



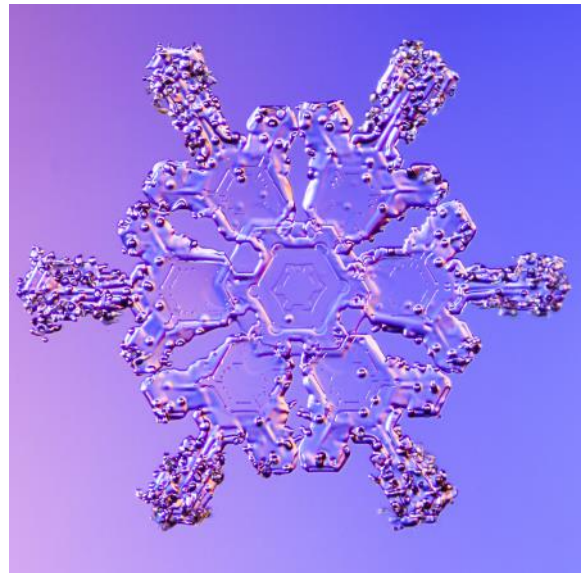
VIEWFINDER THE NEWSLETTER

Alaska Society of Outdoor and Nature Photographers

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www.asonp.org

Photographing Snowflakes Written by Marion Owen

Aristotle, in the 4th century B.C. once said, “when cloud freezes there is snow...” When it comes to photographing snowflakes, I’ve tried it all, starting 30 years ago. That’s when I came across a 1970 National Geographic article called “Snowflakes to Keep.” The author outlined a process whereby you made permanent “casts” of snow crystals using a liquid plastic resin. There were even kits made for classroom use. Intrigued, I obtained the ingredients and followed instructions.



The ingredients included a polyvinyl resin and ethylene dichloride – stuff so toxic you needed to mix it in a chem lab’s fume hood. I had a lot of success, but I wanted not so rustic looking flakes. I tried photographing in ambient light with slide film, but having the right light, temperature and ideal snow to occur at the same time in Kodiak was like wishing for Santa Claus to make an appearance in June.

Today I use a microscope setup made from materials I procured from a scientific supply store. My mentor is/was Ken Libbrecht, a California physicist who studies crystals. He critiqued my snowflake images and answered lots of questions. Check out snowcrystals.com.

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CALENDAR OF EVENTS

AlaskaWild 2019 Photography Exhibit Schedule:

February 2020: *Kenai Visitor and Cultural Center, Kenai, AK*
March 2020: Kenai Visitor and Cultural Center, Kenai, AK

ASONP General Membership Meetings:

Occurs the second Tuesday of each month from October to May at 7:00 p.m. in the auditorium at the Anchorage Museum, Rasmuson Center.

February 11, 2020: *Mike Criss—Drone Video and Photography*
March 10, 2020: Fredrik Norrsell—Patagonia Trip
April 14, 2020: Jamin Taylor—Bird Photography
May 12, 2020: Ed Bennett—Processing Software's and Artificial Intelligence

ASONP Board of Directors Meetings 2019-2020

All meetings start at 6:00 pm at the BP Energy Center, except for the January Board retreat.

December 4, 2019 (Elections)
January 25, 2019 (Retreat 10am—3pm)
February 5, 2020 (Cancelled)
March 4, 2020
April 1, 2020
May 6, 2020



ABOUT THE SOCIETY

The Alaska Society of Outdoor and Nature Photographers (ASONP) is a non-profit organization with the purpose of promoting individual self-improvement in, and exchanging information about outdoor and nature photography, promoting ethics among outdoor and nature photographers, assisting members with marketing and selling their photographs, and informing and educating the public on outdoor and nature photography.

Yearly membership is \$25 for individuals, \$35 for families, \$10 for students, and \$100 for business members. ASONP holds meetings at 7:00 p.m. on the second Tuesday of the month from October through May at the Anchorage Museum at Rasmuson Center, 121 West 7th Avenue, Anchorage, Alaska. The public is welcome to attend all meetings.

