🐸 NatureWatch 🐸
Digital Photography Handbook

A young boy discovering the wonder of a crayfish is captured by Forest Service employee Nancy Stremple.

A simple guidebook of tips and tricks with digital photography—you'll take better photos AND you'll stay out of trouble!

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Photography Notes

An alert white-tailed prairie dog in a North Dakota grassland is captured by wildlife photographer, Trace Frost.

Photography is an invaluable tool to bring the beauty and the mystery of the our Nation's forests and grasslands to life. Each day we get to work and live in—and care for—some of America's most remarkable public lands. Our ability to capture the 'big and the little' of what makes these places special is a tremendous asset in our efforts to connect the public with their lands. Use this simple handbook to polish your skills with digital photography.

Today, almost everyone has access to a high-quality camera. Whether you have an expensive digital SLR camera, or a simple cell phone, you have the tools to take high-quality, compelling photographs. While we may use different cameras, the basics of what makes a good photo are the same! Work at your craft to become a better photographer.

The best photos tell a story and are simple, clear and uncluttered. Composition, color and the "story" are just as important as detail and sharpness. Strive to be both an artist and a technician.

Your goal as a photographer is to grab the viewer's attention, and communicate an idea, or share an experience.

Before you go – Pack Your Camera Bag

✓ Extra Batteries and Power Source.

✓ Extra media (SD cards, compact flash cards, or whatever your camera uses).

✓ Neckstrap (get a neckstrap for your camera instead of only a wrist strap.)

✓ Lens Cleaner (always use only photo lens cleaners, never ammonia, clothing or paper towels - you'll ruin your lenses!).

✓ Filters or lenses (if your camera has lenses, be sure they're clean.)

✓ Identification if you lose your bag, include phone, e-mail, contact information.

✓ Small notepad and pen to make any notes about your pictures.

✓ Extra Forest Service Model Release forms.

✓ ZipLock Plastic Bags (can protect your camera while around water and precipitation).

✓ Camera Instruction Manual.

✓ USB Cord to download your pictures onto a computer.

Weird Words

Just as in any field of endeavor, photography has its own peculiar set of words and terms. While you can pick up a camera and take OK photos, understanding a bit about the world of digital photography will open new doors for you. The following list covers some of the most common, and perplexing, terms you will encounter.

Definitions..."Real" Photography

ISO (or ASA)—Measurement of the 'speed' of the film (sensitivity to light). The higher the ISO the 'faster', or more sensitive to light, the film is. For example, Kodachrome 64, 200, 400.

F-Stop—Size of lens opening or aperture—the smaller the number, the larger the "hole." For example, F 3.2, 8, 11, 16.

Shutter Speed—Speed at which shutter opens and closes. Measured in $1/100^{ths}$ of a second. A combination of shutter speed and F-Stop determines exposure, or the amount of light, which reaches the film.

Definitions...'Digital' Photography

Resolution—Number of pixels in an image—the higher the resolution, the higher the quality of the image.

Pixel—The smallest element of a digital image. The word "pixel" originated from "picture element."

Megapixel (MP)—One million pixels! Camera resolution is measured in megapixels—the higher the number; the higher the resolution.

PPI (Pixels Per Inch)—Used to describe resolution. Monitors show 72 ppi; at least 150 ppi for realistic prints.

DPI (Dots Per Inch)—Used to describe resolution for printing.

Megabyte (MB)—Amount of computer information consisting of about 1 million bytes.

Gigabyte (GB)—Amount of computer information consisting of about 1 billion bytes.

Terabyte (TB)—Amout of computer information consisting of about 1 trillion bytes (1,000 GB).

The more megapixels that a camera can capture, the better the picture quality (resolution) will be when you print the picture. Large prints need more megapixels for picture quality.

A digital camera with 1.3 megapixels will print a satisfactory-quality 4 x 3 inch print. A printer that can print 300 dots per inch (dpi) can print good quality pictures. If you need a larger-sized picture than on the chart below, then you will need a camera with more megapixels.

Largest Print Size	Camera Megapixels	Resolution/ Picture Quality
Wallet Size	< 1 Megapixel	Very low, OK for email or Web
4" x 6"	1 Megapixel	800x600; low
5" x 7"	2 Megapixels	1024 x 760; OK
8" x 10"	3 Megapixels	1500 x 1200; average
11" x 14"	4-5 Megapixels	2272 x 1704 high
13" x 19" and above	6+ Megapixels	Very high

Size Matters

How Will Your Photo Be Used?

I know that we have all received that killer e-mail from a co-worker with 12MBs of digital photos attached! Our inboxes explode, and we say nasty things beneath our breath to the sender.

Understanding the connection between resolution and file size can help us avoid making this mistake. In most cases, you will want to use your image software to optimize your image for its intended use.

For example, a photo that is to be sent by e-mail for web use can be a low-resolution (72 ppi) image with a small file size, while a photo intended for use in a publication must be a high-resolution image (>300 ppi) with a correspondingly large file size.

A normal computer monitor only shows 72 ppi—if your final use is on a computer screen or a projector, extra resolution does you no good—it just bloats your file size!

The following chart provides suggestions for specifications for photos for different uses—it also reflects the corresponding file size.

Common Photo Formats

Digital photos come in different "formats." These formats are indicated by the file extension, or the 3-4 letters shown after the "." in the photo name (eg. D102039.**jpg**).

Each digital camera has different defaults, although most cameras automatically take pictures in the .JPG format. Often you can adjust this setting to match the intended use of the photo. Each format has advantages and disadvantages—choose the format that will meet your needs.

Unless you are a gonzo photographer, I suggest setting your camera to the highest quality .JPG that you can take.

> **JPEG** – *Joint Photographic Experts Group*
> •Most common photo format.
> •Compresses image—lossy (*lose info*).
> •Can choose low, medium or high quality.
> **TIFF**
> •Higher quality, larger file size.
> •Often used in high-quality printed publications.
> •May need high-end image software to work with.
> **RAW**
> •Format varies by brand of camera.
> •Highest quality, largest file size (25+MB).
> •Can only be viewed and edited with special software from manufacturer or with most recent version of Adobe PhotoShop or other high-end programs.
> •Some professional printers require RAW files for their use
> •Generally considered the professional standard.

