

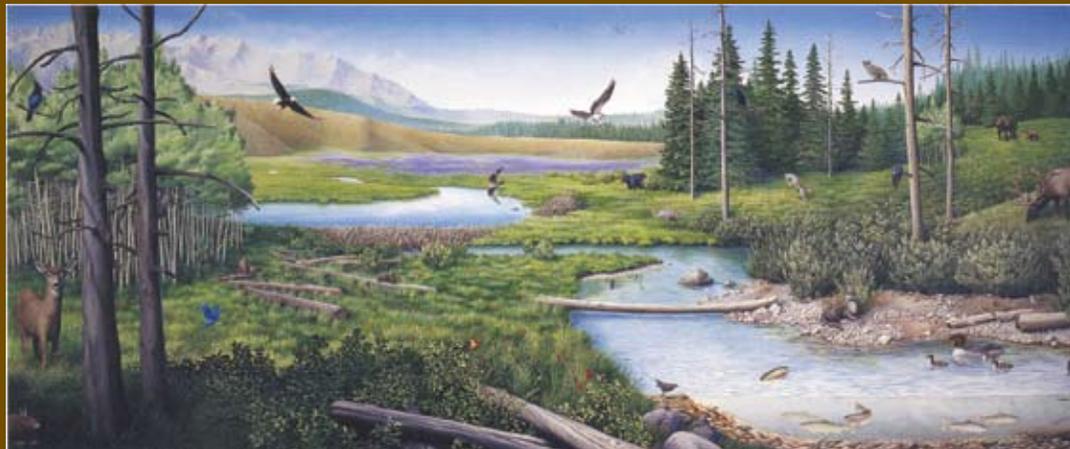


The Nature Center Stream

F A L L

The Seasonal Newsletter of the MK Nature Center

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"25 FOR 25" BUILDING THE NEXT QUARTER CENTURY

Dave Cannamela, MK Nature Center Superintendent



The MKNC turns 25 in 2015. Continued and increased support from the community is needed to ensure our future. The MKNC is a valuable community commodity with an honorable and important mission- to inspire love, appreciation and stewardship of our natural world. Beyond that, we offer affordable and convenient access to nature, a service that has proven to be increasingly important as we abandon our walks in nature for electronic experiences.



So, in an effort to guarantee adequate funding to maintain and improve our facility, and deliver high-quality educational and aesthetic experiences, we have started the "25 for 25" campaign. In keeping with the theme (and the Nature Center's reputation for having fun while working like mad), we are asking you to make somewhat random donations in increments of 25. An extra twenty five cents for a program, \$2.50 in the fish head donation box to help feed the critters or buy educational supplies, twenty five bucks to buy some goodies for our volunteers, \$250 to fund some extra help around the place, \$2,500 to buy Dave a plane ticket to Italy, or a cool \$2.5 million to put in the bank to ward off the grey hairs caused by budget stress.



COMMUNITY PARTNERS

Dave Cannamela, MK Nature Center Superintendent

Every day at the Nature Center is something new...it is one of the best parts about working here. One thing that does not change however is the influx of community partners. We strive to be an integral part of the Boise (and Idaho) community.

While putting together this issue of THE STREAM, I was struck by how many community organizations and people help us meet our mission-to inspire love, appreciation, and stewardship of the natural environment.

Community partners come in all shapes, sizes, and locations. From BSU's GK-12 program (page 3), and volunteers like Henry (page 4), to a Nez Perce elder (page 6), and a morning news crew (page 9). People come from near and far to contribute to the Nature Center.

At the dawn of our fundraising campaign, we are now asking you, each and every one of you, to join the folks you read about in this newsletter and support the nature Center. Your donations of .25 ¢, \$2.50, \$25.00, \$250.00 will help us thrive during our next 25 years.

Maybe time does not allow you to paint our walls or iconic fish (page 10), or teach 3rd graders about the bears in Idaho (page 8), but a monetary donation goes far!

We thank you in advance for your support!



The Weaver family held their family reunion in the Treasure Valley this past summer. For a fun family activity, they booked a program at MK Nature Center. To pay for their program, the Weavers gave MK Nature Center a great donation to kick off our 25 for 25 fundraising campaign.

HAVE YOU HEARD?

Tate Mason, GK-12 Fellow at BSU

Autumn is upon us and we've once again opened our windows to let in the refreshingly cool air of the Intermountain West. In the still of these beautiful Boise mornings, I often listen to the din of the city waking up. I mostly hear the sounds of our transportation networks, both air and road, in a constant low-frequency wash. Noise from our global society is not limited to cities but stretches to nearly every corner of the planet. This relatively new phenomenon lays the foundation for my research.

