Rémi Boucher Scientific coordinator

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Submission Date	Jan 30, 2025 4:56 PM
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International Dark Sky Place Name	Mont-Mégantic International Dark Sky Reserve
International Dark Sky Place Category	International Dark Sky Reserve
Designation Year	2007
Guidelines Version	2007
Your Name	Rémi Boucher Scientific coordinator
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Management Agency (if applicable)

ASTROLab / Parc national du Mont-Mégantic

What is the physical address of the Place?	189 route d Notre-Dam Canada	u parc e-des-Bois, Qu	ébec, JOB 2E0			
Is the site currently under Provisional Status?	No					
Are you a DarkSky Delegate, Affiliate, or Chapter Representative?	No					
Total average or typical zenith night sky brightness reading for this reporting period:	21.51					
Upload your night sky quality raw data documents for this reporting period:		MontMega	ntic_SkyQuali	ty_Additiona	Idocx	
Upload a map (PDF or image) that shows the locations and names of the places that were used to take SQM measurements. If you provided a map last year and your sites have not changed, you may skip to the next section:	map_Monitoring-Devices_TESS-W.png 3.2 MB					
Describe any changes detected in night sky quality from receiving your certification to the present:	See the attached file for a discussion on the night sky quality monitoring.					
Reserves, please fill out the applicable row to describe your lighting compliance rate (%) with your Lighting Management Plan (whole		Year of Certification	Compliance % in Original Application	Current Compliance %	Anticipated % for Next Reporting Period	
numbers only):	Core	2007	100	100	100	
	Periphery	2007	75	100	100	
What actions have you taken to meet the requirements of your Lighting Management Plan/Policy during this reporting period? Include a summary of any actions taken with privately owned lighting that helped improve your night sky quality as well:	See attached document "MontMegantic_Lighting_LMP-Compliance- Additional-Info_2024.docx" for more precise information. In 2024, we continued our campaign of door-to-door evaluation of privately-owned outdoor lighting with the municipalities of Piopolis and Dudswell. Personalized door-hangers about their outdoor lighting are left at each visited property. A second visit is done later in the year, to document any changes. At the time of writing, Dudswell's second visits are not yet completed but Piopolis showed a lot of positive changes. While we are pleased to see the improvements, we plan on modifying our					
	methodology for the next years, targeting mostly industries, businesses and organizations. Firstly, because these places are often the biggest					

methodology for the next years, targeting mostly industries, businesses and organizations. Firstly, because these places are often the biggest emitters of light pollution, so our limited efforts can lead to bigger results. And secondly, because dealing with residents prove to sometimes be difficult. By targeting private organizations and businesses, rather than homes, it's easier to depersonalize the discussion. There is always a need to strike a balance between enforcing regulations and rallying people to the cause.



2.68 MB

Have you used any fixtures from the DarkSky Approved Lighting program?

If you answered yes to the previous question, please describe:

No

We don't rely on the FSA program because most of the fixtures are not compliant with our local regulations due to the CCT of 3000K.

Piopolis_home-retrofit.png

We've been using and promoting 1800K and 2200K lights for many years, and try to keep the use of higher CCT only for some specific applications.

The DLC LUNA certification is certifying LED luminaires between 2200K and 3000K, and they are planning to include <2200K LED in the future, thanks to recently introduced industry standards for "amber" LED.

We believe DarkSky International and the FSA program should evolve toward lower CCT instead of keeping 3000K as a maximum.