Suggested Image Specifications

Use	Size"	Resolution	Format	Size (eg.)
Email-Web	5X3	72-100 ppi	JPG-Med	78 KB
PowerPoint	8X5	150 ppi	JPG-High	218 KB
Low-end Publication	5X3	200 ppi	JPG-Max	590 KB
Avg. Publication	5X3	300 ppi	JPG-Max	1.47 MB
High-end Publication	5X3	600 ppi	JPG-Max	15.4 MB
High-end Publication	5X3	600 ppi	TIFF	15.4 MB

What Makes a Photo Compelling?

U.S. Forest Service photo; Ashley Atkinson

What is it about some photos that make them stick in our mind—that make them transcend the ordinary snapshot? Is photography an art that is mysterious and intangible, or is it a craft that can be learned and honed?

Actually, it's a little of both.

The best photography **is** art—and the photograper an artist—that strives to comment on the human condition. Photographs have the power to move us in ways no other medium can.

However, photography is also a craft with a well-defined set of skills and technical competencies. The next section of the handbook focuses on photographic skills that can help transform your snapshots into something lasting and valuable.

Of course, rules are meant to be broken! But to break rules well, you first have to know what they are. Consider the following rules of composition when you take photos. You'll be amazed at what a difference they make in your work.

The Rule of Thirds

Probably the most cited composition guideline, The Rule of Thirds advises you to divide your picture in thirds, horizontally and vertically. Place your center of interest at one of the intersecting lines, or your horizon line along one of the dividing lines. This simple guideline provides interest and balance to your photo. Avoid placing your center of interest smack-dab in the middle!

Photo by Kip Tyler

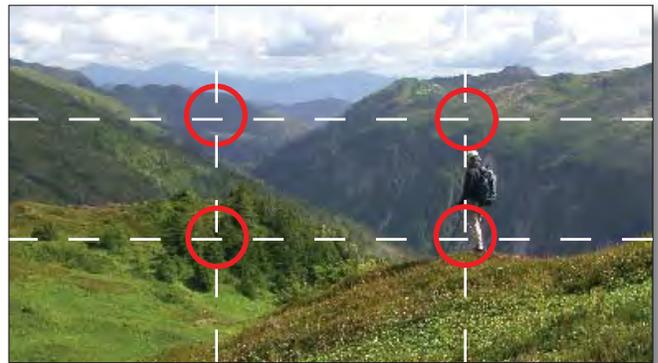## Have a Center of Interest

Find one place in the photo that naturally draws the eye and becomes a starting place for exploration of the entire photo. It is better to have an uncluttered photo with one strong subject, than competing subjects. One close-up of a duckling is likely more compelling than a jumbled shot of a dozen. Decide what you want to take a picture of and do it!

Photo by Trace Frost

In the Eye of the Beholder

Kill the Clutter!

We've all seen those unintentionally funny photos of Aunt Bea with the tree growing out of her head. When you take a photo, think about the background. Do what you can (move, take a different angle) to reduce the clutter in a picture. If your camera allows, you can shorten the "depth of field" by opening your F-stop as wide as you can. This will cause the photo background to be blurred and out-of-focus.

Photo by Trace Frost

Move in Close!

This is an easy one. Fill your frame with your subject! The infamous 'animal-dot picture' is not a compelling image. A zoom lens makes it easier to fill your frame. Try to take a diversity of pictures and vary your angle and your perspective.

Photo by Stephanie Clemens

Photo by Kip Tyler

Use Frames and Leading Lines!

Framing a photo means to include foreground elements that frame your subject. It serves to provide a feeling of depth and draw attention to your subject. "Leading lines" —like fences, sweeping trails, a curving shoreline—all create lines that draw the viewer's eye into the picture. Look for opportunities to include leading lines in your photos.

Photo by Sandy Frost

Look Your Subject in the Eye!

When you take pictures of critters or people, try to look them in the eye. These pictures are engaging and directly involve the viewer. It's not always possible—and it's nice to have a diversity of pictures—but try to catch the sparkle in your subject's eyes.

Tips & Tricks

Learn to "See" Light

Photography is about capturing light—and not all light is the same. Morning and evening light is often the best for compelling photos. Avoid shooting on the brightest, sunniest days—the mid-day sun washes colors out and creates harsh shadows. The light during a misty, gray day often produces better photos. Look for opportunities to include contrasts between shadows and highlights.

Photo by Milo Burcham

Use Color to Your Advantage

Color is a wonderful tool to highlight your center of interest and attract attention. Think about how colors complement each other. Sometimes using a monochrome palette can be effective, other times a wild profusion of color will capture the feeling that you want. A great photographer's trick is to clothe your "model" in a red coat to make him or her stand out.

Photo by Kent Bowers

Tell Me a Story

Your photo should tell a story—or it was probably not worth capturing on film! Can you show relationships? Can you suggest motion? What will a viewer understand from your picture? The best photos do more than just document reality, they tell stories.

Photo by Karen Dillman

Photo by Teresa Haugh

Look For Patterns

Nature is filled with compelling patterns and textures. Common-place items become extraordinary when you focus on patterns. Look for opportunities to emphasize patterns and textures in your photos.

Keeping the Forest Service Happy

U.S. Forest Service photo; Sandy Frost

There is nothing more valuable (nor more rare!) in the FS photo collection realm, than a happy, fully-uniformed FS employee doing their work! For some reason, we never take pictures of ourselves. Or the pictures that we do take are unuseable for a number of reasons.

When you're out in the field, PLEASE consider taking pictures of yourself and your co-workers. We desperately need good photos that reflect the diversity of work we do, and the diversity of people who perform that important work.

To make sure your photo is useable, follow these rules:

✓ Make sure that your subject is in FULL uniform. Jeans and a FS shirt don't cut it! (you may want to consider tossing a uniform in your pack just in case!).

