FACULTY OF ARTS AND PHILOSOPHY

DEPARTMENT OF HISTORY

Contact: Paulien.Daelman@UGent.be

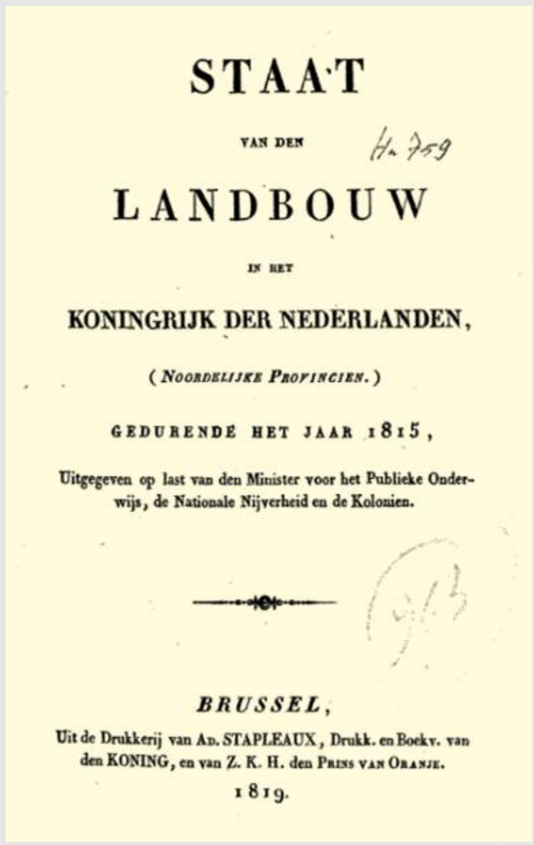
Paulien Daelman

Supervisors: Thijs Lambrecht and Christophe Verbruggen

(DE)CONSTRUCTING VERMIN: INTERACTIONS BETWEEN AGRI-CULTURE AND WILDLIFE IN THE LOW COUNTRIES (1780-1840)

Introduction

This research examines the vulnerability of agricultural regions in the Low Countries to animals causing damage to livestock and crops from 1780 to 1840. The study questions which factors influenced animal occurrences in diverse regions and differentiates between geographical, climatic, socio-economic and control aspects that shaped animal occurrences in different areas. It analyses the historical relationship between humans and wild animals—mammals, birds, insects—in pre-industrial rural communities. During this period, the region faced food production pressures, including rising prices and climatic anomalies (e.g., 'the year without summer' in 1816). The research aims to illuminate how rural communities responded to crop and livestock damage caused by animals under these challenging conditions while contributing to fields of environmental history, animal studies and agricultural history. The research is structured into three main objectives:



STAAT

VAN DEN

LANDBOUW

IN HET

KONINGRIJK DER NEDERLANDEN,

(*Noordelijke Provincien.*)

GEDURENDE HET JAAR 1815,

Uitgegeven op last van den Minister voor het Publieke Onderwijs, de Nationale Nijverheid en de Kolonien.

BRUSSEL,

Uit de Drukkerij van Ad. STAPLEAUX, Drukk. en Boekv. van den KONING, en van Z. K. H. den Prins van Oranje.

1819.

Staat van den Landbouw in het Koningrijk der Nederlanden, 1815. Brussel: Ad. Stapleaux: 1819.

Van Baarsel and son, Map of the Kingdom the Netherlands and the Grand Duchy of Luxembourg, 1815.

Nozeman and Sepp, *Nederlandsche vogelen* (1770-1829).

Research Objectives

Document the geographical and chronological distribution of crop damage

Create a dynamic atlas of crop damage, detailing which animals caused damage, what crops and livestock were affected and when and where this damage occurred. The data reveal recurring damage and regional hotspots of crop and livestock vulnerability.

Analyse the determinants of vulnerability to crop damage

Identify factors that influenced regional and temporal susceptibility to crop damage.

- **Ecological and geographic features**: Soil type, land use and water availability, all shaping habitat conditions.
- **Climate**: Examining how weather and climate variations influenced animal populations and damage.
- **Agricultural practices:** Crop choices and agricultural methods that may have influenced exposure to animal-induced damage.
- **Rural socio-economic structures:** The role of farm size and social factors in shaping pest exposure and control responses.

Study the pest control strategies adopted by rural populations and governments

Document the methods rural communities used to manage and mitigate crop damage caused by wild animals.

- **Pest control techniques:** Examining physical, locally adapted pest control methods used before the widespread use of chemical pesticides, such as hand removal, selective flooding or using natural predators.
- **Pest control structures:** Investigating both government-led initiatives (e.g., bounties, destruction mandates) and community-based actions (e.g., sparrow clubs).

Methodology

The research combines multiple historical sources, creating a robust dataset for the spatial analysis of animal-related crop damage and control efforts. Key sources include:

- The ***Staat van den landbouw*** (1806-1828), which provides systematic, year-by-year reports on crop yields, prices, damage assessments, and pest control measures.
- **Agricultural surveys, regional statistical descriptions and geo-graphical dictionaries** (e.g., *Code rural, Dictionnaire geographique*).
- **Agronomic, economic and natural history publications** produced in the Low Countries between 1750-1850.
- **The archives of the départements and provinces** in the Low Countries to delve more deeply into the regulatory structures of animal control.
- **Pre-existing published data** on soil conditions, climate, agrarian production and socio-economic structures.

Significance

This research delves into a largely overlooked facet of pre-industrial agriculture: the persistent challenges posed by various wildlife species that threatened crop and livestock productivity, prior to the advent of chemical pesticides. It provides a nuanced understanding of the dynamic relationship between rural communities and wildlife during times of resource scarcity and environmental challenges. Through innovative analysis using historical GIS and an environmentally integrated perspective, the research captures the effects of diverse landscapes and socio-economic factors on crop and livestock damage. This will underline the resilience and adaptability of communities responding to ecological and economic stressors. By doing this, the research highlights the dynamic interplay between wildlife, environmental conditions and local farming systems.

GHENT UNIVERSITY

fwo