

Pressemitteilung

Forschungsinstitut für Nutztierbiologie (FBN)

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Research at FBN becomes cover story in Science Magazine

Farm animals surprise scientists with their complex abilities How empathic are farm animals and what are they capable of cognitively? Research findings in behavioral physiology at the Research Institute of Farm Animal Biology (FBN) have already attracted a lot of attention in the past. Now the "Science" journalist David Grimm has visited and published an article about behavioral research at the FBN.

The Research Institute for Farm Animal Biology (FBN) in Dummerstorf has caused a stir in the international scientific community: the renowned "Science" magazine reports on the institute's behavioral research in the cover story of its current issue. The report "What are farm animals thinking? New research is revealing surprising complexity in the minds of goats, pigs, and other livestock" highlights research into the cognitive abilities and emotional and social intelligence of goats, cows and pigs. On five pages, the renowned science journalist David Grimm summarizes the impressions of his two-day visit to Dummerstorf and provides insights into the ongoing research at the FBN and its significance for livestock husbandry.

We work with different conceptual approaches," says Prof. Birger Puppe, Head of the Institute of Behavioral Physiology at the FBN and Professor of Behavioral Science at the Faculty of Agricultural and Environmental Sciences at the University of Rostock. "We have found that farm animals can feel emotions such as joy, fear and even empathy. Their cognitive abilities are much more pronounced than we previously imagined."

Helping pigs and clever goats impress "Science" journalist

David Grimm was also interested in this still little-noticed field of livestock research. The US science journalist, who had already reported on the "cow toilet" at the FBN in 2021, chose behavioral research at the FBN as the topic of his report for "Science". He spent two days researching the topic on site in September 2023. Grimm had the opportunity to experience the animals up close and learn how smart and interactive farm animals can be. Grimm was impressed by the diverse experimental approaches and expertise of the institute. "The visit to the FBN was a great experience," says Grimm. "It was exciting to see how committed the scientists are to their work and how enthusiastically they can communicate their results."

Among other things, David Grimm witnessed pigs helping fellow pigs in distress and freeing them. The scientific publication on this subject by FBN scientist Dr. Liza Moscovice attracted a great deal of international attention in the summer and also fascinated David Grimm during his visit. The topic of "Cow friends - friendships between cows" also had a lasting effect on Grimm. Annkatrin Pahl, who is doing her doctorate on this topic at the FBN, explained the concept behind her work, which aims to show that cows form friendly bonds with other cows and that "friendship" has a positive effect on animal welfare.

David Grimm spent part of his visit in the goat barn, where Dr. Christian Nawroth and Dr. Jan Langbein presented him with the learning computers used in cognitive research for goats and a project to demonstrate altruistic behavior in dwarf goats. In the experiment, goats helped conspecifics to obtain food, even if they had no chance of eating the food themselves.

Findings change the way we think about livestock

The fact that the FBN has become a cover story in Science Magazine underlines the importance of the institute's research work. "The international recognition and interest in the FBN's studies illustrates that the complex cognitive abilities of farm animals are increasingly being recognized," says Dr. Christian Nawroth, who conducts research on African Dwarf Goats at the FBN.

"In recent decades, we have mainly focused on the productivity and efficiency of farm animals," says FBN behavioral biologist Dr. Jan Langbein. "But we also need to consider their mental and emotional abilities. We are proud that our research is being recognized internationally and is helping to drive these important changes in human attitudes towards farm animals."

"The research findings of the FBN and other groups working in this field are increasingly challenging the traditional image of farm animals as less demanding, cognitively and emotionally simple animals and show that cattle, pigs and goats, for example, have amazingly complex emotional and cognitive abilities. These new findings also have enormous implications for questions of animal welfare and animal protection as well as species-appropriate husbandry. We are extremely pleased to be on the cover of "Science" magazine and this confirms our work," summarizes Prof. Birger Puppe, Head of the Institute of Behavioural Physiology.

The article is accompanied by a podcast that vividly summarizes Davis Grimm's visit with many original recordings. The FBN plans to investigate the results of the studies in greater depth in follow-up projects and to examine the impact of their research on various areas of livestock farming.

"Science" Magazine:

Science Magazine is one of the most renowned journals in the field of natural sciences and covers a wide range of topics from physics and biology to chemistry, medical research and environmental sciences. The magazine's online and offline publications reach several million readers worldwide.

Original publication

"What are farm animals thinking? New research is revealing surprising complexity in the minds of goats, pigs, and other livestock"; Science Vol. 382, Issue 6675, pages 1103-1107

Publication date: 8.12.2023

<https://www.science.org/content/article/not-dumb-creatures-livestock-surprise-scientists-their-complex-emotional-minds>

Podcast on the article:

<https://www.science.org/content/podcast/farm-animals-show-their-smarts-and-how-honeyguide-birds-lead-humans-hives>

Illustration:

The cover of "Science" magazine with the lead article about research at FBN

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Photo:

A dwarf goat stands in front of the learning computer at the FBN

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