
ZOLTÁN KOLLÁTH

FOREWORD

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*“Two things fill the mind with ever new and increasing admiration and awe, the more often and longer the reflection occupies itself with it: the starry sky above me and the moral law within me.” Immanuel Kant
- Critique of Practical Reason*

There has been a tenfold increase in the number of scientific papers dealing with the harmful effects of artificial light at night (ALAN) during the last twenty years. Pubmed, the largest medical publication database returns above 150 papers per annum for the search phrase: ‘artificial light’. Similar trends are visible in the astronomical or ecological databases. Exposure to ALAN is associated with several disorders, including increased cancer incidence, metabolic disorders, and mood disorders. Light pollution is seriously affecting ecosystems. A recent paper states that we should treat artificial light like other forms of environmental pollution because its impact on the natural world has widened to the point of systemic disruption. Light pollution is a significant factor in the decline of insects, which strongly connects to reduced pollination. This is only one aspect of ALAN; we can continue the list of adverse effects on the environment caused by extensive lighting. The starry night sky’s pure spectacle has been inspirational to humanity, and this world cultural heritage should be protected.

Hungary has established a leading position in the development of dark sky parks and the research related to night sky quality measurement. Thus it was straightforward to extend the research project to different disciplines, which was helped by the cooperation of three universities and several national parks. Two major projects (GINOP 2.3.3 “Development of a measurement system based on digital cameras for international monitoring of light pollution and its biological effects” and EFOP 3.6.2 “Development of international research environment for light pollution studies”) have been helping the joint effort to save the night environment.

This volume provides a kaleidoscope of the traditional and newly established research topics connected to light pollution.

Előszó

A tudomány egyre több bizonyítékot talál a fényszennyezés környezetet és emberi egészséget érintő negatív hatásaira. Magyarország vezető szerepet vállalt a csillagoségbolt-parkok létrehozásában és az éjszakai égbolt minőségének mérésében. Az utóbbi években ezek a vizsgálatok egy szélesebb kutatási együttműködésben bontakoztak ki. A kötet ezekből a munkából kínál egy kaleidoszkópszerű összefoglalást.



Balaton highlands from Haláp hill at night. The Milky Way can still be seen easily, but several light beams spoil the sky. Many creatures are victims of light pollution.
Balaton felvidék a Haláp-hegyről éjszaka. A Tejút még szépen látszik, de számos fénypászma rontja az égbolt állapotát. Sok élőlény kárvallottja a fényszennyezésnek.