommended for the squeamish!), taking part in feedings, and assisting

in flight training sessions alongside the Aviary's professional trainers. Guests learn about the physical attributes that make these birds such outstanding hunters, from the specially designed feathers that give owls their silent but deadly flight, to the speed and agility of falcons and the razor sharp eyesight of eagles.

"...seeing these birds up close and assisting with their care is a 'life moment' for many of our guests..."

Participants also gain insight on the challenges that wild populations of these birds are facing as habitat and food resources dwindle due to human population growth.

"This program is an incredible experience for anyone drawn to the beauty and power of raptors," says Animal Programs Director Steve Sarro. "We are finding that seeing these birds up close and assisting with their care is a 'life moment' for many of our guests, particularly when they take part in flight training. Seeing these majestic birds up close, observing their talons, their wingspans and their incredible strength outside of an exhibit setting is truly memorable."

Raptor Experience is open to ages 12 and up; a paying adult must accompany children and teens ages 12 – 16. The program runs from 8 am to 11 am daily, and advance registration is required. The fee for Raptor Experience is \$100; \$90 for Aviary members. A photo CD of the experience and Aviary admission are included in the price.

On the gentler side of the species spectrum, the National Aviary's American flamingos are interacting with guests in a new program that has participants seeing pink.

FLAMINGO CONNECTION provides the rare experience of walking among the National Aviary's flock of flamingos. Guests climb down into the Wetlands of the Americas exhibit and enter the pond area for an extra close look at the birds' intriguing physical characteristics, from their bring pink feathers to their slender legs and curved beaks.

Guests observe the birds' movements and feeding technique (flamingos feed by scooping up fish and filtering the water out of their beaks), while Aviary trainers talk about the birds' behaviors and conservation status.

(Continued next page)

Find information on these programs and more at www.aviary.org

Two new interactive programs that give guests encounters with two very different birds



NEW PROGRAMS OFFER PRIVATE

ENCOUNTERS WITH RAPTORS, FLAMINGOS (Continued from Cover)

The Aviary's flamingos are curious and relatively unfazed by human visitors, particularly Beaker, Sweetums and Piggy, all three of which were hand-raised from birth. This trio usually strolls on over to greet guests, checking out their clothing and giving them a gentle but thorough preening.

"not many people can say that they have been preened by a flamingo..."

"Not many people can say that they have been preened by a flamingo, and guests really seem to enjoy the contact with the birds," says Sarro. "We assist guests with photos as well, so that everyone can remember and share the experience."

In order to take part in a Flamingo Connection, participants must be able to climb down a three-foot ladder into the Wetlands exhibit. Non-slip shoes are also required. The program is open to ages 10 and up; a paying adult must accompany guests ages 12 - 16.

Flamingo Connection takes place daily at 2:30 pm, and advance registration is required. The program fee is \$30; \$25 for Aviary members.

For details on these and other private interactive encounters, including Trainer for a Day and Penguin Connection, call 412.323.7235, x209, or email us at education.programs@aviary.org.





SURVIVOR CAMP

Come spend a wild week with the National Aviary. Campers will have the chance to examine the incredible ways that animals survive in nature. The week will also be full of the campers' own outdoor adventures as they explore the world around them.

Survivor Camp consists of off-site activities and field trips during the second half of the week.

Ages 6 – 8 July 12 – 16, 2010 9 am to 3 pm daily Ages 9 – 12 July 19 – 23, 2010 9 am to 3 pm daily

Members \$175, Non-members \$195



To register for camps call 412-323-7235 ext 209 or email education.programs@aviary.org

FEATHERS AND FUN CAMP

What's in an egg? Why do birds have feathers? Do parrots really eat crackers? Make some feathery friends at the National Aviary's Summer Day Camp for 4 and 5 year-olds! Campers will learn what makes birds unique through games, crafts, stories and up-close visits from Aviary birds. A snack will be provided.

