

Instructions for Authors

Biologia Plantarum is an open-access journal since 2019. The regular price of a published article is EUR 840,-. When submitting a manuscript, the author agrees to this payment if the article is accepted for publication.

Requests for an exceptional waiver or discount may be considered on a case-by-case basis only if made at the time of manuscript submission and accompanied by a proof of lack of funding confirmed by the author's institution.

The language of the journal is English.

Papers already published or under consideration elsewhere at the time of submission cannot be published. However, authors may share their manuscript online prior to and during the submission process, as it can lead to productive exchanges. Deposition of manuscripts on established preprint servers is encouraged; the authors are obliged to provide a link to the deposited preprint. The authors are responsible for the correct assignment of a paper state on the preprint server. Re-use of already published tables or figures is permitted in Review and Hypothesis articles with proof of permission by the copyright owner.

Article types:

The journal publishes peer-reviewed Original papers, Review papers, Brief communications and Hypotheses. Besides of scientific soundness, these manuscripts are evaluated for novelty and a potential of broad impact; thus, papers that merely confirm existing knowledge (or extend it trivially to a not yet investigated species) are not acceptable. Reports from conferences, symposia, etc. in fields corresponding to its scope can be published after pre-negotiation with the editors.

- *Original papers* should provide a novel insight into biological processes or functions. They should not exceed **8 000 words** including tables, table and figure legends but excluding title, abstract, and references. **The total number of tables and figures is limited to 8.** A single table or figure should not exceed 1 printed page. Additional materials (e.g. large data files, movies or supplementary tables or figures) can be published as Supplement.
- *Brief Communication* are papers not exceeding **4 000 words** (including title, abstract, tables, table and figure legends but excluding references) and including **1 table and 1 figure, or two figures, or two tables** that should not present preliminary research results; novelty and originality is accented.

- *Reviews* on specialized topics should be brief but comprehensive. Reviews must not exceed **12 000 words** including tables, table and figure legends but excluding title, abstract and references and **up to 10 tables or figures in total**.
- *Hypothesis* papers should provide novel insights based on published literature. They should not exceed **8 000 words** including tables, table and figure legends but excluding title, abstract and references and **up to 8 tables or figures**.

Manuscript submission and evaluation:

All manuscripts are submitted and peer-reviewed exclusively in their electronic versions via the on-line system accessible at the [manuscript submission page](#). Deposition of a version of the paper on any preprint server must be acknowledged and link to the preprint provided in the Data availability section.

Pre-submission enquiries concerning manuscripts rejected by another journal after full peer review while deemed scientifically sound (i.e. rejected as “not sufficiently interesting”) are welcome. Authors interested in submitting such a paper are encouraged to contact the Editors, providing the copy of their manuscript together with the reviews and editorial correspondence from the last submission attempt. All manuscripts must comply with the declared editorial policies of the journal especially with respect to author consent, authorship, absence of plagiarism and data integrity.

Manuscripts that pass an initial editorial screening for compatibility with the scope of the journal, language quality, non-triviality, and adherence to the guidelines presented here are assigned by the editor-in-chief to a member of the editorial board, who solicits at least two independent peer reviews. A final decision, which may mean either acceptance, rejection or request for manuscript revision by the authors, is made by the editor-in-chief, usually based on recommendation of the member of the editorial board and reviewers after the editorial discussion. Authors can follow the state of manuscript evaluation in the online system. Accepted papers are prepared for proofs and then launched as soon as possible in their on-line version accessible at the Biologia Plantarum website.

Manuscript preparation and structure:

Authors who are not native English speakers are encouraged to get their manuscript checked by a native English-speaking colleague before submission (or use professional language checking services). Keep consistent British or American English in the whole paper.

Manuscript text should be submitted in MS Word, figures and photographs separately as JPG or TIFF files. **Authors have to prepare and submit also a PDF file containing the complete text, tables and figures.**

Supplements may be deposited as PDF or ZIP files (in case of inclusion of material other than text or figures).

