DESCRIPTION

*Veterinary Parasitology* is concerned with those aspects of *helminthology*, *protozoology* and *entomology* which are of interest to *animal health* investigators, veterinary practitioners and others with a special interest in *parasitology*. Papers of the highest quality dealing with all aspects of disease prevention, pathology, treatment, epidemiology, and control of parasites in all domesticated animals, fall within the scope of the journal. Papers of geographically limited (local) interest which are not of interest to an international audience will not be accepted. Authors who submit papers based on local data will need to indicate why their paper is relevant to a broader readership. Or they can submit to the journal's companion title, *Veterinary Parasitology: Regional Studies and Reports*, which welcomes manuscripts with a regional focus.

Parasitological studies on *laboratory animals* fall within the scope of *Veterinary Parasitology* only if they provide a reasonably close model of a disease of *domestic animals*. Additionally the journal will consider papers relating to *wildlife* species where they may act as disease reservoirs to domestic animals, or as a zoonotic reservoir. Case studies considered to be unique or of specific interest to the journal, will also be considered on occasions at the Editors' discretion. Papers dealing exclusively with the taxonomy of parasites do not fall within the scope of the journal.

Studies on rickettsial disease organisms (Ehrlichia, Anaplasma, Eperythrozoon) will be considered for publication in *Veterinary Parasitology*, but only if the paper deals with vector transmission of these organisms to domesticated animals, or if zoonotic. Studies on Rickettsia per se will not be accepted.

Studies dealing with *parasite control* by means of natural products, both *in vivo* and *in vitro*, fall within the scope of the journal, but only if well documented and with therapeutically relevant minimum inhibitory concentrations of the active compound(s) being clearly demonstrated.

Circumstances relating to animal experimentation must meet the International Guiding Principles for Biomedical Research Involving Animals as issued by the Council for International Organizations of Medical Sciences. (Obtainable from: Executive Secretary C.I.O.M.S., c/o W.H.O., Via Appia, CH-1211 Geneva 27, Switzerland.)

Manuscripts reporting meta-analyses and systematic reviews that follow PRISMA or MOOSE reporting guidelines will receive consideration only if they go beyond reporting parasite prevalence and provide a description and analysis of factors and mechanisms associated with the reported data.
AUDIENCE

Research Workers and Practitioners in veterinary medicine, Animal Health Investigators and others with a special interest in parasitology, veterinary pharmaceutical industry.

ABSTRACTING AND INDEXING

BIOSIS Citation Index
Elsevier BIOBASE
Helmintological Abstracts
PubMed/Medline
Index Catalog of Medical and Veterinary Zoology
Index Veterinarius
Protozoological Abstracts
Veterinary Bulletin
Scopus
Current Contents - Agriculture, Biology & Environmental Sciences
Referativnyi Zhurnal VINTI-RAN (Russian Academy of Sciences)

EDITORIAL BOARD

Editors-in-Chief
Andy Greer, Lincoln University, Faculty of Agriculture Horticulture Viticulture, Christchurch, New Zealand
Gastrointestinal nematodes, Livestock, Resistance management
Martin K. Nielsen, University of Kentucky, Lexington, Kentucky, United States of America
Helminths in horses, Diagnosis, Control, Epidemiology, Anthelmintic efficacy, Anthelmintic resistance
Michael P. Reichel, Cornell University College of Veterinary Medicine, Ithaca, New York, United States of America
Protozoa, Neospora caninum, Veterinary Public Health
Theo de Waal, University College Dublin, Dublin, Ireland
Veterinary parasitology, Epidemiology, Anthelmintic resistance

Book Review Editors
Gad Baneth, Hebrew University of Jerusalem Koret School of Veterinary Medicine, Rehovot, Israel
Areas of expertise - Vector-borne zoonotic diseases, Veterinary parasitology, Leishmaniosis, Tick-borne pathogens
Elias Papadopoulos, Aristotle University of Thessaloniki, School of Health Sciences, Faculty of Veterinary Medicine, Thessaloniki, Greece
Areas of expertise - Anthelmintic resistance, Vector-borne diseases, Arthropods

