

EVPC Newsletter

December 2008

European Veterinary Parasitology College

**Supplement 1:
Refugia**

**Supplement 2: Abstracts
from the EVPC 2008
Scientific Symposium**

EVPC

Number 13

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EVPC Website: www.eurovetpar.org

EVPC Reaccreditation Update

The deadline for submission of reaccreditation documents for the first cohort of 105 'de facto diplomates' passed on the 27th September and the Credentials Committee has started the long and arduous task of evaluating each application. They are aiming to finish this task before the end of January when the EVPC Board meets to review the process and approve the outcome. After this, each participating Diplomat will receive a letter from the EVPC Secretariat giving the outcome of their application. Hopefully, this process will be completed by the end of February, but please be patient if it takes a little longer.

- **What if I haven't met the reaccreditation requirements?**

The expectation is that most Diplomates will attain reaccreditation comfortably. If, however, an individual falls short of the requirement in any respect then a letter will be sent indicating the nature of the deficiency and the recipient will be given 12 months from the date on the letter to rectify the problem. Only if there is no resolution within this period will 'full diplomate' status be withdrawn. In this event, the individual would become a 'non-active diplomate' and their name removed from the register of European Veterinary Specialists maintained by the EBVS.

- **I can't fulfil the 60% rule because I am retired**

To maintain 'full diplomate' status, a member must spend 60% of the working week practising Veterinary Parasitology. Some

retired or part-time colleagues are still very committed but may fall short of the reaccreditation requirements. If you fall into this category, please inform the Secretariat (evpc@rvc.ac.uk) so that you can be given 'non-active diplomate' status (at a reduced membership fee) which will enable you to continue your interest in EVPC activities (although not vote or directly supervise residents). If you opt for the alternative 'retired diplomate status' you will completely and irrevocably sever your connection with the EVPC.

- **I haven't attended any EVPC meetings**

The attendance rule is an EBVS requirement. The EVPC Constitution and Bylaws state: *Diplomates are required to attend annual general meetings regularly (at least once every third year, unless previous dispensation has been given by the President or Vice-President of EVPC on the advice of the Credentials Committee...)*. This obligation was clearly stated in the letter sent to every diplomate on their admission to the EVPC. Thus, diplomates not fulfilling this requirement will receive a letter as described above.

- **Your feedback requested**

We would welcome any comment that might help us to improve the reaccreditation process. Please understand that the Credentials Committee is allowed very little flexibility. Adherence to the set standards is essential if the EVPC is to maintain its credibility and gain definitive recognition from the EBVS.

EVPC Election 2009

NOMINATIONS ARE INVITED FOR NEW OFFICERS AND BOARD MEMBERS DEADLINE 1st February



The term of office of the current EVPC Board ends in September, 2009. An election will therefore be held at the General Business Meeting on June 3rd, 2009 for the following posts:

President, Vice-President, Secretary, Treasurer and 3 other Board Members

The President becomes the Past-President and would normally be succeeded by the Vice-President, but Professor Trees has indicated that he is unable to stand on account of other commitments. The Secretary and Treasurer are completing a second term of office so cannot be re-elected. The three other board members cannot be re-elected to their present post. Under EBVS rules, only full (active) diplomates are eligible to hold office or to participate in the election process.

Current office holders are:

President	Claudio Genchi	not eligible for re-election
Vice-President	Sandy Trees	eligible but does not wish to stand
Secretary	Dennis Jacobs	not eligible for re-election
Treasurer	Josef Vercruyssen	not eligible for re-election
Board Member	Maggie Fisher	not eligible for re-election as board member
Board Member	Anja Joachim	not eligible for re-election as board member
Board Member	Laura Kramer	not eligible for re-election as board member

Each nomination should have a proposer and a seconder (name and signature), a brief statement of nominee's background together with a declaration from the nominee that she/he is willing to serve if elected.

Nominations should be sent to:

Professor Thomas Schnieder, Chairman EVPC Nominations Committee, Institute for Parasitology, Department of Infectious Diseases, University of Veterinary Medicine, Buenteweg 17, D-30559 Hannover, Germany

E-mail: thomas.schnieder@tiho-hannover.de

Fax: (+49) 511 953 8870

(Please use the form circulated with this December Newsletter (p.5); also available on the EVPC web-site; www.eurovetpar.org ; or by application to Professor Schnieder.)

The nominations will be made known to the membership in the April Newsletter and brief statements describing each will be posted in the password protected Members' Section of the web-site.

EVPC Election 2009: Nomination form

Nominations must be received by: **1st February 2009**

- Each nomination must include:
1. Name and signature of proposer
 2. Name and signature of seconder
 3. Signed declaration by the nominee that he/she is willing to serve if elected
 4. Brief statement of the nominee's background

Note: The brief statement will be placed on the password protected Members' Section of the EVPC website for the duration of the election process unless the nominee indicates below that he/she is unwilling for this to happen.

