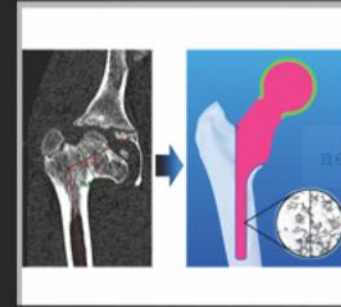
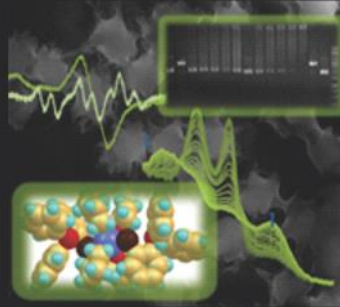
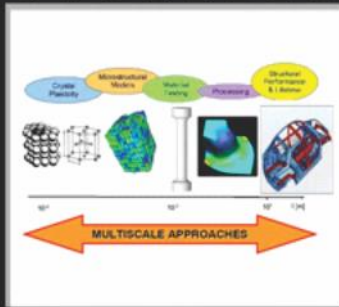


Povești despre IDEI
complexe și
oameni de succes
12 decembrie 2013



Studii fundamentale si aplicate de ecoepidemiologie, biologie si genetica moleculara ale vectorilor bolii Lyme – Proiect PCCE 7/2010

Director proiect: prof. univ. dr. Calin Mircea GHERMAN
Universitatea de Stiinte Agricole si Medicina Veterinara, Cluj Napoca
<http://zooparaz.net/borrelia/index.html>

Ce este borelioza (boala Lyme)?

Este o boala infectioasa emergenta produsa de specii de bacterii din genul *Borrelia* (36 specii din care 12 produc boala), trei fiind mai importante:

B. burgdorferi sensu stricto (USA); *B. afzeli* si *B. garinii* (Europa), transmise de capusi.

Simptome la om:

- cutanate: eritem migrator (70%), limfocitom cutanat benign, acrodermatita cronica atopica
- gripale: dureri de cap, musculare, articulare, tendinoase, febra, stare generala alterata
- neurologice (neuroborelioza - 15%): paralizie faciala,
 - meningita, fotosensibilitate, rigiditate cervicala, radiculo-nevrita, encefalita cu pierderi de memorie, tulburări de somn, sau schimbări de dispoziție si alterarea starii de sanatate mintala.
- cronicizare: paraplegie, polineuropatie, tulburari cognitive, psihoza Frank (schizofrenie, tulburare bipolară), depersonalizare

Gazdele pentru *Borrelia burgdorferi* sensu lato

Vector: capusile din genul *Ixodes*: *I. ricinus*, *I. persulcatus*, *I. pacificus*

nimfa \longrightarrow larva \longrightarrow adultii

coinfectii: *B. burgdorferi*, *Theileria microti*, *Anaplasma phagocytophilum*, virusul TBE - encefalita de capuse

Rezervor: mamifere: rozatoare, carnivore, ierbivore

pasari: fazanul, paseriforme, acvatice

reptile

Situatia in Romania pana la inceperea PCCE 7/2010

- identificarea unor focare locale de borelioza la om prin studii de serologie: Cluj, Arad, Sibiu, Neamt, Botosani.
- aspecte clinice la om

Pubmed (<http://www.ncbi.nlm.nih.gov/pubmed>) (search: borrelia romania)

intre 1975/01/01 - 2008/01/09 - **6 articole +/- 1**

1. Crăcea E, Constantinescu S, Balaci L, Vizitiu O, Căruntu F, Angelescu C, Căruntu V, Streinu-Cercel A, Bocîrnea C, Pănoiu L. 1988. Lyme borreliosis in Romania. Arch Roum Pathol Exp Microbiol. 47(1):17-21.
2. Crăcea E, Constantinescu S, Balaci L, Vizitiu O, Căruntu F, Căruntu V, Angelescu C, Streinu-Cercel A, Bocîrnea C, Pănoiu L. 1988. [Etiologic diagnosis of cases of autochthonous Borrelia burgdorferi infection (Lyme disease)]. Rev Ig Bacteriol Virusol Parazitol Epidemiol Pneumoftiziol Bacteriol Virusol Parazitol Epidemiol. 33(3):239-44.
3. Ionescu MD, Ionescu AD, Hristescu S, Ionescu M, Orăsanu M, Coman N. 1997. Interactions between Borrelia burgdorferi and eukaryote cells: comparative ultrastructural aspects. Roum Arch Microbiol Immunol. 56(1-2):77-96.
4. Hristea A, Hristescu S, Ciufecu C, Vasile A. 2001. Seroprevalence of Borrelia burgdorferi in Romania. Eur J Epidemiol. 17(9):891-6.
5. Iga DP, Iga S, Schmidt RR, Buzas MC. 2005. Chemical synthesis of cholesteryl beta-D-galactofuranoside and -pyranoside. Carbohydr Res. 340(12):2052-4.
6. Grzywa A, Karakuła H, Górecka J, Chuchra M. 2004. [Delusional disorders in the course of tick-borne encephalitis and borreliosis in patients with hemophilia A and posttraumatic epilepsy--diagnostic and therapeutic difficulties]. Pol Merkur Lekarski. 16(91):60-3. -
patient calatorie in Romania
7. Tsirmpas MD, Tsirmpas D. 2006. [Lyme disease--a relatively new entity]. Oftalmologia. 2006;50(1):16-20. Review. Romanian



Obiectivele proiectului

I. Dezvoltarea de noi modele experimentale pentru studiul relației

Borrelia – căpușă vector

II. Cercetări fundamentale, *in vitro*, privind relația *Borrelia* –

căpușă vector

III. Caracterizarea genogeografică a tulpinilor de *Borrelia*

burgdorferi izolate de la artropode și vertebrate

IV. Ecoepidemiologia infecției cu *Borrelia burgdorferi* în România

V. Obiective măsurabile

V.1. Publicarea a unui număr semnificativ de articole în reviste cu factor de impact ridicat

- factor de impact total cumulat/ PCCE 7/2010 = 65
- brevet national = 1

V.2. Publicarea unei monografii privind relația Borrelia – căpușă vector

V.3. Realizarea unui site web cu cele mai semnificative rezultate ale cercetării

(<http://www.zooparaz.net/borrelia/index.html>)

Echipa

	Cercetator Senior	Cercetator Postdoctoral	Student doctorand	Tehnician studii superioare
la inceput	9	5	19	4
la final...	9	18	6	4

Teze finalizate in domeniul proiectului:

Dumitrache MO: Cercetari privind ecobiologia si epidemiologia atacului cu capuse Ixodidae – vectori ai bolii Lyme in Romania

Briciu Violeta: Studiu privind profilaxia si tratamentul Borreliozei Lyme in arealul Transilvaniei

Kiss Timea: Distributia si particularitatile ecologice ale genospeciilor de *Borrelia burgdorferi* s.l. raspandite in biocenoze urbane si silvatice din nord-vestul Transilvaniei

Bindea Maria: Studiul comparativ prin metode fizice moderne al unor bacterii cu risc zoonotic taxonomic diferite (*Escherichia coli* si *Borrelia burgdorferi* sensu lato)

Echipa

Teze in derulare in domeniul proiectului:

Marcutan Dan: Rolul vectorial al ectoparazitilor la pasari salbatice din Romania

Zsuzsa Kalmar: Studiul genotipurilor de proteine de suprafata externa la *Borrelia* spp.

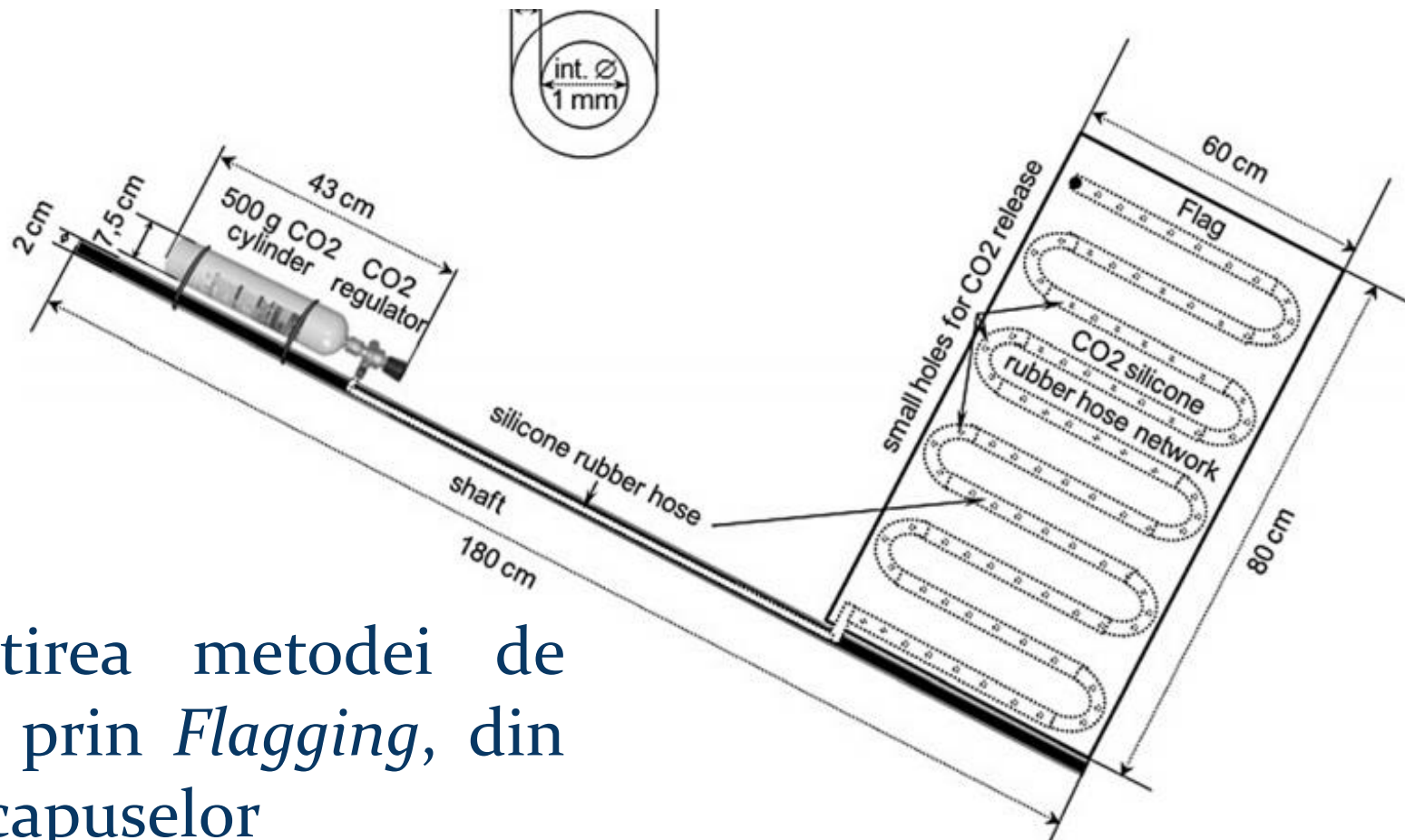
D'Amico Gianluca:

Matei Ioana:

O teza de habilitare – Andrei Mihalca

CO₂ flagging - an improved method for the collection of questing ticks

Călin M Gherman¹, Andrei D Mihalca^{1*}, Mirabela O Dumitrache¹, Adriana Györke¹, Ioan Oroian², Mignon Sandor² and Vasile Cozma¹



Imbunatatirea metodei de capturare prin *Flagging*, din mediu, a capuselor

Sweep CO₂ flag diagram.

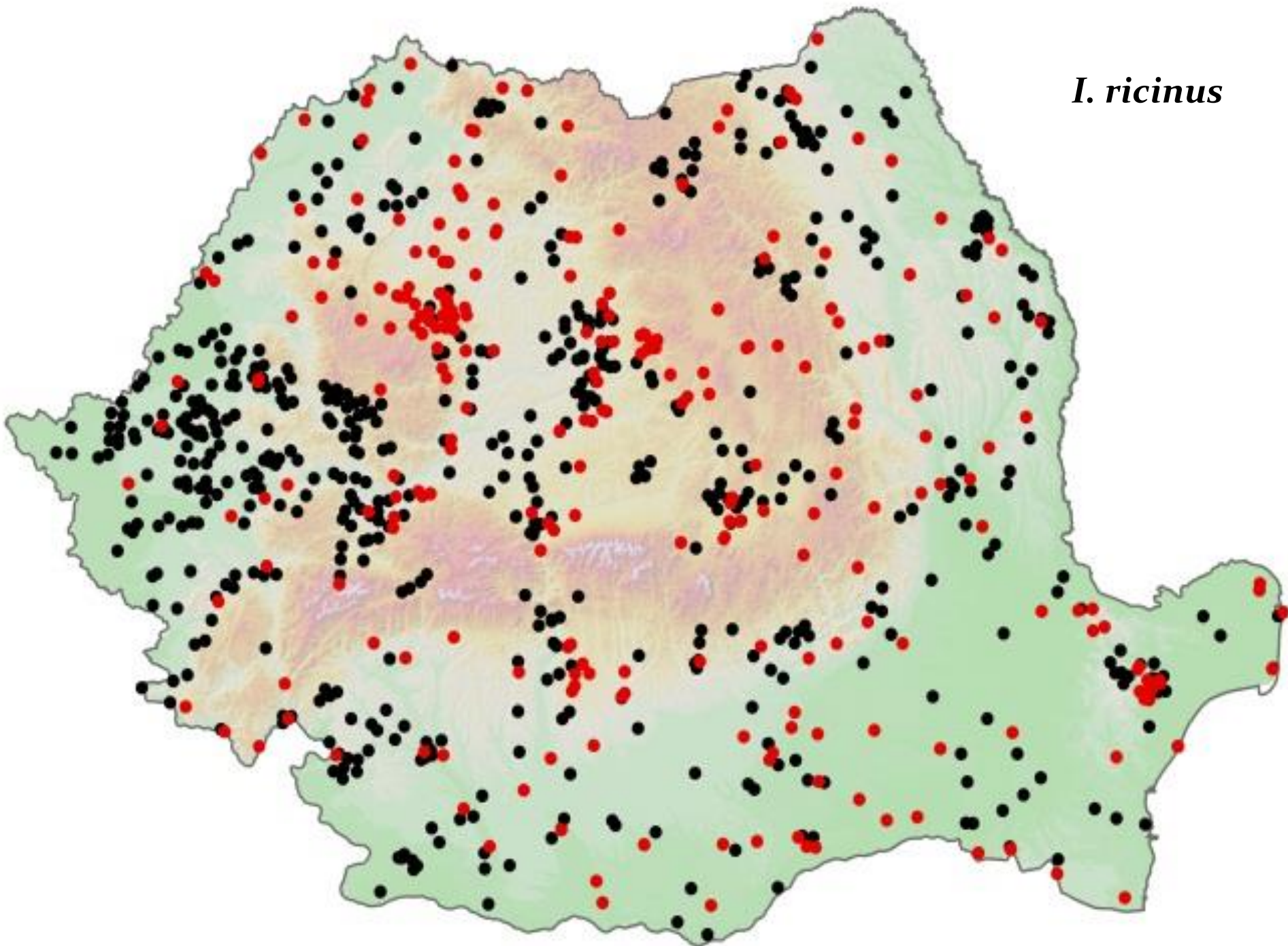
Synopsis of the hard ticks (Acari: Ixodidae) of Romania with update on host associations and geographical distribution

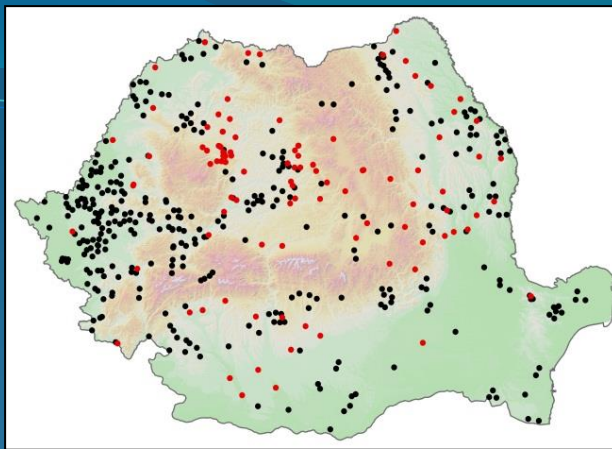
A. D. Mihalca • M. O. Dumitrache • C. Magdaş • C. M. Gherman •
C. Domşa • V. Mircean • I. V. Ghira • V. Pocora • D. T. Ionescu •
S. Sikó Barabási • V. Cozma • A. D. Sándor

Determinarea ixodido-faunei
si stabilirea distributiei sale
geografice

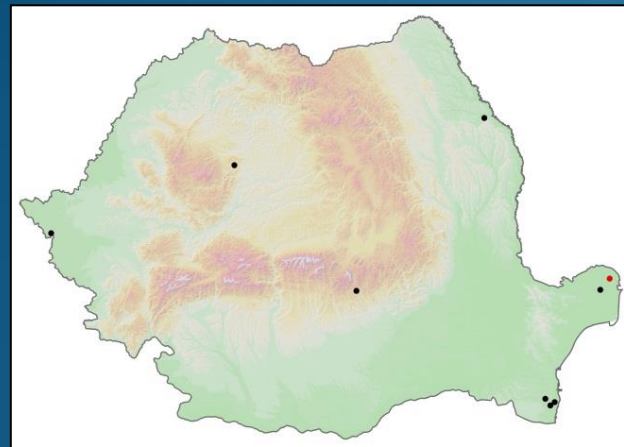
- 25 tick species
 - 11 *Ixodes*
 - 5 *Haemaphysalis*
 - 2 *Dermacentor*
 - 4 *Rhipicephalus*
 - 3 *Hyalomma*