Editorial Advisory Board
Rodney Besier, Murdoch University College of Science Health Engineering and Education, Murdoch, Australia
Nematode Epidemiology And Control, Ruminant parasite biology and epidemiology, Anthelmintics and anthelmintic resistance, Non-chemical parasite management, Communication of parasite control information
Frederic Beugnet, Boehringer Ingelheim Animal Health, Lyon, France
Cats, Dogs, Horses, Entomology, Acarology, Helminthology, Epidemiology, Vector borne pathogens
Dwight Bowman, Cornell University, Ithaca, New York, United States of America

Luís Cardoso, University of Tras-os-Montes and Alto Douro, Vila Real, Portugal
Areas of expertise - Veterinary parasitology, Vectorborne pathogens of domestic and wild animals, Parasitic zoonoses
Edwin Claerebout, Ghent University, Department of Virology Parasitology and Immunology, Merelbeke, Belgium
Veterinary Parasitology, Gastrointestinal Nematodes, Cattle Parasites, Integrated Parasite Control, Vaccine Development
Matthew Denwood, University of Copenhagen, Department of Veterinary and Animal Sciences, Frederiksberg, Denmark
Biostatistics, Epidemiology, Quantitative Parasitology

Philippe Dorchies, National Veterinary School Toulouse, Toulouse, France
Parasitology and Parasitic diseases, Acarology, Entomology and helminthology, Epidemiology, Pathology, Control

Pierre Dorny, Institute of Tropical Medicine Antwerp, Department of Biomedical Sciences, Antwerp, Belgium
Expertise - Epidemiology of zoonotic parasites, parasite diagnosis, helminth control, tropical veterinary medicine

Geoffrey Fosgate, University of Pretoria, Pretoria, South Africa
Veterinary Epidemiology, Bio-statistics and Diagnostic Test Validation

Caroline Frey, University of Bern Vetsuisse, Faculty, Department of Infectious Diseases and Pathobiology
Institute of Parasitology, Bern, Switzerland
Expertise - Veterinary parasitology, zoonotic parasites, molecular detection, serology, foodborne parasites

Stanny Geerts, Antwerp, Belgium
Trypanosomosis, Helminth zoonoses, Anthelmintic resistance

Claudio Genchi, Milan, Italy
Helminthology, Dirofilariasis, vector borne diseases

John Gilleard, University of Calgary, Calgary, Alberta, Canada
Anthelmintic Drug Resistance, Helminth Genetics and Genomics, Molecular Epidemiology and Diagnostics

Luis Fernando Gondim, Federal University of Bahia, School of Veterinary Medicine, Department of Veterinary Anatomy, Pathology and Clinics, Salvador, Brazil
Coccidia, Sarcocystidae, Coccidian parasites, Neospora sp., Sarcocystis sp., Toxoplasma gondii

Dan Howe, University of Kentucky, Lexington, Kentucky, United States of America
Apicomplexan Parasites, Molecular Genetics, Microbial Pathogenesis

Ikuo Igarashi, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Japan
Survey of protozoan disease, Diagnostics of protozoan diseases, Development of chemotherapy

Anja Joachim, University of Veterinary Medicine Vienna, Wien, Austria
Areas of expertise - Porcine parasites, Coccidia, Zoonoses, Vector-borne pathogens of domestic animals, Veterinary parasitology

Pikka Jokelainen, Statens Serum Institut Infectious Disease Preparedness, København, Denmark
One Health, Zoonoses, Infectious disease preparedness

Ray Kaplan, University of Georgia, Athens, Georgia, United States of America
Anthelmintic Resistance, Parasite Diagnosis, Epidemiology and Control of Gastrointestinal Helminths

Andrew Kotze, CSIRO Queensland Bioscience Precinct, St Lucia, Australia
Anthelmintic resistance, Helminth control, Drug discovery

