



# Insect Histories: Bugs that Made the Modern World

Dr. Tomás Bartoletti tomas.bartoletti@gmw.gess.ethz.ch

# Abstract

The seminar explores insects as historical actors and their diverse interactions with human societies over time and space. It offers an overview of recent approaches in environmental history and multispecies ethnography while providing an analytical framework to understand global processes of natural resource exploitation, knowledge formation, and imperialism.

# Learning objective

The objective is to analyze human-insect interactions by identifying key historical factors (economic, scientific, political). Students will integrate current frameworks in the study of environmental history through the combination of primary sources and interdisciplinary research. They will develop skills rooted in their interest in insects and learn to translate them into feedback to peers.

# **Content**

Scholars typically approach Nature-related histories by focusing on environmental change, the commodification of resources, and the legacy of natural history collections. Examples of this approach include studies on deforestation, dam constructions, the rubber boom, and the colonial history of European museums and collections. In contrast to these commonly explored topics, insects are often underrepresented in historical research, both as living creatures and metaphors. Addressing this gap, the seminar explores human-insect interactions from a global historical perspective between 1600 and 2000. This exploration encompasses a critical and relational understanding of the history of the scientific study of insects (entomology) and the processes of imperial expansion and global territorialization. To achieve this, students will learn how human-insect interactions led to radical transformations in diverse environments, reflecting a particular modern conception of nature influenced by control anxieties related to economic profit and tropical diseases. Moreover, students will examine how ways of knowing about insects and the environment were influenced by broader correlated economic and imperial factors. Focusing on insect (hi)stories, the aim of this seminar is to apply new methodologies for nonhuman agencies and source analysis on both micro and macro scales in global and environmental histories.



18 Sept	Welcome, Introduction, Organization
	Onaga, Lisa, and Dominik Huenniger. 2024. 'Introduction: Expanded Perspectives on Tiny Animals as Epistemic Agents'. <i>Isis</i> 115(1): 126–30. https://doi.org/10.1086/728965
25 Sept	THEORIES & CONCEPTS I Multispecies Histories A
	O'Gorman, Emily, and Andrea Gaynor. 2020. 'More-Than-Human Histories'. <i>Environmental History</i> 25(4): 711–35. <a href="https://doi.org/10.1093/envhis/emaa027">https://doi.org/10.1093/envhis/emaa027</a>
	Paul S. 2007. 'Nature's Agents or Agents of Empire?: Entomological Workers and Environmental Change during the Construction of the Panama Canal'. <i>Isis</i> 98(4): 724–54. https://doi.org/10.1086/529265
2.0-4	THEORIES & CONCEPTS II
2 Oct	Storytelling
	Raffles, Hugh. 2011. <i>Insectopedia</i> . New York: Vintage Books. ( <b>Selection</b> )
9 Oct	THEORIES & CONCEPTS III Multispecies Histories B
	Haraway, Donna. 2015. 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin'. <i>Environmental Humanities</i> 6(1): 159–65. <a href="https://doi.org/10.1215/22011919-3615934">https://doi.org/10.1215/22011919-3615934</a>
	Coen, Deborah R. 2021. 'The Experimental Multispecies Household'. <i>Historical Studies in the Natural Sciences</i> 51(3): 330–78. <a href="https://doi.org/10.1525/hsns.2021.51.3.330">https://doi.org/10.1525/hsns.2021.51.3.330</a>
16 Oct	HISTORICAL PERSPECTIVES I Global Entomologies
	Melillo, E. D. 2014. 'Global Entomologies: Insects, Empires, and the "Synthetic Age" in World History'. <i>Past &amp; Present</i> 223(1): 233–70. <a href="http://www.jstor.org/stable/24545157">http://www.jstor.org/stable/24545157</a> .
	Mavhunga, Clapperton Chakanetsa. 2024. 'Zvipukanana: "Tiny Animals with No Bones"'. <i>Isis</i> 115(1): 141–46. <a href="https://doi.org/10.1086/728885">https://doi.org/10.1086/728885</a>
23 Oct	INSECT ETHNOGRAPHIES I ETHZ Collection
	Huenniger, Dominik, Karina Lucas Silva-Brandão, Christian Reiß, and Xiaoya Zhan. 2024. 'A Collection Ecologies Forum: Reevaluating Insects as Archives'. <i>Isis</i> 115(1): 157–63. <a href="https://doi.org/10.1086/728895">https://doi.org/10.1086/728895</a>
	Van Dooren, Thom, Eben Kirksey, and Ursula Münster. 2016. 'Multispecies Studies: Cultivating Arts of Attentiveness'. <i>Environmental Humanities</i> 8(1): 1–23. <a href="https://doi.org/10.1215/22011919-3527695">https://doi.org/10.1215/22011919-3527695</a>



