

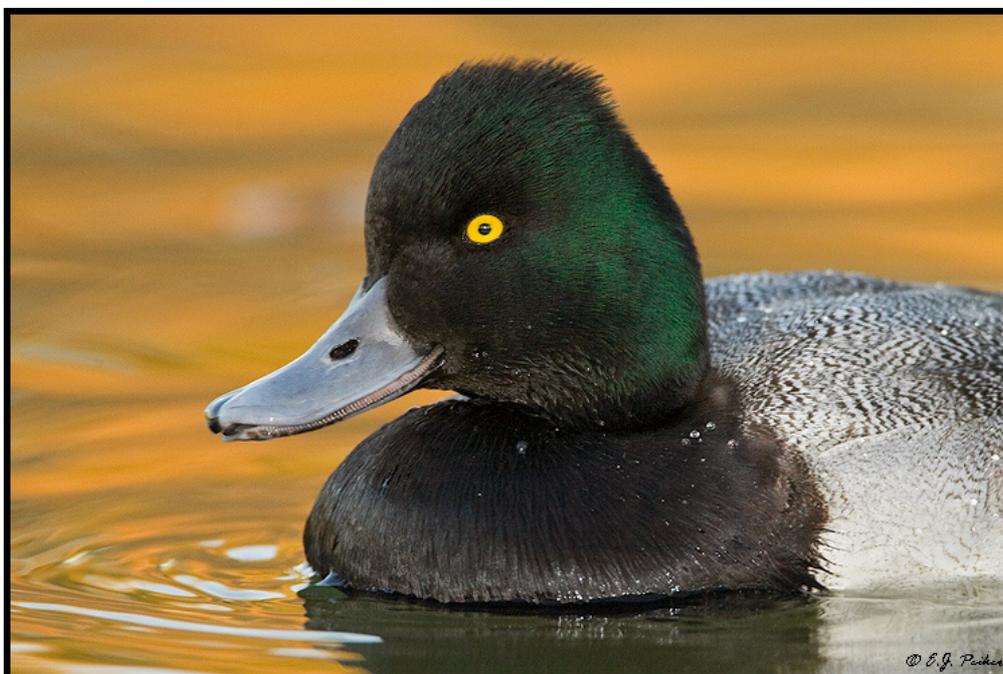
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Newsletter of E.J. Peiker, Nature Photographer and [www.EJPhoto.com](http://www.EJPhoto.com)  
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Spring 2011  
(Vol. 9, Issue 2)

Welcome to the quarterly newsletter from E.J. Peiker, Nature Photographer and [www.EJPhoto.com](http://www.EJPhoto.com). In this quarterly email publication, I will keep subscribers posted on upcoming workshops including the DuckShop Workshop Series as well as sharing some photos and experiences with you. I will also give you brief impressions on any new equipment that I get the opportunity to use and any other general information in the world of digital nature photography. Please feel free to forward this along to other photographers and interested parties but please do so only by forwarding this newsletter in its entirety. Note that all content is copyrighted by E.J. Peiker. If you would like to be added or deleted to the mailing list, just send me an email message at [ejpeiker@cox.net](mailto:ejpeiker@cox.net). Back issues are available online at <http://www.ejphoto.com/newsletter.htm>



Lesser Scaup - Tempe, Arizona (D300, 200-400mm)

## Ducks Of North America - The Photographer's Guide

Ever since I was a young boy, I have loved the ungainly waddle of ducks on land and their graceful ability to cut through water and air as if they were defying gravity and friction. Some of the most incredible patterns in nature are found in the plumage of ducks. Their colors range the entire spectrum and in one case, every color in the spectrum is contained in a single bird - the male Mandarin Duck. Another intriguing thing about them is the ability to completely transform from a drab brown bird into an incredible array of colors in just a few weeks when the male of many species molts from non-breeding plumage into spectacular breeding colors. Finally, ducks have a lot of personality and are much more intelligent than most people realize. There are a number of individual ducks that come back year after year to my home in the Phoenix area that immediately recognize me from the previous years and become very tame around me while they stay away from people that they don't know. There is a familiarity and a knowledge on their part that this particular human won't hurt me.