Laura Kramer, University of Parma, Parma, Italy
Parasitology Epidemiology Pathogenesis Immunology Control Dog Cat Horse Pig Ruminants

Marcelo Labruna, University of Sao Paulo, SAO PAULO, Brazil
Ticks and Tick-borne Diseases

Adrian Lifschitz, Pharmacology Laboratory, Tandil Veterinary Research Center (CIVETAN) (UNCPBA-CICPBA-CONICET), Faculty of Veterinary Sciences, UNCPBA, Tandil, Argentina
Pharmacology of antiparasitic drugs, pharmacokinetics, Pharmacology, Parasitology

 Alan Marchiondo, Santa Fe, NM, United States of America
Parasiticide Efficacy, Ecto- And Endoparasites, Companion And Food-Production Animals

Marcelo Molento, Federal University of Parana, CURITIBA, Brazil
Epidemiology of parasite infections, Forecast analysis, Drug resistance, Helminths, Drug Development

Jorge Morales-Montor, National Autonomous University of Mexico, Department of Immunology, Ciudad de Mexico, Mexico
Neuroimmunoendocrinology, Environmental Medicine, Oncoimmunology, Endocrine Disruptors, Immunotoxicology

Vinny Naidoo, University of Pretoria, Pretoria, South Africa
Pharmacokinetics, Preclinical Safety Testing, Phytomedicines, Regulatory Pharmacology

Pia Olafson, USDA-ARS Knipling-Bushland US Livestock Insects Research Laboratory, Kerrville, Texas, United States of America
livestock ectoparasites, Arthropod disease vectors, Host-vector interactions, Pesticide resistance

Domenico Otranto, University of Bari, Bari, Italy
Canine and feline vector-borne zoonotic diseases

Roberto Amerigo Papini, University of Pisa, Pisa, Italy
Veterinary Parasitology, Parasitic Zoonoses, Anthelmintic drugs

Kurt Pfister, Ludwig Maximilians University Munich, München, Germany
Ticks and Tick-borne diseases (all animal species), Ruminant helminths including epidemiology, prevention and control, Targeted anthelmintic treatment of horses

Dierk E. Rebeski, Vibalogics, Cuxhaven, Germany
Applied parasitology worldwide, protozoology, trypanosomosis, coccidiosis, theileriosis, diagnostics, immunoassays, PCR
methods, assay validation, all livestock including poultry, pets, treatment, vaccines (R& D, manufacturing including quality assurance), immunology

**Gereon Schares**, Friedrich-Loeffler-Institute Federal Research Institute for Animal Health, Greifswald, Germany

**Theo Schetters**, University of Pretoria, Department of Veterinary Tropical Diseases, Pretoria, South Africa
Tick Borne Diseases, Vaccine development, Pathology, Immunology

**Johann Schröder**, Billambil Heights, Australia
Experimental Design, Epidemiology, Chemical Parasiticides, Integrated Parasite Management, Anti-Parasitic Vaccines, Parasite Diagnostics, Ticks, Flies, Lice, Nematodes, Cestodes, Trematodes

**Jan Šlapeta**, University of Sydney, Faculty of Science Sydney School of Veterinary Science Laboratory of Veterinary Parasitology, Camperdown, New South Wales, Australia
Biology, Apicomplexa, Parasites, Fleas and ticks, Vector borne diseases, Veterinary diagnostics, Veterinary parasitology education

**Ian Sutherland**, Hopkirk Research Institute, Palmerston North, New Zealand
Parasitology, immunology, anthelmintic resistance, welfare

**Mike Taylor**, Vparst Limited, York, United Kingdom
Sheep, cattle, worm control, fluke, coccidiosis, anthelmintic resistance, FECRT methods

**Andrew Thompson**, Murdoch University, Murdoch, Australia
Expertise - Zoonoses, cestodes, enteric protozoa, trypanosomes, wildlife

**Donato Traversa**, University of Teramo Veterinary Hospital, Teramo, Italy
Companion animals, Helminths, Vector-borne diseases

