ABOUT THE JOURNAL

Aims and Scope
The ISME Journal seeks to promote diverse and integrated areas of microbial ecology spanning the breadth of microbial life, including bacteria, archaea, microbial eukaryotes, and viruses. Contributions of broad biological interest and impact are especially encouraged. Topics of particular interest within the journal’s scope include those listed below:

Microbial population and community ecology
- Theoretical advances in microbial population and community ecology, including novel theoretical development relevant to the diversity and structure of microbial populations and communities, advances in modelling and comparisons of microbial ecological principles with those in macroecology
- Biogeography of microbial populations
- Environmental factors (biotic and abiotic) defining the distribution and abundance of microbial populations
- Integrated advances in microbial ecophysiology
- Phage genetics and ecology and environmental virology, including studies of interactions between viruses and the environment, vectors of viral transmission, epidemiology, and diversity (including generation and maintenance)
- Community level research of microbial assemblages, with emphasis on the contribution of individuals and populations
- Microbial survival and persistence mechanisms: Development and selection for resistance (heavy metals, antibiotics etc.)

Microbe-microbe and microbe-host interactions
- Microbial communication and signaling, and advances that allow study on scales relevant to microbial interactivities
- Plant-microbe interactions, including feedback and response pathways, underlying mechanisms, environmental cues, unique traits, evolution, adaptation and fitness
- Threat of emerging diseases (pathogenicity, epidemiology, ecology of reservoirs, vectors and host)
- Symbioses and syntrophic relationships
- Microbial contribution to medical biotechnology and microbial therapy
- Commensal microbial ecology – intestinal, oral, etc.

Evolutionary genetics
- Ecological aspects of experimental evaluation
- Insights into genome evolution and adaptation
- Genetics and ecology of the horizontal gene pool
- Advances in mathematical and evolutionary genetics

Integrated genomics and post-genomics approaches in microbial ecology
- Studies of in situ function, gene regulation and expression
- Metagenomic genomic approaches to understanding and accessing the genomic potential of microbial communities
- Novel microbial ecology approaches involving (environmental) proteomics and metabolomics
- Theoretical and practical advances in Bioinformatics, including improved linkages between ecological parameters and molecular data, as well as advances in curation and annotation practices
- Novel “-omics” approaches that address microbial activities and potential at the single-cell level

Microbial engineering
- Environmental Biotechnology, including ecological interactions key to waste water treatment, water management, biofilters, energy production, etc.
- Development and mechanisms of microbial biocatalysts
- Developments in bioremediation and biodegradation
- Microbial contributions and potential in biofuel technologies
- Microbial process modelling and its application

Geomicrobiology and microbial contributions to geochemical cycles
- Integrated advances in biogeochemistry
• Microbial contributions to geochemical cycles
• Importance and mechanisms of microbe-mineral interactions

Microbial ecology and functional diversity of natural habitats
• Terrestrial and subsurface microbial ecology
• Aquatic and sediment microbial ecology
• Linking phylogeny and function in diverse ecosystems – common, novel and extreme
• Biofilm functional microbial ecology
• Aero – microbiology (distribution, source impact, etc), including issues of climate and dispersal
• Microbial processes and interactions in extreme or unusual environments

Microbial ecosystem impacts
• Impacts of microbial processes on climate change, and impacts of climate change on microbial communities and processes
• Food web structure, nutrient flow, and biological transformations from micro- through macro-scales
• Systems microbiology and integration of microbial ecology into systems ecology

Journal Details
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ARTICLE TYPE SPECIFICATIONS

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These are studies that fall short of the criteria for full research papers (e.g. preliminary experiments limited by sample size or duration, novel hypotheses or commentaries)

| Unstructured abstract, one paragraph, max 150 words |
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| Max 20 references |

**Comment**
Comments discuss issues of particular significance to the field of microbial ecology. Comments may include highlights of significant papers, in the current issue or elsewhere, or comprise opinions, responses to previously published items, or other timely information or comment. Comments may be either solicited by the editors or offered as an unsolicited submission. If you wish to offer an unsolicited contribution, we ask you to first contact the editorial office with your request, including a short description of the content and implications of your comment.

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| Perspective |
| Hybrid between a commentary and a review, providing an opinion-driven perspective on a particular research topic or field of interest to the ISMEJ readership. Authors should present a (provocative) view that can be supported by data and literature with the goal of sparking debate and stimulating future research avenues. Perspective articles are by invitation only, but authors wishing to contribute a perspective article are free to submit an unsolicited request to the editors with an outline or synopsis of the intended article. If the subject and content are deemed of interest, an invitation letter will then be extended by the editorial office. |

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Special issues are comprised of a group of high quality, peer-reviewed manuscripts about a single specific theme / topic. Although the individual manuscripts are stand alone, they collectively make an important point by offering a comprehensive view, or by providing a diverse perspective. The number of manuscripts in a special issue is determined on case by case basis.