I. ricinus

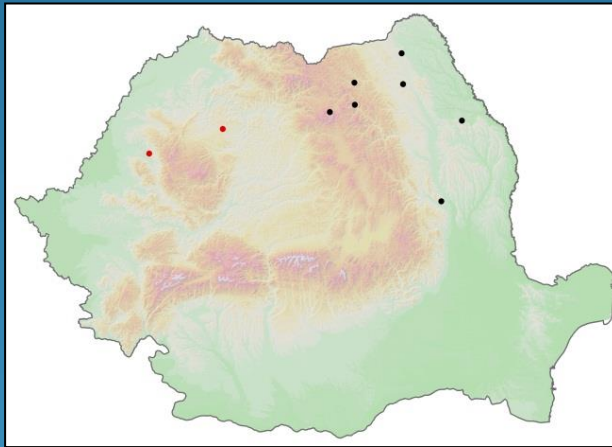




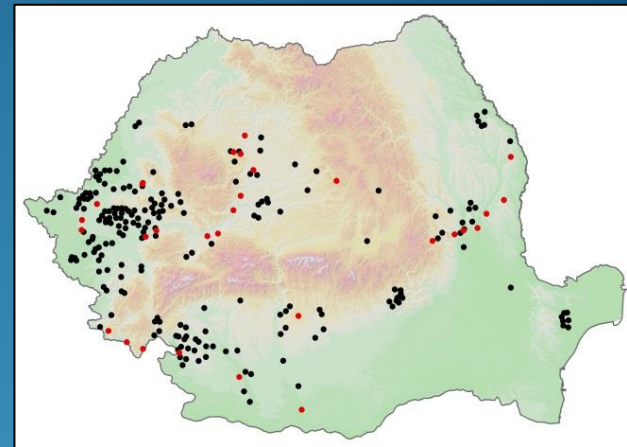
D. marginatus



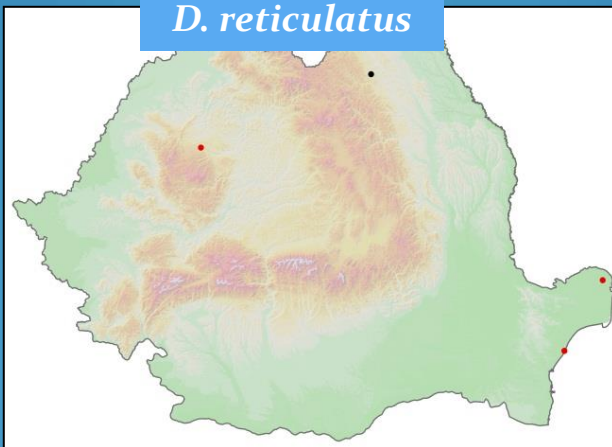
I. redikorzevi



D. reticulatus

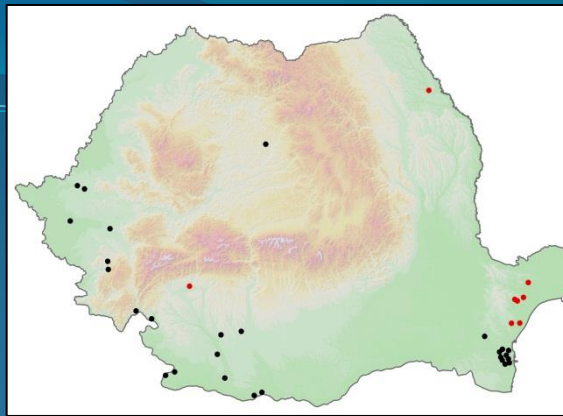


H. punctata

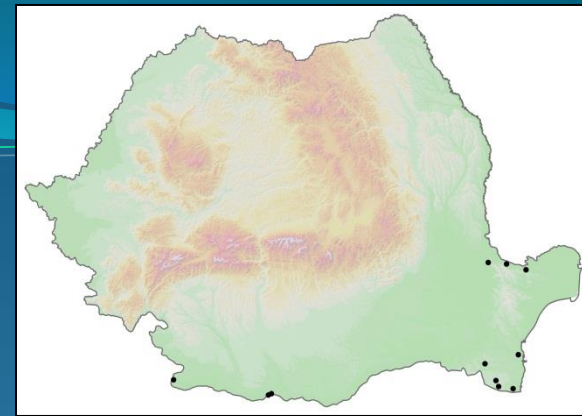


I. arboricola

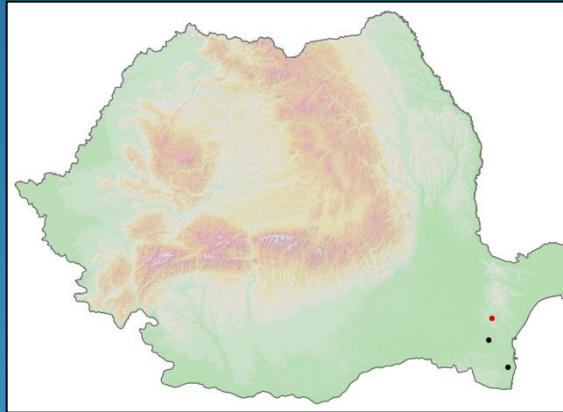
Unele specii sunt,
evident, termofilice...