I started as a graduate student at Boise State University in 2011 and began working with the new Sensory Ecology Lab within the Biology Department. We study how sound is produced, transmitted and received and how this relates to wildlife. Did you know that many insects can sense sound through receptors on their legs? And that many species of owls have ear asymmetry: one ear opens high in the head and the other low? Such adaptations have evolved over millions of years and each has contributed to the success of all living species. But why do these adaptations arise?

The first insect that had ear-like structures on its legs must have had some competitive advantage over its extended family. It was best suited to its environment and therefore lived long enough to pass on its unique trait. In owls, ear asymmetry evolved independently (and in different forms) at least four times! This adaptation must have been particularly useful for four distantly related genera of owls to all stumble upon the same adaptation.

In what context did such traits arise? These auditory adaptations must have arisen long before the industrial revolution (circa 1890) when the soundscape- the sum of all sounds within a landscape, was much quieter than it is today. In the past 50 years, the amount of noise humans have broadcast across the planet has increased dramatically. Indeed much industrial noise is purposely placed where it is less of a bother to people, often in or near prime wildlife habitat.

Does elevated human-caused noise (known as anthropogenic noise) impact wildlife? This is the basic question in my research with Boise State. I've set up an experiment where wild owls hunt mice in a controlled environment. I am able to alter the background noise level and assess the owls ability to hear its prey. The results have been exciting yet worrisome.

You can follow up with my research at my website or stop by and see me at Boise State or the Nature Center!



Tate (left) is one of MK Nature Center's 2013-2014 GK-12 Fellows from BSU. He will be teaching with us through June, 2014. You can learn more about Tate at www.tatemason.wix.com/tate-mason. Jamie Wade (right) is also a GK-12 Fellow at MK this year. Like Tate, she studies owls. More about Jamie in our next newsletter....stay tuned.

MK Nature Center-Your Face-to-Fish Connection

HENRY

Henry Falkner came to MKNC during the summer of 2013. Now 14 years old and in the 9th grade, Henry volunteered regularly over this past summer too! Just before school started, he came in to thank us for a great summer. Well, we owe him a big thanks too. Henry really helped out around MKNC during our busiest time of the year. His jobs were mostly unglamorous, However, he did get to drive the tractor around a bit, which is always thrilling for a 14 year old guy. Not only did Henry shed some sweat this summer, but he shined some light on us. He is a joyful young man with impeccable manners, a great sense of humor and maturity beyond his years. He is a stand-up guy, and look, when he stands up, he is almost as tall short as DAVE!



FROM ECUADOR TO IDAHO

In early September, the Boise National Forest hosted a group of resource managers from Ecuador. Because the development of a strong conservation education program is a priority of the Ecuadorian government, Clark Fleege, the manager at the Lucky Peak Nursery, thought of us as a likely source of information. Clark and the group spent about three hours with us on the afternoon of September 5th; it was interesting, fun and mutually beneficial. Our thanks to Clark for considering us an example of a highly effective program worthy of their time.



VACUUMING VAMPIRES

Rebecca (Catfish)Fritz, MKNC

Perhaps comparing the Pacific lamprey (*Entosphenus tridentada*) to a vampire is a bit dramatic, but the lifecycle of this ancient fish makes for a great story. The lamprey laughed at the ice ages and whatever caused the demise of the dinosaurs.

As adults, lamprey range throughout the Pacific Ocean, living off the blood of other fish. When they've had their fill (1-3 years later), these piscine vampires make the same long upstream swim from ocean to Idaho like their salmon counterparts. (Don't worry fellow river waders, like salmon, lamprey cease to eat on the return journey). Finding the evolution of jaws or paired fins unnecessary, lamprey use sucker mouths to pull their eel-like bodies up waterfalls and over dams. The adults swim to their original spawning grounds where they make their redds (nests), lay eggs, and die (providing a nutrient buffet for the ecosystem).

Finding one's birthplace is no easy task, even for a vampire. The adult lamprey are given some help. When lamprey are born, the larval form (ammocoetes) half bury themselves in a quiet section of the river (for up to seven years) where they perform two crucial tasks. They vacuum (or filter feed) the river, and they send off pheromones (chemicals) which guide the returning adults. Once the ammocoetes have equipped themselves with eyes and teeth, they are ready to journey to the ocean as macrophthalmia (juveniles).