No

For International Dark Sky Communities and Reserves, have there been any changes to your local outdoor lighting ordinances? If yes, please describe and provide a link to the updated policy if available:

Configurable list

Name of Event/Program	# of Times Offered	Estimated # of Attendees
Total Solar Eclipse, April 8th	1	2700
Daytime visits to the ASTROLab+Observat ories (May-Nov)	99 days	11260
Astronomy evenings at the ASTROLab (May-Nov)	70 nights	6146
Astronomy evenings at the Popular Observatory (Jun- Aug)	47 nights, 94 groups	3949
Astronomy Festival (July 4-5-6)	3 nights	528
Perseid meteor shower annual event (August 9-12)	4 nights	1067
School groups (ASTROLab/Observat ories)	100 classes	3907
Social groups (ASTROLab/Observat ories)	8 groups	227
Tele-groups (live videoconference)	586 classes	14979

Name of Event/Program	# of Times Offered	Estimated # of Attendees
Vive la nuit! (in-class light pollution outreach presentation in elementary schools)	137 sessions	1427
Le "Jour de la nuit" (our online live presentation for this national event to celebrate the night)	1	15900
National Conference for the Nighttime Envrionment Protection (Nov 5-6-7)	3 days	80
Kiosk at a night walk activity in Dudswell	1	150
Conference during Estrie's Biodiversity Festival	1	20
Roundtable - Living together in the dark (collab with art Fondation Grantham, held in Montreal)	1	25

It depends on the specific event, but DarkSky International is often mentioned in a way or another. The DarkSky Logo and seal is used in different places (website, presentation, etc), most often when mentioning the certification of the IDSR or showing the network of Dark Sky certified places.

Rémi Boucher, our scientific coordinator, was invited to join a roundtable discussion about the disappearance of obscurity, with 2 artists, Fiona Annis and Olivia Boudreau, in Montréal. The event was a collaboration of the Fondation Grantham and Fondation Guido Molinari.

Also, in 2023, we met with a duo of artists, SYLLAD, and gave them insights about light pollution and the nighttime environment. Their work led to this year's exhibition "Des arbres aux étoiles" at the Université de Sherbrooke gallery.

With the total solar eclipse, 2024 was definitely a very special year for the Mont-Mégantic national park. While we were quite limited in space to accommodate more people (there was still a lot of snow in early April, and visitors had to reserve in advance for a bus ride), we were fully booked with 2700 people that came to see the eclipse at the base of mount Mégantic.

When looking at the number of visitors to all our astronomy activities and events of 2024, including the eclipse, we see an increase of 7% compared to 2023. When excluding the eclipse, the numbers are almost the same as last year, with a -1% difference. While some activities saw an increase (like the astronomy evenings at the ASTROLab), there was also some slight decreases for others which are mainly due to the closing of the summit one week earlier for large renovation and construction work at the Popular Observatory site, and a reduction in our offering for groups prior to the eclipse event. The Mont-Mégantic National Park team is looking forward to 2025 with the reopening of a new panoramic terrace, with additional buildings and telescopes on the summit.



RICEMM_2024_jourdelanuit.jpeg

Did you promote DarkSky International and its mission during your outreach programs/events? If so, describe:

Is there any programming, ongoing or planned, blending the arts and/or culture with dark skies? If so, describe:

What have you noticed about your visitors' experiences? For example, is

attendance/visitation of darksky programs consistent, growing, or dropping off? Have visitors provided any feedback on their experiences at your site? Please describe:

Provide up to five photos of events you hosted this year:



RICEMM_2024_kiosk.jpeg



RICEMM_2024_conference.jpeg 2.44 MB



RICEMM_2024_vivelanuit.jpeg 2.05 MB



RICEMM_2024_eclipse.jpeg 2.59 MB

Provide social media handles or website links used to promote dark skies (these will be added to your Place's DarkSky page): www.meganticdarksky.org www.facebook.com/montmegantic www.linkedin.com/company/cieletoilemontmegantic

*we deleted our twitter account

Has your Place participated in any DarkSky-led initiatives such as International Dark Sky Week, the Under One Sky conference, or other relevant promotions during this reporting period?

If you answered yes to the previous question, please describe:

Upload files of any media coverage (articles, interviews, etc.) about your site or dark-sky efforts you are involved with. This may also be a document with a list of links to the respective coverage.

Has your site erected signage identifying your site as an International Dark Sky Place?