**Gert Venter**, University of the Free State, Bloemfontein, South Africa
Culicoides Biting Midges, Vector Competence And Capacity

**Georg Von Samson-Himmelstjerna**, Free University of Berlin, Berlin, Germany
Helminthoses in horses, dogs, cats and ruminants, Ticks and tick transmitted diseases, Drug resistance, Mechanism of drug action

**Lihua Xiao**, South China Agricultural University College of Veterinary Medicine, Guangzhou, China
Protozoa, Cryptosporidium, Giardia, Molecular epidemiology, Zoonosis

**Dante Zarlenga**, USDA-ARS Beltsville Agricultural Research Center, Beltsville, Maryland, United States of America
Food-borne and Animal Parasitology, molecular biology, phylogeny

**Xing-Quan Zhu**, Shanxi Agricultural University, College of Veterinary Medicine, Taigu, China
Molecular vaccines, Parasite genetics, Molecular detection and diagnosis of parasites, Parasite omics, Parasite-host interactions

**Annetta Zintl**, University College Dublin, Dublin, Ireland
Molecular epidemiology, Immunology, Vaccine development, Parasitic protozoa and helminths,
GUIDE FOR AUTHORS

Types of contribution
1. Original research papers (Regular Papers)
2. Review articles
3. Letters to the Editor
4. Book reviews

Original research papers should report the results of original research. The material should not have been previously published elsewhere, except in a preliminary form. Review articles should cover subjects falling within the scope of the journal which are of active current interest. They may be submitted or invited. Letters to the Editor offering comment or useful critique on material published in the journal are welcomed. The decision to publish submitted letters rests purely with the Editors-in-Chief. It is hoped that the publication of such letters will permit an exchange of views which will be of benefit to both the journal and its readers. Book reviews will be included in the journal on a range of relevant books which are not more than 2 years old and were written in English.

Book reviews will be solicited by the Book Review Editor. Unsolicited reviews will not usually be accepted, but suggestions for appropriate books for review may be sent to one of the Book Review Editors noted below:

Dr G. Baneth
School of Veterinary Medicine,
Hebrew University,
Rehovot,
Israel
gad.baneth@mail.huji.ac.il

Dr E. Papadopoulos
Faculty of Veterinary Medicine,
Aristotle University of Thessaloniki,
Thessaloniki,
Greece
eliaspap@vet.auth.gr

Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:
Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print
Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• All references mentioned in the Reference List are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements
• We require that non-commercial product names are used throughout the text in submissions. You may include the commercial name(s) of products in the Material and Methods section, then use only the non-commercial name thereafter

Suggestions for the framing of a manuscript suitable for Veterinary Parasitology can be found in this link.

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information on Ethics in publishing.

Animal Welfare
Circumstances relating to animal experimentation must meet the International Guiding Principles for Biomedical Research Involving Animals as issued by the Council for the International Organizations of Medical Sciences. They are obtainable from the following URL: https://grants.nih.gov/grants/olaw/guiding_principles_2012.pdf. Unnecessary cruelty in animal experimentation is not acceptable to the Editors of Veterinary Parasitology. Please include an animal welfare statement under the heading "Animal welfare statement" at the end of the text.

Declaration of competing interest
Corresponding authors, on behalf of all the authors of a submission, must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. All authors, including those without competing interests to declare, should provide the relevant information to the corresponding author (which, where relevant, may specify they have nothing to declare). Corresponding authors should then use this tool to create a shared statement and upload to the submission system at the Attach Files step. Please do not convert the .docx template to another file type. Author signatures are not required.

Declaration of generative AI in scientific writing
The below guidance only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process.

Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. AI and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier’s AI policy for authors.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.

Disclosure instructions
Authors must disclose the use of generative AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript in the core manuscript file, before the References list. The statement should be placed in a new section entitled ‘Declaration of Generative AI and AI-assisted technologies in the writing process’.
Statement: During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

Preprints
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

Preprint posting on SSRN
In support of Open Science, this journal offers its authors a free preprint posting service. Preprints provide early registration and dissemination of your research, which facilitates early citations and collaboration.