Please (1) e-mail or fax the form to: Thomas.schnieder@tiho-hannover.de Fax: (+49) 511 953 8870
AND (2) post the original to: Professor Thomas Schnieder, Chairman EVPC Nominations Committee, Institute for Parasitology, Department of Infectious Diseases, University of Veterinary Medicine, Buenteweg 17, D-30559 Hannover, Germany

Nomination for:	Tick 1 box only
President:	
Vice-President:	
Secretary:	
Treasurer:	
Board Member:	

If a person is nominated for more than one post, please use separate sheets for each post

Name of Nominee:	
Title of Nominee:	
Address of Nominee:	

Is he/she a full (active) EVPC Diplomat? YES/NO
(EBVS rules allow only full (active) diplomates to become Officers or Board Members)

Brief Summary of the Nominee's Background:

(expand this box as necessary)

Name of proposer:	
Signature of Proposer:	
Name of Seconder:	
Signature of Seconder:	

Put a cross in the box if you do NOT wish the brief statement to appear on the EVPC website

I agree, if elected, to serve on the EVPC board for a period of 3 years:

Signature of Nominee: _____

Top Job for EVPC Vice-President



EVPC Vice-President Sandy Trees, until recently Dean of the Faculty of Veterinary Medicine at the University of Liverpool, has been elected to the prestigious position of Junior Vice-president of the Royal College of Veterinary Surgeons and is thereby in line to become a future RCVS President. The RCVS is the statutory body that governs the veterinary profession and oversees veterinary education in the United Kingdom.

The EVPC congratulates Professor Trees on this outstanding achievement and wishes him every success in his new role. Unfortunately, the great responsibilities associated with this distinguished position will allow little time for EVPC activities and so Sandy has indicated with regret that he cannot stand for election as EVPC President in 2009 (see Nominations form in this issue (p5)).

Standard Residency Training Programmes

Another EVPC milestone

The EVPC Education Committee has approved the very first European Standard Residency Training Programme (SRTP) in Veterinary Parasitology at the following veterinary school:

Gent, Belgium

This is a very significant step in the EVPC march towards definitive recognition from the EBVS and the Gent parasitologists deserve our congratulations for their foresight and achievement.

Prospective residents wishing to enquire about specialist training in Veterinary Parasitology at Gent should contact:

Professor Jozef Vercruyssen, jozef.vercruyssen@UGent.be (Gent)

Prospective Course Directors at other institutions should contact the Education Committee, smt@life.ku.dk, for a copy of the EVPC SRTP Guidelines and further advice. We urgently need more approved SRTPs! The EVBS will not award definitive recognition before two sets of SRTP residents have completed their courses and sat the examination.

American Interest in the EVPC

Veterinary parasitologists in the US follow EVPC lead in seeking route towards board certification

Veterinary parasitologists in the United States have begun efforts to create a route for board certification for the specialty under the American Veterinary Medical Association's American Board of Veterinary Specialists (ABVS). As those in the EVPC are well aware, establishing a formal path to board certification is a long and arduous process, but the first steps have been taken in the US through the formation of a planning committee under the leadership of Dr. Patrick Meeus (Dipl. EVPC). The intended route is to seek recognition of veterinary parasitology as a subspecialty under the existing American College of Veterinary Microbiology (ACVM), which currently supervises board certification for the allied subspecialties of virology, bacteriology, and immunology.

The ACVM executive board has offered their mentorship and formal support, and an official letter of intent has been sent to the ABVS requesting approval to prepare the formal application packet. The planning committee is now in the process of producing the actual application package and developing a process for nominating initial de facto diplomates. Under ABVS rules, one year is allowed to prepare the application materials and establish the charter members.

We look forward to working with our colleagues in the EVPC as we continue efforts to gain recognition for veterinary parasitology as a formal subspecialty in veterinary medicine in the United States.

By Susan E. Little, DVM, PhD, Dipl. EVPC



Bristol EVPC Meeting Report

EVPC Annual General Business Meeting and Scientific Workshop Bristol,
September 18th 2008
By Laura Kramer

The Veterinary School at the University of Bristol hosted this year's EVPC General Business Meeting and Scientific Symposium.

The General Business Meeting was attended by over 65 EVPC members and participation was lively. EVPC President Claudio Genchi affirmed in his report that the College is making important advances in areas that include resident training and formal examination of potential new diplomats.

This seemed like the appropriate moment for the presentation of the EVPC diploma to Thomas Geurden and Johannes Charlier, the first 2 EVPC members by examination. We are all very proud of these new colleagues: they represent the future of the EVPC which is in very good hands, indeed!



