

CASCA Education and Public Outreach Committee Report

Jan – Apr, 2020 (the Covid-19 edition)

Submitted by Phil Langill, Chair

1. Committee Membership

The current committee members are;

- Frédérique Baron (2019-2022) Université de Montréal
- Julie Bolduc-Duval (2010-19), Discover the Universe / À la découverte de l'Univers
- Pierre Chastenay (2017-20), Université du Québec à Montréal / 2017 Qilak Award Recipient
- Mike Chen (2019-2020) University of Victoria
- Robert Cockcroft (2014-19), University of Western Ontario
- Kelly Lepo (2017-20), McGill University
- Sharon Morsink (2016-19), University of Alberta
- Nathalie Ouellette (2019-2022) Université de Montréal
- Nienke van der Marel (2019-2022) NRC-HAA

The EPO Committee's ex officio and Board Representative are Leslie Sage and Suresh Sivanandam, University of Toronto, respectively.

The CASCA Westar Lecture subcommittee is headed by Robert, with members Frédérique, Nienke, and myself (at arm's length). Kelly is our Social Media lead. Sharon is the IAU outreach liaison to Canada.

2. Education and Public Outreach - in the era of Physical Distancing?

Needless to say, EPO and physical distancing are two ideas that barely belong in the same sentence. Built into the joy and motivation of engaging in astronomical EPO is the gathering of people. Changing one's perspective and trying to envision the process of EPO strictly via the online platform, takes imagination, courage, brain power, and the hope that it's even possible. Once you start to entertain the notion that it could be done, with the painful realization that it will look very much different than before, you start making a list of tasks and a go-forward plan.

Then there is a decision to make. The list of tasks is very long and the go-forward steps are nontrivial and it all requires much effort – and the physical distancing restrictions are bound to be relaxed in hopefully the not-too-distant future. So should one hold out for a while and see how society progresses,

before committing to a large expenditure of time and energy? This decision is made all the more difficult because of the new stresses that have arisen in one's home and work environment.

So this is where many members of this committee find themselves. The year started off as usual and 'standard' CASCA EPO activities were ramping up. But now we find ourselves in a bit of a 'holding pattern'. I reached out to my committee members for updates of their personal EPO activities. I provide in the appendix their replies for your reading pleasure, for those took me up on this informal request. I would like to give special acknowledgement to Julie who seems to have mastered the online astronomy EPO realm via DU, and to Pierre for receiving Prix Thérèse-Patry Le lauréat de l'édition 2020, as awarded by the Association des communicateurs scientifiques du Québec.

3. IAU Strategic Plan 2020-2030 and National Astronomy Education Coordinator Teams

The IAU Office for Astronomy Education (OAE) seeks to establish a network of National Astronomy Education Coordinators (NAEC) to achieve some very ambitious goals geared toward helping teachers teach astronomy more effectively. The OAE hopes this international effort will culminate in an annual International School for Astronomy Education and a database of IAU members who are willing to voluntarily contribute to this teacher training programme.

At our next e-meeting this committee will discuss the formation of a Canadian NAEC Team. Building on the success of the CASCA-IAU100 contest championed by Sharon, this would help keep the CASCA-IAU momentum going.

APPENDIX

Hi everyone,

I'm busier than ever with Astro at Home! Running two live events per day, every week day definitely keeps your schedule full. But it's a lot of fun and the kids' enthusiasm is so worth it. For many kids in Quebec returning to school on Monday, this morning was the last time they could participate live. Many of them were sad since they really built a community online with their friends. It's a very interesting experience to manage a chat with 100+ kids around 8-12 yr old!

So anyway, here's an official paragraph for the report.