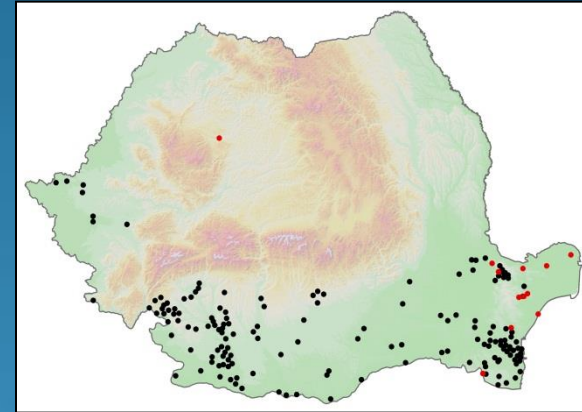
R. sanguineus



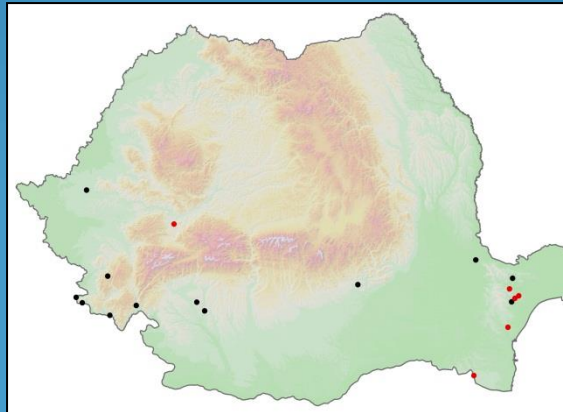
R. annulatus



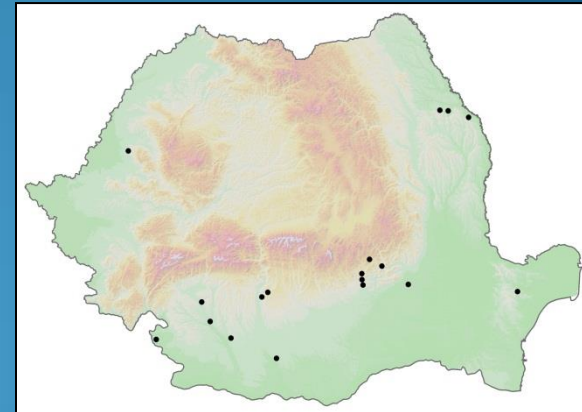
R. rossicus



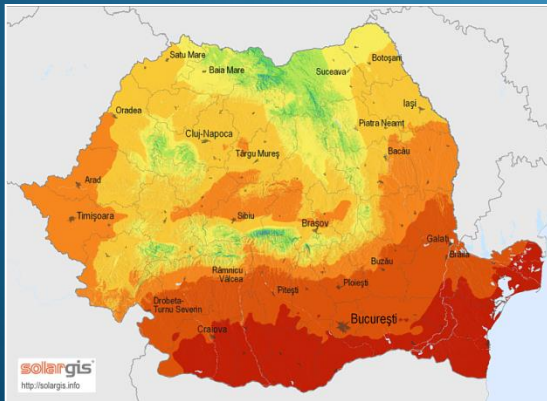
H. marginatum



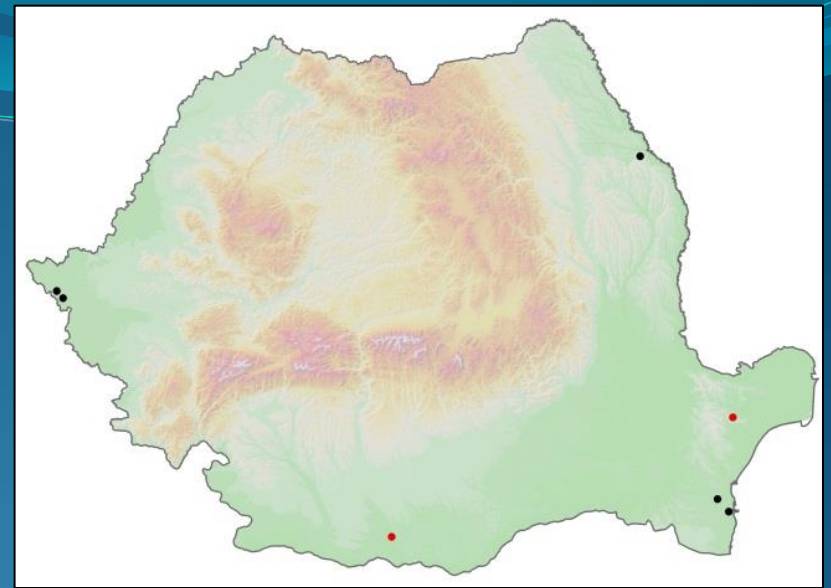
H. sulcata



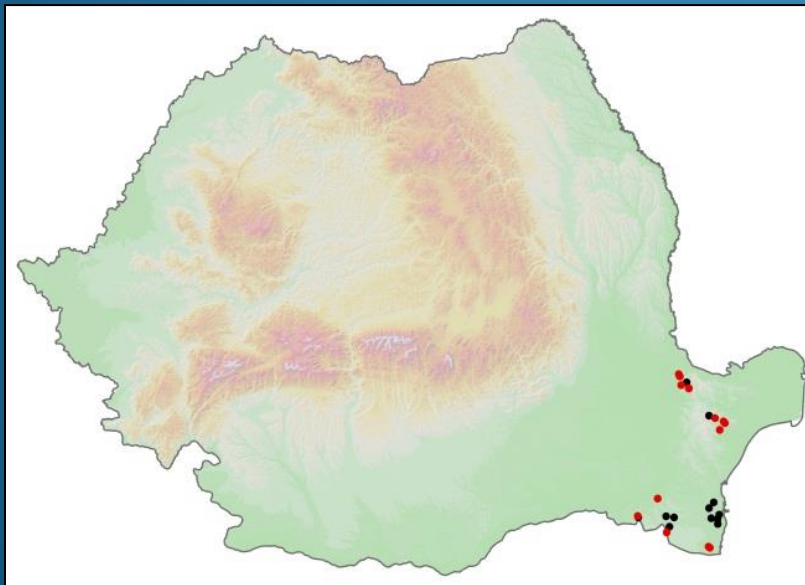
H. inermis



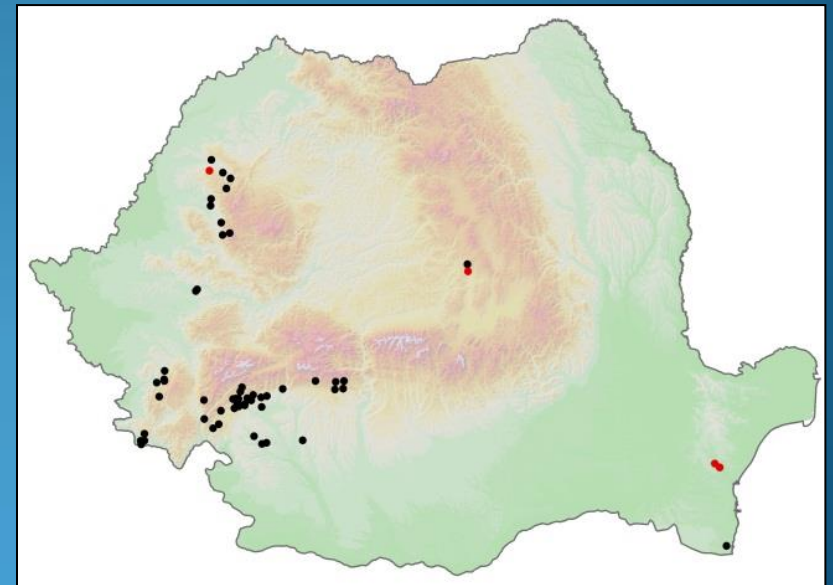
...altele sunt co-distribuite
dependent de gazdele lor



I. Laguri - European suslik *Citellus citellus*



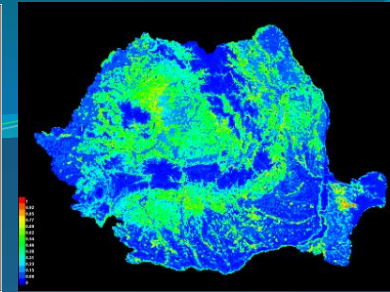
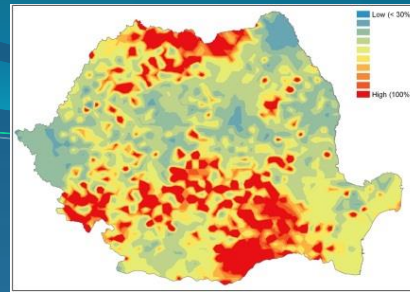
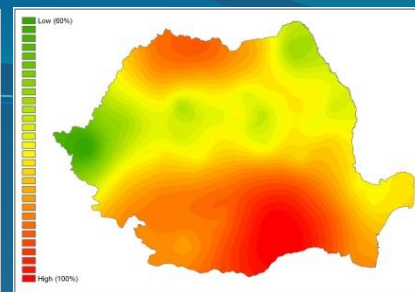
H. Aegyptium - Palearctic tortoises of
genus *Testudo*



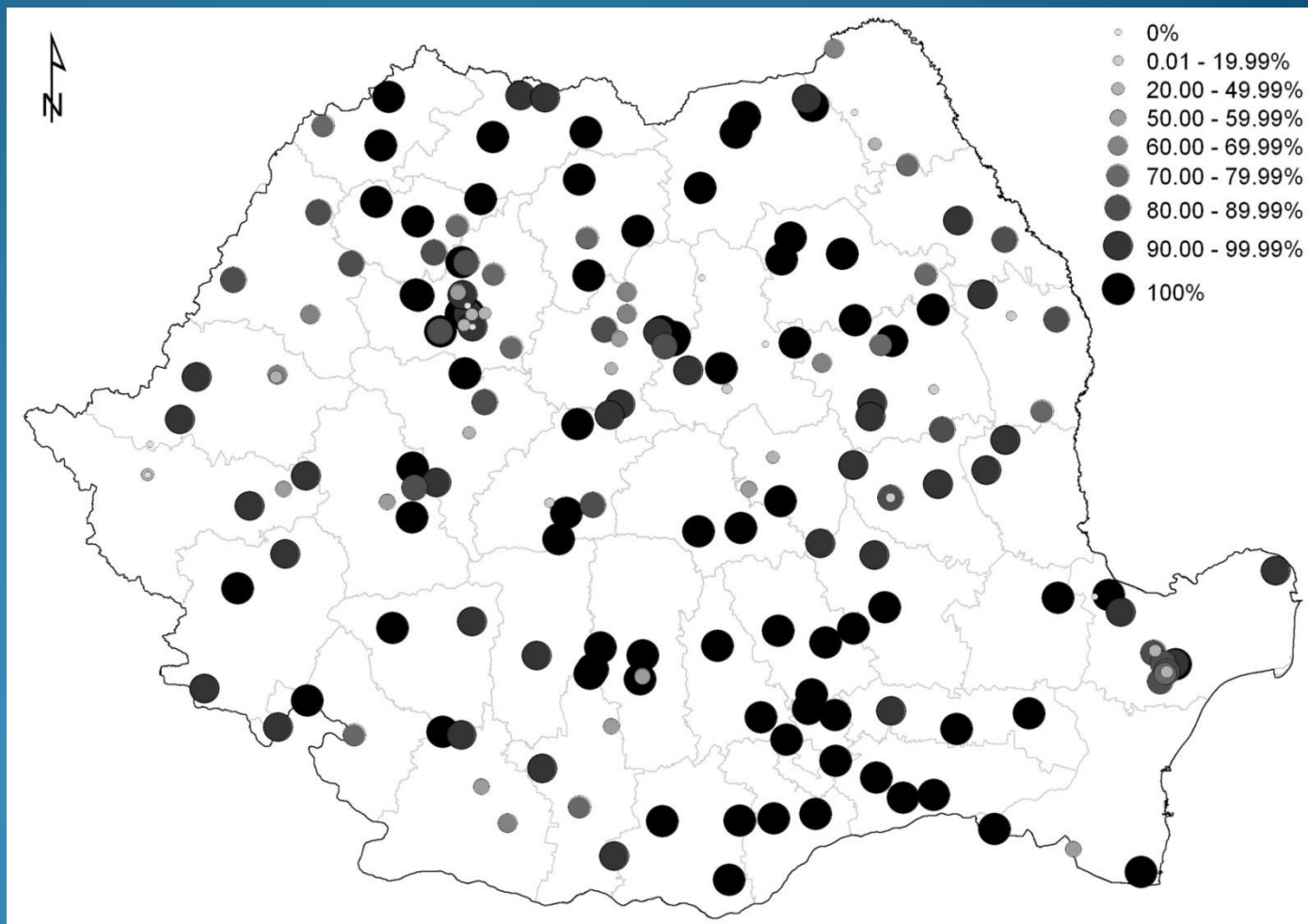
I. Vespertilionis - bats
(Chiroptera)

Ixodes ricinus is the dominant questing tick in forest habitats in Romania: the results from a countrywide dragging campaign

A. D. Mihalca · C. M. Gherman · C. Magdaş · M. O. Dumitrache ·
A. Györke · A. D. Sándor · C. Domşa · M. Oltean · V. Mircean ·
D. I. Mărcuţan · G. D'Amico · A. O. Păduraru · V. Cozma



Stabilirea speciei dominante in ecosistemele din Romania



CASE REPORT

Open Access

First report of *Borrelia burgdorferi* sensu lato in two threatened carnivores: the Marbled polecat, *Vormela peregusna* and the European mink, *Mustela lutreola* (Mammalia: Mustelidae)

Călin M Gherman¹, Attila D Sándor^{1,2*}, Zsuzsa Kalmár¹, Mihai Marinov³ and Andrei D Mihalca¹

Abstract

Background: Lyme disease is a widespread cosmopolitan zoonosis caused by species belonging to the genus *Borrelia*. It is transmitted from animal reservoir hosts to humans through hard - ticks of genus *Ixodes* which are vectors of the disease.

