



WELCOME

Create Memories in Nature – And Help Us Build a Cool Image Mosaic!



Stewardship camper Brandy Merculief and friend take photos of tide pool creatures on St. George Island, Alaska, July 2008
Photo by Tom Collopy and Mary Frische

This summer, as you head out for vacation and fun-filled outings with your family, remember to grab your camera so you too can become part of the Service's online photo mosaic project. Watch your image, and thousands of others become part of painting created by one of the world's greatest wildlife artists, Robert Bateman. [Click here to get started.](#)

Create Memories in Nature – And Help Us Build a Cool Image Mosaic!



Participants in the 2009 Digital Nature Photography Day Camp, Shepherdstown,

Matt Poole, with the Service's National Conservation Training Center, recently hosted the 2009 Digital Nature Photography Day Camp in Shepherdstown, West Virginia, and shares some of the [amazing photos produced by the participants.](#)

We've also got a host of tips and tricks to help you get the most out of your walks, hikes, bird watching and other journeys into nature. So grab your camera and check out our digital photography "how-to's", including a video featuring one of the Service's most active nature photographers. Then – [get outside, point your camera, and shoot!](#)

[For a fun and inspirational look at nature photography, click here for a 3 minute video presentation](#)

Through the Lens



Raccoon at Delta National Wildlife Refuge in Louisiana.
FWS image

When I was 12 years old, my father put a camera in my hands and took me over to a friend's backyard bird garden. While I had always loved the outdoors, I rarely slowed down to watch and listen to the sights and sounds of nature. The camera opened up a whole new world.

I could see the details in the feathers of the bluebird on the branch across the way. I found lovely shapes on the underside of a leaf. Suddenly, the outdoor world became a place of discovery and artistic wonder. Since then I have traveled throughout the country taking pictures of wildlife and during that time I have visited many national wildlife refuges. You do not have to travel far to find beautiful scenery and subjects – your backyard or local refuge can provide many opportunities. Each month I will share tips for taking better pictures and for photographing different subjects – this month, try a squirrel in your backyard or a deer at a local refuge. Check back next month for more tips:

- Focus on the eyes. When you frame your image, make sure that the animal's eyes are in focus – they capture any viewer's attention.
- Include the environment. Try photographing the animal in its environment instead of just zooming in close. Show the surrounding area to tell a story about the animal's lifestyle.
- Be respectful of wildlife. Never get too close to animals. If your presence is changing their behavior, you should back away.

Gabby Salazar is founder and editor of the online magazine [Nature's Best Photography Students](#), where young people may submit photos for contests and online publication, blog with each other about nature photography and view student photo galleries.

KIDS

Seeing Nature Through a Young Hunter's Eyes

As dark gave way to the rising sun the first bird to talk was a robin. My 13-year old daughter Macyn and I identified eight other species of birds by their calls before we heard the first turkey. We watched the turkeys fly down from their roost trees to the meadow. The males (called gobblers) started displaying for the feeding hens making for an incredible show. They eventually wandered off and shortly after, a coyote walked by hunting rodents. Although coyotes can catch turkeys, rodents such as mice are much easier prey.

It was a cold morning, so we kept moving to warm up. Since she was little I've taught Macyn to look for signs of wildlife. It might be a feather or track, but there are many clues to be found! She soon pointed out a deer trail and we

found where a buck (male deer) had rubbed his antlers on a tree last summer. Later we found his shed antlers. Some people don't realize that deer grow new antlers every year. It's the fastest growing bone known to mankind.

As it got warmer we started seeing snakes and lizards basking in the sun. When a gobbler ripped through the air we suddenly remembered we were hunting turkeys. The two of us quickly sat down, hid and I started making hen turkey calls. Soon there were turkeys displaying in front of our decoy and Macyn saw first-hand how quickly the colors can change on a gobbler's head. The white and blue colors on the five jakes (young males) changed quickly to red when the four toms (older males) chased them off.

After patiently waiting for a clear shot, Macyn harvested a beautiful tom, which would provide our family several naturally healthy organic meals.