Units and numerals

Units, dimensions, terms, symbols, abbreviations, etc., recommended by the Système International d'Unités (SI) and by nomenclature conventions of the relevant field of research should be used where possible.

Manuscript structure

Original papers should be arranged as follows: Title page (containing names and addresses of the authors, Abstract, Highlights, Keywords, Abbreviations, Acknowledgements, as well as statements on data and material availability, conflict of interest and ethical standards compliance), Introduction, Materials and methods, Results, Discussion, References, Tables with headings, Figure legends. The Results and Discussion might be joined together.

Brief Communications consist of Title page, article text without subheadings, References, Table (s) and Figure legend(s).

Review and **Hypothesis** papers are organized analogously to Original papers with subheadings defined by the author(s).

Title page

Title should be informative, brief (up to **140 characters**) and written in sentence case letters.

Names of authors must be given with full personal name and surnames in capitals (e.g., John MARAS¹, Kei Guo XUE², and Wei-Li CHEN^{1,*}). **Corresponding author** (marked by an asterisk) should be indicated together with her/his e-mail.

Addresses must be in italics with a respective number in front of them (e.g. ¹*Institute of Experimental Botany, Czech Academy of Sciences, Prague 160 00, Czech Republic*).

All authors should provide their **ORCID** numbers (<https://orcid.org/>).

Abstract should summarize the aims and main conclusions in less than **200 words**. It must not contain references and should not contain abbreviations other than standard unless unavoidable (i.e. the term is used more than once within the Abstract).

Highlights are three bullet points that help increase the discoverability of your article via search engines. These bullet points should be maximum of **85 characters** or fewer, including spaces.

Keywords (other than in the title and abstract, **max. 6**) for indexing purposes should be included below the abstract. (e.g. *Keywords*: abscisic acid, chlorophyll fluorescence, wheat, photosynthetic rate, salt stress.)

Abbreviations other than standard should be listed in alphabetical order. (e.g. *Abbreviations*: ABA - abscisic acid; *C_i* - intercellular CO₂ concentration; *E* - transpiration rate.)

After the first use of a term with its abbreviation in parentheses, *e.g.*, net photosynthetic rate (P_N), use only the abbreviation, *i.e.*, P_N , in the following text.

Acknowledgements should list all individuals that provided help during the research and all sources of funding.

Data and materials availability statement should provide links to any datasets deposited in public databases and to any deposited preprints of the paper. A statement on availability of biological materials (either via a public or commercial repository or upon reasonable request from the authors) should be provided.

Declaration of ethical and legal standards compliance: The authors have to declare whether the work involves experiments subject to special regulations; if it does, these must be conducted in agreement with the legislation of the country where the study has been performed. If necessary, additional information should be provided in the cover letter. In problematic cases, authors may be asked to provide additional information.

Conflict of interest: During a submission procedure, authors have to declare any conflict of interest.

Introduction

The introduction should briefly review the topic of the paper, including relevant literature references, and state the goal of the research.

Materials and methods

Materials, methods, and experimental conditions including growth conditions and the ontogenetic stage of plants have to be described in sufficient detail to allow repetition of the experiments. For common experimental methods, only a very short description together with a respective reference may be sufficient. Full (binomial) scientific **species names** should be used the first time an organism is mentioned, together with a colloquial name and/or accession, ecotype or cultivar information where appropriate - *e.g.*, barley (*Hordeum vulgare* cv. Dvoran); Norway spruce (*Picea abies*). For less common organisms, authors should consider providing a full botanical name including attribution – *e.g.*, *Cinnamomum tamala* (Buch.-Ham.) T. Nees & Eberm. In the following text, colloquial names or abbreviated names should be used (*e.g.*, barley; *P. abies*).

When presenting **instruments or specific materials (chemicals)**, supplier information should be provided, with contact address (physical or website) and/or catalog number where available and appropriate - *e.g.*, Portable Photosynthesis System LI-6400, LI-COR, Lincoln, NE, USA), or Latrunculin A (Sigma-Aldrich Cat. No. L5163, www.merck.com).