Ages 4 - 5 June 21 - 25, 2010 9 am to 12 pm daily

Members \$85, Non-members \$95

CAREER CAMP

Are you a teenager that loves animals? Have you ever wondered what it takes to work in a zoo? Join other teens during the National Aviary's new one-day Career Camps! Spend the day working with National Aviary staff and the animals that call the National Aviary home.

Ages 13 – 15 9 am to 3 pm daily

INDIVIDUAL SESSIONS, SIGN UP FOR ONE OR FOR ALL!

July 9, 2010 — Penguins July 30, 2010 — Raptors August 6, 2010 — Parrots

Members \$50 for each session or \$125 for all three
Non-Members \$60 for each session or \$150 for all three

AVIARY RECRUITING FLITEZONETM CAST MEMBERS



With the opening of the new Helen M. Schmidt FliteZone™ Theater less than a year away, the National Aviary has begun acquiring new stars for the shows that will run in the new space.

Saharra, a juvenile southern ground hornbill, is the first to arrive. Saharra joined the National Aviary flock in late November, thanks to the generosity of Aviary members and supporters who donated during our 2009 annual appeal.



Although she is still a juvenile, Saharra is a big girl. Southern ground hornbills are the largest and the heaviest of all the hornbill species, with males weighing up to 13 pounds. They are capable of flying, but these birds are mostly terrestrial, and in the wild can be seen patrolling their territory on foot. Guests will have the opportunity to see Saharra demonstrate her signature southern hornbill strut during FliteZone.

Because she is young, Saharra still wears the fuzzy feathers of a juvenile. Her most notable features are her extra long, feathered "eyelashes." When she matures, she will acquire brilliant orange-red patches of bare skin on her face that will give her a startling and almost prehistoric appearance.

In the wild, southern ground hornbills use their long bills to stab their prey. Because they are able to use this sharp pointed bill like a tong, they are able to stay out of harm's way when pursuing a meal, successfully catching and killing snakes as venomous as puff adders and cobras. Saharra will go for tamer fare, but guests will witness her 'toss and catch' feeding style when she makes her debut appearance this summer during the Aviary's outdoor bird show.

Another newcomer to the Aviary is a young male Harris hawk, appropriately named **Franco**. Franco is being trained to sit on glove and fly on cue, and eventually will be a part of the National Aviary's education classes and outreach programs.

Harris hawks have a three-foot wingspan and are found in the desert southwest. Because of their social nature, lightning-fast speed and remarkable hunting behaviors, Harris hawks are popular with falconers. While most raptors are solitary hunters, Harris hawks hunt cooperatively, in family groups. The hawks surround their prey, flush it for another to catch, or take turns chasing it. Harris hawks eat rats, rabbits, birds, lizards and other small mammals.



In the coming months, National Aviary trainers will work with Franco to help him learn to sit confidently on glove and fly point to point on cue. School groups and classes can expect to see Franco's first appearances in the fall of 2010.

Watch our web site (www.aviary.org) and future newsletters for more news about the birds arriving at Aviary in preparation for the opening of the Helen M. Schmidt FliteZone™ Theater next fall.

Your gift makes it possible for us to continue the acquisition and breeding of many species of threatened and endangered birds. To make a donation in support of this important work, please call x214.

Board Welcomes

The National Aviary is pleased to welcome eight new members to its Board of Directors.

Joining the National Aviary Board are:

MATTHEW BERARDI

Managing Director, Operations Technology, FedEx Ground

SUSAN FARRELL

Senior Vice President and Relationship Manager, PNC Bank

SHAWN FOX

Chief of Staff to County
Executive Dan Onorato

RANDY FRASINELLI

Principal,
Grant Williams Associates

JOHN GRAF

Part Owner and Vice President of Operations, Priory Hospitality Group

KEVIN MULLEN

Vice President and General Manager, Lexus of North Hills

KATHY TESTONI

Community Leader

XIAOYAN ZHANG, PH.D.