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- Use a coarse hatching pattern rather than shading for tints in graphs.
- Colour should be distinct when being used as an identifying tool.
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- At first mention of a manufacturer, the town (and state if USA) and country should be provided.
- Statistical methods: For normally distributed data, mean (SD) is the preferred summary statistic. Relative risks should be expressed as odds ratios with 95% confidence interval. To compare two methods for measuring a variable the method of Bland & Altman (1986, Lancet 1, 307–310) should be used; for this, calculation of P only is not appropriate.
- Units: Use metric units (SI units) as fully as possible. Preferably give measurements of energy in kilojoules or megajoules with kilocalories.
- Abbreviations: On first using an abbreviation place it in parentheses (1 kcal = 4.186kJ). Use % throughout.

**Structure:** Please note that original articles must contain the following components. Please see below for further details.

- Cover letter
- Title page (excluding acknowledgements)
- Abstract
- Introduction
- Materials (or Subjects) and Methods
- Results
- Discussion
- Acknowledgements
- Conflict of Interest
- References
- Figure legends
- Tables
- Figures

Revised 08/08/2018
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The title page should contain:

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Introduction
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Materials (or Subjects) and Methods
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The Results section should briefly present the experimental data in text, tables or figures. Tables and figures should not be described extensively in the text, either.

Discussion
The Discussion should focus on the interpretation and the significance of the findings with concise objective comments that describe their relation to other work in the area. It should not repeat information in the results. The final paragraph should highlight the main conclusion(s), and provide some indication of the direction future research should take.

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Competing Interests
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Example “detectable levels of endogenous Bcl-2 (ref. 3), as confirmed by western blot”

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- Identify the types of files (file formats) submitted.
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5. Film in a quiet room against a plain (white if possible) background and ensure there is nothing confidential in view.
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8. Keep figures simple; don’t show raw data and ensure any text is legible. Do not include lots of small text or data that won’t be legible in a small video player that’s the size of a smartphone screen.
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Technical requirements:

Videos should be no more than 8 minutes long, maximum 30MB in size so that they can be downloaded quickly - the combined total size of all supplementary files must not exceed 150 MB. Files should be submitted as .avi, .mov, .mp3, .mp4, .wav or .wmf. Videos need to be in widescreen (landscape), ideally 16x9 but 4:3 is also acceptable with a resolution of at least 640 x 360 pixels.

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Upon submission authors will be asked to select a series of subject terms relevant to the topic of their manuscript from our subject ontology. Providing these terms will ensure your article is more discoverable and will appear on appropriate subject specific pages on nature.com, in addition to the journal’s own pages. Your article should be indexed with at least one, and up to four unique subject terms that describe the key subjects and concepts in your manuscript. Click here for help with this.

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ISMEJ is read by scientists from diverse backgrounds and many are not native English speakers. In addition, the readership of ISMEJ is multidisciplinary; therefore authors need to ensure their findings are clearly communicated. Language and concepts that are well known in one subfield may not be well known in another. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations, particularly those that are not standard, should also be kept to a minimum. The background, rationale and main conclusions of the study should be clearly explained and understandable by all working in the field. Titles and abstracts in particular should be written in language that will be readily understood by all readers.

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- Visiting the English language tutorial which covers the common mistakes when writing in English.
- Using a professional language editing service where editors will improve the English to ensure that your meaning is clear and identify problems that require your review. Two such services are provided by our affiliates Nature Research Editing Service and American Journal Experts.
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- If the Editor-in-Chief decides the paper is within the Journal’s remit, the paper will be assigned to an Associate Editor.
- The Associate Editor selects and assigns peer reviewers. This can take some time dependent on the responsiveness and availability of the reviewers selected.
- Reviewers are given 14 days from acceptance to submit their reports. Once the required reports are submitted the Associate Editor will make a decision recommendation to the Editor-in-Chief based on the comments received.
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Authors are able to monitor the status of their paper throughout the peer review process

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To qualify as a contributing author, one must meet all of the following criteria:
1. Conceived and/or designed the work that led to the submission, acquired data, and/or played an important role in interpreting the results.
2. Drafted or revised the manuscript.
3. Approved the final version.
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For primary research manuscripts reporting experiments on live vertebrates and/or higher invertebrates, the corresponding author must confirm that all experiments were performed in accordance with relevant guidelines and regulations. The manuscript must include in the Supplementary Information (methods) section (or, if brief, within of the print/online article at an appropriate place), a statement identifying the institutional and/or licensing committee approving the experiments, including any relevant details regarding animal welfare, patient anonymity, drug side effects and informed consent. Sex and other characteristics of animals that may influence results must be described. Details of housing and husbandry must be included where they are likely to influence experimental results. The ISME Journal recommends following the ARRIVE reporting guidelines when documenting animal studies.

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2. the [International Standard Randomized Controlled Trial Number Registry](http://www.isrctr.org)
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4. the [European Clinical Trials Database](http://wwwclinicaltrialsdatabase.org)

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When publishing identifiable images from human research participants, authors must include a statement attesting that they have obtained informed consent for publication of the images. If the participant is deceased, consent must be sought from the next of kin of the participant. All reasonable measures must be taken to protect patient anonymity. Black bars over the eyes are not acceptable means of anonymization. In certain cases, the journal may insist upon obtaining evidence of informed consent from authors. Images without appropriate consent will be removed from publication.
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If human cell lines are used, authors are strongly encouraged to include the following information in their manuscript:

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Image Integrity & Standards

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