✓ Get a signed release if your subject is not on duty. If they're working, you don't need a release.

✓ Take pictures that tell a story. What are you working on?

✓ Take lots of pictures and consider taking a few 'portraits'.

A Cardinal Sin

Safety is our number one priority in the Forest Service. Our photos should reflect that commitment.

Firstly, **you** should be safe when taking photos in the field! Don't do crazy things just to get the perfect angle or the perfect shot. Secondly, the folks you photograph should have the appropriate safety gear and should reflect safe work practices. Hard hats in forests, chaps with chain saws, PFDs in boats —these are all safety items that we cannot take for granted.

If you take photos of folks being unsafe, the photo will be pitched, and you and the crew may be counseled!

U.S. Forest Service photo; Ashley Atkinson

I Demand My Rights!

Copyrights? To Use or Not to Use...

Most of us have a general understanding of what the © symbol means. According to the Merriam-Webster dictionary, copyright is "the exclusive legal right to reproduce, publish, and sell the matter and form (as of a literary, musical, or artistic work)."

The copyright sword cuts both ways. When we see the ©, we know that we cannot use (or steal!) that piece of art, photography, music, etc. With digital media it is very easy, and often tempting, to borrow that 'perfect' piece of copyrighted material to finish a project. The only advice that you need is, just **DON'T** do it! It is a violation of law, and can bring dire consequences—and it is unethical.

Sometimes we wish to use the "perfect" photo from an outside source or a stock photo firm. We can purchase photos for official use. When we do, we need to assure that the copyrights purchased are clearly articulated. For example we may purchase a one-time use of a great photo of a brown bear eating a salmon for $100, while purchasing unrestricted rights to that image may cost $1,000. If you have questions about copyright matters, be sure to contact your friendly Public Affairs Specialist before you get far down the road.

What About MY Copyrights?

Basically, you don't have any.

The other edge of the copyright sword affects how OUR work is considered. Because we work for the federal government and produce projects supported by public funding, our creative work products are considered in the "public domain." The Merriam-Webster dictionary defines public domain as "the realm embracing property rights that belong to the community at large, are unprotected by copyright or patent, and are subject to appropriation by anyone." This means that no copyright priviledges are attached to our FS work, and our creative products can be used by anyone in whatever way they choose.

If you take photographs on government time, or with government equipment, your photographs are in the public domain. If you contribute personal photographs for Forest Service projects, with the understanding that they will be in the public domain—they are. They can wind up on a box of Wheaties or in a perfume commercial! There is nothing that you can do, and you receive no compensation (and often no recognition!) for these uses.

If you care about the copyright of your work, be very circumspect in separating your work projects from your personal projects. Once they become mixed, the copyright waters become murky. It is always a good idea to keep a log book with information about your personal photos.

In most instances, Forest Service employees are happy to see their photos used. However, understanding our public domain status may prevent some headaches for you down the line.

Forest Service Models!?!

We don't often think of 'models' in the Forest Service, but when we take a photo of someone, that's just what they are! Each person has a 'right' to their image. If a person has a reasonable expectation of privacy, we cannot take their picture and then use it without their permission.

That adorable photo of the gap-toothed, smiling kid, or that award-winning photo of the happy hiker—we cannot use them in the Forest Service, without a signed model's release! It's your responsibility to get releases and maintain them in your files.

Please take the extra time and get a signature on the dotted line when you take an exceptional "people" photo. The following page provides a sample release. Make extras of the release and tuck them in your camera bag. The Forest Service will thank you!

Event: _____

I hereby give my consent to the USDA Forest Service for the free and unrestricted use of my image(s) (   ), and/or an image of a minor (parental/guardian signature required for use) (   ), for the above event. I am aware that, if used, they will be in the public domain and may appear on the World Wide Web.

Signature: _____

Printed Name: _____

Address: _____

_____

_____

Phone: _____

Additional: I hereby give my consent to the USDA Forest Service to further release my images(s) (   ) as public information or for additional events. (If under 18 years of age, requires parental/guardian signature.)

Signature: _____

The Sky's the Limit!   Not Really.

To Buy or Not to Buy...

If you've been in the Forest Service for any length of time, you know that there are a whole set of rules and regulations concerning purchases. These rules help us not squander public resources, and assure that what we purchase is compatible with agency systems. Network security is a prime concern for purchases of new hardware or software.

As of January 2013, the Chief Information Office (CIO) has determined that digital cameras UNDER $2,500 do not need a technical authorization for purchase. Be sure to follow your unit's purchasing guidelines, but if your boss approves, you can purchase the equipment you need, with reduced muss and fuss! Visit the CIO website for additional guidance: http://fsweb.wo.fs.fed.us/irm/asset/.

However, if you're confused about what sort of camera will best suit your needs, be sure to contact your Public Affairs office for assistance and advice. There are also many good websites that provide straightforward, honest reviews of digital cameras. Many of these sites also provide cost comparisons.

If you consider purchasing camera equipment through on-line companies, be aware that many stores offer amazingly low prices for cameras— be sure to check if these great deals are actually 'grey market' items. Grey market cameras may be used and reconditioned, and do not come with a warranty. Do not buy grey market items for official FS work. Also, check to see if the item is in inventory. It is not uncommon for on-line purchasers to wait for weeks for actual shipping on a 'great deal'.

If you need to purchase software, be sure to first check the CIO intranet website at http://fsweb.wo.fs.fed.us/irm/asset/tech-approval/computer-software.php for the latest guidance. Solid photo editing softwares are available on the "Expedited Softwares List" and you do not need a Technical

Photo by Kent Bowers

Authorization (TA) for purchase of these approved softwares. If you do need to create a TA for the software you want to use, note that authorizations may take more than 45 days to review, and there is no guarantee that the software you desire will be approved. My advice is to rely on the softwares that are already approved!