Gene and protein symbols and abbreviations should follow established nomenclature. Systematic locus names, if available, should be provided for genes (*e.g.*, ACT2/AT3G18780 for *Arabidopsis thaliana* actin 2 gene).

Statistical treatment should be described in detail including methods and software used. In case of a series of experiments, a note on reproducibility of the trends or dependences should be given.

Results

All results should be clearly described and logically arranged. Avoid discussion in Results unless combining the Results and Discussion sections. References to respective tables, figures or supplementary materials should be in brackets after these are first mentioned, *e.g.*, (Table 1) or (Fig. 3A; Supplementary Video 1). Use subheadings only when the text is too long and complicated.

Discussion

A reasonable compromise between length and depth of discussion has to be found. Results should be discussed in the context of thorough overview of previous reports, critical explanation of findings (including the unexpected ones) should be proposed and overinterpretation of data avoided. Stimulating and well based hypotheses are welcome.

Citations and References

Citations (references in the text) should contain the authors' names followed by the year of publication, if more references, then arranged chronologically, *e.g.* (Styring and Rutherford, 1988; Evelo et al., 1989a; Koulougliotis et al., 1992; Zhang, 2001).

References at the end of the paper should be arranged alphabetically by the first author's name and formatted as the following examples: For works with more than six authors, use only three first names and et al.

Examples:

Nishiyama, T., Sakayama, H., de Vries, J. et al. (2018) The Chara genome: secondary complexity and implications for plant terrestrialization. *Cell*, 464. <https://doi.org/10.1016/j.cell.2018.06.033>

Koch, G.W., Mooney, A.A. (ed.): Carbon Dioxide and Terrestrial Ecosystems. - Academic Press, San Diego - New York - Boston - London - Sydney - Tokyo - Toronto 1996. <https://doi.org/10.1016/B978-0-12-505295-5.X5000-9>

Scherer, G.F.E.: Phospholipase A in plant signal transduction. - In: Munnik, T. (ed.): Lipid Signalling in Plants. Vol. 16. Pp. 3-22. Springer-Verlag, Berlin - Heidelberg 2010. https://doi.org/10.1007/978-3-642-03873-0_1

Rodrigues, A.C., Machado, L.B., Diniz, A.C., Fachinello, J.C. & Fortes, G.R.L. (2001) [Evaluation of the graft compatibility in *Prunus* sp.]. *Revista Brasileira de Fruticultura*, 23, 359-364.[In Port.] <https://doi.org/10.1590/S0100-29452001000200032>

Titles of articles written in languages other than English are given only in English translation (see the above example). However, book titles should be given also in the original language.

The **DOI identifiers** of the cited articles must be added if available.

Tables

Tables should be cited in the text in consecutive numerical order. Table captions should be self-explanatory without reference to the text. Use the MS Word table function, to create tables. A single table should not exceed one printed page. Larger tables and spreadsheets should be presented as supplementary information.

Figures

Legends to figures should also be self-explanatory and should contain the description of statistical evaluation, *i.e.*, means \pm SEs, $n = 10$, *,** – significant differences between treatments at $P \leq 0.05$ and 0.01, respectively.

REQUESTED FIGURES' RESOLUTIONS:

Line art: An image composed of lines and text, which does not contain tonal or shaded areas. Color mode: Monochrome 1-bit or RGB. **Resolution: 900 - 1200 dpi.**

Halftone: A continuous tone photograph, which contains no text. Color mode: RGB or Grayscale. **Resolution: 300 dpi.**

Combo: Image contains halftone + text or line art elements. Color mode: RGB or Grayscale. **Resolution: 500 - 900 dpi.**

The final image size must not exceed the width of 170 mm (80 mm for 1-column figures) and the height of 225 mm.

The lettering in figures should be in the Arial font and of a consistent size (no letters smaller than 8 pt at final figure size). If possible, figures should be combined together with individual panels labelled *A*, *B*, *C*, etc. (in italics).

