**Appendix:** Follow the format shown in the following pages for the components of your thesis, paying particular attention to the advice in red boxes. *The sample abstract, table of contents, list of tables, introduction, works cited list, and appendix shown below were developed using ChatGPT 3.5* 

For the title page, customize material that appears in brackets. Reproduce exactly

all text that is <u>not</u> in brackets.

[Thesis Title]

A thesis title is typically presented using initial capital letters.

by

For example:
"Etymologies and Entomologies:
Unraveling the Threads of Language and
Ecology."

[Your Full Name]

## A thesis submitted in partial fulfillment of the requirements for the degree of

For Faculties without departments, use the Faculty name instead. Such cases include:

- Faculty of Business
- Faculty of Kinesiology, Sport and Recreation
- Faculty of Law
- Faculty of Native Studies
- Faculty of Nursing
- Faculty of Pharmacy and Pharmaceutical Sciences
- Faculty of Rehabilitation Medicine
- Faculté Saint-Jean
- School of Public Health

# **Exceptions:**

For Neuroscience, list only "Neuroscience" after the degree program:

- Master of Science Neuroscience University of Alberta
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<u>For Medical Sciences</u>, complete the title page as follows:

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in

[Official Description of Specialization]

Department of [Name]

List your degree and specialization as shown in Bear Tracks (Academics>My Academics>Graduation. If there is no specialization, do not include "in... [Official Description of Specialization]" after the name of your degree. Note that Master is not plural nor is there a possessive 's'.

# University of Alberta

#### Common mistakes:

- Author's name does not match what is listed in Bear Tracks (check both places: below the title and in the copyright statement at the bottom of the title page).
- Inclusion of a page number on the title page. The title page is the only page of a thesis that does not include a page number (although it still counts as page i for the purpose of numbering subsequent pages).

© [Author's Full Name, year]

Enter the year your thesis was <u>submitted</u> to GPS.

Abstract

Headings for thesis components can be centred or justified left, as shown. Be consistent throughout the thesis.

"Etymologies and Entomologies" presents an interdisciplinary exploration into the intersections of language and ecology, probing the etymological origins of insect-related terms alongside the ecological significance of these fascinating creatures. This thesis embarks on a journey through linguistic history and ecological dynamics to illuminate the interconnectedness of human culture and the natural world.

Paragraph breaks in an abstract are optional. Follow the norms of your discipline/program.

Drawing upon methodologies from linguistics, entomology, cultural studies, and environmental science, the study delves into the etymology of insect-related terms, tracing their linguistic evolution across time and cultures. By unraveling the semantic layers embedded within these words, the thesis unveils the cultural attitudes, scientific perceptions, and historical narratives that have shaped our understanding of insects.

Simultaneously, the thesis explores the ecological roles and significance of insects within ecosystems, investigating their functions as pollinators, predators, and indicators of environmental health. Through interdisciplinary lenses, the study examines the intricate web of interactions between insects and their habitats, shedding light on the ecological services they provide and the challenges they face in the modern world.

forget:
your
abstract
is the
only part
of your
thesis
that
must be
double
spaced.

Don't

By synthesizing insights from diverse disciplines, "Etymologies and Entomologies" offers a holistic perspective on the relationships between language and ecology. Ultimately, this interdisciplinary thesis enriches our understanding of the intricate tapestry of life, inviting us to contemplate the profound connections between language, culture, and the environment.

Common mistake: incorrect page number. The abstract should always be on page ii. The location of page numbers should be consistent on every page for the rest of the thesis.

Depending on the characteristics of your thesis, your preface may need to include some combination of the elements in models 1-5 below. If the first five models below do not apply to your thesis, your preface should resemble model 6.

## Preface

Model 1: acknowledge research ethics approval.

This thesis is an original work by Alex Lee. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board 3, Project Name "Etymologies and Entomologies: Unraveling the Threads of Language and Ecology," No. 12345, January 15, 2022.

## Preface

Model 2: acknowledge collaborative work, chapter by chapter.

Some of the research conducted for this thesis forms part of an international research collaboration, led by Professor T. Raivio at the University of Hogwarts, with Professor S. Agrawal being the lead collaborator at the University of Alberta. The technical apparatus referred to in chapter 3 was designed by myself, with the assistance of Professor A. Shiri and Professor C. Ayranci. The data analysis in chapter 4 and concluding analysis in chapter 5 are my own work, as well as the literature review in chapter 2.

Model 3: acknowledge in detail any use of previously published material in your Preface thesis, including co-authorship.

