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THE EFFECT OF LED LIGHT SOURCES WITH DIFFERENT COLOUR TEMPERATURES FOR THE VEGETATIVE REGENERATION OF CRYPTOGAMIC PLANTS

Különböző színhőmérsékletű LED fényforrások hatása kriptogám növények vegetatív regenerációjára

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Our complex research is dealing with the effects of artificial light at night on living organisms. During the research we examine the ecological networks and basic responses like the time and duration of phenological and developmental stages of plants. In addition to the real light laboratories built in two villages near the protected areas comparative experiments have beeen started to compare LED light sources considering their effect on living organisms. One of these examinations is the paralell experiment in climate chambers Memmert 110 with different LED colour temperatures. The fragments of *Climacium dendroides* and *Hypnum cupressiforme* and water samples of Egerszalók thermal water was treated with different illumination time and colour temperatures.
The results show that samples derived from the same habitat have different growing and developing characterisctics and in some cases damage of the cells can be observed in plants. The fragments of bryophytes show different developing stages under the two colour temperatures. The yellow, warm light induce less damaging effect than the cool white LED light sources. The project was supported by the project „Developing international Research Environment in the area of Light pollution" EFOP 362-16-201700014.