For 450 million years these fish have been vacuuming, pheromoning, parasitizing, and sucking their way up Idaho waters, but changes to the river system have taken a toll. While garlic and holy water defeated Dracula, lamprey populations have been "slayed" by dramatic habitat changes. Because lamprey, like salmon, are anadromous, adequate downstream and upstream migration habitat is a key requirement for survival. Not surprisingly the, lamprey and salmon have been affected similarly by dams, which cause substantial passage problem. And lamprey may face an even greater challenge than salmon, at least in regard to upstream migration, because they cannot jump (up the fish ladders).

Recent lamprey population estimates derived from dam counts are cause for concern. Fewer than 50 adult lamprey were counted at Lower Granite Dam (the one closest to Idaho) in 2011. Historically, millions of adult lamprey returned to the Snake River Basin annually.

Like their more glamorous and familiar anadromous travelers the salmon, lamprey display an amazing life history, they hold an important place in Native American culture, and they play a crucial ecological role in our home waters and watersheds. These amazing fish deserve our effort to restore them; a future without these ancient vacuuming vampires would be the real horror story.



Pacific lamprey photos courtesy U.S. Fish and Wildlife Service.



SALMON AND STEELHEAD DAYS



Top left: Tony Rheault (IDFG) holds up a fish print for a 5th grader. Below Logo: Lori Adams and Evan Brown (IDFG) await the arrival of students to the ecology station. Top right: The 2013 Salmon and Steelhead Days T-shirt design by Marcus Pierce (in tribute to Elmer Crow Jr.). Right: Elmer Crow Jr. teaching at Salmon and Steelhead Days in 2010. Above: Ryan Schiferl (IDFG) helps a student look for insects in the Boise River.



The 17th Annual Idaho Salmon and Steelhead Days occurred September 4-6. Hundreds of volunteers gathered to teach 1852 people (mostly 5th grade students) about the anadromous fishes of Idaho. This year's event was dedicated to Elmer Crow Jr., his family, and his beloved eels (Pacific Lamprey). Elmer, being the man we all knew and loved, lost his life in July while saving his grandchild from drowning while swimming at one of his favorite places on the Snake River. Local artist Marcus Pierce stepped up to design the t-shirt for this year's event to pay tribute to Elmer and all he did for the fish, the kids, and for us. Elmer was a special kind of teacher and he was dearly missed. We know however that Elmer would be greatly pleased with the program Rebecca Fritz delivered in his honor and in keeping with his love for lamprey. No, she didn't have all the cool Native American fishing gear that Elmer shared with the students, but she thoroughly engaged the students with her own props and teaching style. Elmer would surely be proud of the job Rebecca did in showing kids just how cool lamprey really are.

MK Nature Center - Your Face-to-Fish Connection

GREAT GRAY OWL AT MK NATURE CENTER?



Not exactly...Great Gray owls do live in Idaho, but not in this part. This is a photo of our beautiful new taxidermy that we will display proudly in the nature center building. Terry Bennett, our reliable bird taxidermist, did a wonderful job!

Money for this taxidermy was donated by the GK-12 program. Our 2011-2012 GK-12 student Yozora Tadehara used her supplies allowance on this specimen and a flying squirrel!



Great Gray Owls (*Strix nebulosa*) are native to boreal forests in high northern latitudes around the world. In Idaho, they are typically only encountered in the forests of the central Idaho and the panhandle region closer to Canada. While they are the largest owl species in North America (they can measure up to 32 inches tall), they typically weigh less than Great Horned Owls and Snowy Owls because most of their bulk is composed of plumage. Great Gray Owls can be identified by their great size, large facial disc, yellow eyes, and a distinct white marking (like a bow-tie) under their chins. Their call is a rhythmic hollow low hoot.

PAYETTE BREWING CO. KEGS4KAUSE

On the evening of Monday, September 30th, the MK Nature Center was the highlighted non-profit for Payette Brewing's Kegs4Kause event. This event at Payette Brewing takes place because of their desire to give back. On that night, 50% of the sales in the tasting room were donated back to our cause! We were taken a back by the amazing turnout! Thank you to all who attended and shared in the conversation, the food, the beverage, and the music with us. Speaking of the food...thank you Burgerlicious for being there! It was so delicious that they even ran out of food! And we cannot forget the music, thank you, Tate, one of our amazing GK-12 students! He, his wife, and friends in Idyltime put on a show and contributed to the relaxed, fun atmosphere of the event. Overall, we had just a really fun evening of brews, burgers, and good company for a great cause. Again, thank you to everyone who came out for your continued support. Thank you Payette Brewing! We look forward to seeing you for Kegs4Kause next year!



MK Nature Center-Your Face-to-Fish Connection

ANNUAL BIRD SEED SALE

SATURDAY December 7, 2014

9 a.m. to 4 p.m.