Over the years I have accumulated what some have called the world's largest collection of waterfowl photographs. I have no way to verify this claim but I do have over 20,000 publication quality waterfowl images in my library. There are currently 155 recognized species in the world; 124 are considered ducks. The remainder are Geese and Swans. I have had a goal of photographing all of the world's waterfowl species for over a decade and in early 2011, I have over 130 of the 155 species in my library. This includes every duck that is native to North America except Masked Duck. The reclusive Masked Duck is rare in the USA and only slightly less rare in Mexico and does breed in parts of Mexico so it must be included as a North American species.



Northern Pintail - Phoenix, Arizona (D300, 200-400mm)

I felt it was time I published a photographer's guide to the ducks of North America and the book "Ducks Of North America - The Photographer's Guide" was born. It includes every species found in the wild and in captivity in North America. The fundamentals of waterfowl photography including equipment, approach techniques, photographic technique and field technique are detailed. This is followed by a summary of all 37 native species and 46 species that are either accidental visitors or captives. Species accounts complete with photographs, information about them and how to photograph them are

included. Most important to the duck photographer, I have also included some of the best places that I know to photograph each species. Even though most birds have a skittish nature, almost every species has a place where they are approachable. While this is by no means an exhaustive location guide, it will give you locations where you have a good chance for getting great photographs of these beautiful ducks. This book is not intended to replace a good Bird Guide such as Sibley's Guide to Birds and does not depict all possible plumages, but rather as a photographic complement to such a guide to help you get great photographs of our quacking and whistling friends. I have also made the book iPad friendly so it can be loaded into iBooks and the resolution of the embedded photographs is iPad native size so when you double tap on a photo, a full screen photo is displayed.

A short video and a link for immediate download of the book is now available:  
[www.ejphoto.com/ducks\\_of\\_north\\_america\\_page.htm](http://www.ejphoto.com/ducks_of_north_america_page.htm)



### **Polarizers, how they work, when to use them, how to use them...**

Understanding polarizers, how they work and how to use them is very important to making many photographs the best that they can be. In summer 2010, Singh-Ray Filters commissioned me to write an article on polarizers. What I wrote was edited and placed in their blog. Below, you will find the full text:

One of the most misunderstood areas of photography is polarizing filters. Only flash photography is more misunderstood in my photography classes and workshops. There are lots of misconceptions about how polarizers work, when to use them, and how to use them. My hope is that this article will demystify this most useful of filters so that photographers get the most out of their investment and produce many more beautiful pictures.