Briefly describe how educational materials are being dispersed/provided at your Place: We attended the Under One Sky conference but did not present this year.

We are also often interacting with other advocates on the ${\sf DarkSky}$ Advocates Slack.



No

Yes

Our website, meganticdarksky.org, remains our main hub with up-to-date information about the IDSR, how to visit, links to outdoor lighting regulations, lists of recommended luminaires, lighting guides, brochures and more.

We also worked on adapting the infographics and posters about the "Jour de la nuit" and distributed those in the region prior to the event in October.

We continued the distribution of our small brochure about good lighting practices at home in municipal offices and in hardware store.

Early in 2024, we finalized the creation of a Guide for best lighting practices for the Mercier-Hochelaga-Maisonneuve borough of Montréal, which we were contracted for in 2023. The guide was launched in March

Describe any permanent or temporary exhibits that have been created this reporting period (these may include trails, informative waysides, interpretation signs, gift shop items, etc.):

Briefly describe any efforts undertaken to reach new audiences. If this was not part of your efforts last year, describe what you plan to do to engage new visitors in the 2024 reporting period:

Have you worked with any external partners to promote the dark-sky movement within and outside of your Place's boundaries? If so, identify these partners and explain the result of this collaboration:

Were you awarded any grants or funding for projects during this reporting period? If yes, please describe: 2024 during an event at the Montreal Planetarium and can be found online at https://portail-m4s.s3.montreal.ca/pdf/guidemhm_fr_web.pdf

We do not have anything to show yet, but we are currently working on new kiosk material to use in future events, and on a large educational sign about good lighting practices for campers of the national park.

We are always working on reaching new audiences and raising awareness about the impacts and solutions to light pollution. Some of these efforts can be seen in the outreach events section.

This year we organized and held a national conference for the conservation of the nocturnal environment. The conference, which took place in Lac-Mégantic last November, brought together players and decision-makers working in the environmental, land-use planning, public policy, research and lighting sectors, to discuss the main issues surrounding light pollution in the Province of Quebec. In total, approximately 80 people coming from everywhere in Québec attended the event.

The conference was a great success, and attendees were very pleased with the quality of the speakers and presentations. Many mentioned the work and the help they got from the team of the Mont-Mégantic IDSR in the last years. But for us, the most pleasing thing was to see more and more people joining the fight against light pollution and implementing their own projects and realizations.

During an online meeting a month after the event, which nearly half the attendees joined, we could already feel the impact of the conference and the raise in awareness.

A report (in French) of the conference can be found on : https://www.cieletoilemontmegantic.org/_files/ugd/9ae552_676972d64f ca491989397adca820f9e3.pdf

We were also invited to give a talk about light pollution for the employees of the Frontenac National Park, which is partly inside the Mont-Mégantic IDSR but also working toward its own Dark Sky certification.

Municipal inspectors of the Granit RCM and the Haut-Saint-François RCM received a formation about the light pollution and the outdoor lighting ordinances.

Importing the "Jour de la nuit" event from France. We took the role of promoting the event on this side of the ocean, collaborating with the organizers in France, and supporting the activities in Québec.

Also, we keep on working with the SÉPAQ, the agency responsible for the national parks network in Québec, on many projects of lighting retrofit, dark sky certifications, etc. We are both working closely with different national parks, but also with the direction team.

We were invited to give a presentation about light pollution to the members of IES-Montréal (Illuminating Engineering Society) during one of their monthly lunch events. It is important for us to reach this kind of audience.

We were also present for the launch of the lighting guide that we conceived for the Mercier-Hochelaga-Maisonneuve borough, at the Montréal Planetarium.

At the end of the year, Remi Boucher joined the DLC LUNA Advisory Group, which seeks to help cities, towns, and government agencies with reducing light pollution and saving energy. https://designlights.org/our-work/light-use-for-night-applications/luna-advisory-group/

The work of the Mont-Mégantic IDSR team is funded by the Mont-Megantic National Park (SÉPAQ), Haut-Saint-François RCM, Granit RCM, city of Sherbrooke, and the Mont-Megantic Observatory. Projects outside of the IDSR received funding from those specific partners.