As of August 2013, the following popular image manipulation softwares were among those approved for purchase by the CIO (the list continues to grow, so check before you make a purchasing decision):

- ✓ Adobe Suite of Products—PhotoShop, Photoshop Elements, Photoshop Lightroom, Illustrator, InDesign, Captivate, Acrobat, and others... (~$65-$400+; and Creative Cloud subscriptions possible)
- ✓ Google Picassa (free)
- ✓ ProShow Gold (~$70)
- ✓ Perfect Photo Suite (~$80)
- ✓ Corel Paintshop Pro (~$100 for ed. license)
- ✓ ACDSee Photo Manager and Pro Photo Manager (~$75)

To purchase one of these pre-approved softwares, consult with your purchasing specialist to ensure that you have the documentation required.

Smart Tips for Smartphone Photography

Cell phones and mobile devices have transformed our lives! Today, there are more than 333 million mobile phones in the United States—for our 310 million citizens! Smartphones—those that incorporate "advanced computing capability and connectivity"—account for 230 million of these mobile devices. Ask any millenial... life today would not be possible without a smartphone!

Smartphones are becoming more ubiquitous—and more powerful. All smartphones feature some sort of digital camera, and the newest models boast a 41 MP camera—better than all point-and-shoot cameras, and most digital SLR cameras. They also allow us to instantly post our images and share them quickly with our networks.

U.S. Forest Service photo; Sandy Frost

With the advance in technology, you can take compelling, high-quality photographs with your phone (or even your tablet!). Much of the earlier photo advice in this handbook applies to smartphone photography, but also keep in mind the following tips for taking great pictures with your phone.

✓ Consider composition. Think about composition, and remember the Rule of Thirds!

✓ Shoot in portrait mode (that's vertical!). Video and photo hosting sites are formatted to fit this orientation. However, don't forget that you can take photos in landscape mode (that's horizontal!) too.

✓ Make sure your light sorce is shining on your subject's face, not in your phone! Backlighting will skew your exposure and your subject will be dark and underexposed. Avoid the flash if possible—it never looks right and the "devil-eyes" and harsh lighting are hard to correct in editing apps.

✓ Never use the mobile phone's zoom! The phone's zoom function actually just crops the image, and the results are always disappointing. If you want to get closer, use your feet. If you can't get closer, take a picture of something nearer.

✓ Hold your phone steady and remember the picture is taken when you release your finger, not when you tap. Take a deep breath and hold it when you take your picture. Keep the camera steady for a second or two to make sure you capture your pic.

✓ Clean your lens. It's easy to get a smudgy fingerprint on your small lens. Remember to keep it clean!

✓ Apps are great! There are beaucoup great, free apps available for download. Choose a few and let your creativity run wild.

✓ Edit, edit, edit. Yes, you can take 10,000 pics—but only a few of them are likely worth keeping or sharing. Take lots of photos, but be ruthless in your review and selection of your "keeper" photos.

✓ Share, share, share. The great thing about smartphone photography is that you can be instantly connected to massive networks. However, don't share your pics as an "official" Forest Service representative. We are limited in where and how we can officially share images in our work. As a private person? Share away, but always remember that what you are sharing is available for ALL to see!!

Just Because You "Can," Should You?

"They [photographs] are powerful and they get their power from the fact that they are real moments captured for all time on film."

John Long
NPPA Ethics Co-Chair and Past President
http://www.nppa.org

Digital photography gives us tools to distort reality. Doctoring photographs has been around almost as long as photography itself, but as digital imaging hardware and software has both advanced and come down in price, the practice of digital image manipulation has become much more commonplace and faked photos are becoming harder to detect. In fact, digital photo manipulation —commonly referred to as "photoshopping"—has become a popular pastime, and many consider this photographic fakery to be a new art form. But when it works its way into photojournalism and the media, the issue of ethics comes to the forefront. How far can we take digital image manipulation and still maintain photographic integrity?

Ethics are personal choices. Ultimately, **you** choose the ethical lines you will not cross. Think about:

- in what context is the photo being used?
- is the photo a fair representation of the information being presented?
- does the photo deceive the reader?

The Webster University Journal provides a clear and reasonable policy for the ethical use of photographs.

Generally Allowed:
- Brightness/contrast control.
- Burning & dodging to control tonal range.
- Color correction.
- Cropping a frame to fit the layout.
- Retouching of dust & scratches.

Infamous "Lies"

Time Magazine "photoshopped" this mugshot of O.J. Simpson to make him appear darker and more menacing. They distorted reality for a specific purpose.

In 1982, National Geographic, the paragon of photographic integrity, faked this cover photo. The original photo was a horizontal shot. To achieve the cover photo, NG repositioned the pyramids and cropped the shot to a vertical format. They did not disclose their manipulation, and when confronted, explained it as the "retroactive repositioning of the photographer." They have yet to live it down!
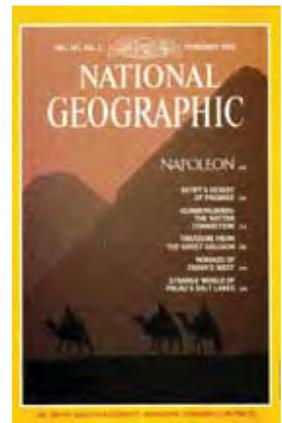
Never Allowed:
- Adding, moving, or removing objects within the frame.
- Color change other than to restore what the subject looked like.
- Cropping a frame in order to alter its meaning.
- Flopping a photograph (left/right reversal).
- Printing a photograph in other than "true" orientation.

Any images that are staged or fundamentally altered should be prominently labeled as **Photo Illustrations.**

Be A Responsible Wildlife Photographer

Mountain goats above Ketchikan, Alaska in the Tongass National Forest. U.S. Forest Service photo; Buck Willoughby

Wildlife Watcher's Code of Ethics

- Respect wildlife
- Respect other wildlife viewers and property
- Respect wildlife habitat
- Respect the "wildness" of wildlife

Observe animals from a safe distance for us and for them:
- Use binoculars, spotting scopes and viewing blinds for a close look.
- Photograph from a vehicle. A truck makes a great blind and is often less disruptive than getting out of your rig.
- Move slowly and quietly.
- Avoid nests and dens. Leave baby birds and other animals where they are found.
- Learn to recognize and respect wildlife alarm signals.
- When an animal changes behavior as a result of our presence, we are too close.
- Allow wild animals to forage for their natural foods.
- Put the safety and health of wildlife first by resisting the impulse to offer a handout.
- Reserve feeding of wildlife to backyard birds.