The MK Nature Center will host its 7th annual bird seed sale with proceeds from this event to benefit educational programs at the Nature Center. Once again this year the Nature Center will be partnering with Wild Birds Unlimited to bring you quality bird seed in assorted types of locally-preferred seed which will be available in small to large bags. The MK Nature Center Gift shop will have many nature-themed holiday items for purchase as well.

Kids holiday crafts in the auditorium from 10am to 3pm.



In keeping with the Idaho Department of Agriculture's efforts to stop the spread of noxious weeds, this year's sale features safe, noxious weed-free seed. For more information please contact Sue Dudley at sue.dudley@idfg.idaho.gov, 208-287-2900.



RIVERSIDE RANGERS, 2013



THANK YOU!

Rebecca Fritz
Jill Baum
Sandy Sweet
Joyce
Harvey-Morgan
Jill Hettinger
Jamie Wade
Kaylie Shaver
Ron Lopez
RuthAnn McManus
Vicky Runnoe
Becky Koessler
Sara Focht
Susan Ziebarth
Katelyn Watson
Allie Anderson
James Hutton
Rebecca Wagner
Riverside School

Riverside Rangers is an annual event for K-3rd graders at Riverside Elementary School in Boise. Starting in the upper left corner and going clockwise: Kids huddle in a bear cave and learn about Idaho's bears. After searching for owls, owl pellets are dissected with enthusiasm and disgust. The compost pile revealed many creatures at work. Conifer trees were investigated and seeds were dissected from the cones. Not pictured, but also a part of this year's program was a station about senses that people and other animals have and how animals deal with winter.

MK Nature Center-Your Face-to-FishConnection

GOOD MORNING IDAHO!



It was a long, hot summer here at the Nature Center, but we got a chance to cool off for a bit this July at our Volunteer and Supporter Ice Cream Social! Not only was there an abundance of delicious ice cream to enjoy (generously donated by Goody's in Boise) but we had a dunk tank set up for anyone to try. We won't say we specifically got the dunk tank in order to dunk Dave Cannamela (repeatedly), but we had a lot of fun dunking him and others who wanted to take the plunge. The Good Morning Idaho crew from Channel 6 even came down to jump in! Thanks again to everyone who came out, and to all of our volunteers and supporters for helping us further our mission and thrive throughout the years! You're all the best!

Left to right: Spencer Blake from Channel 6, Rachel Garceau from Cannel 6, Dave Cannamela from MKNC, and Bri Eggers from Channel 6 all had a turn in the dunk tank. Look, they are all still smiling!



BLUE SKY BAGELS: A GREAT COMMUNITY PARTNER



The MK Nature Center depends on volunteers. All of our large events require many good workers, most of whom do it for free. We try to provide good food and drink for these folks and this is made easier by community partners like Blue Sky Bagels. Since 2005, Blue Sky Bagels has been donating to MK Nature Center so we can better take care of our volunteers. Blue Sky Bagels has donated bagels and cream cheese for International Migratory Bird Day (spring), Creatures of the Night (fall), Salmon and Steelhead Days (end of summer), and the Birdseed Sale (winter). They help us every year, all year-round. Thanks!

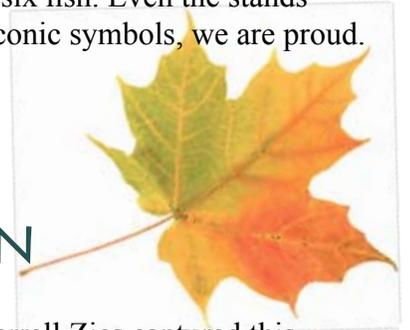
MK Nature Center-Your Face-to-Fish Connection

ICONIC FISH GET FACELIFT



Rhonda and Elizabeth Perry (mother and daughter) were at the Nature Center one day this late summer. They noticed our poor fish out front. The paint was chipping and warping, the stands were falling over. They volunteered to take them home and repaint them for FREE! We were not sure what to expect, but wow! When they returned they were beautiful. The two ladies sanded all the layers of paint off, received paint donations (Sherwin Williams), and then painted beautiful designs on all six fish. Even the stands were upgraded. Now, instead of being embarrassed by these iconic symbols, we are proud. What an amazing job! Thank you, Perrys!

FALL FOOD CHAIN



Darrell Zies captured this food chain moment. The Kokanee we get for Salmon and Steelhead Days don't last long. The mink and heron have a field day with some...the rest spawn and die. This is an ambitious meal for a heron, but he succeeded in swallowing the fish whole!