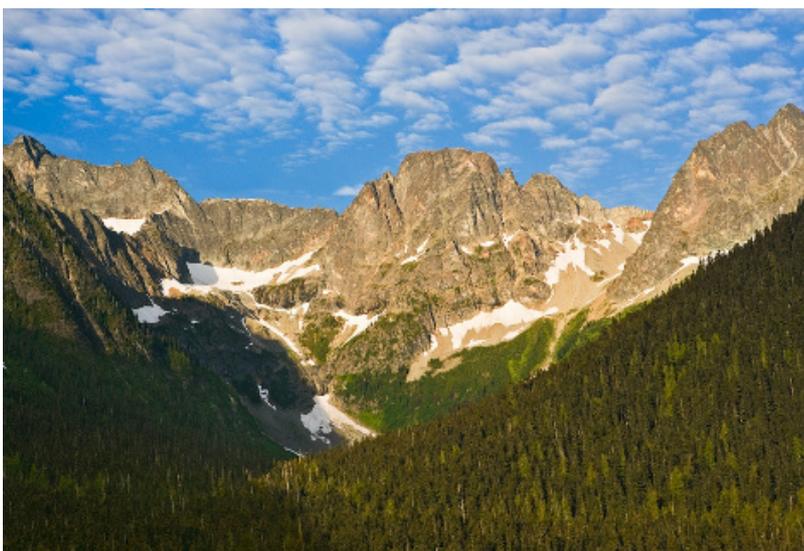
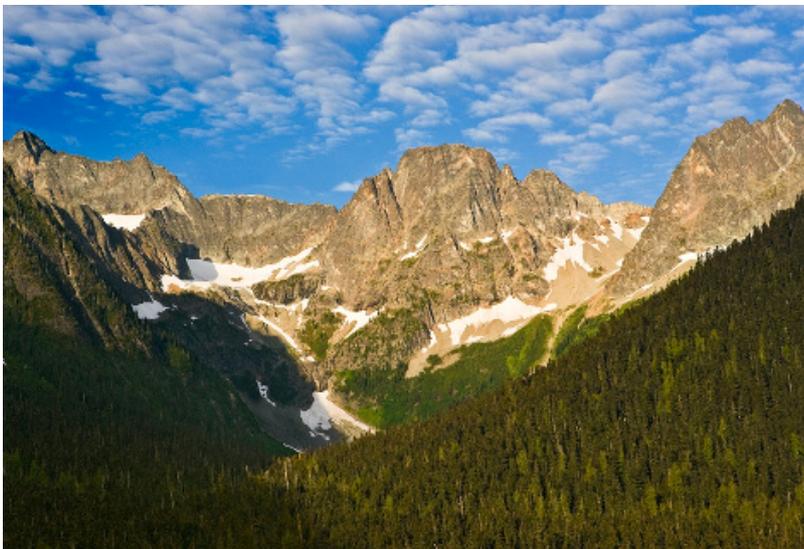
Before we can discuss their use, let's first take a look at light and how a polarizer affects it. Naturally occurring light and most sources of artificial light are composed of waves that radiate outward in all directions. When these outward radiating waves are aligned into one or more planes, the light is polarized. In a photograph taken without a polarizer, reflections such as those off of a wet leaf are scattered (unpolarized) resulting in glare that reduces color saturation and visibility of the underlying detailed structure of the leaf. Similarly, as the sun shines through all of the particulate in the atmosphere, the light is scattered in all directions resulting in an effect similar to a light fog filter that scatters light and thereby reduces color saturation.

When we put a polarizer on the front of our lens (or behind it in the case of some super telephoto lenses), we have a tool that can align the light into a plane and reduce the scatter of light reaching the sensor or film plane. A polarizer does this through the use of a chemical compound coating on glass that has molecules that are naturally aligned in parallel to each other. This has the effect of only allowing light oriented in the plane that is parallel to the molecule's orientation through this coating, thereby, eliminating the glare caused by all of the light that isn't aligned to that plane.

What I have described above is a linear polarizer similar to that used in polarized sunglasses. These work very well at polarizing the light and increasing color saturation but can fool automatic focus and metering systems that work by using beam splitters which are polarizing by their very nature. If the light hitting the beam splitter (usually embedded in the mirror) is not polarized in the same direction as the beam splitter, no light can penetrate and therefore it cannot autofocus or meter accurately. The solution is to add another layer behind the polarizing layer that re-randomizes the light, thereby removing the polarization. Since the offending light from the scene that you are photographing has already been filtered out by the first coating, this is not an issue and does not significantly degrade the image. There is, however, light loss associated with filtering of some of the light by the initial polarizing layer. A filter with a linear polarizing layer and a re-randomizing layer is called a Circular Polarizer. High quality polarizing filters such as those produced by Singh-Ray and others have other coatings as well to reduce flare and other undesirable side effects caused by adding glass to the front of your lens. This piece of glass with all of its coatings are then mounted in a filter ring so that they can be rotated to allow the photographer to vary the effect of polarization.

