DESCRIPTION

*Verninary Microbiology* is concerned with *microbial* (bacterial, fungal, viral) *diseases* of *domesticated vertebrate animals* (livestock, companion animals, fur-bearing animals, game, poultry, but excluding fish) that supply food, other useful products or companionship. In addition, *Microbial diseases of wild animals* living in captivity, or as members of the feral fauna will also be considered if the infections are of interest because of their interrelation with humans (zoonoses) and/or domestic animals. *Studies of antimicrobial resistance are also included, provided that the results represent a substantial advance in knowledge. Authors are strongly encouraged to read - prior to submission - the Editorials ('Scope or cope' and 'Scope or cope II') published previously in the journal.* The Editors reserve the right to suggest submission to another journal for those papers which they feel would be more appropriate for consideration by that journal.

Original research papers of high quality and novelty on aspects of control, host response, molecular biology, pathogenesis, prevention, and treatment of microbial diseases of animals are published. Papers dealing primarily with immunology, epidemiology, molecular biology and antiviral or microbial agents will only be considered if they demonstrate a clear impact on a disease. Papers focusing solely on diagnostic techniques (such as another PCR protocol or ELISA) will not be published - focus should be on a microorganism and not on a particular technique. Papers only reporting microbial sequences, metagenomics data, transcriptomics data, or proteomics data will not be considered unless the results represent a substantial advance in knowledge related to microbial disease.

Drug trial papers will be considered if they have general application or significance. Papers on the identification of microorganisms will also be considered, but detailed taxonomic studies do not fall within the scope of the journal. *Case reports will not be published, unless they have general application or contain novel aspects.* Papers of geographically limited interest, which repeat what had been established elsewhere will not be considered. The readership of the journal is global.

Papers will be rejected if standards of care of, or procedures performed on animals are not up to those expected of humane veterinary scientists. At a minimum, standards must meet the International Guiding Principles for Biomedical Research involving Animals, as issued by the Council for International Organizations of Medical Sciences. (C.I.O.M.S., c/o WHO, CH 1211 Geneva 27, Switzerland.)
AUDIENCE

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

IMPACT FACTOR

2018: 2.791 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

BIOSIS Citation Index
Current Contents - Life Sciences
PubMed/Medline
Index Veterinarius
Microbiology Abstracts
Veterinary Bulletin
Scopus
Elsevier BIOBASE

EDITORIAL BOARD

Editors-in-Chief
B. Adler, Monash University, Victoria, VIC, Australia
X.J. Meng, Virginia Polytechnic Institute and State University, Blacksburg VA, USA
S. Schwarz, Dept. of Veterinary Medicine, Freie Universität Berlin, Berlin, Germany
V. von Messling, Federal Ministry of Education and Research, Berlin, Germany

Editorial Advisory Board
M. Beer, Greifswald-Insel Riems, Germany
A.M. Bojesen, Frederiksborg, Denmark
S. Bolin, Ames, IA, USA
A.P. Burnens, Bern, Switzerland
C. Cafarchia, Bari, Italy
C. Chae, Seoul, The Republic of Korea
H. Christensen, Frederikssberg, Denmark
F. J. Conraths, Wusterhausen, Germany
S. Cordwell, Sydney, New South Wales, Australia
N. Decaro, Valenzano, Italy
S. Djordjevic, Sydney, New South Wales, Australia
E. J. Dubovi, Ithaca, NY, USA
K.D.E. Everett, Lynnwood, WA, USA
J. Frey, Bern, Switzerland
M. Fulde, Berlin, Germany
L. Guardabassi, Frederikssberg, Denmark
C. Gyles, Guelph, ON, Canada
D.J. Hampson, Murdoch, WA, Australia
L.E. Hölzle, Stuttgart, Germany
M.J. Hosie, Glasgow, Scotland, UK
Y.-W. Huang, Hangzhou, China
R. La Ragione, Weybridge, UK
J. Meers, St Lucia, QLD, Australia
M. Melchior, Utrecht, Netherlands
C. Minion, Ames, Iowa, USA
T. Müller, Wusterhausen, Germany
T.G. Nagaraja, Manhattan, KS, USA
T. Opriessnig, Midlothian, Scotland, UK
K. Osterrieder, Berlin, Germany
C.R. Parrish, Ithaca, NY, USA
F. Pasmans, Merelbeke, Belgium
M. Pfeffer, Leipzig, Germany
A. Polkinghorne, Marooychydore, Queensland, Australia
J.F Prescott, Guelph, ON, Canada
D.L. Rock, Urbana, Illinois, USA
A. Rodolakis, Nouzilly, France
J.L. Romalde, Santiago de Compostela, Spain
K. Sachse, Jena, Germany
J. Shen, Beijing, China
D.G.E. Smith, Edinburgh, UK
D.L. Suarez, Athens, Georgia, USA
D. Trott, Adelaide, Australia
W.H. Van der Poel, Lelystad, Netherlands
E. van Duijkeren, Bilthoven, Netherlands
N. Vizcaíno, Salamanca, Spain
S. Weese, Guelph, ON, Canada
Y.-J. Zhang, College Park, Maryland, USA
GUIDE FOR AUTHORS