During submission to Editorial Manager, you can choose to release your manuscript publicly as a preprint on the preprint server SSRN once it enters peer-review with the journal. Your choice will have no effect on the editorial process or outcome with the journal. Please note that the corresponding author is expected to seek approval from all co-authors before agreeing to release the manuscript publicly on SSRN.

You will be notified via email when your preprint is posted online and a Digital Object Identifier (DOI) is assigned. Your preprint will remain globally available free to read whether the journal accepts or rejects your manuscript.

For more information about posting to SSRN, please consult the SSRN Terms of Use and FAQs.

Use of inclusive language
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

Reporting sex- and gender-based analyses
Reporting guidance
For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research's generalizability. Importantly, authors should explicitly state what
definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the Sex and Gender Equity in Research (SAGER) guidelines and the SAGER guidelines checklist. These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

Definitions
Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth (“sex assigned at birth”), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

Author contributions
For transparency, we require corresponding authors to provide co-author contributions to the manuscript using the relevant CRediT roles. The CRediT taxonomy includes 14 different roles describing each contributor’s specific contribution to the scholarly output. The roles are: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; and Writing - review & editing. Note that not all roles may apply to every manuscript, and authors may have contributed through multiple roles. More details and an example.

Authorship
All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Article transfer service
This journal uses the Elsevier Article Transfer Service to find the best home for your manuscript. This means that if an editor feels your manuscript is more suitable for an alternative journal, you might be asked to consider transferring the manuscript to such a journal. The recommendation might be provided by a Journal Editor, a dedicated Scientific Managing Editor, a tool assisted recommendation, or a combination. If you agree, your manuscript will be transferred, though you will have the opportunity to make changes to the manuscript before the submission is complete. Please note that your manuscript will be independently reviewed by the new journal. More information.
Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement, it is recommended to state this.

Open access
Please visit our Open Access page for more information.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's Author Services.

Submission
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

A cover letter is required for each new submission. It should address the novelty and significance of the work and how it fits within the defined scope of Veterinary Parasitology. Essential information, issues of concern or potential problems, (such as other publications or submissions containing similar information) should be identified in the cover letter. Authors who submit papers based on local data/surveys will need to indicate why their paper is relevant to a broader readership.

Authors are invited to suggest the names of up to 5 referees (with email addresses) whom they feel are qualified to evaluate their submission. Submission of such names does not, however, imply that they will definitely be used as referees.

For queries concerning the submission process or journal procedures please visit the Elsevier Support Center. Authors can check the status of their manuscript within the review procedure using Elsevier Editorial System.

Authors submitting hard copy papers will be asked to resubmit using Elsevier Editorial System.
Submission of an article is understood to imply that the article is original and is not being considered for publication elsewhere. Submission also implies that all authors have approved the paper for release and are in agreement with its content. Upon acceptance of the article by the journal, the author(s) will be asked to transfer the copyright of the article to the Publisher. This transfer will ensure the widest possible dissemination of information.

**Article Transfer Service**
This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. More information about this can be found here: [https://www.elsevier.com/authors/article-transfer-service](https://www.elsevier.com/authors/article-transfer-service).

**Submit your article**

**PREPARATION**

**Queries**
For questions about the editorial process (including the status of manuscripts under review) or for technical support on submissions, please visit our [Support Center](https://www.elsevier.com/guidepublication).

**Peer review**
This journal operates a single anonymized review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor’s decision is final. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal's usual procedures, with peer review handled independently of the relevant editor and their research groups. More information on types of peer review.

If at all possible please refrain from sending chasers to the Editorial Office asking about the status of your paper under review, as the Editors aim to review your paper as efficiently as possible and the enquiry is unlikely to speed up the process.

