

2020 Advocacy Annual Report for IDA Massachusetts

February 9, 2021

Chapter Officers

| | |
|-----------------|---|
| President: | Prof. James Lowenthal (jamesastron@gmail.com) |
| Vice President: | Timothy Brothers (brotherstimothy@gmail.com) |
| Treasurer: | Dr. Michael Person (mjperson@gmail.com) |
| Secretary: | Dr. Nancy Morrison (nancyastro126@gmail.com) |
| Communications: | J. Kelly Beatty (kbeatty@darksky.org) |

Chapter Communications

<https://idamass.wordpress.com/>

<https://www.facebook.com/DarkSkyMA/>

<https://groups.google.com/forum/#!forum/ida-massachusetts>

Chapter Structure & Finances

IDA-MA maintains, through IDA Headquarters, LLC status in the Commonwealth of Massachusetts. It has established a checking account for handling incidental income and expenses, though at present IDA-MA is not soliciting chapter memberships distinct from IDA itself. A financial report for 2020 is attached as Appendix A.

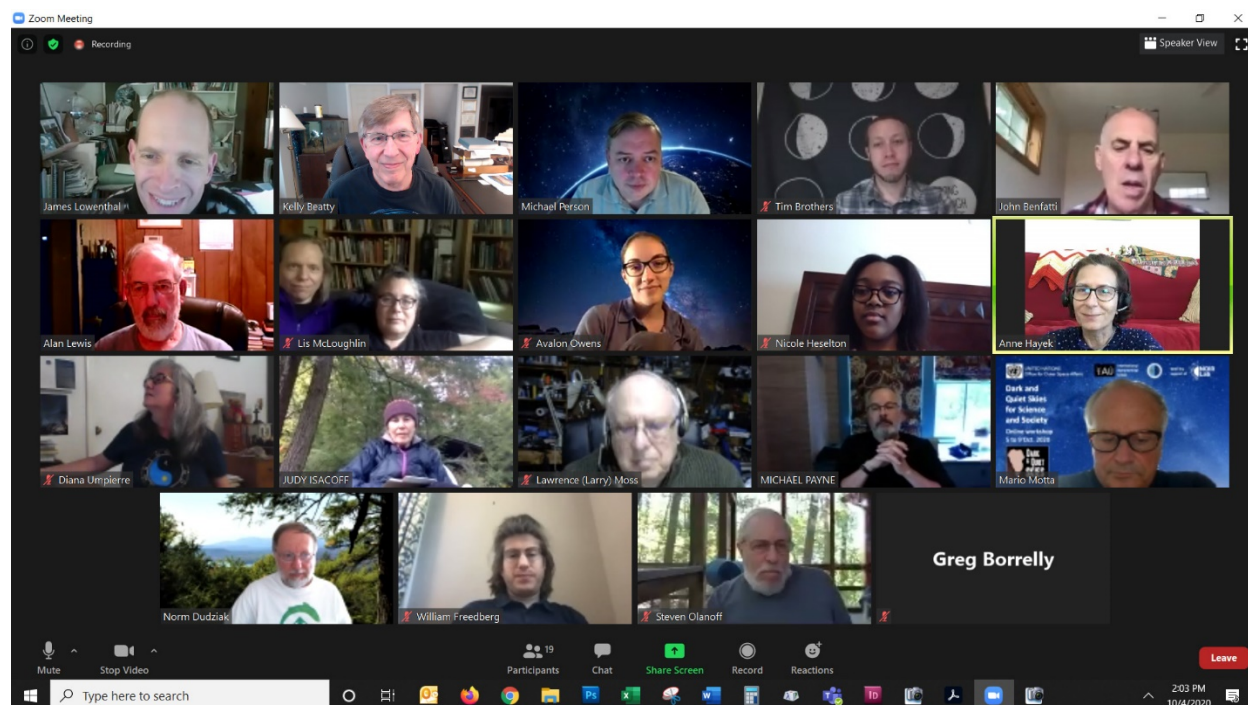
Chapter Membership

As of September 4, 2020, IDA had 165 current members in Massachusetts, an increase of 23 (14%) vs. 2019. All of these individuals are considered members of IDA-MA, whose officers occasionally send out emails to the entire list. Separately, we maintain a list-serv via Google Groups, which currently has 93 members, 9 of whom joined during 2020.

Although Massachusetts is a relatively small state, it has geographical “divisions” that do not routinely interact. So we have established ties with light-pollution activists with good geographical separation: Greater Boston, MetroWest Boston, North Shore, South Shore, western Massachusetts, and Cape Cod.

The chapter holds a monthly meeting via teleconferencing that is announced and open to all members of the Google Groups list.