Chapter 2 of this thesis has been published as A.D. Lee, C. Ayranci, and S. Persad, "Unraveling Entomologies," Journal of Scientific Affairs, vol. 165, issue 3, 459-475. I was responsible for the data collection and analysis as well as the manuscript composition. C. Ayranci assisted with the data collection and contributed to manuscript edits. S. Persad was the supervisory author and was involved with concept formation and manuscript composition.

Model 4: acknowledge any use of AI in your research or writing. You must comply with any additional disclosure requirements (e.g., a statement in your methodology section) of your program or faculty.

### **Preface**

The generative artificial intelligence application or Large Language Model ChatGPT 3.5 was used for data analysis, summarization, synthesis, and simulation in chapter three of this thesis, as well as to generate a preliminary draft of the literature review in chapter one.

Model 5: acknowledge any competitive funding you received to support your project. Check whether your funding agencies have established standards for how they wish to be acknowledged.

### **Preface**

This work was supported by a Doctoral Fellowship from the Social Sciences and Humanities Research Council, a grant from the Entomological Association of Edmonton, and the National Scholarship Council of Narnia.

# Preface

Model 6: follow this model if none of the five above models apply to your thesis.

This thesis is an original work by Alex Lee. No part of this thesis has been previously published.

Optional items like a dedication and acknowledgements will follow your mandatory preface, if you choose to include them. Format these items in a manner consistent with the pages shown in this document. Each should appear on a separate page.

## **Table of Contents**

This Table of Contents shows 2 levels of subheadings. Use up to 4 levels, as appropriate to your project. Don't forget to include here any optional components that are included in your thesis.

Add here any other

lists included in your thesis (figures, videos, sound files, etc.)

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Use "Bibliography" or "References" in place of "Works Cited" if appropriate for your project or discipline.

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Number items sequentially as they appear in your thesis and in a consistent style: either 1, 2, 3, etc. or with chapter numbers (1.1, 1.2, 2.1, etc.).

If your thesis includes more than one list of non-textual elements:

- All lists must be formatted as shown here.
- Lists can appear in any order as long as their order of appearance in the thesis matches the Table of Contents.
- Each list must begin on a separate page.

### Introduction

All headings must match your Table of Contents.

### **Background and Rationale**

In the intricate tapestry of human existence, language and ecology emerge as fundamental threads interwoven across millennia. "Etymologies and Entomologies: Unraveling the Threads of Language and Ecology" embarks on a journey of exploration at the nexus of these two seemingly disparate realms, illuminating the profound connections and synergies that underpin their interplay. Language, the cornerstone of human communication and culture, mirrors our perceptions, values, and relationships with the natural world. Concurrently, ecology, the study of the interrelationships between organisms and their environments, shapes and is shaped by the linguistic landscapes in which it is embedded. This dissertation delves into the depths of linguistic and ecological realms, probing the intricacies of their interactions and elucidating the profound implications of their symbiosis for human societies and the ecosystems they inhabit.

At the heart of this interdisciplinary exploration lies an acknowledgment of the profound influence each domain exerts upon the other. Language, with its capacity to encode and transmit knowledge, reflects humanity's evolving understanding of the natural world. Through etymological analysis, we trace the historical trajectories of words, unveiling the cultural narratives embedded within linguistic roots. Concurrently, entomology offers a lens through which to perceive the intricate dynamics of ecosystems, where insects serve as both indicators and architects of environmental health. By bridging the realms of language and ecology, this dissertation endeavors to unravel the nuanced interdependencies between human linguistic practices and ecological phenomena, shedding light on the intricate tapestry of life on Earth. Moreover, this interdisciplinary inquiry seeks to transcend conventional disciplinary boundaries, recognizing the limitations of siloed approaches in comprehending the complexity of humanenvironment interactions. By synthesizing insights from linguistics, ecology, anthropology, and beyond, this dissertation endeavors to construct a holistic framework that illuminates the multifaceted relationships between language and ecology. We aim to elucidate the ways in which language both reflects and shapes our perceptions of the natural world, influencing patterns of resource use, environmental governance, and conservation practices. By fostering dialogue across diverse fields of inquiry, this study aspires to inspire new avenues of research and action aimed at fostering sustainable relationships between human societies and the ecosystems they inhabit.

Don't forget: starting with page 1 of the body of the thesis, pages are numbered with Arabic numerals.

- Paper- and chapter-based theses must include a comprehensive bibliography, containing all works cited, at the end of your thesis but before any appendices, even if each chapter/paper has its own references list.
- The PDF/A file accompanying a digital, artistic, performance-based, and mixed-format theses must include a comprehensive bibliography of all sources used in their preparation if no other part of the thesis (e.g. a website) includes such a list.

