

## Festival Presentations and Workshops

### Featured Guest Presentations

**Sponsored by – Northwestern Air Lease Ltd.**

We are thrilled to bring you a cast of celebrated Guest Presenters who will share their knowledge, personal experiences and insights of the science or inner workings of our world, space and the universe around us.

They will bring to life the magic of our dark skies and how important they are for science, culture and the environment.

#### Featured Keynote Presentation (Friday)

PWK High School Gymnasium

**6:45 pm to 8:00 pm**

- Bob McDonald

#### Saturday Evening Presentation – Question & Answer Session

Pine Lake Festival Site (*on the Sky Circle*)

**7:30 pm to 8:30 pm**

- Bob McDonald / Workshop hosts



**Bob McDonald** – Friday evening presentation:

"What if Everything We Know Is Wrong?" - This illustrative presentation is a historical look at how astronomy has changed the way we see ourselves and our place within the universe, repeatedly demonstrating that the way we see it with our five senses is wrong.

Bob McDonald, host of "Quirks & Quarks" – is one of Canada's best-known science journalists, Bob has been presenting the program since 1992. He is a regular science commentator on CBC News Network, and science correspondent for CBC-TV's The National.

Bob has also authored four bestselling science books including his latest book *Canadian Space Walkers: Hadfield, MacLean and Williams Remember the Ultimate High Adventure*. Bob has contributed as host and writer of television documentaries as well as numerous textbooks, magazines, and newspapers.

**Presenter Bios:** <http://www.tawbas.ca/dsf-presenters-2019.html>

## Afternoon Workshops & Seminars

**Sponsored by – Northwestern Air Lease Ltd.**

Do you have a desire to feel cerebral or to just sit back and relax while being entertained? The festival offers just that during our afternoon Stellar Seminar & Workshop sessions.

The seminars and workshops are intended to provide you with a pragmatic enlightening of your knowledge and appreciation of the sciences relating to astronomy, the environments of Earth and space, as well as the universe that everything exists in.

### Friday Afternoon Workshops & Seminars

Thebacha Campus – Aurora College (room locations will be posted)

**1:30 pm to 2:30 pm**

- **Impact of Light Pollution on Wildlife**  
- Roland Dechesne
- **ABOVE** (NASA's Arctic Boreal Vulnerability Experiment)  
- Stephanie Yuill
- **Basic Astronomy and Our Night Sky**  
- Tim Gauthier



**3:00 pm to 4:00 pm**

- **Space & Time** – How big and old is the universe  
- Mike Couvrette
- **Aurora & Astro Photography**  
- To be announced
- **To be determined**  
- To be announced



### Saturday Afternoon Workshops & Seminars

Pine Lake Festival site (locations to be posted)

**1:30 pm to 2:30 pm**

- **Cree & Chipewyan Language**  
- Paul Boucher
- **Sounds of Space**  
- Roland Dechesne

**3:00 pm to 4:00 pm**

- **Meteorite Impacts – the Earth Gets Smacked**  
- Mike Couvrette
- **Telescope Use and Selection**  
- To be announced



# Stellar Seminars and Workshops - Descriptions

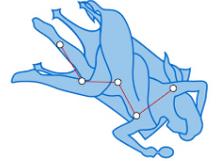
**We are still finalizing details for some of the workshops and seminars.**

- Additional information will be posted as it becomes available.

## **Basic Astronomy & Our Night Sky:** Workshop by Tim Gauthier

Newcomer to the hobby of astronomy? In this seminar, your presenter will take you through a casual tour of the night sky as viewed from your backyard.

This “crash course” in basic stargazing will guide you through the basics of what you can see in the sky, how the sky changes over the year, identifying the main constellations in all four seasons and ways to better see the sky with your unaided eye or a simple telescope or pair of binoculars.



## **Impact of Light Pollution on Wildlife:** Workshop by Roland Dechesne

Four out of five people on Earth, including 99% of those in the USA and Europe, live under light-polluted skies. More than 1/3 of humanity can no longer see the Milky Way, even on a crystal-clear night. In some places people never experience a true night sky, it is perpetually masked by the glow of artificial twilight.

Light pollution affects everyone and most ecosystems, disrupting the natural day-night pattern and shifting the delicate balance of our environment.

In this workshop, Roland will investigate the impacts that light pollution has on wildlife in your own yard and broader impacts of town and city lighting on wildlife populations.

## **ABOVE (Arctic-Boreal Vulnerability Experiment) – a NASA / JPL project**

Seminar by Stephanie Yuill



This seminar or presentation will interactively walk you through the ABOVE project, which is a NASA Terrestrial Ecology Program field campaign that is being conducted in Western Canada and Alaska and began in 2015.

Climate change in the north is unfolding faster than anywhere else on Earth, resulting in reduced Arctic sea ice, thawing of permafrost, decomposition of long-frozen organic matter, widespread changes to lakes, rivers, coastlines, and alterations of ecosystems. The project seeks a better understanding of the vulnerability and resilience of ecosystems and society to this changing environment.

## **Basics of Aurora & Astro Photography:** Workshop by Linda Martin and Mike Vassel

Wondering if your camera is good enough to photograph the aurora or make star trails? Let our talented presenter walk you through the basics of night-time photography.

For this casual, hands-on session, bring your camera and learn how to prepare for a quiet evening of photographing the night sky and the aurora borealis. Discussion topics can range from camera selection right through to the camera/video settings you should be using as well as site selection and preparation.

## Space & Time - Putting the Universe in Perspective

Do you sometimes wonder How Big is the solar system, the Milky Way galaxy or our universe?

In this presentation, Mike C will attempt to demonstrate through visual aids just how big our universe is and, how long it has been around and what its future might be. There should also be plenty of time for you to ask questions.

## Cree / Chipewyan Language: Workshop by Paul Boucher

As an educator, Paul has developed some ingenious and interactive methods to bring his traditional languages to life. This workshop will offer introductory language lessons for you to take home and impress your friends and maybe even to call out your neighbors.

## Sounds of Space: Workshop by Roland Dechesne



As stated in the movie Alien, "In space, no one can hear you scream." Yet, science fiction movies and television programs often feature space sounds – let's compare that against actual sounds and natural space activities translated to sounds. From Jupiter's 'whistlers' to the 'chirp' of merging black holes, sound can help us understand the physics of faraway places.

## Meteorite Impacts – Earth Gets Smacked: Demonstration by Mike Couvrette

Since the formation of our home planet Earth, it has been bombarded by objects from outer space and many of them have left their marks in a big way. In this presentation we look at the science of meteoroids and the resulting impact sites across the globe, including Pilot Lake, and on our solar neighbors.

The presentation includes a scaled down demonstration of a meteorite impact!

## Telescope Use and Selection:

Join us under one of the canopy tents to learn more about telescope use and the differences between a refractor, reflector or the compact Schmidt–Cassegrain telescope. Find out how the different types of mounts work and their uses in astrophotography.

Have that nagging question of "what is the best telescope for me to buy" and would like some advise and answers, and much more.