President and CEO, KIT Solutions® LLC.

We are grateful to all of them for their willingness to serve, particularly in this exciting year as we look forward to the opening of the Helen M. Schmidt FliteZone™ Theater this fall.

What's Happening This Winter at the National Aviary

January



1

National Aviary is open regular hours, **10 am – 5 pm**

2

National Aviary events are canceled due to construction of the new Helen M. Schmidt FliteZoneTM Theater (through February 28th).

March

1

National Aviary events return to regular schedule.

For more information on what's happening at the National Aviary, please visit our website at www.aviary.org



ATTENTION! January 2 – February 28

National Aviary special events are canceled due to construction of the new Helen M. Schmidt FliteZone™ Theater. Check our website for a list of our daily events during construction.



Hoots in the Night 11 am – 2 pm

Celebrate "Spring Forward" with the National Aviary as you

go hoot in the dark. You'll meet some of our nocturnal feathery friends and learn about the unique adaptations that help them thrive

learn about birds that



in the night.

Green Bird Scavenger Hunt Happy St. Patrick's Day!

Pick up a Scavenger
Hunt sheet at the
Aviary to see if
you can find all the green birds in
the flock. Children under 12 who
participate receive a take-away treat.



Meet the Easter Bunny

11 am – 1 pm

Meet the Easter Bunny and have your photo taken with him. Each child will receive a special take-away treat. Enjoy coloring and meeting some of the Aviary's feathery friends. Free with admission. Guests will take their own photos.



3

Meet the Easter Bunny

11 am – 1 pm



Meet the Easter Bunny and have your photo taken with him. Each child will receive a special takeaway treat. Enjoy coloring and meeting some of

the Aviary's feathery friends. Free with admission. Guests will take their own photos.

22

Earth Day

Enjoy a special green-themed storytime at 10:30 am in honor of Earth Day, and learn how you can help save the environment.

24

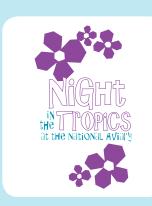
Party for the Planet

11 am – 2 pm

Enjoy special animal encounters, give-aways and trainer talks, and learn how you can help protect our planet Earth.



SAVE THE DATE



Night in the Tropics July 17, 2010 6 pm - 11 pm

While it's hard to think summer when you're in a Pittsburgh deep freeze, now's the time to mark your calendar for the National Aviary's Night in the Tropics. This annual sell-out event is a fun and festive celebration of all things warm and breezy, with guests enjoying live music under the stars and plenty of great food from area restaurants. Plan now to join us!

Tickets: \$50 / VIP \$100



Feathered Jewels Gala October 23, 2010 Westin Convention Center Hotel 6 pm

The honor of your presence is requested for this special evening benefiting the National Aviary and its conservation education programs.

Black tie optional.

For information on these events, call 412-323-7235 x213



FOR MORE INFORMATION ON WORLD ENVIRONMENT DAY

A worldwide celebration of the planet earth, with special events happening all across the region.



DAYLIGHT SAVINGS TIME

Don't forget to spring forward at 2 am on March 14, 2010!



Thank You!

The National Aviary extends its heartfelt thanks to everyone who supported us in 2009.

Many of you responded to our year-end appeal with financial contributions and the purchase of memberships. Your gifts not only enable us to continue breeding programs for critically

endangered and threatened species, they also make it possible to care for the more than 700 birds that make their home at the National Aviary. On behalf of everyone at the National Aviary — human and avian — **we thank you for your support!**

CANARY IN THE COAL MINE

Louisiana Waterthrush Helping to Identify PA Water Quality Issues

"Water is the next oil." Most geopolitical observers in the know expect that future wars will be fought over water. We can move away from a carbon-based economy, and thus away from the oil-based turmoil that has marked the planet's post-cold war era. However, more than 50 percent of the human body is composed of water, and that is something we can't change.