Now that we have a rudimentary understanding of how a polarizing filter works, we need to consider when and how to use them. Many photographers I run into or attend my workshops and classes only have a partial understanding of this. Many think a polarizer exists only to darken and increase the color saturation a blue sky. While this is certainly a primary use for polarizers, it is most definitely not the only use and in my photography it is probably secondary to using them to remove glare and reflection off of wet or reflective surfaces. Polarizers are most effective at darkening a sky when the camera is pointed 90 degrees away from the sun. For example, with the sun rising in the East, maximum polarization can only be achieved if the camera is pointed North or South. This poses a problem for wide angle lenses, especially those that are 28mm or wider on a full frame camera. With these lenses, due to their wide angle of view, parts of the photo can be at a dramatically different angle to the sun than other parts. Let's look at an extreme case where we are photographing a landscape with a blue sky using a 14mm lens on a full frame camera such as a Nikon D3x, D700 or a Canon EOS 1Ds Mark III or 5D Mark II. On such a camera, a 14mm lens will give you a 104 degree angle of view. Even at sunrise with the sun rising in the east and the camera pointing south, the left corner of the frame will only be 38 degrees from the sun and the right side of the frame will be 142 degrees away from the sun. In this case polarization will be most effective in the center of the frame since we are pointing due south. At maximum polarization the sky will be very dark in the center of the photo and get lighter towards the side of the sun. This could look natural in the case of a sunrise but it will also get brighter to the right which is away from the sun which looks very unnatural and turns many photographers off from using polarizers. The effect will vary from left to right depending on the direction that you point your

camera. If we modify the example a little and take a shot with the camera pointed to the southeast or 45 degrees away from the sun. With the 14mm lens in the example we will now actually include the sun in the left of the frame where there will be zero polarization. The right of the frame will be to the south where maximum polarization occurs. At higher elevations this would have the effect of a white sky on the left and a nearly black sky on the right side of the frame. This may be the artistic effect you are looking for but it is certainly not natural looking. While this is an extreme case since we used a super wide angle lens, the effect can be seen even at 28mm especially at higher elevations. Many photographers get frustrated with and just take the polarizer off. Often the filter doesn't make it back out of the camera bag. There are simple solutions to dealing with this problem allowing you to retain the benefits of a polarizer while minimizing the negative aspects. One solution is to simply rotate the polarizer until the effect isn't seen. Many photographers I have worked with believed that the proper way to use a polarizer is to look through the viewfinder and turn the polarizer until the sky is as dark as it can be. This is simply not the case. Turn the polarizer to get the most desirable effect in the viewfinder or on your Live View screen. By doing this, the dark spot can be eliminated and in many cases you can still get polarization effects before the dark spot is noticeable.



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*North Cascades Range - North Cascades National Park, Washington. In this scene I first photographed it with maximum polarization resulting in a very dark spot in the upper left. By backing off the polarization, I was still able to achieve very nice color saturation with a much less noticeable darkening of the sky. This was a situation where the camera was pointed about 120 degrees from the sun. The focal length I used resulted in an angle of view of about 60 degrees. So the left edge of the frame was 90 degrees to the sun - the point of maximum polarization. An additional effect of over polarizing, difficult to see here, is that the added contrast blocked up detail in the shadowed trees a bit more in the over polarized shot.*

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At higher elevations, the effects of polarization can be quite dramatic as there is less light scatter due to the sun shining through less atmosphere. There are also usually fewer atmospheric pollutants and particulates to scatter light. This is another time when you will want to back off on the polarization a bit or risk a blackish and unnatural looking sky.