A good hunter is also a naturalist who can tell you a lot about wildlife and their habitats. When I take my kids hunting, we often spend more time just watching wildlife and exploring the habitat. It's also fun to write down how many bird and animal species that you can identify. Even if your family doesn't hunt, a friend that does might be willing to take you. Also take advantage of the special junior hunts that most states offer. Whether you harvest something or not, hunting is a wonderful way to experience the great outdoors.



Macyn outdoors with gear
Image credit: Mike Carpenter, Wildlife Biologist, Sacramento NWR Complex

Reminders of Nature Photography Etiquette

- Respect** the routine needs of animals.
- Learn** patterns of animal behavior.
- Know** when not to interfere with animal life cycles.
- If** an animal shows stress, move away.
- Acquaint** yourself with the fragility of the ecosystem.
- Stay** on trails that are intended to lessen impact.
- Treat** others courteously.
- Avoid** preventable mishaps.
- Report** inappropriate behavior to the proper authorities.
- Don't** argue with those who don't care; report them.



Armed with a digital point and shoot camera, a seven year old takes a picture of an American kestrel.

FWS image: Matt Poole, NCTC

Inside Story Headline

Are you wondering what the connection is between putt-putt golf and fish? Both will get you outside, especially at Chattahoochee Forest National Fish Hatchery in Suches, Georgia. Imagine you're a fish trying to swim upstream hoping to defeat the barriers ahead in order to reach your spawning ground. You and your fishy friends set off on your journey up the rolling rapids. The cool water massages your scaly skin as you speed excitedly through the water. You make a few jumps to catch a look at what's ahead. Then, suddenly, you see something in the distance. What is it? It's a barrier! Should you and your fishy family and friends try to swim around it, over it or under it? What if you don't make it to the spawning grounds? Who can help and how?

The putt-putt golf game was designed by Tom Sinclair, Deputy ARD-Fisheries in Atlanta, Georgia, several years ago. The purpose of the putt-putt course is to teach young and old alike about fish barriers. Like a fish, the golf ball must reach its destination, the cup, by navigating across the simulated "river" barriers. The course is difficult as is a fish's journey! It is up to you to make a difference. The future of the "golf ball" lies in your hands! For additional information, contact Chattahoochee Forest National Fish Hatchery @ 706-838-4723.

Hey Kids! Here's another fun activity.
Go on a [Scavenger Hunt!](#)



Left to right: Deborah Burger, Hatchery Manager, Crystal Thomas, Program Assistant, both of Chattahoochee Forest National Fish Hatchery, and Student. Deborah Burger discusses fish barriers with the student as he attempts to putt his golf ball across the simulated "fish ladder".
taken by Joe DiPietro, Blue Ridge Trout Unlimited/Freelance Outdoor Writer/Photographer & Guide

Planning pays big dividends as kids "point and shoot" in nature

Part II of III-Part Series



A St. Paul Island camper "gets down" with her botanical subject.

USFWS photo by Lisa Matlock

Planning for the digital photography science camp workshops was well underway. Tom Collopy and Mary Frische helped me decide which cameras and what kind of software to buy for the project. We agreed that we should buy small but high quality cameras for the kids. We wanted the cameras to enhance their experience, not be too heavy, unwieldy, or complicated to use. But we also wanted them to be successful in creating beautiful images of nature.

So my first challenge was which make and model? I was, and still am, torn between buying cameras that can be dropped, dunked in water, covered in sand, and still survive rough kid-use with cameras that create fabulous images. I looked primarily at the Olympus Stylus 770 SW for heavy use. But the color and zoom ability on this camera are limited due to its heavy casing. Instead I opted for the Canon Powershot SD1100 IS digital Elph; great job with color and has easy to navigate menus. I considered many other makes and models too, but these two were my top contenders.

I knew I was choosing image quality over heavy duty, though, and I am still not sure if I made the right choice. One of the cameras I purchased already has lens problems after being used in the field with campers. The refuge also acquired several copies of Adobe PhotoShop Elements, a mobile color photo printer (the Hewlett-Packard PhotoSmart A626) a mere 3 pounds for the long flights to each community!, ink cartridges and photo paper. I brought the refuge's laptop with me, and we planned to help the kids manipulate their images by downloading our software onto their school computers.