Thomas Geurden receives his EVPC Diploma from EVPC President Claudio Genchi.



Johannes Charlier walks away happy with his diploma

EVPC Secretary Dennis Jacobs' report emphasized many of the future challenges facing the college, including the approval of Standard Residency programmes. Fortunately, several members have already applied and it is likely that at least 2 programmes will be up and running in the near future (see this issue for more details). Dennis also informed the members that the College is in contact with American colleagues who are following our lead by preparing a petition for recognition by the American Board of Veterinary Specialties (see this issue for more details!).

Bristol EVPC Meeting Report (continued...)

The EVPC could not function as well as it does without its Committees and the chairpersons of the Examination (Bertrand Losson), Education (Stig Thamsborg) and Credentials (Kurt Pfister) Committees all gave comprehensive reports as to past progress and future goals. Indeed, perhaps the "hottest" topic on the agenda was the re-accreditation process that the Credentials Committee is currently carrying out and there was an intense question-and-answer session. See this issue for all the current news on EVPC re-accreditation.

The minutes of the General Business meeting will be available shortly on the EVPC website, www.eurovetpar.org

Of course, the annual meeting of the EVPC is not all business, but is also all about science. The topic of the annual Scientific Symposium, "Parasite control and climate change", of extraordinary current interest and importance, was organized by Richard Wall, who brought together some of the leading experts in the field.



Philip Mellor from Pirbright talks about Blue-tongue and its vectors

Santiago Mas-Coma from the University of Valencia, Spain talked about climate change effects on trematodioses, with emphasis on zoonotic fascioliosis and schistosomiosis. These important parasitic zoonoses are emerging in several areas of the world and environmental conditions are certainly contributing to their changing epidemiology.

Next up was Sue Shaw from the University of Bristol, with an extremely worrying report on the number of cases of canine leishmaniosis that have recently been introduced into the UK following the PET scheme for companion animal travel. Prof. Shaw's conviction is that imported cases of leishmaniosis will likely increase, building up a reservoir of infected dogs, "waiting for a vector to happen".

Claudio Genchi then illustrated how nematodes of the genus *Dirofilaria* (*D. immitis* and *D. repens*) will likely find a future home in many areas of Europe that are currently *Dirofilaria*-free. Indeed, thanks to GIS-based analyses, it is clear that the trend of increased temperatures will allow these parasites, and the diseases they cause, to spread.

A very practical approach to the effects of climate on parasitic diseases was presented by Fiona Kenyon from Moredun Research Institute, who explained how increased rainfall in the autumn and winter, warmer average temperatures and an extension of the herbage growing season have all contributed to the introduction of helminth parasitic diseases in south eastern Scotland.

Bristol EVPC Meeting Report (continued...)

EVPC member Frederic Beugnet from Merial France gave a wide overview of the different diseases transmitted by arthropods to dogs and other carnivores, including some very interesting data on the so-called "new" rickettsiae.

The afternoon came to a brilliant conclusion with a talk by Philip Mellor from the Pirbright Laboratory, who illustrated all the ways the different Culicoides vectors of Bluetongue have managed to spread themselves across Europe, i.e. wind of the "meteorological" kind!

The abstracts of all the presentations are available as a supplement to this issue (**Supplement 2**). The full papers from the meeting will be published in a special issue of Veterinary Parasitology in the near future.

Thanks to Richard Wall and his team for the wonderful organisation of a really terrific meeting!

EVPC Diplomas - better late than never!

Since the inauguration of the EVPC, there has been a demand from some members for a paper diploma to commemorate their admission to the College.

With the heavy workload involved in establishing the College and developing its activities, this task did not reach the top of the priority list until the first residents passed the EVPC examination.

Members attending the Bristol meeting witnessed the happy and proud occasion when diplomas designed for the occasion by Marco Genchi were presented to Johannes Charlier and Thomas Geurden.

Over the next few weeks, similar diplomas will be sent to all current EVPC members.

In Memoriam: Prof. Himonas

Last summer on July 13 Chris Himonas, Emeritus Professor of Parasitology & Parasitic Diseases and Honorary Member of EVPC passed away at the age of 76. I would like to describe in brief who he was so that those who did not have a chance to know him can have an idea about the kind of man he was, and also for some of his friends to remember him by.

He was my teacher and my mentor, but also, and I think that I share the same opinion with the Veterinary and Parasitological society of Greece, an excellent person and scientist who managed to change the status of both Veterinary Medicine and Parasitology in our country and deeply influence many generations of students.