Film and photograph wildlife responsibly:
- Use a telephoto lens from a viewing blind or a vehicle.
- Never chase, herd, flush or make deliberate noise that stresses wildlife.
- Leave plants, trees and other natural feature as they are found.
- Depict wildlife as part of a natural environment and identify photos of captured wildlife.

Always be considerate:
- Ask permission to watch or photograph wildlife on private land.
- Observe all rules and regulations.
- Wait your turn to view or photograph animals when sharing a viewing area.
- Leave pets at home or in the car.
- Tread lightly, staying on trails and roads.
- Pack garbage in. Pack garbage out. Do not litter, pack your garbage with you and dispose of it properly when you leave a natural area.

Blogging Genius!

Forest Service blogs (web logs) are an important avenue for getting your good stories out, and reaching your publics. Always work with your public affairs staff to identify stories, and submit your blogs for publication. Special thanks to Kathryn Sosbe, WO Public Affairs Specialist (kgsosbe@fs.fed.us) for the following great advice for creating a memorable blog!!

Body

✓ Blogs need to inform as they tell a specific story. They offer opportunities to market the agency – not just a program, an area, or a scientist. Blogs speak for the agency in plain language – not jargon, acronyms or our organizational chart. Even science/research blogs must be written in plain language. These are blogs for a general audience, and they should be written as such.

✓ Blogs need to be grammatically correct, contain links to agency and department sites as appropriate and should provide the reader with information they can use.

✓ Often you will hear the need to "show, don't tell." There is debate about the concept, but you will likely keep readers.

✓ Are there Forest Service or USDA videos that would be a good link?

✓ 300-500 words.

Tags

✓ These must be included with each blog. Think of those overarching words that might be picked up. Always include forestry.

✓ Tags: e.g. forestry, education, kids, Smokey Bear, Forest Products Lab (In general, we do not tag people.)

Photographs

✓ Photos sell your story. We need high-resolution photos of at least 300 ppi. We need photos showing people actively doing something. We need fresh photos, not rehashing the
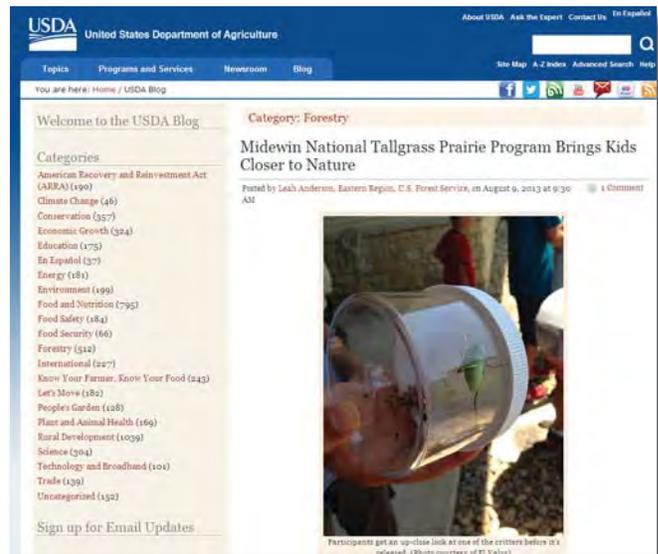
All Forest Service blogs are posted through the USDA site at http://blogs.usda.gov/category/forestry/. Work with your Public Affairs staff to get your stories into the mix!

same forest/bird/insect/fire photo used in previous blogs. Also, rember the Rule of Thirds and consider cropping to enhance photo composition.

✓ One last word about photos: name them the same as the blog file name. If the blog name is "Tiger", name the photos Tiger_1, Tiger_2 and Tiger_3. This helps to keep the files together.

Captions

In the photo caption, augment what is in the photograph but don't necessarily point out the obvious.

Before: EAGLES1.jpg Caption: Eagles fly over Land Between the Lakes. (U.S. Forest Service photo)

After: EAGLES1.jpg Caption: More than 100 bald eagles soar over Land Between The Lakes during winter months.Conservation efforts have helped made the bald eagle recovery an American success story. No longer under the protection of the Endangered Species Act, the number of breeding pairs grew from 487 in 1963 to more than 9,700 in 2006. (U.S. Forest Service photo)

To Tweet...   ...Or Not to Tweet

They say that a picture is worth a thousand words! Today, we have MANY new options to get our "thousand words" out to our publics. Social media has transformed how we get our information, and how the Forest Service shares our information. Facebook, and Twitter, and Pinterest, and Instagram, and Yammer, and Foursquare, and.... new media that we can't even imagine at this point.

In this age of information overload, it is critical that the Forest Service ensures that the information shared with the public supports our mission, and is accurate and professional. While there are many platforms available, as Forest Service employees we are limited in how we can use them.

As of August 2013, the "USDA New Media Best Practices" policy provides the following direction:

✓ USDA Blog: USDA maintains One USDA Blog featuring stories and updates from each mission, agency and office. Forest Service public affairs personnel, or other programs, submit Blog entries to USDA.

✓ USDA Facebook: USDA maintains One USDA Facebook Fan page featuring updates and resources from each mission, agency and office. USDA manages the Facebook Fan page with the support of the USDA Facebook Team, which includes Forest Service representatives.

✓ Photo Sharing: USDA maintains one USDA Flickr photo sharing account that presents images of all activities, programs and events to the public. Photos must be reviewed and approved before posting and agencies must provide captions for each submitted photograph.

✓ Twitter: Agencies manage their own Twitter accounts after receiving approval from USDA.

Please note that this is an evolving field and new social media opportunities for the Forest

Forest Service units often have their own Twitter accounts. Go to https://twitter.com/forestservice to become a follower of the national account.

Service may be available in the future. The best advice is to work closely with your public affairs staff to most effectively get your story told, and your photographs seen.

Cool Things on the Horizon!