Discover the Universe started **Astro at Home / Astro à la maison** in March to entertain and educate youth during school closures. We offer daily astronomy sessions to kids aged 8-12 at 10am in French and 2pm in English, eastern time. Kids can watch on YouTube and ask questions in the chat. The first session was on March 17 and we plan on stopping at the end of May, for a total of 51 presentations in each language. Obviously, this wouldn't be possible without the many guest speakers from institutions across the country and Canadian telescopes abroad. We wish to thank them for making this crazy adventure possible! Past presentations and more info can be found at <https://www.discovertheuniverse.ca/astro-home> and in French at <https://www.decouvertedelunivers.ca/astro-maison>

The last few months have been busy with Discover the Universe. Other than Astro at Home, here are some highlights since the last report:

- Launch of a new website in February, for improved accessibility for our participants and easier management on our end.
- In collaboration with Actua and Ingenium, Julie Bolduc-Duval traveled to Iqaluit, Nunavut in February to offer workshops to local teachers. This was a very positive experience and we're hoping this can be the start of a new collaboration with teachers in Northern communities. In particular, we're planning on developing content for their latitudes and send resource kits for viewing the annular solar eclipse of June 2021, best seen in Nunavut.
- In the background, we are working on developing more resources for teachers, including a resource on atmosphere and climate in collaboration with McGill.

I think that's it! I'll be in touch soon for the NSERC Science Promotion application. I haven't forgotten about it but I'm definitely glad the deadline got pushed to June!

Bye everyone, and take care,

Julie

Hi Phil,

It's been quite an eventful winter semester! It was my first time teaching and I am glad to know now that I can teach in class and online.

One thing that the report should strongly highlight is the tremendous work done by Julie with Astro at Home/Astro à la maison! At the end of the month, there will be 52 presentations in French and 52 in English, all available on Youtube, for 8-12 year old, on a very wide variety of subjects. What an incredible resource!

The Institute for Research on exoplanets was supposed to have a very busy spring and summer! However, most of our activities were postponed or cancelled. We are still doing Astronomy on Tap but we move from a pub to an online Facebook live setting. Our third edition is tonight ! We have been doing the games on kahoot.it, and it has been a lot of fun.

Frédérique

Dear all,

I'm afraid I don't have anything major that has been going on from my side. I have continued to organize the monthly Nerd Nite Victoria (I started this event in August 2018). With the pandemic, we had to cancel the event on March 18th, but we started up a virtual version in April, and continuing in May, which is broadcasted on YouTube Live. Several other Nerd Nites across the world have gone virtual as well, I could look up specifics for Canadian cities if you think it's interesting. Second, University of Toronto has started the virtual talk series "Cosmos from the Couch", where astronomers give a public talk for about one hour, and answer questions from the audience, again through YouTube Live. I have given a talk there recently on planet formation. Most speakers are from Dunlap/UofT. Not sure if this is worth mentioning on behalf of EPO, I believe Dunlap took their own initiative to organize this. In Victoria, Jon Willis is normally organizing the monthly "Cafe Scientifique" with scientists giving talks, and he has taken this online as well now. Again, just a local initiative that I happen to know about.

Best wishes,
Nienke

Hi everyone!

On a more individual basis, I've continued participating in a number of in-person public talks and online webinars with different partners including NSERC's Exploring by the Seat of your Pants, Skype a Scientist, PIR's Virtual Researcher on Call and DU's Astro at Home. On top of my regular sporadic media interventions, CBC Radio has picked me up as regular columnist for a space segment I do every 2 months or so on their show "Let's Go" in Montreal.

For the Institute for Research on Exoplanets, one very exciting (and timely) piece of news is that we were awarded a \$40k grant from the Fonds de recherche du Québec during an inaugural competition to encourage scientists to do more science communication:

<http://www.exoplanetes.umontreal.ca/irex-wins-inaugural-frq-dialogue-award/?lang=en>

Our project is to create a series of 6 (hopefully more if we find more funding!) short and fun videos on astronomy and exoplanets specifically. Given that all our in-person events are currently on hold until further notice, we're concentrating on this effort. We're still not able to shoot the videos for the moment, but we're busy storyboarding them at least! Also, we've replaced our Astronomy on Tap events with an Astronomy Online series:

<http://www.exoplanetes.umontreal.ca/irex-wins-inaugural-frq-dialogue-award/?lang=en>

Our 3rd event is taking place this evening at 7.30pm (Eastern).

As the JWST Outreach Scientist, I've also done a bunch of sporadic public talks and such on Webb (including the global Astronomy on Tap 7-hour long marathon which took place on April 9th on YouTube Live). One pretty exciting nugget, though, is the online content on Webb and Astronomy I've been creating for them for the past 1.5 years is finally online!