He was born in 1932 in Kavala Northern Greece. He studied Veterinary Medicine at the School of Veterinary Medicine - Aristotelian University - Thessaloniki, Greece (1950-56) where he also completed his doctoral thesis at the Laboratory of Microbiology and Parasitology (1958-61). Later he completed his Master of Science at the Department of Parasitology - Oklahoma State University - Stillwater, Oklahoma, U.S.A. (1961-1962) and continued his post-doctoral studies at the Department of Pathobiology - School of Hygiene and Public Health - Johns Hopkins University - Baltimore, Maryland, U.S.A. and at the Parasitological Laboratory - Agricultural Research Center - U.S.D.A. - Beltsville, Maryland, U.S.A.

He started his academic career as a research assistant at the Laboratory of Microbiology and Parasitology of the Veterinary School of the Aristotelian University of Thessaloniki, Greece in 1953 and in 1972 he became Full Professor, Founder and Director of the Laboratory of Veterinary Parasitology and Parasitic Diseases, a position from which he retired in August 1999.

During those years he also, time after time, served as a: Member of the University Senate; Dean of the Veterinary School; Head of the Department of Infectious, Parasitic and Avian Diseases and of Pathology; President of the Greek (National) Authority for the Registration of Veterinary Drugs; Member of C.V.M.P. of E.U. - Brussels; Member of C.V.M.P. of E.M.E.A. - London; Member and President of ACVT (Advisory Committee of Veterinary Training of E.U.); President of the Central University Library.

He personally created The Greek Society of Parasitology in 1986 where he was continuously elected as its President until his retirement. From 1973 onwards he was a member of WAAVP, where he also served as a Secretary Treasurer: 1975-1987 (under the presidencies of Drs. Gaafas and Eckert) and a Vice President 1987-89 (under the presidency of Dr. Urquhart). He organized and served as Chairman of the Local Organizing Committee, the 7th International Conference of WAAVP in Thessaloniki, Greece, in July

In Memoriam: Prof. Himonas (continued...)

1975. Finally, he was elected an Honorary Member since August 1999.

He had a strong personality and believed in high scientific standards and he dedicated his life to the creation and development of Veterinary Parasitology in Greece. I really feel lucky that I had the chance to be one of his students and I know that all of us who had met him closely as a teacher, collaborator and a person will always remember the brightness of his spirit, his passion for science, his kindness and integrity. I would like to close this with a wish we often give in Greek in such occasions "have a nice paradise" !!

By Smaro Sotiraki

EVPC 2009 in Toulouse!!!

NEXT YEAR'S ANNUAL GENERAL BUSINESS MEETING AND SCIENTIFIC SYMPOSIUM WILL BE HELD ON JUNE 2ND, 2009 AT THE NATIONAL VETERINARY SCHOOL IN TOULOUSE.

THIS DATE WILL ALSO GIVE THOSE MEMBERS INTERESTED AN EXCELLENT EXCUSE TO ATTEND THE 10TH ISEP MEETING (SEE THIS ISSUE) WHICH IMMEDIATELY FOLLOWS, FROM JUNE 3RD-5TH.

EXPERIENCE CUTTING-EDGE SCIENCE AT THE SCIENTIFIC SYMPOSIUM, MEET OUR RESIDENTS AT THE FIRST EVPC RESIDENTS' WORKSHOP, PARTICIPATE IN MAKING THE DECISIONS THAT MATTER FOR OUR COLLEGE.

THAT'S EVPC 2009, TOULOUSE!



FOR MORE INFORMATION CONTACT EVPC MEMBER MICHEL FRANC AT

m.franc@envt.fr

10th ISEP Meeting

3-5 June 2009 in Toulouse France: FIRST ANNOUNCEMENT

The Parasitology Department, National Veterinary School of Toulouse, is proud to announce that the 10th International Symposium on Ectoparasites of Pets will take place on June 3 - 5, 2009, in Toulouse, France.

We would like to invite all colleagues and scientists from the field to Toulouse!

Please mark the date on your calendar!

The following preliminary topics include the major fields of interest and research on ectoparasites of pets, and, following the tradition of ISEP, try to cover the specific epidemiological situation in different parts of the world.

TOPICS :

Treatment / Control of Ectoparasites

Methods of control
Efficacy trials
Chemoresistance

Ectoparasitosis

Epidemiology
Clinical aspects
Diagnosis

Vector - borne diseases

Tick-borne diseases
Flea-borne Diseases
Other Vector-borne Diseases

Molecular Biology / Immunology

Pathogeny
Diagnosis
Vaccine



Further information, details on registration and program will soon be found on the ISEP website (coming soon)

Please email: m.franc@envt.fr

First Announcement ISEP Meeting 2009 and Call for Submissions



The National Veterinary School of Toulouse will host the 10th International Symposium on Ectoparasites of Pets on June 3-5th, 2009, in Toulouse, France. This biennial event brings together researchers from veterinary medicine and their associated diseases.

The upcoming meeting will be held the third time in Europe, it will include invited keynote lectures and submitted 10-minute scientific presentations (+5 minutes discussion).