We're on the verge of the launch of some great new photo tools in the Forest Service. Our public-facing website will launch soon, and it will have a "photo contribution" feature that will allow the public and Forest Service employees to contribute images to the Forest Service photo collection.

Also, USDA will soon launch a "Digital Asset Management (DAM)" database that will catalog all our visual resources, and make them searchable and available to the public.

Your public affairs staff are your best resource to find out when these great tools will be available for our use. At the national-level, Karl Perry (kperry@fs.fed.us) is our national AV specialist, and Tiffany Holloway (tholloway@fs.fed.us) leads our "new media" efforts.
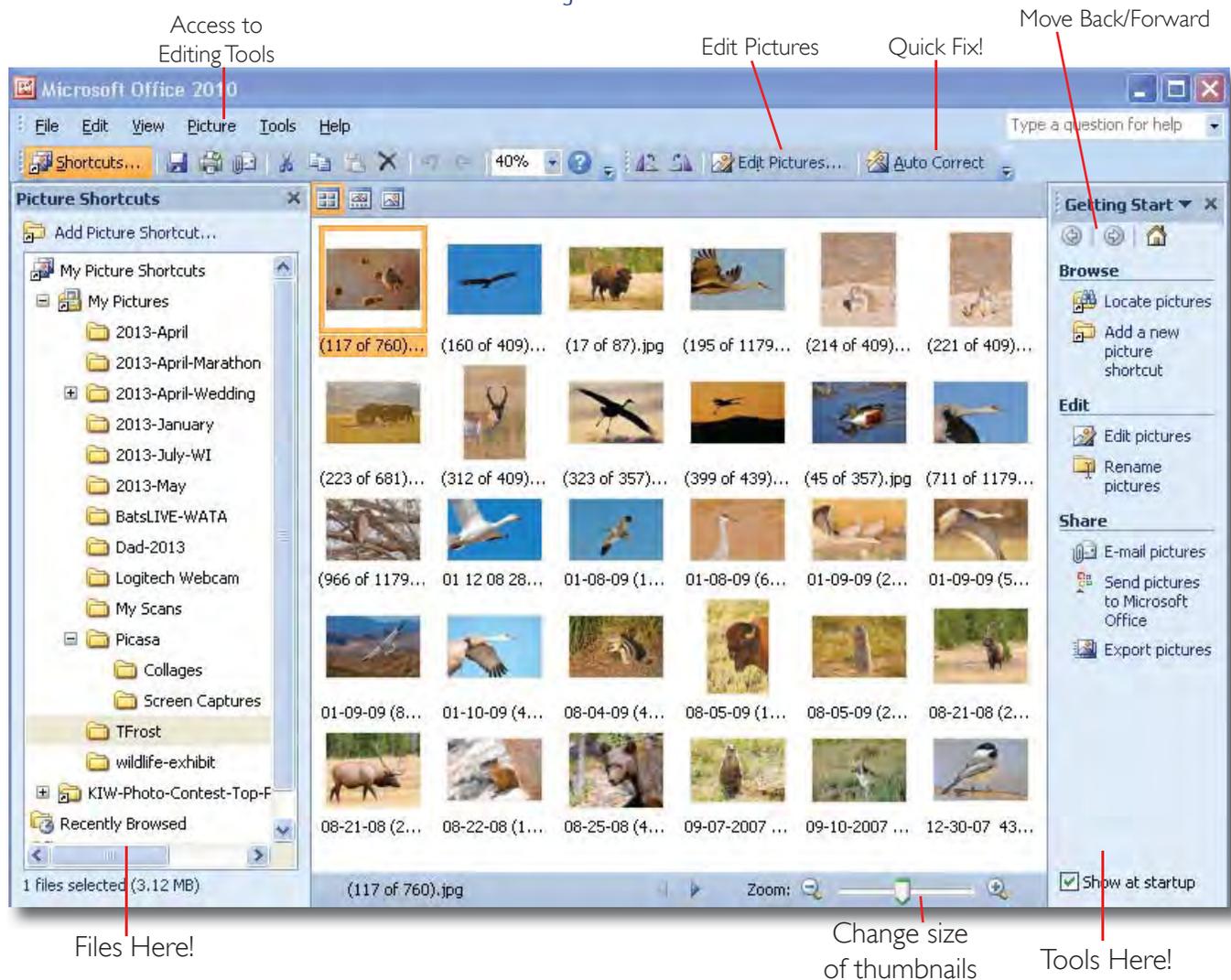
Editing Images in MS Office Picture Manager

Surpise! Surprise!

You may not realize it, but we have a farily good photo management tool within our Office 2010 software bundle—Picture Manager! With Microsoft Office Picture Manager you can manage, edit, share, and view your pictures from where you store them on your computer. The Locate Pictures feature helps you find your pictures with a powerful search function, and when you find them, Picture Manager can correct your pictures, if needed. Use the picture editing tools to crop, expand, or copy and paste.

You can find Picture Manager by going to your "Start" menu; "All Programs" menu; click on the "Micosoft Office" folder; choose "Microsoft Office 2010 Tools" folder; and click on "Microsoft Office Picture Manager" (don't feel bad if you've not found this before—I just discovered it!!)

The following tips should help you take advantage of some the of the most-helpful features of MS Office Picture Manager. For a comprehensive tututorial go to http://office.microsoft.com/en-us/help/about-picture-manager-HP001001721.aspx.

Basic Launch Screen for MS Office Picture Manager

Access to Editing Tools

Edit Pictures

Quick Fix!

Move Back/Forward

Files Here!

Change size of thumbnails

Tools Here!

Editing Images in MS Office Picture Manager

Start Picture Manager from an image

Use the following instructions to start Picture Manager from an image on your computer.

1. On your computer, locate the picture you want to work with.
2. Right-click the picture.
3. From the menu, select Open With, then click Microsoft Office Picture Manager.

To LOCATE your photos...

