

OUT OF OFFICE

How a Urologist's Hobby Progressed from Photographing Kids' Activities to Urology Meetings to Wildlife

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Photography has been a long-time hobby of mine, starting back in high school with the yearbook team. The subjects were mostly student candids and events. The 1980s era would feature mostly black-and-white film technique, and darkroom techniques to crop and optimize images. As my focus turned to medicine and the many training years without much time or resources for hobbies, the interest faded other than the usual family pics. As I settled into an academic urology career with professional travel and had kids in various activities, I rekindled my interest. This time, however, the variables were very different: better resources to acquire gear, digital camera technology with mind-boggling mega-pixel sensors and seemingly endless free content on YouTube and photography websites to learn technique. Photography has several sub-specialty areas—kind of like surgery—that have their own equipment and skill sets, including portraits, landscapes, sports, special events, street photography and wildlife.

Most photographers have a prerequisite desire to create history and/or visual art. For me, I really like the visual art component coupled with the technical challenges of going out and capturing an interesting image. This latter point is an ongoing topic of debate, as we all walk around with the latest smartphone cameras—do we really need high-end, expensive, heavy gear to capture an exceptional image? In many cases, smartphones are quite good at well-lit landscapes and posed people shots. The newer smartphones have impressive software to help you balance the lighting and control focus points. On-camera smartphone flashes are still limited as the light source goes straight at the subject and can create shadows and red eyes. You have probably seen professional photographers at events with flashes aimed at the ceiling or with large diffusers—these effects are dramatically better at obtaining a balanced image.

So yes, I also walk around with a smartphone camera. But what happens when you try to capture an image beyond the limits of your smartphone? Or, more likely, why are some of your images poor quality? There are many possible rea-



Figure 2. Wildlife Photography: start with local options. In this collage, you can see good practice options I've found locally. Upper left: great blue heron was sharing a tree stump with some turtles on Lake Conroe, Texas and decided to take off. Upper right: a great egret in Brazos Bend State Park, Texas comes in for a landing. Lower right: approximately 250 American alligators live in Brazos Bend State Park, Texas. Many tourists walk and ride bikes right past them with no recorded incidents—the open mouth is a temperature-regulating method even though it may seem like a tasty tourist may be too close. Lower left: you can practice your skills at your local zoo. This Malayan tiger has a large habitat at the Houston Zoo, and if you frame it right it can look like a shot in the wild.



Figure 1. Evolution of Technique and Events. Photographing indoor sports was an early interest of mine—upper right showing my daughter performing a duet with a school team. Photographic needs of such an event including timing, long reach zoom lens capable of low light situations, and patience to take hundreds of frames to get a good one. It turns out this skill set is similar for photographing urology meetings and trying to capture interesting moments that reflect our educational efforts. Upper left and lower right: South Central AUA quiz bowl moderator and judges. Lower left: team of intense residents competing in quiz bowl.



Figure 3. Getting Out There. The next challenge becomes packing your nice (and heavy) gear and flying to new opportunities for wildlife photography. Left: charging white rhino at a reserve near Cape Town, South Africa. Upper right: mountain goat near Jackson, Wyoming. Lower right: herd of bison decides to gallop by our snowmobile tour of Yellowstone National Park.

sons, and my top 5 would be 1) you missed the best moment, 2) focusing error, 3) exposure (lighting) error, 4) shutter speed error, and 5) not enough zoom reach to your subject. How will a digital camera with its various attachable elements (lenses, flashes) make improvements? Going down the same top 5, the improvements would include 1) quicker access to the shutter button with high frame rate

bursts, 2) improved auto tracking focus with eye detection, 3) available low-light lenses (low f-stop) and/or on-camera flash power, 4) high shutter speeds and/or image stabilized lenses and 5) higher focal length lenses.

An example of where I started photographing an event and trying to fix bad pictures was from my older daughter's involvement in dance and ballet while in high



Figure 4. Develop Photography "Bucket List." I've been to Southeast Alaska several times with a charter fishing company, and been fortunate enough to photograph many humpback whales waving their tails or lunge feeding and bald eagles watching us from a tree. But lacking has been the ultimate challenge of getting the humpback breaching (left) and/or the eagle plucking a fish from the water (right) at close enough range. During my 2021 trip I was able to capture both from my bucket list.

school. There are several challenging layers to photographing such an event: cannot get very close to the subject (performing), low light, and moving subject. With a pocket camera or smartphone, these led to the subject being too far away for available zoom and resulting images that were dark, grainy and not always sharp. My initial digital camera kit was a Canon® Rebel with a 70-200 F2.8 lens. This setup would

allow shooting 7 frames per second, triple the zoom reach, and quadruple the available light to the sensor. This latter point is critical, as when the available light to the sensor increases (with high-end lenses) you can significantly increase the shutter speed to freeze a moving subject. The technology keeps improving, and my current setup features a Canon mirrorless R5 body, a range of F2.8 lenses (one of the highest

available light capabilities for a lens) with zooms up to 500 mm, a 45-megapixel sensor, shutter speeds up to 1/8,000 of a second, shooting speeds of up to 20 frames/second, and an impressive eye-detection focus system that can be set to track human or animal eyes. The megapixel spec is worth comment—most smartphones are around 12 megapixels compared to newer mirrorless sensors that are 30–50 range megapixels. With the higher pixel count you can effectively crop in on a subject that is beyond your lens zoom range and still have a good chance for a sharp picture without distortion or pixilation.

As we move to the figures, I should emphasize that the gear acquisition and picture taking are just the start of the process. Once you get home from an event you will likely spend several hours "processing" your photos with various software products. Currently, I use Adobe® Lightroom® to crop, balance, dehaze, denoise and push more color/sharpness as needed. I think it is useful to shoot any serious pictures with the RAW picture format—a noncompressed file format that preserves all information

collected by the sensor. This format will allow you to make significant enhancements to a picture beyond a compressed JPG format. However, when your images are finally optimized you can certainly save final versions as JPG.

In figures 1–4, I give you an example of the progression of skills and situations I have tried to learn over the years—beyond what smartphones can do. In figure 1, the examples show how photographing an indoor event can be a rewarding challenge—bounce flashes and telephoto fast zooms are needed to capture interesting moments that are sharp and well lit. As you progress to the wildlife challenge, you will probably need less flash but even more telephoto zoom reach. Figure 2 shows examples of local options—state parks, lakes, and zoos. Birds in flight (BIF on photography boards) are the ultimate challenge that combine motion, timing, focus and positioning. Figures 3 and 4 show the more high-end progression to finding wildlife in national parks, Africa and Alaska. Enjoy using your smartphone for what it can do—and if you want to take it to the next level, give me a shout. ■