<https://www.asc-csa.gc.ca/eng/satellites/jwst/default.asp>

<https://www.asc-csa.gc.ca/eng/astronomy/default.asp>

They didn't have very much astro stuff online after their Education department got wiped out some time ago, so I'm really glad there are some resources on the subject up now! There are several more phases planned for this project, so you should expect pages about exoplanets, galaxies, cosmology, etc. on there eventually!

=====

Just wanted to send my sincere congratulations to Pierre for winning this year's Prix Thérèse Patry for all his amazing science communication work during his very illustrious (and ongoing 😊) career!

<https://www.acs.gc.ca/actualite/1345-prix-therese-patry-2020.html>

Félicitations Pierre!

Nathalie

Hi everyone,

I wasn't sure whether or not to bring CASCA Graduate Student Committee's (GSC) activities up at first, but since a good chunk of our activities online is very much in line with EPO in general, I thought I'd put up a short snippet of GSC's EPO efforts this year here:

'''

The CASCA Graduate Student Committee (GSC) launched its social media accounts in January this year on Facebook and Instagram. Each month, the GSC features a Canadian graduate student and their research on these platforms in an accessible and digestible post known as the "GradHighlight." The GSC has also been highlighting Canadian contributions to astronomy and space exploration regularly on Facebook, promoting Canadian astronomy collectively as a community.

Furthermore, the GSC launched its Twitter account at the beginning of May and has engaged closely with the Canadian Twitter communities, including Museums/Science Centres, on International Astronomy Day. Through the #AstronomyAcrossCanada initiative (lead by the Canadian Museums/Science Centres), the GSC has shared and retweeted many fond memories of our graduate students with the intent to showcase science as a very human endeavor while highlighting our students and inspiring the future astronomers.

'''

Thanks!
Mike

Hi Phil, hi everyone,

Below is what has been going on at Western.

The Cronyn Observatory was once more a great hub for astronomy activities for the greater London Ontario community. Throughout September 2019, well over 250 non-science students used the observatory for observing projects in our general astronomy course. From October through early March, the main activity was for our popular Exploring the Stars program. We also had a few major events such as Doors Open, Science Literacy Week, and International Observe the Moon night. Despite the horrible weather, about 80 people showed up for the transit of Mercury on 11th November. Another highlight was our Girls & Women in Astronomy night on 11th February that brought in 150 visitors. Including several private events, Cronyn Observatory had 63 events from September to March totalling 2284 visitors.

Continuing our Indigenous astronomy collaborative efforts, we launched the first offering of "Two-Eyed Seeing and Astronomy" in September 2019 - a one-semester course co-designed and co-taught by many Indigenous partners from on and off campus and one Physics and Astronomy faculty member. Many Indigenous guest speakers (almost one a week) graciously offered to participate and were well received by the students, approximately half of whom self-identified as Indigenous.

Rob

Hi Phil,

Up until mid-March, the University of Alberta's Observatory was doing it's usual outreach programming with 2-3 school groups each week, and Thursday evening open houses. On March 12 we closed down our operations and are looking forward to re-opening once it's possible!

I haven't been doing any other CASCA related outreach, although I did do an interview with SkyNews magazine about Nikawiy/Awasis.

Sharon

Dear Phil, Dear All,

Since I spent the last ten months on a sabbatical, working mostly on papers I wanted to publish and grant applications I had to submit, I haven't been involved in EPO much, apart from my implication with Sharon on the Exoplanet naming contest last Fall. But I've been writing astronomy books for kids in my spare time that I hope will get published at the end of the year, and I've participated in the effort that Télé-Québec is putting on to bring science teaching to kids stuck at home because of the pandemic. I've shot a short story from my kitchen about vaccines, how they protect us from harm and how they're produced (that's bush tv: a lemon with thumbtacks stuck in it makes for an impressive COVID-19 virus!), and I'm writing another piece on speed of sound v speed of light. That one is fun: I hooked my cell phone to the eyepiece of my binoculars, sitting on a tripod, and I filmed myself banging on a pot from down the street to highlight the delay between sight and sound. My neighbours were intrigued... and it created a very nice science communication incident!

Can't wait to read what the rest of you guys have been up to!

Best,

Pierre