1. Picture Manager gives you many BROWSE options to locate your photos and create shortcut links to make them easily accessible.
2. From the "Getting Started" page (use the 'home' button to return to this page), click on "Locate pictures".
3. You can choose to scan your C Drive, or scan a mounted CD or removable disk.
4. The scan creates shortcut links for the left column of the screen, which allows you to easily access folders with your images.
5. You can also browse for these folders manually by using the "Add a new picture shortcut"

To EDIT photos for color, brightness, sharpness...

1. Select the photo you want to work with, or you can choose multiple images to do a "batch" correction.
2. You can use Auto Correct if you want to have all the attributes corrected at once. Please note this uses an "average" correction, and may not make your photo better!
3. Choose "Brightness and Contrast" if you want to adjust poor exposures.
4. Choose "Color" to adjust color imbalances (touchy though!)
5. Choose "Crop" to crop your photo/
6. Choose "Rotate and Flip" if you need to
7. Choose "Red Eye Remove" if you need to adjust for flash "devil eyes".
8. Remember to use "SAVE AS" if you want to preserve the original photo—always a good thing to consider!

Editing Images in MS Office Picture Manager
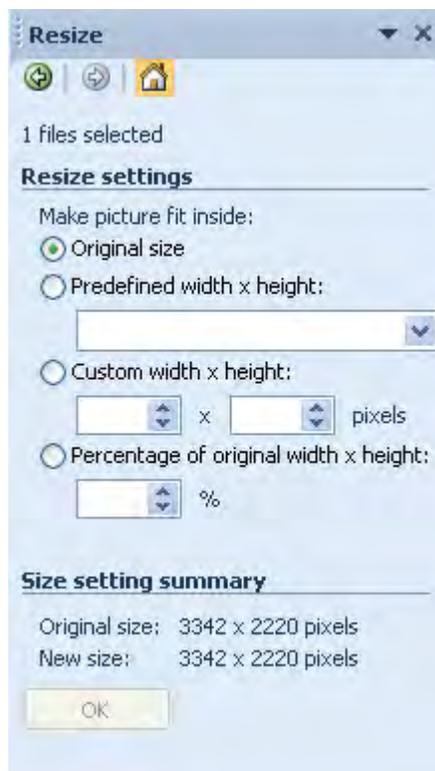
To RESIZE/OPTIMIZE your photos...

Optimizing your photos for different uses may be one of the useful tweaks you undertake! When working with your original files, <u>ALWAYS</u> remember to use the "SAVE AS" feature, so you preserve the original image. You often "throw away" digital information when you optimize a photo -- and once the information is gone, you cannot recover it! If you preserve your original image, you can repurpose it endlessly—but if you corrupt/downsize the original file, it is gone!!

Picture Manager gives you three ways to adjust your photos for the intended use. Using these functions, you can downsize a 8 MB original photo, to a 100 KB photo that's appropriate for an e-mail attachment. Just remember, you CANNOT turn a 100 KB photo, into a 8 MB one!!

<u>Resize</u> and <u>Compress</u> options are available under "Edit Pictures"; <u>Export</u> is available under "Getting Started."

Each of these functions allows you to choose the end use of your photo. There are pre-determined settings, and you have limited ability to waver from the settings. Higher-end softwares give you total control. "Small email" (160x160 px) is the smallest image; "Document-Large" (1024x768) is the largest pre-determined image size.

Resize

Resize

1 files selected

Resize settings

Make picture fit inside:
- ● Original size
- ○ Predefined width x height:
- ○ Custom width x height:
  [ ] x [ ] pixels
- ○ Percentage of original width x height:
  [ ] %

Size setting summary

Original size: 3342 x 2220 pixels
New size: 3342 x 2220 pixels

OK

Compress

Compress Pictures

1 files selected

Compress pictures settings

Compress pictures for smaller file size and faster loading.

Compress for:
- ○ Don't compress
- ○ Documents
- ○ Web pages
- ● E-mail messages

Description:
Intended for thumbnail display, faster loading, and small file size. Good for use in e-mail messages or websites.

All pictures will be saved to a compressed file format and resized to fit within a window of 160 x 160 pixels.

Estimated total size

Original: 7.90 MB
Compressed: 10.4 KB

Export

Export

1 files selected

Export selected files to
- ☑ Original locations
- My Pictures\TFrost\
- Or browse to a new location
  Browse...

Export with this file name
- ☑ Original file names
- (117 of 760)
- Or rename your files
  Rename...

Export with this file format
- JPEG File Interchange Format (*.jpg)
  JPEG options...

Export using this size
- Original size
  Resize...

