

Red deer have personality and it is related to their dominance behaviour

April 7 2021



Credit: University of Turku

An international team of researchers has studied individual differences in the behavior of red deer. They found that several observed behaviors form a personality component, which they labeled "Confidence/Aggressiveness."

As is commonly known, individual people behave consistently different

from each other and these kinds of consistent differences in behavior are called personality. Studies on species other than humans, from insects to elephants, have found that personalities are widespread in nature.

The team consists of researchers from the Czech University of Life Sciences Prague, the University of South Bohemia, Czech Republic, the University of Vienna, Austria, and the University of Turku, Finland and is led by Bruno Esattore from the Department of Ethology at the Institute of Animal Science in Prague. The team of researchers studied personality of red [deer](#) with a newly developed questionnaire, as well as observed their behaviors.

The researchers identified a single personality component related to Confidence/Aggressiveness. Interestingly, some of the behaviors making up this component were linked with dominance behavior in red deer. The study has just been published in *Behavioral Processes*.

"Many personality studies have focused on primates, rodents, birds, field crickets or fish. Despite of their well-studied biology and increasing popularity in the farming sector, the personality structure of one of Europe's most iconic mammals, the red deer, has until now been unknown," says the lead author of the study Bruno Esattore.

The personality data were collected by using a novel questionnaire for which experienced observers rated 15 behaviors on a scale from 1 to 5, with 1 meaning the deer shows this behavior "Almost never" and 5 meaning "Most of the time."

"We think it is extremely interesting that inter-[individual differences](#) which have been so far overlooked or even regarded as distracting are those that eventually make the difference when trying to identify the personality of these animals," says Doctoral Candidate Laura Saggiomo from the Faculty of Forestry and Wood Sciences of the Czech

University of Life Sciences Prague.

"These findings are exciting, but of course, they are not the final picture of how personality manifests in red deer," says Postdoctoral Researcher Vedrana Šlipogor from the Department of Zoology of the University of South Bohemia in Budweis, Czech Republic.

The team put lots of care into the making of the questionnaire, however, for a majority of the 15 behaviors the observers did not agree very well on their ratings of the deer.

"This was an unexpected result and shows that we have to be careful with our behavioral descriptions and to consider observer perceptions when using questionnaire ratings of animal behavior for scientific studies," Šlipogor says.

The team then linked these findings with observations of the dominance interactions of the male deer in their bachelor groups.

"We found no relationship between deer's dominance and personality, but dominance was related to some of the rated behaviors, showing our [personality](#) questionnaire captured some biologically meaningful variation," says Bruno Esattore.

Studies on animals kept in zoos or different facilities or farms have shown that knowing the individual characteristics or personalities of animals can help to implement the best strategy in guaranteeing their welfare.

"Personality has not been largely considered in welfare management decisions, but lately it is receiving more and more attention. We believe that studies like ours can help to add to the improvement of animal management and welfare," concludes Martin Seltmann from the

Department of Biology at the University of Turku.

More information: Bruno Esattore et al. "How not to judge a deer by its cover": A personality assessment study on captive adult red deer males (*Cervus elaphus*), *Behavioural Processes* (2021). [DOI: 10.1016/j.beproc.2021.104361](https://doi.org/10.1016/j.beproc.2021.104361)

Provided by University of Turku

Citation: Red deer have personality and it is related to their dominance behaviour (2021, April 7) retrieved 27 April 2024 from <https://phys.org/news/2021-04-red-deer-personality-dominance-behaviour.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.