

# ***Mosquitopia? The Place of Pests in a Healthy World***

(A Rachel Carson Legacy Symposium)  
24-27 October 2019, Landshut (Munich)

**Venue:** Michel Hotel Landshut

Papiererstraße 2, 84034 Landshut

-> 30 minutes by train from Munich Airport; departures to Landshut Bay at :28 of each hour

-> 10 minutes by bus #1 or #2 from Landshut train stn to Michel Landshut Hotel at *Christuskirche* stop

## **PROGRAM**

### **Thursday, Oct. 24**

17:30-19:00 *“Could we, Should we? Ridding ourselves of mosquitoes forever”*

A Joint Keynote by:

- **Nancy Leys Stepan**, medical historian, Columbia University  
*Author of *Eradication: Ridding the World of Diseases Forever**
- **Willem Takken**, medical entomologist, Wageningen University  
*Author of *Ecology of parasite-vector interactions**

Remarks: **Christof Mauch**, environmental humanist, Rachel Carson Center

Remarks: **Audience**

19:00 -20:30 DINNER, Michel Hotel Landshut

### **Friday, Oct. 25**

7:00-8:00 BREAKFAST

8:30-10:00 *Welcome: What we want to accomplish*

- **Marcus Hall**, environmental historian, Rachel Carson Center / University of Zurich  
*Controlling & Eradicating mosquitoes: a few Pros and a few Cons*
- **Kenneth Vernick**, insect vector geneticist, Horizon2020 INFRAVEC2 / Institute Pasteur, Paris  
*Mosquitoes and public health*
- **Samer Angelone**, filmmaker & scientist, Zurich  
*Making better mosquito films*

10:00-10:30 COFFEE

10:30-12:00 Ecologies and physiologies

- **Uli Beisel**, medical and human geographer, University of Bayreuth  
*Disappearance, Invasion and Resistance: Trajectories of Insect Control and Loss in Ghana and Germany*
- **Isabelle Dusfour**, medical entomologist, Pasteur Institute, Paris  
*How could we rethink control of arboviral diseases?*
- **Frédéric Simard**, disease ecologist, IRD Montpellier  
*Mosquitoes Controlling Mosquitoes*

12:00-13:15 LUNCH at Michel Hotel Landshut

13:15-14:45 Mosquito Lessons

- **James Webb**, health historian, Colby College  
*Historical Ecology and Mosquito Control*
- **Luísa Reis-Castro**, anthropologist of science, MIT  
*Placing Mosquitoes as Pests: the many *Aedes aegypti* in Brazil*
- **Peter Coates**, environmental historian, University of Bristol  
*Just a troublesome nuisance?*

14:45-15:15 COFFEE

15:15-16:00 Economics and Institutions

- **Alex Nading**, anthropologist, Brown University

*Eradication against Ambivalence*

- **Adriana Ford**, socio-ecosystems scientist, Imperial College London

*Local perceptions towards mosquitoes and mosquito risk in English wetlands*

16:00-18:00 Mobile Workshop: Castles and Vector-Borne Disease

18:00-19:30 DINNER downtown: **Hofreiter Restaurant**

20:00-21:30 Mosquitoes in our wetlands: Next to God or next to Satan?

- **Frances Hawkes**, medical entomologist, University of Greenwich

*Introduction to WetlandLIFE*

- **Helmut Lemke**, and **Kelly Morrison**, environmental artists, WetlandLIFE, UK

*Itching for Understanding*

- **Youtube**, Mosquitoes in the Media

21:30- *Zum Insel Biergarten* (near Michel Landshut Hotel)

Saturday, Oct. 26

7:00-8:00 BREAKFAST

8:30-10:00 *Genetic modification & the experience of mosquito control*

- **Christoph Boete**, evolutionary biologist, University of Montpellier

*Gene drive and the extinction of mosquitoes: Between hype and reality*

- **Ramya Rajagopalan**, bioethicist, University California San Diego

*Gene drives, designer mosquitoes, and the networked "nature" of interspecies relationships*

- **Romeo Bellini**, medical entomologist, CAA Bologna

*Mosquito elimination? We may start from restoration.*

10:00-10:30 COFFEE

10:30-12:00 Human perspectives of mosquito control

- **Eva Veronesi**, medical entomologist, University of Zurich

*Vectors without borders: the importance of communication and networking for a global vector control*

- **Melissa Graboyes**, medical ethicist and historian, University of Oregon

*Remembering Malaria Elimination Failures in Zanzibar, 1920-2019: Arguments Against Mosquito Eradication*

- **Anna Wienhues**, environmental ethicist, University of Zurich

*Environmental Ethics and Disease-carrying Mosquitos: Between a Rock and a Hard Place*

12:00-13:15 LUNCH at Michel Hotel Landshut

13:15-15:00 Strategies for disease control

- **Frances Hawkes**, medical entomologist, University of Greenwich

*'Know your enemy and know yourself and you can win a hundred battles'*

- **Andreas Rose**, Biogents AG, Regensburg, Germany

*Creating a better mosquito trap*

Remarks: Willem Takken

Remarks: Nancy Leys Stepan

15:00-18:00 Mobile Workshop & COFFEE Downtown: Crafting guidelines for a Mosquitopia

Visit **Residenz Museum** (closes at 16:00)

18:00-19:30 DINNER downtown: **Rauchen Steiner Restaurant**

20:00-21:30 Interviews and Filming: Working Groups

*Controlling and killing mosquitoes:*

Dreams of Eradication, Pesticide Resistance, Planned Extinction, Molecular Solutions

*Conserving and preserving mosquitoes:*

Pests as Endangered Species, The Promise of Biocontrol, Integrated Pest Management, Health Sufficiency

Sunday, Oct. 27 (note change to daylight saving!)

