Wild red deer contribute to the preservation of open landscapes

May 10 2019

In the open countryside, red deer find abundant food on the military training area Grafenwöhr. Credit: Marcus Meißner

Similar to farm animals such as cattle or sheep, wild red deer grazing in

open landscapes can also contribute to the conservation of protected habitats. This was demonstrated by a research team from the University of Göttingen and the Institute for Wildlife Biology of Göttingen and Dresden. The results were published in the *Journal of Applied Ecology*.

The interdisciplinary research team, which involved the Divisions of Grassland Science and Wildlife Sciences of the University of Göttingen, conducted research over a period of three years at the Grafenwöhr Training Area, an army training base, in Bavaria. "This area is home not only to numerous protected habitats and rare species, but also to a large population of free-ranging red deer," says Friederike Riesch, Ph.D. student in the Division of Grassland Science at the University of Göttingen and first author of the study. Since the animals are only hunted on a few days a year in the non-forested areas of the training area, they can use the grassland and heathland areas all day for foraging. The scientists recorded above-ground plant growth, forage quality and forage removal by red deer in protected grassland and heath habitats. The result: the proportion of plant growth eaten by wild red deer is comparable to that of extensive grazing by farm livestock.

Large and possibly inaccessible areas such as army training areas are enormously important and at the same time a challenge for nature conservation. Conventional methods for the conservation of protected open land habitats are often not possible under such conditions. Credit: Marcus Meißner

While the forage removal of the red deer was highest in spring in grassland, the heaths were grazed most intensively in winter. These different seasonal patterns fit well with the different grazing requirements of vegetation communities in grassland and heath and contribute to both habitat types benefiting from red deer. "Our results could give an impetus to adapt wildlife management—especially in large nature reserves—to enable red deer to use open landscapes all day for foraging," says Riesch. "In this way, a contribution can be made to the conservation of semi-natural open land habitats and at the same time the

risk of damage from red deer in commercial forests can be reduced," adds co-author Dr. Bettina Tonn, also from the Division of Grassland Science at the University of Göttingen.

On the Grafenwöhr Training Area, it is not uncommon for red deer to graze in large groups even during the day in the open landscape. Credit: Marcus Meißner

More information: Friederike Riesch et al, Grazing by wild red deer: Management options for the conservation of semi-natural open habitats, *Journal of Applied Ecology* (2019). DOI: 10.1111/1365-2664.13396