Types of paper
1. Original research papers (Research Papers)
2. Review articles (Review Papers)
3. Short communications
4. Letters to the Editor

Original research papers should report the results of original research. The material must not have been previously published elsewhere. Articles must be as concise as possible, commensurate with reporting and discussing the research presented. As a general rule they should not occupy more than 12 printed journal pages, including figures, tables and references (about 30 manuscript pages, Times New Roman 12 pt, double-spaced, minimum 2 cm margins). Introduction should not exceed 2 manuscript pages. Discussion should not exceed 4 manuscript pages and the number of references should be limited to 35.

Review articles should cover subjects falling within the scope of the journal. Of particular interest are topical, short (mini) reviews in areas of current interest.

Reviews of topics in veterinary bacteriology, mycology and virology should provide short, readable, well-referenced, up-to-date overviews of current, emerging, or neglected subjects in the discipline. Syntheses of information from diverse sources, providing clarification of areas of confusion or uncertainty, are especially desirable. It is anticipated that these reviews will provide overviews of important topics to the benefit of "curious-but-busy" readers of Veterinary Microbiology.

Reviews should carry titles which are creative and provocative, but nonetheless descriptive, and emphasize current status and future directions of research. Historical vignettes are useful in setting the stage for addressing important contemporary questions, but should not ordinarily be the basis for an article. Manuscripts may include controversial views, if presented in a balanced fashion and supported by evidence; informed speculation is welcome.

Before submitting a review, authors must first contact one of the Editors with an outline of a proposed review: Ben Adler (ben.adler@monash.edu) or Stefan Schwarz (stefan.schwarz@fu-berlin.de) for bacteriological reviews, and Veronika von Messling (Veronika.vonMessling@pei.de) or X.J. Meng (xjmeng@vt.edu) for those on virology. It is expected that authors submitting reviews are experts in the field. This must be supported by a strong track record of publications in the area of the proposed review. The main text of a review article should be about 15 pages of double-spaced type, supported by illustrative material and references. Figures are welcome, but review articles should normally not have more than 50 references. Manuscripts should be submitted through the EVISE electronic submission system, using the article type 'Review Paper'.

Manuscripts will be processed through the normal Veterinary Microbiology review procedure, with the final decision made by the appropriate Editor.

Short communications should report the results of original research. The material must not have been previously published elsewhere. As a general rule they should not occupy more than 6 printed journal pages, including figures, tables and references (about 15 manuscript pages, Times New Roman 12 pt, double-spaced, minimum 2 cm margins). Introduction should not exceed 1 manuscript page. Discussion should not exceed 3 manuscript pages and the number of references should be limited to 25.

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 Editor-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.

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

For further information, visit our Support Center.

BEFORE YOU BEGIN

**Ethics in publishing**
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

**Ethics in animal experimentation**
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: Executive Secretary C.I.O.M.S., c/o WHO, Via Appia, CH-1211 Geneva 27, Switzerland, or at the following URL: http://www.cioms.ch/publications/guidelines/1985_texts_of_guidelines.htm. Unnecessary cruelty in animal experimentation is not acceptable to the Editors of Veterinary Microbiology.

**Data accessibility**
Any new nucleotide or amino acid sequence data should be deposited in publicly accessible databases, such as GenBank, and the accession numbers should be included in the manuscript (Methods section) before it is finally accepted for publication. In addition, it is expected that any plasmids, transposons, viruses, microbial strains, or cell lines described for the first time in the paper will be made available to scientists for non-commercial purposes at reasonable cost following publication.

**Conflict of interest statement**
Any conflicts of interest must be disclosed at the end of the submitted manuscript under the subheading 'Conflict of interest statement'.

**Declaration of interest**
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.
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 originality, your article may be checked by the originality detection service Crossref Similarity Check.

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).

Use of inclusive language
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

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.