Figure style should be consistent throughout the paper. Line drawings should not contain lines thinner than 0.5 pt. Axes of graphs should be marked by description of the quantity measured with unit in parentheses (). Scale bar must be provided for microphotographs.

Large or less important figures should be presented in a Supplement. Its style should be the same as in the main paper.

We expect the photos submitted for publication in *Biologia Plantarum* follow, as a minimum, the **following requirements**.

No specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable only if applied to the whole image and as long as they do not obscure, eliminate, or misrepresent any information present in the original. The grouping of images from different parts of the same gel or from different gels, fields, or exposures must be made explicit by the arrangement of the figure (*e.g.*, dividing lines) and/or in the text of the figure legend.

In case of doubt regarding image integrity, authors may be asked to provide the original data. If they fail to do so, the manuscript cannot be accepted or its acceptance may be revoked.

Specific recommendations for some methods and types of data:

Nucleic acid sequences

All new sequences have to be deposited in one of the participating databases of the INSDC (*i.e.*, ENA, GenBank, or DDBJ), and accession numbers must be provided. Routine results of automated bioinformatic analyses, such as theoretical computations of protein molecular mass, pI, amino acid composition, *etc.*, may only be reported if contributing to the interpretation of experimental data. Figures presenting only a DNA sequence and its protein translation without additional information are not admissible.

Phylogenetic analyses

Database accession numbers must be provided for all sequences included in a phylogenetic tree construction. Methods used to construct a sequence alignment for phylogenetic tree calculation have to be described as well as those employed in the actual phylogenetic tree computation. For large or problematic alignments, inclusion of alignment data as supplementary information is recommended. Significance of tree topology should be reported using an appropriate method such as bootstrap values or Bayesian posterior probability.

RNA quantification

It is necessary to clearly distinguish between real-time qPCR and reverse transcription qPCR. Therefore, use the abbreviation RT only for reverse transcription. In all cases, high-quality RNA should be harvested from at least three biological replicates, appropriate reference gene(s) showing invariant transcript levels under current experimental conditions have to be employed, and formulas incorporating PCR efficiencies for both the target gene and the reference gene have to be adopted for the calculations.

Large-scale datasets

Use of large-scale datasets is encouraged provided they contribute mechanistic insight. Manuscripts that contain gene expression profiling data are required to describe the experiments according to MIAME guidelines ([Brazma et al. 2001 Nature Genetics 29: 365-371](#)).

Unreplicated gene expression profiling experiments will not be accepted for publication. Transcript profiling must include the complete set of genome sequences analyzed, ESTs identified, and genes queried in transcript profiling. Independent validation is expected for electrophoresis, proteomic and MS-based experiments, where biologically important differences in protein (gene) expression are reported. Include the methods, search and statistical parameters, and details of any software used in mass spectrometry to create peak lists. For MS/MS, include the number of peptides used to identify the protein as the sequence and charge

state of each peptide. For peptide mass fingerprinting, the number of peptides that match the sequence and the total percent of sequence coverage should be quoted. Reports of post-translational modifications should include the methods used to discover the modification(s). When mapped to amino acid(s) by fragmentation analysis, data should be reported as ambiguous if mapping to a single amino acid is not possible. Refer to "Minimum Information About a Proteomics Experiment" for further information (<http://www.psidev.info/MIAPE>). At the time of publication, supplemental data must be placed in a permanent public repository if one is available, or if none is available, in Biologia Plantarum. Examples of accepted public gene expression repositories are SRA (<http://www.ncbi.nlm.nih.gov/sra>), GEO (<http://www.ncbi.nlm.nih.gov/geo>), and ArrayExpress (<http://www.ebi.ac.uk/arrayexpress>).

Use of artificial intelligence (AI) tools

The use of AI tools for any other purpose than language corrections in existing texts has to be adequately described in the Methods section. Use of texts generated by AI software and/or the listing of an AI program as a co-author is not permitted, because an AI cannot take responsibility for the content and integrity of a scientific paper, as expected from the authors.