



# Universiteit Leiden

## *Draining the Swamp*

Wetlands, Insects, and Landscape Transformation in Europe, 1300-1600

### Applicants

Supervisor Name	Discipline
Dr. C.V. Weeda	Institute for History, Europe 1000 - 1800
Dr. J.M. Müller	Leiden University Centre for the Arts in Society

### Project description

A habitat for about 40% of all animal and plant species, wetlands are crucial for global biodiversity.<sup>1</sup> This is particularly so for insects, which make up the vast majority of categorized animal species and form the pillar of our ecosystems.<sup>2</sup> However, wetlands are currently one of the most threatened ecosystems in the world, raising calls for their protection.<sup>3</sup> This includes historical contextualisation of the current crises in biodiversity. In late medieval Europe, communities endeavoured to drain wetlands and control insect populations, engaging scientific theory that made statements about their harmfulness. This project explores the programs to eradicate insects in wetlands in the well-documented North Sea region between 1300 and 1600, and situates them in the wider context of cultural imagination and then dominant scientific theories of spontaneous generation.<sup>4</sup>

*Draining the Swamp* takes a three-tiered approach. First, it looks at scholarly discourse about insects' harmful qualities. Since Greek antiquity, scholars theorized that insects and rodents (*vermin*) emerged as a result of spontaneous generation (rather than sexual procreation) from rotting matter. In encyclopaedias, plague tracts, and manuals for agriculture and water management from the 1300s onwards, this theory identified marshes and stagnant pools as sites where harmful creatures came into life.<sup>5</sup> These were dangerous places that needed to be managed, notably during outbreaks of plague and other epidemic disease (coming from *mal aria* as a result of corrupt matter), as many ordinances attest.<sup>6</sup> At the same time a moralized negative attitude towards insects had evolved. How this moralized perspective runs through tropes about swamps and wetlands as spaces of corruption in the cultural imagination, in chronicles, deliberations and pamphlets, is the second question this project addresses. In dialogue, this research aims to shed light on how discourse was translated into programs of drainage or management of wetlands during this period.<sup>7</sup>

<sup>1</sup> United Nations 2023

<sup>2</sup> Stork 2018

<sup>3</sup> Sánchez-Bayo and Wyckhuys 2019

<sup>4</sup> Harris 2002

<sup>5</sup> Hemmpelmann & Krafts 2013, Reilly 2021

<sup>6</sup> Weeda forthcoming

<sup>7</sup> Hemmpelmann & Krafts 2013

### Research Trainee Profile

The research trainees will identify relevant secondary literature using established heuristic tools for further developing the *status quaestionis* about insect management in the period 1300-1600 across disciplines. In conjunction, they will be tasked with selecting a range of primary sources suitable for further development of the main research questions and formulating arguments for their representability. The students will train their skills in applying abstract concepts when selecting and analysing selected sources in the design of the research proposal and short article. The students will need heuristic and hermeneutic skills pertaining to historical sources, some of which are in the Dutch language. In addition, communication and organizational skills will be trained in setting up the workshop. Students in the MA and ResMa program are eligible to apply.

### Collaboration

This research project stems from a collaboration between two institutes at Leiden University, namely the Institute for History represented by Dr. Claire Weeda, whose main fields of interest include environmental public health and religious-cultural practices across Europe, and the Leiden University Centre for the Arts in Society (LUCAS) represented by Dr. Johannes Müller, who specialises in cultural and environmental history and memory studies. As such, the project address the topic from cultural, literary as well as medical and religious perspectives.

This research traineeship programme aims to take an interdisciplinary approach to the discipline of environmental history. Examining the relationship between ‘vermin’ and humans, this project embodies a new look on the history of environmental change, biodiversity and landscape degradation. Whereas the research proposal (deliverable 1) and short article (deliverable 2) will be executed by an historian and a cultural analyst, the workshop (deliverable 3) will bring together scientists working in biology (entomology), archaeology and landscape ecology to share approaches on (loss of) biodiversity from an historical and current perspectives.

### Deliverables

This project intends to result in a research proposal for a future research project (deliverable 1), a short article (deliverable 2) and an interdisciplinary workshop (deliverable 3). The workshop will be embedded in the *Environmental Humanities LU* initiative, building upon the 2023 workshop that explored biodiversity and animal extinction. The workshop will revolve around how the interactions between humans and insects influenced and directed human actions relating to environmental change and landscape degradation in premodern Europe and current research on loss of biodiversity in wetlands. The research proposal will focus on the ideas about the interactions between humans and vermin/insects and how this moved authorities to devise practices and methods that altered their environment. The research results will be presented in an article for the journal *Arcadia: Explorations in Environmental History*, which publishes short (650-850 words) case studies in Environmental History. The trainees will also have the opportunity to present their work at the symposium Environmental History in the Medieval and Early Modern Low Countries on 25 October 2024, organized by the Research School for Medieval Studies at Leiden University, which embodies a collaboration between the Research school and scholars of environmental history within both the Netherlands and Belgium.

## Planning

### *Month 1 – 2 (February – March 2024)*

- Workout preliminary lay-out of project: divide and organise tasks.
- Read literature and research source material.
- Discuss possible research methods.
- Formulate research questions.
- Contact possible participants workshop and begin organization.

### *Month 3 – 4 (April – May 2024)*

- Read literature and research source material.
- Research sources and begin writing proposal.
- Organize workshop at Leiden.

### *Month 5 – 6 (June – July 2024)*

- Finalize research proposal.
- Organise workshop at Leiden.
- Write short article.

### *Month 7 (August 2024)*

- Finalize article
- Evaluate

## Student Application

Please email the following in one PDF file to Dr. C.V. Weeda, e-mail: [c.v.weeda@hum.leidenuniv.nl](mailto:c.v.weeda@hum.leidenuniv.nl)

- CV detailing the students' academic background
- Motivation letter (max. 1 page)

## Bibliography

Curtis, D. R., & Campopiano, M. (2014). Medieval land reclamation and the creation of new societies:

Comparing Holland and the Po Valley, c. 800–c. 1500. *Journal of Historical Geography*, 44, 93-108.

Harris, H. (2002). *Things Come to Life: Spontaneous Generation Revisited* (Oxford).

Hempelmann, E., & Krafts, K. (2013). Bad air, amulets and mosquitoes: 2,000 years of changing perspectives on malaria. *Malaria journal*, 12, 1-14.

Reilly, B. (2021). Seasons in Italy: Northern European travelers, Rome, and malaria. *Journal of Tourism and Cultural Change*, 19 (1), 59-78.

Sánchez-Bayo F. and K. Wyckhuys (2019) Worldwide decline of the entomofauna: A review of its drivers. *Biological Conservation*, 232, 8-27.

Stork, N. E. (2018). How many species of insects and other terrestrial arthropods are there on Earth?. *Annual review of entomology*, 63, 31-45.

Weeda, C. (forthcoming). Pestilential Insects and Public Health in Europe, c. 1100-1600: Prescriptions, Practices and Programs. *Dynamic Balances: Public Health in the Premodern World*, ed. G. Geltner, J. Coomans and R. Yoeli-Tlalim (Oxford)

United Nations, World Wetlands Day (2023) <https://www.un.org/en/observances/world-wetlands-day>  
(consulted on 5 October 2023)