7:00-8:00 BREAKFAST

8:00-9:15 Conclusion: Developing a book and a film.

9:15 Departure: Bus #2 from Michel Hotel to Landshut train station at 9:34

Train from Landshut to Munich Airport, departing 9:57 and arriving airport 10:32

or, departing 10:57 and arriving airport 11:32.

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**Speakers and their topics**

**Conveners**

- Marcus Hall, environmental historian, Rachel Carson Center/University of Zurich
- Dan Tamir, political/environmental historian, University of Zurich/Ben-Gurion University

**Samer Angelone** (filmmaker and wildlife biologist, Zurich) is devising ways to put our symposium discussions into a short film. We would like to go beyond the documentary model of projecting talking heads.

**Uli Beisel** (medical and human geographer, University of Bayreuth) will contrast the challenges of dealing with insecticide tolerant mosquitoes in Ghana with reports of dramatic insect die-off in Europe where there are also advancing invasive mosquitoes.

**Romeo Bellini** (medical entomologist, CAA Bologna) may focus on *Aedes aegypti*, and the potential effects of successful gene drive killing techniques. What may be the effects on ecosystems?

**Clara Bermúdez-Tamayo** (health economist, Andalusian School of Public Health) will explore the pros and cons of Integrated Vector Management (IVM) that accounts for social and economic realities or promoting mosquito control rather than eradication.

**Christoph Boete** (evolutionary biologist, University of Montpellier) will attempt a balanced discussion of the pros and cons of gene drive technology, and the potential to eliminate selected mosquito species.

**Peter Coates** (environmental historian, University of Bristol) focuses on British cases of attempting to control mosquitoes as purveyors of nuisance rather than of disease. Can people learn to live with 'ecosystem disservices' of these insects?

**Isabelle Dusfour** (medical entomologist, Pasteur Inst., Paris) will offer a summary of the pros and cons of various types of mosquito control, especially by taking into account her experiences in French Guiana.

**Adriana Ford** (socio-ecosystems scientist, Imperial College London) reports on attitudes of various users of English wetlands, and their range of views about its most infamous winged inhabitant.

**Melissa Graboyes** (medical ethicist and historian, University of Oregon) will complicate the quest to control mosquitoes with a case study from Zanzibar that shows dangerous experiences with rebound malaria following temporary vector elimination programs.

**Marcus Hall** (environmental historian, Rachel Carson Center / University of Zurich) is co-convenor of our symposium who hopes to offer bridges between the many mosquitopian arguments stemming in part from his research about Sardinia's post-war *Anopheles* eradication campaign.

**Frances Hawkes** (medical entomologist, University of Greenwich) will present her views as a 'conflicted' entomologist, stuck between the brutal reality of the impact mosquito-borne diseases have on people and an awe at the mosquito's biology and place in the ecosystem

**Helmut Lemke** (environmental artist, U.K.) will report on his experiences with the WetlandLIFE Project, U.K.

**Christof Mauch** (environmental humanist & historian, Rachel Carson Center, Munich) will help convene the meeting and offer perspectives from the humanities.

**Kelly Morrison**, (environmental artist, U.K.) will report on her experiences with the WetlandLIFE Project, U.K.

**Alex Nading** (anthropologist, Brown University) asks if mosquito eradication programs may interfere with beneficial side-effects associated with disease management, with a focus on Central America.

**Ramya Rajagopalan** (bioethicist, UC San Diego) will argue that laboratory-designed mosquitoes may present real threats to ecosystems upon which humans depend.

**Luísa Reis-Castro** (anthropologist of science, MIT) will show that, in the case of Brazil, mosquito control schemes were heavily dependent on cultural contexts in which they were carried out, sometimes with surprising and even negative consequences.

**Frédéric Simard** (disease ecologist, IRD Montpellier) will discuss the project of mosquitoes controlling mosquitoes

**Nancy Leys Stepan** (medical historian, Columbia University) will follow in the footsteps of the great mosquito eradicator, Fred Soper, to offer several cautionary and illuminating tales.

**Willem Takken** (disease ecologist, University of Wageningen) will review the non-chemical methods of controlling mosquitoes

**Dan Tamir** (political & environmental historian, University of Zurich) is a co-convenor of the symposium who will offer insights from his work about global history from a mosquito eradicator's perspective.

**Kenneth Vernick** (insect vector geneticist, Institute Pasteur, Paris) will ask what contributions non-biologists can make toward ostensibly scientific and technological projects aimed especially at mosquito (and other arthropod) control? He will also discuss the political economy of vector research and control.

**Eva Veronesi** (medical entomologist, University of Zurich) will explore how communication is key to successful vector control, as well as how communication may promote disease control through non-vector strategies.

**James Webb** (health historian, Colby College ) will highlight what appear to have been key ecological changes stemming from earlier mosquito campaigns, and how we might judge those changes today.

**Anna Wienhues** (environmental ethicist, University of Zurich) will argue that as we set out to defend ourselves from mosquitoes, we must also acknowledge animal rights, for example, since mosquitoes are not pathogens, but merely carriers of pathogens.