OK
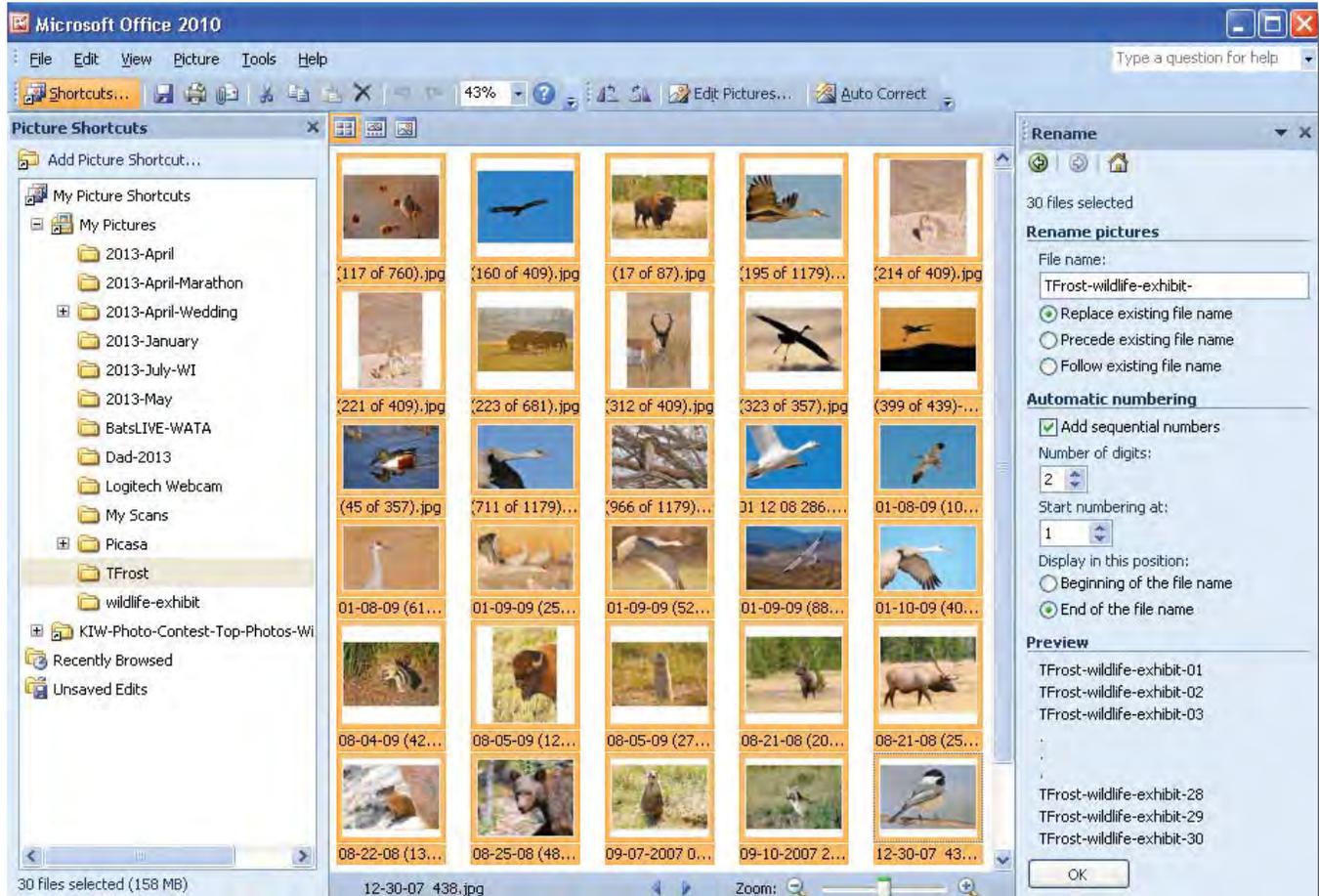
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BATCH RENAME your photos...

This is a great function in Picture Manager—use it to organize your photos and replace the auto-generated, confusing names that your camera assigns. This is a keeper!! :-)

To BATCH RENAME Your Photos...

1. Select the photo you want to work with, or you can choose multiple images to do a "batch" Rename.

2. Type in the new file name (or prefix/suffix) that you want to apply to your images. You can choose to REPLACE your existing file name; PRECEDE your existing file name; or FOLLOW your existing file name. (I often choose REPLACE, and use the place and date as identifying names).

3. Remember to never use spaces!!! and use the "-" instead of ("_") to create easy-to-read names (and names that work online and with our O Drive. (For example, I might use "Roswell-GA-Aug-2013-" as a prefix for a batch of photos taken at my home in August, 2013).

4. You can add sequential numbers to the file name (cool feature!) and choose how many digits you need (3 digits for 100+ photos!), and if you want the numbers at the beginning or end of the file name.

5. Picture Manager will show you what the file names will look like as you add information. Get them just the way you want, and hit OK!

Now What ?!?!

With all your new found skills and enthusiam, I know that you will take many more photos—and that many more will be worth keeping.

However, taking the pictures is only half the battle! You need to figure out a way to safekeep and organize your images. Just what do you do with 2 Gigabytes of photos!! It's not as if you can squirrel away the negatives in the back of your drawer or stick slides in binders.

Digital images are not "real." They are bits and bytes of computer information. On the one hand, this is wonderful—they're cheap, mutable, and fun. On the other hand, it's a nightmare. They can disappear forever at the click of a key—they can be lost in the bowels of a 4 TB hard drive, or they can be forever changed from the original image. The following tips were learned in the school of hard knocks—perhaps they'll save you some headaches along the way.

Safekeeping Your Digital Files

Remember, your photos exist only in the "mind of the computer." They can easily be lost and corrupted if you are not careful. Consider these tips:

Treat your original digital files like negatives. Back-up the **original** files.

✓ When you work with a photo in a photo program, be sure to use the **'save as'** function and <u>DO NOT</u> overwrite the original picture. Once the original file is gone—it is gone forever!

✓ Ruthlessly throw away your substandard pictures.

✓ Back-up your photos on removable media such as CDs or DVDs. Also, an external hard drive can be a good place to store images. If your computer crashes, you will lose all the images on your computer—something you want to avoid!

✓ Devise some sort of organization scheme that makes sense to you. It doesn't have to be elaborate, but you need something.

Organizing Your Digital Files

Organization is key to making your digital images useful. Your system does not need to elaborate, but you need SOME system that makes sense to you. Consider these tips:

✓ Create folders (I use 'place and date', such as "POW-3-15-13") to store all your shots from a photo "session." I leave them in one big bunch—and don't organize them beyond that—it works for me.

✓ Consider renaming your good photos. Most cameras assign a sequential name (D20184467.jpg) that means little to you. Office Picture Manager, and other higher-end image programs, allow you to Batch Re-Name photos. Otherwise, you'll need to go in and change the names manually. Sort of a hassle, but it may be worth your effort.

✓ Use the "thumbnail view" in Windows to view a "contact sheet" of your photos.

✓ Providing meta-data about your photos is important (location, date, subject, photographer, camera used, etc.) is important if your image is an official record, or will be used for FS work.

Official Records??

✓ Please note that your digital photos may be considered official Forest Service Records. As such, you need to be mindful of direction about safeguarding these official records.

✓ "Project Photos" should be printed and filed in your project folder to become part of the official record.

✓ "Significant Photos" — consider contributing to national Digital Asset Management database.

✓ FS Handbook direction is provided under 6209.11, Chapter 40.

✓ Each R/S/A has a "Records Manager"; each Forest/Grassland has a "Records Liaison" that can provide additional guidance.

✓ Things are evolving, so stay tuned!!