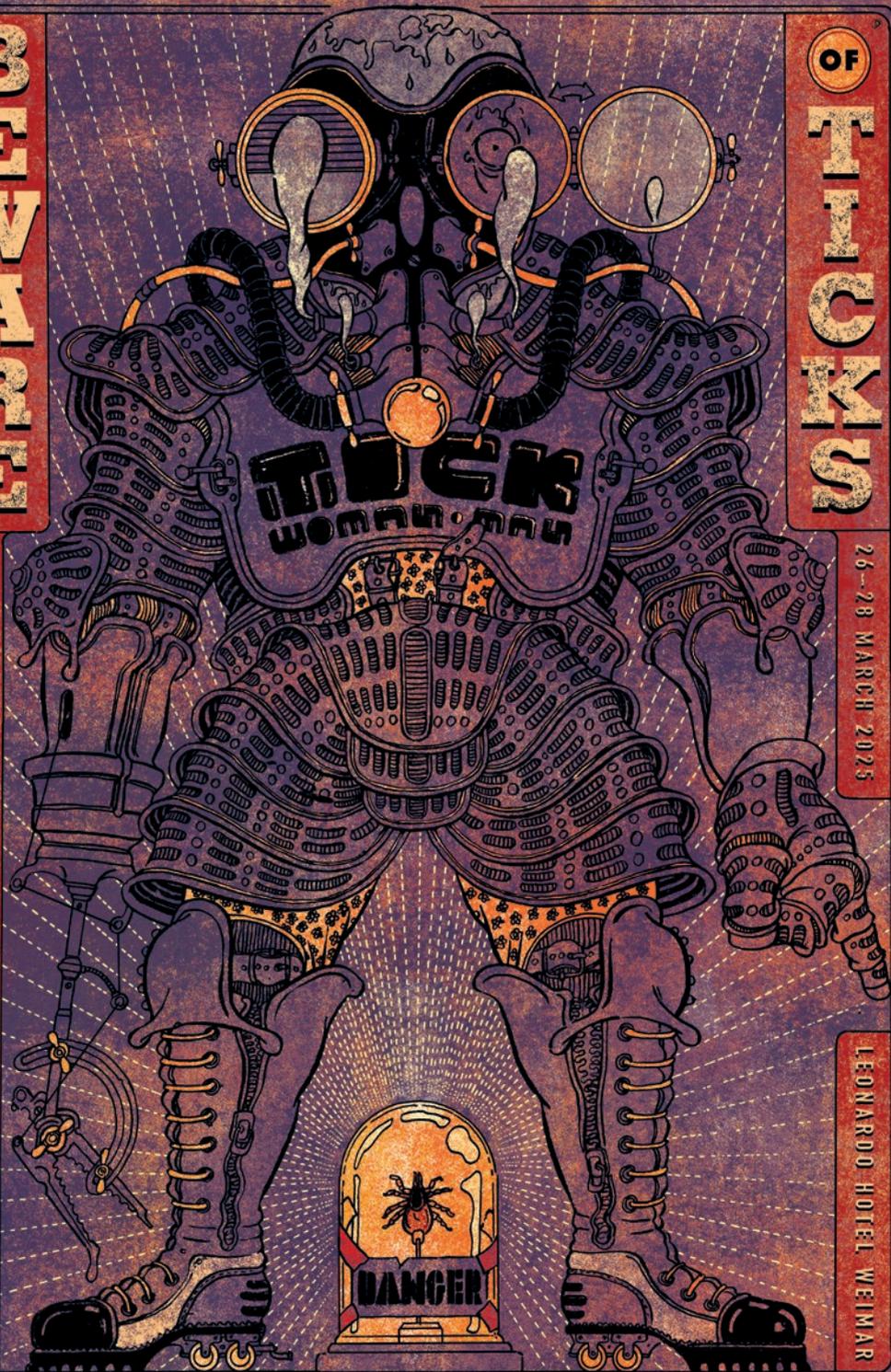


**B  
E  
W  
A  
R  
E**

XVII INTERNATIONAL SYMPOSIUM ON TICKS AND TICK-BORNE DISEASES



**OF  
T  
I  
C  
K  
S**

26-28 MARCH 2025

LEONARDO HOTEL WEIMAR

# 25 years

**Congresses that connect.**

**conventus**  
CONGRESSMANAGEMENT

[conventus.de](https://conventus.de)