Case presentation: *Borrelia burgdorferi* sensu lato infection was identified in a marbled polecat, *Vormela peregusna*, and two European minks, *Mustela lutreola*, from Romania, by PCR. RFLP revealed the presence of a single genospecies, *Borrelia burgdorferi* sensu stricto.

Conclusions: This is the first report of the Lyme disease spirochetes in the two mentioned hosts.

Keywords: *Borrelia burgdorferi* s.s., First report, *Mustela lutreola*, *Vormela peregusna*, Romania



Tick parasites of rodents in Romania: host preferences, community structure and geographical distribution

Andrei D Mihalca, Mirabela O Dumitrache, Attila D Sándor*, Cristian Magdaş, Miruna Olteanu, Adriana Györke, Ioana A Matei, Angela Ionićă, Gianluca D'Amico, Vasile Cozma and Calin M Gherman

Rozatoare

frontiers in
CELLULAR AND INFECTION MICROBIOLOGY

MINI REVIEW ARTICLE
 published: 01 October 2013
 doi: 10.3389/fcimb.2013.00056

The role of rodents in the ecology of *Ixodes ricinus* and associated pathogens in Central and Eastern Europe

Andrei D. Mihalca* and Attila D. Sándor

Department of Parasitology and Parasitic Diseases, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

Table 3 Developmental stage distribution of ticks feeding on rodents in Romania (number and percentage of all collected)

Tick species	Total number of ticks	Adults	Nymphs	Larvae
<i>Ixodes ricinus</i>	343 (71.01)	16 (4.66)	63 (18.37)	264 (76.97)
<i>Ixodes redikorzevi</i>	114 (23.60)	20 (17.54)	94 (82.46)	0 (0.00)
<i>Ixodes laguri</i>	1 (0.21)	1 (100)	0 (0.00)	0 (0.00)
<i>Ixodes apronophorus</i>	12 (2.48)	0 (0.00)	0 (0.00)	12 (100)
<i>Ixodes trianguliceps</i>	2 (0.41)	1 (50.00)	0 (0.00)	1 (50.00)
<i>Dermacentor marginatus</i>	1 (0.21)	1 (100)	0 (0.00)	0 (0.00)
<i>Rhipicephalus sanguineus</i>	6 (1.24)	0 (0.00)	2 (33.33)	4 (66.67)
<i>Haemaphysalis sulcata</i>	4 (0.83)	0 (0.00)	0 (0.00)	4 (100)
Total	483 (100)	39 (8.07)	159 (32.92)	285 (59.01)


Table 5 Tick-rodent associations in Romania

Tick species	Hosts for adults	Hosts for nymphs	Hosts for larvae	Host species
<i>Ixodes ricinus</i>	Aa, Mm, Ma	Aa, Af, As, Au, Ma	Aa, Af, As, Au, Mg, Ma, Msu	Aa, Af, As, Au, Ma, Mg, Mm, Msu
<i>Ixodes redikorzevi</i>	Au, Ma, Mm	Au, Ma	-	Au, Ma, Mm
<i>Ixodes laguri</i>	Sc	-	-	Sc
<i>Ixodes apronophorus</i>	-	-	Af	Af
<i>Ixodes trianguliceps</i>	Msu	-	Msu	Msu
<i>Dermacentor marginatus</i>	Ma	-	-	Ma
<i>Rhipicephalus sanguineus</i>	-	Af, Msp	Af	Af, Msp
<i>Haemaphysalis sulcata</i>	-	-	Sc	Sc
Total	Aa, Mm, Ma, Msu, Sc	Aa, Af, As, Au, Ma, Msp	Aa, Af, As, Au, Mg, Ma, Msu	

Aa - *Apodemus agrarius*; Af - *Apodemus flavicollis*; As - *Apodemus sylvaticus*; Au - *Apodemus uralensis*; Mg - *Myodes glareolus*; Mm - *Micromys minutus*; Ma - *Microtus arvalis*; Msu - *Microtus subterraneus*; Msp - *Mus spicilegus*; Sc - *Spermophilus citellus*.

Short communication

Northern white-breasted hedgehogs *Erinaceus roumanicus* as hosts for ticks infected with *Borrelia burgdorferi* sensu lato and *Anaplasma phagocytophilum* in Romania

Mirabela Oana Dumitrache^a, Anamaria Ioana Paștiu^a, Zsuzsa Kalmár^a, Viorica Mircean^a,  , Attila David Sándor^{a, b}, Călin Mircea Gherman^a, Cosmin Peștean^c, Andrei Daniel Mihalca^a, Vasile Cozma^a

Borrelia burgdorferi sensu lato and *Anaplasma phagocytophilum* are two tick-borne pathogens of medical and/or veterinary importance which are distributed worldwide. *Erinaceus roumanicus*, the Northern white-breasted hedgehog, is a common synanthropic species that is known to carry not only the hedgehog tick, *Ixodes hexagonus*, but also *I. ricinus*, the most common European tick species. *I. ricinus* is the main vector of both mentioned pathogens. Within this framework and because only limited information is available on the role of *E. roumanicus* in the ecology of *B. burgdorferi* s.l. and *Anaplasma phagocytophilum* in Europe, we carried out an epidemiological surveillance on this species in Romania. From the 57 examined hedgehogs collected in 12 different counties, 24 presented tick infestation. Most ticks ($n = 959$) were morphologically identified as larvae, nymphs, or adults of *I. ricinus*. The prevalence of *B. burgdorferi* s.l. was 0.4%, and that of *A. phagocytophilum* 12%. In all positive cases for *B. burgdorferi* s.l., restriction fragment length polymorphism revealed the genospecies *B. afzelii*. In Romania, only limited information is available on the epidemiology of *B. burgdorferi* s.l. and *A. phagocytophilum*. As hedgehogs commonly share the same environment with humans and other potential reservoir hosts for tick-borne pathogens, our study provides new epidemiological data of public health importance.



Turdus merula



Fringilla coelebs



Carduelis carduelis



Parus major

Ixodes redikorzevi



Phoenicurus phoenicurus



Parus caeruleus



Pica pica

RESEARCH

Open Access

Zoonotic pathogens associated with *Hyalomma aegyptium* in endangered tortoises: evidence for host-switching behaviour in ticks?

Anamaria I Papău¹, Ioana A Matei¹, Andrei D Mihalca^{1*}, Gianluca D'Amico¹, Mirabela O Dumitrache¹, Zsuzsa Kalmár¹, Attila D Sándor¹, Menelaos Lefkaditis², Călin M Gherman¹ and Vasile Cozma¹

Exp Appl Acarol (2006) 40:279–290
DOI 10.1007/s10493-006-9036-z

Hyalomma aegyptium as dominant tick in tortoises of the genus *Testudo* in Balkan countries, with notes on its host preferences

Pavel Široký · Klára J. Petrželková · Martin Kamler
Andrei D. Mihalca · David Modrý

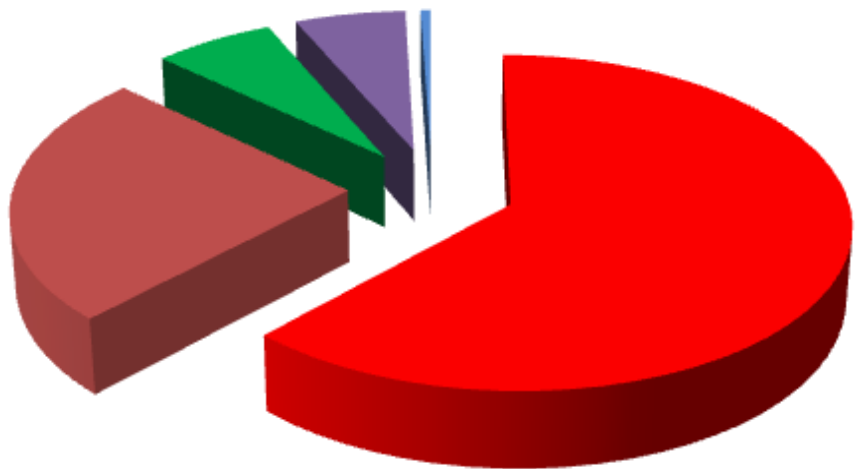
J. Parasitol., 95(3), 2009, pp. 728–733
© American Society of Parasitologists 2009

CO-DISTRIBUTION PATTERN OF A HAEMOGREGARINE *HEMOLIVIA MAURITANICA* (APICOMPLEXA: HAEMOGREGARINIDAE) AND ITS VECTOR *HYALOMMA AEGYPTIUM* (METASTIGMATA: IXODIDAE)

Pavel Široký, Peter Mikulíček*†, David Jandžík*, Hajigholi Kami‡, Andrei D. Mihalca§, Rachid Rouag||, Martin Kamler#, Christoph Schneider, Martin Záruba, and David Modrý#¶

357 Vulpi din toate eco-regiunile

Vulpe



- *I. hexagonus*, 72.44%
- *I. ricinus*, 28.84%
- *I. crenulatus*, 7.7%
- *D. marginatus*, 7.05%
- *H. punctata*, 0.64%



First survey on hard ticks (Ixodidae) collected from humans in Romania: possible risks for tick-borne diseases

V. T. Briciu · A. Titilincu · D. F. Țățulescu · D. Cârstina ·
M. Lefkaditis · A. D. Mihalca

Received: 20 October 2010 / Accepted: 19 November 2010 / Published online: 16 December 2010
© Springer Science+Business Media B.V. 2010

Abstract The importance of studies on the diversity of ticks attacking humans resides mostly in the relatively highly-specific tick-pathogen associations. Human tick bites are commonly reported worldwide but removal of ticks from patients is rarely followed by specific identification of the ticks, leaving to some degree of hazard the preventive treatment of possible associated diseases. A total number of 308 ticks were collected between April and June 2010 from 275 human patients who voluntarily presented to a hospital from Cluj-Napoca, Romania. The mean intensity of infection was 1.12 ± 0.46 . Four species of ticks were identified *Ixodes ricinus*, *Dermacentor marginatus*, *Haemaphysalis concinna* and *H. punctata*. *Ixodes ricinus* was the most abundant species feeding on humans in the study area. A brief review of possible associated pathogen is provided.