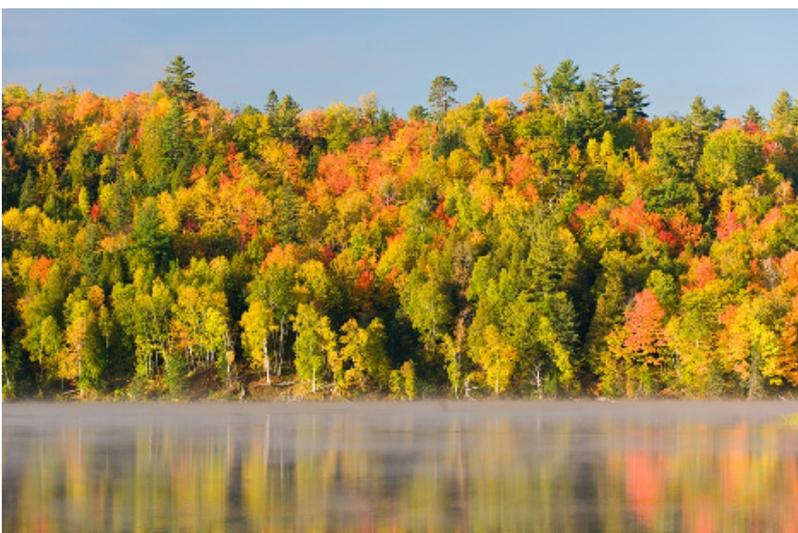
Perhaps my most prolific use of polarization is to remove sheen from vegetation and rocks. It's not just the atmosphere that scatters light, wet uneven surfaces can also reduce color saturation dramatically through stray reflections. Waterfalls, leaves, and just about anything non-metallic that reflects light creates light scatter that reduces color saturation. By using a polarizer when photographing these sorts of things, you can really give your photo a nice color pop. In the case of waterfalls, the one and a half to two stop reduction in light due to the polarizer and the resultant longer shutter speed can often result in a more veiled look to the water as an added bonus (for an even more dramatic veiling effect, try a strong neutral density filter). Adjusting the polarizer in these situations is done visually. Just turn the polarizer until you see the color saturation the way you like best. With vegetation this is generally at the maximum polarization point. With waterfalls, the temptation to maximize polarization is always there



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*Jay Cooke State Park - Minnesota. A cold fall morning along the shores of Lake Superior can create quite a bit of moisture in the air which robs the scene of color saturation. The top shot is lightly polarized, the bottom is fully polarized. By polarizing this scene we have accomplished three things. First, polarization took glare off of the beautifully colored leaves leaving more deeply saturated yellows and reds. Second, it cut through some of the fog increasing contrast. this may or not be desirable, depending on the mood you are trying to achieve. Finally by polarizing the light scatter in the sky, the sky has become a deeper blue.*

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but sometimes this can have the effect of making some water that is flowing over rocks to become invisible. You may want to back off just a little in that situation by turning the polarizer a bit.

Another common mistake I see photographers making with polarizers is over polarizing a scene where there is a reflection in a lake. Imagine sitting in the early morning at the edge of a totally calm alpine lake with a beautiful snow-capped mountain reflecting in the lake. Too often a photographer will dial in maximum polarization. This has the effect of reducing the reflection in the lake substantially. By backing off a bit on the polarization, one can still get a darkening of the sky and a reduction in reflections off of wet rocks without removing too much of the beautiful reflection.



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*Ohia Lehua Flower - Maui, Hawaii. Taken just after a rain squall, this shot simply would not have been possible without a polarizer due to the wet reflections. The polarizer removed the wet reflections from the petals while still clearly depicting the water inside the flower.*

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In summary a modern circular polarizer is a piece of glass with two primary coatings, one that polarizes the light entering the camera to eliminate light scattering caused by light that radiates outward in all directions and another that then removes the single plane nature of the polarized light so that metering and autofocus systems aren't affected. These coatings increase color saturation by removing light scattering from non metallic surfaces and the sky. I have described polarizers, how they work, and how to use them in some common situations. My examples were all nature photography examples since this is the type of photography that I do but the same holds true for many other types of photography. Try taking a photograph of your car and vary the polarization; you can see some dramatic effects due to the complex lines of most cars. There is no one "right" polarizer setting in this situation.