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www.alaskaphototreks.com

Ed Boudreau - EAB Photography

www.edboudreau.pixels.com

Michael DeYoung Photography

www.activephototours.com

Alaska Photographics

www.alaskaphotographics.com

Jackie Kramer Photography

www.jackiekramerphotography.com

NitaRae Photography

www.nitaraephoto.com

Auklet Charter Services

www.auklet.com

James Norman Photography

www.jamesnorman.com

Ray Bulson/Wilderness Visions

www.wilderness-visions.com

Aurora Dora

www.auroradora.com

Jeff Schultz Photography

www.schultzphoto.com

Stewart's Photo

www.stewartphoto.com

Bennett Images

www.bennettimages.com

Marion Owen Photography

www.marionowenphotography.com

Wayde Carroll Photography

www.waydecarroll.com

Brendan Smith Photography

www.brendonsmith.photography

McKnight Family Photography Adventures

www.mcknightfamilyphotographyadventures.com

Denali Guidebook

www.denailguidebook.com

Winter Time...Now What?

Written by Jeff Schultz

Here in Alaska our winters are long. Sometimes harsh, sometimes not. Here in Anchorage we've had a very long stretch of sub-zero temperatures from New Year's on. It can make for some absolutely gorgeous scenery. It can also be VERY hard to shoot in and stay warm enough or have enough motivation to go out into it.

I find that as long as I dress appropriately for the temps, I'm just fine. And once I'm out in it, the adrenaline that I get from seeing a good image to make, really does warm me up. Sad thing is that it takes so long just to get dressed and go out! For me, the gray days of winter also allows me time to go back and look through my images from the past year and see just where I can improve them. Maybe it's cropping. Maybe it's how I processed them that can be better. Or perhaps I'll find an image that I did not keep, and now it looks better. Consider revisiting your takes and see if/how they can be improved.

Another thing to do is to practice your photography. Many people don't feel they need practice. I believe we all do. Whatever is your weak point, practice it. And yet another aspect to work on in the winter is EDUCATION. What aspect of photography don't you know very well. Read up on it. Watch You Tube videos and/or sign up for an on-line or local class about it. BE CAREFUL. Not everyone has the correct answer for how to properly do things. So test them for yourself.

For instance, If you've been reading my newsletter a while (www.schultzphoto.com), you know

I'm a big proponent of using the Hyperfocal distance to create landscapes that are sharp from foreground to background. I just recently was reading about how the hyperfocal calculations have now changed because camera sensors, lenses and the quality of prints has been perfected in the last number of years. I KNEW there was something wrong. For the past few years I've been noticing some of my images where I was using the hyperfocal calculator were not sharp in the background.



This is because we've been using an outdated "Circle of Confusion" number as part of the calculation. Yes, it's confusing. But with the newer technology we have, what was "acceptably sharp" is no longer acceptable. So, what to do? If you use hyperfocal in your

photograph, then you'll want to do some research into what new "Circle of confusion" number you need to program in to your hyperfocal app. Below is a great article by the folks at PhotoPills (A really good app for many aspects of photography) that will get you in the right direction. Take your time to read it carefully. PhotoPills has some very good videos explaining it as well.

Link to the PhotoPills info is here: <https://www.photopills.com/calculators/coc>

Photo and Text by Jeff Schultz

Winter Tips for Photographers

Written by Michael DeYoung

Winter is no time to put outdoor photography on hold. There are many reasons why you should actively engage in winter photography. Even in the mid-latitudes there is still a lot of winter left. Some of the best winter conditions in the Rocky Mountains can occur in February through April. Snow in the desert, particularly canyon country of the Southwest, is especially delightful. Here are 10 reasons, suggestions and tips for winter photography. These suggestions apply equally to the far north as well as mid latitude places Outside.

1. The light is better. It may be hard to convince light starved Alaskans of this but the lower winter sun angle means more hours of good light. Even with 5.5 hours of light in December, every minute on sunny days can be beautiful warm light. We don't get 5.5 hours with the sun below 10 degrees in June!