Clean water is something that is essential to each and every one of us. In the

United States, we tend to think of environmental problems — particularly with regard to water quality and abundance — as

something that others experience, in far-off lands. Certainly here in southwestern Pennsylvania we have moved past the era of big steel, into a cleaner and greener economy. What possible environmental problems could we be facing?

There is, however, a rising crescendo of water quality threats in our region. With the need to reduce our country's dependence on foreign oil, Marcellus Shale gas drilling operations are expanding rapidly in our state. Such drilling practices have the potential to wreak rare havoc on the quality and health of the water we drink, and the water that supports plant, animal and aquatic life across our state.

Extracting natural gas from the Marcellus Shale formation requires 'hydraulic fracturing', a process that uses tremendous amounts of water – from about one million to five million gallons for each well. Water is mixed with sand and other materials, then pumped into the shale formation under high pressure to fracture the shale around the well, releasing the natural gas and allowing it to flow freely. The millions of gallons of water needed for this process are pumped from streams and other natural water sources.

Once the fracturing process is completed, the used water, often referred to as "frac fluid," must be treated to remove the most toxic chemicals and minerals. Drilling wastes are then collected and stored in pits with plastic liners. Marcellus Shale drilling is permitted throughout the state so long as it is not within 200 feet of buildings or within 100 feet of streams and wetlands.

If something goes wrong in the process, if operators fail to follow procedures, take shortcuts, or illegally dump frac fluids, the impact on aquatic life, as well as birds, wildlife and vegetation in the polluted area can be immediate and dramatic. Its impacts on livestock, and those who depend on well water, are only now being considered.

A 2008 article in *Scientific American* (http://www.scientific american.com/article.cfm?id=drill-for-natural-gas-pollute-water) cites more than 1,000 documented cases of contamination resulting from the fracturing process in Colorado, New Mexico,

Alabama, Ohio and Pennsylvania. The cases ranged from a house explosion after hydraulic fracturing allowed methane to seep into the residential water supply, to incidents of surface contamination, where accidental spills and leaky tanks, trucks and waste pits allowed benzene and other chemicals to leach into streams, springs and water wells. Benzene is a chemical believed to cause anemia and leukemia in humans.

In our area, the massive wipeout of fish last September along Dunkard Creek, on the Pennsylvania/West Virginia state line, created headlines. It is believed that the creek was polluted by contaminated water from a shale fracturing operation.

Most life in the stream was quickly extinguished in a hail of toxic bullets. The causes of this fish kill, which extended for 35 miles along what was one of the most biologically diverse creeks in our state, are under investigation. The presence of mass amounts of alien golden algae — a form non-native to our region and one that would not thrive under normal conditions — is one factor. It is thought that this algae was in some way accidentally introduced to the area via drilling equipment. Others believe the wipeout was caused by mine drainage and/or the illegal dumping of toxic drilling wastewater.

While this incident is dramatic, it is not likely to be the last of its kind. The problem of water quality in southwestern Pennsylvania is likely to worsen due to the fact that regulatory agencies in the Commonwealth — those that are assigned the responsibility of regulating and inspecting mining operations — are experiencing massive cuts. The Department of Environmental Protection (DEP) is losing nearly 25 percent of its budget this year, making it among the most heavily cut departments in the state.

What is a state to do, when energy we dearly need might destroy our environment and the regulatory organ that can protect that environment sees its budget slashed?

One answer lies in the work of the National Aviary's Conservation and Field Research Department, which is looking for ways to help protect Pennsylvania watersheds and water quality across the Appalachian region, How? By focusing on our Appalachian headwater's own "canary in a coal mine" — the Louisiana Waterthrush.

The Louisiana Waterthrush is a small songbird, beautiful in its own way, but largely drab in appearance. To Dr. Steve Latta of the Aviary's Department of Conservation and Field Research, however, the Louisiana Waterthrush is a fascinating species that, because of its dependence on waterways for food and nesting areas, can tell us when a stream is dying and when it is full of life.