30 Oct

## HISTORICAL PERSPECTIVES II

# **Insects and Agriculture**

Wang, Jessica. 2019. 'Plants, Insects, and the Biological Management of American Empire: Tropical Agriculture in Early Twentieth-Century Hawai'i'. *History and Technology* 35(3): 203–36. https://doi.org/10.1080/07341512.2019.1680143

Chao, Sophie. 2021. 'The Beetle or the Bug? Multispecies Politics in a West Papuan Oil Palm Plantation'. *American Anthropologist* 123(3): 476–89. https://doi.org/10.1111/aman.13592

6 Nov

#### HISTORICAL PERSPECTIVES III

#### **Insects and Diseases**

Beisel, Uli, Ann H. Kelly, and Noémi Tousignant. 2013. 'Knowing Insects: Hosts, Vectors and Companions of Science'. *Science as Culture* 22(1): 1–15. https://doi.org/10.1080/09505431.2013.776367

Beisel, Uli, and Carsten Wergin. 2021. 'Understanding Multispecies Mobilities'. In *Mosquitopia*, London: Routledge, 32–46. https://doi.org/10.4324/9781003056034-4

Reis-Castro, Luísa. 2021. 'Becoming Without: Making Transgenic Mosquitoes and Disease Control in Brazil'. *Environmental Humanities* 13(2): 323–47. https://doi.org/10.1215/22011919-9320178

13 Nov

## **INSECT ETHNOGRAPHIES II**

Invasive Species. Date changes to 12 Nov.

Elton, Charles S. 2020. *The Ecology of Invasions by Animals and Plants*. Cham: Springer International Publishing. <a href="https://doi.org/10.1007/978-3-030-34721-5">https://doi.org/10.1007/978-3-030-34721-5</a>

Ritvo, Harriet. 2017. 'Invasion/Invasive'. *Environmental Humanities* 9(1): 171–74. https://doi.org/10.1215/22011919-3829190

Davis, Mark A., Matthew K. Chew, Richard J. Hobbs, Ariel E. Lugo, John J. Ewel, Geerat J. Vermeij, James H. Brown, et al. 2011. 'Don't Judge Species on Their Origins'. *Nature* 474(7350): 153–54. https://doi.org/10.1038/474153a

20 Nov

#### No meeting )

Date changes to XX Nov.

27 Nov

# **HISTORICAL PERSPECTIVES IV**

4 Dec

**Insecticides: From DTT to Silent Spring** 

Dunlap, Thomas R., ed. 2008. *DDT, Silent Spring, and the Rise of Environmentalism*: Classic Texts. Seattle: University of Washington Press.

Davis, Frederick Rowe. 2019. 'Pesticides and the Perils of Synecdoche in the History of Science and Environmental History'. *History of Science* 57(4): 469–92. <a href="https://doi.org/10.1177/0073275319848964">https://doi.org/10.1177/0073275319848964</a>



	INSECT ETHNOGRAPHIES II
11 Dec	Agriculture

Shanahan, Maggie. 2022. 'Honey Bees and Industrial Agriculture: What Researchers Are Missing, and Why It's a Problem' ed. Hongmei Li-Byarlay. Journal of Insect Science 22(1): 14. <a href="https://doi.org/10.1093/jisesa/ieab090">https://doi.org/10.1093/jisesa/ieab090</a>

Phillips, Catherine. 2014. 'Following Beekeeping: More-than-Human Practice in Agrifood'. Journal of Rural Studies 36: 149–59. https://doi.org/10.1016/j.jrurstud.2014.06.013

18 Dec

**Final Discussion**