

The Rise of Pickleball

Prairies North

the magazine of Saskatchewan

Starvy NIGHTS



Travelling
PIONEER CAKE



MIGRATORY BIRDS

**THE BARN
PLAYHOUSE**

Summer 2023

Display until Sep 1, 2023 \$8.99 CAD



7 25274 96256 3 32
Canadian Publications Mail Agreement 41856031

**PHOTOGRAPHING
SASKATCHEWAN'S**

*Living
Skies*
**AT
NIGHT**



Saskatchewan's reputation as the Land of Living Skies applies as much to the night as it does to the daytime. After photographing that picture-perfect sunset, don't put your camera away and call it a night. Some of the most compelling photo ops are yet to come.

Story & Photos by

*Robin and
Arlene Karpan*

For ideal night-time photography, we need a dark sky where light pollution doesn't obscure the stars. Fortunately, Saskatchewan fits the bill. We have some of the largest dark-sky preserves in the country, such as Grasslands National Park and Cypress Hills Interprovincial Park. But official designations only tell part of the story. Head to most rural, remote, or northern parts of Saskatchewan, and the skies are dark by default. We take it for granted, but dark skies are becoming increasingly rare in much of the world.

STARRY NIGHTS AND THE MILKY WAY

To photograph stars as points of light as we see them with our eyes, the biggest challenge is getting enough light without streaking the stars. As the Earth rotates, the stars appear to constantly move across the sky. Leave the camera shutter open too long and the stars look elongated rather than as distinct points.

How long is too long depends on the camera and lens. A rough starting point is the 500 Rule which was developed years ago for 35-mm film cameras and still holds for full-frame digital cameras. To find the maximum exposure, take 500 divided by the focal length of your lens. For a 50-mm lens it's 10 seconds, for a 20-mm lens it's 25 seconds. The wider the lens, the longer the exposure you can take before seeing obvious star streaking.

If you're a stickler for precision, some star movement is usually still visible using 500 Rule guidelines, so slightly shorter exposure times are even better. For cameras with smaller sensors, maximum exposure times are lower yet. How precise you need to be

depends on how you use the photo. A bit of star movement may not be noticeable on a social media posting, but it will be more obvious on a 16 x 20-inch print.

It's best to set the camera in manual mode to have complete control over settings. A tripod is also essential. Once the shutter speed is determined, set the lens aperture to its widest opening (the f/stop with the smallest number, such as f/2.8), then adjust the ISO setting until you get a proper exposure. Around ISO 3200 or 6400 might be a reasonable starting point, although it will take some trial and error depending on light conditions and equipment used. Ideally, we want to use the lowest ISO setting possible because the higher the ISO, the more noisy (or grainy) the photo becomes. Some cameras handle high ISO better than others.

STAR TRAILS

Star trails give us a surprising view of reality, but one that we can't see at a moment in time. Rather than trying to get sharp points of light, we want the stars to be stretched out, so almost any camera and reasonably wide lens combination, along with a tripod, can do the job.

Star trail photography is quite forgiving, with no rules as to how long the exposure should be. It can be a half-hour, an hour, three hours, or all night. In shorter exposures, the stars look more like a series of short curved lines, whereas longer exposures become uninterrupted circles and show more colour variation. Point the camera north to get the stars revolving around the North Star, which doesn't move. Photographing in other directions



Photographing Saskatchewan's Living Skies at Night



Photographing Saskatchewan's Living Skies at Night

causes the star trails to appear at different angles, adding to the artistic possibilities.

When we photographed star trails with cameras using film, the only option was taking one long exposure, sometimes lasting hours. With digital cameras, a preferable method is to take a series of shorter exposures, then put them together into the final image using software. Sequator is a free program that is fairly easy to use.

Many newer cameras have built-in intervalometers, or you can buy inexpensive external ones. These allow you to program a series of

shots. For example, you could tell the camera to keep taking 30-second exposures for the next three hours. The exact length of the exposure isn't critical, since we're not concerned with keeping the stars still.

If something goes wrong during that three-hour star trail session, such as the headlights from a passing car spoiling the scene, we can leave out the affected frames. Another benefit of a sequence of short exposures is that it is easier to take a few test shots and make adjustments before setting the camera to run for the next three hours.

CAPTURING NATURE'S LIGHT SHOW

The wild colours of the Northern Lights or aurora borealis dancing across the sky beg to be photographed. We don't need a lot of specialized equipment, and we have a lot of leeway in camera settings to get a great shot. The exposure might be anywhere between one second and 30 seconds, depending on light conditions; how fast the aurora is moving; the capabilities of your camera equipment; and the effect that you're after.

Like photographing anything else that is moving, a short exposure will stop the action while a longer





Photographing Saskatchewan's Living Skies at Night



exposure gives the feeling of movement. There isn't only one "proper" exposure. One rule to always follow, however, is to remove lens filters before photographing the aurora; otherwise, strange concentric circles could show up on the images.

While the sky is the main attraction, the foreground can help to provide context and scale, and complete the image. A tree in a pasture or a piece of old farm machinery takes on a new life against the core of the Milky Way. Also try some light painting, which is simply shining a light on parts of the foreground subject for as little as a few seconds. It's usually surprising how little light is needed during a long exposure.

Night sky photography is a journey of discovery. A familiar locale in the daytime becomes an entirely new landscape at night. It's easy to get hooked on night photography. We can begin with basic approaches such as those introduced here, then try more sophisticated techniques such as stacking multiple images to reduce noise or using a star tracker. After all, the sky is the limit.