Please **register online** using the ISEP web address and the registration form (coming soon)

Abstracts submitted for the scientific sessions should address at one of the following topics:

- Treatment / Control of ectoparasites
- Vector - borne diseases
- Ectoparasitosis
- Molecular Biology / Immunology

The scientific committee will review submitted abstracts and notify presenters of acceptance within 30 days after deadline.

**Deadline for submission is
February 28, 2009!**

Abstracts should contain a maximum of 250 words (or 1500 characters with spaces) submitted in Microsoft Word (XP or earlier) or as Rich Text Format format using Arial #12 font. They should contain Title, Author(s) and Affiliation on top.

Please **submit** your abstract online using the ISEP web address (coming soon)

We hope you will be able to attend this symposium. We appreciate your assistance in publicising this Symposium to your colleagues and look forward to seeing you at the 8th ISEP!

For any **assistance**, information or alternative communication for submission please contact:

Pr. Michel Franc, Parasitologie, Ecole Vétérinaire de Toulouse
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e-mail: m.franc@envt.fr

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The European Veterinary Parasitology College (EVPC) Newsletter is published three times a year with issues in April, August and December. Contributions to the Newsletter are welcome and should be submitted by the 15th day of the month prior to issue.

SUBMISSIONS DEADLINES:

<u>Newsletter Date</u>	<u>Deadline Date</u>
1st April 2009	15th March 2009

1st August 2009	15th July 2009
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Please contact the editors with any queries regarding these dates

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European Veterinary Parasitology College

Refugia

*For EVPC residents and their supervisors

European Veterinary Parasitology College



EVPC

Supplement 1

**THE EVPC 2009 EXAMINATION FOR
DIPLOMATE STATUS:
IMPORTANT DATES FOR PROSPECTIVE CANDIDATES**

by Bertrand Losson

The 2009 EVPC examination for diplomate status will be held at the Veterinary School of the University of Liege in late autumn 2009.

All prospective candidates, i.e. those who have obtained approval of an Alternative Residency programme **and** who have completed this programme **and** who wish to sit the examination, should read the following important dates very carefully (as should their Supervisors!!).

MARCH 1st, 2009

Application deadline to sit the examination. The form is available on the EVPC website www.eurovetpar.org. The form should be E-mailed to the EVPC Secretary for consideration by the Credentials Committee. Please note that a brief summary of the 12 case reports chosen by the candidate must be submitted at this time. The examination fee of 350 Euros must be paid at the same time. This can be done by bank transfer or credit card; instructions are available on the website.

Early APRIL, 2009

Eligibility to sit the examination is notified to applicants. Fees are refunded (except for a processing charge of 10 percent) if the applicant's credentials are not accepted or if candidates withdraw from the examination before JUNE 1st, 2009. No refund after this date.

Early JUNE, 2009

The Chairman of the Examinations Committee will inform each candidate by letter of the date, time, place and arrangements for the examination.

JULY 1st, 2009

Submission deadline of 12 full reflective case reports in Word format.

Late OCTOBER, 2009

Candidates will be informed of which 2 case reports to prepare for oral presentation in Power Point format.

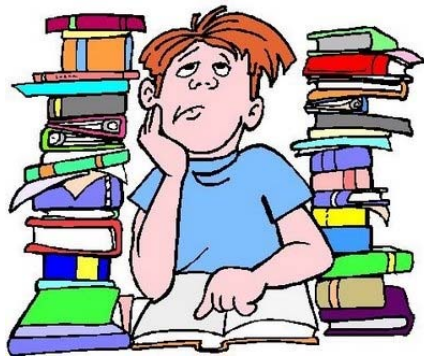
For further information, see the 'GUIDELINES FOR PROSPECTIVE CANDIDATES FOR THE EVPC DIPLOMA EXAMINATION'

**ALL DEADLINES FOR APPLICATION AND SUBMISSION OF MATERIALS
MUST BE STRICTLY ADHERED TO. FAILURE TO DO SO WILL DISQUALIFY
THE CANDIDATE FROM SITTING
THE EXAMINATION IN 2009**

**EVPC EXAMINATION COMMITTEE CHAIRPERSON
BERTRAND LOSSON PRESENTS THE
2009 EVPC EXAMINATION READING LIST**

The EVPC Board, at its 2008 interim meeting in Vienna, decided that prospective candidates for the 2009 examination should have access to a carefully-selected number of state-of-the-art reviews in Veterinary Parasitology. These articles will be used by the Examination Committee to formulate the essay questions for the 2009 Examination.

**ALL PROSPECTIVE CANDIDATES ARE ASKED TO PLEASE READ THE LIST
CAREFULLY AND TO STUDY, STUDY, STUDY.....!**



Baneth G. et al. Canine leishmaniosis - new concepts and insights on an expanding zoonosis : part one. Trends in Parasitology, 2008, 24.