The polarizer is a creative and artistic tool in your photographic equipment toolbox. My Singh-Ray LB Neutral Polarizers spend the majority of their time mounted to my landscape photography lenses. By adjusting the setting to get the most aesthetically pleasing effect to my eye, my photographs gain all the benefits of a polarizer while avoiding the pitfalls of using them.

### **Revisiting Old Photographs**

Whenever I return from a photo shoot and review my images, I evaluate every photo I took, whether it's just 100 photos or 10,000 photos. I immediately delete anything that is obviously flawed such as out of focus shots, or the flash didn't fire, or I cut-off the tail, or it is a duplicate of another shot that is slightly better, or whatever the problem might be. I also select those that I want to RAW process to use in publications, put on my website, post to Facebook, etc. In between those extremes are many photographs - those that aren't bad enough to toss but don't meet your current needs. Over the months and years, these photos can easily be forgotten. They sit on the hard drive waiting to be rediscovered.

Occasionally I will select a folder or a location and go back through those images and sometimes I find real gems. They weren't selected the first time because I may have been trying to get something specific or my photographic taste was different then. As we evolve as photographers, or popular style changes, or perhaps there was some flaw that can now be fixed with modern tools, old photos that didn't make the cut the first time around may become viable works of art. The overexposed and underexposed photograph is a great example of this. RAW processing tools have dramatically improved over the last 10 years. Today's noise reduction algorithms and the ability of RAW tools to dig detail out of underexposed areas is in a completely different realm than it was ten years ago. This allows us to give new life photos that were underexposed, but were otherwise a great shot. Similarly, a photo where one of the color channels was overexposed but the other two were not, can now be restored since Adobe Camera Raw reconstructs the blown channel from the luminosity data of the two channels that were not blown out.



Horned Grebe - Churchill, Manitoba (EOS 1D, 600mm, 2x)

In 2001, it seemed that the only acceptable style of bird photography in the USA was to place the bird large in the frame and to completely blur the background. While these shots are still popular, especially in online forums, there is now a growing acceptance of birds in habitat where they are much smaller in the frame but a sense of their environment is conveyed.

I recommend that you spend some time occasionally going through old photos that didn't make the cut the first time around. You might be surprised how many great shots are lurking on your hard drive waiting to be rediscovered. The image of the Horned Grebe on this page is a photo that, for some reason, did not make the cut the first time around and sat on my hard drive for over 8 years before being rediscovered.

### **Facebook Page**

On my Facebook Fan Page, I am keeping those interested up to date on what photo excursions I go on as well as short commentaries on a variety of photo related subjects and tools. I also have nearly 100 galleries accessible through there. Please visit:  
[www.facebook.com/pages/EJ-Peiker-Nature-Photographer/150804446733](http://www.facebook.com/pages/EJ-Peiker-Nature-Photographer/150804446733)  
and if you like what you see, please click the "Like" button.

### **Private Photography Instruction**

In addition to the private DuckShops which I launched last winter after many years of group instruction workshops, I am now also offering private instruction in Wildlife and Landscape photography at the

place of your choosing within the USA and Canada. All DuckShops and private Workshops will be of the one on one variety (or two on one). Clients may schedule time in 4 hour time blocks for either classroom or field sessions. With just two people, a number of shooting locations become possible that aren't possible for larger groups and thereby making it possible to photograph some species or locations that are not attainable with larger groups. More specific instruction, based on the client's specific needs, can be given using this delivery method in either the classroom or in the field. For more information please see the following link: [http://www.ejphoto.com/duckshop\\_private.htm](http://www.ejphoto.com/duckshop_private.htm)

### **Disclaimers:**

E.J. Peiker writes for and is supported by Singh-Ray Filters and receives non-monetary compensation from Singh-Ray Filters.

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### **Notice:**

EJPhoto will be closed November 30 - December 14, 2010. All orders and inquiries will be processed in the order in which they were received.

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Greater Scaup Couple - Blaine, Washington (D300, 500mm, 1.4x)