IDA-MA Annual Meeting



Our third annual meeting, held virtually on October 4, 2020, drew roughly 40 chapter members from around Massachusetts and even from neighboring states. This was roughly twice the attendance of the 2019 (in-person) meeting. The meeting featured a strong set of speakers:

- Sen. Cynthia Creem, principal sponsor of the MA statewide dark-sky bill (pre-recorded video)
- Diana Umpierre, conservation activist, current IDA Board member, and past IDA president
"Growing a transformational movement for our night sky"
- Will Freedberg, Bird Conservation Program Assistant, Mass Audubon
"Fatal attraction: How light pollution skews migratory bird behavior"
- Avalon Owens, Ph.D. candidate in Biology at Tufts University
"Sex and synchronicity: Does artificial light at night disturb the courtship of *Photinus carolinus* fireflies?"
- James Lowenthal, IDA-MA's President, detailed the chapter's activities and future plans.

According to IDA ED Ruskin Hartley, one anonymous attendee of our virtual annual meeting was so enthusiastic about the important work being done to study and protect insects, migrating birds, and the night sky that s/he donated \$50,000 to IDA.

Key Activities in 2020

Statewide Legislation

One of two major initiatives in 2020 was advocating for statewide legislation co-authored by IDA-MA members Glenn Heinmiller, Kelly Beatty, and Mario Motta. If enacted, this bill will create the first statewide 3000K CCT maximum for state and municipal exterior-lighting installations. It would also require the Dept. of Public Utilities to establish rate tariffs for low-wattage streetlights and those with wireless-network control. Finally, it requires the Department of Transportation to adopt best practices for roadway lighting and to employ passive safety and wayfinding measures where appropriate.

Identical versions were submitted in the House and Senate, with a total of 26 co-sponsors; full text of the bill is available at <https://malegislature.gov/Bills/191/S1937>.

In February, the bill was “reported out” favorably by the legislature’s Joint Committee on Telecommunications, Utilities, and Energy. However, despite aggressive advocacy by both IDA-MA officers and our legislative sponsors, and perhaps compounded by the pandemic’s effect on legislative interactions and productivity, the bill remained stuck in the Senate Ways and Means Committee until the legislative session ended.

We have resubmitted the bill again for the 2021–22 legislative session.

Statewide Energy Code

A new initiative for 2020 was an effort to amend the state’s energy code to include dark-sky-friendly regulations on outdoor lighting. Modeling our effort after Leo Smith’s successful advocacy for amending the Connecticut energy code, IDA-MA officers submitted two proposed amendments for consideration by the Board of Building Regulations and Standards: “Limitations on Harmful Wavelengths from Exterior Lighting” and “Light-Pollution Controls.”

Both submissions drew strong opposition from the Illuminating Engineering Society (IES) and the International Association of Lighting Designers (IALD). Consequently, IDA-MA withdrew the proposals in order to work out compromise wording with both IES and IALD. One consequence of this sequence of events is that discussions about energy and lighting codes quickly escalated to become a higher-level discussion between Ruskin Hartley and John Barentine at IDA Tucson and senior staff at both IES and IALD. We hope the outcome of these ongoing discussions will be successful Massachusetts amendments that serve as a consensus template for amending energy and building codes across the U.S.

Massachusetts Department of Transportation

IDA-MA members engaged MassDOT officials concerning proposals to replace the lighting at two major interstate interchanges. The proposed lighting designs involved extensive use of high-mast lighting, which is favored by MassDOT field personnel but which creates vast amount of overspill beyond the roadbed and tremendous electricity waste.

IDA-MA’s involvement was especially influential on the lighting design for an interchange that directly abuts Blue Hills Reservation, an environmentally sensitive region that is the largest tract of conservation land in the Greater Boston area. Discussions with MassDOT are ongoing, and IDA-MA’s efforts have already resulted in the redesign of one of the interchanges to incorporate lower CCT illumination, shielding, and shorter light towers.

Stakeholder Engagement

IDA-MA made significant progress in engaging outdoor-lighting stakeholders. Chapter officers continue to work with the Massachusetts Municipal Association (mma.org), which represents municipal governments for the state’s 351 cities and towns, to promulgate “best practice” policies that were distributed to MMA’s membership in 2019; see <https://is.gd/XVO5G9>. We have also maintained close collaborations with the national office of the Appalachian Mountain Club and the Massachusetts chapter of the Sierra Club.

Individual IDA-MA members made dozens of presentations to various community groups and officials throughout the year. See Appendix B for a complete list.

