

Contact:
Nele Breitzkreutz (she/her)
nbreitzkreutz@ecology.uni-kiel.de
+49 431 880 4013
www.landscape-ecology.uni-kiel.de



Internship offer: Biodiversity loss and insect decline – What role do anthelmintics play in pasture systems?

Ref. Code: Kiel_BI_BI_0818

Background

In recent decades, a massive decline in insect numbers and diversity in many ecosystems, including agricultural landscapes, has been observed. This is an issue, as insects are an essential part of many ecosystems and perform crucial ecosystem services for us humans. These ecosystem services include pollination, pest control, nutrient cycling and many more. Among the many factors contributing to the insect decline are habitat loss, climate change and the use of chemicals in agriculture.

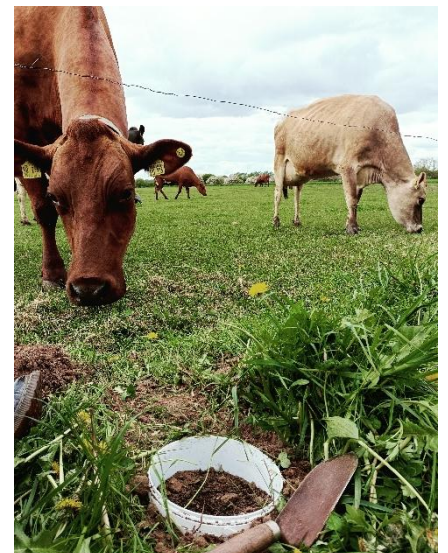
Similar to other insect groups, dung living insects face multiple challenges. The decline of pasture-based livestock farming reduces both their habitat and food resources, while the widespread use of chemicals, such as anthelmintics, on the remaining pastures harms the insects additionally. Anthelmintics are medicines used to control endoparasites, such as worms. After treatment, they are excreted in large quantities by the treated animals via manure and urine, entering the pasture environment. Numerous studies have shown that the use of anthelmintics in grazing animals has a negative impact on the diversity of fauna and flora in pastures. The active ingredients can harm plants and animals, especially dung living insects such as dung beetles.



Our research project

Our project focuses on anthelmintics in cattle farming and how it affects dung living beetles. We investigate their development, the effect on their microbiome and a potential attraction of the beetles to anthelmintics. An additional experimental part examines the effect of anthelmintics on seed germination of grassland plants.

Your task will be to either conduct your own small experiment or assist in other experiments within the project. The experiments will mostly be field-based, but there will be some lab work and the opportunity to improve your insect identifying skills as well. Due to the practical character of the project, it will not be possible to conduct it virtually.



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The research group

We are the Landscape Ecology group at the Institute for Natural Resource Conservation at the Faculty of Agricultural and Nutritional Sciences at Kiel University. We research how land use and landscape structure influence biodiversity of plants and animals as well as ecosystem processes, functions and services in agroecosystems. Depending on your interest, it will also be possible to get an insight into one of the various other projects within the working group. Our team consists of around 12 people plus several student research assistants and students writing their thesis within the working group. We have weekly working group meetings and occasionally do social activities together.

About Kiel

Kiel is the capital of the northernmost German federal state, Schleswig-Holstein. It has around 250,000 inhabitants of which 26,000 are students. Kiel is located at the Baltic Sea and you can reach one of the many beaches by bus or ferry or simply take a dip in the harbor. The surrounding area offers many possibilities for outdoor activities and the center has plenty of cafes, bars and restaurants. Kiel is known for the *Kieler Woche*, a big sailing event with many festivities, concerts and events, which happens annually in June.



DAAD Rise internship – General Information

RISE Germany offers summer research internships in Germany for undergraduate students from North America, Ireland and UK. In their internships, students are carefully matched with doctoral students and researchers (only from universities of applied sciences, UAS) – whom they assist and who serve as their mentors. Interns receive a monthly stipend to cover every day costs. About 300 scholarships are available each year. RISE Germany is supported by the Federal Foreign Office and by many partners.

RISE Germany internships were first offered in 2005 to applicants from the United States and Canada, with the program extended to the United Kingdom in 2009 and Ireland in 2018. Our objective remains to promote student exchange to Germany in the fields of natural science, engineering and life sciences, and to motivate undergraduate students to learn more about Germany's research landscape and study opportunities.

Who can apply?

To apply for an internship placement for summer 2026 you must:

- be currently enrolled at a university/college in the United States, Canada, the UK or Ireland as undergraduate student in the field of biology, chemistry, computer science, physics, earth sciences or engineering (or a closely related field)
- be an undergraduate who will have completed at least 2 years of a degree program by the time of the internship placement
- prove that you will maintain undergraduate status after the internship has taken place

What does the scholarship include?

You will receive a monthly scholarship of 992 Euros for full month. The amount is calculated on a daily basis if you stay less than 23 days a month. DAAD provides health insurance, accident and personal liability insurance. All interns are invited to the three-day RISE Germany meeting in Heidelberg at the beginning of July and will receive an allowance of 160 Euros for travel to the meeting. The scholarship also covers international travel costs with an international travel subsidy.

For Canadian applicants: We work closely with the Canadian organisation Mitacs and their Globalink Research Internship program. Mitacs offers up to 100 positions for successful matched candidates in the RISE Germany program. Those 100 receive a combined scholarship from Mitacs and DAAD:

- Mitacs provides funding to support the student's travel costs and living expenses
- Health, accident, and liability insurance provided by the DAAD

Internship duration

You can start your internship between May 15 and July 15, 2026 for a duration of three months (minimum stay ten weeks, maximum stay 90 days). Generally speaking the start dates in the internship offers are meant as a timeframe. They are somewhat flexible and would be determined between you and your internship provider. Get in touch with the internship provider if you have questions about the dates.

How to apply?

The application is submitted completely online through the RISE database. If you are interested in participating, the first step for you is to register and to login to access the internship database. Then fill in the online application form and upload all necessary documents. Please check the list of application documents you must submit at the Application portal. The internship database is open between October 15 to November 30, 2025.

More information and the application portal can be found under this link:

<https://www.daad.de/rise/en/rise-germany/about-the-program/>