Cole G.C. et al., The detection of anthelmintic resistance in nematodes of veterinary importance. Vet. Parasitol., 2006, 136, 167-185.

Dubey J.P. et al. Epidemiology and control of neosporosis and *Neospora caninum*. Clinical Microbiology Reviews, 2007, 20, 323-367.

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Flisser A. et al. Control of the taeniosis/cysticercosis complex: future developments. Vet. Parasitol., 2006, 139, 283-292.

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Gondim L.F.P. *Neospora caninum* in wildlife. Trends in Parasitology, 2006, 22.

Hunter P.R. and Thompson R.C.A. The zoonotic transmission of *Giardia* and *Cryptosporidium*. Int. J. Parasitol., 2005, 35, 1181-1190.

- Jackson F. and Miller J. Alternative approaches to control - Quo vadit? Vet. Parasitol., 2006, 139, 371-384.
- Jenkins D.J. et al., Emergence/re-emergence of *Echinococcus* spp. - a global update. Int. J. Parasitol., 2005, 35, 1205-1219.
- Jongejan F. et al. Advances in the genomics of ticks and tick borne pathogens. Trends in Parasitology, 2007, 23.
- Miro G. et al. Canine leishmaniosis - new concepts and insights on an expanding zoonosis : part two. Trends in Parasitology, 2008, 24.
- Monis P. et al. Emerging technologies for the detection and genetic characterization of protozoan parasites. Trends in Parasitology, 2005, 21.
- Peter R.J. et al. Tick, fly, and mosquito control - Lessons from the past, solutions for the future. Vet. Parasitol., 2005, 132, 205-215.
- Pozio E. and Zarlenga D.S. Recent advances on the taxonomy , systematics and epidemiology of *Trichinella*. Int. J. Parasitol., 2005, 35, 1191-1204.
- Rust M. Advances in the control of *Ctenocephalides felis* (cat flea) on cats and dogs. Trends in Parasitology, 2005, 21.
- Smith W.D. and Zarlenga D.S. Developments and hurdles in generating vaccines for controlling helminth parasites of grazing ruminants. Vet. Parasitol., 2006, 139, 347-359.
- Stevens J. R. et al. The evolution of myiasis in humans and other animals in the Old and New Worlds (part II): biological and life-history studies. Trends in Parasitology, 2006, 22.
- Wall R. Ectoparasites: Future challenges in a changing world. Vet. Parasitol., 2007, 148, 62-74.
- Waller P.J. From discovery to development: Current industry perspectives for the development of novel methods of helminth control in livestock. Vet. Parasitol., 2006, 139, 1-14.
- Willadsen P. Tick control: Thoughts on a research agenda. Vet. Parasitol. 2006, 138, 161-168.

Abstracts from the EVPC 2008 Scientific Symposium

European Veterinary Parasitology College



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Supplement 2

European Veterinary Parasitology College – Annual Symposium

Parasite control and climate change

Abstracts

18th-19th September 2008, University of Bristol

Meeting Sponsors



Climate change effects on trematodiasis, with emphasis on zoonotic fascioliasis and schistosomiasis

Santiago Mas-Coma*, Maria Adela Valero & Maria Dolores Bargaes

Departamento de Parasitología, Facultad de Farmacia, Universidad de Valencia, Av. Vicent Andrés Estellés s/n, 46100 Burjassot, Valencia, Spain

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Abstract

The capacity of climatic conditions to modulate the extent and intensity of parasitism is well known since long ago. Concerning helminths, among the numerous environmental modifications giving rise to changes in infections, climate variables appear as those showing a greater influence, so that climate change may be expected to have an important impact on the diseases they cause. However, the confirmation of the impact of climate change on helminthiasis has been reached very recently. Only shortly before, helminthiasis were still noted as infectious diseases scarcely affected by climate change, when compared to diseases caused by microorganisms in general (viruses, bacteriae rickettsiae, protozoans). The aim of the present paper is to review the impact of climate change on helminthiasis transmitted by snails, invertebrates which are pronouncedly affected by meteorological factors, by focusing on trematodiasis. First, the knowledge on the effects of climate change on trematodiasis in general is reviewed, including aspects such as influence of temperature on cercarial output, cercarial production variability in trematode species, influences of magnitude of cercarial production and snail host size, cercarial quality, duration of cercarial production increase and host mortality, influence of latitude, and global-warming-induced impact of trematodes. Secondly, important zoonotic diseases as fascioliasis, schistosomiasis and cercarial dermatitis are analyzed from the point of view of their relationships with meteorological factors. Emphasis is given to data which indicate that climate change influences the characteristics of these trematodiasis in concrete areas where these diseases are emerging in recent years. The present review shows that trematodes, similarly as other helminths presenting larval stages living freely in the environment and/or larval stages parasitic in invertebrates easily affected by climate change as arthropods and molluscs as intermediate hosts, may be largely more susceptible to climate change impact than those helminths in whose life cycle such phases are absent or reduced to a minimum. Although helminths also appear to be affected by climate change, their main difference with microparasites lies on the usually longer life cycles of helminths. Consequently, after a pronounced climate change in a local area, modifications in helminth populations need more time to be obvious or detected than modifications in microparasite populations and may thus be overlooked if not concretely searched for. All indicates that this phenomenon has been the reason for previous analyses to conclude that helminthiasis do not constitute priority targets in climate change impact studies.

