

Carcasses important for plants and insects in the Oostvaardersplassen Nature Reserve

January 22 2020



A picture of the carcass of a red deer, found in the Oostvaardersplassen nature reserve. Credit: Dr. Roel van Klink

Allowing the carcasses of dead deer to remain in the Oostvaardersplassen Nature Reserve has a positive effect on biodiversity in the area. Not only do the carcasses attract many more insects and other arthropods in the short term, but also in the long term, due to increased plant growth. Plants located near animal carcasses became five times bigger than usual, leading to a surge in the number of plant-eating invertebrates on the plants and, therefore, also in the number of their predators.

This is the conclusion of a study published in *PLOS ONE* on 22 January, conducted by UG researcher Dr. Roel van Klink, which was conducted before the number of large grazers was drastically reduced in connection with updated nature management policy.

Taboo

"The fact that carcasses are important for scavengers was, of course, no surprise to me. But it was a surprise that, after five months, there was such an enormous effect due to [plant growth](#). The insects that live on these plants profit greatly from the carcasses," says Roel van Klink. These results provide another insight into the role of dead animals in ecosystems.

"People are becoming more accustomed to dead wood in Dutch forests, which leads to higher biodiversity. Dead animals in nature reserves, however, are still often taboo due to the commotion surrounding the Oostvaardersplassen nature reserve in 2018," explains Prof. Chris Smit, assistant professor at the Groningen Institute for Evolutionary Life Sciences at the UG. In the winter of 2017-2018, almost 3,300 deer, horses and cattle starved to death. This led to fierce debates in the Netherlands, as well as demonstrations and individuals feeding hay to the animals.

Legislation

Both researchers find this regrettable, considering the great value of carcasses for biodiversity and the functioning of ecosystems, even on very fertile ground such as that in the Oostvaardersplassen. Due to current legislation, the possibilities for allowing dead large grazers to remain are still limited in most nature areas. The researchers call for a relaxation of these regulations so that biodiversity in other [nature reserves](#) can also benefit.

More information: Roel van Klink, Jitske van Laar-Wiersma, Oscar Vorst, Christian Smit: Rewilding with large herbivores: Positive direct and delayed effects of carrion on plant and arthropod communities. *PLOS ONE* 22 January 2020 , [DOI: 10.1371/journal.pone.0226946](https://doi.org/10.1371/journal.pone.0226946)

Provided by University of Groningen

Citation: Carcasses important for plants and insects in the Oostvaardersplassen Nature Reserve (2020, January 22) retrieved 23 April 2024 from <https://phys.org/news/2020-01-carcasses-important-insects-oostvaardersplassen-nature.html>

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