2. Snow covered landscapes are easier to photograph. Snow, especially newly fallen snow, is nature's best reflector, fill light and soft box and there are scenes that work in the winter that just are not possible in the summer like shooting into a dense spruce forest and getting amazing detail and color. In places like the southwest that can have freeze/thaw cycles all winter long, melting snow leads to lots of water and reflection opportunities.



3. Shoot while snow is falling. I do this every chance I get. The bigger the flakes the better. All that snow bounces light around and can create a soft wrapping light especially on faces. To add contrast and emphasize the falling snow put something dark in the frame and shoot with a telephoto to help draw attention to the snow. What about my camera and lenses subjected to all that moisture? If you are using quality equipment, it should withstand a few hours of abuse even in wet snow. In over 30 years I've never had a camera trashed from shooting in falling snow. Just wipe it off thoroughly when done.

4. Shoot into the light more. Building on snow being nature's best fill card, shooting into the sun with light colored subjects bouncing light all around gives images a more airy look.

5. Cold air creates warm light. From Alaska to Arizona it works the same. The colder the air the warmer and more colorful the light can be. The best time to capture alpenglow, pastel pink skies and warm colored light on a winter landscape is in fresh cold air masses and clearing cold fronts.

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Winter Tips for Photographers

Written by Michael DeYoung

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6. Add color to flat light. Bleak dull light (battleship gray) is an unfortunate reality of winter and is more prominent in northern latitudes. This doesn't mean there is nothing to shoot in dull light. Shoot colorful subjects when you have a flat white background. And fill your frame with lots of it. Remember, everything goes with white!



7. Popular national parks especially in the west are uncrowded. There are times in Grand Canyon, Zion, Yosemite and Arches National Parks where the population density is greater than it is in Manhattan. But in the winter they are quiet. Snow in desert country is a blessing and makes photography even better. A hiking friend recently hiked up the Zion Narrows and virtually had the whole canyon to themselves. Up until March and spring break, popular places will remain uncrowded.

8. Increase your exposure. Having done more and more workshops and critiques the number one thing I see exposure wise is underexposed images especially of light colors and high key landscapes such as snow. If most of your image is brighter than middle greens, add light. Your histogram is the ONLY way to measure exposure accurately. Put as much information into your brightest zones with out clipping highlights. The more information you bring into post processing the higher quality of images you'll get for any potential large prints.

9. Look for open water. Any open water in a snowy landscape, especially if it's calm or on a frigid morning with steam is a winning combination. Capturing reflections or golden light is a bonus.



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DEAR JOHN COLUMN

By John R. DeLapp

Full Size Sensor vs. Crop Sensor



In the July 2019 issue of *Outdoor Photographer*, George Lepp responded to a reader's query whether the quality of a cropped full-frame image can match that of an image from an APS-C camera. This is a question that has often been discussed in the past by photographers who recognize that using a camera with a crop sensor will provide a telephoto advantage compared to a full-frame camera **using the same lens**.

An example would be using an APS-C camera with a 400mm lens to produce a field of view equivalent to a 640mm lens (Canon). The question is, which is better, the cropped full-frame or the APS-C? Lepp stated in his article that "when a full-frame image is cropped to match that obtained from an APS-C sensor, the two files will contain approximately the same amount of data and comparable sharpness".

He was specifically comparing two Canon cameras, a 30 MP full-frame, and a 20 MP APS-C crop camera but did not provide details on how he concluded that both files contain nearly the same amount of data. The sensor specifications for the two Canon cameras as well as two additional cameras are provided in the accompanying table for reference and comparison.

| Camera | Sensor size | Crop factor | Resolution | Pixel Density pixels/mm ² |
|---------------------------------|--|-------------|---------------------------------|--------------------------------------|
| Canon 5D-mk4 Full frame | 24 x 36 mm (864 mm ²) | 1.0 | 30.1 MP (6720 x 4480 pixels) | 34,722 |
| Canon 7D-mk2 APS-C | 15 x 22.4 mm (338 mm ²) | 1.6 | 20.0 MP (5472 x 3648 pixels) | 59,524 |
| Olympus E-M1-mk2 Micro 4/3 | 13.0 x 17.4 mm (225 mm ²) | 2.0 | 20.1 MP (5184 x 3888 pixels) | 89,333 |
| iPhone XR camera 1/2.55 inch | 4.3 x 5.7 mm (24.5 mm ²) | 6.0 | 12.2 MP (4032 x 3024 pixels) | 493,927 |

Calculations

Using the sensor specifications (above) for the cameras referenced in the Lepp article, I made

some calculations to establish the number of pixels that would be available by the cropped full-frame sensor.