**Use of word processing software**
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: [https://www.elsevier.com/guidepublication](https://www.elsevier.com/guidepublication)). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork. To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

**Article structure**
Manuscripts should have **numbered lines** with wide margins and **double spacing** throughout, i.e. also for abstracts, footnotes and references. **Every page of the manuscript should be numbered.** However, in the text no reference should made to page numbers; if necessary, one may refer to sections. Avoid excessive usage of italics to emphasize part of the text. Manuscripts in general should be organized in the following order:
Title (should be clear, descriptive and not too long)
Name(s) of author(s)
Complete postal address(es) of affiliations
Full telephone, Fax No. and e-mail address of the corresponding author
Present address(es) of author(s) if applicable
Complete correspondence address including e-mail address to which the proofs should be sent
Abstract
Keywords (indexing terms), normally 3-6 items. Please refer to last index (Vol. 100/3-4).

Introduction
Material studied, area descriptions, methods, techniques
Results
Discussion
Conclusion
Acknowledgments and any additional information concerning research grants, etc.
References
Tables
Figure captions
Tables (separate file(s))
Figures (separate file(s)).

Titles and subtitles should not be run within the text. They should be typed on a separate line, without indentation. Use lower-case letter type.

SI units should be used.

Elsevier reserves the privilege of returning to the author for revision accepted manuscripts and illustrations which are not in the proper form given in this guide.

Subdivision - numbered sections
Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Essential title page information
• **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
• **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
• **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights
Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract
A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.
The abstract should be clear, descriptive and not more than 400 words.

**Graphical abstract**
Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site.

**Formulae**
1. Give the meaning of all symbols immediately after the equation in which they are first used.

2. For simple fractions use the solidus (/) instead of a horizontal line.

3. Equations should be numbered serially at the right-hand side in parentheses. In general only equations explicitly referred to in the text need be numbered.

4. The use of fractional powers instead of root signs is recommended. Powers of e are often more conveniently denoted by exp.

5. In chemical formulae, valence of ions should be given as, e.g. Ca2+, not as Ca++.

6. Isotope numbers should precede the symbols e.g. 18O.

7. The repeated use of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in the case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate as P2O5).

**Abbreviations**
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

**Acknowledgements**
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

**Formatting of funding sources**
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Nomenclature**
1. Authors and editors are, by general agreement, obliged to accept the rules governing biological nomenclature, as laid down in the International Code of Botanical Nomenclature, the *International Code of Nomenclature of Bacteria*, and the *International Code of Zoological Nomenclature*. 
2. All biota (crops, plants, insects, birds, mammals, etc.) should be identified by their scientific names when the English term is first used, with the exception of common domestic animals.

3. All biocides and other organic compounds must be identified by their Geneva names when first used in the text. Active ingredients of all formulations should be likewise identified.

4. For chemical nomenclature, the conventions of the *International Union of Pure and Applied Chemistry* and the official recommendations of the *IUPAC-IUB Combined Commission on Biochemical Nomenclature* should be followed.


**Submission of sequence data to databases**

New nucleotide or amino acid sequence data must be deposited in publicly accessible databases, such as GenBank™, EMBL or DDJB, and an accession number obtained and submitted to the Publisher (at the latest) together with the final, revised manuscript. The accession number should appear in a separate paragraph in the Materials and Methods section (example: Nucleotide sequence data reported in this paper are available in the GenBank™, EMBL and DDBJ databases under the accession numbers: XXXX, XXXX). In order for automatic links to be made between papers and databases, authors should type the accession number in bold, underlined text. Letters in the accession number should always be capitalised. When published they will appear in normal type.

Elsevier encourages authors to connect articles with external databases, giving their readers one-click access to relevant databases that help to build a better understanding of the described research. Please refer to [https://www.elsevier.com/databaselinking](https://www.elsevier.com/databaselinking) for more information and a full list of supported databases.

**Footnotes**

Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

*Table footnotes*
Indicate each footnote in a table with a superscript lowercase letter.

**Artwork**

*Electronic artwork*

*General points*
- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.
- Ensure that color images are accessible to all, including those with impaired color vision.