Strategic Plan for 2021

IDA-MA's officers are working on a strategic plan for 2021 that aligns with IDA's organization-wide plan. Specific goals will include:

- passage of statewide lighting legislation
- aggressive engagement of local stakeholders, with IDA-MA representatives tasked for each:
 - Utilities
 - Department of Public Utilities
 - MassDOT
 - Green Communities / MassSave / Mass. Department of Energy Resources
 - Police Academy, Police Departments
 - Public, including demographics not well represented now
 - Developers
 - Cities, towns
 - Regional planning commissions
 - Environmental, public health, planning organizations
- creation of a more robust website (to replace <https://idamass.wordpress.com/>)
- establishment of fundraising activities that cover LLC costs and benefit IDA-MA initiatives
- coordinated involvement with municipalities to develop outdoor-lighting bylaws/ordinances
- scheduling of public events to showcase the night sky and create light-pollution awareness
- coordination of statewide effort to collect meaningful sky-quality measurements

Appendix A: IDA-MA 2020 Financial Report (summary)

| | | | |
|------------------------------|----------|----------|-----------------|
| 2020 Starting Balance | | | \$228.04 |
| | Credit | Debit | |
| Donations | \$475.00 | | |
| Expenses | | \$225.00 | |
| Fees | | \$5.85 | |
| 2020 Ending Balance | | | \$472.19 |

MA - IDA Donations Record

| | |
|--------------------|----------|
| Monetary donations | \$400.00 |
| In-kind donations | \$75.00 |

| Code | Amount | Type | Source | Comment |
|------|----------|---------|----------------|----------------|
| D1 | \$50.00 | PayPal | Leo Smith | For MACC Booth |
| D2 | \$25.00 | PayPal | Michael Person | For MACC Booth |
| D3 | \$35.00 | PayPal | Michael Deneen | For MACC Booth |
| D4 | \$50.00 | PayPal | Michael Ratner | For MACC Booth |
| D5 | \$75.00 | In Kind | Andy Anderson | For MACC Booth |
| D6 | \$40.00 | Check | Norman Dudziak | For MACC Booth |
| D7 | \$200.00 | Check | Clarissa Spawn | |

MA - IDA 2020 Expense Record

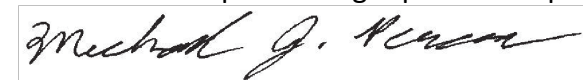
| Code | Amount | Receipt | Comment |
|------|----------|---------|-----------------------|
| E1 | \$225.00 | R1-2020 | MACC Conference Booth |

MA - IDA 2019 Fees Record

| Code | Amount | Type | Comment |
|------|--------|-------------|-----------------------|
| F1 | \$5.85 | PayPal fees | MACC Conference Booth |

Attestation

I attest that the proceeding report is complete and correct to the best of my knowledge:



Michael J. Person
Treasurer – IDA-MA
20 January 2021

Appendix B: Outreach and Presentations by IDA-MA Officers and Members

Andy Anderson

- staffed a table, with Leo Smith, at the [MACC Annual Environmental Conference](#)

Douglas Arion

- created Mountains of Stars program (remote astro sessions for middle schools) that includes dark skies presentation
- many public lectures with significant dark-sky component; total audience: 600 in 2020

Kelly Beatty:

- advocated for passage of state “dark-sky bill” (S.1937/H.2858)
- interviewed for Science@Home (Charles Fulco), also released on [“365 Days of Astronomy”](#)
- interceded for IDA-MA to oppose MassDOT lighting project at interstate interchange
- presented light-pollution overview during 7th annual “Stars Over Katadhin” event
- created content for and maintained IDA-MA website

Timothy Brothers:

- advocated for passage of state “dark-sky bill” (S.1937/H.2858)
- interviewed for “dark-sky bill” by [WBZ radio](#)
- produced Outdoor Lighting Bylaw in Pepperell, MA
- testified for amended energy code to Board of Building Regulations and Standards
- presented “Protecting Pepperell’s Night Sky
- presented light pollution’s impact on astronomy to MIT summer students
- presented Night Sky in Crisis
- presented talk on Light pollution / Driver safety to local Senior Center
- presented “Dark Skies” to CounterAct Climate Change

Anne Hayek:

- administered IDA-MA website

Lisa Loughlin:

- published an article about dark skies and wildlife health in *Montague Reporter*

James Lowenthal:

- UN/IAU/IAC Dark & Quiet Skies SOC and Chair, BioEnvironment Working Group
- AAS meeting #236 plenary talk + press conference on satellite large constellations
- Numerous (ca. 10) interviews with national and international radio, TV, print media about satellite large constellations and light pollution including Science Friday, BBC, NEPR.
- Co-authored article on protection of night sky from satellite constellations in *Nature Astronomy*
- Member, AAS ad-hoc task force on satellite large constellations, regular meetings with SpaceX
- Chair, International Dark-Sky Association Awards Committee
- Supported pending dark-sky state legislation: communication with state reps, environmental groups; Resolution from City of Northampton in support of Dark Sky bills
- Collaborated with Illuminating Engineering Society on building code and state legislation
- Led effort for State building energy code dark-sky amendment
- Taught about dark-skies science/advocacy in Astronomy and Public Policy class, Smith College

Mario Motta:

- participated in the UN and AAS sponsored "Dark and Quiet Skies" meeting

Gail Walker

- coordinated efforts for night-sky-friendly LED replacement of streetlights on Nantucket