Acknowledgements
All contributors who do not meet the criteria for authorship should be listed in an acknowledgements section at the end of the manuscript, before the references. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Authors should disclose whether they had any writing assistance and identify the entity that paid for this assistance.

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.
For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

**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 then this should be stated.

**Funding body agreements and policies**
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online. After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

**Open access**
This journal offers authors a choice in publishing their research:

**Subscription**
- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

**Gold open access**
- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

*Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)*
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is **USD 3650**, excluding taxes. Learn more about Elsevier's pricing policy: [https://www.elsevier.com/openaccesspricing](https://www.elsevier.com/openaccesspricing).

**Green open access**
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an
appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 12 months.

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.

Submit your article
Please submit your article via https://www.evise.com/profile/api/navigate/VETMIC.

Authors should select the relevant article type (e.g. Research Paper, Review Paper, Short Communication, Letter to the Editor, Book Review), and category (e.g. Prions, Viruses, Fungi, Bacteria) for their papers as well as a set of classifications from a given list.

Referees
Authors are requested to provide the names of up to 4 referees (with email addresses) whom they feel are qualified to evaluate their submission (for original research papers, review articles and short communications). Submission of such names does not, however, imply that they will definitely be used as referees.

PREPARATION
Peer review
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then generally 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. More information on types of peer review.

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). 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.

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 lowercase 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**
Manuscripts of original research papers should include a structured abstract of 250 or fewer words, organised under the sections: Problem addressed; Objective; Methods and approach; Results; Conclusions. Do not actually include section headings, but use this structure for the abstract.

**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.

Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

**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, please 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. Virologists should consult the latest Report of the International Committee on Taxonomy of Viruses for proper nomenclature and spelling.
2. All biotica (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.

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. Ca$^{2+}$, not as Ca$^{++}$.
6. Isotope numbers should precede the symbols, e.g. $^{18}O$.
7. The repeated writing 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 $P_2O_5$).

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.
1. Footnotes should only be used if absolutely essential. In most cases it should be possible to incorporate the information in normal text.
2. If used, they should be numbered in the text, indicated by superscript numbers, and kept as short as possible.

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.
A detailed guide on electronic artwork 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.

1. All illustrations (line drawings and photographs) should be submitted as separate files, though they may also be embedded within the manuscript file for ease of reading during the review process.

2. Illustrations should be numbered according to their sequence in the text. References should be made in the text to each illustration.

3. Illustrations should be designed with the format of the page of the journal in mind. Illustrations should be of such a size as to allow a reduction of 50%.

4. Lettering should be big enough to allow a reduction of 50% without becoming illegible, any lettering should be in English. Use the same kind of lettering throughout and follow the style of the journal.

5. If a scale should be given, use bar scales on all illustrations instead of numerical scales that must be changed with reduction.

6. Explanations should be given in the figure legend(s). Drawn text in the illustrations should be kept to a minimum.

7. Photographs are only acceptable if they have good contrast and intensity.

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.

Illustration services
Elsevier's Author Services offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

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. Tables should be provided as separate files independent of the main manuscript file.

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**

**Reference links**

Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. Journal of Geophysical Research, https://doi.org/10.1029/2001JB000884. Please note the format of such citations should be in the same style as all other references in the paper.

**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.

**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.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

http://open.mendeley.com/use-citation-style/veterinary-microbiology

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

**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 names and dates are exactly the same in the text as in the reference list. For original research papers, the list should not exceed 35 references (it may be longer for review articles).

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 inagreement 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 the names of first author and co-authors should be included.

4. References cited together in the text should be arranged chronologically. The list of references should be arranged alphabetically by author name, 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. Abbreviate the titles of periodicals mentioned in the list of references; according to the List of Title Word Abbreviations mentioned below. The correct abbreviation for this journal is Vet. Microbiol.

6. 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.

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

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

9. 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.

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

11. Use the following system for arranging your references:

a. Data References


b. For periodicals


c. For edited symposia, special issues, etc. published in a periodical


d. For books


e. For multi-author books


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. To facilitate reproducibility and data reuse, this journal also encourages you to share your 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).

**Mendeley Data**

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals 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.

**Additional information**

1. 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.

2. 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 and fax numbers 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.
   - Introduction
   - Methods, techniques
   - Results
   - Discussion
   - Conclusion
   - Acknowledgements and any additional information concerning research grants, etc.
   - References
   - Tables
Figure captions
Tables (separate file(s))
Figures (separate file(s))

3. 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.

4. SI units should be used.

5. 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.

AFTER ACCEPTANCE

Online proof correction
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.

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. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services. 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.

Additional information
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/vetmic 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.

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