I worked with the camp coordinators to schedule our time on the islands with camp kids. We decided on a three-day workshop each on St. George and St. Paul with an afternoon field trip each day. Once we got out to the islands, Tom, and Mary and I found field trip destinations on refuge lands and tried to download the Adobe Photoshop Elements software onto the school computers. This was not as easy as I had hoped since their laptops are aging. We had major difficulty with the cameras and the older laptops, including the refuge's laptop, "talking" to each other successfully. But we made it work as best we could. I spent a great deal of time downloading the kids' photos each night of camp on my laptop and spent hours printing photos for each camper to take home.

But here's the great news. Digital nature photography is a completely kid-driven and unstructured connecting with nature activity. It took no prodding from us before the kids began taking pictures.

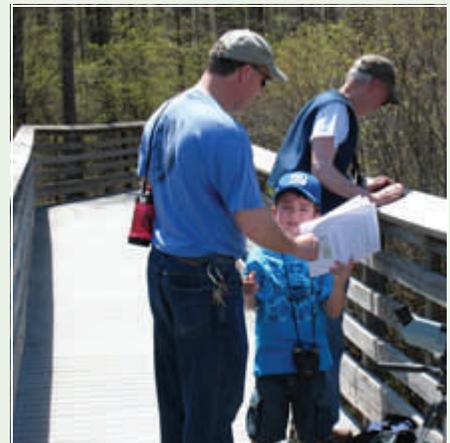
Once we had explained the basics of camera use: power button, shutter button, auto vs. macro and

action functions, etc., the kids took it from there. Completely. They laid down on the wet tundra to get close-ups of flowers, they zoomed as close as they could to northern fur seals from beach rookery blinds and onto seabirds such as auklets, puffins, and murres nesting on refuge cliffs. They were obsessed with trying to capture action images of birds in flight and waves crashing on the shore. Hours melted by with the only complaint from the kids being that we eventually had to go back to the camp base. The weather varied on these Bering Sea islands during the camps too - everything from cold to sun to fog. And still the kids bonded with nature and took lovely photos of the wildlife and wildlands in their island backyards. We offered advice on framing and "getting down" with their subjects, but mostly our job was to admire their progress and images. I did learn the importance of having at least two group leaders. The groups naturally split into the "scouts", who were always charging ahead looking for that next great photo around the bend, and the "immersers", who plunked themselves down in a spot to document every small thing about it before moving on.

Great Swamp National Wildlife Refuge Jr. Refuge Manager Program

The Friends of Great Swamp National Wildlife Refuge have developed a new Junior Refuge Manager Program, teaching young people about wildlife, habitats, and the Great Swamp National Wildlife Refuge.

The Friends developed an Activity Book for kids to complete in order to earn their Junior Refuge Manager badge. Activity topics in the book include frogs, snakes, turtles, invertebrates, birds, and optics (magnifying glass, binoculars. Volunteers equipped with scopes, binoculars, magnifying glasses and field guides are available to assist the young aspiring Junior Refuge Managers. Upon completion and certification of the guide each child is awarded an official Junior Refuge Manager badge, a Junior Refuge Manager certificate, and a \$5.00 coupon to be used towards the purchase of a field guide from the Friends Bookstore. The program is geared to children between the ages of 5 and 13 and completing the Activity Book requires at least two visits to the Refuge.



Young Junior Refuge Manager, Justin Henry.

Photo and Story by: Friends of Great Swamp National Wildlife Refuge

Kiwanis Club Promotes Health, Safety and Outdoor Fun at Chincoteague National Wildlife Refuge

What happens when a natural resource agency, with a "Connecting People with Nature" directive, joins forces with a Kiwanis club, whose mission is "serving the children of the world?" It's quite simple, when you think about it. These two groups combine their best intentions, and unique opportunities emerge.

Earlier this year, several events occurred almost simultaneously, leading to a wonderful partnership opportunity. The first event involved members of the Chincoteague Kiwanis Club who began searching for a worthwhile community service project. Elsewhere, a refuge staff member came across a pile of bikes in a maintenance building and wondered what should be done with them. Meanwhile, other staff members and volunteers at Chincoteague National Wildlife Refuge began planning for their 15th Annual International Migratory Bird Celebration (IMBC). In the end, they all got together, exchanged ideas and settled on a challenging project that promotes health, safety, and outdoor fun.