Comparing the **areas** of the sensors, we can calculate that the APS-C is 39% as large as the full-frame sensor, which means that the number of pixels in the full frame sensor is also reduced to 39% of its original value. So, 30.1 MP times 0.39, yields a resolution of 11.7 MP.

Lepp's analysis indicated that the data would be similar, and he may have made an estimate(?) by dividing 30 MP file by the 1.6 crop factor to get a figure of 18.75 MP. But, in reviewing the math, we know that the crop factor is related to differences in the **linear dimensions** of the sensors and is not directly related to the number of pixels contained on the sensor.

So, in this case, comparing these two cameras, the full-frame image lost a significant number of pixels (and resolution) from the crop. However, how much this reduction in resolution will affect the image quality is more complicated than just comparing resolutions since image quality also depends on the pixel size, dynamic range, noise, and the camera's internal processing to produce the image. For instance, there are several new high-end cameras with resolutions in the 20-24 MP, like Canon's newest flagship camera (\$6,500), which is 20 MP, but excels in high ISO shooting.

Field Test

To make a practical comparison of image quality from the Canon cameras, I made test shots of an identical subject (garden fence) with the full-frame and an APS-C camera using a 100-400mm lens set at 100mm. The field of view was reduced by the crop factor of 1.6 for the APS-C camera, making it equivalent to a 160mm lens. The native images (Images #1, #2) clearly show how the field of view changed with the smaller sensor size. Similarly, if the M4/3 camera could have used the same 100mm lens, it would have given the field of view of a 200mm lens. The images were made from the same tripod position using RAW capture, auto white balance, manual focus on the subject and identical exposures of 1/500 sec, f/5.6, ISO 640, with image-stabilization off, and 2 sec timer.

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Photographing Snowflakes

Written by Marion Owen

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So, here we go. First you need to protect your camera gear from incoming flakes. I use a portable outhouse tent with a zipper door. I use bendable "octopus arms" to hold LED flashlights. My camera is secured on top of a 14-inch extension tube using an adaptor ring.

And you need warm clothes (I don't use gloves, though), a head lamp to find good crystals, and a desire to stay up all night, taking breaks only to pee, get a snack (chocolate is critical at 2:00 AM), or grab a nap. After a few days of this routine, you feel like you've been run over by a truck, but oh it's worth it.



It's hard to describe the experience of photographing snowflakes. It's a technique I've worked on for over 30 years. I've come to realize that while I can control the equipment, how to set the exposure, and to some degree, lighting and composition... But I can't control the magic that happens. At 2:00 AM it was snowing. Pitch black. Sound everywhere was muffled. Not a dog barked, no branches rustling. Just a quiet shushing sound as flakes hit the ground.

During their 20-minute tumble to earth, snowflakes arrive in all shapes and sizes. Once they hit the black board I'm holding, I visually sweep the board with my headlamp. Finding a good candidate, I scoop it up using a tiny paintbrush, transfer it to a glass microscope slide, focus and take the picture. (I use a Canon 5D Mark IV),

My snowflakes have found themselves in elementary school hallways, as fine art, on Christmas cards, even as a fabric design on French purses and