Much like a canary in a coal mine, the survival and breeding success of this delicate songbird can serve as a warning sign as to the deteriorating condition of waterways and the presence of toxins, chemicals and harmful aquatic invaders.

Dr. Latta is tracking the breeding, nesting and population stability of this bird in our region, as well as the existence of food resources along streams and waterways. If a water source is incurring acidification from mine drainage or other toxic elements are being introduced, insects – the bird's primary source of food – will begin to diminish or disappear altogether. As the insects disappear, the birds will seek other nesting and feeding areas, a change that Dr. Latta and fellow researchers will note.

Studies by Dr. Latta and his collaborators have shown that Louisiana Waterthrush that nest on streams impacted by acid mine drainage and/or acidic precipitation are greatly affected by water quality. Waterthrush on contaminated streams were fewer in number and held larger territories, presumably because they are requiring more space to find sufficient amounts of food. Notably, the birds in contaminated areas also produced fewer, smaller chicks.

Nesting on acidified streams was also delayed until later in the spring, and fewer birds breeding on these streams returned to the same stream the following year. These results suggest that waterthrush may be suffering pronounced declines in populations as the result of poor water quality.

Currently, Dr. Latta is hoping to expand his studies, and to bring in new collaborators, to assess the impacts of Marcellus Shale development activities on the Louisiana Waterthrush, and other fish, wildlife and insects which share their critical stream habitats.

"Water quality and energy development are increasingly critically important issues to people across Pennsylvania, the U.S. and the world," says Latta. "Understanding the environmental impacts of energy development, and the impact of development and land use decisions on water quality in particular, are absolutely needed to make wise policy decisions. My hope is that the Louisiana Waterthrush will be understood as a biological 'canary in the coal mine.'

"Our work to understand how the waterthrush can be used as an index of stream acidification needs to be expanded to include impacts of frac fluids and other contaminants. These pollutants not only impact water quality and wildlife populations, but are likely to affect human health as well."

As human populations increase, our demand for natural resources also increases. At the same time, there is no question that we as a nation need to reduce our dependence on oil and pursue other energy resources. With the help of researchers, and ethically sound collaboration between industry, science, and government regulators, the National Aviary and its partners believe that it is possible to access our region's natural gas resources without harming the environment.

For more information on the National Aviary's Department of Conservation & Field Research, log on to www.aviary.org.



Little ones who love animals will enjoy the National Aviary's newest program for preschoolers.

JUNIOR VETERINARIANS is a 30-minute program specially designed to

introduce children to the world of veterinary care. Geared for ages 2 – 6, Junior Veterinarians gives kids the opportunity to learn about the many things vets do each day to keep animals healthy and well. Participating children practice their animal doctor skills using toy stethoscopes, bandages, thermometers, syringes and other toy medical equipment on plush birds that the Aviary provides.

Children can test the temperature of a stuffed penguin, give a toy lorikeet a shot, or apply a band aid to a plush eagle. This hands-on approach to learning has been well received by the many budding veterinarians who have checked out the program since it began in October.

"Children really enjoy checking their bird's heart, administering 'medicine,' and examining the birds to make sure that their wings and legs are healthy," says National Aviary Head Veterinary Technician and Junior Veterinarians program coordinator Jamie Travitz. "They take it quite seriously, and are eager to make sure that their birds feel better."

While practicing with their toy equipment, children have the chance to look at a picture book showing veterinarians at work while learning about the many different types of patients that animal doctors treat in their practice. The morning concludes with participants feeding some wiggly worms to one of the Aviary's own patients.

Junior Veterinarians is included in the price of admission, and takes place every Wednesday at 10:30 am.



412-323-7235 / www.aviary.org

00 Arch Street, Allegheny Commons West, Pittsburgh, PA 15212

Located on Pittsburgh's Northside, just blocks from PNC Park.

The Aviary is supported in part by the Pennsylvania Historical and Museum Commission and the Department of Community and Economic Development