Keywords: Climate change, trematodiasis, fascioliasis, schistosomiasis, cercarial dermatitis.

Canine leishmaniasis in the UK: a zoonotic disease waiting for a vector?

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Abstract

Leishmaniasis is an important sand-fly transmitted protozoan disease of dogs and humans that is endemic in the Mediterranean areas of Europe (*Leishmania infantum*), the Middle East and many tropical and subtropical areas of the world. In northern Europe, infection is mainly restricted to dogs that have travelled to and/or from endemic areas of the Mediterranean region during periods when there is high sand-fly exposure. The disease causes serious and potentially fatal disease in susceptible dogs with associated welfare implications. Infected dogs are a reservoir for sand fly infection and thus for human leishmaniasis.

Since the introduction of the United Kingdom (UK) Pet Travel Scheme (PETS) in 2000, there has been a large increase in the number of dogs travelling into the UK (1). However, the true prevalence of leishmania infection in dogs entering the UK is unknown as infection is not notifiable and there is no pre-travel testing.

The University of Bristol has recorded data on confirmed cases of leishmaniasis from dogs entering the UK since 2000 and data from the period 2005-2007 were studied in detail. Specimens from suspected cases sent to our laboratory were confirmed as positive or leishmania by real time or conventional PCR, IFA serology and/ or demonstration of organisms by microscopy from pathological specimens (n= 131). Information was also collected from confirmed cases diagnosed by other laboratories using the above criteria during the same period and for which treatment and management advice was requested from our laboratory by telephone, email or FAX (n= 126). The frequency of clinicopathological findings in the 257 affected dogs was as follows:

Weight loss, malaise, partial anorexia	78%
Skin disease	52%
Lymphadenomegaly/splenomegaly	50%
Lameness/arthropathy	44%
Renal disease : PU-PD /proteinuria	12%
Epistaxis	8%
Ophthalmic signs	10%
Gastrointestinal signs	8%
Hypergammaglobulinaemia	30%
Haematological abnormalities	22%

Travel history was available from records for 183/ 257 dogs. Of these, 57% entered from

Spain, 14% from Greece, 9% each from Portugal and Italy, 4% each from France and Cyprus and single cases were recorded from Malta, Gibraltar and the Canarias. Of the 183 dogs, 15% were rescued from rehoming centres in the country of origin and 14% entered the UK with confirmed leishmaniasis. The majority of dogs (96%) had spent at least 6 months in an endemic country. Three affected dogs with no travel history were obtained from UK rehoming centres.

There is no doubt that reservoir of infected dogs will continue to expand in the UK due to importation of infected dogs and the fact that there is a long incubation period (years in some cases) which delays veterinary diagnosis and treatment. The implications for canine blood banking facilities and the potential for transmission in the absence of competent sand fly vectors as has occurred in the USA (2) are current issues for UK dog owners, breeders and veterinary surgeons.

The significance of leishmaniasis as a UK human health issue is largely dependent on the risk of spread of the phlebotomine sand fly vector responsible for transmission between dogs and humans into the UK. *Phlebotomus perniciosus*, a competent vector for leishmaniasis, has been occasionally reported in northern France and southern Germany (3). However, *Ph. Mascittii*, a species whose competency as a vector for leishmaniasis is currently unknown but suspected, appears to have established in the current climate of southern Germany and Belgium and has been identified in at least 12 different sites (3). The effect of climate change on the northern extension of the geographical range of competent sand-flies has yet to be monitored properly and there is no surveillance for sand-flies in the UK. However, autochthonous leishmaniasis has been reported in non-travelled dogs on several occasions in the UK, Belgium, Holland and Germany (4) and there been cases of Mediterranean leishmaniasis diagnosed in non-travelled humans in both England and Germany (5,6).

Our data raises the issue that an increasing number of humans in the UK live in close proximity to dogs infected (clinical or sub-clinically) with leishmaniasis and because of the variable efficacy of therapy, these dogs will remain capable of infecting introduced sand-flies for many years of their lives.