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Photographing Snowflakes

Written by Marion Owen

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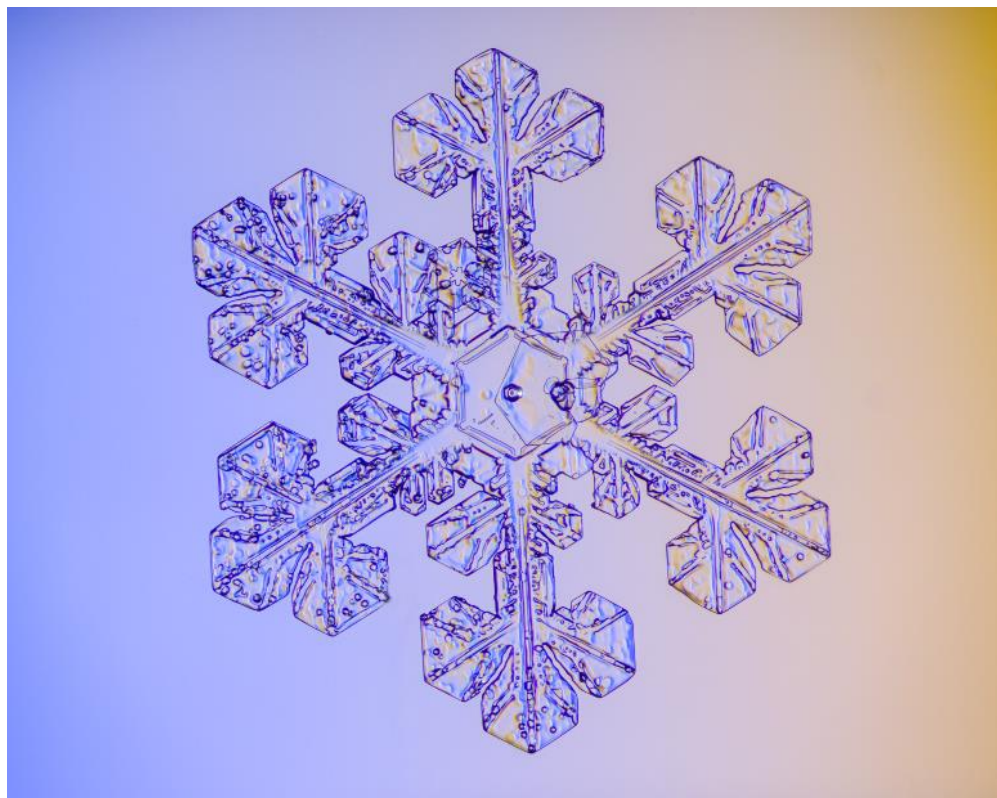
scarves.

I shoot RAW and sometimes I use colored gels over the lights. Either way, snowflakes are amazing to observe. Even the Lord found it challenging, asking Job: “Hast thou entered into the treasures of the snow?”

I’ve penned many stories of astounding ah-hah moments and modern-day miracles involving snowflakes on my blog at: <https://marionowenalaska.com/> and if you have any questions, feel free to send an email to: mygarden@alaska.net.

Happy snow-tos!

Photos and text by Marion Owen



Winter Tips for Photographers

Written by Michael DeYoung

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10. Shoot your favorite non winter scenes in winter if possible and compare results. This is a fun exercise and challenge. It's also a great reason to get out and shoot and gives you a pre defined destination.

Photos and text by Michael DeYoung



Full Size Sensor vs. Crop Sensor

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Image #1: Native image from full-frame Canon 5D-mk4 (30 MP)



Image #2: Native image from APS-C Canon 7D-mk2 (20MP)

Visual Analysis

To make a visual comparison of the images, I **manually cropped** the full-frame image in Lightroom to match the native image from the APS-C. After cropping, the images looked identical in size, sharpness, and contrast. However, the crop reduced the full-frame file size to 4191 x 2794 pixels, yielding a resolution of 11.7 MP—which compares exactly with the calculations done earlier. To examine the images more closely, I made crops in the center portion of each image, keeping the field of view the same in each by making a 1200 x 1200 pixel crop from the full-frame image, and a 1590 x 1590 pixel crop from the native APS-C image. Different sized crops were required for each image to maintain the same fields of view because of the differences in sensor sizes and native resolutions.

Conclusions

I expected the cropped full-frame image to be slightly inferior to the native APS-C image due to the lower resolution after the crop. But, the center crops from both looked virtually the same and the very subtle differences could easily be due to slight anomalies in focusing or other testing techniques.