Original article

Geographical distribution and prevalence of *Borrelia burgdorferi* genospecies in questing *Ixodes ricinus* from Romania: A countrywide study



Zsuzsa Kalmár, Andrei D. Mihalca*, Mirabela O. Dumitrache, Călin M. Gherman, Cristian Magdaş, Viorica Mircean, Miruna Oltean, Cristian Domşa, Ioana A. Matei, Daniel I. Mărcuţan, Attila D. Sándor, Gianluca D'Amico, Anamaria Paştiu, Adriana Györke, Raluca Gavrea, Béla Marosi, Angela Ionică, Etelka Burkhardt, Hortenzia Toriay, Vasile Cozma

Department of Parasitology and Parasitic Diseases, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania

ARTICLE INFO

Article history:

Received 30 January 2013

Received in revised form 17 April 2013

Accepted 17 April 2013

Available online 26 July 2013

Keywords:

Borrelia burgdorferi sensu lato

Borrelia afzelii

Borrelia garinii

Borrelia burgdorferi sensu stricto

Ixodes ricinus

Romania

ABSTRACT

The paper reports the prevalence and geographical distribution of *Borrelia burgdorferi* sensu lato (s.l.) and its genospecies in 12,221 questing *Ixodes ricinus* ticks collected at 183 locations from all the 41 counties of Romania. The unfed ticks were examined for the presence of *B. burgdorferi* s.l. by PCR targeting the intergenic spacer 5S–23S. Reverse line blot hybridization (RLB) and restriction fragment length polymorphism (RFLP) analysis were performed for identification of *B. burgdorferi* genospecies. The overall prevalence of infection was 1.4%, with an average local prevalence between 0.75% and 18.8%. *B. burgdorferi* s.l. was found in ticks of 55 of the 183 localities. The overall prevalence *B. burgdorferi* s.l. in ticks in the infected localities was 3.8%. The total infection prevalence was higher in female ticks than in other developmental stages. Three *Borrelia* genospecies were detected. The most widely distributed genospecies was *B. afzelii*, followed by *B. garinii* and *B. burgdorferi* sensu stricto (s.s.). The study is the first countrywide study and the first report of *B. burgdorferi* s.s. in Romania. The distribution maps show that higher prevalences were recorded in hilly areas, but Lyme borreliosis spirochetes were also present in forested lowlands, albeit with a lower prevalence.

Identificarea rolului de markeri epidemiologici ai cailor si cainilor pentru bolile transmise prin vectori

VECTOR-BORNE AND ZOO NOTIC DISEASES
 Volume 12, Number 7, 2012
 © Mary Ann Liebert, Inc.
 DOI: 10.1089/vbz.2011.0915

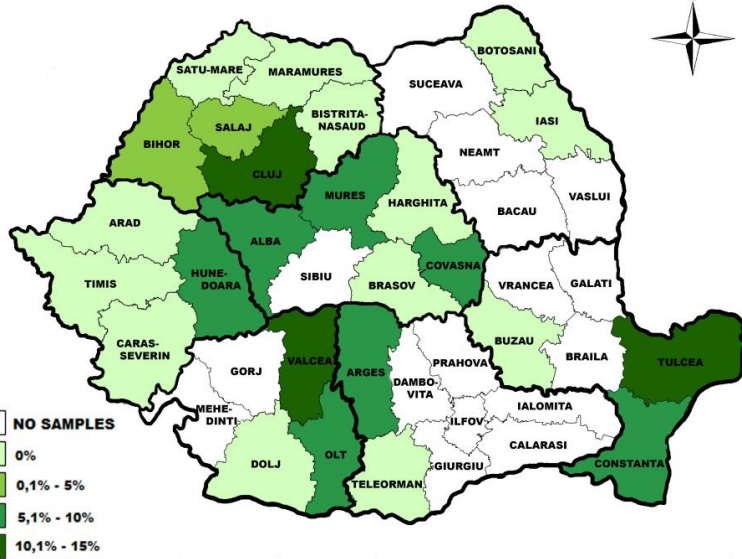
Seroprevalence and Geographic Distribution of *Dirofilaria immitis* and Tick-Borne Infections (*Anaplasma phagocytophilum*, *Borrelia burgdorferi* sensu lato, and *Ehrlichia canis*) in Dogs from Romania

Viorica Mircean¹, Mirabela Oana Dumitrache¹, Adriana Györke¹, Nikola Pantchev,²
 Robert Jodies,³ Andrei Daniel Mihalca¹, and Vasile Cozma¹

VECTOR-BORNE AND ZOO NOTIC DISEASES
 Volume 11, Number 9, 2011
 © Mary Ann Liebert, Inc.
 DOI: 10.1089/vbz.2010.0254

Serological Reactivity to *Borrelia burgdorferi* Sensu Lato in Dogs and Horses from Distinct Areas in Romania

Timea Kiss¹, Daniel Cadar¹, Alexandra Florina Krupaci¹, Arnela Bordeanu,¹
 Gheorghe Florinel Brudășcă,² Andrei Daniel Mihalca³, Viorica Mircean,³
 Lucia Giiga¹, Mirabela Oana Dumitrache,³ and Marina Spînu¹



Ce s-a realizat?

La final de proiect

Pubmed (<http://www.ncbi.nlm.nih.gov/pubmed>) (search: borrelia romania)

intre 2010/01/06 - 2013/12/31

10 articole / 7 colectiv !

7 colectiv ! intre **2010/01/06 - 2013/12/10** > **6 articole +/- 1** intre **1975/01/01 - 2008/01/09**

TOTAL Jan 1988 - sep 2013 : 18 articole din care 7 (38.8%) echipa !

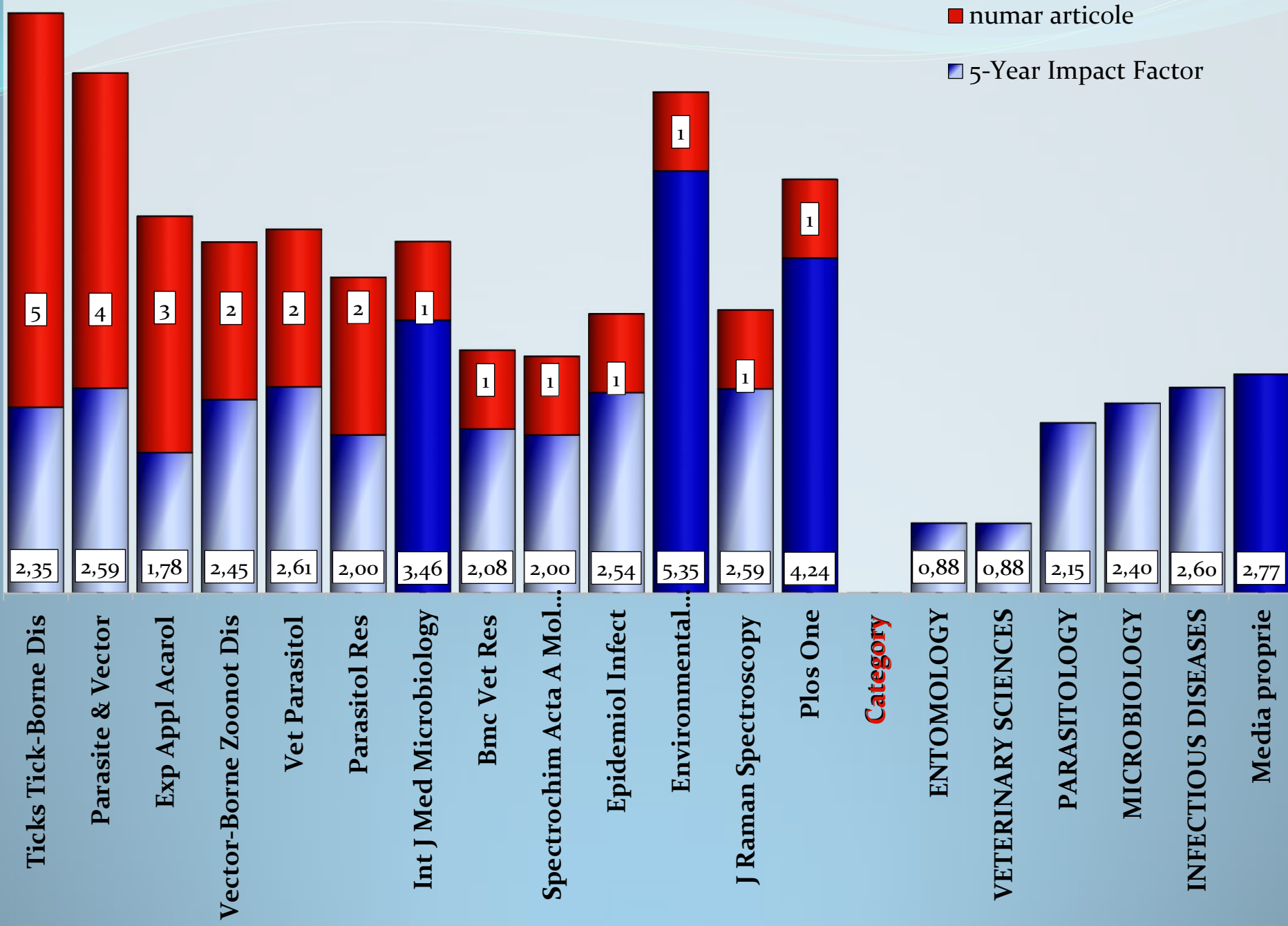
Nr. Crt.	Titlu articol	An	Revista	Status	IF
1	Coendangered hard-ticks: threatened or threatening?	2011	Parasites & Vectors	Publicat	2.937
2	First survey on hard ticks (Ixodidae) collected from humans in Romania: possible risks for tick-borne diseases	2011	Experimental And Applied Acarology	Publicat	1.725
3	Serological reactivity to Borrelia burgdorferi sensu lato in dogs and horses from distinct areas in Romania	2011	Vector-Borne And Zoonotic Diseases	Publicat	2.437
4	Occurrence of filaria in domestic dogs of Samburu pastoralists in Northern Kenya and its associations with canine distemper	2011	Veterinary Parasitology	Publicat	2.579
5	The first report of Knemidocoptes intermedius Fain et Macfarlane, 1967 (Acari: Astigmata) in naturally infected European birds	2011	Parasitology Research	Publicat	1.812
6	Incidence of Lyme borreliosis after the bite of a Borrelia burgdorferi infected Ixodes ricinus tick in Romania	2011	International Journal Of Medical Microbiology	Publicat	4.173
7	First report of Borrelia burgdorferi sensu lato in two threatened carnivores: the Marbled polecat, Vormela peregusna and the European mink, Mustela lutreola (Mammalia: Mustelidae)	2012	Bmc Vet Res	Publicat	1.86
8	CO2 flagging - an improved method for the collection of questing ticks	2012	Parasites & Vectors	Publicat	2.937
9	Hard ticks (Ixodidae) in Romania: surveillance, host associations, and possible risks for tick-borne diseases	2012	Parasitology Research	Publicat	2.149
10	Tick bites and Erythema migrans in Transylvania	2013	Scientia Parasitologica	Publicat	BDI