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Climate and vector borne diseases in Europe, the example of *Dirofilaria* infection

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Abstract

Climatic changes, together with an increase in the movement of cats and dogs across Europe, have caused an increase in the geographical range of several vector borne parasites like *Dirofilaria*, and in the risk of infection for animals and humans. The present paper reviews the effects of climate and other global drivers on *Dirofilaria immitis* and *D. repens* infections in Europe and the possible implications on the transmission and control of these mosquito-borne nematodes. In the last several years, growing degree day (GDD)-based forecast models, which use wide or local scale temperature data, have been developed to predict the occurrence and seasonality of *Dirofilaria* in different parts of the world. All these models are based on the fact that: there is a threshold of 14°C below which *Dirofilaria* development will not proceed; and there is a requirement of 130 GDD for larvae to reach infectivity and a maximum life expectancy of 30 days for a vector mosquito. The output of these models predict that the summer temperatures (with peaks in July) are sufficient to facilitate extrinsic incubation of *Dirofilaria* even at high latitudes. The global warming projected by the Intergovernmental Panel on Climate Change suggests that warm summers suitable for *Dirofilaria* transmission in Europe will be the rule in the future decades and if the actual trend of temperature increase continues, filarial infection should spread into previously infection-free areas. These factors not only favour incubation of *Dirofilaria*, but also impact on mosquito species. Recent findings have also demonstrated that *Aedes albopictus* is now considered to be an important, competent vector of *Dirofilaria* infections. This mosquito species could spread from southern to northern European countries in the near future, changing the epidemiological patterns of dirofilariosis both in humans and animals.

Keywords: climate change, global warming, vector-borne diseases, *Dirofilaria immitis*, *D. repens*, Europe.

Sheep helminth parasitic disease in south eastern Scotland arising as a putative consequence of climate change

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Abstract

The climate in the UK is changing, with a trend towards increased rainfall in the autumn and winter, warmer average temperatures and an extension of the herbage growing season over the past 40 years by approximately 4 weeks. These changes may have implications for the epidemiology of sheep helminth parasites. Here, we describe production limiting disease outbreaks caused by *Haemonchus contortus*, *Nematodirus battus*, *Teladorsagia circumcincta* and *Fasciola hepatica* in sheep flocks in south eastern Scotland. These outbreaks occurred outwith the traditional high risk periods for the diseases and highlight changes in the epidemiology of helminth infections from what has been conventionally described in this region. These cases are used to introduce discussion regarding the potential effects of climate change on the epidemiology of helminth parasites and the implications for sheep farming in the UK.

Emerging Arthropod Borne Diseases in Carnivores in Europe.

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Abstract

Vector-borne diseases are caused by parasites, bacteria or viruses transmitted by the bite of hematophagous arthropods (mainly ticks and mosquitoes). The past few years have seen the emergence of new diseases, or re-emergence of existing ones, usually with changes in their epidemiology (i.e. geographical distribution, prevalence, and pathogenicity). The frequency of some vector-borne diseases of pets is increasing in Europe, i.e. canine babesiosis, granulocytic anaplasmosis, canine monocytic ehrlichiosis, thrombocytic anaplasmosis, and leishmaniosis. Except for the last one, those diseases are transmitted by ticks. Both the distribution and the density of the three main tick species, *Rhipicephalus sanguineus*, *Dermacentor reticulatus* and *Ixodes ricinus* are changing. The conditions for such changes involve primarily human factors (travels with pets, changes in human habitats, social and leisure activities...) but climate changes, so called “global warming”, also has a direct impact on arthropod vectors (density, geographical distribution, and vectorial capacity). Besides the most known diseases, the attention should be kept on Tick borne Encephalitis, which seems to increase in western Europe, as well as flea borne diseases like the flea transmitted rickettsiosis. After having studied the reasons for ecological changes regarding the tick vectors, the author is presenting an overview of each “emerging” vector borne diseases for pets.

Key words : Arthropod Borne Diseases, Epidemiology, Dogs, Cats, Ticks

Bluetongue - vectors, epidemiology and climate-change

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Abstract

The presentation will begin with a brief discussion of those climatic variables that are likely to influence the distribution and incidence of vector-borne diseases such as bluetongue. An explanation of how these variables may induce their own particular effects will be included.

The talk will then move on to describe the disease caused by bluetongue virus (BTV) in its ruminant hosts and, will then concentrate on recent changes in the world distribution of BTV and its vectors, focussing on Europe from 1998 until 2008. It will be argued that the recent changes, both in terms of virus distribution and the species of vectors transmitting the virus can be linked to climate-change.

Suggestions of what this might mean for the future, in a time of on-going climate-change will be set out.

Key words: Bluetongue, *Culicoides*, Vectors, Epidemiology, Climate-change