### **Works Cited**

- Adams, David P. Nectar of Narratives: Symbolic Representations of Flowers in Language and Ecology. Amsterdam: EcoFlora Publications, 2024.
- Andersson, Sofia E. "The Butterfly Effect: Linguistic Dynamics of Butterfly Conservation Discourse." Journal of EcoSemiotics 9, no. 3 (2023): 175-192.
- Chang, Wei Ming. "Ants in Anthropocene: Examining Cultural Perceptions of Ants through L inguistic Analysis." International Journal of EntomoLinguistics 5, no. 1 (2024): 17-32.
- Chen, Ying H. Winged Words: Exploring Bird-related Metaphors in Ecological Discourse. Beijing: EcoAvian Press, 2022.
- Dubois, Pierre M. "Flight of Words: Exploring Insect Migration Patterns through Linguistic Constructs." Journal of EcoLinquistics 6, no. 4 (2022): 289-304.
- Fischer, Anna K. Winged Whispers: Cultural Connotations of Birds in Ecological Language. Vienna: EcoAvian Publications, 2022.
- García, Juanita C. "Honeybees and Human Language: A Cross-Cultural Analysis of Bee-related Idioms." Language and Ecology Journal 8, no. 4 (2023): 321-337.
- Garcia, María L. Flight Patterns: Linguistic Analyses of Avian Ecology and Language Usage. Madrid: EcoAvian Books, 2024.
- Johnson, Jacob W. Insectarium of Ideas: Exploring Linguistic Diversity in Ecological Thought. Toronto: EcoCultural Publications, 2023.
- Johnson, Michael R. "Roots and Routes: Exploring the Origins of Ecological Terminology in Linguistic Evolution." *Ecology and Language Quarterly* 7, no. 2 (2022): 112-129.
- Kim, Ji-hyeon. "Silk and Syntax: Unraveling the Linguistic Fabric of Insect-related Idioms." Ecological Discourse Quarterly 14, no. 3 (2024): 180-197.
- Kim, Min-jun. The Language of Leaves: Botanical Terms and Ecological Insights. Seoul: EcoFlora Books, 2024.
- Kowalski, Anna S. SwarmSpeak: The Collective Language of Insect Societies and Its Implications for Human Ecology. Warsaw: InsectaLore Press, 2022.

- Martinez, María E. *Fluttering Phrases: The Poetry of Butterfly Names and Ecological Imagery*.

  Buenos Aires: EcoVerse Books, 2024.
- Müller, Hans D. *The Lexicon of Leaves: Exploring Botanical Language and Ecological Understanding*. Berlin: EcoFlora Press, 2022.
- Nguyen, Minh T. *Metamorphosis in Meaning: Language Evolution and Ecological Change.*Hanoi: EcoLexis Books, 2023.
- Park, Min-ji. BeeTalk: The Language of Honeybees and Its Influence on Human Ecological Perception. Seoul: InsectaLingua Books, 2023.
- Patel, Sarah H. "EntomoLinguistics: Decoding the Communication Patterns of Insects through Linguistic Analysis." *Journal of Insect Communication Studies* 15, no. 3 (2024): 201-218.
- Rodriguez, María J. *Flight Patterns: A Comparative Study of Bird Migration and Linguistic Diversity*. Madrid: EcoAvian Press, 2023.
- Russo, Giovanni F. *Web of Words: Spiders in Linguistic Constructs of Eco*logy. Rome: EcoArachno Publications, 2023.
- Smith, Emily K. "Buzzing Words: A Linguistic Analysis of Insect Metaphors in Ecological Discourse." *Journal of Ecological Linguistics* 10, no. 1 (2023): 45-63.
- Smith, Jack R. *Roots and Rhymes: Exploring Plant-based Language in Ecological Narratives*. London: EcoPhyto Press, 2022.
- Santos, Maria C. *From Crawl to Call: Insect Phonology and Linguistic Structures*. Lisbon: EcoPhonetics Publications, 2024.
- Thompson, Oliver L. "Metamorphosis in Meaning: Linguistic Evolution in Ecological Contexts." *Journal of Ecological Semantics* 12, no. 2 (2022): 88-105.

### **Appendix A: List of Insect Metaphors**

Ants in your pants Bee's knees Bee-line Beehive of activity Bugging someone Bug-eyed (surprised) Busy as a bee Buzzing with excitement Crawling like ants Crawling with people Cricket (quiet person) Drone (unproductive person) Earwigging (eavesdropping) Flea market Flea-bitten (worn out) A fly in the ointment A fly on the wall A hornet's nest (a source of trouble) A moth to a flame Nest egg Nesting instincts Social butterfly Spiders in the web (scheming people) Spider senses (intuition) A moth to the flame (attracted to danger) Worker bee Web of lies Worming your way out

> Make sure any optional appendices are numbered sequentially with your works cited list/bibliography.