Our manager, Mélina Dubois-Verret now sits as a member of the board of Have you collaborated with a DarkSky International Delegate the Dark-Sky-Québec chapter. We are currently collaborating with or Chapter on dark-sky issues DarkSky-Québec on different issues, mostly at the national level. Namely, since the last reporting period? the installation of 3000K LED on roads and highways by Québec's Ministry If so, please describe: of Transport and saising awareness to the light pollution issue with greenhouses. The Mont-Mégantic national park has its own monitoring program on Are there any ongoing conservation and/or research different species and anthropogenic impacts, but the only one related to programs at the site? If so, dark skies is the monitoring of light pollution with the SQM and TESS-W who runs them, and what are photometers mentioned elsewhere in this report. That said, we are also the goals? responsible for the measurement and monitoring of light pollution in every SÉPAQ's national park in Québec with a large network of TESS-W photometers. Our collaborating efforts with SÉPAQ will be growing in 2025. Following Briefly describe future plans (in 2023 and beyond) to engage our National conference, there are already some actions that are planned with existing and new partners to expand and better integrate better lighting practices inside the network and how you will expand the of protected territories. These go beyond the creation of future Dark Sky dark-sky movement: Parks and are aimed at making sure that the SEPAQ is an example for good outdoor lighting practices. We are also working on promoting the networking and exchanges between the participants of our 2024 national conference. Many initiatives across the Province of Québec were presented and we want to give each of them a better chance to succeed by working all together. For Dark Sky Reserves, briefly Lighting for new constructions is generally better monitored by municipal describe any new (or ongoing) inspectors. This lead to many new construction with good lighting examples of night sky friendly practices. For example, a new Tesla dealership in Sherbrooke uses 3000K installations on private sites LED for the front rows of cars, but uses 1800K LED for the building and/or public spaces such as perimeter and large parking lot with serves as storage for the cars. roadways or parks: We also have some very good examples of conversion that are due to our campaign of door-to-door evaluation of outdoor lighting. The partnership with the city of Lac-Mégantic is going especially well and has led to many successful conversions, especially for businesses and industries. While some of the changes done by the citizens are not always 100% compliant, there is a lot of progress toward more darksky-friendly practices. For example, an owners might not completely change their non-shielded outdoor fixtures, but they might swap the white bulbs for amber lights with lower lumens. Have the "threats" identified in Stayed the same your application for certification: If the "threats" identified in No "threats" were specifically identified in our application for certification your application for back in 2007. We keep on working with our regional partners for a certification have increased or continuous enforcing of the outdoor lighting regulations. decreased, please provide a brief explanation of how they have changed (i.e., increased/decreased visibility of light domes, new sources of glare/problematic lighting, new industry/development, etc.): Provide a brief description of See last year's report for what we see as one of the biggest threats and how you will continue to how we are working on it. manage "threats" over the next vear: What is the total size of your 5167 Place (in square kilometers only)? 226009 For Dark Sky Communities and Reserves, what is the current population size? Have there been any changes Yes, for the first since its certification, the size of the Mont-Mégantic to the size, access and/or International Dark Sky Reserve has been slightly reduced. During 2024, the boundaries of your Place (this municipality of Courcelles fused with a neighboring town and officially

could be property acquisition, sale, road development/closure, easement access, etc.)? If so, please describe:

Upload any documentation (i.e., a land ownership map) that depicts physical changes to your Place indicated in the previous question: moved to a different Regional County Municipality (RCM), leaving the Granit RCM, the Estrie administrative region and the Dark Sky Reserve at the same time. Despite this reduction of approximately 90 km2, the population of the IDSR grew by 2,6%.



map_changes_2024.png 6.21 MB