Organisation and imprint .....	4
Welcome note .....	5
Programme overview .....	6
Scientific programme	
Wednesday, 26 March .....	7
Thursday, 27 March .....	11
Friday, 28 March .....	18
Poster presentations	
Thursday, 27 March .....	22
Friday, 28 March .....	28
Sponsors and exhibitors .....	35
Floor Plan .....	36
Social and cultural programme .....	37
General information .....	38
General information for online participation .....	41
Index of authors and chairs .....	42
Abstracts .....	44

DESIGN/LAYOUT ISTTBD-XVI

Layout	Conventus Congressmanagement und Marketing GmbH
Print	printworld.com GmbH   Messering 5   01067 Dresden
Editorial Deadline	10 March 2025



## ISTTBD-XVI ORGANIZATION AND IMPRINT

### Date

26–28 March 2025

### Conference website

[www.ittbd-symposium.com](http://www.ittbd-symposium.com)

### Hybrid symposia

[www.ittbd-symposium-digital.com](http://www.ittbd-symposium-digital.com)

### Conference chairs

**Prof. Dr. Ard Nijhof**

Freie Universität Berlin

Institute for Parasitology and Tropical Veterinary Medicine

Co-Editor-in-Chief of Ticks and Tick-borne Diseases (Berlin/DE)

**Dr. Olaf Kahl**

tick-radar GmbH

Managing Editor of Ticks and Tick-borne Diseases (Berlin/DE)

**Prof. (a.D.) Dr. Jochen Süß**

BREHMS WELT – Tiere und Menschen

Former-Editor-in-Chief of Ticks and Tick-borne Diseases (Renthendorf/DE)

### Scientific committee

Gerhard Dobler (Bundeswehr Institute of Microbiology)

Ute Mackenstedt (Universität Hohenheim)

Cornelia Silaghi (Friedrich-Loeffler-Institut)

### Professional congress organiser

Conventus Congressmanagement & Marketing GmbH

Claus Winkler

[ticks-symposium@conventus.de](mailto:ticks-symposium@conventus.de)

[www.conventus.de](http://www.conventus.de)





PP 092

Temporal changes in tick-borne pathogens prevalence observed in questing *Ixodes ricinus* (Linnaeus, 1758) across different habitat types in north-eastern Italian Alps

*G. Ferrari*<sup>1,2</sup>, *F. Rosso*<sup>1</sup>, *V. Tagliapietra*<sup>1,2</sup>, *T. Weil*<sup>1</sup>, *G. Marini*<sup>1</sup>, *F. Dagostin*<sup>1</sup>, *D. Arnoldi*<sup>1</sup>, *M. Girardi*<sup>1</sup>, *A. Rizzoli*<sup>1,2</sup>

<sup>1</sup>Fondazione Edmund Mach, San Michele all'Adige, Italy

<sup>2</sup>National Biodiversity Future Center, Palermo, Italy

Changes in land use, climate, and host community lead to increased complexity in eco-epidemiological relationships and zoonotic emergence. This study investigates the changes in the prevalence of *Ixodes ricinus*-transmitted pathogens in questing ticks over a 10-year interval in natural and agricultural habitats of the Autonomous Province of Trento (North-eastern Alps).

We investigated three study sites classified as natural and agricultural by collecting questing ticks in 2011-2013, 2020 by tick-dragging along 100 m transects. The collected ticks were morphologically identified, while bacteria and protozoa were detected using PCR-based methods combined with sequencing. We investigated the effect of habitat type, tick stage and year on the proportion of infected ticks by using Generalized Linear Models (GLMs) and Two Proportion Z-test.

In total 2652 ticks belonging to *I. ricinus* were collected and analysed. We found an overall prevalence of 27.1% in the study area, referred to *Borrelia* spp. (21.1%), *Rickettsia* spp. (8.4%) *Anaplasma phagocytophilum* (1.6%) and *Babesia* spp. (0.4%). We reported the circulation of 11 different zoonotic pathogen species, with varying infection rates across different years and habitats. In 2020, *A. phagocytophilum*, associated with agricultural habitats decreased, while *Babesia* spp. was found in all habitats. Among *Borrelia burgdorferi* s.l. complex, only *B. burgdorferi* s.s. and *B. lusitaniae* showed significant relationships in natural habitats, increasing in 2020. *Rickettsia* spp. did not show any significant habitat preference. Co-infections were identified in 8% of positive-tested ticks with different spatio-temporal associations, primarily in natural settings.

Our results provide new evidences that the risk of infection with tick-borne pathogens in the Alpine region varies over time and in different environments, broadening the current information on coinfection rates and circulation of zoonotic pathogens, previously not reported in this area.