11	Is there a need for another type of studies on reptiles in Romania? An argument for research on ticks parasitizing reptiles	2013	North-Western Journal Of Zoology	Publicat	0.817
12	Ixodes ricinus is the dominant questing tick in forest habitats in Romania: the results from a countrywide dragging campaign	2012	Experimental And Applied Acarology	Publicat	1.847
13	Seroprevalence and Geographic Distribution of <i>Dirofilaria immitis</i> and Tick-Borne Infections (<i>Anaplasma phagocytophilum</i> , <i>Borrelia burgdorferi sensu lato</i> , and <i>Ehrlichia canis</i>) in Dogs from Romania	2012	Vector-Borne And Zoonotic Diseases	Publicat	2.227
14	Synopsis of the hard ticks (Acari: Ixodidae) of Romania with update on host associations and geographical distribution	2012	Experimental And Applied Acarology	Publicat	1.847
15	Tick parasites of rodents in Romania: host preferences, community structure and geographical distribution	2012	Parasites & Vectors	Publicat	3.25
16	Northern white-breasted hedgehogs <i>Erinaceus roumanicus</i> as hosts for ticks infected with <i>Borrelia burgdorferi sensu lato</i> and <i>Anaplasma phagocytophilum</i> in Romania	2013	Ticks Tick-Borne Dis	Publicat	2.353
17	Fourier transform infrared spectroscopy of DNA from <i>B. burgdorferi sensu lato</i> and <i>Ixodes ricinus</i> ticks	-0001	Spectrochimica Acta A Mol Biomolecular Spectroscopy	Publicat	1.977
18	Zoonotic pathogens associated with <i>Hyalomma aegyptium</i> in endangered tortoises: evidence for host-switching behaviour in ticks?	2012	Parasites & Vectors	Publicat	3.25
19	Tick prevention at a crossroad: new and renewed solutions	2012	Veterinary Parasitology	Publicat	2.381
20	Prevalence of <i>Anaplasma phagocytophilum</i> infection in European wild boar (<i>Sus scrofa</i>) populations from Transylvania, Romania	2013	Epidemiology And Infection	Publicat	2.867

21	Geographical distribution and prevalence of <i>Borrelia burgdorferi</i> genospecies in questing <i>Ixodes ricinus</i> from Romania: A countrywide study	2013	Ticks Tick-Borne Dis	Publicat	2.353
22	The role of rodents in the ecology of <i>Ixodes ricinus</i> and associated pathogens in Central and Eastern Europe	2013	Frontiers In CELLULAR AND INFECTION MICROBIOLOGY	Publicat	BDI
23	Fluctuating asymmetry and ontogenetic development in lacertid lizards; influence of the anthropic stress and parasitism	2012	North-Western Journal Of Zoology	Acceptat	0.817
24	Tick (Acari, Ixodidae) infection of lacertid lizards in Romania	-0001	North-Western Journal Of Zoology	in revizie	0.817
25	Real-time PCR based identification of <i>Borrelia burgdorferi</i> sensu lato species in ticks collected from humans in Romania	-0001	Ticks Tick-Borne Dis	in revizie	2.353
28	The structural differentiation by Raman and fluorescent spectroscopy between three <i>Borrelia burgdorferi</i> sensu lato species	-0001	Journal Of Raman Spectroscopy	in revizie	2.679
29	A PCR-RFLP based molecular key and barcoding for some ticks species from Romania	-0001	Ticks Tick-Borne Dis	in revizie	2.353
30	Ticks of birds at an important migratory hotspot reflect the seasonal dynamics of <i>Ixodes ricinus</i> at the migration initiation site	-0001	Plos One	in revizie	3.73
26	Development of <i>Dermacentor marginatus</i> (Sulzer, 1776) (Acari: Ixodidae) at two different temperatures under laboratory conditions	-0001	Ticks and Tick-borne Diseases	In Evaluate	2.353
27	Host versus habitat: <i>Borrelia burgdorferi</i> sl in the wild	-0001	Environmental Microbiology	In Evaluate	5.756

Articole / Jurnale

Nr crt	TITLU REVISTA	Nr articole publicate	Factor impact	Factor total / jurnal
1	Bmc Vet Res	1	1.86	1.86
2	Vector-Borne Zoonot Dis	2	2.277 / 2.437	4.664
3	Vet Parasitol	2	2.381 / 2.579	4.96
4	Parasite & Vector	4	2.937 / 3.25	12.374
5	Exp Appl Acarol	3	1.725 / 1.847	5.419
6	Parasitol Res	2	1.812 / 2.149	3.961
7	Int J Med Microbiology	1	4.173	4.173
8	North-West J Zool	3	0.817	2.451
9	Ticks Tick-Borne Dis	5	2.353	11.765
10	Spectrochim Acta A Mol Biomol Spectrosc	1	1.977	1.977
11	Epidemiol Infect	1	2.867	2.867
12	Environmental Microbiology	1	5.756	5.756
13	J Raman Spectroscopy	1	2.679	2.679
14	Plos One	1	3.73	3.73
TOTAL		28 ISI		68.636



Citari	Titlu articol	An aparitie	Revista	Status	Citari ISI	Citari Scholar
	Coendangered hard-ticks: threatened or threatening?	2011	PARASITES & VECTORS	Publicat	4	9
	First survey on hard ticks (Ixodidae) collected from humans in Romania: possible risks for tick-borne diseases	2011	EXPERIMENTAL AND APPLIED ACAROLOGY	Publicat	7	7
	Serological reactivity to <i>Borrelia burgdorferi</i> sensu lato in dogs and horses from distinct areas in Romania	2011	VECTOR-BORNE AND ZONOTIC DISEASES	Publicat	5	7
	The first report of <i>Knemidocoptes intermedius</i> Fain et Macfarlane, 1967 (Acari: Astigmata) in naturally infected European birds	2011	PARASITOLOGY RESEARCH	Publicat	1	2
	First report of <i>Borrelia burgdorferi</i> sensu lato in two threatened carnivores: the Marbled polecat, <i>Vormela peregusna</i> and the European mink, <i>Mustela lutreola</i> (Mammalia: Mustelidae)	2012	BMC VET RES	Publicat	1	2
	CO2 flagging - an improved method for the collection of questing ticks	2012	PARASITES & VECTORS	Publicat	1	1
	Hard ticks (Ixodidae) in Romania: surveillance, host associations, and possible risks for tick-borne diseases	2012	PARASITOLOGY RESEARCH	Publicat	2	1
	Ixodes ricinus is the dominant questing tick in forest habitats in Romania: the results from a countrywide dragging campaign	2012	EXPERIMENTAL AND APPLIED ACAROLOGY	Publicat	4	8
	Seroprevalence and Geographic Distribution of <i>Dirofilaria immitis</i> and Tick-Borne Infections (<i>Anaplasma phagocytophilum</i> , <i>Borrelia burgdorferi</i> sensu lato, and <i>Ehrlichia canis</i>) in Dogs from Romania	2012	VECTOR-BORNE AND ZONOTIC DISEASES	Publicat	3	5
	Synopsis of the hard ticks (Acari: Ixodidae) of Romania with update on host associations and geographical distribution	2012	EXPERIMENTAL AND APPLIED ACAROLOGY	Publicat	7	7
	Tick parasites of rodents in Romania: host preferences, community structure and geographical distribution	2012	PARASITES & VECTORS	Publicat	0	2
	Northern white-breasted hedgehogs <i>Erinaceus roumanicus</i> as hosts for ticks infected with <i>Borrelia burgdorferi</i> sensu lato and <i>Anaplasma phagocytophilum</i> in Romania	2013	TICKS TICK-BORNE DIS	Publicat	1	0
	Fourier transform infrared spectroscopy of DNA from <i>Borrelia burgdorferi</i> sensu lato and <i>Ixodes ricinus</i> ticks	-0001	Spectrochimica Acta A Mol Biomol Spectroscopy	Publicat	0	1
	Zoonotic pathogens associated with <i>Hyalomma aegyptium</i> in endangered tortoises: evidence for host-switching behaviour in ticks?	2012	PARASITES & VECTORS	Publicat	0	1
	Tick prevention at a crossroad: new and renewed solutions	2012	VETERINARY PARASITOLOGY	Publicat	8	8
TOTAL CITARI (15 articole)					44	61