It was the pile of abandoned bikes that sparked the flow of ideas and greatly contributed to this partnership opportunity. Members of Kiwanis along with refuge volunteers decided to re-purpose some of the abandoned bikes and use them as educational tools and "outdoor fun" incentives during the IMBC event. With a daunting task before them, no time was wasted in picking up the bikes and overhauling them, to be sure they could once again be safe for someone to ride while enjoying the outdoors. A total of seven bikes were refurbished by the group effort.

During the IMBC celebration, on Saturday May 9, 2009, members of the Kiwanis Club encouraged visitors to ride their bicycles to the refuge where each willing participant received a free bike safety inspection. For those traveling on foot, a demonstration of the proper way to inspect a bike was conducted, using one of the re-purposed bikes as a teaching aid. After the free bike check, visitors were encouraged to walk or ride refuge trails and enjoy the wonders of the outdoors.

Many onlookers were overcome with excitement when they learned that Kiwanis, planned to systematically give away all of the re-purposed bikes during the day's events. "Who were the lucky winners," you ask?

On this day, everybody won! The re-purposed bikes received a second chance to add joy to someone else's life, instead of decaying in place or being recycled by refuge staff. The partnership succeeded simply by motivating people to go outside.

All who witnessed the various events from beginning to end thought it was a great way to promote health, safety, and wildlife-dependent recreational activities on a national wildlife refuge!

Kiwanis is a global organization of volunteers dedicated to changing the world, one child and one community at a time. The name "Kiwanis" means "we trade" or "we share our talents." It was coined from an American Indian expression, Nunc Kee-wanis.

Kiwanians are volunteers changing the world through service to children and communities. Because working together, members achieve what one person cannot accomplish alone. When you give a child a chance to learn, experience, dream, and succeed, great things happen!



Father and son biking together
FWS image

EDUCATORS

Connecting People With Nature Program Receives National Award



Arbor Day Foundation Director, John Rosenow;
NCTC staff Juanita Gustines and Mary Danno;
NCTC Director, Jay Slack
Photo by Arbor Day Foundation

The U.S. Fish and Wildlife Center National Conservation Training Center piloted a Nature Explore training course during June at the National Arbor Day Foundation's Lied Conference Center in Nebraska City, Nebraska. The course was presented by the Dimensions Foundation in Educational Leadership, the National Arbor Day Foundation and the U.S. Fish and Wildlife Service.

Nature Explore Classrooms are outdoor learning spaces designed to include nature in the daily lives and learning of children. Nature Explore Classroom certification requirements include well-designed outdoor space, staff development and family involvement.

The interactive workshop emphasizes the need for children to have consistent time outdoors with an interested, caring adult. The group discusses some of the common barriers to children's ability to create positive connections with the natural world and what can be done to counteract them. The workshop provides many resources and ideas that can be incorporated into programming in public settings.

The course presents a comprehensive overview of the Nature Explore program, including the design consultation process that has been successfully used to create Nature Explore Classrooms at the NCTC in Shepherdstown, West Virginia and at Nisqually National Wildlife Refuge in Olympia, Washington

On Arbor Day, in April, the U.S. Fish & Wildlife Service was honored by the National Arbor Day Foundation for encouraging young people to spend time with nature. The U.S. Fish & Wildlife Service was a recipient of the Rachel Carson Award for providing nature education opportunities for children and families. One way the Service is doing this is through its Connecting People with Nature program. One goal of the program is to inspire and build outdoor learning spaces at schools and in local neighborhoods across the U.S. The Service is developing Nature Explore Classrooms at national wildlife refuges and at its National Conservation Training Center.

The Arbor Day Foundation is a nonprofit education and conservation organization of nearly one million members, with a mission to inspire people to plant, nurture, and celebrate trees. More information on the Foundation and its programs can be found at arborday.org.

By:Janet Ady, NCTC

Earth Day at Ft. Lee, Virginia

Excited youth, with parents and teachers in tow, filled the gymnasium at Ft. Lee, VA in celebration of the installation's 2009 Earth Day. Over 1200 students from six local county elementary schools steadily filled their reusable tote bags with everything from a Department of Forestry sapling to take home and plant, to a USDA soil profile they could touch.