A detailed [guide on electronic artwork](https://www.elsevier.com/databaselinking) is available.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

*Formats*

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

- EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. [Further information on the preparation of electronic artwork.](#)

Figure captions
Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables
1. Authors should take notice of the limitations set by the size and lay-out of the journal. Large tables should be avoided. Reversing columns and rows will often reduce the dimensions of a table.

2. If many data are to be presented, an attempt should be made to divide them over two or more tables.

3. Tables should be numbered according to their sequence in the text. The text should include references to all tables.

4. Each table should occupy a separate page of the manuscript. Tables should never be included in the text.

5. Each table should have a brief and self-explanatory title.

6. Column headings should be brief, but sufficiently explanatory. Standard abbreviations of units of measurement should be added between parentheses.

7. Vertical lines should not be used to separate columns. Leave some extra space between the columns instead.

8. Any explanation essential to the understanding of the table should be given as a footnote at the bottom of the table.

References
Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.
Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

Preprint references
Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Reference Style
1. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of author's names and dates are exactly the same in the text as in the reference list.

2. In the text refer to the author's name (without initial) and year of publication, followed – if necessary – by a short reference to appropriate pages. Examples: "Since Peterson (1988) has shown that..." "This is in agreement with results obtained later (Kramer, 1989, pp. 12–16)".

3. If reference is made in the text to a publication written by more than two authors the name of the first author should be used followed by "et al.". This indication, however, should never be used in the list of references. In this list names of first author and co-authors should be mentioned.

4. References cited together in the text should be arranged chronologically. The list of references should be arranged alphabetically on author's names, and chronologically per author. If an author's name in the list is also mentioned with co-authors the following order should be used: publications of the single author, arranged according to publication dates – publications of the same author with one co-author – publications of the author with more than one co-author. Publications by the same author(s) in the same year should be listed as 1974a, 1974b, etc.

5. Use the following system for arranging your references:
   a. For periodicals
   b. For edited symposia, special issues, etc., published in a periodical
   c. For books
   d. For multi-author books

6. Abbreviate the titles of periodicals mentioned in the list of references in accordance with BIOSIS Serial Sources, published annually by BIOSIS. The correct abbreviation for this journal is Vet. Parasitol.
7. In the case of publications in any language other than English, the original title is to be retained. However, the titles of publications in non-Latin alphabets should be transliterated, and a notation such as "(in Russian)" or "(in Greek, with English abstract)" should be added.

8. Work accepted for publication but not yet published should be referred to as "in press".

9. References concerning unpublished data and "personal communications" should not be cited in the reference list but may be mentioned in the text.

10. Web references may be given. As a minimum, the full URL is necessary. Any further information, such as Author names, dates, reference to a source publication and so on, should also be given.

11. Articles available online but without volume and page numbers may be referred to by means of their Digital Object identifier (DOI) code.

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

Data visualization
Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

Supplementary material
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

Research data
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings, which may also include software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

Data linking
If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).
Research Elements

This journal enables you to publish research objects related to your original research – such as data, methods, protocols, software and hardware – as an additional paper in a Research Elements journal.

Research Elements is a suite of peer-reviewed, open access journals which make your research objects findable, accessible and reusable. Articles place research objects into context by providing detailed descriptions of objects and their application, and linking to the associated original research articles. Research Elements articles can be prepared by you, or by one of your collaborators.

During submission, you will be alerted to the opportunity to prepare and submit a manuscript to one of the Research Elements journals.

More information can be found on the Research Elements page.

Data statement

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

AFTER ACCEPTANCE

Online proof correction

To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

Authors can also keep track of the progress of their accepted article, and set up e-mail alerts informing them of changes to their manuscript’s status, by using the "Track your accepted article" option on the journal’s homepage https://www.elsevier.com/locate/vetpar For privacy, information on each article is password-protected. The author should key in the “Our Reference” code (which is in the letter of acknowledgement sent by the Publisher on receipt of the accepted article) and the name of the corresponding author.

Offprints

The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

AUTHOR INQUIRIES

Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also check the status of your submitted article or find out when your accepted article will be published.

© Copyright 2018 Elsevier | https://www.elsevier.com