Conferinte

WAAVP 2011 - Buenos Aires, Argentina, 21 - 20.08.2011

Andrei D. Mihalca, Nikola Pantchev, Robert P. Jodies, Viorica Mircean, Mirabela O. Dumitrache, Călin M. Gherman, Vasile Cozma, 2011, Seroprevalence of Four Vector-Borne Infections in Dogs from Romania: a Countrywide Study

Andrei D. Mihalca, Attila D. Sándor, Mirabela O. Dumitrache, Zsuzsa Kalmár, Călin M. Gherman, Vasile Cozma, 2011, Molecular Detection of *Borrelia burgdorferi* s.l. in Tissues of Wild Carrier Hosts: Epidemiology, Genetic Diversity and Methodological Pitfalls

Andrei D. Mihalca, Attila D. Sándor, Mirabela O. Dumitrache, Călin M. Gherman, Vasile Cozma, 2011, Wildlife Hosts for Ticks of Genus *Ixodes* in Romania: New Data and Geospatial Approach

XI European Multicolloquium of Parasitology, EMOP, 25 – 29.07.2012, Cluj Napoca, Romania

Prospective study on the transmission risk of *Borrelia burgdorferi* sensu lato from *Ixodes ricinus* ticks to humans in Romania, Prezentare Orala

Detection and typing of *Borrelia burgdorferi* sensu lato species in *Ixodes ricinus* ticks from Romania, Prezentare Orala

Molecular prevalence and genetic diversity of *Borrelia burgdorferi* sensu lato in wild canids and felids from Romania, Prezentare Orala

Role of wild birds as host of hard-ticks in Romania, Prezentare Orala

Barcoding tick species of Romania, Prezentare Orala

Modelling questing *Ixodes ricinus*: spatial distribution in Romania, Prezentare Orala

Arthropod parasites of endangered vertebrates: threatened or threatening? Prezentare Orala

7 TH TICKS AND TICK-BORNE PATHOGENS INTERNATIONAL CONFERENCE, Zaragoza, Spain, 28.08 - 02.09.2011

Violeta Tincuta Briciu, Doina Tatulescu, Fabian Meyer, Daniela Sebah, Georgiana Coroiu, Mirela Flonta, Violeta Nastase, Andrei Daniel Mihalca, Cecilia Hizo-Teufel, Christiane Klier, Volker Fingerle, Ingrid Huber, Mihaela Lupse, 2011, Clinical and serological outcome of Romanian patients after *Borrelia burgdorferi* infected Ixodes ricinus tick bite

V. MIRCEAN, M.O. DUMITRACHE, N. PANTCHEV, R.P. JODIES, V. COZMA, A.D. MIHALCA, 2011, Seroprevalence and epidemiological aspects of *Dirofilaria immitis*, *Borrelia burgdorferi*, *Ehrlichia canis* and *Anaplasma phagocytophilum* in dogs in Romania

XI International Jena Symposium on Tick-borne diseases, Weimar, Germania, 24 - 26.03.2011

Violeta Tincuta Briciu, Fabian Meyer, Daniela Sebah, Doina Tatulescu, Georgiana Coroiu, Mihaela Lupse, Andrei Daniel Mihalca, Cecilia Hizo-Teufel, Christiane Klier, Volker Fingerle, Ingrid Huber, 2011, Real time PCR based species identification of *Borrelia burgdorferi* in ticks collected from humans in Romania

Violeta Tincuta Briciu, Doina Tatulescu, Georgiana Coroiu, Mihaela Lupse, Andrei Daniel Mihalca, Fabian Meyer, Daniela Sebah, Ingrid Huber, Cecilia Hizo-Teufel, Christiane Klier, Volker Fingerle, 2011, Immunohistochemistry versus real time PCR as diagnostic tool for detection of *Borrelia burgdorferi* sensu lato in ticks collected from humans in Romania

Violeta Briciu, Doina Tatulescu, Georgiana Coroiu, Mihaela Lupse, Andrei Daniel Mihalca, Fabian Meyer, Daniela Sebah, Ingrid Huber, Volker Fingerle, 2011, *Borrelia burgdorferi* species identification using the real time-PCR targeting *hbb* gene in ticks collected from humans (Cluj county, Romania)

VIth ECM - Paris 19 - 23 July 2011

A. D. Sándor, A. D. Mihalca, M. O. Dumitrache, Z. Kalmár, C. M. Gherman, V. Gozma, 2011, MAMMALS AS CARRIER VECTORS OF LYME BORRELIOSIS SPIROCHETAE IN ROMANIA

13th International Conference on Lyme Boreliosis and Other Tick Borne Diseases, 18 – 21.08.2013, Boston, USA

Study on Lyme Neuroborreliosis in Transylvania, Romania, Poster

2nd Global Conference on Entomology (GCE-2) , 8 – 12.11.2013, Kuching, Malaysia

Mihalca AD, Gherman CM, Dumitrache MO, Ticks of Romania, Prezentare orală

63. Jahrestagung der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), 25 – 28.09.2011, Essen, Germania

Incidence of Lyme borreliosis after the bite of a *Borrelia burgdorferi* infected *Ixodes ricinus* tick in Romania, Poster

Sustenabilitate proiect

Proiecte internationale obtinute de membrii echipei:

Mihalca Andrei - COST Action TD1303: European Network for Neglected Vectors and Vector-Borne Infections (EURNEGVEC)

Spinu Marina - Proiect Norvegia - Scholarships and inter-institutional cooperation in the Higher Education area of Romania, Norway, Iceland and Liechtenstein. Financed by the EEA Financial Mechanism 2009- 2014. Buget 10200 Euro

☐ Proiecte nationale obtinute de membrii echipei:

Mihalca Andrei - IDEI PCE 236/2011 - O abordare geospatiala pentru studiul ecologiei, distributiei si rolului vectorial al artropodelor parazite

Cozma Vasile - program Capacitati, modul III, Proiect bilateral China nr. 620/2013

Cozma Vasile - proiect Cec de inovare Ctr. 1340/08.02.2013 Studiul eficacitatii reglatoare a unui produs “ anti-parazitar la pisicile infestate in mod natural cu *Toxocara cati* si *Ancylostoma tubaeforme* ”

Mihalca Andrei - Cecuri de inocvare Ctr. 5869/28.05.2013: Evaluarea eficacității și siguranței terapeutice a produsului ML- 3,663,925 împotriva infestației naturale cu purici și/sau căpușe la câini

Gyorke (Titilincu) Adriana - Ctr. 188/2012 - PNII RUPD - Studiul in vivo si in vitro a chimiorezistentei la occidiostatice a izolatelor de Eimeria spp. din fermele de pui broileri in Romania si analiza lor genetica, perioada 2010-2012, val. totala 272.520,00 lei

Gyorke (Titilincu) Adriana - Ctr. 110/2012 - PNII PCCA tip 2 - Elaborarea unei strategii de profilaxie bazată pe utilizarea Artemisiei annua în coccidioză la puii broiler, perioada 2012 -2015, val. totala 3.243.300,00

Spinu Marina - PCCA Tip 2, nr. 61/2012 “Stabilirea unei paradigme de evaluare a poluării cu metale grele și microfloră patogenă la păsări și pești și aplicarea ei în conservarea biodiversității în rezervația Biosfera Delta Dunării”, valoare 2700000

Dumitrache Mirabela - Grant Resurse Umane ISI USAMV, Ctr.1349/08.02.2013 - Rhipicephalus sanguineus: distribuție geografică, ecobiologie și rol vectorial

Sandor Attila - Grant Resurse Umane ISI USAMV: Modelarea distributiei geografice a capuselor genului yalomma in Romania in contextual schimbarilor climatice

Colaborari internationale

Institute for Infectious Diseases and Zoonoses - Violeta Tincuta Briciu / Dr Volker Fingerle MD

Faculty of Veterinary Medicine Brno - Mihalca Andrei / David Modry

Institute for Zoonosis, Changchun, China - Gherman Calin / Liu Mingyuan

IDEXX Laboratories, Inc. - Mihalca Andrei / Panchev Niko



Va multumesc
pentru
atentie !