Dear, Ms. Diana del Solar,

As an International Dark-sky Park (approved in 2011), Hortobágy National Park Directorate -as its managing agency- have the obligation of providing annual report from the Park’s activities. You can find our report about the year of 2018 (until now) below:

1. Public programs, interpretation
Until today we had 35 different programs (open air school programs, presentations, star-gazing tours, museums' night, workshops, observatory programs) for the public, dedicated to the Dark-sky Park. It is 75% increase comparing with the last year. Participants all together were about 1100 people. We shall have an estimated 8-10 more such programs (planned) this year.
We would like to raise from the programs the national final of the International Olympiad on Astronomy and Astrophysics which was held in Debrecen and one important topic was our Dark-sky Park.

2. Lighting
Within and surrounding the park our important goal is to reduce light pollution and prevent new disturbing sources. With our assistance the local government of Hortobágy village won an international project („ROHU” Conservation and protection of the cross border natural heritage of Bihar - Hajdú-Bihar counties) to replace the public lighting of the settlement to a new, dark-sky friendly system. The implementation of the project will be in 2019.
We have continued our efforts to reduce disturbing light sources. We contacted those stakeholders who have problematic lighting (in some cases with good results like with the Kunmadaras Agricultural Company). We have a very good relationship with the Environmental and Nature Protection Department of the county’s Government Office and we could achieve together to control new developments.

3. Public observatory
We operate a public observatory at Máta „Open air school”. It is accessible for the public and we use it for astronomical and environmental education programs.
Beside education and interpretation purposes it is also used by the Hungarian Amateur Astronomer Association’s members in regular basis (this year: Messier Marathon, visit of Erd Astronomical Club).

4. Camps
We had three camps where astronomy and dark-sky park was part of the curriculum: Camp of the Rónaörső Society at Görés Farm (July) and National Park children camps (July, August) in the Open Air School.
5. Other events
- We continued our cooperation with the Hajdú-Bihar County Government on the Night Light Interreg Europe Project. In this project regional authorities from the Netherlands, Hungary, Spain, Luxembourg, Denmark, Slovenia and Italy join forces to improve their regional policies for the prevention of light pollution, preservation of dark skies and the sustainable exploitation of dark sky places. The project introduces packages of regional policy measures for each of the partner regions that will result in a lasting reduction of light pollution, the designation of nature areas where dark skies are protected and the introduction of new services and facilities to attract eco-tourism to these dark sky areas. The project's website: https://www.interregeurope.eu/nightlight/. The project partners’ expert group visited Hajdú-Bihar County and had a peer-review program in last September. The group's report was published, we are sending it to you now as an attachment.
- According to the project a dark-sky expert and stakeholder group was formed with the leadership of the Hajdú-Bihar County Government. The group has had one meeting so far where we discussed the dark skies and light pollution issues of the county.
- In this year we took part in two other peer-review programs (in Italy and Luxemburg) – which also helped us to gather useful information and good examples to improve our work in managing our dark-sky park and getting new ideas for interpretation and astro-tourism too.
- We continued the visits of the operators of the main light pollution sources in the park and the surrounding area. We have had negotiations about the mitigation possibilities.
- We continued our „nighttime patrols” with the National Park’s ranger service. With our Luxmeter we measured the light level of different lighting fixtures.
- We submitted a proposal document for the UNESCO’s „Astronomy and World Heritage” thematic program (https://www3.astronomicalheritage.net/). Now we are waiting for the acceptance of the nomination. We will be part of the Outstanding Astronomical Heritage list as an important example of the living traditional knowledge of stars. We have been continuing to collect this heritage from shepherds, and we gave several presentations about this topic.

6. Public information
- The dark-sky park has a separate sub-site on the Hortobágy National Park's website: http://www.hnp.hu/csillaqpark which is regularly updated.
- We have continued the placement of new „dark-sky” signs to the borders of the park.

7. Reducing light pollution
- Creating the new spatial planning of Hajdú-Bihar County has been started this year. The dark-sky park’s interests will be considered in this plan.
- The State Secretariat of Environment has been started the procedure to create a buffer zone around Hortobágy National Park. One important restriction in the zone is refer to light pollution.
- The management plan of Hortobágy Natura 2000 site takes the dark-sky park’s interests in to consideration and has concrete regulations regarding to light pollution.

8. Monitoring
- A new comprehensive monitoring program is being prepared by a consortium of universities and the national parks. The program will start in the end of this year.

9. Other information
We manage the whole protected area of Hortobágy National Park (82000 hectares) as a dark-sky park. Our plan is to submit the whole area for the approval of the IDA.

Kind regards,

Dr. Kovács Zita Director