Overall, either image would meet most photographer's needs and provide excellent results for photos in social media, websites, and moderately sized fine art prints and books. For larger prints, files from an uncropped a full-frame sensor, with its higher resolution and generally larger pixels would provide

the best image quality (and provide more “room” for cropping and processing).

Keep in mind that the calculations and test shots only apply to this case, **with these cameras, sensor sizes, and resolutions**. If a full-frame camera with a resolution of 40 or 50 MP were considered, the analysis would produce different results. Newer cameras, with the newest sensor technology, will also likely produce different results and you may wish to make your own tests.

Final Thoughts

Which system to use comes down to your needs, expectations, how much weight you are willing to carry, and of course, your budget. Technology has produced phone cameras with 12MP resolutions by using very tiny pixels packed together on tiny sensors, yet these cameras can make some surprisingly good photos. Obviously, there are limitations, but still, their results are impressive. It makes me wonder, as the design and technology of small sensors continues to improve, if more photographers will give up their huge telephoto lenses and full-frame cameras to take advantage of the excellent crop cameras that are available for some or all of their photography. Some have already made a switch to m4/3 cameras.

Photos and text by John DeLapp

WORKSHOPS, OUTINGS, & OTHER INTERESTS

COMPLETE DIGITAL WORKFLOW WORKSHOP

Ray Bulson will guide participants from the importing of RAW files to cataloging to post-processing and the creation of high-resolution finished photos. Four separate workshops cover: managing photo libraries with Lightroom; post-processing with Lightroom; introduction to Photoshop intermediate; and advanced Photoshop techniques.

When: February 1, 8, 15, 22, 2020 from 9:00 am to 4:00 pm

Where: Alaska Pacific University, Anchorage, AK

Cost: \$537

Register Here: https://www.raybulson.com/complete-digital-workflow?mc_cid=bc1b9f9161&mc_eid=2d63b0207b

NIGHT PHOTOGRAPHY WILDFLOWERS/WATERFALLS WORKSHOP

Ray Bulson will led you to a remote alpine valley near Hope filled with wildflowers, streams, ponds, waterfalls and tarns, a target-rich place for macro and landscape photographers. There, 'll also explore the tidal flats around Hope during low tide to photograph the unique glacial silt patterns. Also included: photographic techniques, equipment and Lightroom post-processing. This workshop is limited to 12 participants.

When: July 17-19, 2020

Where: Hope, AK

Cost: \$375 without lodging/\$475 with lodging

Register Here: <https://www.raybulson.com/hope-landscape-workshop>

ASONP Business Reminders

Memberships expired on December 31. Have you renewed your membership? Go to <https://asonp.org/resources/member-profile/#myaccount> to easily do it online.

Please send any notices for lectures, workshops, trainings, gear for sale or any other announcements you would like to see sent to our membership to Margaret Gaines at margr8gaines@gmail.com.

WORKSHOPS, OUTINGS, & OTHER INTERESTS

PHOTOGRAPHY TOUR OFFERINGS

Wayde Carroll, a member of ASONP and ASMP, has been leading photography tours and workshops in Alaska and around the globe for the last fourteen years through Alaska Wildland Adventures, Journeys International, Aperture Academy, Wayde Carroll Photo Explorations, and now his newly formed Lightminded Photo Tours. The tours are appropriate for all skill levels and are especially appropriate for the beginning to intermediate levels. Through presentations, hands on instruction in the field, and positive image critique, Wayde's priority is making sure each participant is set up to get the best images possible in a variety of situations. The focus is on the clients needs, not his own image making.

Where: Costa Rica

When: March 29—April 9, 2020

Cost: \$4,675

Where: Silver Salmon Creek, Lake Clark National Park

When: July 4—July 8, 2020

Cost: \$4,850

Submit Questions To: wayde@lightmindedtours.com

AlaskaWild is Looking for a Co-Coordinator

We are looking for a new co-coordinator for alaskaWILD.
Tara has done a wonderful job and is stepping down to pursue other opportunities.
Please consider helping us continue to have this exhibition.