The U.S. Fish and Wildlife Service was one of several federal agencies represented at the earth day event. "Is that a real bear?!" exclaimed a third grade student in awe. More students gathered around as fish biologist Lisa Moss told the story of a young grizzly bear illegally killed and then stuffed to boast as a hunting trophy. Lisa further explained that the grizzly bear is a threatened animal protected by the Endangered Species Act in the lower 48 states. As a young girl struck a pose, donning a small glittery (or as our young generation says today "bling") handbag with turquoise colored strap and stitching, it appeared like any trendy item from a retail store. That is, until Karine Parker from Harrison Lake National Fish Hatchery informed the admirers that the handbag had been confiscated at an attempted point of entry into the U.S. because the crocodile leather it was made of was banned from import under Federal law.

Wildlife products were part of a larger exhibit showcasing the work of the entire Service agency. Students learned about American shad restoration and the ecological and recreational benefits of conserving native fisheries. Several students requested to take the alluring fiberglass fish mounts home! In addition, they learned about harmful impacts of aquatic nuisance species while examining infamous zebra mussels suspended in acrylic. An observant boy stated, "It's like the fly trapped in amber from the movie Jurassic Park".

Creating backyard habitat for wildlife was an important theme promoted at the exhibit. Available information included ways to attract butterflies and recycling household items to make bird feeders. Students learned that simply turning off the TV when leaving a room reduces the consumption of natural resources, which in turn benefits fish and wildlife.

During a successful and enjoyable day seeds were planted for the sprouting of childrens' desire to learn more about their natural surroundings and teachers received material to help nurture and "water" the experience had by elementary school students when back in the classroom.

Story by: Lisa Moss, Fish Biologist Mid-Atlantic Panel on Aquatic Invasive Species Coordinator



Grizzly bear
FWS image

Watering the Sapling



Big tree and little tree growing together
FWS photo by Matt Poole, NCTC

The book *When Heaven and Earth Changed Places* by Le Ly Hayslip, addresses the true life experiences of a Vietnamese teenaged girl growing up during the Viet Nam War. The story draws heavily on the traditions and culture of the Vietnamese people, particularly on the importance of family and extended family relationships. A quote early in the book, "Water the sapling to sit in the shade", is an eloquent metaphor meaning, take care of your children so they, in turn, take care of you in your old age.

My first thought when reading this passage was, "what a simple and poignant way to express such devotion to ones' children." My second thought was how that quote can also apply to what Patuxent Research Refuge does through its many interpretive and environmental education programs - teaching children to become stewards of the Earth, so the Earth remains environmentally and ecologically healthy enough to sustain them when they are old and gray. At the refuge, we reach thousands of children, and their parents, teachers, or mentors, every year - through our regularly scheduled interpretive and environmental education programs, nature walks, puppet shows, day camps, scout workshops, tram tours and more. The hope is that we awaken the natural affinity they have towards the natural world, stirring something within them that makes them want to be caretakers of their planet; to embrace the conservation ethic Aldo Leopold spoke of so often and so eloquently; to develop the "Sense of Wonder" that Rachel Carson wrote about and embodied so beautifully.

More large-scale efforts and programs continue to expose children to nature - the Chesapeake Bay Program's Bay Experience, the National Wildlife Federation's Green Hour, the Newton Marasco Foundation's "No Child Left Inside" initiative, and the U.S. Fish and Wildlife Service's priority "Connecting People with Nature - Ensuring the Future of Conservation," just to name a few. With so many children missing out on the unstructured outdoor time many of us enjoyed as we were growing up, these structured initiatives become all the more important.

But we must not leave it at "one and your done" exposure to the outdoors. There need to be opportunities for kids to regularly and continually get outdoors, during different seasons of the year, different times of day, and in different settings to absorb more of the diversity that nature has to offer. That is where national wildlife refuges can play a prominent role with affordable, outdoor recreation opportuni-

ties such as, public programs, hiking trails, and fishing opportunities, to provide a variety of positive outdoor experiences in natural learning arenas - from native prairies to boreal forests to coastal beaches to bottomland hardwood forests. Let's hope that many of the saplings we are watering now at Patuxent - and throughout the Refuge System - spread their roots deeply and widely, and provide for much shade in the future!

By Brad Knudsen Refuge Manager, Patuxent Research Refuge